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KANSAS FARMER.

Established in 1863.

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116 West Sixth Ave., Topeka, Kans.

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The Kansas State Dairy Association will hold its next annual meeting at Topeka, January 26, 27, and 28, 1904. The exhibits will be shown at the auditorium in connection with the Topeka Midwinter Exposition.

KANSAS FARMER is in receipt of a letter from H. H. Kern, Bonner Springs, Kans., the director of agricultural products for the World's Fair at St. Louis next year. He wants some choice Kansas corn and grains and any other select products that will be creditable for Kansas to show at the World's Fair. Any one having select specimens should correspond with him at once.

Prof. E. W. Curtis, former student and for a long time expert dairy instructor at the Kansas Agricultural College, has been placed in charge of the hand cream-separator department of the John Deere Plow Company at Kansas City, Mo. There are few young men who know more of the minute details of the creamery business in the West than does Professor Curtis, and the great company employing him is to be congratulated on securing so able a man for this important new venture.

A meeting to form a Plant and Animal-breeders' Association will be held in Room 309, Central High School Building, St. Louis, at 10 a. m., December 29, and remain in session two days. A good program participated in by those interested in the science of heredity is promised. Those interested are invited to attend and should apply for programs to the chairman of the organization committee, Prof. W. M. Hays, St. Anthony Park, Minn. This is a movement inaugurated by those especially interested in plant-breeding. Members of the Kansas Corn-breeders' Association should attend.

Secretary R. W. Richardson, of the National Good Roads Association, has called a meeting of the National advisory committee to meet in Washington, D. C., on Monday, January 25, 1904, to confer with the congressional committees in regard to needed legislation. Associate Editor I. D. Graham is a member of the advisory committee and would like to learn how many of the members of the committee will attend this important meeting. He would also like to have suggestions from any interested parties as to what action, if any, should be urged upon Congress in the way of National legislation for good roads.

The Kansas Improved Stock-breeders' Association is entitled to four representatives at the meeting of the National Live-stock Association, to be held at Portland, Ore., during the week beginning January 11, 1904. Some very important matters concerning the welfare of the live-stock industry of the

entire country will be brought before this association at this meeting, and it is important that Kansas should be well and ably represented. Any member of the association who is willing to attend this very important meeting should at once signify his intention to President Charles E. Sutton, Russell, Kans., in order that he may make the proper appointments and get the credentials ready on time. The importance of this meeting to the live-stock industry of the country can not be estimated, and the KANSAS FARMER hopes and expects to see Kansas well to the front in the activities that are fostered by this great association.

In remitting for renewal subscription, Mr. T. G. McKinley, of Geary County, writes:

"I am much pleased with your paper. I fully believe that if any reader would put into practice the many suggestions in relation both to farming and the handling of stock, success would come sure. The answers to inquiries from the Kansas Agricultural College are of great importance to the practical farmer. No up-to-date, practical farmer or stockman can afford to be without the FARMER at the price asked. In my own experience in building up a small dairy and poultry business here near Fort Riley, I have found in your paper many helps and suggestions that have been of great benefit to me."

RUSSIAN THISTLE.

EDITOR KANSAS FARMER:—A few years ago, we heard a great deal about the Russian thistle in the Dakotas, but of late I have seen very little in the papers about the weed. I understand now that there is plenty of it in western Kansas. Can you, or any of your readers, tell me what is the nature of the weed, and are the people in the western part of the State making any effort to stop its spreading or to stamp it out?
C. H. HUBBELL.

McPherson County.

There is plenty of the Russian thistle in western Kansas. In appearance, it much resembles the common tumbleweed, and like that weed it is, when ripe, rolled over the prairie scattering the seed. It differs from the tumbleweed in having sharp spines as the plants mature. The Russian thistle has, however, been found to afford valuable pasture and excellent hay. It is, therefore, not dreaded as formerly.

ALFALFA BACTERIA.—FOREST-TREES FOR WESTERN KANSAS.

EDITOR KANSAS FARMER:—I would like to make some inquiries in regard to the alfalfa fertilizer furnished by the Government on which you published an article recently. We have a farm, on seventy acres of which alfalfa could be grown, but it would all have to be inoculated, as not much of it overflows in time of freshets.

Can one person get more than one package, that is, if we get one in the spring are we entitled to any more other years if it should be a success?

When should we apply for it, and is Mr. Reeder the one to apply to?

I would also like to inquire about the State forestry department. Does Kansas furnish trees for planting to actual farmers? If so, when and where should one apply for them? I understand there is such a department, and as I am greatly interested in Catalpa speciosa would like to know more about it. AN INTERESTED SUBSCRIBER.
* Rooks County.

Our correspondent probably needs no inoculating material for soil to be sown to alfalfa in Rooks County. The alfalfa bacteria are believed to be native in western Kansas soils. Examination of alfalfa roots grown in the vicinity will determine this point. Some care is needed in taking up and examining the roots. If they are pulled up or in any way roughly handled, the nodules produced by the bacteria will be broken off and left in the soil. Dig up the roots carefully with a spade, laying them with adhering soil on a board. Pour water on the roots gently until the soil is washed away. On young alfalfa, the nodules are very small but they may be readily distinguished when about the size of pin-heads. They are usually somewhat elongated. They may be close upon the roots or connected by a thread. The soil needs not to be subject to overflow to insure its natural possession of the alfalfa bacteria.

To obtain the inoculating material furnished by the Government, apply to Hon. James Wilson, Secretary of Agriculture, Washington, D. C.

Kansas maintains two stations for the propagation and distribution of forest-tree seedlings suitable for the short-grass country. These are at Dodge and Ogallah. Our correspondent should apply to Dr. A. B. Jones, Wakeeny, superintendent of the Ogallah station, for trees for his section.

INTEREST IN IRRIGATION.

For two days last week the Western Kansas Irrigation Association was in annual session at Garden City. It was one of the most progressive conventions ever held in Kansas. More interest was manifested at this meeting than in any like meeting in the State for years. The people of western Kansas are demanding that the rightful share of the proceeds of land sales, by virtue of the irrigation law belonging to Kansas, be expended in Kansas for experimental purposes. The people in the upper Arkansas Valley are demanding that the Government experiment in tapping the underflow so that it may be made certain to the people whether or not this water can be brought out by gravity or otherwise, and in what probable quantity. When this experiment is made and becomes a success, capital stands ready to do the rest.

PRESIDENT DIESEM'S ADDRESS.

Ladies and Gentlemen:
Water for the irrigation of lands for the growing of crops that are used for maintenance of man, is a matter of vital importance to us all. The ordinary man of every-day life has only a limited opportunity to study the development arising through the practice of irrigation of every section of the globe, when taken as a whole. But if the

(Continued on page 1296.)

Agricultural Matters.

REPLIES BY THE AGRICULTURIST
OF THE KANSAS EXPERIMENT
STATION.

For Pasture in Harvey County.

I have been advised to sow esparcette (sainfoin) or Bromus inermis on high, light, stony soil, for pasture in Harvey County, and wish to ask your advice, as follows: Do the above species provide an abundance of thrifty pasture, safe for cattle, horses, and hogs? What is the hay yield? Would you recommend either or both for climate and soil near Walton? Where can the seed be procured and at what cost? Would you advise other species in preference to these? If so, kindly name such and oblige. J. J. KREHBIEL.
Harvey County.

Sainfoin or esparcette (*Onobrychis sativa*), also called German clover, is a legume of the clover family. "But little attention has been given to the growing of this crop in this country. It is scarcely mentioned in the reports of the experiment stations." According to Professor Shaw, it is recommended for limestone lands and dry, chalky soils in European countries. In England, it is used to provide feed for sheep and soiling-food and fodder for cattle and horses. Sainfoin is a vigorous growing plant and it is possible to cut two or more crops for hay or soiling-food in a season. Professor Shaw recommends, however, to cut only one crop of hay and pasture the balance of the season. The plant will retain its hold upon the soil for several years but it is not to be compared to alfalfa in this respect; other grasses are apt to crowd it out. Where alfalfa will grow, it hardly seems advisable to sow sainfoin. However, it has this advantage over alfalfa, as is claimed, in that there is less danger of animals bloating from pasturing upon it. At this station a small plot of sainfoin was planted last spring which has made a good stand and growth. We have no previous record of its yielding qualities or feeding value.

Bromus inermis is an excellent grass both for hay and pasture and makes a safe pasture for all kinds of stock. It has been grown at this station for several years. The average yield of hay at this station has been about a ton and one-half per acre, with an excellent second growth making late fall pasture. One field was pastured during the whole of the past season. The pasturage secured from the Bromus grass was evidently greater than that secured from a mixed pasture of orchard-grass and English blue-grass, although no comparative trial was made. The Bromus stays green longer in drouthy periods, is one of the earliest grasses in the spring and continues late into the fall. I believe that there is little doubt but that you will find it a valuable pasture-grass in Harvey County. It may be advisable, however, in feeding it for pasture, that you mix in a little orchard-grass and perhaps some English blue-grass and rye-grass. Alfalfa and Bromus inermis are sometimes seeded together for pasture. So far as results are reported, pasturing alfalfa and Bromus inermis is not injurious to cattle. If this proves to be generally true, there is no better combination for pasture where alfalfa can be grown. At this station, Bromus inermis and alfalfa have been sown together with the purpose of experimenting with it next season.

You can secure seed of sainfoin or Bromus inermis from almost any of the reliable seed companies whose advertisements appear in the farm papers. I would suggest this caution in purchasing Bromus inermis seed and all kinds of grass seed, that only the best grade be purchased. The best is the cheapest. F. Barteldes & Co. quote sainfoin seed at 30 cents per pound and Bromus inermis at 15 cents per pound. A considerable reduction will be given when seed is purchased in large quantity.
A. M. TENEYCK.

Rent of Raw Land.

I am personally interested in a quarter section of land very near Coldwa-

ter, Kans., and one or two parties have approached me with a proposition to buy or rent the land. I do not want to sell it but would like to have it broken up and put into some crop, and I do not know the terms commonly made in your country for such work. I would like to know what would be a fair bargain for both parties, the farmer to break the land and raise crops on it say for three years. Are deals of that kind ever made without cash payment for the breaking, or if a cash payment is ordinarily required, is it the full value of the breaking? If I were to pay the cost of the breaking, what would be the usual and a fair lease on a crop-sharing basis? Who is to furnish the seed, and what proportion of the crop is to go to each party?
LaCrosse, Wis. F. E. MARSH.

1. Answering your first question as to what will be a fair bargain for both parties when crops are taken in payment for breaking land, I have learned that in your section of the State it has been customary in some instances for the owner to allow the farmer who breaks the land two years' crops for breaking and backsetting, that is, it is usually considered necessary to backset sod, usually after taking off one crop, in order to thoroughly kill the grass.

2. The cash payment for breaking is usually about \$1.50 per acre, depending somewhat upon the character of the sod.

3. If you were to pay the cost of breaking and the land was broken at such a time that it could be put in a good condition for a crop, a fair lease on the crop-sharing basis would be to give the lessee three-fourths of the crop the first year and two-thirds of the crop the second year, the lessee furnishing the seed. Or it may be fair to allow the lessee the full crop the first year, provided the land is well worked and the sod backset after taking off the crop. In the middle western portion of the State the common practice, when land is rented on the crop-sharing basis, is to allow the renter a two-thirds share of the crop, he furnishing seed and equipment for carrying on the farming. I read your letter to my class in farm management and the above answers are based, to a large extent, on opinions given by different members of the class, some of whom came from the part of the State to which you refer.
A. M. TENEYCK.

Second Crop Barley.

Have you or any of your readers, or has the Experiment Station had any experience in mowing and treating like hay the volunteer or second crop of barley which comes up after harvest? I had sixteen acres this year of the six-rowed variety that made thirty-one bushels per acre, and was cut so green that my stacker said I was just making manure out of it, as it could not keep in stack, yet the field volunteer crop was so thick that it smothered itself in places and a good portion headed out and made doughy kernels before it was frozen. I am told here that it makes such poor hay that it does not pay to cut it, yet no one has ever tried it, they say. Would like to hear from some one having had experience.
LAWRENCE H. THORP.

Norton County.

I have never known the second-growth crop of barley to be cut for hay. The usual plan is to pasture it, and it doubtless has considerable feeding value when used in that way. With such a growth as you have described, I am of the opinion that it would have paid to cut the crop for hay, but this should have been done before the barley was killed by frost. If the crop had been cut green, well-cured and stacked, it would have made a good, palatable feed for cows or young stock, although its actual feeding value would not have been very great as there would have been great shrinkage and loss in weight. The best plan would be to pasture second-growth barley or oats, whenever this can be done, rather than cut it for hay.
A. M. TENEYCK.

When you are striving to do what is right, be courteous and nice in every way, but don't get "turned down."

Get Rid of Rats.

EDITOR KANSAS FARMER:—"If I do no good in the world, I am good for nothing." On page 1206 of your paper of November 26 (a most excellent one), Mr. Rankin seems troubled with rats. I have cleared farms of them in Ohio, Indiana, and Kansas, by using the following remedy:

Take some small pieces of thin chips or shingles, smear them with molasses on one side, with a sharp knife scrape some concentrated lye, and place it on the molasses. Then place the chips around under the stable, or boards, where the rats run, and they will eat it and come out and die. Those that do not eat it will flee away, and none are left to tell the tale.
Morris County. J. BUCKINGHAM.

Weights and Measures.

EDITOR KANSAS FARMER:—Will you give through the columns of your valuable paper the correct weight of Kafr-corn, and state if there is any difference between the red and white Kafr-corn. Some are claiming that white Kafr only runs 52 pounds, while others are 56 pounds. By answering the above you will greatly oblige a reader.
L. M. BRINK.

Woodward County.

For the benefit of this correspondent and others we give the legal weights, not only of Kafr-corn but of other grains. The law makes no distinction between red and white Kafr-corn.

An act of the Legislature, approved March 5, 1897, established the following legal weights of a bushel in Kansas: Wheat, 60 pounds; rye, 56; corn, shelled, 56; corn in cob, 70; rice corn, 56; sorghum-meal, 56; buckwheat, 50; barley, 48; oats, 32; bran, 20; malt, 32; cornmeal, 50; beans, 60; Kafr-corn, 56; coal, 80; sweet potatoes, 60; Irish potatoes, 60; flaxseed, 56; onions, 57; salt, 50; castor-beans, 46; hemp-seed, 44; blue-grass, native, 14; blue-grass, English, 22; timothy-seed, 45; dried apples, 24; green apples, 48; dried peaches, 33; unslaked lime, 80; plastering hair, unwashed, 8; plastering hair, washed, 4.

Annual Meeting of the State Board of Agriculture.

Following is the program of the thirty-third annual meeting of the Kansas State Board of Agriculture, to begin in Topeka, Wednesday, January 13, 1904, at 4 o'clock p. m., and continue in session three days, or until the business requiring attention shall be disposed of.

WEDNESDAY, JANUARY 13, 1904.

Afternoon Session.—Opening at 4 O'clock. Roll call. Appointment of committees. Report of committee on credentials. Reading of minutes of preceding meeting.

The topics following will be taken up and considered, as near as may be, in the order given. Papers will be subject to pertinent discussion, and delegates are urged to prepare for these discussions. Others present, of whom there is likely to be a large number, will also, as heretofore, have the privilege of participating in the discussions, and are cordially invited to do so.

Evening Session.—7.30 O'clock.

Address of Welcome—Governor W. J. Bailey.
Address of Welcome on behalf of city—Mayor W. S. Bergundthal.
Response—The President, J. H. Churchill.
"Agricultural Leadership"—Eugene Daventport, Dean Illinois College of Agriculture and Director Experiment Station, Urbana.

THURSDAY, JANUARY 14.

Morning Session.—9.30 O'clock.
"Selection of Dairy Cows"—O. Erf, Professor of Dairying and Animal Husbandry, Kansas State Agricultural College, Manhattan.
"Profitable Dairying"—H. A. Bereman, Weston, Mo.
"The Big Horse and the Large Kansas Farm"—H. W. Avery, Wakefield.

Afternoon Session.—1.30 O'clock.

"Agricultural Education as a Factor in Developing Useful Men"—Fred H. Rankin, of Illinois College of Agriculture, Urbana.
Address—Frank Strong, Chancellor University of Kansas, Lawrence.
Evening Session.—7.30 O'clock.
"Country Life in Prose"—Mrs. Margaret Hill McCarter, Topeka.
"Improvement in the Oat Crop" (illustrated by stereopticon)—M. A. Carleton, Cerealist, Bureau of Plant Industry, U. S. Department of Agriculture, Washington.

FRIDAY, JANUARY 15.

Morning Session.—9.30 O'clock.
"The Sugar-beet Industry in Kansas"—Mrs. Henry Block, Syracuse.
"The Mail-order House and the Farmer"—Henry Hatch, Barry.
Afternoon Session.—1.30 O'clock.
Election of officers and members.
"Agriculture at the World's Fair in



LOVE

Often leads to poverty. No real woman ever sold her heart for the luxuries of life.

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Pullman Bldg. Chicago. W. Inola

1904"—Charles F. Mills, Secretary Department of Live Stock, Louisiana Purchase Exposition. Query box. Evening Session.—7.30 O'clock. "Breeding Field Crops" (illustrated by stereopticon)—W. M. Hays, Professor of Agriculture, Minnesota Experiment Station, St. Anthony Park. "The Social Center of the Country Neighborhood"—Mrs. Cora G. Lewis, President Kansas State Social Science Federation, Kinsley.

OTHER MEETINGS.

The Kansas Improved Stock-breeders' Association will hold its regular annual meeting in Topeka during the same week as the State Board of Agriculture (Monday, Tuesday, and Wednesday), and the State Poultry Association will be holding its annual show during the entire week. H. A. Heath, Topeka, secretary of the Stock-breeders' Association, and J. W. F. Hughes, Topeka, secretary of the Poultry Association, will furnish programs and desired information of their respective meetings. It is believed that no man or woman interested in the agricultural and live-stock industries, or in wholesome home-making, can attend these meetings without being profited. Their sessions and discussions are open to all.

RAILROAD RATES.

All Kansas railroads have granted for these meetings an open rate to everybody of a fare and one-third for round-trip tickets, and no receipts or certificates will be necessary. Tickets will be on sale January 9 to 16, inclusive, and be good for return passage until and including Monday, January 18.

"Whosoever will may come."

Be sure to ask for and purchase reduced-rate round-trip tickets.

HOTEL RATES.

Rates at Topeka hotels and boarding houses will, as usual, be reasonable, and accommodations can readily be secured suited to the purses of all classes.

Horticulture.

Forcing Seedling Rhubarb Successfully Done in Ohio.

O. H. DAVIS, SECRETARY OF COLUMBUS HORTICULTURAL SOCIETY.

Until last year, crowns from three to five years old were used for forcing purposes by the horticultural department of the Ohio State College. In fact, it was thought that even the three-year-old crowns were too young to be forced profitably. Last winter, however, they were led to try seedling roots, through rather unexpected and perhaps unusual conditions.

Seed of the Linnaeus type was sown April 7, 1902, in a rather sandy soil in drills twenty-four inches apart. The seed came up readily and the summer was very favorable for its growth. The young plants were cultivated once a week until the leaves prevented the passage of the cultivator between the rows. The plants were not thinned, the idea being simply to grow plants to transplant the following spring and allow two more years' growth before forcing. The plants were very thick and would undoubtedly have made a better growth had they been thinned early in the spring. As it was, however, the young plants made a wonderful growth, and in July had leaves many of them a foot across, with petioles fifteen to twenty inches long and an inch thick.

Having more of these plants than it was cared to transplant, and being unable to secure old crowns to fill our cellars, it was determined to use every other row of these seedlings for forcing. Accordingly, the roots were plowed out early in the winter after they had been thoroughly frozen and thawed again (the work should be done before the ground freezes at all), and the cellar filled. A number sufficient to fill the cellars the second time was spread in a thin layer on the ground and covered with a thin covering of earth to prevent drying. Two crops were thus secured from the cellars during the winter.

The roots were packed as closely together as possible in the cellars, care being taken to have all the crowns up, leaving walks about a foot wide every

four feet. Soil was carefully sifted between the roots which were finally covered about two or three inches deep. The kind of soil used is not of so much importance, as the stalks get their nourishment from the food stored in the fleshy roots. Any good garden loam will do. The whole was then thoroughly soaked with the hose and the room made perfectly dark. In a very few days, the stalks began to push through the soil, and in four weeks we pulled the finest rhubarb we have ever seen.

From these small roots were obtained two pullings of splendid stalks, two more of only fair stalks, and two or three more smaller pullings of rather small and spindly stalks. The first pulling is always the best. The crop lasted about four weeks, making eight weeks in all that the roots remained in the cellar.

The exhausted roots were now forked out of the soil and a new supply brought in, using the same soil to cover the second crop as was used for the first. The second crop was simply a repetition of the first, excepting that the temperature ran a little too high during the latter part of the period and we got more spindling stalks. The temperature should never go above 60° F. unless quick results are wanted at the expense of quality and quantity.

The quality was all that could be desired, being much less acid, more brittle, with a much better color and thinner and tenderer skin than the light-grown product.

Average length of petiole was 17.33 inches; leaf blade, 4.45 inches; average weight, 4.64 ounces, and the average weight per bunch was 18.47 ounces.

The crops sold for some 60 cents to 75 cents per dozen bunches, there being from four to six stalks in a bunch. From three hundred and seventy square feet of cellar space we sold \$35.55 worth of rhubarb. This yield, it is believed, can be materially increased, yet when it is remembered that this return was obtained from space that would otherwise have been idle, and from plants less than one year old, which had not been grown with the intention of forcing at this age, the possibilities of the industry become apparent.

The stalks receive practically all their nourishment from the food stored up in the fleshy roots during the previous period of growth, and naturally the larger the roots, provided they are healthy and vigorous, the larger will be the total crop received when forced either in the light or in the dark. The roots forced in the dark will be more productive than those grown in the light, because all the strength of the root is directed into the stem, rather than partially into foliage.

If by extra care in preparation of the soil, selection of seed, thinning and cultivating, we are able to obtain roots large enough to secure profitable returns within the year, we have made an important step in supplying this well-known garden esculent throughout the winter months, and at a profit.

White Lead and Oil for Young Trees.—What Fruit-growers Say.

A spirited discussion was started recently by Professor Alwood, of the Virginia Experiment Station, on painting young apple- and peach-trees with white lead and oil to protect them against rabbits and mice. The Rural New Yorker has printed the following symposium on the subject:

As I have never experimented with painting fruit-trees with a mixture of white lead and linseed oil, as recommended by Professor Alwood, I hesitate to express an opinion concerning its use. I would not care to use this treatment in my orchard without first experimenting in a small way several years. HOWARD A. CHASE.

Philadelphia, Pa. I was very much interested in Professor Alwood's account of his treatment of young trees with white lead and oil. I once painted several young apple-trees, that had the bark stripped from their sides by some heifers that got out. I have not only seen no injury, but they have nearly all lived.

This would not be exactly a parallel case, as the paint was put on the inner wood or bark; still it shows there is nothing hurtful to the tree in the lead. I should, however, hesitate about putting it on the outer bark of healthy trees in any but an experimental way, as I have found the tendency of all such applications is to injure the tree. To stop up the pores of the skin of a tree, I believe, has much the same effect as a similar operation on the skin of a man or animal. Some one in an agricultural paper recommended tar as a preventive for mice. A man whom I know made the application to several hundred young apple-trees, and lost them all. I do not doubt the first man was truthful and honest, but conditions were probably different. Better mound up with earth, use tar paper, which can be removed before warm weather, or a piece of tin sprung around the body, and watched carefully. Then try a few trees with the white lead and oil. This will be safe, and if after more than one trial the paint works well, go ahead.

New York. EDWARD VAN ALSTYNE.

I have never had any experience in painting trees with oil and white lead, and would hesitate to recommend it, except in an experimental way. If in no other way it would probably harm the trees by making the bark too thin to stand cold. Whitewash with lime will do this if kept up for a few years. I shall try the painting in a small way, for the borers. If all trash is kept away and heavy snow is trodden down, mice will do but little harm.

New Jersey. CHARLES BLACK.

I have never had any experience with above mixture, but would be afraid it would injure the trees. My method of protecting my trees from mice has always been to clean all rubbish away from the trees late in the fall, then throw a few shovelfuls of fresh dirt around the trees, enough to heap up the dirt six or eight inches. I have never had any trouble with mice where a thorough job was done. In regard to rabbits, I advertise that I will give 10 cents for every rabbit tail caught within one mile of my farm. This has kept the rabbits pretty scarce in my neighborhood. B. J. CASE.

Wayne County, N. Y.

I had my attention called to the matter a few days ago by a grower who proposed to try it, and my advice was that it is a dangerous experiment. I know that in sawing off large branches of trees, or any wounds that we wish to protect, a heavy coating of white lead paint is one of the most satisfactory applications that we can make to the wound, as it seals up the pores tightly, keeps sap from coming out, and water from getting in, but to put such a mixture entirely around the body of a young tree I should fear would kill it. It may be all right; I don't say it is not, but would rather at present risk the destruction by mice and rabbits than to paint all my young trees. I am going to try it on a tree or two. J. H. HALE.

Connecticut.

I never have tried painting the bodies of trees to protect them from rabbits and mice. I am glad that Professor Alwood has been experimenting along that line, for it would be a great help if found safe. For many years, I have used paint freely for wounds on trees, and never have seen any injury to the bark resulting. At the same time, I do not think I have the courage to paint the bodies of an entire orchard without first trying it on a small scale, and for more than one season. I am glad you called my attention to this matter, as I have a young peach-orchard upon which I shall do some painting this fall, and know for myself whether it proves safe and efficacious. GEO. A. SWEET.

New York.

I have tried all sorts of mixtures on young apple- and peach-trees, but never happened to use white lead and linseed oil. I do not believe it would injure the trees in the least. Very likely it will be as good as anything else in protecting them from the attacks of rabbits and mice. I have never found similar means of prevention altogether satisfactory, however. In this section we are seldom troubled by rab-

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PAGE

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bits. The best means of protecting young trees from the work of mice during the winter in this section seems to be to bank them up about ten to fourteen inches in the late autumn. This can be done without a great deal of work. If barnyard manure is to be hauled into the orchard, it is quite convenient to distribute it at this time of the year, pushing it up about each tree trunk in a little cone. This will answer the purpose of protection, and in the spring the manure can be raked away and spread about the tree.

F. A. WAUGH.

Massachusetts Agricultural College. I have used a great many things to keep mice and rabbits from gnawing fruit-trees, also some tree-paints made for the purpose of keeping insects from injuring the trunks of trees. I have used yellow ochre and oil in a small way without any evil results. I do not think white lead and oil would injure the bark of trees, unless they were too young and tender, but do not know whether the application would be efficient in keeping away rabbits and mice. Pine tar is the best paint I have ever used. Smear some of the tar on the north side of the tree from the ground up a foot or so high and the rabbits will not touch the tree as long as the tar is there, and usually the application lasts two years. Put it on the north side for the reason that it will not melt so readily as on the south side, and get away. We used the tar on an orchard of 12,000 trees, and there were not a half dozen touched by either mice or rabbits.

Indiana. W. W. STEVENS.

The remedy suggested for mice and rabbits by Professor Alwood may happily combine effectiveness and safety. It would be a very good thing, I think, for the orchardist if he does, but I am afraid to paint my trees, and I would not do it with any number of them until I had given it a thorough trial on a few. White lead and linseed oil are the things we use to preserve our fences and buildings, and it seems to me contrary to the intent of nature, though I know no scientific reason why, if it is a remedy, then we have to consider the extent of its probable harm to the tree, and its cheapness against other remedies. We are not bothered to any extent here, and I can not speak from experience, but it seems to me that wire netting is the thing for rabbits. You can get it any height you want it, and its natural tendency to roll up makes it easy to put around the trees. It can be used for years, and on different orchards; it does not wear out. I know this to be effective against peeling by rabbits. Tramping the snow solidly about the trunk of the tree in winter will prevent attacks by mice, and if grass and litter is kept away a little they will not attack the tree in summer. These are, probably, a little more trouble, but they are effective and not injurious. They may cost more, and if there is anything harmful in the paint it will have to be reckoned against the cost of the latter methods suggested to determine the superiority of one over the other.

Pennsylvania. EARL PETERS.

PROFESSOR ALWOOD STICKS TO PAINT.

I have used white paint on apple-trees for fifteen years with perfect success, and have never injured a single tree. I have had this same material applied to thousands of trees by others with equally good results. Regardless of what people say about the danger of this remedy, my statements are based upon careful observation and are certainly trustworthy in this climate. In my opinion, there would be less danger from the use of paint in the Northern States than in the South. It must, however, be urged upon persons who contemplate the use of paint upon their trees, that no matter what dealers may say they should not be led into buying ready-mixed paints, because these may contain mineral oils or turpentine, possibly both, and if so, they will likely prove dangerous to the trees. I feel certain if any one will buy good white lead and make the paint as directed in the Rural New Yorker on page 707, and apply the same in the manner directed, there will not be the slightest injury. This state-

ment applies to apple only. I have used it freely on peach and cherry, but in some cases have thought there was slight damage, but this has been so slight in the case of peach that I am still recommending the white-lead paint for the peach-borer. Some of the finest young apple-orchards in this State have been treated with this paint in a most thorough manner, with the result that scarcely one tree in a thousand has suffered injury from mice, rabbits, or borers. It may appear expensive, but I have found it the least expensive remedy ever tried, considering the results attained.

WM. B. ALWOOD.

Thinning Apples.

A report from the New York Experiment Station says: "Thinning apples may be a profitable operation under some circumstances; but as fruit is ordinarily marketed in the commercial apple-growing sections of New York, it is not profitable. Investigations in thinning by the New York Agricultural Experiment Station (Geneva), were carried on for four seasons in a commercial orchard. The results, in improvement of the fruit, in size, in color, and in quality, were marked, whenever fair to heavy crops were borne on the trees, but the quantity of fruit was usually lessened; so that unless a higher price is secured for the improvement in quality the expense of the operation is not repaid.

"Full details of these tests are given in Bulletin No. 239 of the station, which any apple-grower or other person interested may secure without cost, by sending his name and address to the director, with a request for this bulletin. Any available station bulletin may be obtained in this way."

Oil and Gas in Iola Quadrangle, Kansas.

Dr. George I. Adams, of the United States Geological Survey, spent part of last summer studying oil and gas resources of the Iola quadrangle, Kansas. With the assistance of Prof. Erasmus Haworth and Prof. W. R. Crane, of Kansas University, Dr. Adams made a detailed survey of this quadrangle, which had been surveyed topographically during the summer of 1902.

This quadrangle is a part of the Kansas-Indian Territory oil- and gas-field. The most important towns are Iola, Chanute, Humboldt, and LaHarpe, which lie in the more productive portion of the field. Bronson, Moran, Ellsmore, Savonburg, and Erie are in the eastern border of the field, within the area surveyed.

The present rapid development of the territory is the result of prospecting which has been conducted in the general field since 1865. Gas was first struck in a well at Iola in 1873, but no considerable quantity was found before 1893. The discovery of oil in commercial quantities occurred about the same time at Neodesha. It was not until 1900 that drilling for oil in the Iola quadrangle began, as a result of the development of a small field at Chanute.

