



VOL. XXXX
NO. 25.

TOPEKA KANSAS, THURSDAY, JUNE 19, 1902.

ESTABLISHED IN 1863
\$1.00 A YEAR

KANSAS FARMER.

Established in 1863.

Published every Thursday by the
KANSAS FARMER CO., - - TOPEKA, KANSAS

E. B. COWGILL.....President
J. B. McAFEE.....Vice President
D. C. NELLIS.....Secretary and Treasurer

SUBSCRIPTION PRICE: \$1.00 A YEAR

E. B. COWGILL.....Editor
I. D. GRAHAM.....Associate Editor
H. A. HEATH.....Advertising Manager

Entered at the Topeka, Kansas, postoffice as second-class mail matter.



ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.
Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year, including a copy of the Kansas Farmer free.
Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free, during the publication of the advertisement.
Address all orders:

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

PROFESSOR SHAMEL LEAVES THE ILLINOIS COLLEGE.

It is announced that Prof. A. S. Shamel, instructor in farm crops and expert in corn-breeding, at the Illinois Agricultural College, Urbana, will go next September to Harvard College for the purpose of taking a post-graduate course in botany and plant-breeding. Professor Shamel will be remembered as the young man whose paper before the Kansas State Board of Agriculture aroused such an interest that it resulted in the organization of the Kansas Corn Breeders' Association.

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.

ANGUS AT THE AMERICAN ROYAL.

It is now definitely decided that Aberdeen-Angus cattle will be shown for the first time at the American Royal Cattle and Swine show to be held at the Kansas City Stock Yards, October 20-25, 1902.

After the most mature deliberation on the part of the directors of the Aber-

deen-Angus Association and by reason of the urgent efforts of representative breeders, with Chas. E. Sutton, of Russell, as a conspicuous leader, the directors decided that Angus cattle be represented at the American Royal this fall. The efforts of these enterprising gentlemen and the KANSAS FARMER have been rewarded with success and it is hoped that the Angus breeders of the country will make a creditable and representative show, which can easily be done if the breeders will properly bestir themselves. The stockmen of the entire country will look forward with great interest to the first great display of Angus breeding cattle ever held in the West.

A LITTLE RED PAINT.

Kansas is recognized the world over as a land of sunshine and of consequent happiness and prosperity. It is a noticeable fact, however, that this same abundant sunshine which contributes so largely to our happiness and prosperity is extremely hard upon paint. A traveler through the State of Kansas can not but be struck with the fact that our handsome barns and residences, but more especially our expensive agricultural machinery, actually suffering for the want of a timely coat of paint. While this fact is less prominent in Kansas than in almost any other State, the observer has it born in upon him that this lack of economy in the use of paint results in a distinct loss to the farmers which aggregates a very large sum in the course of each year. One can not avoid the conviction that the deterioration of farm buildings and implements through the lack of proper care and an occasional coat of paint constitutes a most serious item of expense on the balance sheet of many farmers. The gaining of wealth is not so much the acquiring of cash as its retention. A man may have a comparatively small earning capacity and yet grow rich because he makes his expenditures wisely so that each in turn may become an investment. The farmer then who has invested hundreds, and even thousands of dollars, in expensive buildings and farm machinery can gain in wealth much more rapidly by preserving these so that a new investment is not required every few years. The average piece of farm machinery made by any reputable manufacturer will last for many years if properly cared for. If it is not cared for a new machine becomes necessary in a short time, and it is a noticeable fact that these machines suffer their deterioration first and most severely in the wood work. No one questions but that the life of a farm building is indefinitely prolonged by the judicious application of paint.

GREAT OPPORTUNITIES.

The KANSAS FARMER presents this week a review of the advancement and present condition of the Kansas State Agricultural College. This great institution has, of necessity, shared in the activity of the State. The hard work done in and for the institution has told in its statistical record. The future presents to no institution a more inviting field than to the Agricultural College. The opportunities wisely used and the work energetically done will win lasting places of honor for the workers and will confer upon the people of Kansas benefits which will far exceed the dollars and cents they will cost.

This is commencement week at Manhattan. The few scores of graduates who to-day enter upon the broader bat-

tle of life are equipped above their fellows with the knowledge and training needed for the highest success. The time ought to come when not a few scores but a great majority of the young people of the farms of Kansas shall be thus equipped. To be prepared for the work before it, the Agricultural College will need to grow to many times its present dimensions. It will need to secure and retain the strongest men for its several positions. It will require executive ability of the highest order.

The loss of Professor Cottrell from the college can not but be regarded as a misfortune. His kind of energy and contagious enthusiasm for his work is none too common in college. It is to be hoped that the regents will succeed in filling his place with a man of force and tact and that his position will be made the leading one in the faculty. What Kansas wants is not a "Kansas State College" but the Kansas State Agricultural College, with especial emphasis on the word "agricultural."

The work of the Experiment Station must be regarded as having been simply entered. The opportunities in view, the demands presented and which must be met if Kansas is to maintain her proud position among the progressive agricultural States, suggest the earning of reputations like that of Liebig, or Lane and Gilbert, or Burbank, or Hays, or Shamel. Names are being made in these days and along these lines. Kansas men are making names in all parts of the world. Towering reputations for original research should be made at the Kansas Experiment Station.

LIVE-STOCK RECORD BUILDINGS.

Messrs. Leonard & Skinner of the Union Stock Yards and Transit Company of Chicago, are evidently the greatest hustlers extant. No enterprise, no matter how great its conception, is too difficult for them to attempt. Anything of promise for the benefit of Chicago, or that will accrue to the benefit of the Chicago Live Stock Market, is never permitted to escape their indefatigable enterprise, which knows no such thing as fail.

Their latest enterprise in behalf of the improved stock interests of America, is the erection of a new live-stock record building by the Chicago Stock Yards Company, which is intended as the permanent home for the various Live-stock Record Associations of the continent, which they furnish "without money or price." The American Hereford Association and the Aberdeen-Angus Association has already accepted the location as permanent headquarters.

The ground floor of this building will be devoted to exhibitions of grain and grasses and feed stuffs, with modern machinery used in feeding and preparing feeds, to be in charge of a competent man who can give all information upon the subject of displays. The second floor is to be devoted to the pure-bred record associations, where all information on the subject of the beef breeds of cattle, and of sheep and swine and horses may be had. The third floor will have various meeting rooms which can be thrown into one large hall for any extraordinary gathering of live-stock men. It will be equipped with a library which will contain all of the valued publications on live stock, together with daily and weekly live stock publications, and where registers of all pure-bred live stock for sale may be found, giving quotations. Each of these floors will be in charge of parties capable of enlightening farmers and live-stock men who will always be welcome to the use of the building.

Table of Contents

Agricultural college, the Kansas state.....	656
Alfalfa experience.....	648
Alfalfa the key to successful competition.....	663
Angler's revelle, the (poem).....	655
Argentina, agricultural schools in.....	658
Beef steer's sister, the.....	663
Boy, the growing.....	660
Clover, when to cut and how to cure.....	663
Country woman and life beautiful.....	664
Cow, what shall we do with the average.....	663
Crop conditions June 1, 1902.....	658
Fairy story, another.....	655
Farmers' day at Ottawa.....	658
Farmers, victory for the.....	664
Farmington, Mary.....	660
Fratel, James.....	662
Fruit garden; preparation and care, the home.....	649
Goat mutton, sale of.....	652
Griffin, H. H.....	648
Haney, J. G.....	648
Harry, W. I.....	648
Hart, Bret.....	656
Hog leads, where the.....	652
Isthmian canal, the.....	658
Jones, Aaron.....	666
Joke that cost a senatorship, a.....	662
Kitchen and how it can be made attractive, a.....	649
Lion, a noble.....	655
Little girl with taffy-colored hair, the (poem).....	655
Live-stock record buildings.....	647
McGuire, James.....	649
Milk production to the top notch, raising the.....	663
Milkwads, pull the.....	648
Most po' for a dollar, the.....	651
Nebraska farmers organizing.....	664
Nebraska farmers will join.....	664
Needham, H. V.....	663
Oleomargarine law construed.....	658
Operations, "get-rich-quick".....	649
Opportunities, great.....	647
Pain, a little red.....	647
Pasture grasses for dry country.....	648
Peairs, C. A.....	663
Pig, shote, or hog.....	652
Plain language from truthful James (poem).....	656
Poultry business, all-the-year.....	662
Poultry notes.....	662
Qualls, domesticated.....	662
Roney, Thomas C.....	655
Salary or a cow, a.....	651
Scott, Mr., of Kansas and Texas.....	647
Self-culture.....	655
Sheep country, an o d.....	652
Shepherd, N. J.....	662
Shall the will of the people be enacted into law and shall the laws be enforced?.....	666
Shamel, Prof., leaves the Illinois college.....	647
Show bullocks, slaughter of.....	652
Silos, will alfalfa keep in?.....	646
Swine Breeders' Meeting, the Iowa.....	651
Swine judges, national association of expert.....	651
Vaccination, had enough of.....	652
Van Dyke, Henry.....	655
Vegetables, how to can.....	650
Wheat in Kansas, raise.....	648
Wild geese or chickens, which.....	662
World's fair bonds sold.....	658

MR. SCOTT OF KANSAS AND TEXAS.

The "formerly of Kansas" man is ubiquitous. In traveling over Uncle Sam's domain whenever you hear of some enterprise in the locality it is not an uncommon thing to learn that some one "formerly of Kansas" is a conspicuous figure in the enterprise. It has been said "once a Kansan always a Kansan." This is not strange for Kansas wind and water is unrivaled and the productiveness of its soil is unimitable, so that when a man leaves Kansas, even for a little season, it is because of the necessity of some good enterprise which demands the sterling qualities which Kansas seems alone to generate.

The foregoing observation is brought to mind by the meeting of a KANSAS FARMER representative and our old friend, S. M. Scott, of Emporia, Kans., on his way home from Texas.

Mr. Scott is now associated with ex-Senator C. A. Towne, in many large enterprises in the South. They organized the Export Oil and Pipe Line Company with a capital stock of \$2,000,000. They

(Continued on page 658.)

American Field and Hog Fence

The best product of American skill in woven steel wire fence making. In rolls, ready to stretch and staple. The Fence of Economy. If your dealer hasn't it, write to American Steel & Wire Co., Chicago, New York, San Francisco, Denver.

ground, with twenty pounds of seed per acre; I would prefer press-drill and seeding both ways.

In March and the first thirteen days of April only one-half inch of rain fell here. From May 14 to 31, seven inches of rain fell; the first seven days of June have given us three inches of rainfall. Wheat is a light crop, the probable yield being ten to fifteen bushels. Oats are very fine. Corn has a good stand and fine color. Everything is quite promising to Brown County farmers at present.

JAMES MCGUIRE.

Willis, Brown County.

Under a decision of the Supreme Court of Texas more than 100,000 acres of State land have been placed upon the market and are now open for immediate settlement by actual settlers. It seems that a large share of this land has been leased to small herd-owners but before the expiration of these leases they had been combined by the large ranchmen in violation of State laws. Under this decision these consolidated leases are now invalidated and more or less of disaster will result to the large ranchmen. These lands are now being occupied rapidly by actual settlers.

"Get-rich-quick" Operations.

The following comment is offered by the New York Financial Chronicle: It is surprising what recklessness many people now-a-days show in the risk they run to gain riches without work. An enormous amount of money in the aggregate is week after week being put into the hands of unreliable people without other limitation on its use than to speculate with it for the owner's account. Those who do this know literally nothing about the agents they employ except from circulars received claiming to have particular knowledge about special securities which are to advance rapidly. With that kind of chaff the agents catch their victims. The money that is thrown away in such cases is of course not money of the rich—though frequently it comes from men and women who are by no means poor—but money that has cost years of economy to accumulate. This numerous class of speculators has become almost crazed from reading the glowing accounts given by the daily press of wealth gained in a day, as it were, by a lucky venture at our stock exchange. Such cases have, it is true, been an incident of the times—possible only because progress was rapid and constant. During the same period there were unnumbered ones who lost largely about whom no record is made, for no one is interested in other people's failures and the sufferers never boast of them. Even very many of the fortunate class, as they called themselves, who secured large gains in that way in the early part of the present cycle of prosperity, dropped later all they had gained before.

We know a case, it may be worth citing—though it is doubtful whether it will meet the eyes, and still more doubtful whether it reach the mind, of those who need it most, and yet it is an every-day affair. The instance we have in mind is of one whose early efforts were a series of successes; but they made him reckless at last. His experience told him, he said, that he had been too conservative in the past—he had bought too little and did not hold on long enough. When we heard of him he was deep in the Webb-Meyer manipulation; the Dominion Securities Company was then selling near 118 and the other properties correspondingly high. He told how rich he was. When asked how he had invested his gains, the fact came out by degrees that he had put about all of them in that combination of stocks. When urged to sell, he claimed that they were going much higher; so he held on—and did not have to wait long—until the bubble burst and with that catastrophe the bottom dropped out of his large estimated wealth. What an army of multi-millionaires we might have had if the ventures of the larger body of speculators had always been handled a little more shrewdly; that is if the operator had

known when to buy and when to sell. The industrials of late have been a cemetery of large hopes—as a body they are obviously in a plastic, formative shape, and subject to all the accidents which human work in that condition of growth is exposed to. Most of them had their origin at a moment of great progress. A considerable number were organized in part or solely to make money for the originators, who took advantage of a rising tide to float their ventures, regardless of ulterior results. The wreckage which has proved so prominent a feature on the surface of affairs the past year comes chiefly from that class. There are other industrials which represent an honest effort to cheapen the cost of production, to lessen the price of products to the consumer, and to afford a revenue to the investor. They are doing a public service and will outlast the period of business activity now under way.

A Kitchen and How It Can Be Made Attractive.

PRIZE LETTER IN THE NEW YORK TRIBUNE.

The kitchen in which the average housewife spends fully one-half of her time is generally the most neglected room in the house. Any old thing seems good enough for this room, and whatever article we come across that is impossible for the other rooms is promptly relegated to the kitchen.

But here is where we make a mistake, for in the kitchen should be found only those things which are necessary in our work and such others as tend to make it pleasant and attractive.

In the first place the floor should be covered with the best quality of linoleum, the best being the cheapest in the end, as the pattern is stamped through the entire thickness, and when one layer wears off the pattern is still there. However, if one can not afford this, the floor may be either painted or oiled.

The kitchen should be light and sunny, but sometimes we are not consulted as to our wishes on this subject, and find ourselves the possessors of a long, dark room; but much can be done to improve even this condition. If the room is to be papered, select something light and cheerful, not a dark, homely pattern, so that it will not show soil. Paper good enough for a kitchen is so cheap that we can afford to repaper it every year. Paint the woodwork light, too, and in harmony with the paper. By frequently wiping off the doors light paint may be used in the kitchen as well as in the dining room.

If the room is very dark, try to have more windows and a glass door, and put short, white scrim curtains to them. They are easily laundered (much easier than the fussy shirt waist we stand over so long), and add quite a home-like look.

All of the other furniture should be so arranged as to be most convenient. A well appointed sink with the pump for soft water in it is indispensable, and a cupboard underneath, with shelves and hooks for kitchen spiders, soaps and scouring material, is a great help. Above the sink should be rows of hooks for cooking spoons, chopping knife, egg-beater, graters, etc. At the end of the sink should be a drop shelf upon which to place the dishes as they are being wiped, and this will be found handy for many things besides.

A kitchen cabinet is of the greatest help to the housekeeper, for in this she can keep many utensils which she would otherwise have to put in the pantry. Nearly everything to bake with should be found in it, flour in a sliding bin, salt, sugar, spices, etc., in one drawer, meat board, kneading board, rolling pin, basins, baking-tins, and dripping pans, everything grouped and arranged for greater convenience. Do not make the top of the cabinet a "catch-all" for everything. Housekeeping comes very near being the art of hiding things when not in use, and our kitchen will always look neater if we have a place for everything and do not get into the habit of laying things around for a general "picking up."

Clean bottles and cans as soon as emptied, and burn all boxes and useless articles which will accumulate in the household each day.

In some convenient place have a shelf for the lamps and the clock. A clock in the kitchen is a necessity, even if it be but a small nickel clock, for it will save many steps. The shelf may be covered with table oilcloth (scaloped around the edge), which is easily kept clean.

Never try to economize on kitchen utensils. Get all you need and get the best. If you must economize on something, let it be in the parlor or on the new bonnet, but not in the articles for the kitchen.

Horticulture.

The Home Fruit Garden; Preparation and Care.

EXCERPTS FROM FARMERS' BULLETIN NO. 154, DEPARTMENT OF AGRICULTURE.

While both the home garden and the orchard are essential to the good of the community, they bear very different relations to the fruit interests of the country as a whole. The home garden is always the forerunner of commercial development, and even in those localities where climatic and soil conditions are adverse to such industries in a commercial way the home fruit garden of the enthusiastic amateur is certain to be found. All the success attained today by the fruit interests of the United States has grown out of the persevering efforts of a few men whose home fruit gardens served not only as testing stations for determining the fitness of given sorts for new and untried localities, but they were the propagating grounds from which sorts of the highest quality and greatest commercial value originated.

INFLUENCE OF AMATEUR FRUIT GROWERS UPON COMMUNITIES.

The testing of varieties in new localities and the development and dissemination of new sorts by the amateur is an important work, but the greatest good accomplished by him is to be found in the wholesome influence which he exerts on the community in which he lives. A community is certain to profit aesthetically as well as financially from the influence of such growers, and it is to them that we owe our appreciation for high quality. A discriminating taste developed in a neighborhood creates a demand which it pays well to gratify, and the amateur who grows fruits for quality will find a ready market in such a section.

CHANGED CONDITIONS OF FRUIT CULTURE.

Until within comparatively recent times the introduction of foreign species worthy of cultivation in this country was largely confined to horticulturists, who maintained private fruit gardens or nurseries. In fact, previous to the establishment of the State experiment stations by Congress in 1887, an important function of the work of the nurseryman was the introduction and testing of new sorts, both of foreign and domestic origin. While the commercial dissemination and popularization of fruits is at present almost exclusively in the hands of the nurseryman, the introduction of foreign species and varieties, as well as the testing of both foreign and domestic sorts, has fallen largely into the hands of the Department of Agriculture and the experiment stations. The general perspective of fruit culture in America has been greatly changed during the last twenty-five years, and many of the lines of work carried on in private fruit gardens have been absorbed wholly or in part by other forces; yet the profitable occupation of fruit growing is ever open to the amateur, to say nothing of the highly interesting work of plant-breeding.

ADVANTAGES AND PLEASURES OF THE HOME FRUIT GARDEN.

The people of this country are notably a fruit-loving and fruit-eating people. Notwithstanding this, however, fruit culture has grown to be classed among the specialties, and few persons who consume fruit are actual growers. The possibilities in fruit-culture upon restricted areas have been very generally overlooked, with the result that many persons who own a city lot, a suburban home, or even a farm, now look upon fruit as a luxury. This can all be changed, and much of the land which is now practically waste and entirely unremunerative can be made to produce fruits in sufficient quantity to give them a regular place upon the family bill of fare and at the same time add greatly to the attractiveness of the table and healthfulness of the diet. The home production of fruit stimulates an interest in, and a love for, natural objects, which can only be acquired by that familiarity with them which comes through their culture. The cultivation of fruits teaches discrimination. A grower is a much more intelligent buyer than one who has not had the advantages of tasting the better dessert sorts as they come from the tree. If every purchaser was a



J. R. Watkins.

THIS IS J. R. WATKINS,
the president and founder of the J. R. Watkins Medical Company, Winona, Minn., U. S. A., the proprietors of the world famous

Watkins' Remedies.

You will find this picture of Mr. Watkins and his signature as above on every label, wrapper, carton and package of Watkins' Remedies. It is the trade mark—the stamp which marks the genuine from the spurious and worthless. Some unscrupulous men will attempt to sell you other preparations for the genuine Watkins' Remedies. They will declare that others, which they are trying to sell, are "just as good" as Watkins' Remedies. In order that you may not be deceived we put on the picture and this signature to protect you from fraud. Always insist upon the genuine, with the portrait and signature of J. R. Watkins, as above. Take no others, for no others are so good as the original and only Watkins' Remedies.

Free! Free! Free!

We mail free to any address "Watkins' Home Doctor," an illustrated book of 100 pages, the finest of the kind ever printed, containing much valuable information, interesting, instructive and humorous reading matter, astronomical calculations, weather forecasts, first-class cooking recipes, and matter relating to farm and home, in short, something for every member of the family, old or young.

The J. R. Watkins Medical Co.,
28 Liberty St., Winona, Minn., U. S. A.

good judge of the different kinds of fruits, the demand for fruits of high quality, which is the ambition of every amateur, as well as of every professional fruit-grower, would become a reality. But until some means of teaching the differences in the quality of fruits can be devised the general public will continue to buy according to the eye rather than by the palate. The encouragement of the cultivation of fine fruits in the home garden will do much toward teaching buyers this discrimination.

PLEASANT AND HEALTHFUL EMPLOYMENT.—Besides increasing the fruit supply and cultivating a taste for quality, the maintenance of a fruit garden brings pleasant and healthful employment, and as one's interest in growing plants increases this employment, instead of proving a hardship, will become a great source of pleasure. The possession of a tree, which one himself has planted and reared to fruit production, carries an added interest in its growth as well as in the operation by which it was secured. The unfolding of the leaf, the exposure of the blossom buds, the development of the flowers, and the formation of the fruit are all processes which measure the skill of the cultivator, and when the crowning result of all these natural functions has been attained in a crop of perfect fruit, the man under whose care these results have been achieved will himself have been made happier and better.

To those familiar with the facilities at command for the culture of fruit and the general interest in the subject, the remarkable absence of successful fruit gardens about city, suburban, and country residences can be explained only on the ground that those who would be most likely to give attention to their care and maintenance have no object lessons or literature at hand to guide them in laying out such gardens.

THE CULTIVATION OF A HOME FRUIT GARDEN.