The development of the gas resources was stimulated by the fact that cheap gas would make possible the introduction of certain desirable industries. The large lead and zinc smelters at Iola, Gas City, La Harpe, and Chanute, and the cement works at Iola have all been established since the discovery of gas in the Iola quadrangle.

The immediate market value of oil has been sufficient incentive for prospectors in search of that commodity. The growth of the field during the last two years has been so rapid that it has been difficult to keep pace with its development. Even since September, when Dr. Adams left the field, the oil area has been considerably extended. Bulletin 184 of the United States Geological Survey, on the Oil- and Gas-fields of the Western Interior and Northern Texas Coal Measures, which Dr. Adams wrote in 1901, is valuable for its discussion of the general conditions of the field, but is no longer an

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adequate statement of present developments.

The recent investigations made by Dr. Adams and his assistants were the first close studies ever attempted by the United States Geological Survey of that oil-gas field. The inquiry included a study of the volume of the flow and the pressure of the gas. Observations were made which will help to estimate the life of the field. As the history of all gas-fields shows that they ultimately become exhausted, determinations of this kind are of considerable economic importance. In certain places in this field the gas begins to show signs of diminution, but there is no immediate cause for alarm.

The structure of the field and the mode of occurrence of the oil were subjects of inquiry. The investigation shows that the oil in the district is contained in oil-bearing sands that are of limited extent but are generally distributed throughout the field. The oil is rather light and is adapted to distillation. This fact increases its value and accordingly it is not used as a fuel oil. It is refined at Neodesha, to which point it is either shipped or pumped through pipe lines. Kerosene and gasoline are the chief products.

The even development of the Iola field has made it attractive to prospectors with moderate capital. Numerous oil companies are working systematically in the field. The production of individual wells is not phenomenal, as it was at Beaumont, Texas, but this fact augurs well for the life of the field. Many of the wells spout at first, but soon settle down to steady production.

The topographic map of the Iola quadrangle will be available in January. During the coming season it is proposed to study the geologic formations of the Independence quadrangle, which adjoins the Iola quadrangle, and which was surveyed topographically last summer. Dr. Adams' reports on his recent investigations in the oil- and gas-fields of the Iola quadrangle will go to the Public Printer about January 1. When it is ready for distribution, due notice will be given.

\$200 in Cash Prizes Offered.

Five cash prizes, amounting in all to \$200, are to be given the Nebraska students of the Correspondence Agricultural College of Sioux City, Iowa. The offer comes from W. J. C. Kenyon, in behalf of the Union Stock Yards Company, Omaha, of which he is general manager, and is open to all Nebraska students of the College in agronomy, but particularly those who are interested in corn culture. In writing of the proposition, Mr. Kenyon says: "The Union Stock Yards Company is desirous of offering some prizes as an inducement to the young farming element in Nebraska to pursue the study of agronomy and become proficient therein, especially in the cultivation of corn, and we offer five prizes of \$40 each, which will cover the tuition of five students, the prizes to be awarded to the five most proficient students of the State of Nebraska, who are taking the course in the Correspondence Agricultural College. The investment of the \$200 is more in the line of corn than it is in the general subject of agronomy." Nebraska is a cattle feeding, rather than a cattle raising State,

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in Barton County, Kansas, the Banner wheat county of the State; raised this year over 5,000,000 bushels. You can buy a first-class wheat farm from \$20 to \$40 per acre, with good improvements, three to ten miles from county seat. Barton is one of the very best counties in the State; good schools, churches, fine soil and healthy climate. I will take great pleasure in giving you all information you may ask for, having lived in the county 29 years. I also have for sale a number of choice farms in Pawnee County at such prices that one good crop will pay for the land. The Pawnee Valley in Pawnee County is one of the richest valleys of land on the map. I can sell you the best from \$10 to \$17.50 per acre. I have sold more land in the past two years than all other agents in central Kansas. For further information call on or address JOE S. EWALT, Great Bend, Kans.

BEST POTATO LAND.

There is no better potato land in America than that in Indian Territory—the section between the Arkansas and Verdigris Rivers. The climate and soil are particularly adapted, and potatoes are marketable earlier than farther north. Mr. T. L. Peeler, Industrial Agent, M. K. & T. Ry., Dallas, Texas, will be pleased to communicate with any one desirous of investigating this section.

and its corn crop is largely used for feeding purposes. "Corn, more corn and better corn is what we need in Nebraska," said Mr. Kenyon to a representative of the Correspondence Agricultural College, of Sioux City, Iowa. With an increase in the corn crop of the State, we figure that there will be a corresponding increase in the number of cattle shipped here to be fed, and of course this will result in a general improvement of the live stock business of which Omaha is the center." The prizes are to be paid in cash and are \$40 each. As this is the amount of a full course in agronomy at the Correspondence Agricultural College, the five winners secure for themselves the equivalent of free tuition. In order to attract still further as many young men—old ones either—as are interested in corn culture, the offer is held open to all Nebraska students who become students of the college course the coming season. The contest, it will be seen, does not involve trick solving or problem guessing, but knowledge of a crop which the Nebraska farmer works with almost every day of his life and the more he can learn about it the greater his profits will be. It is expected that hundreds of Nebraska farmers, who are among the most progressive in the great West, will strive to win one of these prizes.

When writing advertisers, please mention Kansas Farmer.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

December 18, 1903—Plainville Breeders' Association combination sale of cattle and swine, Plainville, Kans.
 January 20, 1904—H. N. Holdeman, Girard, Poland-Chinas.
 January 27, 1904—David Delair, Manhattan, Short-horns and Poland-Chinas.
 February 1, 1904—Poland-Chinas, Thompson Bros., Marysville, Kans.
 February 2 to 5, 1904—Percherons, Short-horns, Herefords, and Poland-Chinas, at Wichita, Kans., J. C. Robson, Towanda, Kans., Manager.
 February 2, 1904—Duroc-Jersey swine at Humboldt, Neb. Wm. Brandow, Manager.
 February 2 and 3, 1904—Benton Gabbert and others, Herefords, at Kansas City, Mo.
 February 3, 1904—Jno. O. Hunt, Maryville, Kans., Duroc-Jersey sows.
 February 4, 1904—Swine-breeders combination sale, Washington, Kans., Poland-Chinas.
 February 4, 1904—C. E. Pratt, Frankfort, Kans., Duroc-Jersey sows.
 February 5, 1904—J. B. Davis Fairview Kans. Duroc-Jersey sows.
 Feb. 16, 1904—E. E. Axline, Oak Grove, Mo., Poland-China brood-sow sale.
 February 17, 1904—Combination sale of Angus cattle at Kansas City, Berry Lucas, Manager, Hamilton, Mo.
 February 18, 1904—Standard-bred road horses by S. S. Spangler, Milan, Mo.
 February 22, 1904—Duroc-Jerseys, A. F. Johnson, Osceola, Neb.
 February 24, 1904—Duroc-Jerseys, E. J. Brown Osceola, Neb.
 February 25, 1904—Duroc-Jerseys, Nels. Holm, Osceola, Neb.
 February 26, 1904—Duroc-Jerseys, C. G. Johnson, Osceola, Neb.
 March 1, 1904—L. M. Monsees & Sons, Smithton Mo., Jacks, saddle and roadster horses.
 March 8, 1904—F. M. Gilford, Manhattan, Kans., Short-horns.
 April 7, 1904—Central Missouri Northhorn Breeders' Association, Moberly, Mo., E. H. Hurt, Sec.
 April 8, 1904—Breeders' combination sale at Macon, Mo., Herefords.

Coming Events.

Will secretaries, or those having the management of coming events, oblige the Kansas Farmer by sending dates?
 Annual Convention of National Plant and Animal-breeders' Association, St. Louis, December 29, 30, 1903.
 Thirty-seventh annual meeting of the ansas State Horticultural Society, Topeka, December 29, 30, 31, 1903.
 Douglas County Farmers' Institute, January 6, 1904. Ed. S. Harvey, Secretary.
 Fourteenth annual meeting ansas Improved Stock-breeders' Association, Topeka, January 11-13; H. A. Heath, Secretary.
 National Live-stock Association, Portland, Ore., January 11-15, 1904; Chas. Martin, Secretary.
 Thirty-third annual meeting State Board of Agriculture, Topeka, January 13-15; F. D. Coburn, Secretary.
 Kansas Mid-winter Exposition, Topeka, January 19-31, 1904.
 Annual meeting of American Polled Jersey Cattle Company, Cedarville, Ohio, January 20, 1904. Chas. S. Hatfield, Springfield, Ohio, R. R. No. 4, Secretary.

Call for National Live-stock Convention.

To the Members of the National Live-stock Association and all others interested in the Live-stock Industry.

Complying with the orders of the executive committee, we have the honor to advise you that the seventh annual convention of the National Live-stock Association will convene in the Marquam Grand Theater, Portland, Ore., January 12, 1904, and continue through as many sessions as the business may require.

Delegates will be admitted according to the provisions of the constitution, as follows:

Each State, Territorial, county, or local range association of cattle, sheep, horse, or swine-breeders may appoint one delegate for every 10,000 head of stock, or part thereof, represented by the members of such organization.

The governor of each State and Territory may appoint three delegates-at-large.

Each feeders' and breeders' association may appoint one delegate-at-large and one for every twenty-five members or part thereof.

In counties where there is no regular live-stock organization, the county commissioners may appoint one delegate from among the stockmen of said county.

Each State or Territorial live-stock sanitary board may appoint three delegates.

Each State Board of Agriculture or agricultural college may appoint one delegate.

Each live-stock commission merchants' exchange may appoint one delegate-at-large and one for each twenty-five members thereof.

Each stock-yards company may appoint one delegate.

Each railway and transportation company may appoint one delegate.

Each chamber of commerce may appoint one delegate for every 100 members.

Each dairymen's association may appoint one delegate.

Each State irrigation association may appoint one delegate.

An alternate may be appointed for every delegate.

Any bona fide stockman engaged in breeding, feeding, trading, or handling live stock may become a member of this association by the payment of an initiation fee of \$10 and an annual due of \$10.

Delegates may be appointed from Canada and the Republic of Mexico, but in all cases, except those from State and county, the requirements regarding membership must be complied with.

All associations, governors, and county commissioners are requested to send the names and postoffice addresses of their delegates to the secretary as soon as named, in order that the roll may be promptly and properly arranged.

RAILWAY RATES.

For this occasion the railroads have made the following unusually low rates from points west of Chicago:

New Orleans, \$70.30; Memphis, \$62.75; Cairo, \$62.15; Houston, Texas, \$60.75; Mineola, Texas, \$57.45; St. Louis, \$57.50; Chicago, \$61.50; Missouri River points, including St. Paul, \$50; Denver and common points, including Cheyenne and El Paso, Texas, \$45; from all other points in this territory, one lowest first-class fare for the round trip.

For territory south of the Ohio and Potomac and east of the Mississippi Rivers, a rate of one and one-third fare for the round trip has been made. From all points east of St. Louis and Chicago to Buffalo and north of the Ohio River, 80 per cent of double the one-way first-class fare for the round trip will be in force. Selling dates for these tickets are January 6, 7, 8, and 9, with a final return limit January 31, 1904. A reduced rate of \$13.50 from Portland to San Francisco has been made, so that any one desiring to stop off at all points of interest may do so.

Stop-over permits will be granted on the return trip on application to the joint agency in Portland.

BUSINESS OF THE CONVENTION.

Existing conditions throughout the country make it absolutely necessary that decisive action upon several subjects shall be taken at this meeting for the protection of the industry. Among these are:

FOREST RESERVES.

Resolved, That the National Live-stock Association favors the restriction of forest reserves to such lands as are now or recently have been confined to natural watersheds, and that a congressional committee consisting of experts be appointed to examine all reserves and eliminate from the same the non-forest lands.

Resolved, That the forests and all vegetation upon the public lands of the United States, including the forest reserves, shall be placed under the direction and control of the secretary of agriculture, and that the secretary of the Department of the Interior shall have control only of such matters as relate to the title of such lands.

PACKERS' COMBINATION AGAINST STOCK-GROWERS.

Resolved, That the concentration of packing facilities on modern lines into the hands of a few great capitalists and into a few market centers has resulted in almost eliminating competition, and has widened the margin between the price of cattle on the hoof and the dressed meat to the consumer to a point that is manifestly unfair to the producer, and the only remedy is for the stockman to combine and provide competition by building independent packing plants and encouraging new markets.

TRANSPORTATION.

Resolved, That legislation should be enacted by the National Congress compelling the movement of stock trains at a minimum speed of twenty miles per hour from loading point to destination, exclusive of stops for feed and water, and that such trains shall

have the right-of-way over trains loaded with dead freight.

Resolved, That the National Live-stock Association hereby respectfully memorialize the Fifty-eighth Congress to enact legislation conferring upon the Inter-state Commerce Commission authority to determine upon full hearing under the provisions of the "Act to Regulate Commerce," what change shall be made in rate or practice found to be discriminative or unreasonable. Such determination to be immediately operative, and so to continue until overruled by the court.

ARID LANDS.

Resolved, That in the opinion of the members of the National Live-stock Association, Congress should immediately appoint a commission of five, consisting of one cattle-grower, one sheep-grower, one expert irrigationist, and two Government officials, for the purpose of investigating the arid and semi-arid grazing lands west of the one hundredth meridian, to make a speedy report to Congress with a view of amicably settling the contentions now existing over this matter in the territory named.

Resolved, That the National Congress should so amend the laws affecting the public lands as to repeal the stone, desert-land, and lieu-land acts, and the commutation clause of the homestead act, and that the latter should be so amended as to allow a citizen to take up at least one section of arid or non-irrigated land as a homestead.

TO PRODUCE MEAT WITHOUT CORN.

Resolved, That between the irrigated farms and the non-irrigated grazing lands of the West there is produced all the material for making the choicest of commercial food meat. All that is lacking is an accurate knowledge as to the proper methods and proportions in which to combine these existing elements, and the National Government is urged to assist in conducting the necessary experiments to show the Western stockmen how to make meat of the products of the Western ranch and range.

It is not to be understood that the above resolutions will be adopted as they stand, their appearance here being only an indication of the subjects to be discussed.

In addition to this, Congress should be asked to immediately pass the Grosvenor anti-shoddy bill and enact a law providing for a classified census of live stock.

Any member of the association interested in any subject of a general nature is respectfully requested to place it in the form of a resolution

Horse Owners! Use

GOMBAULT'S



Caustic Balsam

A Safe, Speedy, and Positive Cure

The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

Lump Jaw

Save the animal—save your herd—cure every case of Lump Jaw. The disease is fatal in time, and it spreads. Only one way to cure it—use Fleming's Lump Jaw Cure. No trouble—rub it on. No risk—your money back if it ever fails. Used for seven years by nearly all the big stockmen. Free illustrated book on Lump Jaw and other diseases and blemishes of cattle and horses. Write for it today. FLEMING BROS., Chemists, 812 Union Stock Yards, Chicago, Ill.

CAR-SUL CATTLE DIP

CURES Mange and Itch; KILLS Lice, Ticks and Screw-Worms; HEALS Cuts, Wounds, Galls and all Sores. GUARANTEED to do the work without injury to eyes or other parts of animal. At dealers or by express, prepaid, \$1.50 per gallon. 25 cent cans—dealers only. Special price in quantities. Write to-day for book and free trial Car-Sul. Address MOORE CHEMICAL CO., 1501 Genesee St., Kansas City, Mo.

HOW TO FEED AND BREED HOGS is of importance to swine growers. A practical, clean, common-sense swine paper for farmers can be had from now to January, 1904, by sending 10 Cents in Silver at once to BLOODED STOCK, Oxford, Pa.

LUMP JAW

A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. NO CURE, NO PAY. Our method fully explained on receipt of postal. Chas. E. Bartlett, Columbus, Kans.

NO MORE BLIND HORSES. For Specific Ophthalmia, Moon Blindness, and other Sore Eyes, Barry Co., Iowa City, Ia. have a sure cure.

KENDALL'S SPAVIN CURE

When you see the above trade mark on a label you are sure that you are getting the genuine KENDALL'S SPAVIN CURE.

That means that you are getting the only absolutely time tested and reliable remedy for Spavin, Ring Bone, Curb, Splint and all forms of lameness in horses. A single bottle may save your horse. It has worked that way in thousands of cases. Note this man's experience:

Dr. B. J. Kendall Co., Enosburg Falls, Vt. Wausau, Neb., March 18, 1902, P. O. Box 347.
 Gentlemen:—You may remember I sent for your book, "A Treatise on the Horse and His Diseases," about a year ago. At that time I was using your Kendall's Spavin Cure on a *Bone Spavin* of about eighteen months standing. I used two and one-half bottles and now there is no spavin, not even a bunch. You may use my name among your testimonials if you wish.
 Yours truly, D. E. SEGER.

For sale by all druggists. Price, \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the book free for the asking, or address

Dr. B. J. Kendall Company,
Enosburg Falls, Vermont.

Hog Worms and Fever

(Not Cholera)

Is Killing The Hogs.

When buying a Remedy for your hogs don't look for the cheap per pound kind. Get the best and save your hogs. Read this letter:

"Will you please send 100 lbs. Rex Hog Remedy to me. I know what Rex Hog Remedy will do and don't want to try any other. I have tried different kinds but they don't do what yours will do. (Signed) J. S. McDonald, Mo. Valley, Ia.

REX HOG REMEDY is a very strong medicine. It costs only 2 cts. per hog per month to feed it. We believe it has more friends than all other Hog Remedies combined. 12 1/2 lb. box \$1.25; 25 lb. box \$2.50; 100 lbs. \$9.50. Freight paid on 25 lbs. or more. Dealers in nearly all towns. Write us a card and you will get important information.

REX STOCK FOOD CO., Dept. 9, Omaha, Neb

and send it to the secretary at once, so it may be brought before the first meeting of the executive committee, and thus receive early consideration by the convention.

ORGANIZATION.

It has become the policy of all industries to organize for mutual protection. It must be conceded that in a National organization the live-stock industry of the Nation can accomplish more than by individual efforts. The history of this organization will demonstrate this fact. The work is in your hands, and upon your determination and successful efforts, to a great extent, depends the future of the live-stock industry. Unless the association receives this support, it will be impossible for it to attain the measure of success desired. The cost of maintaining a National organization is insignificant, the assessments being but one-twentieth of a cent per head. If you or your local association are not members of the National Association, you are earnestly requested to make application immediately, in order that you may be represented at the coming meeting. Blanks for this purpose and all information may be had by addressing the secretary at Portland, Oregon.

We desire to impress upon you the supreme importance of delegates being appointed under this call who will attend this meeting and give the matters under discussion their serious consideration.

The citizens of Portland have raised a generous sum and are arranging to entertain all delegates in a handsome manner.

Immediately on arriving in Portland you should register with the secretary at headquarters, Portland Hotel, or the theater, when you will be provided with badges admitting you to Convention Hall, and coupon tickets for all entertainments given by the citizens.

Be sure and ask for rates to the National Live-stock Convention, January 11-15, 1904. If your local agent can not give you full information as to dates of sale, etc., write the secretary of the association.

JOHN W. SPRINGER, President. CHAS. F. MARTIN, Secretary. Portland, Oregon, December 1, 1903.

Bad Winter Management of Stock Cattle.

EDITOR KANSAS FARMER:—The practice of many farmers in putting their young cattle on simply a roughage ration for the winter is questionable either from a financial or humane standpoint. It is indeed a pitiful sight to see poor and bony cattle shivering in the wintry storms, and bawling occasionally for a mite of more nutritious food to eat. Cattle treated in this manner are stunted in their growth, weakened in their constitution and lose from 10 to 25 per cent in weight during a single winter. Can such treatment be profitable? The loss during the winter of nearly one-half of the previous summer's gain on the poorly fed animal will generally pay for enough extra feed to keep the animal in a thrifty, growing condition; besides, the thrifty animal will sell much better, so that the extra price received for the latter, together with his gain during the winter, will largely be clear profit to the farmer.

On November 17, 1902, I began feeding thirty-six head of calves in Labette County, Kansas. During the first month I gave them only about half as much grain as I did later, yet they made a good gain at a cost of only 2 1/4 cents per pound. This would indicate that a half ration of grain could be fed with profit to young stock cattle during the winter season. It must be remembered, however, that the feed for the young animal must contain sufficient protein and ash for the growth of the body. These elements can be supplied in legumes, as the cowpea, alfalfa, clover, and soy-bean, or in bran, cottonseed-meal, oil-meal or gluten-meal.

So, in conclusion, I would advise the farmer to supply his young cattle with a sufficient amount of nutritious grain and roughage of the proper constituents to keep them in a thrifty, growing condition, for it will not only add com-

fort and size to the animals, but eventually will help to fill his own pocket-book. W. R. HILDBRETH. Story County, Iowa.

Sunny Slope Hereford Sale.

On December 10 and 11, occurred at Emporia, Kans., a sale of 100 head of the best Hereford cattle that were ever led into the sale ring in the United States by one breeder. Not only was the breeding of the best but the condition of the animals was of the finest. The sale was characterized by typical Kansas weather, which leaves nothing to be desired, and by a large and enthusiastic crowd of buyers.

Included in the offering was the show herd from Sunny Slope Breeding Farm, which has made such a great record at the large State fairs and National exhibitions in the season of 1903. Of course the figures realized for this offering were not large or what they would have been under different conditions of the cattle industry; but, everything considered, the sale was a very satisfactory one and the prices realized were wonderfully even, as they had of necessity to be because of the wonderful evenness in the quality of the stock offered. The sale was conducted by Colonels Woods, Edmondson, Sparks, and Burger, all of whom seemed to derive inspiration from the magnificent animals offered and to acquire themselves with even greater credit than they had heretofore won. The wants of the inner man were provided for in a bountiful lunch of good things which was served to buyers and visitors. One of the features of the sale was the buying done by J. W. Reed, Alberta, British Columbia, who took home with him not less than two car-loads of these good things for use in what promises to be one of the greatest Hereford breeding centers on the American continent. A total of 100 head was disposed of for \$17,290, an average of \$172.90 per head. Thirty bulls brought \$5,285, an average of \$176.16, and seventy females brought \$12,005, an average of \$171.50.

In making his offering, Mr. Stannard did an unique thing in leading Lord Saxon 89312 and Gem's Keep On 103467 into the ring at the same time and offering the choice of these two herd-bulls to the buyers. They were both extra-fine bulls and the sires of many of the calves sold with the dams. The bidding was quite spirited but E. M. Winter, of Irving, Kans., finally won out at \$475, and chose Lord Saxon as the one best fitted to his use.

Will H. Rhodes, Tampa, Kans., secured the prize-winning bull, Keep On 40th 148331 at the nominal price of \$475. This bull won sixth at the Iowa State Fair, fourth at Hamline, second at Popoka, first at Wichita, and sixth at the International at Chicago and Mr. Rhodes carries home with him a nice bunch of ribbons. Mr. Rhodes is an old Kansas Agricultural College boy who has already won a reputation as a Berkshire breeder, and the fact that he went to Sunny Slope Farm to buy and then bought as he did shows that he will not be long in winning an equal reputation in the Whiteface world.

Keep On 26 136177 stood first in the Iowa State Fair, first at Hamline, first, junior champion, and grand champion at Popoka, first, junior champion, and sweepstakes at Wichita, and second at Chicago. He went to Harris Bros., Harris, Mo., for \$600 and was \$400 too cheap. He topped the sale.

The top of the cow sale was brought by the prize-winning cow, Elvira 5th 136170, who was pronounced by Dr. J. E. Logan, of Kansas City, president of the American Hereford Breeders' Association, as the best heifer he knows of. Mrs. Kate Wilder Cross, of Emporia, secured this fine animal for \$470.

It is unusual to note in a sale of 100 animals so few that are lower than the average of the sale. In spite of the fact that the offering was a large one, the quality was such that there was little variation in prices throughout the sale.

Blanch 2d 107788, who won third at the American Royal of 1900, third at the same show of 1901, and fourth at the same show in 1902, also stood fourth at Chicago in 1902, and had the following winnings in 1903: Iowa State Fair, fourth; Minnesota, third; Kansas, first and senior champion; Wichita, first and senior champion; and the Chicago International, fifth. She went to F. Rockefeller, Belvidere, Kans., for \$330.

Mrs. Kate Wilder Cross, one of the few lady breeders of Hereford cattle and one of the best breeders in the State, consigned a number of animals listed in this sale and sold them well above the average, which is her usual reputation in sales to which she consigns. It will be noticed that she was buyer, also, but bought only of the choicest of Mr. Stannard's offering. While her herd is not a large one, it is extra good and she has been breeding along much the same lines that have been used on Sunny Slope Farm.

As will be noticed in the following list of purchasers, very few of the animals went North and East, although the sale was liberally advertised in that region. Aside from those going to Alberta, Canada, nearly all of the animals were sold at home, in the territory covered by the Kansas Farmer.

The sales are as follows:

- BULLS. Java 22d 161650; sold to J. C. Fry, Ogdensburg, Kans. \$130. Java 20th 161648; sold to J. W. Reed, Alberta, B. C. 100. Java 19th 161647; sold to J. W. Reed. 100. Java 16th 154601; sold to B. M. Brown, Fall River, Kans. 200. Java 18th 154603; sold to Clay Shaft, Clements, Kans. 115. Java 17th 154602; sold to J. W. Reed. 110. Java 15th 148325; sold to Thomas Taylor, Belvidere, Kans. 100. Java 12th 142499; sold to A. & P. Schmitz, Alma, Kans. 105. Java 5th 125146; sold to W. A. Howard, Comiskey, Kans. 160. Dude 2d 164495; sold to John Langley, Emporia, Kans. 155. Gem's Keep On 3d 161645; sold to J. W. Reed. 115. Keep On 38th 148329; sold to J. W. Reed 150. Keep On 4th 161655; sold to L. Pinet, Cote Sans Dessein, Mo. 215. Keep On 43d 154606; sold to I. D. Yarkock, Blue Rapids, Kans. 200. Keep On 41st 148332; sold to F. D. Carter, Wymore, Neb. 150.

- Keep On 40th 148331; sold to W. H. Rhodes, Tampa, Kans. 475. Keep On 26th 136177; sold to Harris Bros., Harris, Mo. 600. Lord Saxon 5th 154611; sold to Henry Shellane, Emporia, Kans. 155. Lord Saxon 89312; sold to B. M. Winter, Irving, Kans. 475. Thom C. 163631; sold to D. B. Little, Olathe, Kans. 150. Keep On 42d 154605; sold to J. W. Reed. 140. Redhead 144018; sold to J. W. Reed. 100. Waldo 144021; sold to J. W. Reed. 120. Max Wilton 126370; sold to W. L. Spencer, Admire, Kans. 80. Teddy 137155; sold to Wm. Bilson, Eureka, Kans. 75. Roseberry 146865; sold to A. R. Harkness, Dunavant, Kans. 75.

FEMALES.

- Donna 10th 126245; sold to T. C. Sawyer, Lexington, Mo. 255. Amantill 2d 142491; sold to W. H. Rhodes. 145. Java's Lass 142501; sold to F. Rockefeller, Belvidere, Kans. 150. Capitola 10th 161642; sold to Walter B. Waddell, Lexington, Mo. 180. Java's Matchless 148328; sold to W. H. Rhodes. 175. Flash 82198; sold to D. M. Brown. 175. Dorcus 3d 148321; sold to J. W. Reed. 110. Welcome 17th 148340; sold to J. W. Reed. 155. Rollela 31370; sold to J. A. Funkhouser, Plattsburg, Mo. 375. Bonnie Lady 148319; sold to J. W. Reed. 155. Anna Bell 95120; sold to W. S. White, Mulberry, Kans. 180. Etta 2d 154597; sold to H. J. LaForce, Jefferson, Okla. 145. Erma 154598; sold to J. W. Reed. 275. Blossom 125144; sold to Mrs. Kate Wilder Cross, Emporia, Kans. 165. Miss Royal 125158; sold to B. M. Brown. 175. Queen 90941; sold to G. F. McGee, Moline, Kans. 140. Flash 2d 148322; sold to F. Rockefeller. 150. Bonnie Girl 3d 103453; sold to W. H. Rhodes. 150. Gertrude 154599; sold to J. W. Reed. 150. Elvira 5th 136170; sold to Mrs. Kate Wilder Cross. 470. Jewel 154604; sold to F. Rockefeller. 150. Annette 2d 136161; sold to J. W. Reed. 210. Vignette 10th 144688; sold to F. Rockefeller. 200. Blanch 2d 107788; sold to F. Rockefeller. 330. Sybil 134695; sold to J. W. Reed. 105. Mary Grove 102038; sold to F. Rockefeller. 175. Allene 102014; sold to Samuel Drybread, Costello, Kans. 235. Anita 74240; sold to J. E. Casebier, Harper, Kans. 175. Elvira 4th 107730; sold to J. E. Casebier. 180. Fairy Lady 89594; sold to Mrs. Kate Wilder Cross. 300. Gypsy Girl 2d 94473; sold to W. S. White. 105. Welcome 16th 108840; sold to Gudgeon & Simpson, Independence, Mo. 230. Polo 78510; sold to A. & P. Schmitz. 160. Mrs. Sancy 135330; sold to J. E. Casebier. 155. Pretty Lass 148330; sold to H. J. LaForce. 170. Royal Duchess 2d 107809; sold to J. W. Reed. 165. Gracie 4th 115274; sold to B. M. Winters. 205. Thressa 142515; sold to F. Rockefeller. 155. Miss Belle Monde 102039; sold to J. P. Sands, Walton, Kans. 230. Miss Waverly 148337; sold to F. Rockefeller. 150. Maple 136187; sold to Wm. Bilson. 170. Marry Mc 154613; sold to J. W. Reed. 105. Lady Matchless 3d 112650; sold to Samuel Drybread. 200. Lilly Saxon 154608; sold to J. W. Reed. 150. Lilly Cochrane 9th 1168818; sold to J. P. Sands. 180. Lady Benfield 2d 154607; sold to B. M. Winter. 140. Modest Saxon 154614; sold to J. W. Reed. 110. Caroline 154594; sold to J. W. Reed. 130. Pauline 3d 154416; sold to J. W. Reed. 160. Bertha Real 2d 154593; sold to J. W. Reed. 145. Nadene 148338; sold to F. B. Jordan, Severy, Kans. 180. Royal Duchess 3d 154618; sold to F. Rockefeller. 155. Rosa 154617; sold to J. W. Reed. 140. Queen 2d 154616; sold to J. W. Reed. 140. Annie 153861; sold to J. W. Reed. 100. Spot 148014; sold to H. W. Alexander, Dunlap, Kans. 85. Wild Paula 146698; sold to J. W. Reed. 155. Florence 140480; sold to J. W. Reed. 120. Dora 153051; sold to J. W. Reed. 150. Addie B. 140796; sold to J. W. Reed. 175. Carlotta 146844; sold to J. W. Reed. 95. Silver Mine 148013; sold to J. W. Reed. 100. Helen 147567; sold to Wm. Bilson. 130. Angelina 5th 153050; sold to B. M. Brown. 135. Viola 146898; sold to J. W. Reed. 105. Laura 147167; sold to J. W. Reed. 105. Wild Addie 153054; sold to J. W. Reed. 130. Lady Beau Donald 2d 148333; sold to J. W. Reed. 150. Merry del Val 164842; sold to F. P. Jordan. 150. Truelove 154409; sold to Thos. Taylor. 160. Marianne 136344; sold to I. E. Lambert, Emporia, Kans. 150. Amulet 159716; sold to J. D. Canary, Tyro, Kans. 200. Saucy Paol 154407; sold to F. B. Jordan. 160. Ladislau 165161; sold to J. W. Reed. 130.

The J. R. Young Poland-China Sale.

On December 11, at Richards, Mo., occurred one of the greatest Poland-China sales of the year. This was a draft from the Chestnut Grove Herd belonging to J. R. Young, the breeder of champion Poland-Chinas. Chestnut Grove Farm has to its credit Missouri's Black Chief 19399, Missouri's Black Perfection 26517, and Mascot 31481, which is enough to make the reputation of any breeding establishment. There was a large and enthusiastic crowd present and the sale was altogether the greatest sale held west of the Mississippi. A number of good Kansas breeders were in attendance and several of these choice hogs were brought to this State. The top of the sale was of course brought by Mascot, the young herd-boar, who is a son of Missouri's Black Perfection and a grandson of Missouri's Black Chief. His dam is straight Sunshine. With such a combination of blood lines and J. R. Young to breed and develop, it is no wonder that Mascot was a prize-winner at Missouri State Fair and that he brought the neat little sum of \$1,480 in this sale. The writer had personal knowledge of

PARALYSIS IN HOGS.



Y THIS we refer more particularly to the loss of use of the hind quarters. The first symptoms are shown by slight stiffness, disinclination to move, the back may also be slightly arched and the hind legs will knuckle forward. During the growth of young animals

food rich in nitrogenous material must be supplied, such as bran, middlings, and oats, in milk, beans, and peas, as these go directly to the construction of bone, lean meat, tendons, hoofs, hair, etc. If such materials are not supplied and much fat forming food is allowed, such as corn, the weight of the animal becomes too great. The muscular structures are not sufficient to sustain it. The conducting power of the nerves is impaired, and from some slight exciting cause complete paraplegia, or paralysis of the hind quarters, will ensue.

When attacks come on, give good surroundings and give a physic. For a pig castor oil in one- or two-ounce doses; for older animals, one to two or even three ounces of Epsom salts dissolved in a half-pint of water should be given in gruel or as a drench at once.

This should be followed by the administration of iodide of potassium in 10- to 15-grain doses three times a day. If this is not followed by improvement, nerve tonics should be employed, such as tincture of nux vomica in 10- to 30-drop doses, three times a day in gruel. Stimulating liniments or friction to the back is often valuable.

As after treatment or as preventive—there is nothing else equal to Dr. Hess Stock Food, the great hog tonic—the great live-stock reconstructive. It takes hold of every vital organ; revives every function; gives a sharp appetite and strong digestion, which is followed by quick assimilation of the food eaten and very rapid growth in solid flesh. It keeps the animal free from disease by giving it the vitality necessary to resist and throw off the cause of disease.

Dr. Hess Stock Food is the scientific compound for horses, cattle, hogs, and sheep, formulated by Dr. Hess (M. D., D. V. S.) Sold on a written guarantee, 100 pounds for \$5—except in Canada and on Pacific Slope—smaller quantities at a slight advance; fed in small dose. For any disease or condition for which Dr. Hess Stock Food is not recommended, the little yellow card in every package entitles you to a letter of advice and special prescription from Dr. Hess.

Dr. Hess has written a book on the diseases of stock and poultry. It is the only complete treatise for farmers and stockmen published.

Write and state what stock you have, and how many head of each; what stock food you have used; also mention this paper. Address Drs. Hess and Clark, Ashland, Ohio, and for this information you will receive this valuable book free, postage paid.

ZENOLEUM Famous COAL-TAR Carbolic Dip. For general use on live-stock. Send for 'Piggies' Troubles' and 'Zenoleum Veterinary Advisor' and learn its uses and what prominent stockmen say about it. Books mailed free. All druggists, or one gal., express paid, \$1.50; 5 gal., freight paid, \$6.25. ZENNER DISINFECTANT CO., 61 Bates St., Detroit, Mich.

HEIFERS FOR SALE.

Eight nicely bred Shorthorn heifers, three coming 3 years, and are due to calve next spring; five coming 2. Will price them at a bargain for want of room, Young bulls for sale. Address

DR. C. M. COE, 915 Walnut St., Kansas City, Mo.

WAGON BOXES \$10.25 Factory Prices to Consumer. EVERY BOX GUARANTEED. Best quality yellow poplar sides, long leaf yellow pine bottom, step da h, patent hinged end-gates, grain strips, anti-spreader chains, and rub-rins. Capital Boxes 26 in. deep, \$10.25. Capital Boxes 28 in. deep, \$10.90. Indiana Boxes 26 in. deep, \$12.50. Capital and Indiana Wagons are equipped with these boxes, which were bought at a forced sale, below actual cost—hence our low prices. Every box guaranteed as represented. If not satisfied, return at our expense and we will refund your money. You take no risk. 500 bu. Corn Crib, hard wood slats, 6 wire cables, \$4.45. 800 bu. Crib, \$5.40. 1000 bu. Crib, \$6.15; 1500 bu. Crib, \$6.75. These Bargains as Long as Stock Lasts; 19 in. Steel Beam Morrison Turning Plow L. H., \$4.25. 16 in. Wood Beam Morrison Turning Plow R. H. \$7.25. Our stock of self-fastening Showling Boards, \$1.25. Goods shipped same day order received. Our 200 page Illustrated Price Book FREE. Send 5c to pay postage. INTER-STATE MERCANTILE CO., 811 Walnut Street, KANSAS CITY, MO

an offer of \$1,000 for this boar made at the time of the Dietrich & Spaulding sale at Ottawa. This offer was refused.

A total of sixty-four head brought \$6,924, average \$108.18. Seventeen boars brought \$3,150, average \$185.30. Forty-seven sows brought \$3,724, average \$79.23.

Col. Harshberger, who was employed in this sale, considers it the best sale of Poland-Chinas that has been held west of the Mississippi River and feels quite jubilant over the results obtained. The sales in details were as follows:

- BOARS. Mascot 31481; sold to G. W. Brosh, Waynesville, Ill. \$1,480.00. Harmonizer, H. M. Kirkpatrick's, Wolcott, Kans., and M. S. Bock, Nortonville, Kans. 230.00. Chief's Second; Will Crowley, Richards, Mo. 75.00.

Fancy's Chief; Darnall & Sooter, Minier, Ill.....	400.00
Litter Brother, W. B. Van Horn, Lone Star, Kans.....	130.00
Litter Brother; C. C. Browning, Appleton City, Mo.....	34.00
Chief Gem 2d; J. F. McDonald, Canney, Ill.....	180.00
Garnsey; J. M. Francis & Son, New Lenox, Ill.....	50.00
Chief 2d Lady; J. A. Rosenberry, Goodwine, Ill.....	110.00
Chief 2d Lass; W. W. Wilkerson, Cynthiana, Ill.....	70.00
Lady Perfection, Cunningham Bros., Carruthersville, Mo.....	67.50
Fancy's Gem, Cunningham Bros.....	67.50
Jewel Fancy, C. N. Sooter.....	66.00
Lady Fancy, Darnall & Sooter.....	86.00
Silk Perfection, E. H. Ware, Douglas, Ill.....	135.00
Lady Silkey, W. N. Biehle, Belleville, Ill.....	70.00
Lady A., John Salmon, Madison Mills, Ills.....	85.00
Lady B., M. A. McDonald, West Lebanon, Ills.....	50.00
Lady C., John Francis & Son.....	62.50
Black Chief's Governess, A. G. Knight, Trenton, Mo.....	185.00
Litter Sister, Harris & Goodwine, Harrison, Ind.....	130.00
Chief's Governess, Ira Bryan, Ohio, Ill.....	95.00
Chief's Governess 2d, Geo. M. Lukens, Disco, Ill.....	50.00
Chief's Governess, 3d, S. H. Taylor, Decatur, Ill.....	95.00
Chief's Governess 4th, M. A. McDonald.....	65.00
Missouri's Fancy Perfection, H. H. Harshaw, Butler, Mo.....	142.50
Winnie's Lady, A. G. Knight.....	100.00
Winnie's Lass, C. B. Wells, Sedalia, Mo.....	60.00
Winnie Girl, W. W. Wilkerson & Son.....	65.00
Goldie's Black Chief, W. R. Crowther, Golden City, Mo.....	77.50
Goldie's Fancy Chief, M. J. Michaels, Calumet Harbor, Mich.....	42.50
Gold Perfection, H. H. Harshaw.....	34.00
Lady Goldie, W. H. Sherrick, Centerville, Mo.....	52.50
Harmonize, A. G. Knight.....	155.00
Lady Shine, E. E. Axline, Oak Grove, Mo.....	82.50
Major Delmar, R. R. Stafford, Minier, Ill.....	110.00
Lou Dillon, E. E. Darnall, Arming-ton, Ill.....	95.00
Litter sister, Jessie Spurling, Level, Ohio.....	85.00
Lady Priceless, U. S. Ison, Butler, Mo.....	52.50
Lady Price, W. H. Sherrick.....	43.00
One Price Lady, Dietrich & Spaulding, Richmond, Kans.....	31.00
Queen Anna, H. M. Kirkpatrick.....	36.00
Lady Anna, Geo. N. Lukens.....	79.00
Anna Lady, Geo. N. Lukens.....	75.00
Missouri's Anna, Frank Zimmerman, Centerville, Kans.....	41.00
Black Chief, W. H. Sibbett, Spencer, Ind.....	82.50
Anna's Chief, James Frant, Scammon, Kans.....	40.00
M. B. P. gilt, Wilkerson & Son.....	28.00
Litter sister, Frank Zimmerman.....	26.00
Perfection, J. F. Laing, McLouth, Kans.....	50.00
True Black Perfection, G. L. Richmond, Liberal, Mo.....	27.00
Junior Black Chief, Harry Evans, Pleasanton, Kans.....	20.00
Prince, Dietrich & Spaulding.....	23.00
2d Prince, Dietrich & Spaulding.....	16.00
Prince Perfection, Harry Evans.....	16.00
I Am Lady, H. N. Holdeman, Girard, Kans.....	95.00
Governess, M. A. McDonald.....	100.00
Winnie Sunshine, H. Driffeld, Keokuk, Iowa.....	255.00
Goldie Perfection, J. W. Brock.....	155.00
Perfection Fancy, T. P. Sheehy, Amos, Mo.....	115.00
Lady B. C., T. P. Sheehy.....	175.00
Lady One Price, John Bollin, Leavenworth, Kans.....	77.50
Substitute for No. 65, John Bollin.....	41.50
Sunshine Hulda, E. E. Axline.....	46.00
Stylish Queen, Will Crowley.....	35.00
Proud Correctress, W. W. Wilkerson.....	115.00
Predominator sow, H. M. Kirkpatrick.....	36.00
Prue, J. L. Clark, Bolivar, Mo.....	70.00
Keep On sow, Leon Calhoun, Potter Kans.....	54.00
Prudence, L. C. Caldwell, Moran, Kans.....	50.00
Chip Off the Old Block, W. B. Winsor, Booneville, Mo.....	50.00
Lad Prenomenon, Harry Evans.....	22.00
Litter sister, John Bollin.....	24.00
Princess, Dietrich & Spaulding.....	25.00
Turley's Choice, J. L. Clark.....	25.00
I Am Prince, J. E. Lawson, Richards, Mo.....	23.00

calved May 21, 1902; sold to Allen Thompson, Galesville, Wis.....	105
Carlotta of La Crew, calved April 13 1899; sold to G. W. Snisher, Lost Creek, W. Va.....	105
Oslin 30th, calved July 7, 1896; sold to A. W. Groth, Spencer, Iowa.....	145
Duchess Ronald 3d, calved December 6, 1899; sold to George Braham, Brooklyn, Wis.....	80
Lady Brook of Beechland, calved March 10, 1894; sold to J. D. McGregor, Brandon, Man.....	130
Blue Bell 6th of Tillyfour, calved October 20, 1899; sold to Geo. Braham.....	100
Mae M., calved November 7, 1897; sold to W. W. Withee, La Crosse, Wis.....	175
Elmwood Rosabella, calved August 21, 1900; sold to George Prahm.....	80
Hazel of Mount Vernon, calved May 21, 1899; sold to J. D. McGregor.....	165
Cloverlane Pansy Lass, calved March 19, 1902; sold George Braham.....	75
Zara Hall, calved March 7, 1901; sold J. D. McGregor.....	140
Bernice F., calved June 20, 1899; sold to W. J. Pickard, Richland Center, Wis Jlt 12th, calved January 3, 1898; sold to C. J. Off, Peoria, Ill.....	140
Imp. Pride 9th of Braevall, calved March 20, 1896; sold to J. W. Austin, Carrollton, Mo.....	460
Pride of Cherokee 3d, calved March 18, 1902; sold to James Williams, Marcus, Iowa.....	280
Eunice of Estill 4th, calved December 23, 1896; sold to T. J. Vidler, Pana, Ill.....	230
Maggie of Longbranch, calved April 10, 1897; sold to J. D. McGregor.....	150
Rosa Bonheur of Woodland, calved May 27, 1897; sold to W. L. Morrison, Peel Tree, W. Va.....	125
Isama, calved June 9, 1895; sold to Leslie Scott, Bangor, Mich.....	250
Rubicon Mignonne 12th, calved March 23, 1901; sold to J. D. McGregor.....	160
Miss Watson of Nachusa 5th, calved November 27, 1901; sold to J. D. McGregor.....	110
Edith Belle 2d, calved 30, 1901; sold to A. C. Binnie, Alta, Iowa.....	140
Pride of La Crew 3d, calved September 18, 1901; sold to J. D. McGregor.....	120
Primrose of Metz, calved February 12, 1902; sold to J. D. McGregor.....	120
Black Duchess 3d, calved March 10, 1900; sold to Fred Pine, Helena, Ky.....	95
Imp. Pride of Aberdeen 180th, calved December 25, 1900; sold to William Miller, Storm Lake, Iowa.....	350
Midwood 2d, calved September 15, 1902; sold to W. L. Morrison.....	135
Mae P., calved April 6, 1893; sold to Thomas Mattinson, Jr., South Charleston, Ohio.....	80
Excello Vina, calved August 17, 1901; sold to J. D. McGregor.....	120
Maggie W., calved March 30, 1896; sold to C. H. Davis, Fairdale, Ill.....	95
Lady Maggie 3d, calved October 9, 1900; sold to Allen Thompson.....	100
Violenta's Virgie, calved April 2, 1896; sold to J. D. McGregor.....	30
Clover Lassie, calved December 19, 1899; sold to C. H. Davis.....	123
Pride 9th of Woodlawn, calved March 29, 1898; sold to W. K. Hense.....	280
Heather Bloom of Pope River, calved November 20, 1896; sold to J. D. McGregor.....	110
Rose of Glendale 3d, calved August 8, 1896; sold to J. D. McGregor.....	100
Queen Fay R., calved February 11, 1896; sold to Cantine Bros. & Stevenson, Holstein, Iowa.....	150
Cranewood Barbara 3d, calved August 16, 1901; sold to J. D. McGregor.....	130
Wea Mina 10th, calved November 7, 1901; sold to W. L. Morrison.....	175
Maiden of Nachusa 5th, calved October 10, 1902; sold to J. D. McGregor.....	115
May P. 5th, calved February 1, 1899; sold to A. C. Binnie.....	240
Heather Bloom of Cherokee 10th, calved April 29, 1902; sold to James Williams.....	150
Hattie 5th of Alendale, calved October 6, 1895; sold to C. H. Davis.....	100
Orphan Duchess 2d, calved January 26, 1901; not sold.....	
Aberdeen Park Emily 2d, calved February 16, 1898; sold to J. D. McGregor.....	140
Lois M., calved May 16, 1899; sold to C. H. Davis.....	110
Belmonet, calved February 21, 1901; sold to G. E. Aiken, Aledo, Ill.....	140
Nightingale Roxie, calved December 2, 1896; sold to J. D. McGregor.....	310
Rutger Gratitude 8th, calved June 12, 1900; sold to A. W. Groth.....	135
Willow's Celeste, calved June 20, 1898; sold to J. D. McGregor.....	115
Winged Crescent Girl 14th, calved September 1, 1899; not sold.....	
Easter Tulloch Blossom, calved April 18, 1901; sold to J. E. Junk, Stuart, Iowa.....	100
Blithe Beauty 3d, calved December 31, 1897; sold to W. J. Pickard.....	145
Imp. Pride of Garty 2d, calved December 25, 1896; sold to M. C. Stone, Milan, Mo.....	415
Olga 2d, calved October 8, 1900; sold to J. D. McGregor.....	110
Heather Bloom of Cherokee 9th, calved April 2, 1902; sold to J. E. Reed, Aledo, Ill.....	150
Knodley's Rex, calved May 1, 1902; sold to G. W. Snisher.....	105
Celeste 2d, calved June 5, 1900; sold to C. H. Davis.....	85

The International Angus Sale.

The closing sale of pure-bred live stock for the International week was that of the Angus cattle. This was crowded out of our report of last week but we take pleasure in giving it now. This sale was under the management of W. C. McGavock, Mt. Pulaski, Ill., and was in direct charge of Cols. F. M. Woods, Carey M. Jones, and Silas Igo. The prices were wonderfully even and the result quite satisfactory. The offering was a good one, generally, and resulted in a general average of \$172.

The details of the sale are as follows:

FEMALES.

Imp. Pride of West Watten, calved April 9, 1901; sold to J. M. Pickrel, Georgetown, Ky.....	405
Heather Bloom of Cherokee 11th, calved April 30, 1902; sold to W. K. Hense, Wayland, Iowa.....	130
Imp. Snowflake 2d of Kirkbridge, calved June 8, 1902; sold to W. J. Miller, Metz, Iowa.....	245
Lady Luella of Oakwood; calved December 18, 1896; sold to H. H. Anderson, Laredo, Mo.....	85
Imp. Elsy 17th of Craighead, calved June 11, 1897; sold to A. Benham, Minneapolis, Minn.....	295
Lucia Estill 2d, calved September 29, 1896; sold to A. R. McMillan, Waterloo, Iowa.....	285
Queen's Blackcap 3d, calved April 19, 1902; sold to J. H. Moore, Georgetown, Ky.....	130
Blackwood 11th, calved September 11, 1897; sire, Emulus; sold to W. K. Hense.....	255
Nosegay Fancy 3d, calved September 5, 1901; sold to H. H. Anderson.....	115
Princess Dagmar M. 2d, calved December 2, 1900; sold to W. K. Hense.....	125
Heather Bloom of Cherokee 12th,	

Keep Your Eye On This Space

Our special proposition is being perfected in every detail this week and will interest every Dairyman within 500 miles of St. Joseph, Mo. Particulars in our next issue.

Blue Valley Creamery Co., St. Joseph, Missouri.

Black Leg Vaccine PASTEUR VACCINE CO. CHICAGO SAN FRANCISCO

BLACKLEG

BEST PREVENTIVE



VACCINATE your cattle with **Blacklegoids**—the simplest, safest, surest preventive of Blackleg. Each **Blacklegoid** (or pill) is a dose. Administration with our **Blacklegoid Injector** is performed in one minute. We establish the purity and activity of our **Blacklegoids** by rigid tests upon animals. For sale by druggists. Write us for literature—free on request.

PARKE, DAVIS & CO.
DETROIT, MICHIGAN.
BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Minneapolis, Indianapolis, Memphis, Walkerville, Ont.; Montreal, Que.; London, Eng.

Riverside Hereford Herd At Auction

December 22, 1903, Commencing at 1 p. m.

At my farm, 2 1/2 miles north of Chanute, Kans., I will sell my entire herd, consisting of my herd-bull, Watchman 126512, a son of Beau Brummel; a 2-year-old bull, a grandson of Corrector; and 7 young bulls from 10 to 20 months old; 22 heifers and 23 cows, 5 of which have calves at foot. Write for catalogue and compare the breeding of these cattle with any in the country, and attend the sale. All these cattle will sell without reserve, having rented my farm. All other personal property will sell in full of this date. Conveyance will be furnished from Chanute to farm for all so desiring, and free lunch at noon.

Cols. J. W. Sparks, H. Johnson, Auctioneers. D. L. HOUSTON, Chanute, Kans.

..Cash For Cattle..

Registered cattle, all beef breeds, **Shorthorns, Herefords, Angus, and Galloway** bulls and heifers, singly or in car-lots, at right prices, always sold strictly on their merits and strictly on commission.

Mr. Buyer: These cattle, from 100 to 300, can always be found in our barns in South Omaha. They are consigned to us by the best breeders in America, and you can get a choice of thirty different men's breeding. We always have some choice herd-headers of the very best breeding; have your commission man select one for you if you can not come.

Mr. Breeder: Adopt new methods and consign your registered bulls to us. We will sell them for what they are worth and entirely to your satisfaction. We sold in the last three months over 1000 registered bulls and heifers. Ship us no cattle without first writing us. Our charges are \$10 per head and 30 cents per day for feed and care. We have stall room for 250 head.

On September 1st we received a large consignment from the noted herd of W. D. Flatt, of Hamilton, Ontario, both bulls and heifers. This is a chance to get some good ones.

Address all communications to us at Lincoln, Nebraska. **WATSON, WOODS BROS. & KELLY CO.**

1901; sold to J. D. Blackwell, Fayette, Mo.....	230
Duke of Huron, calved January 18, 1900; sold to Burr Latta, Tekamah, Neb.....	120

Gossip About Stock.

I. N. Willhide, Great Bend, Kans., purchased at private sale of M. O. Kilmer, McPherson, the herd-bull, Perfect Sunshine. The price was \$50.

F. L. McClelland, Berryton, Kans., the breeder of Duroc-Jersey swine who monopolized the prizes of that breed at the

late State Fair, reports the sale of a choice boar to Chas. Nelson, banker, Fort Scott, Kans.

C. M. Garver & Son, Abilene, Kans., have sold their herd-boar, Hard To Beat 29612, to W. G. Merritt, Great Bend, Kans. This hog is a 1902 American Royal prize-winner and will add greatly to Mr. Merritt's excellent herd.

On February 10 and 11, 1904, there will be a breeders' combination sale of Poland-China hogs and Shorthorn cattle at the Forest Park Sale Pavilion, Ottawa, Kans. The cattle sale will be held on the (Continued on page 1302.)

The Young Folks.

CONDUCTED BY RUTH COWGILL.

SANTA CLAUS UP TO DATE.

"Twas the night before Christmas," and
—Oh, yes, I know
That's scarcely original, still it'll go.
It's just what I wanted to say, you'll admit.
And it's easier far than to write one to fit.
'Twas the night before Christmas and
Dick was in bed,
When he heard a light step on the roof
overhead,
And a rattle of boots in the chimney, and
knew
It was Santa, so down the front stairway
he flew
And peeped in the parlor and there, sure
enough,
Was that little old gentleman, ruddy and
bluff,
With his thick, bushy whiskers and jolly
red nose,
And the pack that he carries wherever he
goes.
But his dress, well, what student of story-
book lore
Saw Santa Claus dressed in a sweater be-
fore?
Or in trousers of plaid, while the stock-
ings he sported
Were the kind Anglomaniacs lately 've
imported,
Called "golfers." In short, his attire was
so queer,
Dick's gasp of surprise reached the old
feller's ear.
"Come in," said he, kindly, "I really
would like
To have some one to talk to. Say, how
do I strike
Your critical eye? Aren't these golf stock-
ings nice?
I fancy that they cut considerable ice.
What! Surprised at my slang? I don't
know why you should be,
It's strange how the people have misun-
derstood me,
I'm not the old fossil the story books
state;
I'll have you to know that I'm right up-
to-date.
My reindeer? you ask. My dear boy,
they're too slow
For this wide-awake age, they've been
sold to a show.
I'm riding a wheel and I fancy myself
I could put a few racers away on the
shelf.
If I ever started to beat 'em. Let's see,
My cyclometer tells me I've ridden just
three
Hundred thousand and twenty-five miles
since I started,
And—My! that reminds me, it's time I de-
parted.
So long—See you later." He stepped to
the flue
And giving a jump quickly vanished from
view,
And Dick reached the window in season
to spy
The flash of his lamp as his cycle whizzed
by.
A glimpse in the road where the bright
moonlight shone,
A speck in the distance, and Santa was
gone.
And said Dick, as he slowly went back to
the fire:
"Say, what would he do if he punctured
a tire?"
—Joe Lincoln, in L. A. W. Bulletin.

AN UNFORTUNATE BROTHER.

I des so weak en sinful
Or else, so old en po'
Dat Mister Chris'mus done fergit
De number on my do'!

I tell him, "Heah I is, suh!
You been dis way befo'!"
But Mister Chris'mus done fergit
De number on my do'!

I see him fin' de rich folks,
Dat des don't want no mo'!
But—good Lawd knows, he done fergit
De number on my do'!

I wonders, en I wonders
Des why he slight me so?
I hopes de Lawd'll show him
De number on my do'!

—Atlanta Constitution.

Bonny Prince—The Autobiography of a Collie Dog.

MARION SEWELL.

CHAPTER VI.—MISS SIBYL OVERBRIGHT.

For a little while, after I captured the wicked robber, I attracted so much attention that it made me uncomfortable. Everywhere I went, people would point at me and say, "There's the dog now. Handsome, isn't he? pure Collie, I believe." One man with long whiskers said that I wasn't a pure Collie at all; I was just "cross." It made me very angry to be spoken of in this manner, for it was he, and not I, that was out of humor, because I felt happy and wagged my tail all the time, which was the only way I had of thanking people for their compliments.

After a few days (I think it was nine), everybody seemed to have forgotten all about me and my brave act. I was passed on the street without a second glance, and although I walked very proudly no one gave me more than half the sidewalk. Well, I was young then, but I have since learned that a fellow might capture a whole army of thieves and his name would be forgotten in a few hours.

I said every one overlooked me, but of course I do not include Howard or any of the rest of the family in this

list of selfish humanity. Hardly a day passed without little master reminding me of being his "dear hero dog;" and then, to show his appreciation, he did something that I considered both clever and thoughtful.

On those warm afternoons, I made it a practice to take a nap on a bed of moss under a low-branching tree. It was exceedingly cool there and I was very comfortable. The bed of moss I suppose belonged to Mrs. French, but as she had often found me there and made no remark, I saw no reason why I should give it up. To be sure, some pretty blossoms at times appeared and I enjoyed them, but usually the plants were pressed too close to the ground to make much of a show in blooming.

At any rate, I awoke one evening after a long, refreshing sleep and was surprised to see a slim, yellow chain dangling from behind my ear. I got up and shook myself, thinking I had fallen into my old habit of dreaming, and then I noticed for the first time that my collar had grown quite heavy while I slept. I shook myself again to make sure and was startled to hear a strange laugh close behind me. Looking up, on the vine-covered porch I saw the smiling faces of Master Howard, his papa and mama, Aunt Lucy, and a strange young lady. I quickly ran up the steps, and as I passed the visitor she put out her hand and stopped me.

"So this is Bonny Prince," she said, laughing and laying her head on one side. "I saw you over on the flower-bed studying botany and I had no idea that you were so pretty."

"Run in, Howard, for a mirror, and let Bonny Prince see how handsome he really is," said Mr. French, looking at me proudly.

In a moment Howard returned with a wide, bright glass and held it up before me. The first thing that attracted my attention was a beautiful gold collar which fitted snugly about my neck. Out of it hung the golden chain that had puzzled me when I first awoke and I knew from the joyous face of Master Howard that it was he who had given me this fine present.

Not knowing how to thank him for his generous gift, I licked his hands and looked into his face; then I laid my head close against his knees.

"See, Miss Overbright!" exclaimed Mrs. French, admiringly, "how that dog tries to speak his gratitude for his gold collar."

"Bless his heart! Is that the first time he knew he wore a collar?" asked the young lady, opening wide her big eyes.

"He had a silver collar," explained Aunt Lucy, "and Howard changed it while he slept, and now he knows the difference at once."

"You'll have to look around for a guardian right away, Howard," Miss Overbright said, turning to little master, "for the collar is very valuable—more so than the Collie, I guess."

"Money wouldn't buy that dog," Mr. French remarked in a decided tone, and as I looked at him gratefully he put out his hand and the next moment his fingers closed over my proffered paw.

I then thought it only the part of politeness to shake hands with the whole company. When it came Miss Overbright's time, she gazed at me with pretended astonishment.

"Dearie, me!" she cried, "hasn't he unnaturally big feet?"

Upon hearing this remark I felt very much ashamed of my feet, and lying down flat I gathered them under me, clear out of sight. At this, everybody laughed loudly—that is, all except Master Howard, who said, looking very solemn, "Miss Sibyl, you must remember Bonny Prince is a large dog."

"Sure enough," she answered, with another merry laugh; "and I am afraid that he has better manners than I. But Lucy knows that I was always pretty much of a critic, and before I am done with Bonny Prince I want to know if he is really and truly a Scotch Collie."

"I should say so," spoke out Master Howard. "Why, everybody knows that!"

"I believe he is a true Scotchie," returned Mr. French, smiling at Howard's enthusiasm. "At least, I was told

so by the old gentleman of whom I bought him when he was only a scrap of a pup. I paid a cool fifty for him, all right."

"He has such beautiful curly hair. Although I never saw a Collie before, I was under the impression that their hair is short," remarked Miss Overbright, smoothing my neck as she talked.

"Maybe Bonny Prince is a freak of nature. He's a dear, anyhow. Did you notice the inscription on his collar, Sibyl?" asked Aunt Lucy. Miss Overbright bent over me and read aloud, "Bonny Prince. For courage. May 17, 1892."

As she finished reading, I was called to supper, and off I bounded with Howard skipping close behind me.

I did not like Miss Sibyl Overbright very well. She seemed to have set her heart on making fun of me.

(To be continued.)

For the Little Ones

CHRISTMAS EVE.

[One of the little friends of the Kansas Farmer has written the following verses about Christmas.]

Father and mother creep around,
Do not dare to make a sound.
The children all are safe in bed—
Don't hear father's stealthy tread.

The stockings are hung upon the shelf,
Waiting for Santa, dear old elf!
Father fills them up with care,
Tries to fill them just and fair.

Mother stands at other end,
And a helping hand will lend.
When they all are filled up tight,
They will settle for the night.

But the children softly sleep,
Don't hear father's accents deep,
Till the sun peeps in to say,
"Don't you know it's Christmas Day?"
—C. Ruth Thomas, 12 years old.

YES, COME! DEAR, DEAR CHRISTMAS!

All frosty cold stands Christmas
At Winter's snowy gate;
"Good people, may I not come in?
The year is growing late."
Yes, come! dear, dear Christmas!"

"My baskets are so heavy
With gifts for young and old;
Dear children, quickly let me in,
I shiver with the cold!"
"Yes, come! dear, dear Christmas!"