FRUIT FOR THE FAMILY TABLE.—Most persons engaging in the cultivation of a fruit garden will have as their chief aim the production of fruit for the family table and the pleasure it affords; others will go a step further and find an added source of pleasure in the problems of cross-pollination and the production of new forms. In a majority of cases, however, the aim will be the one first mentioned, and it is to assist such that the suggestions contained in this paper are offered. In order to prove a source of constant pleasure and gratification a fruit plantation must claim the attention of its owner from early spring to late autumn; its products, too, must be so planned as to cover the greatest possible portion of the seasons between frosts. The problem presented involves a succession of fruits, from earliest to latest, as well as a combination of light-loving and shade-enduring plants. The intensive culture and the liberal feeding to be given demand that all plants be of types which bear early and heavily in proportion to their size. The ques-

PILES

NO MONEY TILL CURED. 25 YEARS ESTABLISHED.
We send FREE and postpaid a 200 page treatise on Piles, Fistula and Diseases of the Rectum; also 100 page illus. treatise on Diseases of Women. Of the thousands cured by our mild method, none paid a cent till cured—we furnish their names on application.
DRS. THORNTON & MINOR, 1007 Oak St., Kansas City, Mo.

tion of longevity is of no moment; immediate fruit production is the object. With this view of the question, taken in connection with the great variety of conditions presented both by the extent of the country and the manner of life of those interested, it is manifestly impossible to make general statements.

A GENERAL SCHEME.—As the individual taste of the owner will greatly modify the character of any particular garden, a general scheme must be taken as a basis for the work, and this, of course, need not be modified for the section in which it is used, except in so far as the varying habits of the plants to be grown demand. To illustrate: The arrangement of fruit borders and walks may be the same for gardens of like dimensions all over the United States, but the varieties to be grown in these borders must be modified to suit the conditions of climate in which the garden is placed. The fruits best suited to the various sections of the United States can not be enumerated here, and this bulletin will be confined to a brief discussion of the methods of propagation, planting, pruning, and general culture.

SOIL.

MODIFICATION OF SOIL.—Since one does not choose the site of his residence on account of the character of soil of the locality, but because of other natural advantages of the place, it is obvious that the soil at the disposal of the grower will frequently be ill-suited to the purposes of a home fruit garden. For a commercial place on an extensive scale it would be out of the question to attempt to alter the character of the soil to suit the needs of the plant, but with a small area the case is quite different. If the soil is heavy it can be lightened with sand, if it is not desirable to increase the proportion of humus which it contains; if it is lacking in organic matter the addition of leaf mold and well-rotted manure or the turning under of some leguminous crop, such as cow-peas or Canada field-peas, will accomplish the desired result; if the soil is loose and sandy, losing its store of plant food readily, this fault can be remedied by the addition of retentive material, such as clay; the amount of clay to be added must be governed by the degree of stiffness desired in the soil. On the other hand, the class of plants to be generally grown is suited to a loose, sandy soil, and it seems desirable to add to the collection a plant, such as plum, which naturally requires a heavy, retentive soil, it would undoubtedly be better to change the character of the plant by grafting it upon a stock adapted to sandy soil conditions, rather than to attempt to modify the soil to suit the plant. This change can be effected by using a peach stock for the plum. We have, therefore, two alternatives—either the soil may be modified to suit the plant or the plant may be adapted, by working it upon a suitable stock, to the soil. Such modifications in plants are not always easily accomplished, and with many plants there is no alternative but to use them on their own roots. In this latter case the soil itself must be made to conform to the demands of the plants. The soil, in addition to being heavy and retentive, may also be cold and wet. In such case the addition of sand will not entirely overcome the difficulty. Sand will lighten and facilitate natural drainage, but if the soil be unduly moist the only safe and satisfactory remedy lies in thorough underdrainage. This can be accomplished in two ways: Drains may be dug and a stone conduit built to allow the superfluous water to escape, or, what is better, agricultural tile may be laid in the bottom of the trench. If the soil is very stiff and retentive, the tiles should not be laid over two and one-half or three feet deep and about one rod apart. If the soil is porous, the drains may be placed farther apart and buried deeper. A double purpose is served by underdrainage. The superfluous water which tended to make the land cold, sour, and "late" is removed, thus making the soil warmer and earlier; and by the admission of air the acidity is slowly overcome. The processes of oxidation and nitrification are also afforded better conditions for action, and while drainage adds nothing to the soil in the way of plant food, the mechanical operation of removing water and admitting air is quite as marked in its effects as a liberal dressing of manure, for the store of plant food which was withheld from the plant is allowed to become available. There is little wonder in the light of these facts that early agricultural writers propounded the axiom "tillage is manure."

PLANTING.

PREPARATION OF PLANTS.—It is impos-

sible to give explicit directions for the many plants which may be selected for planting in fruit gardens in the various sections of the United States, and general statements only can be made. At planting time all broken or decayed roots should be cut away, leaving only smooth-cut surfaces and healthy wood to come in contact with the soil. If a large part of the root area of the plant has been lost in transplanting, the top should be cut back in proportion to the roots remaining. By so doing the demand made by the top when the plant starts into growth can be met by the root.

SETTING THE PLANT.—The holes in which trees, vines, or shrubs are to be set should be ample, so that the roots of the plant may have full spread without bending them out of their natural course. The earth at the bottom of the holes should be loosened a spade depth below the line of excavation. The soil placed immediately in contact with the roots of the newly set plant should be rich top soil, free from sod or partially decayed organic matter. Firm the soil over the roots by trampling, as this brings the soil particles close together and at the same time in close contact with the surface of the roots. A movement of soil water is thus set up and the food supply of the soil brought immediately to the use of the plant. When the operation of transplanting is complete, the plant should stand one or two inches deeper than it stood in the nursery. Every precaution above enumerated will make for the success of the plant and calls for careful attention.

PRUNING.

While pruning has to be modified to suit the style of training employed with any given plant, each species of plant bears its fruit in a peculiar manner, which renders the maintenance of wood of a certain age and character necessary in order to secure a crop of fruit.

APPLE AND PEAR.—In the case of the apple and the pear the fruits are borne upon wood of last year's growth only. Heading in or shortening each shoot of the season's growth, therefore, must be done with care in order not to reduce the bearing wood beyond a profitable limit. With these two plants, however, the bearing shoots are not those making the most vigorous growth at the ends of the branches, but they are usually more obscurely located upon the sides of the branches, and make a much smaller growth, for which reason they have been termed "spurs."

PEACH.—With the peach, however, it is the wood of the last season's growth upon which the fruits are directly borne, and with them heading in may be successfully employed to limit the quantity of fruit borne by the tree. Japan plums bear on both year-old wood and spurs; pruning may, therefore, be used to thin the fruit, the same as in the case of the peach.

QUINCE.—The quince bears its fruit at the extremity of new shoots of the present season's growth, in which respect it differs from both its close relatives, the apple and the pear; but as these shoots arise from wood of the previous season's growth, pruning must be so adjusted that the fruit crop will not be reduced.

GRAPES.—The grape bears its fruit on shoots of the season, which in turn usually arise from canes of the previous year's growth. Old wood on the grape is therefore of little value, hence the development of so many systems of training which maintain only a single permanent trunk, from the top of which the bearing canes are renewed each year. The so-called "renewal," "high renewal," "Kniffen," "Munson," and various overhead systems of training all possess this feature in common. In fact, it is the only economical way in which to handle native kinds. For the fruit garden, however, where the vines are desired for covering arbors, pruning must be modified so as to secure a screen from the new growth as early in the season as practicable. For this purpose a modification of the "horizontal-arm" system of training will be found most advantageous. By planting the vines closely and carrying up singly trunks to a fixed height, and from the top of the stalk carrying out horizontal arms along which "spurs" are maintained, a short growth from each spur will be sufficient to give a uniform and sufficiently dense canopy of leaves for the arbor.

RASPBERRIES AND BLACKBERRIES.—Raspberries and blackberries both bear their fruits on short shoots which arise from canes of the previous season's growth. While these shoots are usually auxiliary shoots, the fruits are always terminal. In the case of the grape, which bears its fruit upon annual shoots arising from canes of the previous year, the fruit is produced at a node, and

J. G. PEPPARD, MILLET OAK
1101 to 1117 West 9th St.
(Near Santa Fe St.) CLOVERS TIMOTHY
KANSAS CITY, MO. GRASS SEEDS.

takes the place of a leaf; several fruit clusters may therefore arise from a single shoot of the grape.

CURRENT AND GOOSEBERRY.—In the case of the currant and gooseberry the fruits are produced on both old and new wood; the fruits appear as axillary growths from the shoot itself, and wood three years or more of age is unprofitable and should be cut away.

STRAWBERRIES.—Strawberries are rarely produced in profitable quantities by plants more than one year old. Plants over two years of age should be rooted out to give room for new ones.

ORANGE.—The orange bears its fruit in much the same way as does the peach. New growth must therefore be maintained to insure a supply of fruit. But as the orange is evergreen, pruning can not be confined to a single season, as in the case of deciduous trees possessing a regular and marked period of rest.

PROTECTION.

TEMPORARY SHEDS.—The interest of a fruit garden may be greatly enhanced by growing therein plants not adapted naturally to the climatic region in which the garden is located, as, for instance, the growing of figs as far north as the latitude of Philadelphia. The summers of the region are sufficiently long and warm to induce a strong growth in the fig, but as the fruits normally require a long period in which to mature, the plant becomes useless as a fruit producer unless sufficient protection is afforded to carry over winter the immature fruits set the previous fall. This can be successfully accomplished in several ways. The most hardy sort should be selected, in addition to which the fruiting shoots may be wrapped in matting, covered with straw, and the fruits thus successfully protected; or, if it seems desirable, temporary sheds may be built over the plants, and these thatched with straw or fodder sufficiently to protect them from frost. Then, again, semi-hardy sorts may be tipped over by cutting the roots on one side, bending the branches close to the soil, pinning them down, and then covering the whole plant with matting and earth or a straw thatch and earth. At the extreme northern limit of fig culture it has been found that the covering of earth is preferable to any other method, while at the South, where only slight protection is necessary, bending down and covering with pine boughs or thatching with corn-stalks has proven most successful.

By the use of one or the other of these methods of protecting plants the peach has been grown and successfully fruited in the southern central part of South Dakota, along the Missouri River.

SHELTERED PLACES.—Besides these protective devices, sheltered places, where growth is retarded in spring, may be taken advantage of in order to hold back such early blooming plants as apricots, Japanese plums, etc. Apricots planted and trained on the north wall of a building are frequently sufficiently retarded at blooming time to insure a crop, while if planted in the open and trained as a standard the fruit crop will be killed by late spring frosts.

For commercial purposes the use of most of these protective measures is precluded on account of expense. The commercial grower can not indulge in such expensive devices unless he has the assurance of obtaining a fancy price for his product. In a home fruit garden, however, it is different. The expense of protecting a half dozen plants is trifling, and many amateurs will incur it for the sake of the novelty of having secured fruits naturally adapted to other climatic regions.

How to Can Vegetables.

To be successful in keeping canned vegetables, use only the perfect ones. Beans should be used before the strings are too large and the hulls woody. They should be snapped and well washed, then cooked till tender in water, season with salt and pepper as for immediate use, put into cans, and add two tablespoonfuls of vinegar to each quart of beans. Seal and keep in a dry, cool place. Corn should be used as soon as the grains are filled. Cut off the cob as near whole as possible. It may be canned with salt or acid. If acid is used, take one and one-quarter ounces tartaric acid and dissolve in half a pint of water. Take one tablespoonful of this solution to each pint of corn. Bring corn to a boil before adding the acid.

SEEDS

STARK TREES best by Test—77 YEARS
LARGEST NURSERY.
FRUIT BOOK free. We **PAY CASH**
WANT MORE SALESMEN
STARK BROS., Louisiana, Mo.; Danville, N. Y.; Etc

AGENTS WANTED TO SELL NURSERY STOCK. 40 per cent commission paid to good, competent men.
Hart Pioneer Nurseries, Fort Scott, Kansas.

CIDER PRESS
One-third more cider with the
HYDRAULIC
than with the old style press.
It pays the best to buy the best.
Send for Catalogue, free.
Davis-Johnson Co.
Western Agents,
HYDRAULIC PRESS MFG CO.
Station U, Chicago, Ills.

WHITMAN'S AMERICUS
The Best Older and Wine
Mill made. Will make 20
per cent. more cider than
any other. Geared outside.
Perfectly Adjustable.
Prices as low as any first-
class mill. Mfrs. of Hay
Presses, Horse Powers, Corn
Shellers, Feed Cutters, Feed
Mills, etc. Send for circulars
WHITMAN & CO., ST. LOUIS, MO.

When it is opened to use, add one-third teaspoonful of soda to each pint of corn. When corn is canned in salt, use one pint of salt to each gallon of corn. When opened for use, soak well in water, changing the water often. Tomatoes should be canned when they first get ripe. Overripe fruit should never be used. Let them come to a boil, but no more; add salt, pepper and a little sugar, and seal in tin cans. Cabbage and green tomatoes chopped fine and mixed well, make a very nice pickle. When the cucumber crop falls short, as it did the last season, put salt over the above mixture, let it sit an hour or so, then pour off the liquid and press into jars. Put vinegar in a porcelain or granite kettle over a slow fire, add red pepper, mustard, grated horse radish, or any spices that suit the taste, and if sweet pickle is relished, add one cup of sugar to each quart of vinegar. Let it all come to a boil, then pour over mixture in jars and seal. Beets make a splendid pickle if used when young and tender. I prefer them the size of a hens' egg. Cook the beets till they are tender, but not till they fall to pieces, peel and place in jars. Add cinnamon, or any spices desired, and a little sugar, to the vinegar, let it come to a boil, then pour over beets and seal. Cucumbers should be put into salt or strong brine over night. Take from brine next day, put vinegar in a kettle and add cucumbers with any flavor desired and a few grape curls. When they come to a boil put into jars, fill to the top with vinegar, and place a nice grape leaf over all and seal. The grape leaf keeps the pickles firm and I think helps to keep the green color. I prefer tin cans for all vegetables, but glass or stone jars should be used for any pickles. If perfect vegetables are used and cooked in clean vessels, I think there is no trouble to keep them nice for winter and early spring use.—Farmer's Wife.

\$100 Reward \$100

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is Catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer One Hundred Dollars for any case that it fails to cure. Send for list of testimonials.
Address, F. J. CHENEY & CO., Toledo, Ohio.
Sold by Druggists, 75c.
Hall's Family Pills are the best.

WHEEL CHAIRS.



All kinds for invalids and cripples. Built on new and practical methods at moderate prices. Full particulars on application. :

RECLINING CHAIRS..
FOR LIBRARY OR
SICK-ROOM.

Every known position for comfort. Write us for Free Illus. Catalog. Mention this paper.
STEVENS CHAIR CO.,
405 6 St., Pittsburg, Pa.



The Stock Interest.

THOROUGHbred STOCK SALES.

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

September 2, 1902—L. M. Monsees & Sons, registered saddle horses, mules, and registered Poland-Chinas, at Smithton, Mo.

September 10-12, 1902—Mid-Missouri Combination Sale of Angus, Galloways, Shorthorns, and Herefords, in connection with the North Missouri Fair, Chillicothe, Mo.

October 21 and 22, 1902—Herefords at Kansas City, Mo., under auspices of American Hereford Cattle Breeders' Association. (Week of American Royal.)

November 6, 1902—Thos. Andrews & Son, Cambridge, Neb., Shorthorns.

November 18-19, 1902—Marshall County Hereford Breeders' Association Sale, Blue Rapids, Kans.

December 4 and 5, 1902—Herefords at Chicago, Ill., under auspices of American Hereford Cattle Breeders' Association. (During week of International Cattle Show.)

December 16, 1902—Gifford Bros., Manhattan, Kans., Shorthorns.

A Salary or a Cow.

Each of us, as the years advance, is likely to fall into the habit of thinking, as our fathers before us did, that times have changed and that it is much more difficult for a young man to make money and get a start in life than in the good old days. With the progress of the world in knowledge this may be true in part, but without discussing this question at length, the question is always present before the average young man of how to get a start. By average young man we mean a young fellow who has little or no money, and who must rely upon his brains and his hands as the only means by which he can compel success. We will give him credit for being thoroughly honest and at the same time ambitious; with good physical health and a fair degree of intelligence; cultured in part at least, by the magnificent school system of Kansas. In looking about for a life work he is frequently puzzled and oft times confused to such an extent that he finds it impossible to make up his mind and feels forced to simply drift. He is doubtless attracted by the advertisements of the so-called correspondence schools which offer to fit him for a large salary at the minimum expenditure of time, or of the business colleges which propose to turn him out equipped for the battle of life at the end of a three months' term. While we do not care to say a word that could be construed as adverse criticism of either class of the institutions named, we do desire to bring it prominently and forcibly before the mental vision of the young man that the very best he can expect as a result of his training in either is simply a salary.

Did any one ever hear of any one getting rich on a salary? Did anyone ever hear of a salaried man ever making any very great mark in the world, by reason of a position which paid him a salary? The men who acquire competence, who mould the world's affairs, and who are able to retire in leisurely and affluent old age, are the men who pay salaries, not those who receive them.

Now the question is how can a young man with no financial capital put himself in a position of being able to pay salaries instead of being compelled to wear out his life on a salary which is rarely increased and very easily decreased as old age creeps on. The answer is pure-bred live stock. Many of the prominent breeders of pure-bred cattle and hogs who now count their wealth by thousands of dollars, but a few years since were men with no capital. One prominent breeder who is well known in his neighborhood started but a few years since with one pure-bred cow which he purchased at auction. This cow has returned him over 2,400 per cent in cash besides her eight heifer calves which he still owns and which are making him money daily. Another Kansas man who is the owner of one of the largest and best-known herds of pure-bred cattle in the State was, twelve years ago, a fruit-tree agent. A Missouri breeder of pure-bred cattle who has recently sold out his stock in order to give his whole time to his large banking business, began seventeen years ago with one cow from which he raised a total of 202 of her offsprings. These are only a few of the cases which prove that a man who will study individuality of animals along with the herd-book and side by side with the science of feeding can, with a very small start in pure-bred stock, develop a business which is at once safer and as profitable as that of banking. And at the same time a vastly more healthful occupation.

Most young men feel that it is useless to undertake to go into the cattle business, until one has secured the ownership of a farm on which to raise them, but we venture the assertion that the man who owns 100 head of well-selected pure-bred beef cattle of any one

of the four prominent breeds can buy a farm, and pay for it too, quicker than the man who owns a farm could buy the cattle and pay for them. The man who breeds such animals as were seen in the prize-ring at the American Royal last fall is just as much entitled to a niche in the temple of fame as he who paints a world famous picture, or he who composes a time lasting piece of music. He is an artist in the truest sense of the word, and, coupled with his artistic attainment, he has an assured source of income which will last as long as men eat. In order to succeed in this business a young man ought to be a graduate of an agricultural college. He ought to be well up in anatomy and physiology of animals. He ought to be well skilled in the science of feeding and equally well skilled in the art of growing crops. He must be a man of unblemished honesty, whose word can be taken as absolutely good, and he must be a man of temperate habits and correspondingly clear headed. Without the special training in the college he may win success, though it will take years longer to do it, but without the character and honesty he can do nothing. America to-day boasts of the finest pure-bred cattle on earth and there is no finer class of citizens in this or any other country than the men who produce these cattle.

The Most Pork for a Dollar.

How to grow the most pork for one dollar will depend on several conditions. The question is really an important one. It has been discussed many times, and it may be a little difficult to find anything new in regard to it. Every one seems to have an idea of his own, and my idea may be a little different from some others, but such as it is I give it. We can make pork by keeping a pig in a small pen and feeding it expensive food perhaps faster than some other ways, but we will not get the most pork for the dollar. There is not much profit in it, and profit is what counts, says D. Trott, in Swine Breeders' Journal.

We can not make much pork for a dollar from a scrub, say nothing about profit. To make the most out of the money spent on the animal, we must study the animal's ancestors, as well as the animal himself. In other words, to make the most we must have the right kind of blood to start with, and treat it right. It must come from vigorous stock, great feeders, fast growers, easy fatteners, those that answer quickly to feed of whatever kind. Therefore, first, we must have the very best strains of blood to start with.

After having all this to start with and our little fellow in the world ready to be put to the test, it will be necessary to keep his mother in such shape as will cause her to produce the most and best food for him to start out on his pilgrimage through life toward the pork barrel. He must get a good start, and it must be kept up. There must be no backset or we have lost more than we made. While he gets his support from his mother during the early part of his life, he will soon need a little outside help. This must be furnished in proper shape, such as a little wheat, corn, or oats in its original state, with milk added. He will soon begin to look for something else. This something else seems to be his natural food, and that is grass. He will now forsake his mother and become very independent.

From this on it is necessary to study economy more than before. For if we feed him one dollar's worth of food in order to produce one dollar's worth of pork how much have we made outside of our work? Some cheap food in connection with grain is necessary at this time. Grass of some kind is the thing, as it costs very little in comparison to corn or wheat. We must give him a good help in addition in the shape of shorts, slop, corn, wheat, and oats with milk if on hand, but to get the most pork for one dollar, some cheaper food is necessary in connection. A field of green wheat or rye or oats will furnish lots of cheap food early in the season, with green sorghum, Kafir-corn, or oats later, but the best of all, so far as our experience in Kansas goes, is a field of alfalfa.

I do not think much can be made on green food alone. It may grow some bone, but very little flesh. To grow flesh and bone at the same time the pig must have grain in some shape. Alfalfa will make the best gain of all green stuffs alone and I make the claim that grain and green stuff combined will produce more pork than twice the amount of grain alone.

It is possible we could get a pig ready for market a little quicker on grain alone, but the cost would be

greater. To get cheap pork, cheap food must be used, and unless we get a little profit for our money and time while we feed, we had better invest our money in some other way and work at some other calling. A pig shut up in a small pen and stuffed with grain may grow plumper than one that is hustling in the field for some cheap food to help his gain, but it is easy to count without much figuring which dollar is the better invested, the one spent on the pig that is not helping himself, or the dollar spent on the one that adds another dollar itself.

To sum it up, we must get good breeding stock, good foragers, good feeders, fast growers, easy fatteners, and those that grow to large size; start them with care, make all the growth possible on green stuff and grain combined, get them to market as rapidly as possible, and get as good price as possible for them; and then we may count dollars profit instead of dollars lost. In this way we will surely prosper.

Show Condition.

Show condition and breeding condition are incompatible. To catch the eye of the judge an animal needs to be excessively fat, while for the stud a hard, muscular condition is essential. To condition an animal for the show-ring it is fed on soft rations and rounded out with a plethora of feed and inactivity. Animals in show-yard flesh are disqualified to be good performers as breeders. It has been demonstrated that an over-fat stallion is not a sure foal getter and his progeny lack the constitutional stamina of foals of sires in hard condition. So conspicuous is the difference between show-yard ensemble and breeding condition that many owners of valuable stallions decline to exhibit their horses at expositions, as to be properly fitted for such events the animals will not be in good shape for their breeding services. There should be a reformation of requirements of condition of breeding animals exhibited at shows; exhibits in condition for the abattoir should be disqualified in the general interests of improvement of thoroughbred breeds. There is no doubt but irreparable injury has been done to valuable breeding animals by sending them into the show-ring too plethoric for any purpose but the shambles. Many sure breeders have been made barren by overfeeding for exhibition purposes, and managers of expositions should inaugurate a salutary reform in the proper condition of breeding animals.

The Iowa Swine Breeders' Meeting.

The Iowa Swine Breeders' Association held their annual meeting at the State Agricultural College, Ames, Iowa, on June 4. The meeting was considered a success, although the attendance of breeders was not large. The students of the college took a deep interest in the proceedings and if they are counted the meetings were perhaps as large as any in the history of the association. The entire equipment of the agricultural college so far as needed was placed at the disposal of the association and the members were made to feel that they were heartily welcome both by the address of President Beard-shear, of the college, and by the action of the faculty. A number of interesting papers were read, among which we note the address of Pres. Harvey Johnson, a paper by Prof. W. J. Kennedy, of the department of animal husbandry, on the subject of Swine Judging by Score Cards, a lecture by Prof. C. F. Curtiss, on Modern Pork Production; by Mr. W. D. McTavish on the question, Are Public Sales a Benefit to the Breed?; by Mr. D. L. Howard on, Hereditary Precaution; and one by G. H. Moore, of Kansas City, who is proprietor of the Moore Chemical Company, manufacturers of Car Sul, on the question, Are Locations Hereditary to Disease? One of the most encouraging features of the entire meeting lay in the interest manifested by the students of the agricultural college and it is a matter of congratulation to know that the places now occupied by the old-line breeders will in time be taken by young men who have been scientifically trained for the work in hand.

National Association of Expert Swine Judges.

Following the meeting of the Iowa Swine Breeders' Association was held the meeting of the National Association of Expert Swine Judges in the new stock judging pavilion of the agricultural college at Ames, Iowa. Thirty candidates presented themselves for score card practice with the idea of winning diplomas. This made the largest score class in the history of the association. The committee appointed to examine the candidates for certificates

YOU NEED SOMETHING

to insure you against loss from Spavin, Ringbone, Splint, Curbs and all forms of Lameness. This old, reliable, time-tested remedy will do it. Has a million endorsements. Sold by all druggists. Price \$1; six bottles for \$5. Has no equal for family use. Book "A Treatise on the Horse," mailed free upon request. Address DR. B. J. KENDALL COMPANY, Enosburg Falls, Vt.



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.



LUMP JAW

Easily and thoroughly cured. New, common-sense method, not expensive. No cure, no pay. FREE. A practical, illustrated treatise on the absolute cure of Lump Jaw, free if you ask for Pamphlet No. 216. Fleming Bros., chemists, Union Stock Yards, Chicago, Ill.

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.

WORK THE HORSE IF NECESSARY

BALMOLINE

NATURE'S WONDERFUL HEALING SALVE.

CURES SORE SHOULDERS, COLLAR GALLS, SCRATCHES, CRACKED HEELS, SITTFASTS, CHAFES, ROPE BURNS, WIRE CUTS, SORE TEATS, OLD STANDING SORES AND ALL FLESH WOUNDS ON MAN OR BEAST

PREVENTS FLIES, MAGGOTS, SCREW WORMS AND PROUD FLESH.—ALL DEALERS

SEND 4c FOR TRIAL SIZE TO

B. H. DUNN, P. O. STATION A, DENVER, COLORADO

ENDORSED BY HORSEMEN EVERYWHERE

Riverside Stock Farm.

Chapman, Kans., Feb. 13, 1900. Dr. B. H. DeHuy, Denver, Colo.:

Dear Sir:—I have given your Balmoline a thorough trial in our stables for the last three years and find it the most successful cure for horses and cattle in the shape of a salve I have ever tried. It is especially adapted to healing scalded shoulders of horses. I have also used it for sore-teated cows and find it splendid. I can highly recommend your Balmoline to all stockmen. We use so much that I buy it in large quantities and think there is nothing like it for healing sores on stock. Respectfully yours,

O. L. THISTLER.

consisted of Prof. F. R. Marshall, W. Z. Swallow, and L. H. Roberts; but ten of the thirty candidates were successful in passing the examination and securing certificates as expert judges. The names of the successful candidates were as follows: J. A. Benson, Primghar; W. L. Smith, Council Bluffs; Clyde E. Baker, Britt; C. M. Zinderlee, Elma; S. D. Miles, Ames; H. G. Vanpelt, Des Moines; H. G. Thornburg, Linden; F. C. Minkler, Ames; Roy W. Rockwell, Paulina. The next meeting of the national association will be held in connection with the National Swine Breeders' Association at Lincoln in January, 1903. The officers elected for the ensuing year are: President, D. L. Howard, Jefferson, Iowa; first vice president, J. V. Wolfe, Lincoln, Neb.; second vice president, Jos. Steward, Colo, Iowa; secretary and treasurer, W. D. McTavish, Coggon, Iowa.

While the objects of this association are excellent the continuous meetings

in Iowa have seemed to result in a loss of interest, more than a purely local one, and the attendance of members at roll call was very meager. If this is to be a national association, as its name indicates, it is undoubtedly a wise move to announce the next meeting for a different State, and we hope our Kansas breeders will take interest in this meeting at Lincoln and attend in sufficient numbers to vote the succeeding meeting to Kansas.

Pig, Shote or Hog.

"Will you please tell me at what age or weight a pig becomes a shote and a shote becomes a hog?" asks P. C. Holmes, in the "American Swineherd."

We know of no ruling by associations or fair boards that fixes the weight or age for a pig to become a shote, and a shote to become a hog.

It is still a conundrum that puzzles hogmen and exhibitors.

The words do not always have the same meaning in different localities or in the minds of different men. In the East they speak oftener of pigs and store hogs, and even fattening hogs are called pigs. In the West the words hog and pig are seldom used synonymously. In fact, we have known good writers to poke fun at men using the word pig when speaking of their feeding stock.

An old Irishman in my employ always spoke of the suckling pigs as "them little hogs." Some New England people think it a little more refined to speak of pigs than of hogs, and apply the word pig to old and young swine. Webster defines pig as the young of swine; the Encyclopedia Dictionary as the young swine, male or female, or swine generally. Worcester defines pig as the young of swine, a young boar or sow.

The English use the term hog more than pig. Youatt & Martin seem never to use the word pig as meaning both old and young swine. They use the word pig to mean the young with the dam or sucklings. On the other hand Harris uses the word pig to mean swine of all ages. He seems to balk at the word hog worse than a New Englander. The word hog does not appear in his index to his book.

Coburn uses pig to mean the young and hog is used in a general way, much as he uses the word swine. For example, on page 169 of his excellent book on "Swine Husbandry" he uses the words swine and hogs in same sentences as meaning the same.

As to the word shote, we find it defined in general as a young hog. While in England it is spelled shote, shote, shoot, shot, an old authority defines it as a "hog a year or under a year old." Various authorities seem to agree that it is "a hog partially grown." It also means an inferior animal in accordance with this idea. We speak of a good-for-nothing fellow as a "poor shote." Webster gives about the best definition of shote as "young hog or a half grown, unfatted hog."

From the varied uses of the words pig, shote and hog, he is a bold man who will attempt to fix the age or weight when a pig becomes a shote or a shote becomes a hog. Since we have made so much advance in our efforts for early maturity, the six months pig of to-day will weigh as much as the yearling of the old style. So long as it is the common practice of breeders to wean pigs when about ten weeks old, it is advisable to call the young things under that age pigs, but as some men feed sucklings liberally and others let them live off of the sow, we are not warranted in fixing the weight when the pig becomes a shote. By the same liberal feeding for months, the six or eight months shote will weigh as much or more than hogs of double these ages, which have had no extra care, but have been left to root and shift for themselves.

It would be very handy to fix the age and weight asked for, and it possibly might be done if all breeders and feeders in every State and country had the same methods and kinds of feeds and breeds. So long, however, as we have so many different breeds, large, medium, and small and so many and different feeds in different localities, we are not ready to fix any arbitrary age or weight when the pig shall become a shote and the shote a hog.

An Old Sheep Country.

William E. Curtis, in a recent letter to the Chicago Record-Herald from Tiberias, writes of the sheep industry of the Holy Land as follows:

"It is a shepherd's country and abounds in sheep. The hills on both sides of the Jordan are covered with flocks, and at this time of year they find excellent grazing. As we ride along through this part of Palestine we often meet large flocks upon their way

from the far interior, the ranges in the valley of the Uuphrates, 'from the other side of Jordan, from the green fields of Eden,' which are being driven for sale to the seacoast. It is customary for the shepherds of the interior to select a certain portion of their flocks for this purpose in the spring of every year. In dress, manners, language, and customs the shepherds closely resemble those of Abraham, Isaac, and Jacob, and they handle their flocks in the same way, 'putting a space betwixt drove and drove,' as Jacob did, and leading the young lambs 'softly.' If overdriven the animals are likely to die, and at least their flesh will be worthless for mutton. The weary ones are sold on the way-side or are killed and eaten by the shepherds themselves. The flocks grow smaller as they go farther south, because at nearly every village and town and often at the farming settlements a few are sold.

"Palestine has always been a great place for sheep. The Bible tells us that Job had a flock of 14,000; Solomon sacrificed 120,000 sheep at the dedication of the temple; when Moses overcame Midian the spoils of battle were 5000,000 sheep, 72,000 cattle and 61,000 asses; the king of Moab gave the king of Israel as tribute annually 100,000 lambs and 100,000 rams, with their wool. Nor will these figures seem excessive when considered in connection with the enormous wool industry of Palestine to-day. More than 10,000 tons of wool are exported annually from Beirut; from the neighboring seaports it is the principal export, and from Jaffa they send about £100,000 in value each year.

"When the children of Israel entered the promised land the tribe of Reuben and Gad, who had a large multitude of cattle, recognized the value of these pastures and asked for them. It was here that Christ got the ideas for His parables concerning the sheep; here He first called Himself the Good Shepherd, and looking beyond the plains to the vineyards upon the hillsides He called Himself the True Vine. The sweetest poetry of Jewish life, the loveliest pictures that have ever been painted concerning the pastoral habits of the people, and any traveler who drives through this region will realize the influence of shepherd life upon the Jewish imagination. The founder of the Jewish nation was a shepherd; the founder of Christianity said, 'Feed My sheep.'"

Sale of Goat Mutton.

The Department of Agriculture collected data on the sale of goat meat. Letters to prominent breeders of goats as to the trouble, if any, they had in disposing of their meat elicited the following replies, among others:

Thomas H. Mastin, Missouri: The packers here buy goats as goats and sell them as sheep. They make a difference of about half a cent a pound in favor of sheep when buying, and, as they never sell goats, they save that difference in selling.

G. A. Hoerle, New Jersey: Angoras bring now in Kansas City and Chicago within four or five per cent of the price of ranch sheep, while ten or twelve years ago not half that price could be obtained. Were it not for their unpopular name "goat," the meat would bring by far the highest prices on the retail markets.

Oscar Tom, Oregon: There is no sale here for goat meat. Wethers are generally used for their mohair or for clearing land of brush.

Josephus R. Barnett, Arizona: We have a local market which can use three times as much as we produce.

E. H. Jobson, New Mexico: The demand for mutton goats is greater than the supply. We get good values for the mutton.

H. F. Fuchs, Texas: I could sell hundreds and thousands as easily as I could sell snipe.

J. R. Standley, Iowa: Have used and sold very few for meat, as they are in demand as brush-killers.

Slaughter of Show Bullocks not Required.

At a meeting of the executive committee of the International Live Stock Exposition Association held in Chicago last week, it was decided that the rule which requires prize-winning bullocks to pass through the slaughter test should be abolished. The all compulsory slaughter tests will hereafter be abolished but "in order to encourage the exhibition of animals fitted to win, both on the foot and on the block, prizes awarded any animal, that wins in both classes, will be doubled by the Exposition Association." This action of the committee is to be heartily commended and it is a rare thing when any animal

is successful in winning prizes both on the hoof and as a dressed carcass. Under our present standards of judging it is almost impossible for a bullock to win in both classes and this action will prove valuable in removing the desire to stuff their animals to a condition of exaggerated obesity.

Had Enough of Vaccination.

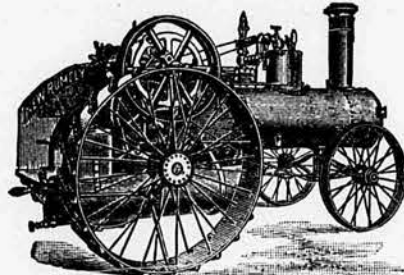
EDITOR KANSAS FARMER:—A correspondent wants others' experience in vaccination; have not had much, but enough for me. I have been breeding full-blood Angus cattle for eighteen years, have over 100 head of my own raising. Last year I had one death from blackleg, first I ever had. This year some of my neighbors were having their calves vaccinated. Thinking to get the best vaccine, I sent to Manhattan for it. On January 17 I vaccinated fourteen head. On the morning of the 19th one refused to eat and next day it died of blackleg. I intended to vaccinate a large bunch in a month, but you may be sure I did no more, that was enough for me, as I thought the cure worse than the disease; at least it has been so in my case. Some of my neighbors lost some before they vaccinated and I think they all lost some after, one of them losing five out of twenty-five head. JAMES FRATER. Fredonia, Wilson County.

Where the Hog Leads.

For quick returns the hog is far ahead of the steer or sheep. He is easily fitted for slaughter at 6 months old, and at that time, if he has been well fattened, 80 per cent of his live weight is in dressed meat. But, as the saying goes, every part of him excepting the grunt and the squeal is utilized. The bristles, the intestines or sausage casings, the blood and the bone, all play their parts, while the liver and heart are favorite food with many. The steer will need about three crops of corn to fatten him, and often not more than 50 per cent of his weight is dressed meat, while it is unusual to find one that does not shrink over 40 per cent. One crop of corn will fatten both the fall and the spring pigs each year. All of this is a decided advantage in favor of the keeping of swine, and those who have done so and avoided the attacks of cholera and swine-plague have been successful and prosperous in their business.

Rumely Threshing Machinery.

While advanced methods in agriculture are gradually unfolding themselves the demand is keeping pace for the best implements and machinery that the market affords. It is but natural that this should be true in all lines but there are especial reasons why it should be true in a matter of the magnitude of threshing-machine



outfits. Chief among them is the amount of money that must be invested. In no other implement that has to do with the seeding, cultivation, harvesting of the crop, preparing for the market or other farm use, is there such a considerable outlay required as in the matter of threshing machinery. It is not purchased for a season's work on a single farm, but usually for many crops, for all the grains and grasses and to make a profit for its owner above first cost and operating expenses, it must do duty for a series of years. If for no other reason it would seem to be imperative, on this account alone, that machinery of the widest uses and the best adaptation to each as embodied in the best makes to be found, should be sought by the thresherman. In this connection and always when speaking of threshing machinery, the mind reverts to the engines



and separators manufactured by the M. Rumely Company of La Porte, Ind. Having been in the threshing-machine business since 1853, their machines have been put to a good long test. Their popularity as told by the number of sales annually as compared with those of other threshing-machine manufacturers, has outrun even what their long years would seem to warrant. The reason must be sought for in the intrinsic worth of the machines themselves. We have not the space to enter upon a recitation of the many distinguishing points of excellence of the Rumely machines. We are reproducing a cut both of the new separator and the traction engine herewith. The advertisement is running regularly in our columns. Any of our readers anywhere who are interested

Charbon or Anthrax

Epidemics Controlled by

Mulford's Vaccine

Charbon Vaccine prevents Charbon. Black-leg Vaccine prevents Black-leg. Serum for Distemper prevents Distemper or Shipping Fever.

Pneumonia Antitoxin prevents and cures Pneumonia.

Tetanus Antitoxin prevents and cures Tetanus or Lockjaw.

Tuberculin and Mallein detect Tuberculosis and Glanders.

Price of Charbon or Anthrax Vaccine, \$2 per tube of 10 complete doses (two injections each) for cattle, horses and mules. Black-leg Vaccine, sufficient for from 10 to 20 cattle, \$1.25; for 20 to 40 cattle, \$2.25.

Write for our

FREE BOOK

It contains valuable information to every breeder and dairyman.

H. K. MULFORD COMPANY

Thirteenth and Pine Sts., Philadelphia
74 Wabash Ave., Chicago

In threshing machinery should look it up and write to the Rumely Company for their catalogue. It will be gladly sent free for the asking, and will put the inquirer in the way of possessing a threshing outfit of the highest type of usefulness.

Kansas Fairs in 1902.

Following is a list of fairs to be held in Kansas in 1902, their dates, locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary F. D. Coburn:

Allen County Agricultural Society—C. H. Wheaton, Secretary, Iola; September 2-5. Barton County Fair Association—James W. Clarke, Secretary, Great Bend; September 2-5.

Brown County Fair Association—Grant W. Harrington, Secretary, Hiawatha; August 27-29.

Butler County Fair Association—H. M. Balch, Secretary, Eldorado; September 29-October 3.

Chautauqua County—Hewins Park and Fair Association—P. N. Whitney, Secretary, Cedar Vale.

Clay County Fair Association—E. E. Hoopes, Secretary, Clay Center; September 9-12.

Coffey County Agricultural Fair Association—J. E. Woodford, Secretary, Burlington; September 9-12.

Cowley County—Eastern Cowley Fair Association—J. M. Henderson, Secretary, Burden.

Finney County Agricultural Society—Fred Mims, Secretary, Garden City; August 27-29.

Franklin County Agricultural Society—Carey M. Porter, Secretary, Ottawa; September 16-19.

Greeley County Fair Association—G. P. Hawkins, Secretary, Tribune.

Harvey County Agricultural Society—John C. Nicholson, Secretary, Newton; September 23-26.

Jackson County Agricultural and Fair Association—S. B. McGrew, Secretary, Holton; September 23-26.

Jefferson County Agricultural and Mechanical Association—Geo. A. Patterson, Secretary, Oskaloosa; September 2-5.

Jewell County Agricultural Fair Association—H. R. Honey, Secretary, Mankato.

Marshall County—Frankfort Fair Association—J. D. Gregg, Secretary, Frankfort; September 23-26.

Miami County Agricultural, Mechanical and Fair Association—W. H. Bradbury, Secretary, Paola; September 9-12.

Morris County Exposition Company—M. F. Amrine, Secretary, Council Grove; September 24-26.

Nemaha County Fair Association—A. R. Spaulding, Secretary, Seneca; September 3-5.

Neosho County Fair Association—H. Lodge, Secretary, Erie; September 30-October 3.

Neosho County—Chanute Agricultural, Fair, Park, and Driving Association—A. E. Timpane, Secretary, Chanute; August 26-29.

Ness County Agricultural Association—H. C. Taylor, Secretary, Ness City; September 24-26.

Norton County Agricultural Association—J. L. Miller, Secretary, Norton; September 2-5.

Osage County Fair Association—E. T. Price, Secretary, Burlingame; September 2-5.

Reno County—Central Kansas Agricultural Fair and Live-stock Association—Ed. M. Moore, Secretary, Hutchinson; September 15-19.

Rice County Agricultural Association—C. Hawkins, Secretary, Sterling; September 8-12.

Riley County Agricultural Society—A. B. Lee, Secretary, Riley; September 2-5.

Rooks County Fair Association—Olmer Adams, Secretary, Stockton; September 9-12.

Saline County Agricultural, Horticultural and Mechanical Association—H. B. Wallace, Secretary, Salina; September 2-5.

Stafford County Fair Association—Frank C. Swartz, Secretary, St. John; August 20-22.

Sumner County—Mulvane Agricultural Society—John A. Reed, Secretary, Mulvane.

Wilson County—Fredonia Agricultural Association—J. T. Cooper, Secretary, Fredonia, August 19-22.

Insure your health in Prickly Ash Bitters. It regulates the system, promotes good appetite, sound sleep, and cheerful spirits.

Poland-Chinas at the American Royal.

Mr. Frank D. Winn, Mastin, Kansas, secretary for Poland-Chinas, writes in reference to the exhibit of that breed as follows:

"I desire to call the attention of those who contemplate showing at the 'American Royal Cattle and Swine Show', to be held at Kansas City, Mo., October 20-25, 1902, to the changes made in the prize list, from those which govern at the leading State Fairs, viz: The addition of a class for both boars and sows over twelve and under eighteen months, and one also for both sex over eighteen and under twenty-four months. Also the addition of a Junior Championship for boars and sows, which excludes from competition anything over a year old.

These slight changes are the only ones that will be made from the State Fair prize list, which is well known to all exhibitors, and it is the one that will be adopted for the great St. Louis show in 1904. It will be a good idea for breeders and exhibitors to become familiar with it now.

Ages for the Kansas City show will be computed from September 1.

It is the intention of the management of the Poland-China end of this show to have a four days' sale, and it is the desire for as many of the best breeders of the United States to participate in this sale as possible.

As it is absolutely necessary to know by the middle of July who will be the contributors, so that catalogues and other printed matter may be gotten out in time, I request that those contemplating making a consignment communicate with me at once, so that entries may be closed up as soon as possible.

This will be a "first come, first served" proposition, and those who delay writing may be cut out, should the entries run as high as they did last year, and promise to do this year.

There will be in attendance at this show and sale, breeders from all parts of the country, and it cannot be figured otherwise than that good prices will be obtained for good stock, which is the only kind that will be admitted to the show.

Three thousand dollars will be hun up for Poland-Chinas in the regular list and the specials. The specials will be distributed over the prize list adopted in order that exhibitors will not have to fit up more hogs.

It devolves upon the breeders of Poland-Chinas themselves to make their favorite breed excel at this show and sale. Begin to prepare for it now, if it is to be the great event that it should be."

Polled Durhams at Omaha.