"I bring," says dear old Christmas,
"The fir-tree and the pine;
I bring the lighted candles, too,
Among their boughs to shine."
"Oh, come, dear, dear Christmas!"

"I bring in joyous echoes
A song from heaven above;
Good people, in your hearts make room
For peace, good-will and love."
"Oh, come! dear, dear Christmas!"
—Emilie Paulsson, in Kindergarten Review.

LITTLE CHRISTMAS TREE.

How do you like, little Christmas tree,
Way over the fields and woods to come
This wintry day, and be planted here,
For a little while in our happy home?
What do you think of these beautiful things,
Brought by hands loving, and soon to be—
Oh, were there ever such wonderful kinds!—
Fruit of yours, spicy and green Christ-
mas tree?

What do you think of these children dear,
Who crowd up to see you, straight and tall?
Aren't they, to fathers and mothers kind,
The very loveliest presents of all?
Was it not cold there,—far off on the hill
Where the white snow lies, and the
north winds blow?
Where other trees, and the grass and the
flowers,
Wait, softly sleeping, till spring bids
them grow?
—A. S., in Child-Garden.

CHRISTMAS SONG.

Why do bells for Christmas ring?
Why do little children sing?

Once a lovely shining star
Seen by shepherds from afar,
Gently moved until its light
Made a manger's cradle bright.

There a darling baby lay
Pillowed soft upon the hay,
And its mother sang and smiled,
"This is Christ, the holy child."

Therefore bells for Christmas ring,
Therefore little children, sing.
—Eugene Field.

Ray's Christmas Presents.

Christmas was coming, you could smell it and feel it and see it coming. Down town, the stores were full of dolls and toys and all kinds of pretty things. Out of doors, the snowflakes chased each other around, and in the house every one whispered and looked mysterious.

Ray sat before the window with his

chin in his hand, thinking. He didn't have much money because every time he went into a store where there was candy it looked so good that he felt that he just must have some; but he was not a selfish little boy and now he was sorry that he had spent so much money because he wanted to get some Christmas presents. At last, he got up, went to his sister, who was busy making candy, and said:

"Mabel, won't you help me make something for mama?"

But his sister said: "O dearie, you must run away; it's all sister can do to make her own Christmas presents."

Then he went to find Aunt Lucy, but Aunt Lucy was in her room and had her door locked, and mama was not at home. What was he to do?

He sat down again before the window to think some more. Finally he decided to go and see Auntie Wilson; she always had time to help him out of his troubles. Auntie Wilson was not Ray's real aunt, but just a very dear lady whom every one called auntie; and when Ray told her his trouble, she said, "Of course I will help you, dear, what do you want to make for mama and papa and Mabel and Aunt Lucy and Jack?"

"That's the trouble," said Ray. "I don't know what to make for them."

"Well, let me see," said Auntie Wilson, and she thought a long while, then said:

"I know what we will do, we'll make posters for them. We'll look through these magazines and find some nice pictures and then mount them on pasteboard."

And they went to work looking through the magazines and taking all the pictures that seemed good for their purpose; then they looked through the pictures which they had cut out and chose one picture for each person. Jack was a big boy who liked all kinds of sports, so they chose a cowboy on a horse for him and mounted it on the lid of a red pasteboard box. They got a pretty girl for Mabel and mounted it on the lid of another box which they painted with gilt paint. For mama, they took a picture of a woman with a baby, and for Aunt Lucy they found a picture of a little colored boy, because Aunt Lucy liked colored boys. They mounted these two on black cardboard.

Then, after they had made a shaving-ball out of tissue paper for papa, Ray trudged home through the snow, perfectly happy.

Death to the Buzzer.

Music, we have been told, has charms to soothe the savage breast, and now we are informed that it has power to destroy the bloodthirsty mosquito. Of all the devices for getting rid of this pest, this seems to be the pleasantest. Pouring oil upon the troubled waters is all well enough in the exterminating line, but if we can get rid of the buzzer with a musical note, we may prevent an advance in the price of kerosene.

The selectmen from Brookline, we learn, have received a communication calling attention to a new process of lessening the mosquito evil by means of musical sounds, and the matter has been referred to Albert C. Nyhen of the bacteriological laboratory. We hope that he will discover that the remedy is efficacious, and if he does we shall rest happy without even a netting to disturb our slumber. It is said that the mosquito will drop lifeless upon the properly manipulated musical instrument without presenting his bill, and this is certainly a poetic way of ending his singing and stinging existence.—Ex.

Fish kept in filtered water will die. This is because the nutriment in the fluid has been filtered out of it. What is nutriment to the fish, however, proves injurious to mankind when it is taken in a beverage.

Strange to relate, more people live to be centenarians in warm countries than in cold ones.

There is nothing else on earth so annoying as procrastination in decisions.

The Home Circle.

CONDUCTED BY RUTH COWGILL.

[By request, we print Christmas poetry this week, in order that it may be available for recitation.]

THE LONG-AGO CHRISTMAS.

A good old-fashioned Chris'mas, with the logs upon the hearth,
The table filled with feasters, an' the room a-roar 'ith mirth,
With the stockin' crammed to bustin' an' the medders piled 'ith snow—
A good old-fashioned Chris'mas like we had so long ago!

Now that's the thing I'd like to see ag'in afore I die,
But Chris'mas in the city here—it's different, oh, my!
With the crowded hustle-bustle of the slushy, noisy street,
An' the scowl upon the faces of the strangers that you meet.

Oh, there's buyin', plenty of it, of a lot o' gorgeous toys,
An' it takes a mint o' money to please modern girls and boys.
Why, I mind the time a jack-knife an' a toffy-lump for me
Made my little heart an' stockin' jus' chock-full of Chris'mas glee.

An' there's feastin'. Think o' feedin' with these stuck-up city folk!
Why, ye have to speak in whispers, an' ye dar'sn't crack a joke.
Then remember how the tables looked all crowded with your kin,
When you couldn't hear a whistle blow across the merry din!

You see I'm so old-fashioned like, I don't care much for style,
An' to eat your Chris'mas banquets here I wouldn't go a mile.
I'd rather have, like Solomon, a good yarb-dinner set
With real old friends than turtle soup with all the nob's you'd get.

There's my next-door neighbor Gurley—fancy how his brows 'ud lift
If I'd holler "Merry Chris'mas! Caught, old fellow, Chris'mas gift!"
Lordy-Lord, I'd like to try it! Guess he'd nearly have a fit.
Hang this city stiffness, anyways, I can't get used to it.

Then your heart it kept a-swellin' till it nearly bu'st your side,
An' by night your jaws were achin' with your smile four inches wide,
An' your enemy, the wo'st one, you'd just grab his hand, an' say:
"Mebbe both of us was wrong, John. Come, let's shake. It's Chris'mas day!"

Mighty little Chris'mas spirit seems to dwell 'tween city walls,
Where each snowflake brings a soot-flake for a brother as it falls,
Mighty little Chris'mas spirit! An' I'm pinin', don't you know?
For a good old-fashioned Chris'mas like we had so long ago.

—Alice Williams Brotherton, in Century Magazine.

ON CHRISTMAS EVE.

If good St. Nicholas should come
Across the whitened roofs to-night,
A host of treasures bringing from
His distant Castle of Delight;
If he should come, as once he came,
And at my chimney-top draw rein,
That I my dearest wish might name,
As if I were a child again;

Of all the good and gracious store,
Wherewith the hearts of men he cheers,
One thing alone I'd covet more
Than all the gifts of all the years;
One thing could give the Christmas bells
The sweetness of their old refrain,
And fill the night with fairy spells,
As if I were a child again.

What matters it, dear love of mine,
That you were only eight or so,
And I a little lad of nine,
That night beneath the mistletoe?
The magic of it lingers yet,
And all the waiting and the pain
At thought thereof I can forget,
As if I were a child again.

Once more, as in the long ago,
On Christmas eve with you to stand,
Alone beneath the mistletoe,
To see your eyes, to touch your hand;
Ah, could the Saint but grant me this,
I would not say with fine disdain,
"I think I'm most too old to kiss,"
As if I were a child again!

—Guy Wetmore Carryl, in Harper's Magazine.

Christmas Decoration.

A sure indication of the growth of our æsthetic sense or tastes is the enormous sale and increasing use of decorative plants in our places of business, in our churches, and in our houses during the cheery festive season of Christmas and New Years.

We may ask, where does this idea come from? Why should we associate these plants with Santa Claus, with snowy winter, with good cheer, altruism, unselfishness, and with our burning desire to give some kindly token of love or remembrance to somebody—the baby, the children, our parents, or some dear friend. There may be various reasons. It is a season of happiness. Man approaches the life of that great One in Whose memory this Christmas time is observed. The happy man is in love with nature; he lives, at least for a time, the precepts of the Golden Rule, "Through nature

to the highest." We love the wild breath of the woods, and the green verdure of earth; we love to breathe the cold, pure air of winter—to see the earth. Getting a glimpse of a larger life is to live. No less admired are the green and tender grass-blades, the glistening leaves of the poplar, the magnolia, and holly, the green sprays of the cedar, the hemlock, and the spruce, and the wide meadows where are the fragrant, showy flowers of springtime and summer. From May until September in our clime the whole earth is clothed in green—the waving grain-fields—the meadows, the hill-sides and trees. In fall and winter this beauty largely all disappears. The earth becomes bare and brown. The deciduous trees are leafless—resting in their winter sleep. By contrast the evergreen tree, shrub, or vine seems more beautiful, the pines, the hemlocks—and the spruces from far beyond show through the brown and gray network of the trunks and branches of the oak, the ash, and the hickory. The dark green cedars in the winding ravines of the hillside can be seen. The brown, dead-leaved beech stands drooping and alone among the wintry pines. And in among the dense growth of sweet gum, evergreen, red maple, and sycamores, stands the dark and heavy magnolia, the inviting holly—the prince of trees for the decoration of the Christmas home. Among the leaves of the forest carpets gleam the bright red fruits of the partridgeberry. We breathe the sweet incense of the trailing wintergreen as we tread upon its prostrate form. A half a hundred feet above us, securely perched on the limb of an oak, a sourgum, or a maple, is the coveted mistletoe.

As Christmas time nears us we see all these things in our walks and tramps and in our memories. We admire them, and we want them. We get them and use them as our own taste and desires prompt us.

The desirability or fitness of a certain plant depends largely upon where and how it is to be used. Some are more appropriate for store-window decorations than others. Some are better for the backgrounds of church pulpits and stages. Some are better for table and mantle-piece decoration. Some are better for wreathing and festooning. Many are more appropriate to give contrast, color and brightness than others. Many are incidental; Some few appropriate only for the dining-room. A few are of use because of sentiment associated with them. So on through the whole category of plants—one is more fitted for a particular place than are the others.

Our thoughts turn to Christmas eve, and to the Christmas tree (perhaps more correctly, to the presents on the tree). Systematic botany knows no such a thing as a Christmas tree. There is (in that sense) no Latin synonym to worry one's brain. It is just a tree. From the little child up to the grandfather it has a far dearer and deeper significance than "Kickxia spuria" or any other "educated" name. A Christmas tree should be an evergreen. These are beautiful and graceful; they are most appropriate for the time; and they appeal to our feelings more than deciduous trees do. All evergreen species are not well suited for this use. Of their great number only a few are appropriate. Among the ones preeminently suitable are, the red cedar, the Norway spruce, the common hemlock. Some of the pines, firs, and other cedars and spruces are good

but not equal to the first-named. The graceful, pyramided form, the upturned branches closely set on the trunk, and the foliage of the red cedar make it almost ideal. Small, well-grown, compact specimens are attractive and a neat ornament. The cedar is also very good for making forest-like settings on the stage or platform. A block of wood can be nailed to the bottom of the tree and they can be placed about on the stage in any desired landscape arrangement—or singly for a screen. The attractiveness of the Christmas tree is greatly enhanced by the proper use of various decorations such as fruits, cotton, popcorn lace, tinsel, candles, etc. With a good tree and good taste and care a truly beautiful object can be made, fit for any church or parlor. It can be the embodiment of grace and beauty, bearing our little gifts—and our kindest thought—"Good will towards men."

The Christmas tree is not all. We want our home, our church, and our schoolhouse all to look well; to be pleasing and attractive as they never were before. For this, we have a great number of plants to choose from, with which many beautiful effects can be produced. For ropes and wreaths for decorating our windows, doors, arches, and for hanging from the ceiling to various parts of the house or room, the small branches of pines, spruces, firs, and cedars are very good. These little branchlets may be tied to a strong cord or small rope and a useful, handsome wreath can be made, of any desired length. For this same purpose, some of the more coniferous evergreen trees are very good, such as the boxwood, sweet bay, the live oak, and others. After this comes a class of more delicate plants very useful in complete decoration. Among these are the club mosses, asparagus, ferns, greenhouse smilax, the Japan honeysuckle, the periwinkle, the beautiful English ivy.

For wall- and window-decoration, nothing in our country is more universally used than is our American holly. It well merits the first place in Christmas time decoration. Of the minor trees in our American forests, but few are of more value. Every winter, thousands of these beautiful trees are ruthlessly ruined by holly-hunters who climb these defenseless trees and wantonly cut off the branches one by one, and leave standing the disfigured and ruined trees—robbed of their beautiful green leaves and red berries. In its native home, there is no tree that appeals more to us.

As aids to brighten up the dark green aspect, there are many deciduous trees, shrubs, and vines that bear attractive, bright fruits. They can and should be used. We recognize the value of our native bittersweet, the euonymus, the snowberry, the coral berry, the buckbush, the mountain ash, the hawthorns, the barberry, and some of the dark-colored fruits as the privet, sourgum, English ivy, buckthorns, and others.

Thus far, scarcely any mention has been made of the usefulness of conservatory plants. It seems more to our liking that everything should be wild. But some of the greenhouse plants are hard to dispense with. Ferns are very useful. Geraniums are often helpful. Small palms almost always find a place. Smilax and asparagus are very good and useful. For table decoration, pot-grown strawberries are often used in connection with other plants. The pot and the plant with its ripened berries is placed on the table as any other plant would be. A good plant with green leaves, perfectly clean, and with large, bright red berries as of the Brandywine makes a very handsome object.

As aids in working up floral designs, the leaves of the English ivy, the violet, and galax are very good. The galax in some respects is a new plant, but it has much in its favor. All winter long, in Virginia, it may be found green and beautiful. It stands well, and its variation in color from green to bronze makes it more useful.

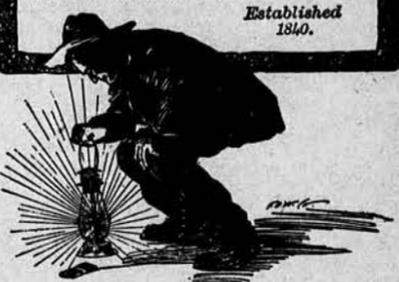
Christmas time, with Santa Claus, the present-laden tree, the open fire, and all, would not be complete without a clump of the legend-laden mistletoe.

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ROBT. E. EASTMAN.

We are very glad indeed to be able to present this excellent paper by the assistant horticulturist of the Agricultural college. It is true, is it not, that we neglect the means of artistic decoration, which grow at our very door, and sigh because we can not buy something? Our homes can be made very beautiful—transformed, indeed—by the judicious but generous use of the woodland stores. And if the children are allowed to help, it will be, by that much, a happier Christmas to them. They can cut the evergreen boughs, gather the bittersweet and the shumach, and the pine cones and nuts and bring in all the treasures of the wood. And then fill every corner, hang wreaths in the windows, drape chains of pine and cedar and string cranberries and popcorn about the walls. Letters can be cut from cardboard and covered with evergreen, or with bright-colored paper, or cotton, and made into words of cheer and welcome. If the whole family is allowed to participate in these pleasurable preparations, it will be light work, and the morrow will be the happier for each one having a share in it.

Where There Is no Christmas Tree.

In another column are some suggestions for Christmas decorations from the woods. But what of the places where there are no woods? In some parts of our State, a Christmas-tree is an expensive luxury, and the good old Saint has to think of some other receptacle for his gifts. There is the time-honored custom of hanging up the little stockings, and very jolly it is, indeed, to peep over the foot of the bed in the cold early morning and see one's stocking bulging out with queerly shaped packages. But the stocking idea has its limitations. The larger presents, like sleds and doll buggies, do not go in comfortably, and the candy and fruits are not at all improved in appearance by being "jammed" into its narrow limits.

There are, however, many delightful ways of disposing of the gifts. The children at our house are at present in painful doubt whether to ask Santa Claus for a tree or a fish-pond—which is high praise for the pond, for generally a tree is the child's ideal of Christmas decoration. A fish-pond is very simple to arrange. Curtain off one corner of the room—preferably near the chimney as suggestive of the mode of St. Nick's entrance. This forms the pond, whose banks (the curtain) should be about four feet high, to prevent the possibility of little eyes "peaking" over. The curtain may be decorated as much as you please, with bright-colored paper, pictures, leaves, artificial flowers, and all kinds of mottoes and legends, etc. One member of the family is concealed within this pond, with all the presents, which must have been securely labelled with the name of the person for whom they are intended. A long, stout stick, with a long string and bent pin, is provided, and then the fishing begins. Each person, from the smallest to the oldest, has a chance to fish. The person inside fastens a present upon the string, which is then drawn out, amid eager curiosity to know whose fish has come up each time.

I have a recollection of a very happy Christmas long ago, which must have called for some little thinking in the preparation. Our stockings were empty that morning, but upon each one, from the grandmother's down, was pinned a slip of paper. We looked at them curiously, and found upon each a verse, something like this—

"Go to the bureau and look with care,
Santa Claus left something for you there."

We scampered off in every direction, wherever we were directed by the rhymes, and found something nice,

and another slip, which told us to look again, in some other place. And so we had a merry chase for our nuts and our candy and our presents.

Another way that we have never tried because our family is so very large, is called the Christmas Pie. A very large flat pan is necessary for this. In it are put the smaller presents, all labelled and some of the nuts and oranges and apples. The pan is then filled with saw-dust, care being taken that the labels stick out. Then the family gathers around, each one looks for the label with his own name, and pulls out his plum.

One large family of which I know clears off the large dining-room table Christmas eve. Every one plays Santa Claus in this home, and brings a gift—sometimes ever so small, but always a token of thoughtful affection—and puts it, well wrapped and with name attached, upon the table. In the morning that table is truly an imposing sight, piled high with gifts of every variety. The father is then master of ceremonies. He picks up the gifts, one by one, reads off the names, and hands them to the others.

Christmas morning is a happy time there.

Christmas Candies.

Among the pleasant preparations for Christmas is the candy-making. With a little experience and some care, delicious candies can be made at home, at less than half the cost of store candy; and it is much more wholesome and far more toothsome than the average bought candy. I give some recipes which have been well tried, and have proved successful.

Glaze Nuts.—These may be easily made at home provided care is taken in the dipping. Put one pound of sugar, about ten grains of cream of tartar and half a cupful of water over the fire. Stir until the sugar is dissolved, then with a cloth wrung from cold water, wipe down the sides of the pan, and boil continuously without stirring, until, when dropped into ice-water, the syrup is brittle and clear. Stand the saucepan in hot water, tipping it slightly to one side; drop in with the left hand, one at a time, the nuts. Lift them at once and place on oil paper to harden.—Mrs. S. T. Rorer.

Peanut Brittle.—Shell and remove the brown skins from two quarts of peanuts; roll until the kernels are broken to the size of half a pea. Sift, saving the siftings to dust over a board when you are rolling the candy. Put one pound of granulated sugar in an aluminum or iron saucepan over the fire; stir until the sugar is melted and a light brown. Be careful not to burn. Mix in quickly half the nuts and turn at once on the board that has been dusted with the fine nuts. Roll without delay into a very thin sheet. Then with a large knife mark into squares. In a few moments break apart. You may then melt the second pound of sugar in the same way.—Mrs. S. T. Rorer.

Chocolate Creams.—Take the white of 1 egg, the same quantity of milk as egg, 1 teaspoonful of vanilla. Stir in confectioner's sugar until stiff and then knead in more sugar. Mold into shape. Melt Baker's chocolate over steam, dip the creams into it and put on buttered paper. Cream can be used in place of egg and milk if the candy is to be used soon. This can be made in bars.—Mrs. Geo. W. Cole.

Cocoa-nut Candy.—Grate the meat of a cocoa-nut; have ready 2 pounds of confectioner's sugar, the beaten whites of 2 eggs, also the milk of the nut. Mix together and make into little cakes. In a short time the candy will be dry enough to eat.—Mrs. Geo. W. Cole.

Candied Pop-corn.—Boil for five minutes one cupful of granulated sugar, one tablespoonful of butter and three tablespoonfuls of water, then add to the mixture three quarts of nicely popped corn. Stir quickly until all is evenly mixed, then remove from the fire, and continue stirring until each grain is separated and crystallized with the candy.

Fudge.—Fudge is quite the most popular candy that is now made. Take two cupfuls of sugar, one cupful of

rich milk, two squares of Baker's chocolate and one tablespoonful of butter; flavor it with vanilla. Grate the chocolate, mix it with the sugar, add the milk, and boil over a hot fire, stirring constantly, as stirring will cause the mixture to fudge, or grain. After it begins to boil, add the butter. Try in cold water, and when the drop forms into a little ball it is done. Flavor with vanilla after taking from the fire, and stir until it can be dipped out upon buttered tins. Dip out with a teaspoon, and drop on the tins. Nuts or fruits may be stirred into the mixture after it has done boiling, if nut or fruit fudge is desired. Nut fudge is especially delicious, though perhaps somewhat indigestible.—Mrs. Clarke Hardy.

Fondant.—Fondant is the foundation for all the cream candies. It requires a good deal of care in the boiling, but aside from this it is very easily managed, and it makes delicious candies.

To boil the sugar for cream candy, put into a granite saucepan one pound of sugar and one-half pint of water, and mix well. Set over a quick fire, and do not stir or move the kettle while boiling. After it has boiled fifteen minutes, begin to try by dropping a little from a teaspoon into cold water; when it can be taken up in a soft ball it is done. Set the mixture on ice to cool, and when it will bear the hand begin to stir with a buttered paddle. When it stiffens and breaks, pour out upon a board that has been dusted with confectioner's sugar, and knead as you would dough, until it is smooth and shining. This is cream fondant, the foundation for all cream candies.

Bonbons.—Divide the fondant into separate parts. Flavor some with vanilla, and color with grated chocolate or cocoa; flavor another part with orange juice and a little grated rind, which colors it yellow; and color some with the red candy coloring or with a drop or two of fruit juice; leave some of it white; and into the rest put chopped nuts. These can be made into balls separately, or each kind rolled out thin and placed together in layers and cut into squares or small fancy figures.

To Cream Nuts or Fruit.—Put a piece of the fondant into a small bowl, place in a dish of boiling water, and stir while it melts. Set on a hot brick on the table, drop in two or three nuts or pieces of fruit at a time, then turn over, and lift out onto oiled paper. Use a fork for lifting, and be careful not to let the mixture get too cool.

Chocolate Creams.—Mold out the

shapes from the cream fondant, and place on an oiled paper to set. Then with a fork dip them one at a time into the melted fondant, into which has been stirred one square of melted chocolate and a small piece of paraffin; lift them out, and lay upon oiled paper.

The fondant in the different colors can be melted in the same way and balls of the unmelted fondant dipped into some of contrasting color.

Caramel Candy.—To boil candy for clear or caramel candy, moisten one cupful of sugar, add a small pinch of cream of tartar, and boil without stirring until it will snap like glass when dropped into cold water. This is called boiling sugar to the crack, and is the foundation for all clear, glaze, and caramel candies.

Caramelized Fruits, Nuts, and Candies.—Set the mixture, that has been boiled to the crack, on a hot brick on the table. To caramelize any kind of nuts, see that they are freed from skins, and warmed in the oven, then drop a few at a time into the syrup; lift out with a fork, and drop on oiled paper. To cream any kind of fruit, proceed in the same manner as with the nuts, only do not warm. Small oranges are very nice when peeled and quartered, the seeds carefully removed with a toothpick so as not to start the juice, then dipped in the mixture. Whole stems of raisins are pretty, and caramelized cherries are delicious.—Mrs. Clarke Hardy.

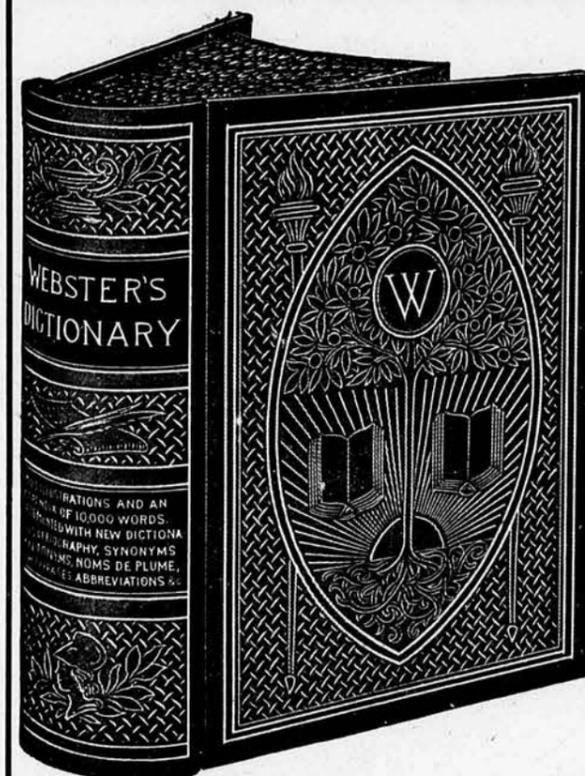
Caramelized Bonbons.—Prepare the bonbons as directed, then dip them in the glaze mixture. Small pieces of fruit or halves of nuts may be placed in the middle of a small piece of fondant, rolled into any fancy shape, then dipped in the caramel. This gives a variety.—Mrs. Clarke Hardy.

Boston Chips.—One cup molasses, ½ cup sugar, 1 tablespoonful vinegar, 2 tablespoonfuls water, and a bit of butter. Boil quickly, and stir briskly, testing in cold water. In pulling, flatten it out as much as possible and cut to resemble chips.—Mrs. Alice S. Waterman.

Chocolate Caramel.—One-half cup grated chocolate, 2½ cups brown sugar, 1 cup cold water, 1 tablespoonful butter, 1 tablespoonful vinegar. Flavor with vanilla just before removing from fire. Do not stir, but shake the vessel gently while cooking. Boil until it becomes brittle when dropped in cold water. Pour into a well-buttered dish, and check off into squares.—Mrs. W. C. Veazie.

Popcorn Balls.—One cup granulated sugar, ¾ cup of water, ¼ cup of vin-

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egar. Do not allow to boil until dissolved. Try a little in cold water until it threads. Pour over the corn, and after dipping the hands in cold water form into balls. This will make twelve balls.

Peppermints.—Two cups sugar, 1/2 cup water. Boil five minutes and flavor to taste with peppermint. When cooling, stir until thick. Drop on white paper well buttered.

Butter Scotch.—One cup molasses, 1 cup sugar, 1 cup hot water. When nearly done add a piece of butter size of an egg. Boil as long as possible without burning. Pour into buttered pans, and when partly cool mark off into squares. Roll each square in thin buttered papers.—Mrs. W. Wellhouse.

Stuffed Dates.—Open the dates on one side and remove seed. In the space just made put a piece of the fondant; or fill with peanut, pecan or hickorynut. Roll in sugar. These are delicious.

How Yankees are Taking Canada.

"Grant, O Lord," prayed a western minister recently, "that Canada may come of her own accord into the great sisterhood of States; that no harsh measures be needed in working out the destiny of this republic." In this man's mind his prayer was also a prophecy. His was the pulpit version of a theme of politics that is looming big and grave beyond the Mississippi.

"Yankee thought, Yankee spirit, Yankee ways will one day dominate the great country across our border on the north. The time is not far away, and when it comes, the American republic will reach from the Gulf of Mexico to the Arctic regions."

That is what thinking men of the West are saying. The logic of current events leads strongly to that conclusion. Pioneer experience, human nature, National necessity, the physical characteristics of the continent—all these may be invoked as arguments. If it be a dream, its realization is in the process this very day.

American farmers are migrating by the tens of thousands across the border into Canada. The average citizen of this Nation has not come to understand the magnitude or meaning of this movement of population. From the States 40,000 farmers flocked to north-west Canada in 1902. Judging from this season's rush, there is reason to believe 100,000 will go in 1903. Iowa alone sent 15,000 last year. The border States contributed liberally. Thirty-five per cent of all the immigrants into Canada were from this country. During the year ending June 30, 1902, Americans homesteaded 825,000 acres of agricultural lands in the "granary of the British Empire."—From "The American Invasion of Canada," by John Howard Todd, in July National Magazine.

Bite-and-Sting Remedies.

Bites and stings are common misfortunes. The bite of a dog, even when the animal is perfectly healthy, is attended with some danger. Physicians say that a healthy dog that snaps only in a moment of irritation will not often cause serious trouble. But there is always the doubt to make one uncomfortable. When there is reason to suspect madness, the veterinarian of the National Stockman advises that the wound should be sucked and then cauterized with a red-hot iron or stick caustic; the latter is much the easier and is said to be just as efficient. After cauterizing, the wound should be dressed as any other burn. Baking soda made in a solution is very good to dress the wound. This latter is also very soothing for stings, though the remedy always at hand is equally good—saliva and earth mixed into a paste. Snake bites are especially to be dreaded, as the action of the virus from a venomous snake is so very rapid that help unless almost instant is likely to be too late. Sucking the puncture is recommended by medical works, although it is attended with some danger. If the saliva be instantly ejected, the result may be all that is desired. Liquor is usually given for snake bites, because the action of the virus is to paralyze the nerve center. Ammonia should be injected into the blood if

there is any means at hand to do so. It would pay a family living in the country, where venomous reptiles abound, to keep a hypodermic syringe for this purpose alone.—Massachusetts Ploughman.

Ten-Minute Cakes.

This is a very useful recipe to know of in an emergency, as the cakes can be made in ten minutes or less, and ten minutes in a quick oven bakes them to a turn. Take four ounces of corn-starch, two ounces of sugar, and one teaspoonful of baking-powder; beat three ounces of butter to a cream, and add to it gradually the above ingredients, then a well beaten egg, and lastly a few drops of vanilla essence; bake in buttered tins, putting a little in each. This is a well tried recipe, and the cakes literally melt in one's mouth.

Nut Sandwiches.

Cut the crust from cream or whole-wheat bread. Slice it very thin and spread with soft butter, as thinly as possible. Cover half the slices with the nut mixture, and lay on a plain slice, and cut in halves.

Nut and Fruit Filling.—Two cups of mixed nuts ground, half of them peanuts; one cup stoned raisins; one cup stoned dates; half a pound of figs. Grind the fruit and mix thoroughly with the nuts. Add the juice of half a lemon and enough water to make it about as thick as jam.

Club Department

OFFICERS OF STATE FEDERATION OF WOMEN'S CLUBS.

- President.....Mrs. Cora G. Lewis, Kinsley
Vice-Pres.....Mrs. Kate E. Atlington, Council Grove
Corresponding Sec'y.....Mrs. Eunice H. Brown, Olathe
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Auditor.....Mrs. D. W. Wilder, Hiawatha
State Secretary for General Federation.....Mrs. C. C. Goddard, Leavenworth

Our Club Roll.

- Mutual Improvement Club, Carbondale, Osage County (1895).
Give and Get Good Club, Berryton, Shawnee County (1902).
Woman's Literary Club, Osborne, Osborne County (1902).
Ladies Reading Club, Darlington Township, Harvey County (1902).
Woman's Club, Logan, Phillips County (1902).
Domestic Science Club, Osage, Osage County (1888).
Ladies' Crescent Club, Tully, Rawlins County (1902).
Ladies' Social Society No. 1, Minneapolis, Ottawa County (1888).
Ladies' Social Society, No. 2, Minneapolis, Ottawa County (1889).
Ladies' Social Society, No. 3, Minneapolis, Ottawa County (1891).
Ladies' Social Society, No. 4, Minneapolis, Ottawa County (1897).
Chautso Club, Highland Park, Shawnee County (1902).
Cultus Club, Phillipsburg, Phillips County (1902).
Literatae Club, Ford, Ford County (1903).
Sabeau Club, Topeka, Shawnee County, R. R. No. 2 (1903).
Star Valley Woman's Club, Iola, Allen County (1902).
West Side Forestry Club, Topeka, Shawnee County, R. R. No. — (1903).
Fortnight Club, Grant Township, Reno County (1903).
Progressive Society, Rosalla, Butler County (1903).
Pleasant Hour Club, Wakarusa Township, Douglas County.
Progressive Society of Butler County (1903).
[All communications for the Club Department should be directed to Miss Ruth Cowgill, Editor Club Department.]

The Crescent Club.

I have received recently the Calendar, or Year-book of the Ladies' Crescent Club of Rawlins County. I wish I could show it to each of the other clubs, to show what can be done with little expense. This Calendar is made by hand. It is composed simply of four pieces of creamy cardboard, tied daintily with baby ribbon in the club colors. It is a very neat and attractive bit of work. It contains the list of eleven members, and the programs for the year just past, from June to November. We have had the pleasure of printing a clever paper from this club which will be remembered, "The Delightful Art of Cooking," so that it is known what sort of women compose it. If there is any doubt on the question of their "up-to-dateness," their programs, which I give below, will dispel it.

JUNE 24.

- Roll call—Favorite Quotations.
Paper—"The American Girl," Mrs. Ryman.
Paper—"Betsy Ross and the Stars and Stripes," Mrs. Malone.

Paper—"The Woman with a Purpose," Nettie Gilmore.
Paper—"How President Jackson Won His Wife," Kathryn Mentlick.
Paper—"An Indian Aristocracy," Mrs. Hunt.
Music.

JULY 8.

Roll call—Tennyson.
U. S. History, Chapter 6, Lizzie Archer.
Paper—"The President and His Family," Kathryn Mentlick.
Current events, Mrs. Ryman.
Music.

JULY 29.

Roll call—Ironquill.
Paper—"Early History of Kansas," Mrs. Malone.
Paper—"Kansas Literature," Ella Archer.
Paper—"Noted Kansas Women," Mrs. Hunt.
Solo—"Sunny Kansas Home," Lizzie Archer.

AUGUST 5.

Roll call—Kitchen quotations.
Music—Zobo Band.
Paper—"State Dinners," Mrs. Ryman.
Paper—"Domestic Cookery," Anna Mentlick.
Favorite Dish with Sample.

AUGUST 19.

Roll call—Mrs. Browning.
Paper—"Elizabeth Barret Browning," Elizabeth Mentlick.
General History: "Babylonia," Nettie Gilmore.
Suggestions for Picnic Luncheons, Kathryn Mentlick, Mrs. Cudahy, and Mrs. Hunt.

SEPTEMBER 2.

Roll call—Riley.
Paper—"James Whitcomb Riley," Mrs. Cudahy.
Reading from Riley, Kathryn Mentlick.
Social Chit-chat.
Critic's Report.

SEPTEMBER 16.

Roll call—Lowell.
U. S. History, "Results of the Revolution," Elizabeth Mentlick.
Paper—"Vision of Sir Launfal," Elva Archer.
Paper—"Music of Germany," Mrs. Malone.
Music, Lizzie Archer.
Current Events, Mrs. Hunt.

SEPTEMBER 30.

Roll call—Edgar Allen Poe.
Book Review: "The Sky Pilot," Mrs. Ketchum.
Paper—"Palatable Pickles," Mrs. Ryman.
General Discussion.

General History, "Hebrews," Lizzie Archer.
Current Events, Kathryn Mentlick.

OCTOBER 14.

Roll call—Maxims.
U. S. History, Chapter 8, Mrs. Cudahy.
Paper—"Glimpses into Artistic Homes," Anna Mentlick.
Current Events, Nettie Gilmore.

OCTOBER 28.

Roll call—Milton.
"Newspaper Clippings," Music, Mrs. Ketchum.
Critic's Report.

NOVEMBER 11.

Roll call—Lord Byron.
Paper—"Romances of Great Men," Lizzie Archer.
General History, Chapter 7, Mrs. Hunt.
Election of Officers.
Current Events, Mrs. Cudahy.
Music, Kathryn Mentlick.

NOVEMBER 25.

Roll call—Thanksgiving Quotations.
Leisure Day.
Favorite Dish with Sample.
Suggestions for Holiday Gifts—Each Member.
Music.

The meeting on August 5 must have been an especially delightful one. The idea of a "Sample-dish Day" is a new one, and a splendid one to adopt.



MEMBERS OF CRESCENT CLUB.

- 1. Mrs. Ella Cudahy. 2. Mrs. D. L. Hunt. 3. Miss Lizzie Archer. 4. Mrs. J. H. Malone. 5. Ella Archer. 6. Nettie Gilmore. 7. Lizzie Mentlick. 8. Mrs. Ryman. 9. Kathryn Mentlick. 10. Anna Mentlick.

I was not able to resist the temptation to show you the kodak picture of this club, which was sent me, although it is a somewhat difficult one to reproduce, and the printer was never known to improve upon any picture that came into his hands. It is plain enough, however, to show that the club was having a lovely time.

Whatever your vocation may be, read, read, read! at every opportunity you get, and always read the best within your reach! Any book, periodical,



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or paper is bad which takes the place of something better. Enrich your life in every possible way by self-improvement—self-culture. This is success.—From Success.

Couches and Nerves.

Couches have saved more minds and nervous systems than all the doctors and medicines put together.

It is the best refuge that the over-worked housekeeper has, did she but know it; and the only fault I have to find with women is that, as a rule, they do not use their couches half enough.

When distracted by the infinite cares of the household and worried over this bill and that, a woman should have a place where she can throw herself down and, stretched at ease, allow her troubles to straighten themselves out of their own accord.

By these means hysteria is avoided, beauty is preserved, and the women's chances for eternal salvation are helped tremendously.—Philadelphia North American.

INTEREST IN IRRIGATION.

(Continued from page 1285.)

practical experiences of saving and raising water and applying the same to the land in its most intensive manner be made a deep study in the section of the country wherein he resides, then this man or class of men has aided in the advancement of irrigation.

In the Arkansas Valley, where we live to-day, we find a condition of affairs which is peculiar to itself in the fact that this valley is underlaid with sheet-water or underflow. This underflow, in my opinion, should be tested to its full capacity. The United States Government should take some active steps in bringing out this water by gravity or by some other method. The Government recommended western Kansas to the citizens of the United States as agricultural land and man was invited to take up this land under the homestead laws and build himself a home. With more water it is agricultural land, without it, it is not.

A JUST DEMAND.

Many millions of dollars have been paid into the treasury of the United States for this land. It is certainly but fair to ask that some of it be returned to this section of Kansas through the irrigation fund to assist in getting more water from precipitation or from the underflow for irrigation. Farther north, the White Woman and Beaver Creek, also the deep ravines of the Pawnee, and others still north could be dammed and much water stored that would all be available for irrigation on land farther down. South and east of us more water for irrigation could possibly be procured if larger and deeper artesian wells were put down. These opportunities and many others that might be mentioned, could be improved and taken advantage of. The expense for making these tests or improvements should, in my judgment, come from the Government through the irrigation appropriation.

You, the delegates here assembled, who come from different sections, all possibly know where certain men in your communities who have means have made veritable homes for their families by the application of water to the soil by artificial means, where otherwise it could not have been done. Others also live in these communities who are not financially able to do this, but who are worthy and honorable citizens. This latter, is the class of citizens who would be benefited, if all the available water from either precipitation or the underflow could be held until time of need.

ALL SHOULD WORK TOGETHER.

I learn by correspondence that a large number of our present Senators and Congressmen, and especially those of the West, are in favor of trying to impound the water to prevent floods and at the same time in this way assist further in irrigation. It will perhaps be necessary to do considerable educational work in this line before it is fairly started or any benefits can be directly derived. But if this association, as well as other like associations, will declare in favor of the prevention of floods, they will be educators for the advancement of irrigation. Every man in the arid West, and this means us, should work together and for one result; that of saving more of the flood waters that roll off to the mighty sea and leave devastation in their tracks and are disastrous in times of flood to our fellow citizens who live at the foot of streams.

We have in Mr. Reeder and Mr. Murdock, two very able men in Congress, from the west half of Kansas, who are ever ready and willing to do what they can to assist in the further promotion of the interests of irrigation.

KANSAS IS INTERESTED.

What the people need is concerted action and to pursue the course that will reserve more water for the purpose of irrigation. At the National Irrigation Congress that was held at Ogden, Utah, in September, of this year, Kansas was represented by twenty-two delegates. I wish to commend this delegation for the interest they took and the work that they accomplished. Especially do we commend the effective work done by G. L. Miller on the com-

mittee of resolutions and afterwards on the floor of the congress.

I would suggest in closing, that proper resolutions be passed by this convention covering the territory that this association embraces; and further, that you emphatically recommend that the Government make the experiment of tapping the underflow in the Arkansas Valley, in Kansas.

Two sessions were held on Wednesday. John H. Churchill, of Dodge City, addressed the convention on the "Past and Present of Western Kansas."

Senator F. Dumont Smith addressed the convention at length in the afternoon in relation to the Kansas-Colo- rado suit. The people of western Kansas are behind Senator Smith, and request a decision at as early a date as it is possible from the United States Supreme Court on this question.

Thomas Loynd, of Rocky Ford, addressed the convention on sugar-beet culture.

Thursday morning, the convention was addressed by President Nichols, of the Agricultural College, Manhattan, on irrigation topics and moisture in the soil. J. C. Starr, of Scott City, delivered an address on "Sheet Water Irrigation."

Before adjourning at this session, the officers were elected for the ensuing year: I. T. Diesem, president, Garden City, Kans.; Alfred Pratt, vice-president, Syracuse, Kans.; Charles Laucks, secretary, Lakin, Kans.; Charles Schneider, treasurer, Garden City, Kans. The executive committee follows: R. M. Lawrence, Finney County; Ed. R. Thorp, Kearny County; E. P. Barber, Hamilton County; L. J. Pettijohn, Ford County; — — Montgomery, Edwards County; A. A. Barlow, Haskell County; J. C. Starr, Scott County.

At the afternoon session, the court room being filled, Governor W. J. Bailey addressed the convention, on "Western Kansas, and Its Possibilities." He said the future of that part of the State could not be foretold at this time, but if the flood-waters could be stored in reservoirs and later on used when necessary for irrigation, it would mean much. Also that the underflow should be developed to its fullest capacity. The Government should make these experimental tests through the Bureau of Investigation and he pledged the help of the State administration to this end. He stated that the people of eastern Kansas were in full sympathy with those of the western part and would at all times cooperate with them in their demands.

W. Y. Morgan, of Hutchinson, addressed the convention, and said that the people of the West should not be backward in asking for what they want and pushing it with vigor; that the people of Hutchinson and Reno County were always with them and were always ready to assist in this work.

RESOLUTIONS ADOPTED.

1. We commend the president, vice-president, secretary, and executive committee of this association for efficient services rendered by them in the faithful discharge of their several duties in the promotion of the objects for which this association was organized.

2. We extend our thanks to Governor Bailey, and the several public officials who have, by their personal presence, or written communications, given us the support and benefit of their knowledge, experience, and good cheer in promoting irrigation in western Kansas, and invite them, one and all, to meet with us in our future deliberations upon this same subject.

We desire to express our appreciation of the services rendered to the people at large, in the States and Territories affected, by the different representatives in Congress, who, by their untiring efforts, secured the enactment of the recent statutes providing for the reclamation of the arid and semi-arid West, by the appropriation of all sums of money received from the sale of public lands within such States and Territories for the development of irrigation.

And whereas, The people of west-

ern Kansas desire to secure the benefits provided for by the said act;

And whereas, In order to do so, it becomes necessary for different methods to be employed in different localities, on account of the existing conditions therein, it is hereby

Resolved, That we urge such immediate action, by Congress and the departments having control of the expenditure of such funds, as will, without delay, employ the sums of money that may be set apart to the State of Kansas, by reason of the sale of public lands, to construct such dams, reservoirs, and irrigation works as may be necessary to improve and develop the resources of western Kansas, both by preserving the flood waters and utilizing the great body of underflow water known to exist beneath the soil in large areas of western Kansas; and to this end, we direct our representatives in Congress to prepare and secure the passage to such original acts and amendments of existing laws as may bring about the surest and most practical expenditure of such sums of money in this regard.

Whereas, In the last two decades there has been paid into and received by the Treasury Department of the National Government, directly from the people of western Kansas, several million dollars, on account of the sale and purchase of public lands, that were sold by the Government as agricultural land, and,

Whereas, We have demonstrated by many years of energetic work and patient toil, that the undeveloped resources of western Kansas require the application of irrigation to her productive soil, in order to bring forth the best products of all descriptions, and,

Whereas, The annually increasing floods of water pass eastwardly through the State, to be wasted in other localities, and,

Whereas, The National Government has repeatedly provided for large direct appropriations to be expended in other localities, under the provisions of the various river and harbor bills, to improve the lands of such localities by preventing the overflows thereon, and believing that we have the same inherent right to ask and receive of the National Government direct appropriations to put water upon dry lands that other sections of the country have, that receive appropriations to prevent damage to their property by overflows, therefore, be it

Resolved, That in addition to such sums of money as may be realized by the future sales of public lands within the State of Kansas, to aid in the reclamation of the semi-arid West, we urge upon our National Congress, the direct appropriation of sufficient sums of money to thoroughly develop the resources of western Kansas, by means of irrigation, in the construction of such dams and reservoirs, and the developing of the underflow, as will secure the best and most practical results.

Whereas, The irrigators of the State of Colorado have for a number of years past taken from the channel of the Arkansas River the normal flow of water during the crop-growing seasons of the year, leaving only the flood water and the underflow to find its way into this State, and,

Whereas, The State hydrographer for the United States Geological Survey has reported that the available flood water of the Arkansas River in Kansas, when the river is at the ordinary flood stage, if said flood water were conveyed out upon the irrigable lands of western Kansas, would irrigate a tract of land six miles square every twenty-four hours to the depth of twelve inches, and,

Whereas, The conservation of said flood waters by their storage in the soil of western Kansas, would greatly aid a reservoir storage system in preventing the flowing off and waste of said waters, therefore, be it

Resolved, That we favor the immediate construction by the United States Government of three dams across the Arkansas River to facilitate the taking out of said flood water from the channel of the river, by means of irrigating ditches. One of said dams to be constructed at a point in Kansas, near the Kansas-Colo- rado

line; another of said dams to be constructed near the Kearny-Hamilton County line, and the other near the west line of Finney County, said ditches to convey flood water from each of said dams to be built and to be owned by the land-owners of the lands to be irrigated under the perpetual water-right system, to the end that outside corporations will not be able to reap the fruits of these improvements to be made at public expense, to the injury and detriment of the land-owners who are the actual residents of this country. We respectfully ask our United States Senators and Representatives in Congress, to use their best endeavors to secure the necessary appropriations for this purpose, and the passage of such acts as will bring about the immediate construction of such dams.

Whereas, The loss of life and property annually from destructive floods is enormous, and nothing has been done heretofore to prevent these great losses; and,

Whereas, We believe the energy and intelligence of the American people ought to be directed toward the prevention of floods, and the conservation of water, for the beneficial uses of man; therefore, be it

Resolved, That it is the sense of this convention, that the impounding of flood waters in natural and artificial reservoirs, for irrigation, power, and the prevention of floods, is practicable and could be made very profitable. We believe that as much or more can be accomplished for the protection of the alluvial lands in the lower Mississippi by the impounding of the flood waters in the upper reaches of that stream and its great tributaries, than can be by the present levee-system. Flood-prevention, in our judgment, is far more practicable than flood-control. We believe that flood-prevention and irrigation are twin ideas to be developed together.

We believe that the immediate repeal of the desert-land act, the timber and stone act and the commutation clause of the homestead act, without offering some tangible substitute therefor, would inure to the benefit of corporations holding unlocated scrip, and that a wise amendment of these statutes to cover possible wrongs in the administration of the public-land laws in certain localities, would be far better than to repeal the statutes above named; therefore, be it

Resolved, That this association is opposed to the repeal of the desert-land act, the timber and stone act and the commutation clause of the homestead act.

Whereas, This association has received a letter from Hon. Elwood Mead, chief of irrigation investigations, containing the following; "The country around Garden City is fairly typical of an important agricultural region, and has, in addition, some other advantages for the prosecution of our studies, but more information is needed to determine how they should be carried on. Before any work is undertaken, there should be a reasonable assurance that it can be prosecuted for a number of years, and that the community has an active interest in the subject and is willing to cooperate with the Government to the fullest possible extent in the gathering of data. If it is desired that this department inaugurate investigations of the character above outlined, an effort will be made to visit your city some time next spring, in company with our expert on pumping, and, if possible, with some representative of the State Experiment Station." Therefore, be it

Resolved, That we accept the offer of the investigations above referred to, and request Mr. Mead and his associates to visit this vicinity at their earliest convenience for the purpose indicated in said letter.

The interest of the people of Kansas in the problem of irrigation ought to be universal. There is no section of this State that is free from danger of sudden reduction of crop-prospects by lack of sufficient moisture at critical times. Several years ago, when Major J. W. Powell was director of

the U. S. Geological Survey, he was asked whether irrigation was not destined to work a marvelous change in western Kansas. He replied, "Yes, but not so marvelous as in eastern Kansas. Water may be obtained for irrigating a considerable portion of the land in western Kansas, but in eastern Kansas you have abundance of water. The day will come when Kansas will use this source of wealth which now she neglects."

But irrigation is not likely to come "big-end first." Some market gardeners near the larger cities irrigate their fruit- and vegetable-crops, supplementing thereby the rainfall, and they profit thereby. Doubtless this kind of irrigation which obtains its water by pumping, will be extended. It may eventually reach field crops. In western Kansas, the ditches are used whenever the streams supply water to them, and not a little irrigation is accomplished by pumping. But the impression rightly prevails that there must be available some more effective method of bringing water to the surface than by the use of a windmill or a gasoline engine. These are, however, so effective in the valleys that dwellers upon the high prairies consider the problem of the valleys as practically solved. That it is not solved is shown by the small development of even valley irrigation when compared with the opportunities for it.

One of the circumstances which has prevented the rational progress of irrigation investigations has been the demand that the problem be attacked at the most difficult end. When, a few years ago, the State of Kansas appropriated money for irrigation experiments, the demands of those on the high prairies resulted in the installation of expensive plants for deep-well pumping. Little was left with which to determine methods of raising water where the problem is more hopeful. When we shall have learned to add, subtract, and multiply in this problem and shall have practiced a little in short division we may be able to handle long division. Certainly we should not attack cube root until we shall have learned the simpler operations of the elementary rules. When Kansas shall have learned how to place water on her valley lands, she may then extend the beneficent work to some of the lower slopes and may hope to gain proficiency for the solution of the differential calculus problems—of the high plains.

The experience of the present year has given the State and the Nation a new interest in irrigation. The waters which drowned people, stock, and crops, and swept away improvements in the lower valleys, will one day be needed to make the crops on the lands on which these waters fell from the clouds. Civilized man should not allow to run to destructive waste the water which might be turned into so great a blessing. Savage man gathered the spontaneous fruits of the forest in their season and feasted. He slew an occasional wild beast and fared sumptuously while it lasted. Civilized man plants fields and keeps flocks and herds. He provides for the future and avoids famine. When he shall have progressed a little further he will provide against drouth, also, by devising means of utilizing the gratuitous supplies of water at his hand, and by storing the occasional superabundant and destructive flood against the day of need.

The western Kansas irrigators—all Kansas farmers—do well to urge the use of means at the command of the Government in the solution of the problem as it exists in this State.

BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with

one dollar to pay for both. In like manner two new subscribers will be entered, both for one year, for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

Miscellany.

The State Poultry Show.

Col. J. W. F. Hughes, secretary of the State Poultry Association, states that every State in the Middle West will be represented with exhibits at the Kansas State Poultry Show which is to be held in Topeka from January 11 to 16. There will be at least 3,000 entries this year, compared with 1,500 last year, making it the largest poultry show west of Chicago.

The appropriation of \$1,000 made by the Legislature last year for the poultry show has made it possible to offer larger premiums, with fewer requirements, than ever before in this State or in any other. Colonel Hughes is receiving letters every day from poultry-breeders all over the West who wish to bring birds here. While at Newton attending the poultry show last week, he made arrangements for a large number of birds which were on exhibition there and will secure a large number from the Kansas City show.

A feature which will make it more interesting for those who are not up on the different breeds of poultry will be that of placing a large placard upon each pen stating the breed and number of birds in that particular pen. Besides poultry, the management will have on exhibition pheasants, pet stock, and about 300 pigeons. The premiums on pens of birds will be \$10 on first, \$5 on second, and 2 on third. On single birds, \$2 on first, \$1 on second, and 50 cents on third. Single birds will be allowed to compete for pen premiums, something that has not been permitted before.

The State Board of Agriculture and the State Stock-breeders' Association will meet in Topeka the same week and a rate of a fare and one-third from all points in Kansas, and Kansas City and St. Joseph, Mo., has been made by all railroads to Topeka. Tickets will be on sale from January 9 to 16, with a return limit of January 18.

Railroads and Forestry.

Railroad companies in this and other countries have been taking up questions of forestry and forest economy, particularly as they affect their interests in the matter of the great consumption of cross-ties used in road-bed construction. In the United States the Bureau of Forestry has cooperated with the roads, particularly in that phase of forest economy which pertains to the preservation of ties and railway timbers. Dr. Herman von Schrenk, chief of the Division of Forest Products, has paid particular attention to the proper seasoning and preserving of cheaper timber to be used instead of expensive high-grade material heretofore employed until its growing scarcity and higher prices made it almost prohibitive. It has been demonstrated that with proper seasoning and the infusion of preservative fluids, such as creosote, the low-grade woods may be made to last longer than the untreated high-grade lumber. In fact, it is claimed that the more porous woods are more easily penetrated by the preserving matter and retain it longer in their more porous structure, so that they have an actual advantage over hard oak. It is a fact that inferior woods are continuing to replace the better kinds in railroad construction, and when they are properly treated they may replace them to advantage. Moreover, the railroads are investing in lands where they may grow their own ties and thus not have to depend on poor material when they need a rush order and are at the mercy of the dealer. Many of them have shops for the building and repair of their rolling stock, and it would effect a considerable saving if they had their own timber for supplies. Heretofore the forest areas in the land grants to railroads were sold as soon as possible; but there is a growing tendency now to hold these lands not only for the

increase in value which is sure to follow, but for the forest operations of the railroad themselves. Even where forests do not already exist, some Western roads are setting out trees along the right of way, to serve the double purpose of drift fences and snow-breaks and to furnish ties and other lumber.

Among the various methods suggested to economize in ties is one to cut them in triangular cross-section instead of square, as at present, and thus make a considerable saving in material. A Danish authority has tried hardwood plugs or dowels at the places where the spikes are to be driven, and claims several advantages: The spike holds to better advantage than it would otherwise, and does not slip sideways in the tie. Without the dowels it is found that in shifting spikes a new hole has to be made each time, and this increases the liability to decay at the point where it is most apt to occur and where it is most disadvantageous. With the dowels, heavily creosoted, the preserving fluid is forced into the wood of the tie, increasing its resistance to decay; also the dowels support the base of the rail or tie-plate, and get so compressed and hard that they can stand for many years the impact of the rail. The use of hard plugs in softer wood ties effects a great economy in construction.—Forestry and Irrigation.

Humus.

On the amount of vegetable or organic matter, or what is termed humus, a soil contains, depends to a large extent its fertility. For this reason, any practice that tends to maintain or increase the humus content of a given soil is well worth consideration and if possible practicing.

The Southern farmer is to-day at work building up the worn-out soils, restoring to them vegetable matter, destroyed on account of careless methods of farming, by his forefathers years before and years after the civil war. The practice in the early history of that country was to plant nearly all the land to cotton or corn, year after year. This practice of continually cultivating the land during the hot summer weather and then leaving it bare during the fall and winter is, perhaps, the most efficient way possible to burn up every pound of organic matter in a soil which it has taken nature centuries to accumulate, through the growth and decay of forests, or other forms of vegetable matter.

While we do not have open winters here in the North, and hence the loss due to washing and leaching is not so great with us as it is in the South, yet continuous corn, and even corn and grain cropping with us, as has already been demonstrated in too many cases, will reduce the vegetable matter of our much richer soils in time, and it is well for us to heed the experience of others and endeavor to retain the humus in our farms.

The question arises, how shall we do this? We are obliged to raise such crops as are most profitable for our own conditions. This, however, may be done in one of two ways. First, we may raise those crops year after year on the same land. Second, we may rotate our crops in such a manner as to maintain and even increase the vegetable matter in our soils.

For example, it is often the case that farmers maintain a permanent pasture on their farm when it is not at all necessary to do so on account of unsuitability of the land for cultivation. There are, of course, instances where permanent pastures are maintained because the land can not be profitably utilized in any other way. In such cases, however, where permanent pastures are maintained simply because the owner thinks it is less work, we are not in favor of them.

When land is in grass for two or three years, especially so when part of the grass is clover, a large amount of nitrogenous organic matter accumulates in the soil. Succeeding crops should have the benefit of this accumulation of organic matter because such crops as corn or small grain crops instead of adding organic mat-

ter, destroy the humus, or rather utilize it as a food.

When vegetable matter in the soil decays, certain organic acids are produced, which act as solvents upon the insoluble, inorganic materials in the soil and change them into forms soluble to the roots of plants. Thus we see that humus is a soil-builder, and consequently a very important substance.

Every farmer knows that black soils are rich or fertile soils; this richness is due to the fact that plants are better able to take up such essential substances as phosphoric acid and potash when in combination with humic compounds, than when it is found in insoluble forms, as calcium phosphate and silicates of potash.

This, however, is not the only advantage obtained from a good supply of humus. It is a well-known fact that nitrates, the compounds into which the nitrogen of organic matter is changed during the spring, summer, and fall months, due to the action of nitrifying bacteria in the soil, are very soluble in water and, therefore, are readily lost by leaching. A large amount of humus in the soil, however, will retain this nitrogen in the soil and hold it until plants can take it up and be benefited thereby.

Humus not only prevents loss of nitrogen from leaching, but it also aids very largely in retaining the water in the soil. The capillary power of a soil rich in organic matter is much stronger than it is in one that has been depleted of its organic matter. It enables such soils to produce comparatively good crops in dry years, when soils poor in vegetable matter are unable to produce anything but the smallest yields.

Any one can readily see this to be a fact, if he will fill two flower pots with equally dry earth, putting a sandy soil in one, a rich black soil in the other. On the black soil, it will be found a great deal more water can be poured before it runs out at the bottom of the pot than can be poured on the sandy soil before it runs out.

From the above, it will be seen that humus is a most important ingredient of soils. It makes plant-foot soluble, it prevents nitrogen from leaching away, it improves the capillarity of soils, and enables it to hold a larger quantity of water.

If humus is of such great importance to crops, the question naturally arises, how to maintain or even increase the present supply in our soils. We can increase the amount of humus by the application of barnyard manure, and by raising grass and hay crops. No one will say that the fertility of the soil can not be maintained on the majority of soils even under systems of continuous corn- and grain-farming, provided enough barnyard manure be added. The question, however, is not so much how can we maintain the fertility of our land, as it is how can we most economically maintain it. This we can best do by keeping enough stock on our farms to enable us to manure our land every four to seven years, according to the quality of the soil, and by practicing a complete system of rotation so as to give all our land the benefit of being in grass about one-third, or at least one-fourth of the time. This means that we must practice rotation of crops. In a proper system of crop rotation, there should be an alternation of grass, cultivated crops, and grain crops, and they should follow each other in such a manner that each crop will prepare the land for the one that is to succeed it. Right here lies the keynote to economical production and as soon as that fact is fully and more generally realized, and these principles put into practice, we shall be on the right road to success.—Farmers' Tribune.

In overcoming your various fears, follow each one out to its logical conclusion, and thus convince yourself that at the present moment the things you fear do not exist save in your imagination. Whether they ever come to pass in the future or not, your fear is a waste of time, energy, and actual bodily and mental strength. Quit worrying just as you would quit eating or drinking something you felt sure had caused you pain in the past.—Success.

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In the Dairy.

Ration for Dairy-cows.

PROF. C. H. ECKLES, MISSOURI EXPERIMENT STATION.

The following rations furnish in about the right proportions, the material necessary to produce milk. By the term ration is meant the feed for twenty-four hours. If a cow will not give a good flow of milk in the early part of the milking period, when fed a liberal amount of one of these rations, it indicates that she is not adapted by nature to be a dairy animal and she should be disposed of. The amounts given are considered about right for a cow giving from 20 to 25 pounds of milk a day. For heavy milkers, these rations are to be increased, and reduced for lighter milkers. In making up these rations, it is designed that the cow be given practically all of the roughness she will eat, and then sufficient grain is added to furnish the necessary amount of digestible material:

	Pounds.
Clover hay.....	20
Bran.....	5
Corn.....	6 to 8
Clover hay.....	20
Oats.....	4 to 5
Corn.....	6 to 8
Clover hay.....	20
Corn-and-cob-meal.....	8 to 10
Gluten or cottonseed-meal.....	2
Alfalfa or cow-pea hay.....	15 to 20
Corn.....	9 to 12
Alfalfa or cow-pea hay.....	10
Corn stover.....	10
Corn.....	8 to 10
Bran.....	2
Corn silage.....	30
Clover hay.....	15
Corn.....	4 to 6
Bran.....	4
Corn silage.....	40
Alfalfa or cow-pea hay.....	10
Corn.....	6
Bran.....	1
Cottonseed-meal.....	1
Corn silage.....	20
Alfalfa or cow-pea hay.....	15
Corn.....	8 to 10
Corn fodder.....	5
Timothy hay.....	15
Corn.....	3
Bran.....	5
Cottonseed-meal.....	2

Keeping Cream.