In regard to the combination sale of Polled Durham and Shorthorn cattle on June 26 at South Omaha by F. F. Fallor and A. E. Bureleigh. Mr. Bureleigh writes:

"The offering numbers forty-five head. I include twenty-five head, sending my entire crop of yearling heifers, every one Scotch-topped and strong in Polled blood. More than half are granddaughters of the famous show bull, Imp. Spartan Hero. These heifers are all in calf that are old enough to breed. I also include my 3-year-old herd bull, a very superior Polled Durham and whose get are 100 per cent Polled from horned cows, a very important thing to those having Shorthorn cows. I also include two Cruickshank Shorthorn cows, bred by Hon. John Dryden and in calf by herd bull, F. F. Fallor of Newton, Iowa, includes twenty head—ten females and ten bulls. Among the offering are two Orange Blossom heifers that ought to make show cows. His offering is all Scotch tops, the bulls are mostly yearlings and ready for hard service. This entire offering is strictly first class as regards breeding and quality and should attract those interested in Polled Durhams. Catalogue can be had by addressing F. F. Fallor, Newton, Iowa.

Advantages of Fall Seeding.

Alfalfa may be seeded in the fall after another crop has been taken off. The next year it will yield full crops of hay, and no time is lost. Alfalfa seeded in the spring usually yields no hay until the following year, and requires mowing several times during the first summer to keep the weeds down. Alfalfa sown in the fall under proper conditions requires no attention whatever until the following spring, when a crop of hay is ready to be harvested. A well-cultivated corn-field, with the stalks cut and drawn off, will give ideal conditions for seeding alfalfa. Such a field should not be plowed, but harrowed before seeding. Wheat, oat, flax and millet stubble-ground plowed, harrowed thoroughly, and allowed to settle before seeding, furnishes good conditions for alfalfa. If such ground is mellow plowing may not be necessary, and the land will need only to be disked and cross-disked. The desirability of securing fresh seed from the locality where alfalfa is grown is to everyone. The firm of McBeth & Kinnison, of Garden City, Kansas are reputable growers of alfalfa and other field seeds, and hail from the heart of the most successful alfalfa-growing district. They are prepared to ship fresh and hearty 1901 seed in car-load or bushel lots promptly, and will quote prices on request.

Gossip About Stock.

The United States pays more for farm labor than any of the great farming countries—an average of \$234 a year, against \$150 in Great Britain, \$125 in France, \$100 in Holland, \$90 in Germany, \$80 in Russia, \$50 in Italy and \$30 in India. This is the secret of the heavy immigration to the United States.

Less than twelve years ago it required about fifteen months to make hogs average 300 pounds in weight; now whole carcasses average 300 pounds at the age of 8 to 9 months, which is due to better breeding and better feeding. As the improvement continues there is no telling what we will have twelve years hence.

It is common for a Tamworth sow to produce ten to twelve pigs at one litter. This is the great bacon breed and is growing in popularity with the farmers of the corn-belt. The Tamworth is deceiving in appearance as regards weight; frequently

animals that look to weigh 300 pounds will show nearly double when placed on the scales.

Mr. Carl Sundbeck, of Stockholm, Sweden, has recently visited this country under the direction and at the expense of his home government. He spent a number of days in Kansas and has this to say in regard to it: "I have been driving through Kansas in a buggy and have found it a fine farm country. Kansas is certainly a great agricultural State."

The American Hereford Breeders' Association, soon to establish headquarters in Chicago, has a membership of nearly 2,000. Illinois leads with 299 members; Missouri, 281; Kansas, 259; Iowa, 227; Texas, 118; Nebraska, 100. The remainder of the States and Territories have less than 100. The aggregate wealth of the members of this association is said to be near \$50,000,000.

The Cooper County Shorthorn Breeders' Association at a recent meeting held at Bunceton, Mo. decided to hold a big combination Shorthorn sale at that place on November 14 next. This association has a membership of twenty-five Cooper County Shorthorn breeders who own over 1,200 pure-bred Shorthorns and their sale will probably be an event in that part of Missouri.

Among other prominent breeds of live stock for which Kansas is noted may be mentioned prairie dogs, a consignment of fifty of which has just been sent to Central Park, N. Y. It is reported in New York that Kansas prairie dogs are becoming scarce and they thought it wise to get a few while they could. They have evidently heard of the work that Professor Lantz is doing at Manhattan.

For several years past Mr. A. G. Leonard, General Manager of the Union Stock Yards at Chicago, has been collecting a fine herd of Shorthorn cattle, and he has just now taken possession of his splendid stock farm at Thornton, Ill., where his cattle will have their future home. He has procured the services of Andrew Thom, late of the Mississippi farm as his herdsman and manager, both of whom are to be congratulated.

It is stated on authority that there has never been but one importation of pure bred Holstein cattle made in New Zealand. Just now Mr. H. H. Street, whose home is at New Plymouth, New Zealand, the center of the most important dairy and grazing section of the Twin Islands, is in New York State for the purpose of buying pure-bred Holsteins for use in New Zealand. This will be the second importation to that Island of this breed of cattle.

Professor Thomas Shaw, of Minnesota is urging upon the farmers of his State the necessity of improved methods of wheat culture, and emphasizes his remarks by the statement that there is no plausible reason why the Kansas farmers should produce a yield of 60 per cent greater on the same acreage of winter wheat. He thinks that with care in the selection of seed, improved methods of preparing the seed beds and possibly greater care in harvesting and caring for the grain, the yield of Minnesota winter wheat can be increased at least 50 per cent.

Korns & Lee followed with their Shorthorn sale that of C. C. Bigler & Son, at Victor, Iowa. They had a one day's sale in which they disposed of thirty-five head at an average of \$450.43. The highest price was \$1050.00 for the red Scotch cow, Village Lass which went to F. A. Shaefer, Estherville, Iowa. The top price for bulls was brought by the red Scotch bull Matabel Chief Jr., which went to Adolph Kloppe, Newton, Iowa, for \$405.00. The twenty-nine females of the sale brought \$14,470.00 an average of \$499.00. Six bulls brought \$1295.00 an average of \$215.73. The total of thirty-five head brought \$15,765.00 an average of \$450.43.

Following the N. A. Lind sale at Rolfe, Iowa, held on June 4, was a combination sale of fifty-five head of Shorthorn cattle by Claus Johnson of Rolfe; Anton Williams, of Gilmore City, and Thos. H. Fisher of Rolfe. The general average of the sale was \$305.39. The average of the females was \$349.72, with Scottish Milkmaid at the top at \$1430.00. She was sold to F. H. Houghton, of Albion, and A. P. Mason of Union in partnership. Claus Johnson's twenty head of females averaged \$424.25. Anton Williams' twenty-two head of females averaged \$317.05 and three bulls averaged \$100.00. Thos. H. Fisher's thirteen females averaged \$236.15 and seven bulls averaged \$87.10.

The North British Agriculturist says: "The very promising young Aberdeen-Angus bull, Prince Lorgie (1900), has just been dispatched from Sir George Macpherson-Grant's herd to the order of Mr. H. W. Elliott, Estill, Mo. Prince Lorgie is particularly well bred, having for sire the 300 guinea bull, Bion, while his dam, Pride of Lorgie, was sired by the famous Iliad. Her dam, Pride of Invereshie, by Justice, is the dam of several champions, among which may be mentioned Prince Inca, Prince Iliad, and Prince Ito, the latter being the bull which M. A. Judy sold recently in Chicago for \$1,820. From his breeding and individual merit, Prince Lorgie should prove a valuable addition to the Elliott herd."

The American Berkshire Association recorded sales of 390 pure-bred Berkshire hogs during the month of April. These sales represent the number bought during that month in thirty-four States. Iowa leads with 75 head, Illinois second with 39 head, Indiana and Ohio each bought 28 head and Texas 26 head. The number entered for registration during April was 593 head, Iowa leading with 96 head, Illinois 51, Indiana 39, Ohio 36, Nebraska 35. The other breeds have made a record equally as good in proportion to the number of breeders. This renewed activity among the breeders should be of especial interest at this time, in view of the much-talked-of shortage and the shrinkage in the average weight of the hogs marketed.

Jas. M. McCamant, of New London, Pa., recently held a dispersion sale of Guernsey cattle at which some fair prices were realized. The cow Lady Amaranth 8890 and several of her daughters brought prices as follows: \$400, 320, 375, 180 and 180, a total of \$1455.00 and an average of \$291.00 for the five head. His herd bull Esquire, of Lyndon

6673 sold for \$200 at two years old. Eleven other cows averaged \$192.00 and four yearling heifers averaged \$124.00. Three bulls less than one year old averaged \$80.00. The seventeen head made a general average of \$138.00. Henry A. Parr, of Lutherville, Md., also held a dispersion sale of Guernseys which is thought to be the best ever held in the State. Ten cows made an average of \$165.25. Three heifers averaged \$225.00. One two year old bull made \$225.00. The total of nineteen head made an average of \$123.

Our old-time friend and advertiser, Mr. Geo. Manville, Dearborn, Mo., proprietor of Sunny Hill Herd of Poland-China swine and pure-bred Shorthorns, writes us that crops in his vicinity never looked better than at the present time. While grass is good in the neighborhood, the hay crop will be somewhat light because the drouth of last summer killed out the clover. He says that since the drouth was broken this spring they have had the best season he ever saw. Mr. Manville has recently sold one of his fine young bulls to John Graves, Fairfax, Mo. He states that he still has a few good ones that are now ready for use and has some corks coming on that will be ready for use in the fall. He has won a reputation as a Shorthorn and Poland-China breeder that any man may be proud of and that will make those who desire to purchase get next to him as soon as possible. Write to him for information and prices. See his card on page 668.

The two-days' combination sale of Aberdeen-Angus cattle which closed at the Dexter Park pavilion at Chicago on June 11, resulted in the disposal of 101 head for \$31,520 making the very satisfactory average of \$312.08. The fifty-nine head of females brought \$21,350 an average of \$363.56 and the forty-two bulls sold for \$10,170 an average of \$242.00 which is the best average on bulls in such a large number that has been made in this country for many years. The top price of this sale was brought by Bell Bloomer 2nd 23218 which went to Silas Igo of Palmira, Iowa, for \$2,000. The top price for bulls was \$1,000 which was brought by the Black Bird bull, Black Jam Jr. and which goes to Mr. I. D. Webster of Pleasant Hill, Ill. One of the remarkable features of this sale was the wide area over which the cattle were sold—buyers being present from Illinois, Iowa, Indiana, Michigan, Ohio, Minnesota, Nebraska, Kentucky, Missouri, Wisconsin, Virginia, and West Virginia. This sale was managed by W. C. McGavock in his usual efficient manner and was handled by Colonels Woods, Harshberger, Jones, Sparks, and Igo in the sale ring.

Haymaking, and especially caring for the alfalfa crop, is beginning to be a matter of very considerable importance to the farmers of Kansas. The handling of heavy crops, such as alfalfa, millet, sorghum and Kafir-corn, becomes a serious burden at an extremely busy time of the year. Any man, therefore, who can lighten this burden of the farmers, should be thought a public benefactor. The Smith & Sons Mfg. Co., of Kansas City, are now manufacturing a sweep rake, mounted on wheels which affords the driver a comfortable seat and which is especially adapted to the handling of these heavy hay crops, though it is equally efficient for handling short prairie grass. One of the most attractive features about this machine is the fact that one can buy its cheaper form, mounted with two wheels and driver's seat, with the privilege of adding the attachment which includes another wheel and the placing of the driver's seat in a more convenient position. While this great institution offers its rakes through your local dealer, if the dealer does not handle them, a letter to the company at Kansas City will bring prices and discounts and prove to you that you can not afford to be without one of these model rakes.

The great wool commission house of Silberman Bros. 122-123 Michigan street, Chicago, write us that the unseasonable weather in the territory tributary to Chicago has retarded the shearing of the spring clip to such an extent that the receipts of wool on the Chicago market have not been sufficient to supply the demand for manufacturing. Hence the outlook for a strong market is very favorable. Manufacturers have an abundance of orders for their productions and all kinds of wool will be wanted. There is no doubt that the present prices will be easily maintained and a strong prospect that they will be improved. They quote prices on wool received from territory tributary to Chicago as follows: Bright unwashed medium, 18 to 20 cents; coarse and braid, 17 to 18 cents; fine light, 17 to 19 cents; fine heavy, 15 to 17 cents; while wool from northwest Iowa, Minnesota, etc., is quoted for medium semi-bright unwashed, 16 to 18 cents; coarse and braid, 15 to 17 cents; fine and medium, 13 to 15 cents. Defective wools such as cotted, burry, chaffy or black will range from 3 to 5 cents less than these prices. This great firm makes but a nominal charge for commission but in this charge they include storage, insurance and all other expenses for six months, except freight and drayage. Your wool is insured against fire as soon as you have sent the Silberman Brothers your invoice and bill of lading. One beauty about dealing with this great firm is that they will make you a liberal cash advance on your shipment, sight draft with bill of lading attached. See their advertisement on page 666 and ship them your spring clip, with the assurance that you can't do better anywhere.

The prosperity which has come to breeders of beef cattle and hogs is also shared by the dairy breed. The Jersey Bulletin reports sales that are of interest to those who handle this class of cattle. C. C. Cooper, of Cooperburg, Pa., recently made a sale of 168 head of Jersey cattle, which brought him \$51,750, an average of \$308.00. Of these forty-eight head were bulls, averaging \$330.00, 118 were imported females averaging \$349.00, two American heifer calves averaged \$50.00; the total of 120 females making an average of \$44.00. The top price of this sale was brought by a 4-year-old bull, Flying Fox 61441, which went for \$7,500. The top price for cows was \$3,100 brought by Lady Fountain's Rosette 162120. The same paper reports the Amherst Villa sale of yearling heifers in which thirty-seven head brought an average of \$53.70 with \$155 as the top price; the Tennessee Breeders' combination sale where the average price was about \$50, with the top price for cows \$140 and for bulls \$155. Aside from the value of these cattle as money-

Fortune Telling

does not take into consideration the one essential to woman's happiness—womanly health. There is many a woman whose future seems absolutely unclouded who is marked by her own condition for future disappointment and distress.

The woman who neglects her health is neglecting the very foundation of all good fortune. For without health love loses its lustre and gold is but dross.

Womanly health may be retained or regained by the use of Dr. Pierce's Favorite Prescription. It establishes regularity, dries the drains which weaken women, heals inflammation and ulceration and cures female weakness. It makes weak women strong, sick women well.

Sick women are invited to consult Dr. Pierce by letter free. All correspondence held as strictly private and sacredly confidential. Address Dr. R. V. Pierce, Buffalo, N. Y.

"I have taken six bottles of Dr. Pierce's Favorite Prescription," writes Miss M. Fyfe, of Orilla, Simcoe Co., Ontario, "and two bottles of the 'Pleasant Pellets' as you advised for congestion of uterus, ovaries, and weakness, and can safely say that your medicine has been the means of restoring me to good health again, which I had not had for over three years, until taking your medicine. I thank you very much for your kind and prompt attention to my letter asking advice."

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

Dr. Pierce's Pleasant Pellets clear the complexion and sweeten the breath.



makers the young man who desires to engage in the dairy business can now do so under present conditions in Kansas with great satisfaction and profit to himself and with the knowledge that the animal which he breeds will have a good market value in case he should desire to sell. Indeed the ample returns which the milk farmer now realizes for his product in Kansas, together with the comparatively low cost of the necessary pure-bred animal will doubtless prove a strong inducement to young men with limited capital who desire to enter the stock breeding business. Under the facilities which the great creamery companies now offer to their patrons it might be easy for a young man who really desired to engage in breeding beef cattle to start with the dairy breeds and thus secure his capital for investment in the beef producing cattle, though we fancy that a trial with the dairy breeds will convince him that he will need to make no change.

General Manager Skinner, of the International Live Stock Exposition, gives notice of some important changes in the rules and classifications for the show next December. Among them we note that the date for computing ages of breeding cattle will be September 1 for senior classes, and January 1 for junior classes, while for swine, sheep, and fat cattle the date will be September 1. Rule 63 has been changed so as to require a "living" calf instead of "matured" calf. The fourth premium on Shorthorns, Herefords, Angus, Galloways, Red Polls, and Polled Durhams, and the second premium on Devons, will all be eliminated from the breeding division and the money used for premiums in the steer classes of the same breeds and for grades and crosses. The championship prize for steer herds is \$100, and the premiums for the carcass test will be increased. Rule 76 is changed to abolish the slaughter test, as previously mentioned in the Kansas Farmer. In the sheep division the classes for rams and ewes, 2 years old and over, are eliminated, and flocks hereafter will consist of one ram and one ewe under 2 years and two ewe lambs. In the fat division for sheep the second and third prizes are cut out for Dorsets, Cheviots, and Ramboulllets and the money thus taken from these classes will be divided proportionately among the other classes of fat sheep. A new class was made for range-bred sheep in which competition will be limited to sheep bred west of the 98°. In the swine division rule 102 provides that each exhibitor shall be allowed but two entries in each class, and these must be of high order of merit. Pens will not be furnished for sale hogs, except those in the association sales. In the breeding division the fourth and fifth premiums will be taken from the Berkshires and Poland-Chinas and the first, second, and third premiums of all the breeds increased by this amount. The second premium for Tamworths and Large Yorkshires will be eliminated and the first premium for these breeds made equal to that of the other breeds. All the car-lots exhibited in competition must be shown by the feeders. In the draft-horse breeding classes the Percheron, Clydesdale, and Shires are to have the same classification, provided these associations offer the same amount of money spectators, which is limited to \$500, and is regardless of any cups or medals. The college classification remains the same as last year.

It is a noticeable fact that cattle-feeders are now almost invariably buying 2- and 3-year-olds with no inquiry for yearlings. These men prefer to pay higher price and save a year on their feeding stock. This is undoubtedly a result of the drouth of last summer, as breeders everywhere an-

nounce an increased demand for animals which will produce baby beef suitable for market at an early age. The day of the 3- and 4-year-old steer for a feeder is well past.

A combination of Shorthorn breeders is now being effected with the idea of establishing a central ranch market in the West to which bulls can be consigned and acclimated. The purpose of this association will be to develop a new market for surplus bulls, and to do this they propose to hold periodical sales of such bulls as may be consigned to the newly established range headquarters. It is possible that other pure-bred associations may take similar steps.

The annual meeting of the Texas Farmers' Conference will be held at the State Agricultural College on July 15-18, where an unusually attractive program will be rendered. It is noticeable that there is no mention of corn-growing in the entire program. It would seem that a State with such immense resources and area, with a corn-belt which is larger than many other entire States, should at least afford a portion of one session to the discussion of this important topic.

An English civil engineer is quoted as expressing his surprise at the lack of interest that the people and Government of the United States exhibit in irrigation. He says that in India the British government owns and operates every irrigation enterprise, which now includes over 12,000 miles of canal. Perhaps if this country could induce Mr. Carnegie to drop his library scheme for a while and establish a model irrigation plant at some suitable point in the arid regions, he would accomplish more for the real education of the people than through all his library enterprises combined.

In a recent paper we notice that the Dakota range men are suffering severely from depredations of bands of wild and outlawed dogs. These dogs are large in size and as fierce as the timber wolf, while their former connection with civilization gives them advantages in their depredations which the wolf does not possess. While Kansas is not suffering from this cause directly she still labors under a burden of an immense number of wholly useless dogs, each one of which more than "eats his head off" in the course of each year of his life. Good live stock and dogs do not belong to the same farm.

The Secretary of the Interior has recently asked of Congress appropriation for the purpose of buying an additional herd of buffalo for the Yosemite Park. A herd of sixty now located in Montana are to be purchased if the appropriation is made, and placed with the thirty head already in the park in a corral of about 1,000 acres. This is the Government asked to expend money for the preservation of a remnant of that magnificent endowment of wild cattle which was so ruthlessly slaughtered but a few years since. The same thing will be necessary in Alaska for the moose and caribou if immediate and stringent measures are not taken at once.

It is with extreme regret that we notice that the commercial instinct which is so prominent in Americans has lately prompted the shipment of wild game in large quantities from Alaska to the United States. This is accomplished by means of cold storage and means a rapid depletion, if not a total extinction, of one of nature's best gifts in the only territory which yet remains to it. It is stated that a company has now been organized which has purchased all the moose, caribou, and ptarmigan that they could buy and have filled the company's large cold storage plant and are just now beginning to ship, in refrigerator steamers, vast quantities of this game to supply the eastern markets. Here is a place where the strong hand of Uncle Sam should be felt at once.

The source of the famous roast beef of England is perhaps best shown by some recent statistical figures just at hand. The total exports of dressed beef from the United States to England last year was 105,678 tons. This is twice as much as was sent over in 1891, and about four times as much as was sent in 1881. United States can furnish better and cheaper beef than can be grown anywhere else in the world and the English people know it. On the other hand statistics show that the United States received last year less than half as many cattle, by imports, than was received four years ago. The breeders of the United States are making rapid strides towards perfection and the best cattle in the world can now be found on Uncle Sam's farm.

We are in receipt of a catalogue of the Double Standard Polled Durham and Shorthorn cattle to be sold at auction on Thursday, June 26, at South Omaha Stock Yards, by A. E. Bureleigh, Knox City, Mo., and F. F. Fallor, Newton, Iowa. The catalogue includes forty-three head of mostly young cattle with all their usefulness before them. More than thirty head of these are Double Standard Polled Durhams, the balance being pure-bred Shorthorns. Mr. Bureleigh contributes twenty-three head and Mr. Fallor twenty head. Of the total consignment fifteen head will be young bulls and the heifers and cows are all bred to Polled bulls. Write to either of the consignors for catalogue. It is interesting reading and the sale will afford an opportunity to get some of this extremely desirable class of cattle.

Wild Tom died full of years and honors and has left a record behind him that will never be effaced in the Hereford world. Just east of the beautiful little city of Axtell lies the farm of Mr. A. H. Bird, who has long been known as a feeder for the market, and it is a pleasure to know that he is now in possession of a numerous herd of pure-bred Herefords, with Sunny Slope Tom 14th, a son of Wild Tom, at the head. Mr. Bird has a splendid farm, the pasture of which is well seeded to blue-grass while his crops of alfalfa and corn insure a continuance of his reputation as a feeder which he has already earned. We are always glad to meet a man who has changed from a feeder to a breeder because he always retains his ability of a feeder. No breeder can reach his best without being a feeder as well and we not only welcome Mr. Bird to the ranks of breeders of pure-bred cattle but are glad to note that he has lately become

a member of the Marshall County Breeders' Association, and will contribute a number of youngsters of excellent quality to the fall sale and show of the association.

The question of an outlet for surplus bulls on the pure-bred farms of the Middle West is one which is engaging the members of the various associations and will undoubtedly result in some decided action being taken either by the association or combinations of individuals. At a recent meeting of Aberdeen-Angus breeders held in Chicago the unanimous opinion was expressed that the great Central West, embracing Kansas, Nebraska, Oklahoma, and Missouri, together with the Northwestern States and Territories, would afford the best market for years to come. That this is unquestionably true is shown by the expression of large breeders who represent all of the prominent beef-making breeds. Certainly no better market could be asked for than that which is now developing in Kansas, Nebraska, and Oklahoma.

Although the National Hereford Breeders' Association meeting which was held at Ames, Iowa, on June 3 and 4 was but poorly attended by the members there was a considerable number of visitors and agricultural college students present to show their interest in the proceedings and the swine-judging contests. This association for some time past has been giving diplomas to qualified parties who pass their examination, certifying that the holder is competent to judge swine at country fairs and other exhibitions. These certificates are much prized, although they do not carry with them a guarantee of employment as an expert judge. Owing to the lack of interest which was apparent at these meetings it was decided to hold the next annual meeting at Lincoln, Neb., in connection with the various swine breeders' association meetings of that State. The exact date will be announced in due time.

Prof. A. M. Soule, of the Tennessee Experiment Station, is credited with recommending chemical instead of mechanical dehorners. He uses some preparation of caustic potash which is applied moist to the button before the calves are 3 weeks old, at least before the button becomes attached to the head. In order to secure satisfactory results it is very necessary that the potash be fresh. As is well known this substance is of an extremely corrosive character and is difficult to handle on account of the injury to one's hands and finger nails. Some preparation of this substance is at once cheaper and more satisfactory in its results if it is well made. We learn that Mr. E. S. Nichols, Room 123 Exchange Building, South Omaha, has perfected a combination which removes the disagreeable features and is very efficacious in the destruction of the horns. He advertises it under the name of Noxall.

Mr. William Acker, of Vermillion, Kans., is the owner of some choice things in Herefords that does one good to look at. The females are Anxiety 4th blood, almost entirely. In fact he started his herd with some granddaughters of Anxiety 4th and maintains this blood on the female side in great uniformity. His herd-bull is Weston Stamp 9th by Weston Stamp out of Malinda. Malinda is by Boatman and is a half-sister of Ben Wilton, who is the sire of O. Harris' great prize-winning cow, Betty. Mr. Acker is the owner of one of the finest farms to be found in the State of Kansas, it being made up almost entirely of bottom land which is wonderfully rich and which is seeded to alfalfa and other crops most needed in enabling him to produce a fine quality of Herefords, which make this county famous. Mr. Acker's card will be found on page... and he will be represented in the Marshall County Hereford Breeders' show and sale at Blue Rapids next November.

Many years ago there was established on the ranch of A. J. Stocks near Blue Rapids, Kans., the Spring Branch Herd of Hereford cattle. Because of the recent death of the proprietor, this herd has been divided in ownership, though it still retains its original name and identity. It is now owned by Mrs. A. J. Stocks and her son-in-law, C. D. Holmes, and with Jim Wilton 106761 by Roy Wilton 79035 out of Jimmima 92759 at the head of the combined herd and under the efficient management of Mr. C. J. Holmes there is undoubtedly a great future in store for this herd. In fact we predict that this herd will be one of those which will be frequently heard from for its good qualities which will help to make the Herefordshire of Kansas famous. Breeders of Hereford cattle all over the West are keeping their eyes on this locality as a center from which they can draw material for their use in this and other States, and it will pay you to keep your eye on Jim Wilton.

A recent visit to the Shorthorn herd of Mr. J. K. Watkins of Whiting, Kans., afforded us a real pleasure in that we had an opportunity to inspect some of his excellent cattle. While these cattle are just recently onto grass from a winter in the feed barns they show their form and prove that blood will tell. The 3-year-old red herd-bull, Little B's Champion, by Red Champion, out of Little B, Barrington, and the junior herd-bull by Golden Mary out of a Flat Creek Mary cow, show the quality of the young stuff which Mr. Watkins has for sale, and these, mated to such cows as the Baroness of Billbrook by Iowa Scotchman, the famous herd-bull of Hon. M. A. Low, and the show cow, Miss Ruth, by the 8th Duke of Liberty give, at once, reasons for the popularity of these cattle. Mr. Watkins now has some young bulls for sale, among which is one by the 1st Duke of Idelwild, which some one ought to secure to grade up a herd with, and two brothers by Victor's Luck by Grand Victor which are exceedingly cheap for the price.

On Friday, May 23, there was shipped from Liverpool on one of the White Star liners what is described by the North British Agriculturist as "a grand selection of over 100 head of Aberdeen-Angus cattle." These cattle were purchased by M. A. Judy of Indiana, and Cantine Bros. & Stevenson of Holstein, Iowa. It will be remembered that Mr. Judy held a sale of doddies at Chicago in February last when his Ballandoloch bred bull, Prince Ito, was sold for \$9,100, and he is evidently now

determined to secure the best blood that money can buy. Mr. Judy visited the former home of Prince Ito and found that Eblito, who is reckoned as Prince Ito's greatest son, is making for himself a reputation that is equal to that of his sire. Although unable to buy him Mr. Judy lodged the standing offer of \$7,000 for the animal, which was promptly refused. He did succeed, however, in buying the Lady Fanny bull, Ford Fretful, a son of the great Illiad. Elsewhere he succeeded in buying one of the best Eblito bulls in Scotland, who has been named Illuminator of Ballandoloch. The other purchases made by all the gentlemen interested are of the same quality and represent absolutely the best things that could be had for cash.

Mr. I. D. Yarrick, of Blue Rapids, Kans., has long been known as a feeder, but lately has come into prominence as a breeder of Hereford cattle as well. His ranch is situated only about a mile from the city limits and is an ideal location for a breeder's home. The barns are large, well built and convenient, and are situated on a gentle slope which insures good drainage and sanitary conditions. While the house is at the apex of a symmetrical mound from the base of which gushes a copious spring of water which is piped to the various barns and feed-lots, as well as to the residence. For the encouragement of young breeders about to start, we would like to say that Mr. Yarrick's cow Phyllis by Eleazer by Imp. Remus 2d and out of Cherry by Enterprise has a history which it is well to know. Thus far he has sold \$550 worth of her calves and has eight heifers remaining, each one of which is earning him money, and when we remember that Phyllis only cost him \$22.50 through a streak of luck at an auction, we may see what enormous returns his investment has brought him. Mr. Yarrick's herd-bull is Bacchalaureate 83587 by Roseland 5184 who traces to Earl of Shadeland and out of Bangle 3d 65522 by Druid out of Bangle 2d. We understand that Mr. Yarrick will be represented in the fall shows and the association sale at Blue Rapids, where he will undoubtedly win honors. With such a home as this and surrounded by this quality of cattle Mr. Yarrick's lot is an enviable one. As a side issue Mr. Yarrick is a breeder of Angora goats and those desiring to secure some of these brush-cleaners and mohair dresses should write to him. His card is on page

If one were searching for a reason for the election of Mr. Wm. Bommer, of Marietta, Kans., as the president of the Marshall County Hereford Breeders' Association, it would easily be found in the character, ability and energy of the man and his knowledge of Hereford cattle, which is best shown by the selection of individuals which he has gathered together to compose the Ash Creek Herd. The females of this herd include the blood of The Grove, Anxiety 4th, Beau Real, Lord Ilton, and Old Anxiety, which certainly leaves nothing to be desired so far as blood lines go, while the individuals are choice representatives of their several families. To further emphasize the wisdom of selecting one of their best men as president of the association Mr. Bommer's selection of a herd-bull may be cited. This bull is Eduardo 113325 by Excel 48870 out of Rosanita 7590. Excel is by Dictator 2d 15068 out of Spot 5th 8949. Rosanita is by Broadus 53968 out of Rosanna Brown 101121. He is roan in color and a bull of wonderfully even lines. He is now 2 years old but has developed rapidly and is now in excellent form which is characterized by excellent back and loin, splendid crop and an ideal head and neck. He stands low on the ground with immense spring of rib, great heart development and well down in the flank. He is very even and smooth about the rump and reminds one in this particular of the development of the great \$15,000 Shorthorn bull, Marry Hampton. Eduardo is a sappy youngster with a great future before him, both as an individual and as a sire, and we predict that he will compel Boatman to look to his laurels, although the latter has a long record of years and honors behind him.

To the lover of good cattle perhaps no more enjoyable visit could be made than one to the farm of the Vermillion Hereford Company, owned and managed by Mr. E. E. Woodman, of Vermillion, Kans. This is the home of Boatman 56011 and here he lives covered with honors. It will be remembered that Boatman is a half brother to Lamplighter and an uncle to Dandy Rex, and if anything farther were needed to show that he is royally bred it is only necessary to mention that Gudgeon & Simpson bred him and that he served for several years at the head of Cornish & Patton's herd. It might be thought that a man who had acquired the ownership of Boatman ought to be satisfied for the rest of his life, but Mr. Woodman has cows which are as royally bred to mate with him. It will be remembered that at an Armour sale a beautifully bred imported cow named Sapphire was catalogued. For some reason Sapphire was withdrawn and Imp. Alberta 2d substituted. Alberta 2d was bred by A. P. Turner, Pembroke, England, and is by Stateman, who traces back to Lord Wilton and is out of Alberta, who traces back to Longhorns. This is a cow that Mr. Armour intended to keep in his own herd and she is undoubtedly one of the best Hereford cows in the State and ought to be a prize-winner in any show-ring. Mr. Woodman has other cows that he thinks are good companions for Alberta 2d, and certainly their breeding leaves nothing to be desired. He has a few Boatman calves that he will probably prepare for the show-ring and sale of the Hereford Association this fall. Alberta 2d has a calf at foot by H. B. Watts & Sons' herd-bull, Lord Erling, which will be a prize-winner and along with other members of this herd are sure to stand well up "in the money." Mr. Woodman is secretary of the Marshall County Hereford Breeders' Association.

FOR SALE
HACKS, Carriages, and
Entire Livery Stock of
A. J. HUNTOON.
See or write
T. E. POUNDS, Topeka, Kansas.

WHERE DOCTORS FAIL

To Cure Woman's Ills, Lydia E. Pinkham's Vegetable Compound Succeeds. Mrs. Pauline Judson Writes:

"DEAR MRS. PINKHAM:—Soon after my marriage two years ago I found myself in constant pain. The doctor said my womb was turned, and this caused the pain with considerable inflammation. He prescribed for me for



MRS. PAULINE JUDSON,
Secretary of Schermerhorn Golf Club,
Brooklyn, New York.

four months, when my husband became impatient because I grew worse instead of better, and in speaking to the druggist he advised him to get Lydia E. Pinkham's Vegetable Compound and Sanative Wash. How I wish I had taken that at first; it would have saved me weeks of suffering. It took three long months to restore me, but it is a happy relief, and we are both most grateful to you. Your Compound has brought joy to our home and health to me."—MRS. PAULINE JUDSON, 47 Hoyt Street, Brooklyn, N. Y.—\$5000 forfeit if above testimonial is not genuine.

It would seem by this statement that women would save time and much sickness if they would get Lydia E. Pinkham's Vegetable Compound at once, and also write to Mrs. Pinkham at Lynn, Mass., for special advice. It is free and always helps.

WEALTH FROM CORNSTALKS

A Rare Opportunity for Investors in the
NEW INDUSTRY
That Will Create Enormous Wealth,
NATIONAL FIBER & CELLULOSE CO.
OF CHICAGO.

owns and controls machinery, patents, and processes for manufacturing all grades of paper, feed, and by-products from the wasted corn stalks. This waste in the corn belt of the U. S. amounted to over 58 million tons in 1900.

CONSERVATIVE INVESTORS can form an idea of the scope of this enterprise, when they consider that the tonnage of corn-stalks to be turned into pulp for paper is inexhaustible and will supply the American paper manufacturers and stop them from going to Canada for pulp from "timber." It is an enterprise that will immensely benefit farmers, laborers, freight-carriers and investors.

Contracts for machinery for the first plants have been let with Torris Wold & Co., Chicago.

THE STOCK OF THE NATIONAL FIBER & CELLULOSE CO.

Will as an investment surpass everything in the history of industrial money-makers. A limited amount of stock is offered at \$1.50 per share, par value \$10.00, fully paid and non-assessable. BUY BEFORE THE ADVANCE ON JUNE 21, as the stock is selling rapidly, and the price will be

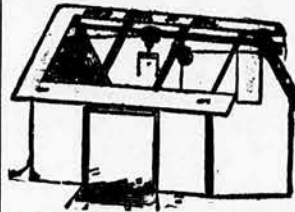
\$2.00 per Share After June 21.

with good prospects of advancing to par before the end of the year.

Investors are invited to examine machinery, patents, processes, products, and everything pertaining to the business. No orders for less than 20 shares accepted. An investment of \$30 (20 shares) now bids fair to be worth \$300 before the end of the first year.

SANFORD MAKEEVER, Fiscal Agent,
84 Adams Street, CHICAGO, ILL.

RONEY HAY-CARRIER AND FORK-RETURNER



This returner will return carrier and fork before the team can turn around thereby saving all hard work of pulling carrier back by trip rope. Agents wanted. Roney Returner Co., Box N., Independence, Iowa.

WELL DRILLING Machines

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

The Young Folks.

Conducted by Ruth Cowgill.

THE ANGLER'S REVEILLE.

Henry Van Dyke.

What time the rose of dawn is laid across
the lips of night,
And all the drowsy little stars have fallen
asleep in light;
'Tis then a wondering wind awakes, and
runs from tree to tree,
And borrows words from all the birds to
sound the reveille.

This is the carol the Robin throws
Over the edge of the valley;
Listen how boldly it flows,
Sally on sally:

Tirra-lirra,
Down the river,
Laughing water
All a-quiver.
Day is near,
Clear, clear,
Fish are breaking,
Time for waking.
Tup, tup, tup!
Do you hear?
All clear—
Wake up!

The phantom flood of dreams has ebbed
and vanished with the dark,
And like a dove the heart forsakes the
prison of the ark;
Now forth she fares through friendly
woods and diamond fields of dew,
While every voice cries out "Rejoice!" as
if the world were new.

This is the ballad the Bluebird sings,
Unto his mate replying,
Shaking the tune from his wings
While he is flying:

Surely, surely, surely,
Life is dear
Even here.
Blue above,
You to love,
Purely, purely, purely.

There is wild azalea on the hill, and roses
down the dell,
And just one spray of lilac still abloom
beside the well;
The columbine adorns the rocks, the
laurel buds grow pink,
Along the stream white arums gleam, and
violets bend to drink.

This is the song of the Yellow-throat,
Fluttering gaily beside you;
Hear how each voluble note
Offers to guide you:

Which way, sir?
I say, sir,
Let me teach you.
I beseech you!
Are you wishing
Jolly fishing?
This way, sir!
I'll teach you.

Then come, my friend, forget your foes,
and leave your fears behind,
And wander forth to try your luck, with
cheerful quiet mind;
For be your fortune great or small, you'll
take what God may give,
And all the day your heart shall say "'Tis
luck enough to live."

This is the song the Brown Thrush sings
Out of his thicket of roses;
Hark! How it warbles and rings,
Mark how it closes:

Luck, luck,
What luck?
Good enough for me!
I'm alive, you see.
Sun shining,
No repining,
Never borrow
Idle sorrow;
Drop it!
Cover it up!
Hold your cup!
Joy will fill it,
Don't spill it,
Steady, be ready,
Good luck!

"Self-culture."

One frequently meets people who stick up their noses at the mention of culture. They think it means that superficial polish which is indicated by a patronizing smile, a foolish elaborateness of manner. But one who has such a conception of culture does himself and the word an injustice. Culture has to do with the man, not the manner. It means the best possible development and use of the mind—and not the mind only, but the body and soul as well. It is no superficial thing; it is concerned with the very fiber and root of the man or woman. And as such, is it not worthy our respect, and our best endeavor to attain it? For it gives one the power of appreciation of all that is good and fine in this fine old world where we find ourselves. It gives one also a perception of what is false and what is unworthy, and lets one into the charmed circle of great minds and hearts whom we may never see, but whom we may know through their printed words.

A recent lecturer gave an address on this over-worked but ever helpful subject, "Self-culture." The gist of his remarks will bear repeating. He named four great sources of culture, and the beauty of it all was that they all were within reach of any one. The first aid which he named was Nature, old Mother Earth, the wide universe which stretches around and above us and which we Kansas people love as we love the breath of life, for it is the great foster-mother of us all; we do not often

stop to think just how much a blessing this radiant, glorious out-of-doors is to us; but when one remembers the millions of little children swarming on dark, dirty pavements, with no knowledge of green growing things, no breath of fresh air, then he begins to appreciate his own much-derided sunny Kansas.

Indeed, this old earth of ours propounds questions to keep men guessing for many a year. Each little stone picked up as we pass holds a mystery that wise men can not solve, the mystery of growth, of life. There are forces at work in full view which could cause revolutions in the world, were we not too absorbed, too unheeding, to see them and learn what they mean.

The second source which our lecturer named as both indispensable and cheap, is literature. One immediately thinks of a large library, numerous shelves filled with handsome books, an expensive luxury which very many could never afford. But a few well-selected books, really true books of great, deep-thinking, earnest men and women, are worth whole libraries of books such as some people show you with pride as "my library." Among the books which were named, and the first one named, was the Bible. Most of us read this book as a matter of duty, or to gain help for daily living, never thinking that here is one of the great books of the world, a source of that culture which we all so dearly desire and which seems so distant and so difficult to obtain for many of us. There are other books which it were good to have in our library, the more the better—Whittier, Tennyson, all the great poets, the great novels, the great histories, biographies, and essays; but let us always be sure that the books we put upon our shelves are good books, great books; for there are many such and they cost no more than many of present popularity but evanescent fame.

A third means for self-improvement is art. Not every one can own beautiful oil paintings, etchings, casts, of that we whose pocket-books are ever smaller than our desires feel only too sure. But very good copies of the great works of art, both of our day and of ancient days, can be had for a very small amount; with a range of price from a penny for the Perry pictures to five, ten, twenty-five, a hundred dollars for more elaborate copies, one can find something good to fit almost any pocket-book. The man from whom I have been quoting, who is himself a man of wide culture and thorough education, assured us that one could obtain much of the benefit usually obtained only by foreign travel, simply by the intelligent selection of good pictures.

The last, and, in my opinion, the most helpful source of culture mentioned, is people. There is nothing which so readily and so thoroughly rubs off the rough edges, and gives sweetness, strength, and broadness to one's mind and character than contact with one's fellow men and women. Young people seldom need to be urged to mingle with other young people, and it is well that it is so. Let us enjoy other people, let us be willing to have our queer, ungainly traits of character and manner rubbed off, even though the rubbing be rather unpleasant at the time. And let us grasp every opportunity for improvement and culture be they ever so humble and near at hand. For whatever of time or money is spent upon the improvement of mind and heart is well spent and will be well repaid.

A Noble Lion.

Long ago a lady lived in Chicago who dearly loved all animals, and she had a wonderful collection, for her husband used to own a circus with every creature you could find in a natural history. But finally he grew tired of the hard life under a tent and sold the entire outfit, except a couple of beautiful "lady" lions. One day Mrs. Grenier found a darling little lion in each cage, and finally the mama lions joining a big circus, she kept the little cubs for playthings.

They were dainty, tawny creatures with soft brown eyes and were as frolicsome as puppy dogs. But finally they grew up and began ripping the carpets and tearing the furniture. They bit and gnawed everything within the reach of their sharp little teeth, so, very sorrowfully, their mistress sold Major and Jennie to the Lincoln Park Commissioners, where they soon became the idol of the Zoo.

How they loved Cy De Vry, the head animal keeper, and how he loved them is a matter of history. Many a time has Mr. De Vry crept between Major's powerful paws, pillowed his head on his splendid head and felt his hot breath on his cheek. Major was so exceedingly

gentle that he would have cradled a babe and lulled it to sleep with his musical purr. Once he was so ill that he seemed ready to die, and to tempt his appetite, Mr. De Vry gave him a dear little guinea pig. But for hours he cuddled the little frightened creature under his chin, and, like Daniel of old, the tiny pig from Guinea came out unharmed from his visit to a lion's den.

One evening when the watchman was making his rounds he heard a singular sound, and, flashing his lantern into Major and Jennie's cage, he saw Major with a tiny baby lion between his paws licking him as you have seen a mother cat lick her kittens. It was a marvelous thing, for I am sorry to say that father lions always eat their lion babies as quick as you would a chocolate drop.

A few years ago, when Mr. De Vry was away from Lincoln Park, the Commissioners sold this grand old Major to an animal dealer, who shipped him to Saxony, and to-day no one knows whether he is living or dead. But every one who ever saw Major, mourns him as the lion-hearted, the greatest and grandest of his kind.—Pets and Animals.

FOR THE LITTLE ONES

THE LITTLE GIRL WITH TAFFY-COLORED HAIR.

There steals into my bedroom
In the early morning light,
So softly that I scarcely know she's
there,
A tiny, white-robed figure,
With a face like sunshine bright—
'Tis a little girl with taffy-colored hair.

She mingles with the visions
That plagued me through the night,
As I puzzled over "how?" and "when?"
and "where?"
With one touch her baby finger
Has put them all to flight—
This little girl with taffy-colored hair.

Then I hear a little giggle,
And there before my sight
Stands the little witch with feet and
ankles bare,
Her face all bubbling over
With dimples of delight—
My little girl with taffy-colored hair.

As I raise my head to greet her,
I'm sure nothing can be sweeter
Than this little maid of mine beyond
compare.
You will know her when you meet her,
She's so sweet you'd like to eat her—
The little girl with taffy-colored hair.
—By the late Thomas C. Roney.

Another Fairy Story.

Once a kind fairy was floating around among the tree-tops. She loved to be in the trees among the birds because they always were so happy. But on this day that I am going to tell you about she heard a sad little bird-voice chirping plaintively, "Oh, dear, oh dear, I wish I was a little boy."