I will give, in a very few words, our method of making a fancy cream, which will keep for weeks without souring. The whole secret of our success lies in absolute purity and cleanliness in everything, from beginning to end. It requires more care to produce clean milk than any other food product, and were the consumers aware of the impurities in the larger part of the dairy-products on the market, there would be small sale for the same. The consumer is much to blame for this condition of things. If the people would demand a better article and be willing to pay for the extra cost, there are many dairymen who would be willing to take the pains required to furnish clean milk and cream.

Our first aim is to keep the stables and cows as clean as possible. The cows are brushed and the udders washed before milking. No hay is fed at this time, as the dust in falling will carry into the milk the germs which are found floating in all cow-stables. The bacteria thus introduced will give to the milk the same disagreeable flavor as the filth from the cow. To keep the dust and dirt from the milk, we use a pall covered with two thick-

nesses of cheesecloth, between the folds of which is placed a layer of absorbent cotton. In this way, the milk comes to the dairy-house nearly free from all impurities. The greatest care is taken to have every utensil in the dairy thoroughly cleansed and scalded every time it is used. No half-way work will answer here. No sour germ can lurk in the can or strainer without affecting the cream. In fact, no odor or germ must be allowed in or around the dairy-house.

After separating, the cream is cooled quickly and kept in a tank of ice-water until bottled for shipment. You will see from my description of our methods that it is simply keeping the milk absolutely clean, and cooling as soon as possible after milking, that gives our cream its fine flavor and keeping qualities. Choice cream and butter can not be made from filthy milk, and our dairy-inspector will have filled an important part of his mission, and rendered to the public a most commendable service when he shall have awakened the dairy farmer to the importance of producing a pure, clean milk.

—C. S. Pope, in Massachusetts Plowman.

The Best Cow.

We have heard persons say that "a cow is a cow, and it is of no use to pay these fancy prices for something that folks say is a little extra. Some give a little more milk than others, but, then, may be they eat more than the others." This is true enough, but we always found that the cow that would eat the most and digest her food was the best cow, says the American Cultivator. She either turned the food into milk or butter or beef, and when we knew which she was best adapted to do we knew the most profitable way to use her. And this soon convinced us of the folly and wastefulness of feeding all the cows in a herd the same rations, and showed the necessity of the feeding being done by one who knew something of the needs of each animal.

Foddering the cattle at the barn is not boy's work, but one that needs all the experience and good judgment that the dairyman has, and more than we think some of them have. But the difference in cows was well shown by the records furnished to the Illinois Experiment Station, as published in a late bulletin. There were eight herds, numbering 144 cows, and the records were complete for a year. While some herds gave a good profit for the year's work, others gave but little, and one herd was kept at a loss. In making these estimates, it was assumed that the calf paid for the cow's feed while dry, and the skim-milk paid for the labor, assumption not exactly correct, but certainly more favorable to the cow that went dry three or four months in a year than to the cows that gave milk eleven months.

The cows that yielded the most product gave 8,949 pounds of milk and made 472 pounds of butter. The poorest cow produced 1,482 pounds of milk, 68 pounds of butter, and the average production for all the herds was 4,721

pounds of milk, 3.67 per cent of fat, 173 pound of butter-fat, and 202 pounds of butter. The most profitable cow gave a net profit of \$57.22, and the poorest cow was kept at a loss of \$17.83. The average net profit was \$9.96 per cow.

We do not doubt that there are as poor cows in other States as in Illinois, and probably as good ones, and the cow that will make 472 pounds of butter in a year and give a profit of \$57.22, and the one that gives but little over 700 quarts of milk and makes but 68 pounds of butter at a cost for feed of \$17.83 more than the butter will sell for, are certainly not in the same class. The first is worth a fancy price, for she gives a profit equal to the interest of \$1,000 or \$1,100 for the year. The other takes about 34 cents a week out of his pocket during the year, and if he gave some one his note for \$300 at 6 per cent to take her away, he would be better off, because he would not have to take care of her.

Cross Bulls.

We once knew a man who lived among his fellow farmers with the reputation of being morose, surly, and unsociable. One neighbor, who had known him from childhood, accounted for his peculiar traits by saying that "he was brought up unsocially as a boy."

There is something in this when applied to men, and we believe it to be true when applied to bulls. As a rule, the bull is kept in a separate apartment, away from all social contact with his kind. He is not made to work and consequently misses this powerful influence for the promotion of the spirit of obedience and docility. He is given but little exercise, is fed well and what wonder is there, if he soon becomes charged with all the power of a cartridge of dynamite and about as ready to go off on slight provocation.

We have never had a cross bull that we had reared to full service ourselves. At the present time there stands at the head of our herd two young Guernsey bulls nearly 2 years of age, who graze together in the same paddock and who take their turn, night and morning, on the tread power in separating the milk. In the stable, these bulls stand alongside of the cows.

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member of society it makes of a bull when he has to work like other folks, and is not shut away from his fellows as though he were a criminal.

By this, however, we do not mean to be understood as saying that every bull should be not handled with a full idea that he is liable at any time to become vicious. But the chances of such a collapse are reduced fully 75 per cent if he is reared in a kind, firm, and industrious manner. Half of the devilry among men and bulls occurs because of a lack of employment. We have often noticed that with boys, for instance, one hour's work was worth two hours of preaching to keep them out of mischief.—Hoard's Dairyman.

Miscellany.

Steer-feeding Experiments.

The steer-feeding experiments at the Oklahoma Experiment Station the coming winter will include twenty-five 2 year-old grade steers, and these will be divided into five lots of five steers each. Each lot will be fattened on a different ration and the following combinations will be used. The amount of feed is for a 1,000-pound steer for one day.

Ration 1—Cottonseed, 7 pounds; alfalfa hay, 16 pounds; wheat straw, 6 pounds.

Ration 2—Cottonseed, 4 pounds; Kafir-corn meal, 11 pounds; alfalfa hay, 13 pounds; wheat straw, 4 pounds.

Ration 3—Cottonseed-meal, 3 pounds; shelled corn, 12 pounds; prairie hay, 5 pounds; wheat straw, 8 pounds.

Ration 4—Cottonseed-meal, 10 pounds; wheat straw, 12 pounds (1/3 of straw to be cut or chaffed and mixed with meal as fed).

Ration 5—Cornmeal, 15 pounds; alfalfa hay, 12 pounds.

The food nutrients (the material available for assimilation by the steer) contained in the different rations are given in the following table:

Pounds per day for a 1000-pound steer.						
Standard—	Dry matter.	Carbo-hydrates.	Fats.	Nutritive ratio.	Cost, cents.	
First period...30.0	2.5	15.0	0.5	1:5.5	....
Second period 30.0	3.0	14.5	0.7	1:5.4	....
Third period...28.0	2.7	15.0	0.7	1:5.2	....
Ration No. 1	26.0	10.65	1.32	1:5.2	17.8	
Ration No. 2	29.0	2.66	13.67	99	1:8.3	18.6
Ration No. 3	25.0	2.44	13.57	1.04	1:8.6	18.9
Ration No. 4	20.0	3.77	6.04	1.28	1:2.4	15.8
Ration No. 5	24.0	2.40	14.75	.79	1:6.9

Rations, 1, 4, and 5 have been used in some of our previous steer-feeding experiments and are repeated here in order to get further results and enable them to be compared with those from other combinations of feeds. Rations 2 and 3 have not been used in steer-feeding work before at this station.

Rations 1, 3, 4, and 5 furnish the nutrients approximately as given in the feeding standard and from that standpoint might be said to be normal rations. Although a ration very similar to ration 4 is used considerably, it is a ration that differs widely from the standard.

Ration 5, which consists of cornmeal and alfalfa hay, has been under test at this station for several years, and first-class results obtained from it. Starting with 2-year-old steers weighing about 1,000 pounds, they have been successfully fattened in about five months, in which time they put on 335 to 395 pounds per steer and consumed 2,350 to 2,540 pounds of cornmeal and 1,614 to 1,817 pounds of alfalfa hay. These figures taken in connection with the market cost of feeds in a locality will enable the feeder to figure the cost of fattening a steer on this ration. This ration might be varied, and under many conditions by reducing the alfalfa hay 1/2 or 1/3 and adding some prairie hay, straw, corn, or Kafir stover, and adding a pound or two of cottonseed-meal in the place of the same amount of cornmeal, and the addition of a pound of two of cottonseed is advisable in many cases.

With the ruling prices of feeds ration 4, consisting of cottonseed-meal and wheat straw, would not be an economical ration and a feeder wanting to make the most out of his operations should not use it, although steers have been put in marketable condition on it and at a profit in certain seasons. With corn costing as much as the cottonseed-meal or even a third more, it

would be profitable to replace a portion of the cottonseed-meal with it. Good results are expected from ration 2, which consists of cottonseed, Kafir-corn meal, alfalfa hay, and wheat straw. The cottonseed will act as a divisor in the Kafir-meal, preventing the steer from bolting it and leaving it in a more open condition in the stomach. Ration 5, cottonseed, alfalfa, and wheat straw, is not introduced as a feasible ration for the average conditions. It was found in our previous experiments that cottonseed as the sole grain and fed with carbonaceous roughage as wheat straw and prairie hay, was a failure for fattening steers, but when fed with a highly nitrogenous roughage as alfalfa hay, very good gains were received. The latter combination was fed but a portion of the fattening period and the time was too short to give much idea what results might be obtained on feeding the ration four to five months.

The combination of the cottonseed-meal, shelled corn, prairie hay, and wheat straw in ration 3 has not been used in steer-feeding at this station, but a ration very similar to this has been used successfully for fattening hundreds of steers. The price of finished heaves, four or five months from now is very uncertain, and the carefully selected and compounded ration will do much in assuring a profitable outcome to the operation.

Motions of Underground Waters.

Prof. Charles S. Schlichter, in a paper published by the U. S. Geological Survey, says that the amount of water within the crust of the earth is enormous, amounting to 565,000,000,000,000 cubic yards. This estimate is based upon the supposition that the average depth which waters can penetrate beneath the surface is 6 miles below the land and 5 miles below the ocean floor. This vast accumulation, if placed upon the earth, would cover its entire surface to a uniform depth of from 3,000 to 3,500 feet. Under the influence of gravitation, the water is generally in motion, and the object of Professor Schlichter's paper is to describe the rate and manner of its overflow and the laws governing the same. Experiments have shown that not only do sands and gravels possess porosity, but rocks presumably solid and compact may be traversed by water. Even so hard a rock as granite, selected for the sarcophagus of the tomb of General Grant on account of its great strength, shows a porosity of 0.23 per cent. The most productive water-bearing rocks, however, are found to be the porous sandstones, and in some cases limestones, whose inner texture has been chemically dissolved.

The popular idea of underground waters is derived from the rivers of copious discharge found in the Mammoth and other caves; but this idea is erroneous, as such streams, though of great local importance, are comparatively rare. The great mass of ground water slowly percolates through sand and gravel deposits, sandstone, and other porous material under a wide extent of territory. Though its motion carries it but a fraction of a mile in a year, this ground water is so widespread and often so accessible as to be of the greatest economic importance.

The knowledge of the underflow that exists beneath the gravel of all river valleys has been taken advantage of in arid sections of the West, where the running dry of streams deprives irrigators of their water supply. By excavating to bed rock in river gravels and building an impervious barrier across the channel, these underground waters are saved in sufficient quantities to be of great value to the farmer. A notable subsurface dam of this kind has been constructed on the Pacoima Creek, California, to furnish water for irrigation and domestic use.

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derground waters, and open up an interesting field for investigation. The wonderful artesian basin of North Dakota and South Dakota, which has proved such an important factor in the economic development of these States, forms one of the illustrations used by Professor Schlichter in the explanation of deep-seated underflows.

A cross-section of this part of the country clearly shows the interesting fact that the water which comes to the surface in the gushing wells of the Dakotas travels underground all the way from the Black Hills and Rocky Mountain slopes, in the water-bearing strata known as the Dakota sandstone. Another illustration of extensive basins due to deep underground flows is found in Wisconsin, where an extensive area of water-bearing rocks, nearly 1,000 feet thick, conducts water of singular purity under large areas of the State.

It must be borne in mind that there is a limit to the amount of water which can be drawn from an artesian basin, and that there is no such thing as an inexhaustible underground supply. The gradual failure of the wells which supply the city of Denver clearly illustrates this fact. So great a demand was made upon this basin between the years 1884 and 1890 that it has been estimated that, if all the wells were now plugged, the water-bearing strata of the basin would require forty years to recover the saturated conditions which existed when the first well was sunk.

The study of underground water in its relation to the effective water supply of the country is one of the most important departments of the work of the United States Geological Survey. It is carried on in the arid regions, where water for irrigation is of the greatest value; in the Middle West, where grazing and successful farming largely depend on it, and in the East, where an unpolluted supply for domestic and municipal use is yearly becoming a more serious problem.—Forestry and Irrigation.

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The Poultry Yard.

CONDUCTED BY THOMAS OWEN.

Coming Poultry Shows.

December 17-19, Lawrence, John Manwaring, secretary; C. H. Rhodes, judge.
 December 21-24, Wellington, Ellen R. Clayton, secretary; Thos. W. Southard, judge.
 December 28-30, Nortonville, C. D. Stillman, secretary; C. H. Rhodes, judge.
 January 4-9, Wichita, H. P. Schoff, secretary; I. K. Felch, judge.
 January 11-16, State show, Topeka, J. W. F. Hughes, secretary; C. H. Rhodes, W. S. Russell, H. B. Savage and J. J. Atherton, judges.
 January 25-27, Atchison, W. G. H. Frasier, secretary; C. H. Rhodes, judge.
 January 27-30, 1904, Emporia, L. G. Alvord, secretary.
 February 1-3, Manhattan, Geo. C. Wheeler, secretary; C. H. Rhodes, judge.
 February 4-10, Manhattan, Kansas State Agricultural College Poultry Institute, Prof. Geo. C. Wheeler, superintendent; C. H. Rhodes, instructor.
 December 7-12, Newton, R. R. Hobbie, secretary; F. W. Hitchcock, judge.

Raising Chickens for Profit.

MRS. J. TICE, BEFORE OAK GRANGE, SHAWNEE COUNTY, FARMERS' INSTITUTE.

Solomon has said, "There is nothing new under the sun," and surely the subject I have chosen is not a new one, for we can scarcely pick up a home paper without seeing some glowing tribute to the Kansas hen, or some man's or woman's story of the fairy road to wealth through the poultry lane. But as our institutes are thoroughly practical, I shall simply tell you what I have done along the line of raising poultry for profit.

Having been born and raised in the city, I knew very little or nothing about chickens when married except that they were good to eat, a fact I can still testify to, although I do not believe they have ever tasted as good to me as they did in those days when they so seldom graced the table. Be that as it may, if I did not know much about chickens I did know the pleasure of independent spending-money, and was ready and willing to learn.

I will not attempt to discuss the merits of the different breeds, for, as with everything else, we all have our favorites and are hard to convince that another equals, let alone excels them, but I will say for an all-around, general-purpose fowl, I think the Plymouth Rock hard to beat.

My first chickens were a mongrel lot of common barnyard fowls, but being convinced that the same outlay of time, strength, etc., put on thorough-breds would yield much larger returns, I bought a pen of pure Rose Comb Leghorns, and incidentally a larger purse, and talked chickens and profits at the breakfast-table, at the dinner-table, and at the supper-table.

Having a handy man, it was easy to get him to build me a yard. (He said he did it in self-defense.)

In due time, I had a fine lot of chickens and then my trouble began. I was so proud of those chickens that I had to go out every hour, or two to see them, and of course took a little feed along each time to see them eat. In spite of the old adage and various warnings, I could not help building my castles of eggs, every egg of which turned to a golden dollar. But, alas for results! In a few days, they began to die by the dozen and I soon had a good-sized graveyard south of the orchard. Then I rushed to the other extreme and withheld all food for a couple of days and managed to save a few.

From this experience, I learned that too much food is worse than not enough; and that as a corrective, a day of fasting is as good for chickens as for man.

About this time I spent \$18 for a bone-cutter, convinced, as I still am, that nothing will increase the egg-yield like fresh-cut green bone. The bone-cutter would have been a success had we been able to supply the power; but as the man of the house had as much as he could do, and as it was too heavy for me to turn, a few months and that was a thing of the past. I still have the cutter and expect to use it when we can have other than hand-power.

After careful, judicious feeding, I consider good coops an absolute necessity if we expect to raise a large per cent of the hatches; and I prefer those coops to have floors and to be made so they can be fastened up at night and the chicks thus be made safe

from the depredations of prowling animals. I have one large coop 12 feet long and 3 feet wide, divided into four compartments, with the floor raised from the ground. One side and the ends are of siding and it has a shingle roof. The partitions and doors are lath. Each compartment being 3 feet square, I allow one hen and forty chicks to that space in warm weather. I have a small opening in the center of the door so the chicks can run in and out at their pleasure, but the old hen I keep shut up the first two weeks. If made of all new material, such a coop as I describe would cost about \$10; but on nearly every farm there is generally some material that can be used. But suppose it does cost \$10, the loss from skunks, cats, and dashing rains would amount to fully that or more, in one year. Then it is such a comfort to feel that your chicks are safe when you close them up at night. Being 2 feet high, such a coop can be cleaned in a few moments and white-washed every spring and fall, which is necessary to insure freedom from lice. With care, they will last till you've made your fortune on chickens and retired from the business. The rest of my coops are on the same plan but smaller. When the chicks are hatched, I carry them to the coops and fasten them up for twenty-four hours, as nature supplies food for that period. Then I give them oatmeal, fed dry, for their first meal. That, and cottage cheese, form their meals till they are 10 days old, when I add millet-seed to the bill of fare. I always keep a dish of pure water before them, also some grit. Sand or lime does not take the place of grit as it is not sharp enough. I think hens lay better and are healthier if they have access to grit and oyster-shell at all times.

Another important factor in the profit part of our proposition is the selling of the chicks as soon as possible after they are hatched. Twenty-five chickens sold at a pound and a half weight means a saving of about two chicks and sometimes a half dozen, for some accident or ailment is sure to get away with at least two out of twenty-five before they reach the two- or three-pound size. Allow me, then to summarize briefly what I consider the absolute necessities for profitable poultry-raising:

1. Thoroughbreds of your own choice.
2. Careful, judicious feeding.
3. Plenty of pure water and grit.
4. Good tight coops.
5. Placing on market promptly.

Now, if you will pardon me, I would like to give you a few figures from my chicken-book. You know figures will not lie, hence I will prove to you that money can be made from chickens. I had on hand January 1, 1903, 90 hens. Of these, 50 were last year's hens and the rest the hens I bought on moving two years ago. From January 1 to December 1, I sold 152 chickens and 571½ dozen eggs, which brought me \$140.29. As it is difficult to ascertain just what it costs to feed chickens on the farm I will allow one-half for the feed, although I do not think they cost that; and I still have the snug sum of \$70.12 for my work. No account was kept of the number of chickens and eggs consumed at home, and I have 204 chickens on hand.

Then here's to the hen, the helpful hen, The best of friends to the children of men, She hustles her food and raises her brood, And leaves a snug sum in the end.

Poultry Notes.

Coal ashes sifted in a poultry-house makes a good disinfectant, keeping down the odors and making the house easy to clean. And then, the fine dust flying about is very annoying to the lice. Rather than stand it, they will frequently move out.

Mr. J. H. Dye, Berryton, claims to have a Brown Leghorn hen that is 15 years old. She has changed color five times; has been white, black, and is now her proper color, with white colors intermingled. She has never offered to sit but once, and then only for two days. She lays, on an average, seven months in the year. She is now as active as a young chicken. If Mr. Dye is certain of his statements, this

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FOR IMPROVING YOUR FLOCK get your cockerels from prize-winners. Won all premiums at Miami Co. Fair, 1903. (\$5 sweepstakes) over all other breeds. Black Langshans the best on earth. P. O. Coons, Spring Hill, Kans.

WHITE PLYMOUTH ROCK HENS with score cards by Rhodes. Cheap. W. A. Hillands, Culver, Kans.

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R. C. B. Leghorn Cockerels \$1 each; 6 for \$5; 12 for \$9. H. M. Johnson, Formoso, Jewell County, Kans.

BARRED PLYMOUTH ROCK cockerels from \$1.50 down. Good birds. Write your wants. My birds will please you. Eggs in season. Adam A. Weir, R. F. D. 2, Clay Center, Neb.

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GEM POULTRY FARM has for sale 400 Buff Plymouth Rock chicks, also 100 last year's breeding stock. Prices reasonable. C. W. Peckham, Haven, Kans.

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hen is a most wonderful one, and overthrows a good many of our preconceived notions concerning the habits of an old hen.

A commission house at Pleasanton is buying and shipping an average of four cars of poultry and eggs each week, and the value of each car is about \$2,000. The eggs are properly cased and the poultry is dressed by the commission men. It takes about 11,000 pounds of ice to pack a car of dressed poultry. Refrigerator-cars are used and the company ships direct to the New York market. The company buys from the merchants of Pleasanton and neighboring towns and from the farmers. Eight thousand dollars a week for the two items of poultry and eggs is a good, healthy sum to be paid out in a community. The poultry

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industry is getting to be a big thing in Kansas.

Financial depression and panics seldom affect the fresh-egg market. It is possible that when general trade is dull, the egg-business is also affected, but not for strictly fresh eggs. It seems that no matter what the circumstances may be, fresh eggs are necessities with all, and as they are usually retailed in small lots, the amount of cash required from each individual in their purchase, is almost insignificant in comparison with that expended for other articles. Eggs are used for so many purposes that it is important for the supply to be constant, and hence panics can not affect prices, as is the case with other articles. Fresh eggs are always a cash product. The farmer who does not make egg-production a part of his farm operations, is losing one of the best of his opportunities on the farm and the egg business can be conducted without the aid of the middleman, if such a course is preferred. Returns that come in during the winter are always appreciated, when not much of anything else is coming in, and as there is no danger of any depression in the fresh-egg business, it is one of the best and safest in which a farmer can be engaged.

Feeding for Egg-production.

The National Stockman is conducting extended experiments in feeding for eggs. Its report for October, 1903, follows:

Pens.	Conditions.	No. hens.	Wt. in Sept.	Lbs. in Sept.	Lbs. in Oct.	Oss. per hen daily.	Nutritive ratio.	No. eggs Sept.	Cost of feed, Oct.	Cost per doz. eggs.
1	One-half corn and milk.	8	42	52	52	3+	1:5+	81	81	.09
2	One-half corn.	7	32	52	52	3+	1:6	52	90	.14
3	One-third corn.	8	37	50	50	3	1:4.2	63	99	.15
4	Two-thirds corn.	8	39	50	50	3	1:7	13	47	.49
5	Oats, mash and milk.	8	42	40	53	4.8	1:4	93	56	.13
6	Corn and mash.	8	42	40	53	4	1:5	56	64	.16
7	Variety feed.	8	41	41	57	3.6	...	50	49	.18
A	Corn and mash.	12	...	100	97	4+	...	38	123	1.11
B	Self-feeder.	18	88	86	118	3.5	...	76	171	1.64
C	Comparison pen, corn and mash.	19	82	89	117	3+	1:5.5	62	116	1.37
D	Oats and mash.	16	...	112	108	3.5	1:4.3	42	130	1.54
E	Dry mash feeder.	18	74	76	81	3-	1:3.1	123	152	1.17
F	Oats and mash, open range.	9	...	66	83	4-	1:4	51	84	.86
G	Oats and mash, open range.	7	...	54	43	4	1:4	36	34	.66
H	No feed, open range.	9	...	...	...	...	...	...	41	...

No. 1. and No. 5 each had 52 lbs. of milk not included in amounts given in the table.

It seems from the table that there is a decided advantage in using milk. With the hope of making this clearer, the milk was changed to No. 2. the first of November. If the milk is really responsible for the superior showing of No. 1, this pen should now drop behind and No. 2 should come up ahead. It is not possible to form much of an estimate as to the actual value of milk on so limited a test, but a summary will be given when the experiment is concluded the first of December. It is noticeable that the hens that get the milk are the better feeders.

In the corn-feeding test, No. 4 points with pride to the fact that corn, all corn, nearly all corn, or part corn, will not make hens too fat to lay. It only makes them hungry for something else and when they get the something else they lay; not before.

It is throwing money away to try to get winter eggs on an excess of corn. No. 4 laying eggs at a cost of 49 cents a dozen is a case in point. I expected this pen to eat more corn when the weather got cold and either lay more eggs or get fat. Instead, it is eating less than before. It is more apparent in the daily feeding than it is in the table that even one-half corn is too much on a steady month after month feeding. It does not satisfy the hens. The nutritive ration, 1:6, though a little wide, is not so very far out of the way at this season, but the hens are not eating enough, and what they eat does not satisfy them. They spend a good deal of time trying to get through the partitions into the mash-fed pens while they have plenty of corn in their own.

Some of the other pens became indifferent to the mash this fall and showed a decided preference for corn. Believing that when hens, having a choice of feed, show a decided preference for some particular kind it is because they need it most, I gradually increased the corn allowance from one-third to one half or over. For about three weeks, this was entirely satisfactory to the

hens, and then they began to lose their enthusiasm and by the end of the month it took all day to clean up the corn. After that, they were ready for the usual amount of mash.

Hens that have not been well fed, it is true, eat an immense amount of corn; and it is just as well to let them have it. They can't lay at any rate until they are fatter than most hens are in the fall. And there is nothing better to bring laying hens up to the proper weight than corn—mostly corn. But hens that are in good flesh must have a narrower ration if they are to lay eggs.

And they must have a good deal of it; more in early winter than at any other time. Hens of the Wyandotte type can not supply material for eggs, feathers and underwear on less than three and a half to four ounces a day. It's a very shortsighted poultryman who complains that his hens eat too much.

Of course the proportion of corn that can be fed to advantage to laying hens depends to a large extent on the character of the mash or other feed used in connection with the corn. It would be possible to make up a mash carrying a large proportion of protein derived from animal sources, which would fit in very well with half corn or even more. And it might be better than to feed so much mash—especially in cold weather. I hope to be able to test this matter later.

No. 3, which has made the best rec-

ord for the entire time, gets animal food of some kind every day. During September and a part of October, however, my supply of animal meal was exhausted, and though I finally got some of the fertilizer sort from a local dealer it was not satisfactory to the hens. I have a meat scrap now that I think is going to be very satisfactory. It has a less aggressive odor than any I have yet found and is the only kind I have tried that the self-feeder hens will eat alone. No. 3 through an oversight had a very small allowance of corn in October and for that reason, or on account of the animal food difficulty, did not do as well as was expected.

The best laying pen in October was No. 5. This is the pen that was held back in spring and summer by an all-corn diet. After August, they had the regular ration with a little extra meat. During October, they had oats in the morning and milk to drink. That hens may be held back in the spring and summer and made to do better than usual in the fall is pretty clear from this pen's record. Whether it is a profitable thing to do will be clearer by the end of the year.

Pens 6 and 7 are in an experiment, the object of which is to learn the advantage of variety in feeding. No. 6 gets the regular ration at night and corn in the morning. No. 7 gets the regular mash about half of the time and American Poultry Food the rest. It was not practicable to carry a stock of the various grains solely for this pen, so I am using for the morning feed a mixture of whole grains put up for the purpose. It is composed of about equal parts of corn, oats, barley, and sunflower-seed, about twice as much wheat as of any of the others, and smaller quantities of rice, flax, hemp,

Going for the Veterinary

A wild ride on a nasty night to bring a horse doctor to attend a colicky horse is not an agreeable task. And the delay may be dangerous. Don't run such risks. Keep

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Queer Fairs in France.

A gentleman farmer, the proprietor of a large and costly stock farm, was talking the other day about the odd sort of fairs they hold in France. "Now here," he said, "at our fairs, we give prizes to cattle, sheep, hogs, and so forth on their looks, but in France looks only count for one part and edibility makes up the rest. Hence the jury at a French country fair always concludes its labor by dining upon animals of the sort that it has voted best so far as looks go. I attended a French fair last year and at the final jury dinner the tests were interesting. The time to prepare each meat and its weight before and after cooking were noted and considered, but taste, of course, counted most. There were seven kinds of roast pork, and a cross between an English and a French hog won. In the roast-mutton class there were eight entries. Cotswold, on account of its superior leanness, tenderness, and sweetness, won. In roast beef—this meat was roasted before a small grate of charcoal with a bachelor's oven behind it—there were thirteen entries, and all of them were delicious. The first prize went to a West Highland ox, the second to a Devon ox, and the third to a French animal—the Charolaise."—Philadelphia Record.

Where May His Children Attend School?

An inquiry on this question was referred to the State Superintendent, who replies as follows:

EDITOR KANSAS FARMER:—We note carefully your question and answer you as follows: A man's children are entitled to school privileges in the district where the man resides, that is, where his home is. We believe it would be a fair interpretation to say, that his home is where his family is. This privilege is not curtailed or modified in any way by the fact that he pays taxes or does not pay taxes in any district in the State.

I. L. DAYHOFF,
State Supt. of Public Instruction.

Generally speaking, horses digest the bulky and fibrous part of their food less thoroughly than do cattle, and hence very coarse fodder pays better fed to cows than to horses.

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Lecturer..... N. J. Bacheider, Concord, N. H.
Secretary, John Trimble, 514 F St., Washington, D. C.

KANSAS STATE GRANGE.

Master..... E. W. Westgate, Manhattan
Overseer..... J. C. Lovett, Bucyrus
Lecturer..... Ole Hibner, Olathe
Steward..... R. C. Post, Spring Hill
Assistant Steward..... W. H. Conitts, Richland
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Gate Keeper..... G. F. Kyner, Lone Elm
Cares..... Mrs. M. J. Allison, Lyndon
Pomona..... Mrs. Ida E. Flier, Madison
Flora..... Mrs. L. J. Lovett, Larned
L. A. S..... Mrs. Lola Radcliff, Overbrook

EXECUTIVE COMMITTEE.

Henry Rhoades..... Gardner
J. T. Lincoln..... Olpe
A. F. Beardson..... McLouth

Kansas State Grange—Thirty-second Annual Meeting.

Upon invitation of the Commercial Club of Arkansas City, the Kansas State Grange convened in that city for its thirty-second annual meeting, December 8-10. A public reception was given on Tuesday evening. A hearty welcome was extended by the county attorney as representative of the mayor; by Hon. J. Mack Love, president of the Commercial Club; by Hon. E. F. Green, representative of Cowley County in the Legislature; and by W. B. Walton, representing the Patrons of Husbandry in Cowley County. Responses were made by E. W. Westgate, master of State Grange; by Ole Hibner, lecturer; and A. P. Reardon, of the executive committee. Excellent solos by ladies of the city were rendered during the evening. The meeting closed with very kind and cordial feelings between hosts and guests. And right here we wish to mention one peculiarity never before observed by us. The farmers of the country tributary to the city are eligible to membership in the Commercial Club as honorary members, with right to vote and not subject to any expense. Many of the farmers are members of the club, and as a result there is none of that feeling of rivalry or hostility existing between the business men of the city and the people surrounding that too often is found to exist. Other cities might well follow the example of Arkansas City.

The session of the Grange opened at 10 a. m. Tuesday. The committees were at once announced, and the work of the session commenced in earnest. The address of the master was read and reports of several officers given before the first recess. Every officer came with report in writing, ready when called upon, except one, who was detained by sickness. The reports of the secretary and treasurer showed an increase of five hundred in membership during the year, and a corresponding increase in receipts of the treasury, the balance in treasury being greater than at any time for the last twenty-five years. One more county was represented than last year and a larger number were present from distant counties than we have ever known. The committee on needed legislation was kept busily at work, and its recommendations were discussed and some of them adopted and others referred to the subordinate granges for consideration during the year, to be reported upon at the next session of the State Grange, which will occur before the next regular session of the Legislature.

By invitation, the Grange visited the Government Indian School at Chilocco, in Oklahoma, only six miles distant. The Government has here a reservation of thirteen and one-half sections of good farming land, with excellent buildings, stock, and equipment, and 750 students. No child is eligible to admission here who has less than one-eighth of Indian blood, and while many of the pupils were evidently pure-blooded Indians, a very large portion showed mixture of white and of negro blood; a few of them might enter any school without suspicion of Indian ancestry.

Henry Rhoades, of Johnson County, was reelected to membership upon the executive committee for three years. The other officers all hold their respective positions for another year.

Nearly fifty members witnessed for the first time the beautiful and impressive ceremonial of the fifth and sixth degrees and were instructed in the secret work thereof. All business was conducted with harmony and dispatch.

Paola was selected for the next place of meeting.

At 7 p. m. Thursday, the Grange closed in form, and in faith, hope, and charity, with pledges of fidelity and determination to persevere in their efforts to attain the objects of the order. The parting words were said and all dispersed for their several homes to take up the work for another year with renewed zeal and determination.

At the meeting of the executive committee after the adjournment of the Grange, more favorable terms were tendered to W. G. Obyrhim to continue the work of State organizer, and he was given one week to render his decision, and the worthy master was relieved of the direction of the committee in the lecture work of his department for the ensuing year.

Winter Wheat and Rye.

Returns to the Chief of the Bureau of Statistics of the Department of Agriculture indicate that the newly seeded area of winter wheat is about 32,000,000 acres, a decrease of 6 per cent from the area estimated to have been sown in the fall of 1902. The condition of winter wheat on December 1 was 86.6, as compared with 99.7 in 1902, 86.7 in 1901, and a nine-year average of 92.7.

The newly seeded area of winter rye is provisionally estimated at 98 per cent of the area sown in the fall of 1902. The condition of winter rye on December 1 was 92.7, as compared with 98.1 on December 1, 1902, 89.9 on December 1, 1901, and 96.6, the mean of the averages for the last nine years.

Kansas is credited with 5,702,424 acres of wheat, more than double that of Missouri, her largest competitor.

The beesting as a cure for rheumatism has received serious medical endorsement. Dr. Perc, of Marburg, Germany, has announced that he has proven the efficiency of the treatment in five hundred cases, and has cured the most obstinate and painful rheumatism. When the sufferer from rheumatism is stung, the part does not swell until the bee poison has been frequently introduced, when the pain vanishes. Dr. Perc causes his patients to be stung at first by a few bees, and then gradually increases the number.

Beware of Ointments for Catarrh that Contain Mercury.

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is tenfold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and is made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free.

Sold by Druggists, price 75 cents per bottle. Hall's Family Pills are the best.

Gossip About Stock.

(Continued from page 1291.)
10th. Mr. J. R. Killough is manager of the Poland-China division of the combination.

A. M. Ashcraft, breeder of Shorthorns, of Atchison, Kans., has thirteen extra good Shorthorn bulls that should be doing service for some good breeder or farmer. He has also twenty cows and heifers that he will sell either at private sale or join with some other breeder in holding a combination sale.

Readers of the Kansas Farmer will remember the very successful sale of Percheron horses made from the Mt. Vernon Stock Farm of S. S. Spangler, Milan, Mo. In a recent letter, he says that he will hold a public sale of Standard-bred horses on February 18, 1904. He has built a new sale pavilion on the farm where all sales will be held in the future.

The Kansas Farmer is in receipt of information to the effect that one of the best-bred young Percheron stallions from one of the largest breeding establishments in the West can now be had at private sale at a very reasonable figure.

Should any of our readers feel interested, we can give detailed information in the knowledge that this horse is all right and in the belief that the terms of the sale will be satisfactory.

Chas. Morrison, Phillipsburg, Kans., reports as follows under date of December 12: "No snow here, and farmers are rushing their corn and wheat to market. Stock in fine condition. I shipped a fine Red Polled bull calf to Jasper N. Perry, Dodge City, Kans., this week and have more to go into new homes; also a good supply of fine Poland-Chinas, all ages, to ship at let-live prices. The best of breeding and good individuals."

T. A. Hubbard, Wellington, Kans., breeder of Berkshire and Poland-China swine, and now treasurer of Sumner County, is deadfully busy now in performing his dual duties and consequently would like to be relieved of some of his responsibilities by the dispersal of about twenty boars and twenty-five sows, bred and unbred. He has on hand a world of good pigs of both breeds. Apparently it is a good time to make purchases of Rome Park's fine hogs.

Last week, during the Hereford sale at Sunny Slope Farm, Superintendent Geo. W. Berry, of the Berkshire division of that breeding establishment, reported the sale of a number of young Berkshires, the cheapest of which brought \$50. Sunny Slope is now recognized as the largest Hereford breeding establishment in the United States and the largest Berkshire breeding establishment in the world. The Kansas State Agricultural College has lately secured a very fine Berkshire boar from Sunny Slope to head its herd of that breed.

If farmers in the Western States could secure for their hogs immunity from diseases, the hog-raising industry would be the most profitable which they could engage in. The Rex Stock Food Co., Omaha, Neb., whose advertisement appears in this paper, claims that their Rex Hog Remedy if properly fed will prevent diseases in hogs. There are excellent reasons for believing their statement that hog-worms and fever, and not cholera are killing hogs, is reliable. They will send you free, if written to, valuable information on this point. Address Rex Stock Food Co., Omaha, Neb.

During the International Live Stock Show at Chicago, in addition to the team of students who entered the judging contest for the Spoor Trophy from the Kansas State Agricultural College the following ex-students of that institution visited the exposition: A. J. Reed, Geo. W. Fielding, Geo. Logan, L. B. Jolly, Homer Derr, John V. Patten, Prof. W. H. Olin, J. A. Conover, L. S. Edwards, W. R. Hildreth, H. P. Thatcher, Henry Rainer, J. E. Roberts, H. W. Avery, G. W. Skow, H. D. Orr, F. D. Thompson, Miss Abba Woods, and "Uncle" John Gosling, who is a perpetual student at this institution. The faculty was represented by Prof. O. Erf and Assistant Kinzer, while ex-professors E. E. Faville and I. D. Graham also attended.

Mr. Geo. A. Heyl, of Washington, Ill., who is advertising his poultry, Shetland ponies and Poland-Chinas in this issue, is one of the most extensive breeders of fine poultry in the West, having at present 1,000 pure-bred fowls of the various breeds he handles for sale. He not only breeds them in great quantities but he breeds a high-class lot of them, as his prize record at the leading Western poultry shows and State fairs will show. In Shetland ponies, his stud is of a high order of merit with about fifty head for sale at present, and Mr. Heyl has always won a large share of ribbons in this class at State fairs wherever shown. In Poland-Chinas, he has been a breeder of this popular breed for years and has bred some of the best of them. Mr. Heyl is a practiced stockman and if you want anything in his line, will try to please you. Write him for circular which gives valuable information.

President Chas. E. Sutton, of the Kansas Improved Stock-breeders' Association and owner of Rutgar Farm of Angus Cattle and Berkshire swine, Russell, Kans., in a recent letter mentioned that he will have at least fifty of his market-topping young Daddie bulls for his 1904 trade. He also adds that a better lot than these he has never owned. By reference to our report of our American Royal sales, it will be seen that Mr. Sutton received the highest price for his consignment. In addition we may add that the champion fat stock cattle at the American Royal were out of Angus cows sired by the bulls on Rutgar Farm. From this and other like facts it will be seen that Mr. Sutton's claim that the Angus Daddie is the market-topper is not far wide of the truth. Mr. Sutton plans to show some of his Electrician calves next fall and we hope to see him at St. Louis, just to show what can be done with good cattle in the good end of Kansas.

D. L. Houston, owner of Riverside Stock Farm, Chanute, Kans., will sell his entire herd of Hereford cattle at auction on December 22, at the farm. Nothing will be reserved and nothing will be sold at private sale prior to that time. The offering consists of the herd-bull, Watchman 126512, a 2-year-old son of Beau Brummel, and seven young bulls from 10 to 20 months old. In addition to these there will be 12 heifers and 23 cows, some of whom will have calves at foot. A personal inspection of these cattle justifies us in saying that they are as well bred as anybody's Herefords and they will appear in the sale ring in good shape. This will be a splendid opportunity to get a grandson or great-grandson of the great Corrector, and females to match. Remember that you can not buy a hoof until the sale. Also remember that when the sale is called you can buy these fine cattle at your own price. Write for catalogue. See advertisement on page 1291.

McLaughlin Bros., importers of French Coach and Percheron stallions, Kansas City, Mo., write as follows: "Our last importation for this year and one of our largest arrived Tuesday, making the total number imported by us from France more than the total number of Percheron and French Coach stallions imported to this country by all others combined. On account of the fact that Mr. James Mc-

Laughlin spends nearly all of his time in France and speaks the French language as fluently as his native tongue, the breeders of Percheron and French Coach stallions give him every possible advantage. They will not sell their best ones until he has an opportunity to take his choice. Each time he goes to France he is able to buy a better lot than ever before. The last importation which is now safely housed in our spacious home stables surpasses in excellence. On account of the fact that we will save some of them to show at the Louisiana Purchase Exposition next year, the French breeders have especially favored us this time and have let us have better horses than we or anybody else have previously had the good fortune to bring to America."

Mr. C. S. Nevius, Glenwood Stock Farm, Chiles, Kans., is saying nothing and sawing wood. He just sold six head of female Shorthorns—two cows, two 2-year-old heifers, and two yearling heifers—to Mr. H. E. Hayes, Olathe, Kans. Mr. Hayes has a small herd as yet, but it is extra in quality, and he is buying where he can secure the best. Mr. Nevius also shipped this week Mina's Victor by Victor of Wildwood, and calved April 4, 1903. He went to Hennessy, Okla. He also shipped a yearling bull of like breeding to John Smith, Wellsville, Kans. Mr. Nevius still has a few more females to sell that are bred to Victor of Wildwood, and he thinks the calves of this great sire are very hard to beat. Apparently buyers think the same. Glenwood Farms have just bought twenty head of brood-sows and gilts of the best breeding to add to their Poland-China herd. They combine the blood of Pana Chief, Chief Perfection, A. Chief, Perfect Sunshine, Sunshine Prince, and Ideal Sunshine. They still have a good lot of spring boars weighing from 200 pounds up, and twenty-five spring gilts for sale. Watch the card.

The McPherson Poland-China Sale.

The combination sale held December 9, at McPherson, Kans., was very successful. The desirable stock sold readily at good prices. Some late summer and fall pigs were rather slow sale. The eight head consigned by C. M. Garver & Son, Abilene, made the highest average, \$32.50. L. D. Arnold's consignment from Salina averaged nearly \$30, and M. O. Kilmer's came next at a little lower average. The other consignments contained many young pigs and averaged less. Mr. Kilmer proved a good manager and deserves much credit for bringing together such an excellent offering.

The following is a list of sales amounting to \$20 or more:

- KILMER'S CONSIGNMENT.
- 1. Ray Jones, McPherson, Kans. \$21.00
- 2. J. B. Myers, Canton, Kans. 50.00
- 3. W. E. Muse, McPherson, Kans. 32.00
- 4. Cottingham & Son, McPherson, 24.00
- 5. H. E. Hostetler, Conway, 29.50
- 6. H. E. Hostetler, 20.50
- 7. F. P. Maguire, Hutchinson, 23.00
- 8. F. P. Maguire, 22.00
- 9. F. McNeely, Lindsborg, 26.00
- GARVER'S CONSIGNMENT.
- 19. Cottingham & Son, 30.00
- 20. Cottingham & Son, 29.00
- 21. J. W. Myers, Galva, 45.00
- 22. F. M. Schimelfeng, Belle Plaine, 35.00
- 23. L. V. Martin, Belle Plaine, 23.00
- 24. M. T. Fletcher, McPherson, 40.00
- 25. M. T. Fletcher, 25.50
- 26. W. J. Keagle, McPherson, 27.50
- WALKER'S CONSIGNMENT.
- 29. M. O. Kilmer, McPherson, 25.00
- ARNOLD'S CONSIGNMENT.
- 38. J. B. Myers, 38.00
- 37. F. McNeely, 25.00
- 38. Cottingham & Son, 39.00
- 39. Cottingham & Son, 21.50
- 40. Cottingham & Son, 25.00
- 41. F. P. Maguire, 22.00
- MYER'S CONSIGNMENT.
- 44. John A. Swanson, McPherson, 21.50

The Lincoln Importing Horse Company's Horses.

Mr. A. L. Sullivan, manager of the Lincoln Importing Horse Company's interests at Lincoln, Neb., writes: "We are having many inquiries about our horses and the outlook for business is good. Our horses are doing most excellently. I have never had an importation acclimate and come to the front as these fellows have done. They are vigorous, lively, and active. I have all confidence in being able to show prospective buyers commencing the fore part of the coming year, the grandest lot of individuals ever brought to this Western country. The truth is I was even more favorably impressed with our own horses after attending the International show. If you are looking for top-notch horses you will surely be interested in what the Lincoln Importing Horse Company has to offer." It should be kept in mind that this establishment is particularly strong in big, flashy, young German Coachers. This fine string of stallions stands quite alone in the Western horse world. But this company has a big string of fine Percherons also, and they have the best barns in the entire country for acclimating them. Go to Lincoln, Neb., and see a barn full of tip-top good horses. Notice their advertisement on page 1308.

Nebraska Percherons at Auction.

Mark M. Coad, the veteran draft horse man at Fremont, Neb., is soon to announce a grand dispersion sale of his entire Maple Grove stud of about 100 stallions and mares. The sale will be made at South Omaha, January 26 and 27. Without a doubt this is the most important announcement ever made in Western horse circles. The Maple Grove stud has been in business for twenty years. It was founded upon an importation made by Mr. Coad at the very beginning of the enterprise. This importation consisted of sixty-five head. The great stallion, Turc 6539, was imported in 1887 and he has been recognized as the greatest prize-winner and sire of prize-winners ever known in the Trans-Mississippi country. He and his get were shown at the World's Fair in 1883 where Mr. Coad's winnings aggregated \$1,761. Turc blood is in the ascendancy in this big two-days' sale offering. The writer has just been out to inspect the offering and has never seen the equal of the fine string of young mares that are

to go into this sale ring at South Omaha. All of them are of breeding age and safe in foal. The stallions are a fine lot of big, dashing black fellows that are not to be beaten. See announcement later. Write for catalogue.

Publisher's Paragraphs.

The Charter Gas Engine Company, Sterling, Ill., have gotten out a booklet of special interest to all of our readers that is worth having and may be had by asking for catalogue K.

Watch out next week for a special proposition of interest to every dairyman within 500 miles of St. Joseph in the regular space of the Blue Valley Creamery Company, of St. Joseph, Mo.

When men of means put their money into an enterprise, the venture is supposed to represent their best judgment founded on past business experience. Money is always shy, and men of large business interests and large means may be credited with shrewd business judgment when they invest. This is the case with the John Deere Plow company, known all over the world. It has lately invested in the purchase of about 10,000 Sharpless tubular cream separators, which it will dispose of from the various branch houses. As this is something of an innovation, one naturally inquires why this great company, which has already been so successful in certain lines of manufacture should branch out into the cream-separator business, but more especially why it selected the Sharpless? Inquiry develops some facts which help to explain this. They believe the Sharpless to be the best cream separator manufactured to-day. The Sharpless supply can be always low and within easy reach, which saves a deal of lifting. The bowl is so simple and so easy to handle and to wash that it at once recommends itself. The Sharpless is easily operated and saves an immense amount of labor when turning the handle at the proper speed. This machine has the simplest oil device and is altogether the most durable of all separators. The reports of tests at experiment stations and among thousands of farmers and creamery patrons have shown the lasting qualities of the Sharpless and the John Deere Plow Company has adopted it because it can use the same motto with it that it has always used with its plows, namely, "Quality not cheapness pays best and wears best." See the advertisement on page 1298, and write the company at Station A, Kansas City, Mo.

Fence Economy.

Every farmer knows that a good wire fence is the best fence. It does not rot, it can't burn or blow down, and it turns stock perfectly. The important point, then, is price. Probably almost any first-class galvanized fence is worth what it costs but our advertisers, W. H. Mason & Co., Box 62, Leesburg, Ohio, seem to have the inside track on prices some way. Write them to-day for prices and free circulars, addressing as above.

Couldn't Be Without It.

Santa Ana, Cal., January 27, 1903. I have used Watkins' Vegetable Anodyne Liniment for colds, and find it is the best medicine I have ever used for that purpose. We couldn't get along without it. M. A. HARRELL.

Cured Two Spavins.

Stockbridge, Mass., October 3, 1903. Dr. B. J. Kendall Co., Enosburg Falls, Vt. Gentlemen:—Please send me a "Treatise on the Horse and His Diseases." I have used your Kendall's Spavin Cure and have cured two spavins. I consider it excellent. Yours very truly, G. E. TANSKI.

Special Rates Account Christmas and New Year's, via Missouri Pacific Railway.

Rate will be fare and one-third to points within 100 miles distance, and one fare plus 50 cents to points between 100 and 200 miles distance, with minimum selling rate of 50 cents. Dates of sale December 24, 25, and 31, and January 1, good to return to January 4.

THE MARKETS.

Kansas City Live-stock and Grain Market.

Kansas City, Mo., December 14, 1903. The cattle market opened strong and closed easy here to-day with about 10,000 head in sight. Wallace Bros., of Blue Mound, Kan., topped the market with a fat lot of Herefords that sold for \$5.30, and Porter Grooms, of Liberty, Mo., sold some \$5.10 steers. Late sales were 10@15c lower with the movement very slow. Hog receipts amounted to 8,000 head, and like cattle, swine opened strong and closed weak to 5c lower. The supply in the West was heavier by 10,000 head, than the run a week ago. Tops brought \$4.77 1/2 and the bulk of sales ranged at \$4.55@4.70. Last week hog receipts here amounted to 42,700 head and the market gained 10@15c. Packers are inclined to be bullish the moment receipts show the least sign of letting up, but salesmen think offerings will not be materially reduced within the next few weeks. The sheep market saw only 2,000 head on sale and prices were mostly a shade higher. Top native lambs sold readily at \$5.15@5.25 and fed Westerns brought \$5.15. A string of fed Colorado stock, the first offerings of the season from the Arkansas Valley, were sent in by G. W. Swink, of Rocky Ford. Fed wethers brought \$3.60@3.65 and Colorado-Texas ewes \$3.35. More sheep are needed here by killers. The horse auction saw only 100 head on sale, although the total run amounted to 600 head. The demand was non-aggressive and prices held barely steady. Quality was generally lacking in all offerings. Southerners sold mostly at \$40@75; drafts at \$140@160, and medium chunks at \$75 @120. Among the good cattle sold here last week were: C. H. Naber, Wallula, Kans., \$7; D. Lee Shawhan, Lone Jack, Mo., \$4.80 @6; A. S. Smith, Windsor, Mo., Short-horns, \$5; J. B. Gilck, Circleville, Kans., \$5.10; W. N. Norton, Cottonwood Falls, Kans., feeders, \$4.45; W. L. Ragdale,

Special Want Column

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

CATTLE.

GALLOWAY CATTLE—Choice young stock of both sexes for sale. W. Guy McCandless, Cottonwood Falls, Kans.

WANTED—20 thoroughbred or grade Holstein heifers, or young cows (more or less) coming fresh soon, or early in the spring. David Major, Jr., Carlton, Kans.

FOR SALE—Herd bull Cruickshank Orange Blossom, Shorthorn No. 15879, color red, very fine animal, or will exchange him for registered bull of equal merit, very gentle, born June 16, 1898; (also one equal merit, very gentle, born June 16, 1898; and two 2-year-old red full-blood Shorthorn bulls, and two Shorthorn yearling bulls, same breeding); also for sale registered Shropshire sheep, ewes, yearlings and lambs. Both sexes; also registered Berkshire hogs. Boars \$20 and \$25, sows \$15 to \$25, pigs \$5. Stock can be seen on ranch, four miles south of Marquette, Kans. Alex McCutcheon, foreman of ranch. Address all mail matter Geo. F. Stericker, owner, Springfield, Ills.

FOR SALE—Or will trade for a good young registered black Percheron stallion, ten head of choice young registered Shorthorn cows and heifers, also a few bull calves, all red and richly bred, good size and good quality, bred to the prize Cruickshank bull, Cruickshank Clipper 196212. Geo. B. Ross, Alden, Rice County, Kans.

FOR SALE—Two registered Shorthorn bulls, color red, one 2-year-old, the other 4 months. Two seven-eighths Shorthorn bull calves, 8 months old, color red. I also have a few full-blood Rose Comb White Leghorn cockerels. For prices address, P. H. McKil-trick, McCracken, Kans.

FOR SALE—A small bunch of Shorthorn heifers, also two bull calves, choice breeding, and good individuals, at \$50 each. Write, or better come and see them, S. H. Lenhart, Hope, Kans.

FOR SALE—Polled Jersey bull calves. W. H. Forbes & Co., Yellow Springs, Ohio.

A BARGAIN in Red Polled cattle. S. H. Seever, Vassar, Kan.

FOR SALE—Choice registered Hereford bulls, 8 to 15 months old. Address, or call on A. Johnson, R. R. 2, Clearwater, Kans.

FOR SALE—Four thoroughbred Shorthorn bulls, color red, from 5 to 21 months old. Also a few thoroughbred cows and heifers. For prices write, J. P. Engel, Alden, Rice Co., Kans.

FOR SALE—The imported Shorthorn bull Mark Hanna 127532, also several of his get, serviceable ages. F. H. Foster, Rural Route 6, Lyons, Kans.

FOR SALE—Registered Shorthorns \$50 each. Best of breeding; splendid individuals, color and heifers bred to Imported Royal Briton, calves and yearlings. Must sell carload or more. Write at once. Also some choice Poland Chinas very cheap. M. C. Hemenway, Hope, Kans.

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

Lone Jack, Mo., \$5.25; Hugh Smith, Lafayette County, Mo., \$5.25; J. H. Makemson, Saffordville, Kans., Westerns, \$4.50; William Dewese, Belton, Mo., \$5.65; John Gundelfinger, Hanover, Kans., steers and heifers, \$5.10; J. S. Greenfield, Kearney, Mo., \$4.70; W. W. Deardorr, Hale, Mo., \$5.65. There was no quotable improvement in the cattle trade here last week. Receipts totaled 35,900 head, the smallest run in some months. Dealers had counted on a brisk demand for toppy "Christmas" heaves but their hopes were blasted for the trade in fancy steers was the dull-est in ten years. The top for a full load was \$5.65. There was a much better tone to the stocker market and prices looked a little higher. Stock and feeding steers that brought \$3@3.50 were 25@40c higher than the low time of November. Wheat broke a fraction of a cent during the week under the influence of heavier receipts and lower speculative markets. Wheat arrivals amounted to 1,225 cars, the biggest supply for several weeks. Corn held steady, owing to bad weather retarding shipments to market. Oats sold stronger. No. 2 wheat is worth 71 1/2@83c; No. 4, 61@76c; No. 2 corn, 39@39 1/2c; No. 4, 34@35c; No. 2 oats, 34 1/2@38c; No. 4, 32 1/2@34c; bran, 67@68 1/2c; chops, 77c; flaxseed, 85c; tame hay \$6@9.50; prairie, \$4@8; alfalfa, \$9@11.50. The poultry trade saw a brisk demand for turkeys for the Christmas inquiry started in a trifle early. Commissionmen do not advise shipments that will arrive on the market close to Christmas as the demand will slacken after the middle of next week by which time dealers will be pretty well filled up. Packing butter is about 2c higher and eggs are firm. Broilers eased off somewhat during the week. Eggs are worth 27@27 1/2c; hens, 7@7 1/2c; turkeys, 12@13c; geese, 6@8c; roosters, 20@25c; ducks, \$1.75@4 per dozen; potatoes, 67@75c per bushel. H. A. POWELL.

South St. Joseph Live-stock Market. South St. Joseph, Mo., December 14, 1903. The feature of the beef-steer market last week was the indifference of buyers towards the heavy grades, which suffered a loss of anywhere from 10@25c, although the course of the market at other points was just as bad, or worse. The cheap grades of cattle sold readily, but lost the advance of early in the week, while light and medium weights in good flesh gained 10c. Cows and heifers were in reduced supply and showed a gain of mostly 10@15c. Stockers and feeders fell under the needs of the trade, and prices advanced generally 10@15c, with many instances showing a gain of 20@25c. At the close of last week prices for hogs displayed a gain of 5c, in the face of liberal marketing. The quality is showing no improvement and weights no increase with late weeks, which still indicates that farmers will not feed high-priced corn to hogs only in case the market should brace up considerably. Receipts in the sheep division were not liberal, but the trend of prices was generally lower in sympathy, with the bad conditions East. The only exception was for the good class of handy weight yearlings and wethers, which sold on a fully steady basis, with medium quality, but fat, Western yearlings going at \$4.10 and native wethers at \$4.10. Western ewes broke 10c

HORSES AND MULES.

FOR SALE OR TRADE—Three black jacks, one coming 3 years, one coming 2 years, and one suckling. All large and heavy bone. Also three jennets, large ones, well-broken. Would trade for land and pay difference. Address Thos. Brown, R. 1, Clifton, Kans.

FOR SALE—Span of large mules, one roadster stallion. Will exchange part for cattle or sheep or colts. For further particulars address, T. J. Kennedy, Osawatie, Kans.

FOR SALE—The best % Percheron stud colt in Kansas, 28 months old, 1500 pounds, also younger ones of like quality. F. H. Foster, Rural Route 6, Lyons, Kans.

FOR SALE five jacks, one to seven years old, all blacks. One Clydesdale and one Percheron stallion, registered. Would trade jack for mares. J. C. Strong, Moran, Kans.

WANTED—To buy or trade, a Clydesdale stallion for a span of good mules. H. W. McAfee, Topeka, Kans.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORTHORN CATTLE AND POLAND-CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kans.

SWINE.

FOR SALE—7 registered Berkshire boars, large bodied, heavy boned. E. D. King, Burlington, Kans.

DUROC-JERSEY boars; special prices on all sold before January 1, 1904. Pedigree furnished. H. A. Coppins, El Dorado, Kans.

DUROC-JERSEY BOARS ready for service, good individuals, good colors, and best of breeding. Pedigrees furnished. R. C. Simmons, Blackwell, Okla.

FOR SALE—Serviceable Poland-China spring boars, large, easy feeders, good quality, sired by first prize boar at Wichita fair 1903, and out of prize-winning dams. This herd won twenty prizes at two leading Kansas fairs 1903; prices low, inquiries cheerfully answered. A. P. Wright, Valley Center, Sedgwick Co., Kans.

TWO WELL-BRED HERD BOARS FOR SALE BY W. E. Nichols, Sedgwick, Kans.—Young U. S. 2591 S, sired by Hill's Black U. S. 11882 S., he by Old Black U. S. 4209 S. The dam of Young U. S. was Mable 56160 S, she by Shortstop Tecumseh 15922 S, her dam Tecumseh Girl 37756 S. Young U. S. was farrowed September 24, 1899. He is a fine breeder of solid colored, broad backed, heavy hammed, short-faced pigs. T. C. U. S. 24 20340 S, sired by the noted old T. C. U. S. 41718 O, that was shown in 13 shows, and won 13 first prizes in the state show at Ohio. Esther Price his dam was bred by Peter Mouw, Orange City, Iowa. These hogs are not for sale because of any fault of their own, but I cannot use them longer. If you need a first-class reliable sire at the head of your herd, write me at Sedgwick, Kans. W. E. Nichols, breeder of Poland-China hogs.

FOR SALE—Choice Poland-China boars and sows, none but choice stock shipped. Herd boar Royal Perfection, by Chief Perfection 2d, and Chief Tecumseh 2d. S. H. Lenhart, Hope, Kans.

CHANGE of a lifetime; start a herd Poland-China pigs for 30 days at \$5 to \$10. Popular blood and fine pigs. G. W. Harman, Woodson County, Ridge, Kans.

AUCTIONEER—Booze made twenty-eight sales from July 22 to October 22, 1903. Swine specialist. Write Jim W. Busenbark, Eskridge, Kans.

LARGE ENGLISH BERKSHIRES—Recorded. Three unusually good, six month boar pigs, weigh 200 pounds. Mrs. C. S. Cross, Emporia, Kans.

DUROC-JERSEY BOARS ready for service; pedigree furnished. L. L. Vrooman, Hope, Kans.

DUROC-JERSEY SWINE—3 yearling herd boars, fine lot of good males and bred gilts, also pigs in pairs. Pedigrees furnished. Write for prices. M. H. Albery, Cherokee, Kans.

FARMS AND RANCHES.

FARM BARGAINS In Iowa, West Missouri and Eastern Kansas. Oil and Gas Land Leases in the famous oil and gas belt of Kansas. We sell or trade. Write us; we can supply you. Sewell Land Co., Garnett and Cherryvale, Kas.

U. S. LANDS Irrigated on Union Pacific, in Wyoming. Water rights, \$12 per acre. Lands rented with water for three years free, with option of purchase. Address, David C. Patterson, President, Omaha, Neb.

FARM LANDS FREE—Send stamp for circulars and information. Address J. Lovering, Mgr., N608 Germania Bldg., St. Paul, Minn.

160 ACRES nice smooth land, 60 acres cultivated, no house; price \$2000. 160 acres, fair improvements, half cultivated; price \$2,500. 160 acres nice land, all in cultivation; price \$3,200. 160 acres, 140 cultivated, nice improvements; price \$3,000. And many others; try us. Garrison & Studebaker, Florence, Kans.

WANTED—Stock and grain farm to conduct on shares. Address J. B., Kansas Farmer office, Topeka, Kans.

FOR SALE—A good 240 acre stock and crop farm, one-half mile from town. Extra good fences and good buildings. \$55 an acre. C. B. Flester, Whiting, Kans.

BUY NOW—While land is cheap. Wheat and stock farms of 160 to 3,000 acres. From \$3 to \$10 per acre. Send 50 cents for full descriptions to H. B. Gilbert, Wallace, Kans.

IMPROVED FARM LAND for sale in Hodgeman Co. Kans. at \$4 to \$10 per acre. Write for list Eakin & Eakin, Jetmore, Kans.

WANTED—To rent a farm for crop rent, or on shares. Have my own machinery and team for both grain and stock farming. F. R. Moninger, R. F. D. 5, Ottawa, Kans.