"Would you really like to be a boy?" asked the kind fairy, sitting on a leaf and looking at the discontented little bird sharply out of her bright blue eyes.

"Why, yes indeed, I should rather be a little boy than anything else. Little boys can run and turn somersets and play ball, and swim, and sleep in the house, and eat ice-cream, and—"

The fairy did not like to hear a little bird talking so sadly so she said, "Well, well, I'll see if I can find a boy who wants to be a bird, then you can exchange; then his mother will not be lonesome and your mother will be happy, too."

The discontented little bird watched the kind fairy float away until she was so far away that she could not be seen, and sat brooding on the leafy branch wondering how soon the fairy would come back and thinking how delightful it would be to be a boy who could play and talk and eat ice-cream.

After a while he spied the fairy coming toward him riding on a bird's back. "This is Johnnie-bird," said the fairy. Then she touched the first little bird on the head and he immediately began to feel very funny. His wings became arms with hands on the ends, his bill grew shorter and changed into a nose and mouth; his feathers became a coat and trousers, and when he meant to twitter, his voice sounded big and loud and he said queer things that he had never thought of before.

"Now get right down out of that tree," some one called to him, and he slid down quickly, bruising his knees and rubbing the skin off his new hands. He had intended to fly down but he found he could not do that now that he was a boy. He found himself running toward a lady who looked very good and kind, but she said to him, "Why did you climb our cherry-tree, little boy? I think you must run straight home to your mother and tell her you ran away and were taking my cherries."

"Yes'm," said the little bird-boy,

beginning to cry, "but I don't know where I live."

"You don't?" said the lady. "Why, you are Mrs. Brown's boy, and your home is that little house on the hill away over there. Now run right along and don't climb our cherry-trees again."

So he started toward that house which looked very far off, and he wished he had his wings instead of great long arms that did not help him at all. As he passed under the cherry-tree he heard a great twittering of birds but he could not understand what they were saying though he thought they were trying to tell him something. He went as fast as his legs would take him, and when he reached the little house on the hill he opened the gate and went in. It was a lovely place, all shut in with beautiful green shade-trees, just the kind of a place he used to long to play in, when he was a bird. He went to the house and there was a big tall man, coming out to meet him. And when the man saw him, he said, "Johnnie, where have you been, you naughty boy?"

The bird-boy did not know what to say. Then he thought of what the lady had said he must tell his mother, and he said, "I won't tell you, but I'll tell my mother."

The man gave him a shake and said, "Why, John, what do you mean? When I ask you a question you must answer me. I never knew my little boy to act this way before."

But Johnnie was only a bird-boy and did not know how a real little boy should act, so he began to cry and said, "Well, I've got to tell my mother where, I've got to tell my mother where."

So the man took him into the house and stood him before a lady who was making pies.

"Why, Johnnie boy, where have you been?" she said.

"I was up in a lady's cherry-tree taking her cherries," he said.

"Taking a lady's cherries? Why you naughty little boy! You must go to bed now, and think how bad you were to take some one else's cherries."

So the bird-boy went to bed in a nice soft little white bed, and tried to think how bad he had been, but he remembered that his own real bird mother had taught that cherry-trees were fine places to live in and had never told him that he must not take the cherries. After a while he grew tired of trying to think it all out, and he went to sleep, and dreamed he was a bird again, when he tried to fly he fell out of bed. The lady and man who lived there and thought he was their little boy, came running up stairs to see what made such a big noise.

"Bless my soul, he has fallen out of bed," said the man. "I never knew Johnnie to fall out of bed before. He must be sick."

"I am afraid he is, poor boy," said the lady, "I must give him some medicine. Here, Johnnie, open your mouth and take this."

Johnnie opened his mouth and took it. It was the worst stuff he had ever tasted, and he said, "Oh, I wish I was a bird, I wish I was a bird."

"What is that he is saying?" said the lady. "Oh, I'm sure he is very sick. Send for the doctor, quickly." He lay still watching them. He felt very well, only that he was homesick for his own downy nest and for his own little mother. Pretty soon the lady put a mustard-plaster on his breast. He thought this was very funny, at first, until it began to smart and burn. Then he resolved to get away before they could do anything more to him. He pulled the plaster off and threw it away, and then ran out of the door and down stairs and out of the house as fast as he could. When he came to the tree where the fairy first found him, he stopped, quite out of breath, and called up to her, "Oh, fairy, fairy, change me back into a bird again, just as fast as ever you can, before those awful people can catch me—quick, quick."

So the fairy came down and touched him on the head and said, "Little boy, become a bird again and never grumble again." Then he flew up into the tree, and began to twitter and sing because he was so happy to be himself again.

Then he saw the fairy touch a little bird on the head, and say, "Johnnie-bird, become a little boy again and never again grumble because you can not fly."

And the little boy slid down the tree and said with a laugh, "Well, I guess I'll not." Then he scampered home as fast as he could. I do not know whether he had to wear the mustard-plaster or not, but I know he never went near a cherry-tree again as long as he lived.

He is fullest of fault who thinks himself faultless.

The Home Circle.

PLAIN LANGUAGE FROM TRUTHFUL JAMES.

Which I wish to remark,
And my language is plain,
That for ways that are dark,
And for tricks that are vain,
The heathen Chinese is peculiar,
Which the same I would rise to explain.

Ah Sin was his name;
And I shall not deny,
In regard to the same,
What that name imply;
But his smile it was pensive and childlike,
As I frequent remarked to Bill Nye.

It was August the third,
And quite soft was the skies;
Which it might be inferred
That Ah Sin was likewise;
Yet he played it that day upon William
And me in a way I despise.

Which we had a small game,
And Ah Sin took a hand;
It was euchre; the same
He did not understand;
But he smiled as he sat by the table
With a smile that was childlike and bland.

Yet the cards they were stocked
In a way that I grieve,
And my feelings were shocked
At the state of Nye's sleeve,
Which was stuffed full of aces and bowers,
And the same with intent to deceive.

But the hands that were played
By that heathen Chinese,
And the points that he made,
Were quite frightful to see—
Till at last he put down a right bower,
Which the same Nye had dealt unto me.

Then I looked up at Nye,
And he gazed upon me;
And he rose with a sigh,
And said: "Can this be?
We are ruined by Chinese cheap labor—"
And he went for that heathen Chinese.

In the scene that ensued
I did not take a hand,
But the floor it was strewn
Like the leaves on the strand
With the cards that Ah Sin had been hiding,
In the game "he did not understand."

In his sleeves, which were long,
He had twenty-four packs—
Which was coming it strong,
Yet I state but the facts;
And we found on his nails, which were
taper,

What is frequent in tapers—that's wax.
Which is why I remark,
And my language is plain,
That for ways that are dark,
And for tricks that are vain,
The heathen Chinese is peculiar—
Which the same I am free to maintain.
—Bret Harte.

THE KANSAS STATE AGRICULTURAL COLLEGE.

The college year now drawing to a close has been a period of intense growth for the Kansas State Agricultural College. The institution has witnessed another increase in students and teaching force, the inauguration of new lines of work, especially in stock-judging, the addition of much illustrative material, the erection of a large and solid Physical Science building, the starting of a roomy addition to Library hall, the completion of the Girls' gymnasium, the erection of large stock sheds, and other substantial improvements almost too numerous to mention. The college, that is its students, the faculty, the board of regents, and the whole State, take pride in this growth. They feel that the rapid development

of twenty-three professors and heads of departments, thirty-five regular assistants, six other officers, twenty-seven student assistants, and a number of regular employees of the Experiment Station. These figures do not include the sixty-two officers of the college battalion and the eleven officers of the college band.

The catalogue publishes the names of a total of 1,396 students who have received instruction in the different departments during the year. Of these 1,334 came from ninety counties of the State, and sixty-three from seventeen other States or countries. The increase over the attendance of last year is seventy-five. The following schedule will give the summary of attendance:

Classes.	Men.	Women.	Totals.
Graduate	15	17	32
Senior	42	23	65
Junior	81	39	120
Sophomore	130	76	206
Freshman	280	110	396
Preparatory	239	59	298
Special	7	12	19
Dairy	66	...	66
Farmers' short course	124	1	125
Domestic science short course	...	41	41
Apprentices	84	3	87
Counted twice	51	8	59
Totals	1017	379	1396

A comparison of these figures with those of the past eight years will prove the foregoing statements. In 1893-94 the total attendance was 555, in 1894-95 it was 572, then the figures ran up to 647, 734, 803, and 870, after which they jumped to 1,094, to 1,321, and to 1,396. Surely if the growth of the student body is an index to the growing popularity of a higher institution of learning, the Agricultural College and its friends have cause for rejoicing.

RELATIVE ATTENDANCE OF COURSES.

Four years ago when the single course of study, which had been followed with slight changes since 1880, was divided into technical courses—a course in agriculture, a course in engineering, a course in domestic science, and a general science course—the friends of the college everywhere asked: What will be the results? Will the students drift into engineering branches to the detriment of agriculture? What will the young women do? Will not agriculture and other practical branches suffer?

To-day we are able to give statistics for the past four years and the figures will show conclusively (1) that the technical courses as a whole are gaining at the expense of the general science course; (2) that the agricultural course is gaining faster than the engineering courses; (3) that the domestic science course is gaining faster than any other.

It will be seen from the following table that four years ago only 22.1 per cent of the male students enrolled in the agricultural course, while at present 40 per cent are taking this course; it will be seen that engineering has gained at the ratio of 27.8 to 36.1, which is considerably less than the gain of agriculture; and that the domestic science course started four years ago with 34.6 per cent of all the women students, while at present it enrolls 78.1 per cent, or over three-fourths of all the young women:

STUDENTS IN THE DIFFERENT COURSES.

Year.	Total.	Men.			Women.		
		Agriculture.	Engineering.	General science.	General science.	Domestic science.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.
1898-9	870	127	22.1	160	27.8	287	50.1
1899-0	1094	257	34.1	201	26.7	296	39.1
1900-1	1321	378	39.6	293	30.7	284	29.7
1901-2	1396	407	40.0	367	36.1	243	23.9

If the institution is the result of hard work, well directed and properly done, and its friends will be glad to see enumerated some of the items of special expansion. The only regret is that it will be impossible to give credit to every quarter where credit is due or mention all lines of growth that deserve to be mentioned. The Kansas State Agricultural College is about to complete its thirty-ninth year, and its growth has been so constant that it has become one of the great educational centers not only of Kansas but of America. It is to-day the most characteristic institution of the State and one that stands in closest connection with the various lines of occupation of the people of the West. The thirty-ninth catalogue published a few days ago enumerates a faculty

Twentieth Century Medicine.

Cascarets Candy Cathartic are as far ahead of ancient pill poisons and quid physic as the electric light of the tallow candle. Genuine stamped C. C. Never sold in bulk. All druggists, roc.

INCREASE OF TIME GIVEN TO AGRICULTURE.

Not only has agriculture gained by the establishment and strengthening of the agricultural course, but it has made net gains in the amount of time given to agricultural teaching, as the following figures will show. If we multiply the number of students in each class by the number of hours of agricultural studies taught we will evidently obtain a product which will show more than any other figures could do the total amount of agricultural work done. This is what has been done in the following table:

Year.	Hours.
1896-7	12,500
1897-8	8,930
1898-9	15,462
1899-0	76,234
1900-1	112,808
1901-2	123,186

In July, 1901, the Farm Department was divided. The enrollment of the Farm and Dairy Departments for the College year of 1901-2 is as follows:

FARM DEPARTMENT.

Fall Term, 1901.

Stock-judging, fourth year	Shoemith	15
Winter Term, 1902.		
Feeds and feeding, dairy course, one-half term	Cottrell	58
Feeds and feeding, short course	Cottrell	101
Agriculture, first year, one-half term	Cottrell	143
Farm practice, short course	Cottrell	24
Science lectures, short course, one-half term	Cottrell	124
Stock-judging, one-half term	Cottrell	319
Breeds and breeding, dairy course, one-half term	Shoemith	72
Breeds and breeding, short course, one-half term	Shoemith	128
Crop production, short course, one-half term	Shoemith	90

Spring Term, 1902.

Tillage and fertility, second year	Cottrell	29
Feeds and feeding, third year	Cottrell	15
Agriculture, first year	Shoemith	33
Total for year		1,151

DAIRY DEPARTMENT.

Fall Term, 1901.

Dairy apprentices	Webster	6
-------------------	---------	---

Winter Term, 1902.

Dairying, second year	Otis	35
Dairying and agriculture, dairy course	Otis	67
Milk-testing, second year, one-half term	Otis	26
Milk-testing, dairy course	Otis	67
Milk-testing, second year, short course, one-half term	Otis	25
Milk-testing, special dairy class, ten days	Otis	10
Stock-judging, dairy course, one-half term	Otis	59
Book-keeping, short course, one-half term	Webster	95
Book-keeping, dairy course, one-half term	Webster	59
Cheese-making, dairy course, one-half term	Webster	5
Cheese-making, second year	Webster	34
Dairying, second year, short course, one-half term	Webster	23
Dairying, special dairy class, ten days	Webster	10
Starters and cream-ripening, special dairy class, ten days	Webster	10
Lectures in buttermaking, dairy course	Curtis	56
Buttermaking, industrial, dairy course	Curtis	62
Buttermaking, industrial, second year, short course	Curtis	27
Buttermaking, industrial, second year, one-half term	Curtis	35
Butter-scoring, industrial, special dairy class, ten days	Curtis	10

Spring Term, 1902.

Breeds and breeding, fourth year	Otis	14
Agricultural economics, fourth year	Otis	16
Dairy apprentices	Webster	6
Total for year		767

TOTALS.

Farm Department.

Cottrell	813
Shoemith	338
Total	1,151

Dairy Department.

Otis	319
Webster	248
Curtis	190
Total	757

Total in all farm work.....1,908
Increase of both departments over the enrollment of last year.....62
*Some students pursued more than one study in these departments and are therefore enrolled more than once.

It may be interesting to note that in 1897, the last year Professor Georgeson had charge of the farm work of the college, the total enrollment for the entire year in all farm classes was 115.

If all the subjects directly related to agriculture, such as horticulture, veterinary science, etc., had been included, the difference in favor of the last three years would have been still more marked.

THE NEW PHYSICAL SCIENCE HALL.

One of the most conspicuous improvements of the "College Village" is the new Physical Science Hall now nearly completed. It will be remembered that the old Chemical Laboratory, which had been built in 1876, and had become entirely inadequate, burned in May, 1900. It was decided then to ask the State for a sufficient appropriation to build a new structure, modern and up-to-date in every respect and large enough to accommodate the growing needs of the departments of physics and chemistry.

In the winter of 1900-01 the State Legislature was asked for \$70,000 for this purpose and, thanks to the many good friends of the college having a voice in that body, the appropriation was made without a dissenting vote. Architect Haskell, of Lawrence, who had planned a modern chemical building for the State University, was asked to prepare the plans and specifications, and the building was given in contract to C. A. Fellows, of Topeka, a builder of wide reputation and experience. The stonework was subcontracted by him to an alumnus of the college, Mr. J. W. Berry, of Jewell City, Kans. The heating and ventilating contract was awarded to Graeber Bros., of Lawrence, and Prof. J. D. Walters, of

and beam by beam, until it stands today a model of solid comfort and usefulness, a model of its kind in America. The new Physical Science Hall is built of rough-dressed range work of Manhattan limestone, one of the finest building stones in existence. The ranges measure from two feet to eight inches in thickness, and there are no brush-hammered surfaces except the inner sides of the jambs and a few belt courses under the cornice. This gives the structure an appearance of naturalness and ruggedness that makes it a thing of beauty—an exterior that might delight the heart of the author of "The Seven Lamps of Truth in Architecture." The roof is covered with slate and copper and the ceilings are finished in natural wood under varnish.

The building is practically three stories high, with a subbasement (plenum) and an attic. Its general form suggests that it is to be the home of the two sister sciences. The Department of Physics will be located in the west wing and that of Chemistry in the east wing. Of the several class rooms and offices little need be said, except that they are large, well lighted and well ventilated. The halls and stairways are wide and direct, giving easy access to all parts of the building, but the pride of the structure is its laboratories. In order to free them from the more or less poisonous gases that are constantly being developed in chemical work, a heating system known as the electric fan system has been adopted. The fan is located in the basement story, directly under the entrance hall. It is a neat piece of mechanism of a radius of about eight feet, driven by an electric motor that receives its power from the large dynamo in the central heating plant. The air passes into this fan from the cold-air chamber, and having been heated to any desirable temperature by being forced through a battery of steampipes, the fan forces the warm air under the floor of the basement into the air-tight space called plenum, whence it ascends the flues of the heavy division walls into the different class rooms, laboratories, and offices. A single mechanism in each flue regulates the rapidity, i. e., the quantity of the flow. The exit provisions for the foul air in the class rooms and offices are flues of the usual capacity, with register openings near the floor. In the laboratories, however, the exit is divided into small flues built of ten-inch tiling and distributed all over the wall space of the rooms where

THE EGGS

the coffee roaster uses
to glaze his coffee with—
would you eat that kind of
eggs? Then why drink them?

Lion Coffee

has no coating of storage eggs,
glue, etc. It's coffee—pure,
unadulterated, fresh, strong
and of delightful flavor
and aroma.

Uniform quality and
purity are insured
by the sealed package.

ever the tables for analytical work may be located. Hoods gather the produced gases and lead them into these fine openings. In the fall and spring the electric fan furnishes cool air in place of warm. It is expected that with these provisions for ventilation the large chemical laboratories of the basement and second floor will be wholesome workshops for all concerned.

The building stands about seventy feet east of the old chemical laboratory and forms a part of a great semicircular court of buildings consisting of the Library, the Main College Hall, the Physical Science Hall and the Agricultural Hall. The basement of the east wing is altogether above ground and will be used for advanced work and experiment station work. In the basement of the west wing, which is partly below the surface, will be located a large dynamo laboratory, a classroom, a workshop for the construction of physical apparatus, a janitors room, and the boys' toilet-room. In the center under the main entrance is the electric fan operated by a motor. An elevator connects this floor with the floors above and with the attic.

On the main floor, which is reached by a short flight of front steps and short vestibule stairs, are located, on the east side, two large lecture-rooms and several apparatus rooms, offices, and a professor's laboratory. The large lecture-room will accommodate over a hundred students and has its seats arranged in terraces so that all will be able to observe the experiments performed by the lecturer. A large passage with an overhead ventilator connects this room with the preparation room. In the west wing are the main offices of the professor of physics, a large private laboratory, and three laboratories for students in physics. Here is also located the cloak-room and the toilet-room for the girls.

On the second floor, east side, are three large analytical laboratories for students, separated by light glass partitions. These partitions are hung with weights so that they can be raised and the whole wing converted into a single room. On the west side are three large class rooms or lecture-rooms, while the middle parts are occupied by a photometric laboratory and several offices and assistants' laboratories.

The attic does not contain any finished rooms, but provision has been made to partition and plaster a part of it for a meteorological office, an experiment station mailing room, and a storeroom for bulletins.

Altogether the new Physical Science Hall is a model of a college building, probably the best and most economical structure of its kind in America. Its floor space amounts to about one and one-half acres. The Departments of Physics and Chemistry are well housed and the college may now think of providing other departments that have no home of their own but are forced to shift from room to room every term and sometimes every hour in the day.

ADDITION TO THE LIBRARY.

Another substantial addition to the group of buildings "on the hill" is the extension of Library Hall, which is now well under way and will be completed by the opening of the next fall term. The plans contemplate an addition, to the north of the present office of the librarian, of a reading-room, forty-two by fifty-six feet, with an entrance from the west and a corridor connecting it with the stack-room. The new wing and the whole of the present west part of the building will be made two stories high. The upper floor will contain a class room and a very fine laboratory for the rapidly growing work in bacteriology, a class room for the classes in zoology, and three roomy offices. The addition will be built in the substantial style of the older parts of Library Hall and will complete its exterior architectural appearance. The plans and specifications were prepared by Prof. J. D. Walters, who is also superintending the construction.

OTHER IMPROVEMENTS.

Among the many other improvements in the line of building may be mentioned the construction last summer of a cattle shed 20 by 250 feet, between the old barn and the new dairy stables. South of this shed is a new corral for blooded stock, built of ten-foot white oak posts and Page continuous bull wire netting. This improvement has cost something over \$500. Several

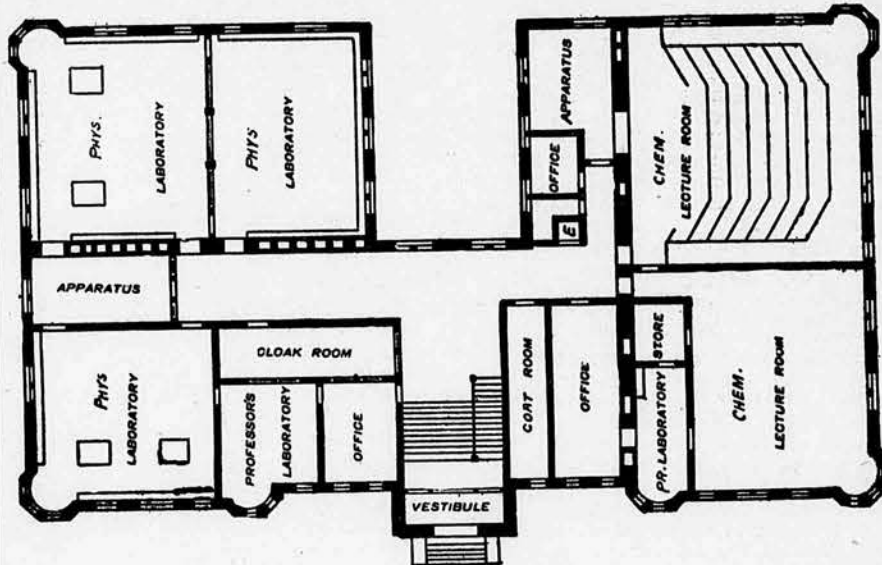
smaller sheds and poultry houses have also been added to the building equipment of the farm and live-stock departments, and a number of substantial sheds will be constructed next summer.

THE GIRLS' GYMNASIUM.

A very valuable addition to the facilities of the college was the completion of the girls' gymnasium, which was built on the walls of the old chemical laboratory and for the construction of which the last legislature made an appropriation of \$5,000. It is the general verdict that the new structure looks better interiorly and exteriorly than did the old one, and that the young women of the college now have one of the neatest and best equipped gymnasiums of the country. The main drill hall measures forty-two by seventy-two feet and has a height of twenty-six feet. It is well lighted, and heated by direct and indirect steam heat. The building contains a large dressing-room provided with lockers, a bathroom with eight spray baths and two tub baths, four water-closets, two offices, a classroom, a cloakroom, and an apparatus-room. The whole is lighted by electric light, and it should be stated incidentally that the work of heating and lighting the structure was done by the apprentices of the workshops, under the direction of Engineer Lund. The plans and specifications for the building were made by Prof. J. D. Walters.

IMPERATIVE NEEDS.

The foregoing lines enumerating some of the items of a long list of substantial improvements do not imply that the Agricultural College has no imperative needs to be provided for.



First floor of the new Chemistry and Physics Building, now nearing completion. Total area of the three floors and attic one and a half acres.

The institution is growing, and this growth must be met by enlargement of facilities in every single department. An average growth of one hundred students in a public school would mean the building of four new classrooms and a corresponding number of new cloakrooms and teachers' offices; it would mean the addition of four teachers to the teaching force, more superintendents, more janitors, more heating, more library, etc. In a modern technical college the necessary means per student are much greater. To the additional schoolrooms must be added expensive laboratory-rooms and shop-rooms. It means more scientific apparatus, more illustrative material, more tools of a costly kind, larger halls, more executive provisions of many kinds. It requires the hiring of teachers who are experts in special lines of work—teachers who have experience in giving advanced instruction, and such teachers are difficult to find. In short, it means the expenditure of a large amount of funds and directing energy.

The college is greatly in need of a new horticultural building, with enlarged greenhouses, experimental pits, and an aquarium. It needs a new armory and gymnasium for the boys, the present room in the "old barn" being inadequate and greatly needed by the Veterinary Department. It needs large additions to its stables, so that the different breeds of farm animals may be properly and safely housed. It needs a roomy addition to its agricultural hall, for dairying purposes. It needs a new assembly-room that will seat all its present students and employees and will enable it to invite a thousand guests to attend its public gatherings. It needs better facilities and larger quarters for many of its other departments, especially the departments of Industrial Art and of Music. It needs more machinery, more tools, more appa-

All Hands On Time

The second hand,
the minute hand,
the hour hand, run
in unison on an

ELGIN Watch

Perfect in construction; positive in performance. Every genuine Elgin has the word "Elgin" engraved on the works. Illustrated art booklet free.

ELGIN NATIONAL WATCH COMPANY, Elgin, Ill.

ratus for its shops and laboratories, and more, many more, books for its library. These things will have to be provided if the college is to grow in the future as it has grown in the past and is growing now.

The needs of the Experiment Station, the necessary extension of the campus, and the increase of illustrative live stock have been such of late that the present farm of 320 acres is inadequate. During the past few years the college has rented adjoining plats to the extent of 210 acres, but the rapid growth of the city and its suburbs will

table will show its increase during the past decade:

Year.	Number of Institutes.
1892-93	11
1893-94	17
1894-95	22
1895-96	22
1896-97	19
1897-98	30
1898-99	63
1899-00	138
1900-01	156
1901-02	102

The farmers' institute will not be permitted to rest. Arrangements have been made to begin the present summer work at once, as soon as commencement stops the routine work of the classroom. Several institutes have been arranged for the month of June, thus bringing the number for the current year up to the average attained.

The average attendance at the farmers' institutes is constantly growing—a fact which speaks well for "both sides of the house," and members of the faculty to whom this peculiar work has been delegated feel that they are laboring in a good cause. They feel that they are amply repaid for the hardships of traveling from community to community, by all sorts of conveyances, from June to December, and addressing audiences in all sorts of places under all kinds of conditions.

THE PICNIC INSTITUTE.

To do this greatly increased work without increasing the faculty beyond the financial ability of the college, experiments were made in 1899 in holding summer picnic institutes. The results were so uniformly favorable that the vacation institute may now well be considered a fixture. In 1899-00 not less than 105 of the 136 institutes were held before September 30. In 1900-01 and 1901-02 the ratio of summer institutes as compared with those held in the other three seasons was about the same. The practical value of this work carried on with increased momentum in all parts of the State can hardly be overestimated. Applications are already pouring in from township after township for assistance in such work, and clouds or sunshine, good harvests or poor harvests, the summer institute will go on and its influence will spread.

THE EXPERIMENT STATION.

The work of the Experiment Station has been to a considerable extent in the lines of previous years. Owing to the extreme drouth of last season, experiments in crop production were much interfered with, but opportunity was afforded for some valuable observations on drouth-resistance. The scarcity of feed prevented carrying out many feeding experiments. The study of animal diseases, insect pests, the adaptability of forage plants, vegetables, and fruits has been continued. The work in seed-breeding is believed to have made some progress, notwithstanding the fact that the corn was saved from total ruin only by application of city water. Determinations of the number of soil bacteria at different depths are in progress. A large orchard has been leased for five years on which experiments will be conducted.

The Farm Department has been divided, the Department of Dairy Husbandry being split off from it. Horticulture and entomology have been restored to the rank of separate departments. The organization of the station proper remains otherwise unchanged, except for the changes in personnel. These have been far too numerous for the good of the work, but it is pleasant to know that they have all been caused by calls to better positions elsewhere.

An important development of the station (Continued on page 660.)

FOR OVER SIXTY YEARS

An Old and Well-Tried Remedy. Mrs. Winslow's Soothing Syrup has been used for over Sixty Years by Millions of Mothers for their Children while Teething, with Perfect Success. It soothes the Child, softens the Gums, allays all Pain; cures Wind Colic, and is the best remedy for Diarrhoea. Sold by druggists in every part of the world. Be sure and ask for Mrs. Winslow's Soothing Syrup, and take no other kind.

Twenty-five Cents a Bottle.

MR. SCOTT OF KANSAS AND TEXAS.

(Continued from page 647).

have speedily developed this property and at the present time have contracts for the delivery of 360,000 barrels of oil per month. Their refinery is known as the Central Asphalt and Refinery Company of Beaumont, Texas and has the capacity of 7,000 barrels of oil per day from which they will produce 1,000 tons of manufactured goods. The refinery employs 225 men. The asphaltum is 99.76 pure bitumen and bids fair to revolutionize the asphalt business of the country, being unexcelled for paving purposes. Mr. Scott and associate are now constructing an electric railway from Beaumont to Port Arthur, where they are building a city at their works known as Port Neches, on the Neches River, a beautiful location for Southern homes. Many Kansans are taking advantage of the present opportunity of buying lots in this thrifty and prosperous city and Mr. Scott remembers his old friends with very liberal discount from prevailing prices. As before stated, Kansas has produced many business men who are now conspicuous because of their success, and in view of the fact that Mr. Scott was at one time a representative of the KANSAS FARMER, we are especially pleased to know that he is sustaining the reputation of Kansas people as a genuine hustler. In the past four years he has achieved wonderful success which may be attributed to his sterling qualities and energy which has placed him in the front ranks of commercial enterprises. We speak for him unbounded success and congratulate Texas in attracting his attention and securing the benefit of his untiring energy. We trust that, because of his successful enterprises in this, we shall not lose him as a citizen of the Sunflower State.

The Isthmian Canal.

Since the recent activity of volcanoes in the Windward Islands the question of the stability of the earth in the regions which it is proposed to traverse by the long-talked-of Isthmian Canal has become one of interest. A year ago it seemed fairly settled that the canal would be constructed via the Nicaragua route. Later the French owners of a franchise, a railroad and a lot of excavation at Panama proposed to sell out to the United States for \$40,000,000. This, according to American estimates, is a low price for the property and would bring the cost of the Panama route below that via Nicaragua, besides being much shorter and having several other claimed advantages. While the matter was in a state of suspense Mount Pelee blew out its breath of destruction and the Republic of Guatemala was shaken by violent earthquakes. It had been known all along that right in Lake Nicaragua there are mountains which were thrown up by comparatively modern volcanic disturbances. It is now claimed that being in the zone of seismic commotion the Nicaragua plan is untenable, while the earth has long been quiet and stable in the vicinity of Panama.

It is feared that the differences of opinion will cause another postponement of the entire canal proposition.

To the layman, who has given but a layman's attention to the subject the weight of the argument seems to be on the Panama side of the question.

(Talk No. 5.)

Another Symptom.

Whenever you see a person place the lamp between his book and his face in order to see well you may know that his glasses do not fit him. This is true without a single exception. If they did he would see better with the lamp behind his shoulder. When they do not fit correctly the eyes are more or less out of focus and the letters more or less blurred. A bright light shining upon the eyes forces the pupils to contract and in that way cuts off some of the diffused rays of light and lessens the blurring. I know of no more harmful makeshift for clear vision. The constant glare is ruinous to the nervous apparatus of the eye and the forced contraction of the pupil will weaken the muscles permanently. It will set up an irritation and disease that will be difficult to overcome. If you find yourself reading or sewing this way you are taking chances which you cannot afford to continue. A pair of glasses well fitted will both rest and preserve your eyes.

My exclusive attention is given to fitting glasses.

CHAS. BENNETT,
OPTICIAN,

730 Kansas Ave., Topeka, Kans.

ESTABLISHED 1879.

FARMERS' DAY AT OTTAWA.

The Ottawa Chautauqua has arranged for a "farmers' day" on Tuesday, July 17. Secretary James Wilson, Prof. A. D. Shamel, Mrs. Nellie Kedzie Jones, and Secretary F. D. Coburn are expected to entertain and instruct the assembly. All have promised except Secretary Coburn and the management persists in expecting him.

Mrs. Kedzie Jones is well known in Kansas as the broad-minded and sympathetic friend of the women and girls on the farm. Her genuine personality conspires with the strength of her thought and her happy delivery to make her one of the most popular speakers before any audience. She spent her girlhood on a Kansas farm where she did all that a girl does from housework to herding cattle. Her long service at the head of the domestic science department of the Kansas State Agricultural College intensified her sympathies with farmer folks. She is now a resident of Kentucky, but never fails to receive a hearty welcome on her returns to Kansas.

Professor Shamel is the boyish-looking wonder whose enthusiasm and knowledge of corn-breeding took the State Board of Agriculture by storm at the last annual meeting. He is a farmer boy who is devoting his remarkable abilities to the improvement of corn. To hear him is worth a trip across the State.

Secretary Wilson is known throughout the Nation. He is always interesting aside from the fact of his membership in the cabinet of the President.

Agricultural Schools in Argentina.

It is the purpose of the Argentine government to establish near the capital, or principal city, of each province a practical school for the free instruction of laborers in agriculture, animal husbandry and forestry. For the accomplishment of this design the ministry of agriculture has addressed a letter to the governor of each province requesting the cession to the national government of a tract of land not less than 250 acres in area by the provincial authorities. This will open up a splendid field for graduates of American agricultural colleges.

Crop Conditions June 1, 1902.

Government preliminary reports of the spring wheat acreage indicate a reduction of about 2,511,000 acres, or 12.8 per cent. Of the nineteen States reporting spring wheat, thirteen report a reduced acreage, Washington being the only State having 100,000 acres or upward in this product that reports an increase. There is a reduction of 745,000 acres in Minnesota and of 905,000 acres in North Dakota, due largely to unfavorable weather conditions during sowing time in the Red River Valley; a reduction of 400,000 acres in South Dakota, resulting, in the main, from an increasing tendency toward a greater diversification of crops; and a reduction of 340,000 acres in Nebraska, consequent upon that gradual yielding of spring wheat to winter wheat which is going on in almost every section of the State.

The average condition of spring wheat on June 1 was 95.4, as compared with 92 at the corresponding date last year, 87.3 on June 1, 1900, and a ten-year average of 92.6. The present reported average condition has been exceeded only three times in the last fifteen years. Of the States having 1,000,000 acres or upward in spring wheat, South Dakota reports a condition of 100, North Dakota 96, and Minnesota and Iowa 95. In Washington and Oregon, which together have over 1,100,000 acres in spring wheat, the condition averages are 97 and 93 respectively.

The average condition of winter wheat on June 1 was 76.1, as compared with 76.4 on May 1, 1902, 87.8 on June 1, 1901, 82.7 on June 1, 1900, and 80.3, the mean of the June averages of the last ten years. During the month of May there was a gain of three points in Michigan, Illinois, and Kansas; of one point in Indiana, two points in Nebraska, and seven points in Oklahoma. On the other hand, there was a loss of two points in California and three points in Pennsylvania, with no measurable change in Ohio.

The total reported acreage in oats is about four-tenths of 1 per cent in excess of the acreage harvested last year. The changes in acreage are very evenly distributed and are generally inconsiderable. 25 States and Territories reporting some enlargement of their acreage and 24 some reduction. Of the 9 States having 1,000,000 acres or upward in oats, New York, Ohio, Illinois, Wisconsin, and Minnesota report an increased acreage, no case exceeding 4 per cent, and Pennsylvania, Indiana, Iowa, and Nebraska a decrease, which

only in the last-mentioned State exceeds 1 per cent.

The average condition of oats is 90.6, against 85.3 on June 1, 1901, 91.7 at the corresponding date in 1900, and a ten-year average of 90. Of the States having 1,000,000 acres or upward in oats, Minnesota and Indiana report conditions corresponding exactly with their respective ten-year averages, Michigan reports 2, Iowa 3, Illinois 5, and Wisconsin 6 points above, and Nebraska 1 point, New York 2, Ohio 5, and Pennsylvania 13 points below their respective ten-year averages.

The acreage reported as under barley exceeds the acreage harvested last year by 8.5 per cent. In the States having 100,000 acres or upward devoted to this crop, there is an increase in area amounting to 1 per cent in Kansas, 5 per cent in South Dakota, Washington, and California, 8 per cent in Minnesota, and 95 per cent in North Dakota, the increase in the State last named being almost entirely due to the substitution of barley for wheat in that section of the State where wheat seeding was restricted by long-continued wet weather. On the other hand, there is a decrease of 1 per cent in Wisconsin, 2 per cent in New York, and 3 per cent in Iowa.

The average condition of barley is 93.6, against 91 on June 1, 1901, 86.2 at the corresponding date in 1900, and a ten-year average of 88.6. The ten-year averages are exceeded by 2 points in Washington, 4 in Minnesota and Iowa, 5 in California, 6 in North Dakota and South Dakota, and 10 in Wisconsin, while New York and Kansas report conditions 2 and 5 points, respectively, below such average.

The acreage under rye shows a reduction of five-tenths of 1 per cent from that harvested last year. There is an increase 1 per cent in New York, 2 per cent in Wisconsin, and 3 per cent in Nebraska, while Pennsylvania and Michigan report a reduction of 1 per cent.

The average condition of rye is 88.1, as compared with 93.9 on June 1, 1901, 87.6 at the corresponding date in 1900, and a ten-year average of 89.3. The ten-year averages are exceeded by 2 points in Michigan and 6 points in Wisconsin and Nebraska, while the conditions for New York and Pennsylvania are 5 and 7 points, respectively, below such averages.

The acreage of clover for the country as a whole cannot be satisfactorily determined, but the changes in the principal States have been reported. An increase of 1 per cent is noted in California, 2 per cent in Nebraska, 4 per cent in Minnesota, 5 per cent in Kansas, and 10 per cent in South Dakota. In New York, Pennsylvania, and Michigan a decrease of 1 per cent is reported, Ohio and Wisconsin 4 per cent, Iowa and Indiana 10 per cent, Illinois 11 per cent, and Missouri 21 per cent.

The condition of clover exceeds the ten-year average by 2 points in California, 3 in Minnesota, 5 in Michigan, and 8 in South Dakota and Wisconsin. In Iowa, Nebraska, and Ohio conditions reported on June 1 correspond with their respective ten-year averages, and the principal clover States reporting a condition below such average are: Illinois 1 point, New York, Pennsylvania, and Indiana 6, Kansas 7, and Missouri 11 points.

The average condition of apples is, on the whole, unfavorable. Of the 14 large producing States but two report a condition above the ten-year average, as follows: North Carolina 68, a gain of 1 point, and Michigan 87, a gain of 6 points. In Maine the condition is 93, corresponding with the ten-year average in that State. New York reports a condition 5 points below the ten-year average. Illinois and Iowa 9 points, Ohio 12, Pennsylvania and Kansas 16, Kentucky, Virginia, and Tennessee 17, Missouri 18, and Indiana 19 points, and in the remaining States it is probable that considerable less than an average crop will be produced.

The present prospects of the peach crop are quite favorable, notwithstanding the fact that several important peach-growing States report conditions considerably below their ten-year averages. The States showing such reductions are: Tennessee 5 points, Georgia 8, Kansas 32, and Missouri 35 point. On the other hand, Mississippi reports a condition 1 point, Virginia 2, South Carolina 5, North Carolina 7, Alabama 10, Texas 13, California 16, and Arkansas 25 points above such average.

The exceedingly favorable weather during the past month has made a marked improvement in the condition of spring pasture, but two of the important States, New York and Pennsylvania, showing conditions below those



of May 1. New York shows a decline of 3 points and Pennsylvania 15 points during the month. On the other hand, an improvement of 2 points is noted in Ohio, 3 in California, 10 in Michigan, 12 in Indiana, 14 in Illinois, 15 in Missouri, 16 in Wisconsin, 17 in Iowa, 19 in Kansas, 20 in South Dakota, 22 in Nebraska and 26 in Minnesota over their respective conditions of last month.

The Oleomargarine Law Construed.

T. A. Borman, secretary of the Kansas State Dairy Association, has given out the following statement as to the workings of the oleomargarine law which goes into effect July 1:

"The new oleomargarine law goes into effect July 1. After that time colored oleo and adulterated butter will be taxed ten cents per pound. Uncolored oleo and process butter will be taxed one-fourth of a cent per pound. All oleo made before the law becomes effective, and there will be about 6,000,000 pounds of it, can be sold under the present tax of 2 cents per pound.

"As a result of the new law it is to be expected that the manufacturers of oleomargarine will endeavor to produce, without using any artificial coloring, an article which shall have the desirable yellow tinge of butter. These manufacturers would also like to have the law so construed that public institutions, such as soldiers' homes, insane asylums, reform schools, etc., shall have the privilege of coloring oleomargarine for the use of the inmates.

Secretary Shaw, of the Treasury, with the Commissioner of Internal Revenue and his deputy, recently conferred with Secretary Chas. Y. Knight, of the National Dairy Union, which organization led the fight for the Grout bill, and at this conference the following matters were considered:

"1. Whether artificially colored butter, in order to get the yellow tint, could be used in the manufacture of oleomargarine. On this proposition it was held that it could not, under the adulterated butter section of the new law, be used for this purpose without the product being subject to the 10-cent tax.

"2. That public institutions, such as have been named, could not buy uncolored oleomargarine for the use of their inmates, and proceed to color it in imitation of butter, without the product being subject to the 10 cents per pound tax. The law defines a manufacturer of colored oleomargarine as one who adds coloring matter to the uncolored product, without regard to place or quantity.

"3. Can manufacturers of oleomargarine buy June butter, which has a very high color and in which no coloring matter is used, and adding this to the oleomargarine, make a product free from artificial coloring and yet sufficiently high in color to meet the demands of the trade? On this point it was decided that oleomargarine so colored would be subject merely to the one-fourth of one cent per pound tax.

"These rulings were about what were expected by dairymen who had studied and helped to form the law, except in the matter of the use of uncolored butter. The framers of the bill believe that this sort of a mixture would come under the head of adulterated butter. However, this is not of great importance as the use of any considerable quantity of uncolored butter is impracticable. Its cost would be too great and oleomargarine is produced in months when butter is without any considerable amount of color, and storage goods could not be used."

A Perfect Cotton Tie.

Improvements in cotton-baling are going to continue until it is reduced to perfection in system. The latest is to dispense with the old barrel-hoop tie in favor of the wire tie manufactured by the Illinois Wire Company, of Chicago. This tie insures delivery of cotton to destination in the perfect condition in which it starts from the compress. These ties are adapted to any kind of press. Their use is an economy to producer, ginner and compressor. Their great superiority over the old tie is obvious. Write to Wm. Christian, successor to T. W. House, 203 1/2 Main Street, Houston, for catalogues and prices.

WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending June 17, 1902, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

A warm week, with two hot days when the temperature reached 100° in many of the central and northern counties. Light showers occurred in the eastern and western divisions, with moderate to heavy rains in the middle division and central counties of the western. The temperature for the State during the week ranged between 42° and 106°.

RESULTS.

EASTERN DIVISION.

The drier weather permitted of much needed work in the fields. Wheat harvest is progressing in the southern counties wherever the ground is dry enough, has begun in the central, and is beginning in some of the northern. Corn has grown rapidly, and in Labette the early is beginning to tassel. Oats have greatly improved and now promise a good crop; oats are filling well in Geary and ripening in Labette and Montgomery. Flax has improved, and generally promises a good crop, it is nearly out of bloom in Chase. Grass is fine. Hay is being cut in Anderson, Coffey, and Woodson, the new hay already appearing on the market in Coffey and preparations for baling it are being made in Woodson. Apples promise a full crop in Morris but are falling badly in Wyandotte. The second crop of alfalfa is growing well.

Allen County.—Wheat harvest is on; wheat in bottoms damaged by high water, on uplands the early is not as plump as the late; oats promise a large crop; corn will have to be laid by this week.

Anderson.—Good week for work in corn fields; gardens doing well; pastures good, stock thriving; harvest on hand; hay crop large and fine; potatoes good.

Atchison.—Favorable for farm work and growing crops; corn growing rapidly and fields generally clean; wheat harvest begun, short straw but fair yield of grain promised; oats and grass look fine.

Brown.—A good week for cultivating

too wet to cultivate; blackberries and raspberries ripening; everything growing rapidly.

Pottawatomie.—Favorable week for wheat and alfalfa harvest and corn cultivation; all but the hard wheat is in shock; potatoes good yield and quality; cherries scarce; oats good, ripening.

Riley.—A fine week for farm work; corn being cultivated; first crop of alfalfa mostly taken care of.

Shawnee.—Corn being rapidly cultivated, some fields too wet till latter part of week; ground packed by wet weather, some corn looking yellow; prairie grass heavy; cherries and raspberries ripe, light crops; promise of half crop apples.

Wilson.—Very little wheat cut, too wet; corn good; oats, grass, and potatoes good; very little fruit; most of wheat dead ripe.