120 ACRES, new buildings, Osage Co., \$2,500. Bargain. Farm, R. F. D. 2, Williamsburg, Kans.

FARMS AND RANCHES for sale. Write for list. Kansas Realty Co., Emporia, Kans.

STOCK FARM—240 acres, 4 miles to railroad and creamery, 1 mile to school, R. F. D., 140 acres broken, balance meadow and pasture, 9 room house, barn 32 by 32, hog house and granary 20 by 40, cattle sheds etc., 8 acres alfalfa, orchard, 2 wells and cistern, good water. Cheap at \$45 per acre. D. M. Troit, Abilene, Kans.

FOR SALE quarter section in Allen County oil and gas fields. No lease, no agent. Cheap from owner. Write if you want a good investment. J. C. Strong, Moran, Kans.

and natives mostly 20@25c, with Western wethers losing 10@15c. Native ewes sold at \$3.50 and Westerns at \$3.35. Lamb prices broke 10@20c, with best natives going at \$5.50 and fat Westerns at \$5.25.

SEEDS AND PLANTS.

ENGLISH BLUE-GRASS—New crop, fine seed. Price low. J. G. Hinsh, Eureka, Kans.

WANTED—Sweet corn, Kaffir-corn, cane and millet seed, alfalfa, red clover, timothy and other grass seeds. Correspond with us. Kansas Seed House, F. Barteldes & Co., Lawrence, Kans.

WANTED—Sweet corn, Brown Dourrah, Jerusalem corn, milo maize, cane and Kaffir-corn. Write us amount you have to offer and send sample. We will give you the highest market price. A. A. Berry Seed Co., Box 50, Clarinda, Iowa.

POULTRY.

BARRED PLYMOUTH ROCK COCKERELS, \$1 each. Write your wants. A. M. Kannard, Toronto, Kans.

BLACK LANGSHANS FOR SALE—Some are scored; all are extra good. Mrs. Geo. W. King, Solomon, Kans.

FOR SALE—Choice White Holland turkeys; also Shorthorn bulls. H. M. Harrington, Clearwater, Kas.

BLACK LANGSHANS—Cockerels, \$1 and \$1.50; hens, 75c and \$1. H. L. Pellet, Eudora, Kans.

BLACK LANGSHANS—Cockerels for sale; farm-raised. H. C. Cohoe, R. 2, Buffalo, Kans.

WHITE WYANDOTTE COCKERELS for sale, \$1.00 each; no hens or pullets. Mrs. E. F. Ney, Bonner Springs, Kans.

MISCELLANEOUS.

BOYS of the farm. Are you financially interested in their education. If so, state how, and address, Farm, R. F. D. 2, Williamsburg, Kans.

A BUSINESS OPPORTUNITY—Wanted: Men with some capital to invest in the following lines of business, at the little town of Gem, Thomas County, Kansas, on the main line of the Rock Island railroad, and they will be given liberal patronage: One bank, one newspaper, one hardware and implement store, one drug store, one doctor, one hotel and restaurant, one livery and feed stable, and one good blacksmith. I would also sell my general store, as my other business needs all my time. I would also sell a few choice farms of my own close to town on reasonable terms. W. O. Eaton, Gem, Thomas Co., Kans.

WANTED—Married man with-out children, or small family, to work on a ranch. Will furnish house, fuel and cow and pay \$25 per month for the winter. Would prefer people of about 30 years old and willing to work. Address A. C. Geer, Walden, Kans., stating age and when ready to come.

WANTED—Man and wife, or brother and sister, to work by the year on 1000-acre stock farm, can furnish house or board. Good home for boy or girl over fifteen. Good school. Will sell interest in stock to the right man who wants continual employment. References expected and given. Write stating experience, wages wanted, etc. Addressing Lock Box No. 10, Moriand, Kans.

WANTED—To sell or trade for any kind of stock, one 600-pound capacity Sharpless separator, almost new. L. A. Abbott, R. B. 1, Warnego, Kansas.

COIN MONEY mailing circulars as I am doing. Sample circular for 2 cent stamp C. J. L. Boher, 747 Westfall Ave., San Antonio, Texas.

PALATKA—For reliable information, booklets, and other literature, address Board of Trade, Palatka, Florida.

VIEWS OF TOPEKA FLOOD—Having purchased the balance of the edition of the "Views of Topeka Flood" of which many thousand sold at 25 cents each, we are prepared until the supply is exhausted to send them prepaid to any address on receipt of 10 cents. Address, Kansas Farmer Co., Topeka, Kans.

PATENTS.

J. A. ROSEN, PATENT ATTORNEY 418 Kansas Avenue, Topeka, Kansas.

The Stray List

Week Ending December 3. Jewell County—J. M. Bales, Clerk. STEER—Taken up by J. E. Fehr, in Browns creek tp., November, 14, 1903, one red and white steer, 1 year-old, valued at \$18.

For Week Ending December 10. Anderson County—J. E. Calvert, Clerk. COW—Taken up by Wm. Fonger, in Lincoln tp., Nov. 1, 1903, one red cow and black calf, valued at \$15. Nemaha County—B. F. Eaton, Clerk. STEERS—Taken up by Thos. Anderson, in Gillman tp., two light red steers, valued at \$25. Elk County—G. J. Sharp, Clerk. STEER—Taken up by W. K. Crumpacker, in Gre nold, in Greenfield tp., Nov. 20, 1903, one 2-year-old part red roan, diamond on left thigh.

Week Ending December 17. Lincoln County—N. J. Davison, Clerk. BULL—Taken up by H. F. Achterberg, in Elkham tp., (P. O. Lincoln, Kans.) November, 17, 1903, one white-faced bull, 1-year-old, branded on right hip with letter X. Greenwood County. STEER—Taken up by B. J. Jackson, in South Salem tp., Dec. 1, 1903, one red and white steer, 2-year-old. Lyon County—W. F. Eggers, Clerk. COW AND CALF—Taken up by Warren Hartwell, in Agnes City tp., (P. O. Allen, Kans.) one cow, 3 years old, branded with a bar on right hip and has a crop off right ear; also calf, about 5 months old.

HOMESEEKERS EXCURSION

....VIA.... The Missouri Pacific Ry

Dates of sale: Dec. 1 and 15, Jan. 5 and 19, Feb. 2 and 16, March 1 and 15, April 5 and 19. To points in ARKANSAS, INDIAN TERRITORY, LOUISIANA and TEXAS. Rate one fare plus \$2 for the round trip. Limit for return 21 days. Tickets will not be sold to Hot Springs, Ark. For further information address H. C. TOWNSEND, G. P. & T. A., St. Louis, Mo. Or call on F. E. NIPPS, Ticket Agent, Topeka, Kans.

Miscellany.

Farm Rotation.

J. MAUS, BEFORE OAK GRANGE FARMERS' INSTITUTE.

We are told in Holy Writ that God created the heavens and the earth and all there is in them and pronounced all very good. That was thousands of years ago. Observation teaches us that all things deteriorate, decay, and perish by the using. Provision has been made for the restoration of the things thus affected. The oak bears the acorn, and from it springs another oak to take the place of the original tree. The soil becomes exhausted, worn and non-productive by continued cropping. But by laying hold of nature's bountiful store we may restore some of the fertilizing elements.

The question arises, what method shall we pursue to restore this waste and secure the best results? And the answer is, by a series of rotation, corn following grass and grass following corn. Wheat, oats, etc., may be grown but are not as profitable, natural conditions being favorable. We must be in harmony with nature to be successful. We should adopt some system, not an iron-clad rule, for conditions are not always the same and we must exercise our own judgment to meet conditions.

Where corn has been grown for years on the same ground, seed to clover, alfalfa, Canada field-peas, cow-peas, or some variety of the bean family. The object of this method is to increase the fertility and obtain a greater yield. The clovers, peas, and beans, being leguminous, possess the ability, with the aid of the bacteria in the soil, to gather nitrogen from the air. The roots penetrate the soil several feet. Their decay forms cavities to admit water and heat, also decayed matter called humus. This humus may be increased by the application of a top-dressing of manure. Clover and English blue-grass form a desirable combination for hay or pasture. Timothy makes excellent hay, and with Kentucky blue-grass good pasture.

To be successful, it is necessary to adopt some system of rotation. Corn for grain, clover, peas, or beans for hay, and you have all the elements contained in a balanced ration.

Another beneficial result is the building up and maintaining of the physical condition of the soil. Rotation with corn and leguminous grasses is a good prescription for corn-sick land.

Cattle-raising in Shawnee County.

JOHN B. SIMS, JR., BEFORE OAK GRANGE FARMERS' INSTITUTE.

When Shawnee County was settled, there was no trouble about pasture for cattle free of charge. But times have changed since then. Little by little, the country was fenced up until now there is not an open piece of land to my knowledge.

In the earlier days, everybody raised stock. There was money in the business. But the country becoming more settled, pasture became scarcer every year, while the numbers of cattle increased. The value of land also increased. Twenty years ago, a feeder would start and buy two and three head for from \$18 to \$25 per head and usually made from \$7 to \$10 a head over all expenses on the deal.

Owners of large tracts of grass land fenced it and took cattle in to pasture at \$2 a head for the season. After a few years, they raised the price 25 cents, then 50 cents, and in another year, to an even \$3, until the last three or four years from \$3 to \$5 has been the common price.

But other changes came. Stock cattle of all kinds began to go upward in price, while beef cattle remained the same until stock cattle became so high that feeders of cattle could not afford to feed. A good many feeders went out of business for a time, and that was one reason that beef cattle came up in price.

Then, too, land began to advance in price around the large towns so that pasture could not be had at a price

that cattlemen could afford to pay. Now, Kansas is a cattle and grain State; and about the only way I can see out of the difficulty is for the farmers and ranchmen of the western half of the State to breed and raise cattle enough for their own use and to supply the cattle-feeders of the eastern half of the State with good Shorthorn and Hereford feeding-steers from 2 to 3 years old, at a price that they can afford to pay and come out even.

Now, in my opinion, the thing for Shawnee County farmers to do is stop trying to keep any more cattle than they can pasture and raise the feed for on their own farms; and to do that they will have to get their farms into tame grass and alfalfa and let the man who rents raise the corn and the farmers—cattle-feeders—buy it.

In the last two years, Topeka has become a market for all the milk that can be taken there and the farmers are all selling milk and raising a few calves. There is money in the milk business if it is properly conducted. A farmer should have good cows in his herd, headed by a good Shorthorn bull, then he will have good milkers in his herd and so raise good calves.

In conclusion, I want to say that if the farmers will build up their herds, raise their own feeders, and seed their farms down to grass, buy their corn of the renter who depends on corn to pay his rent and not send their cattle away to pasture, they will be better off at the end of ten years than they would at the end of the same time if they continue to do business as they do at the present time.

A Rat-proof Corn-crib.

EDITOR KANSAS FARMER:—In reply to Mr. Rankin's inquiry in your issue of November 26, about a rat-proof corn-crib, I beg leave to submit the method which I followed in building my granary last spring. Before I laid the floor, I lined the whole bottom with sheet iron. I used the lightest weight, made in sheets about 2 feet by 8 feet. It cost 54 cents per sheet, and for the building, 12 feet by 28 feet, the entire cost was about \$12, including freight from Chicago, as it was purchased from Montgomery Ward & Co. My granary is not only rat-proof but mouse-proof, and my stable, which is only about fifty feet distant, is swarming with rats and mice. I think that in building a corn-crib, it would be necessary to put one course of the sheet iron on the sides at the bottom, so they could not crawl up the cracks.

My carpenter who laid the sheet iron had never had any experience with it, and he found that in laying the first course next to the studding it is quicker to lay it even with them, and fill in the spaces with narrow strips rather than to notch it to fit the studding. He lost almost a quarter of a day's work in learning this.

One advantage, also, in a crib of this kind, is that it is not necessary to husk the corn perfectly clean, and will save time in gathering the crop.

If I were to build a new dwelling, I would line the bottom with sheet iron. Then there would be no rats running up and down between the walls to disturb my sleep, nor pesky mice to bother my wife. GEO. S. SOWERS.

Johnson County.

Late Breaking.

EDITOR KANSAS FARMER:—In the FARMER of November 26, there was a question asked by a Saline County reader in regard to breaking sod on prairie in the fall of year; and I see by the answer that both the college professors and students say it is all right. It may be so in theory, but I think they will find it the reverse in practice. I once knew of a field to be partly broken in April and May and the remainder was finished late in the same year and all drilled to wheat. Next season, the wheat on the early breaking was a good crop and the late plowing was hardly worth cutting; and that was not all, but for years after the early plowing was always the best crop. It is the rule here never to turn the prairie sod unless the grass is green and growing.

ARTHUR A. PATERSON.
Ellsworth County.



The Young Heart of a Maiden is Stolen.

WHAT SHOULD THE YOUNG GIRL DO?

"And when once the young heart of a maiden is stolen, The maiden herself will steal after it soon."

A young woman in this town has lost her heart, and there will soon be a runaway match, a sensational elopement will make every heart beat faster and in sympathy with the couple and against their parents, for everyone loves a lover. Providing the girl is strong, healthy and wise, she will go on loving her husband, just as she risked everything for him in the beginning. No doubt the majority of such marriages are happy and turn out well, and, as the sequel to the novel says, "They lived happy ever afterward." There is another aspect to married life, however, which is very unhappy in its conclusion. Women suffer in girlhood from backache, spine-ache and headaches, followed by irregularities, painful or disagreeable, and as a result diseases of the womanly organs are more common than anyone but a physician in active practice could suppose. It is often the result of days of girlhood passed in overcrowded public schools, or worse, in a jail-like boarding-school for young ladies. The brain is crowded, indigestible foods disturb the stomach, the body does not get healthful growth, and the undeveloped woman leaves school to plunge into social dissipation, followed only too closely by the taking up of wifely duties and responsibilities towards a husband who has only noticed her beautiful face. The woman suffering from continued nervousness, weariness, wakefulness, headache and backache needs the advice of a physician of large experience. Perhaps the physician of the largest experience in the United States is Dr. R. V. Pierce, of Buffalo, New York, chief consulting physician to the Invalids' Hotel and Surgical Institute of that city. The young wife desiring the advice of a physician is deterred therefrom by bashfulness, and so are many younger women, single women, and we should advise these to write at once to Dr. R. V. Pierce, who will treat their correspondence as strictly confidential, and give them an intelligent medical opinion of their cases without cost.

After long experience in the treatment of womanly diseases, Dr. Pierce evolved a vegetable tonic and corrective which he called Dr. Pierce's Favorite Prescription.

Dr. Pierce's Favorite Prescription is a purely vegetable preparation, without a particle of alcohol contained in it, and

can not disagree with the weakest constitution. It establishes regularity, dries weakening drains, heals inflammation and ulceration, and cures female weakness. It is the best preparative for motherhood and makes the baby's advent practically painless. It cures headache, backache, nervousness, sleeplessness, and other consequences of womanly disease. It carries women safely and happily through the change of life.

"Favorite Prescription" has the testimony of thousands of women to its complete cure of womanly diseases. Do not accept an unknown substitute in its place.

"Having been wonderfully helped by taking Dr. Pierce's Favorite Prescription, I feel as though I want to tell of it to all the women of the world who are troubled with 'woman's ills,'" writes Miss Sadie Kyles, of 635 Prospect Place, Brooklyn, N. Y. "I wish every woman who has suffered with 'woman's ills' would try the 'Favorite Prescription,' for I know if they do they will be cured as I have been."

Mrs. Maggie McFarland, of Taswell, Ind., writes: "Two years ago my health began to fail and I was hardly able to walk around. I broke down, then trouble of a special nature set in and I suffered severely. Had heart trouble till I could not sit up; was confined to bed all the time. We called a doctor who said he could cure me in three weeks, and when he found he could not do so he said I had 'hysterics,' and urged me to use a supporter, which only made me worse. I was almost crazy and prayed to die and get out of my suffering. Was so poor I was only a skeleton, when one day I chanced to read of Dr. Pierce. I purchased his medicine and began taking it, soon began to feel better; the weak quivering in my bowels stopped and the pain in my side became less. Continued the treatment until I had taken about six bottles of Dr. Pierce's Favorite Prescription and used one box of Dr. Pierce's Suppositories. I am now doing the work for a family of eight. Can walk to the store and carry my baby three miles. Can sleep well, and life is worth living. I can not praise Dr. Pierce's medicines too highly. Hope others also will take Dr. Pierce's medicines and be cured, and that this statement may be the means of many suffering ones applying to you for relief."

Backed up by over a third of a century of remarkable and uniform cures, a record such as no other remedy for the diseases and weaknesses peculiar to women ever attained, the proprietors of Dr. Pierce's Favorite Prescription now feel fully warranted in offering to pay \$500 for any case of Leucorrhoea, Female Weakness, Prolapsus or Falling of the Womb, which they can not cure. All they ask is a fair and reasonable trial of their means of cure.

WHEN WRITING ADVERTISERS, PLEASE MENTION THIS PAPER.

Army

Life Caused Chronic Headaches

Stomach Trouble All His Life

Dr. Miles' Anti-Pain Pills Cured Him of Both

As is very frequently found, the stomach trouble and headache in the following case came from the same cause. Dr. Miles' Anti-Pain Pills, like all of Dr. Miles' Remedies, are designed to cure the disease, not the symptoms. This readily explains why these sterling medicines can cure such a variety of diseases. There is no remedy, formula or prescription which in any way equals Dr. Miles' Anti-Pain Pills for the speedy cure and relief of headache and kindred ailments.

"Up to the age of twenty-three my son was greatly troubled with severe pains in the stomach. After he had served his term of enlistment with the army in the Philippines, he came home and was unfit for anything because of terrible headaches. He found that Dr. Miles' Anti-Pain Pills not only relieved him of the headaches, but would prevent an attack if taken in time. He continued their use for some time and to his surprise and delight he found they had cured the stomach trouble also. You may imagine how grateful both he and myself feel to you for the good the Anti-Pain Pills have done him. I may add that I have used your medicines in our family for many years and keep a bottle of Nervine in the house all the time. I think it an ideal household remedy and all the remedies are just what you recommend them to be. You have my permission to publish this."—Mrs. M. L. Farrar, Walla Walla, Wash.

All druggists sell and guarantee Dr. Miles' Anti-Pain Pills. They are non-laxative; contain no opiates, never sold in bulk, 25 doses, 25 cents. Dr. Miles Medical Co., Elkhart, Ind.

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The New York, Chicago & St. Louis R.R.

NO EXCESS FARE ON ANY TRAIN

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

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A Safe, Painless, Permanent Cure GUARANTEED. 30 years' experience. No money accepted until patient is well. CONSULTATION and valuable BOOK FREE, by mail or at office. DR. C. M. COE, 915 Walnut St., Kansas City, Mo.

Wanted--Oil Agents

In every county—reliable, energetic man to sell on commission, especially to the Farmers and Thrashers our line of High Grade Lubricating Oils, Greases, also Roof, Barn, and House Paints. Apply at once. Address The Woodland Oil & Grease Co., Cleveland, O.

A three months' course of VITA SYSTEM is guaranteed to cure (OR MONEY REFUNDED) any disease peculiar to women except those requiring Surgical Interference. Write to-day for free sample and full information. THE VITA COMPANY, Hiawatha, Kan., U.S.A.

Ladies: Our harmless Remedy relieves without fail delayed or abnormally suppressed menstruation. For Free Trial, address Paris Chemical Co., Dept. 74, Milwaukee, Wisconsin.

LADIES My Regulator never fails. Box FREE. DR. F. MAY, Box 31, Bloomington, Ill.

BED-WETTING CURED. Sample FREE. DR. F. E. MAY, Bloomington, Ill.

A Traveling Man's Yarn.

Almost every traveling-man who has had a run on that little division of the Missouri Pacific Railroad in Kansas which lies between Wichita and Kiowa, has some joke to tell concerning its management. The only train that runs leaves Wichita at 7.30 a. m., arrives in Kiowa at 12 m. and makes it into Wichita again about 4 p. m. The loose schedule used on this round trip gave rise to the following conversation between two traveling-men: They had been talking about how unmercifully long the train stopped at some of the stations.

"Well," said one, "I remember once of having a hasty run down this road. When we were within about ten miles of my stopping place, the train suddenly came to a halt and there we stood for fully half an hour.

"At the expiration of this time I was pretty warm so I demanded of the porter an explanation. He pointed out on the prairie to where two men were huddled together on the ground and said:

"De engineer and fireman am a wiren a coyote out ob his hole."

"That's a good one," replied his companion, "but I believe I was once worse used than that. I came down here on a 'hurry up' trip and we stopped at that little three-roomed house where an old widow, its only occupant, keeps the depot, postoffice, general merchandise store, and, in fact, all there is in town to keep.

"I wouldn't attempt to say how long we stayed but as I noticed no loading or unloading going on I asked the porter if we had a break-down. He studied my face a minute and then said:

"Laws, no. You see it am dis way. De ole lady dat keeps dis place sends a dozen tu'key eggs to Wichita ever Saturday and she's only got leben today, but de ole tu'key hen am on de nest an' we are waitin' for dat egg."

A Practical and Useful Book.

"Manual of Corn Judging."—By A. D. Shamel, formerly crop expert at University of Illinois, now with Plant Breeding Bureau, Department of Agriculture, at Washington. Illustrated, 5 by 7 inches. Orange Judd Compay. Price, 50 cents.

This is the second edition of the Manual first published by Mr. Shamel, when in charge of the corn-judging and field-work at the University of Illinois. It has been thoroughly revised and brought up to date. The advanced methods of corn-judging have been noted and all the available information incorporated. The first edition was quickly exhausted and the demand for a second edition became imperative. It is especially helpful for farmers interested in improvement of corn, for corn schools, farmers' institutes, etc. The book is profusely illustrated with photographs of ears of the leading varieties of corn, desirable ears contrasted to undesirable, desirable and undesirable kernels, so that with this book and a little experience the farmer or student can pick out the best ears for seed or showing. In addition the score cards used in the corn States are given with directions for using them.

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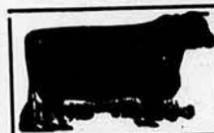
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LAFAYETTE STOCK FARM

LaFayette, Indiana.

Largest Importers in America of the German Coach, Percheron and Belgian Stallions. Our last importation of 100 head arrived July 10 making three importations in 1903. We have won more prizes in 1902 and 1903 than all others combined.

We have won every championship prize in coaches and drafters shown for. Notwithstanding the fact that we have the prize-winners of America, we will sell as low as others that have inferior quality. We keep on hand a large number at our branch at Sedalia, Mo., and can suit any Western buyer there.

We give a gilt edge guarantee on every horse that we sell and make terms to suit the buyer.

J. CROUCH & SON, Prop., LaFayette, Indiana.

Western Branch, Sedalia, Mo.

PUBLIC SALE OF 40 PERCHERONS

Tuesday, Jan. 12, 1904, at Arrowsmith, Ill.

at town barn, in tent, rain or shine at 10 a. m., 10 REGISTERED STALLIONS from one to five years old; 30 REGISTERED MARKS and FILLIES, from one to ten years old, that weigh 1,800 to 2,500 pounds at maturity. Catalogue ready December, 20.

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HORSES.

Percheron Horses

HENRY AVERY & SON, WAKEFIELD, KANSAS.

Registered Stallions For Sale

15 HEAD AT SPECIAL PRICES CONSISTING OF

Five Percherons, 2 to 5 years old—all black but one, and that a black-grey; two black yearling Percherons; four Shires, 3 to 7 years old; three trotting-bred horses, 3- and 4-year-olds; one registered saddle stallion. All but two at prices from \$200 to \$1,000 each. Come at once for bargains. SNYDER BROS., WINFIELD, KANSAS.

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Percheron Herd headed by Casino (45462) 27880. Prize-winner Notional Show of France 1901. Winner of first prize at Missouri and Kansas State Fairs 1902. Shorthorn herd headed by Airdrie Viscount, a son of the great Lavender Viscount, champion of America in 1900 and 1901. Stock for sale. Address

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60 IMPORTED Belgian, English Shire and Percheron STALLIONS



We won all first and sweepstakes on Shires and first and sweepstakes on Belgians at the last Nebraska State Fair. We were also big winners on Percherons in the 3-year-old and 4-year-old classes. All we ask is that we have the chance to show you our horses and quote you our prices before you buy. Our horses are thoroughly acclimated and not hog fat. Our guarantee the best and most liberal given. We will take your note at 6 per cent interest on 1 and 2 years' time, so that your horse has a chance to prove himself before you pay for him. If we don't show you the best horses at the least money on the most liberal terms, we will pay your railroad fare for coming to see us. Long distance phone No. 840. Call us up at our expense. Office in Lincoln hotel. Barn at 9th and R street.

WATSON, WOODS BROS. & KELLEY COMPANY, LINCOLN, NEBRASKA.

SHIRES! SHIRES!

HEFNER HAS

10 Shire and Hackney Horses



On hand of last year's importation which he will sell on the following terms

One-half cash or bankable paper due in one year, with interest. Other half due when horse has earned it. You settle for one-half the horse only; the other half must run until the horse earns it. Just the terms you want. I mean to dispose of these horses at once to make room for October importation and I know the wide-awake buyers will be promptly on hand, as these horses are sure to suit. They are heavy-boned, massive, shapely horses, with two good ends and a good middle. Best of feet and action. These are 1,800- to 1,950-pound horses, each and every one fully guaranteed a sure foal-getter. Remember, you take no possible chances when you deal with Hefner. My terms should convince you that my horses are certainly right in every particular. I know they will suit you. These are 30 per cent better than "Top-Notchers," and just the sort "peddlers" are selling at \$8,000 to stock companies. Form your own stock company and come buy one of these grand Shires for your own use. I know my horses are the genuine, honest, reliable sort and cannot fail to please you and give the most satisfactory results; hence these unheard of terms. Write for information. Do so immediately, as these horses will soon go on these terms and prices.

O. O. HEFNER, Nebraska City, Nebraska.

America's Leading Horse Importers



A Record of superiority Never Approached.

At the International Live Stock Exposition 1903, one of our 2,200 pound stallions won first prize and championship. One of our sensational acting Coach stallions won first prize and championship. Four Percherons won first in collection. In the classes where we competed our stallions won more first prizes than the stallions of any of our competitors.

At the Great Annual Show at France, held at Evrenx, June 1903, our stallions won first, second, third and fourth prizes in every Percheron stallion class; also won first as best collection.

At the Show of the Societe Hippique Percheronne de France held at Nogent-le-Rotrou, June 1903, our stallions won every first prize, over forty prizes in all. Two groups were made up of our exhibit on which we won first and second.

At the Iowa State Fair our Percheron stallions won three first prizes and first in collections.

At the Minnesota State Fair our French Coach stallions won every possible first prize and grand sweepstakes.

At the Ohio State Fair our stallions won fourteen first prizes out of a possible fifteen.

At the Indiana State Fair our Percherons won three first prizes. Our French Coaches won every possible prize. At the Kansas State Fair our Percheron and French Coach stallions won every first prize, including grand sweepstakes. At the American Royal, held in Kansas City, October 19 to 25, our Percheron stallions won every first prize. One of our Percherons won championship. Five of our Percherons won first as best collection. Our French Coach stallions were equally successful, winning every first prize.

If your neighborhood is in need of a good stallion, let us hear from you.

McLAUGHLIN BROTHERS,

St. Paul, Minnesota. COLUMBUS, OHIO. Kansas City, Missouri.

WHEN WRITING ADVERTISERS PLEASE MENTION KANSAS FARMER.

HORSES.

IAMS' HORSES

Well, well; Cheer up; Get Busy—Iams' peaches and cream are ripe. They were sensational "show horses" at the Nebraska State Fair. (He had a snap.) A whole barn full of prize-winners there. Iams won first on four-year-old Percheron in class of thirty-two (an easy victory). Also championship sweepstakes Percheron stallion ever all, and many more prizes. All the principal prizes in Percherons, Belgians, and Coaches. Iams kept his great 5100-lb. show pair and the best stallion in every class out of the Nebraska show-yard and were not shown for prizes. None of the special trials of 100 stallions received August 23, 1903, were shown at Nebraska State Fair, and among these he had the first and second prize four-year-old Percheron at largest French horse show at Chartres, and many Percheron winners at leading "horse shows," as well as winners at leading "horse shows" of Belgium and Germany. A Iams'

SWEEPSTAKES STUD

Visitors thronged his barn at Nebraska State Fair and said: Hello Tom! Say, Iams has the best horse show I ever saw. Yes; see those four 2000-lb. two-year olds. Iams is a hot advertiser, but he has horses better than he advertises. Hello Mr. I'm Zeke. Say, this is the best string of stallions I ever saw; they are sure peaches and cream. See those six 2200-lb. three-year-olds—all alike, too. They are all wool and a yard wide, the "wide-as-a-wagon" sort.

"Mother, this is Iams' great show of horses. His horses are all black and big ton fellows. He always has the best. Samanthy, here is Iams' show herd. Everybody wants to see his horses. We came from California to see Iams' 5100-lb. pair of stallions. That's them. They are the greatest pair in the U. S. Yes, and worth going 2,000 miles to see. Hello Louie, here is Iams' 2400-lb. sweepstakes Percheron stallion ever all. "Doc!" I don't wonder at his competitors wanting this horse barred out of the show-ring. He is a sure winner anywhere. Kitty, see those fine coaches of Iams'. George, dear, they are lovely; they can look into the second story window. Yes, Kitty, Iams has more registered draft and coach stallions than any man in the U. S., and all good ones. George, dear, buy your next stallion of Iams. His horses are much better than the one you paid those Ohio men \$4,000 for, and Iams only asks \$1,000 and \$1,500 for "toppers." Iams has

147--BLACK PERCHERONS, BELGIANS AND COACHERS--147

90 per cent blacks; 50 per cent ton horses—Iams speaks the languages, buys direct from breeders, pays no buyer, salesman or interpreters. Has no three to ten men as partners to share profits with. His twenty-two years successful business makes him a safe man to do business with. Iams guarantees to sell you a better stallion at \$1,000 to \$1,400 than are being sold to stock companies for \$2,500 to \$4,000 by slick salesmen, or pay your fare and \$25 per day for trouble to see them, you the judge. Iams pays horses' freight and buyers' fare, gives 60 per cent breeding guarantee. Write for eye opener and catalogue. References: St. Paul Bank, First State Bank, and City National Bank.

FRANK IAMS,

ST. PAUL, NEBRASKA.



Lincoln Importing Horse Co. || Percherons, Shires, German Coaches, and Belgians. Last Importation Received Oct. 27, 1903. Write or wire: A. L. Sullivan, Mgr., Lincoln, Neb.

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21 Horses in Our September Importation.

Including five big wide-as-a-wagon Belgians. A grand total of 100 horses to select from. No better place to buy good stallions in America. A long string of 3-, 4-, and 5-year olds, all in the 2,000-lb. class. Good style, fine action, best of legs, feet and eyes. Lots of big, fine, home-bred young horses. Come and see them. Write when you can come.

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We guarantee to show more bone, size and quality than any other firm in the United States. Samson, (Percheron 27238 and French Draft 6866) at head of stud. His present weight is 2,484 pounds. We can suit any man who wants first-class, up-to-date, stallions or mares. Local and long distance phones.

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