Woodson.—Wet for wheat harvest and corn cultivation; corn growing rapidly, some too high to cultivate; grass fine; with good weather hay-pressing begins next week; flax doing well.

Wyandotte.—Wheat harvest in progress; corn growing rapidly and in fine condition; potatoes and oats good; apples falling badly.

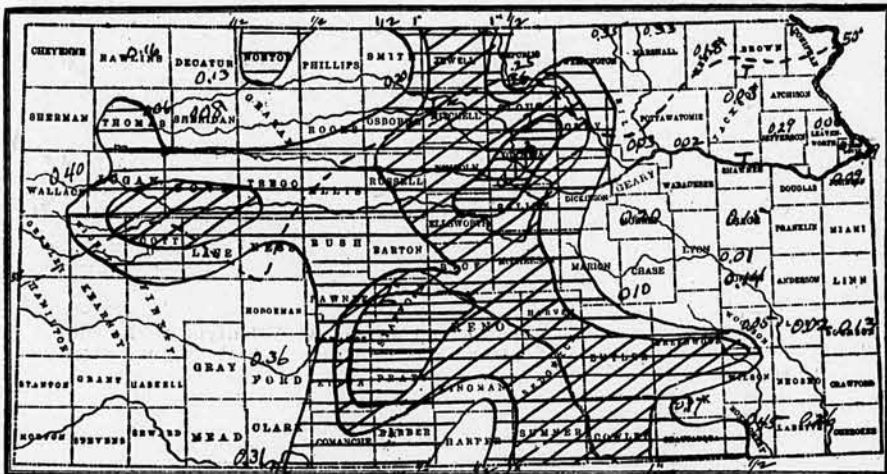
MIDDLE DIVISION.

Wheat harvest is progressing in the southern counties where the ground is dry enough, and is beginning in the central; wheat is ripening in the northern counties; it was damaged some by the high temperatures of the 10th and 11th. Corn is growing rapidly, it is 5 to 6 feet high in Cowley, and the early corn is tasseling in Sumner. Oats are promising a good crop. Grass is very fine, and in Kingman the hay promises to be the best in years. The first alfalfa crop has been cut in Phillips, is mostly cut in Reno and Republic, is being cut in Smith; the crop has been damaged by rain in Clay, while in Jewell cutting has been delayed by rains and a shortage of hands. Potatoes are abundant. Raspberries are a full crop in Ottawa. Apples are doing well in Smith where mulberries are ripe and a good crop.

Barber.—Fine growing week; small grain greatly improved; forage crops in fine condition; wheat harvest will be late.

Barton.—Wheat nearly ready to harvest, it suffered from scalding on the 10th, some

Rainfall for Week Ending June 14.



SCALE IN INCHES.

Less than $\frac{1}{2}$. $\frac{1}{2}$ to 1. 1 to 2. 2 to 3. Over 3. T, trace.

corn; early wheat ready to harvest, later turning; oats promising; pastures good; timothy fair.

Chase.—Favorable week for cultivating corn; corn looks well except where damaged by water; wheat harvest begun; flax nearly out of bloom; second crop of alfalfa growing well.

Chautauque.—Wheat harvest continued three days when rain stopped it; alfalfa cutting past two weeks, much damage occurred; corn, flax, and forage crops doing well.

Coffey.—Cultivators busy, many cornfields very weedy; flax looking fine; wheat harvest progressing where ground will allow; new hay on market; too wet for potatoes; raspberries on market.

Doniphan.—Wheat harvest begun; raspberries ripening; corn weedy.

Elk.—Corn growing rapidly, much laid by; wheat harvesting where ground is suitable; potatoes rotting badly.

Franklin.—Corn making good growth; wheat being harvested; rye ready to cut; oats look fine.

Geary.—Fine week for cultivating corn, which has grown rapidly; wheat harvest begun, quality and quantity good; oats filling well and beginning to turn; potatoes good; gardens greatly improved.

Jackson.—Good week for work; cornfields cleaned and corn growing nicely; some early corn laid by; soft wheat cut.

Jefferson.—Harvesting for growing crops and farm work; favorable week for growing crops and farm work; corn clean; oats fine; pastures good; stock doing well.

Johnson.—Fine week for work; wheat harvest progressing, crop being saved in good condition; oats fair crop; flax will be light; corn looks well, some laid by.

Labette.—Ground wet for harvest, wheat dead ripe but standing well; oats ripening rapidly; early corn beginning to tassel.

Leavenworth.—Crops in fine condition. Marshall.—Wheat harvest has begun, quality good but yield light; chinch-bugs damaging corn, otherwise corn is doing well; oats will make a full crop; potatoes fine; alfalfa made a large crop.

Montgomery.—Fine week for corn growth but too wet to cultivate, generally weedy; wheat dead ripe and falling some, harvest in progress, soil very wet in many fields; oats rapidly ripening, some rust, ready to cut soon.

Morris.—Corn plowing pushed; corn growing rapidly; wheat harvest begun, fair crop, shrunken berry, rust; oats very fine; second crop alfalfa making good growth, first crop much damaged by wet weather; potatoes good size and abundant; apples making good growth; late cherries ripe, poor crop; grass fine.

Nemaha.—Good week for crops; corn growing rapidly; grass good.

Osage.—Some corn laid by, some fields

fields not well filled; oats, barley, and grass very good.

Clay.—Some wheat and rye being cut, general next week; first cutting of alfalfa damaged by rain; corn growing rapidly; fields in good condition; oats very fine.

Cloud.—Good growing week; corn and oats fine condition; wheat ripening.

Cowley.—Wheat harvest delayed by rains; oats promise a fine crop; corn growing rapidly and is 5 to 6 feet high; blackberries ripe, crop light; late cherries ripe; stock doing well.

Ellsworth.—First two days hot, rest of week fine growing weather; grass very fine.

Harper.—Soft wheat harvest continues, yield light and poor quality; hard wheat in better condition; corn being laid by; oats fine.

Harvey.—Good week for growing crops; corn growing rapidly and in fairly good condition; wheat harvest just begun, injured some by fly; oats are unusually fine.

Jewell.—Wheat and rye damaged by extreme hot weather first of week; corn doing well; alfalfa-haying delayed by rains and shortage of hands.

Kingman.—Wheat harvest beginning, general next week; corn doing nicely; hay crop promises to be best in years.

McPherson.—Fine growing week; wheat harvest ready, straw short but heads large and well filled; oats and corn doing well; new potatoes abundant.

Ottawa.—Oats will be a good crop; early corn and grass fine; late corn and Kafir corn not so good a stand, badly washed out or covered up; wheat well filled and the berry good; potatoes good; raspberries a full crop and fine; stock doing well.

Phillips.—Weather hot; wheat ripening rapidly; corn doing well; first crop alfalfa harvested.

Pratt.—Wheat and rye harvest just beginning; all crops doing well.

Reno.—Corn growing well and cultivation progressing rapidly; wheat ripening, will make good crop; oats fine; alfalfa mostly cut, good crop.

Republic.—Fine week for farm work, except in southeast corner too wet; corn doing well, generally being cultivated second time; most of alfalfa cut, very heavy for first crop; wheat and oats are doing well, but some rust in wheat which will ripen unevenly.

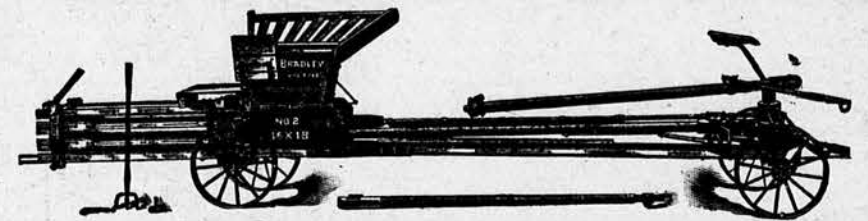
Rice.—Good growing weather; some fly reported in wheat; corn and oats doing nicely.

Russell.—Fine growing week; corn doing well though stand generally thin, large enough to cultivate.

Saline.—Wheat ripening, harvest beginning; corn growing nicely.

Sedgewick.—All cereals have made good growth and yield will be better than ex-

BRADLEY ALL STEEL DOUBLE CAM HAY PRESS



NOT A COG OR CHAIN ABOUT IT. SIMPLEST PRESS MADE. LOW BRIDGE.

One Horse Can Operate It. Very Easy for Two.

Lifting Jack Goes with Each Press. Has an Automatic Plunger Draw.

POWERFUL—Puts full weight into ordinary car. Tracks with a wagon; can be drawn by two horses on common roads. If you want a RELIABLE PRESS, buy a BRADLEY. See our nearest agent for further description and prices or write us direct.

BRADLEY, ALDERSON & CO., Kansas City, Mo.

pected; harvest is progressing; seems not to be fruit year.

Smith.—Wheat injured by hot winds; corn doing well; first crop alfalfa being cut, medium crop; grass good; new potatoes abundant; apples doing well; mulberries ripe and good crop.

Stafford.—Wheat beginning to turn; ground very wet; corn doing well.

Sumner.—Soft wheat cut, hard wheat ready; early corn tasseling.

Washington.—Everything growing; wheat turning, some cutting; cultivators busy; oats heading rapidly; potatoes and grass doing well.

WESTERN DIVISION.

Wheat and barley harvest have begun in Clark. Rye harvest is progressing in Ness. Wheat will be light in Ford; it has filled well in Decatur, is fine and ready to harvest in Norton; some early wheat is nearly ready in Thomas, while in Sheridan some is ripening prematurely. Corn is growing rapidly and looks well. The first crop of alfalfa has been cut on most of the counties and stacked, but in Norton much was spoiled by rain. Grass is fine.

Clark.—Good weather for crops and harvesting; early wheat and barley harvest begun.

Decatur.—Wheat well filled and will soon be ready to cut; corn growing rapidly, generally clean; first crop alfalfa practically all in stack with but little damage; grass good.

Ford.—Corn, barley, oats and range-grass fine; first crop alfalfa about cut; very good crop; wheat will be light.

Hamilton.—Beginning to need rain.

Kearney.—Conditions favorable for all growing crops; first crop alfalfa about harvested; stock doing finely.

Lane.—Small grain will be poor; corn and forage crops are thriving.

Ness.—Hot winds two days hastening ripening of grain; rye harvest progressing; corn and forage crops not affected by dry weather.

Norton.—Plenty of rain during week; much alfalfa spoiled; corn getting weedy; best wheat crop in years about ready to harvest.

Rawlins.—Grass the rankest for years; haying about over; corn and cane doing well.

Scott.—Good rain improving crops.

Sheridan.—Some wheat ripening prematurely; alfalfa in stack; corn looking well.

Thomas.—The two hot days scorched and hurt crops considerably but the cooler, moist weather since revived them; some rye and early wheat nearly ready to cut; corn and forage crops making good growth.

Wallace.—Fine growing week; hot days; range-grass good; corn and forage crops doing well; second crop alfalfa nearly ready to cut; gardens fine.

Publisher's Paragraphs.

Recent windstorms throughout the West have blown down thousands of windmills. This loss may all be avoided where the Jack of All Trades is used, and this fact is becoming so generally recognized that orders for them are increasing rapidly. Notice the advertisement of Fairbanks, Morse & Co. on page 665.

The McMillan Fur & Wood Co., of Minneapolis, Minn., have placed their latest circular on file at our office for reference. This house was established a quarter of a century ago, and on account of their extensive business, they are in a position to pay high prices. Shippers find their dealings with them very satisfactory. See their advertisement and write them.

The Roney Returner Company, Independence, Iowa, is advertising one of the little things that save a deal of labor and time to farmers in the haying season. It is a hay-fork and carrier-returner that works automatically, absolutely requiring no effort on the part of man or beast—and it doesn't forget. Before the horse can turn around and get back to his position the fork is back and in position to work, no time lost. It makes you smile to see the loads go in the barn ahead of the showers. See the illustrated advertisement and write the company at once. It is the best selling thing on the market. Agents wanted.

For several years the advertisement of the Mead Cycle Company have appeared in the columns of the Kansas Farmer. Every year the business of this company has grown until now it exceeds 50,000 bicycles sold through mail orders all over the world each year. The Mead Cycle Company keeps its factories running all winter storing up wheels of the finest quality, and is always ready in the spring and summer to fill

orders promptly at prices which are lower than any manufacturer selling on the old plan, through local dealers, can deliver a wheel of even inferior quality. The Mead Cycle Company can ship any wheel at any price the same day the order is received. Readers of this paper can be assured of prompt and honorable treatment. When writing for catalogues and prices mention the Kansas Farmer and address Mead Cycle Company, Dept. R 165, Chicago.

The Dempster Mill Manufacturing Company, of Beatrice, Neb., have perfected and are now offering for sale a gasoline engine which is in quality and appearance fully up to the standard of other articles which they manufacture. It is made in three and one-half, six, and eight-horsepower sizes, and for any duty where safe and reliable power is required, it can not be excelled. It is always ready for business; uses no fuel until it begins to work and the expense stops when the machine stops. All of the mechanically operated parts are in sight and of easy access, rendering it unnecessary to take the machine apart in order to adjust it. It runs so smoothly that it requires no special foundation and the farmer or stock man who pumps water, saws wood, grinds feed or has any other work to do would find one of these engines invaluable. This engine will run in cold weather as well as hot, and a temperature of 10° below zero will not interfere with its work. They make the engine either portable or stationary, and we recently saw one of these machines in operation which while mounted on the wheels was busily engaged in running a circular saw in cutting wood for the coming winter. A good gasoline engine is one of the best investments a farmer can make.

The great wholesale house of Bradley, Alderson & Co., Kansas City, Mo., are the manufacturers of a hay-press which will at once commend itself to all who handle hay in quantities. We were recently shown some letters which they had received from satisfied customers and were surprised at the territory they cover in shipping their machines. One letter from Durango, Mexico, states that with unskilled peon labor and two Mexican buros the owner was enabled to turn out thirty bales per hour, and this in spite of the indolent habits of the peons and the equally indolent disposition of the buros. It speaks well for the light draft of the machine, which can be easily run with one good American horse. The Cudahy Packing Company writes that it used one of these presses in its Sioux City plant for baling hog hair and that it was entirely satisfactory. A firm in Manitoba writes that their average is a ton per hour, and they have attained 3,600 pounds per hour. We were shown other letters, equally commendatory, from New Mexico, Nebraska, Ohio, Illinois, Florida, Tennessee, Indiana, West Virginia, Texas, and Idaho, and they have hundreds of others on file. This press is of double-cam construction and is made entirely of steel and iron and is guaranteed to bale all the hay that the operating crew can handle. It is easily drawn from place to place by one team of horses while, as before stated, a single horse will operate it with ordinary hay.

Century Easy Runners.

The Century Manufacturing Company, Dept. 54, East St. Louis, Ill., is doing a great business with their own make of buggies and surreys, which they sell direct from factory to user, and the customer



thereby saves all middlemen's profit. This firm claims to save the buyer from \$20 to \$40 on every vehicle which is warranted in every respect as high class goods at low prices. Look up their advertisement on page 642, and write for further information, which will be sent to any reader of this paper free, and without delay.

ALFALFA SEED

field seeds. Write us for prices.

FOR FALL SOWING. We can furnish pure, plump, vigorous seed crop 1901 in car or one-bushel lots. Also all other kinds of

McBETH & KINNISON, Garden City, Kans.

THE KANSAS STATE AGRICULTURAL COLLEGE.

(Continued from page 657.)

tion influence is found in the establishment of the Fort Hays Branch Station. This is upon the Fort Hays military reservation which has been ceded to the State partly for the use of this station, and the last legislature made appropriations of \$3,000 per annum for its maintenance. On account of legal complications the work was not begun until this spring, and for some weeks the season was unpropitious, but since rains have come the prospects have brightened, and it is believed that even upon sod, as most of this year's experiments necessarily are, a good degree of success will be attained. It is confidently expected that the work of this branch will effectively supplement that done at the college, and should its success and value be pronounced it may lead to the establishment of others. The Hatch fund can not be used for branch stations, but State appropriations will doubtless be forthcoming, in so far as results attained warrant them.

Investigations concerning methods for the extermination of prairie-dogs and gophers have been carried on the past year under the provisions of a law passed in 1901. These are under the general supervision of the station, but the immediate direction of a special agent. Under the provisions of the law, poison has been furnished at cost to township trustees, and as a matter of accommodation to others within the State. In the preparation of this poison 6,064 ounces of strychnine have been used. The results in the destruction of prairie-dogs have been eminently satisfactory, and now that the possibility of destroying these pests has been shown on so large a scale, it is probable that the people will continue and extend their efforts in this direction.

The publications for the year include the annual report, six bulletins, and twenty-five press bulletins. Three other bulletins are ready but their printing is delayed on account of lack of funds, and several others could be put on the press at short notice. These will probably appear during the summer. A brief summary of the publications follows:

"Fourteenth Annual Report, 1900-01." This contains the financial statements, a report of the council upon the work of the several departments, outlines of Bulletins Nos. 99 to 104, a list of Press Bulletins Nos. 71 to 92, a list of the previous publications of the station, and an index to the bulletins for the year. Only three thousand copies were issued, as the publication is not insured for extended distribution. Copies will be sent to those applying for it, while a supply remains available. The index is a convenience to those who preserve the bulletins.

Bulletin No. 104.—"Fall Seeding of Alfalfa." This gives practical directions for the preparation of the soil, and for the seeding of alfalfa in the fall.

Bulletin No. 105.—"Blackleg in Kansas." This bulletin contains a detailed description of blackleg, a history of investigations concerning means of preventing it, and an account of the investigations at the station in connection with this disease.

Bulletin No. 106.—"The Experimental Apple Orchard." The orchard was planted in 1891 as a test of varieties, and of whole-root and piece-root grafts. The bulletin gives the results to date.

Bulletin No. 107.—"Analyses of Corn with Reference to Its Improvement." The analyses detailed in this bulletin have extended over four years, and indicate marked possibilities in corn improvement.

Bulletin No. 108.—"The Hardy Catalpa." This bulletin contains an account of the results observed in catalpa plantations on the college farm first made in 1872, and a large amount of information concerning the practices of other planters of this tree, and in regard to its utility as post and tie timber.

Bulletin No. 109.—"Spontaneous Combustion of Alfalfa." An account of a number of instances of spontaneous combustion of alfalfa which took place near Manhattan last year, suggestions as to its cause and the means of preventing it.

Of the first three bulletins named above 25,000 copies each were printed; of the last three, 27,000. The mailing list is constantly increasing, the bulletins being sent to all who apply for them. Bulletins are not sent out in bulk for distribution, however, as it is believed that that which comes without effort is usually regarded as of little value. On receipt of names for that purpose, sample bulletins will be

mailed, accompanied by return cards upon which application may be made for future issues.

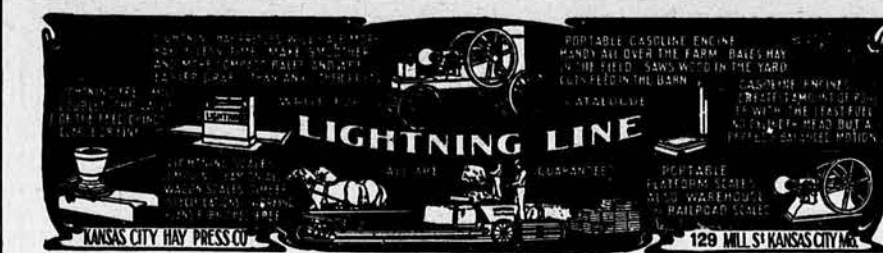
The press bulletins issued are named below. These are not sent to all applicants, but are sent to all the papers of the State, to several classes of officers, and to certain other addresses where they will receive special publicity. These are very widely reprinted:

- No. 91.—"The Clover-hay Worm." Entomological Department.
- No. 92.—"Cow-peas as a Second Crop." Farm Department.
- No. 93.—"Baby Beef." Farm Department.
- No. 94.—"Three Ways of Feeding Milk to Calves." Farm Department.
- No. 95.—"Skim-milk Calves in the Feed Lot." Farm Department.
- No. 96.—"Feeding Wheat." General Department.
- No. 97.—"Inquiries Concerning Prairie-dogs and Gophers." General Department.
- No. 98.—"What Shall We Feed?" Farm Department.
- No. 99.—"Fall Seeding of Alfalfa." Farm Department.
- No. 100.—"Sorghum Pasture for Dairy Cows." Dairy Husbandry Department.
- No. 101.—"The Hessian Fly." Entomological Department.
- No. 102.—"Maintenance Ration for Cattle." Dairy Husbandry Department.
- No. 103.—"Grain Weevils." Entomological Department.
- No. 104.—"Cattle Distemper." Veterinary Department.
- No. 105.—"Sore Mouth of Cattle." Veterinary Department.
- No. 106.—"Profit in Maintaining the Milk Flow." Dairy Husbandry Department.
- No. 107.—"Cerebritis or 'Stagers' in Horses." Veterinary Department.
- No. 108.—"Destroying Prairie-dogs." General Department.
- No. 109.—"Destroying Pocket-gophers." General Department.
- No. 110.—"Corn Improvement." Chemical Department.
- No. 111.—"Onion Notes." Horticultural Department.
- No. 112.—"Pneumonia in Cattle." Veterinary Department.
- No. 113.—"Pasture Weeds, Their Prevention and Eradication." Botanical Department.
- No. 114.—"Whole Kafir-corn Compared With Ground Kafir-corn for Young Calves." Dairy Husbandry Department.
- No. 115.—"Contagious Sore Eyes in Cattle." Veterinary Department.

The Growing Boy.

It is not an easy task to treat the boy who is neither man nor child just right. He has not the most attractive qualities of either, may be, yet it pays to make most effort for him, for these formative years are the latter half of our home influence over him, and our last chance to help him be what we most desire.

It is much easier to take an interest in and be patient with the cute little tot than it is to understand the larger boy whose confidence is not so readily given, and who asserts himself contrary to our wishes very often. Provoking as this is, our judgment should tell



us that will and strength of character must have beginning struggles, and that self-control is not learned in a day.

The growing boy meets difficulties in this world and he needs sympathy and help at home for these. Not every one can be a leader in class-room and playground, but no boy should become careless and discouraged because he does not fill the first place. Neither should snubs and sharp remarks from those who succeed easily take all the zest out of efforts on the part of the boy who is different in make-up. By going on in his way he may become as useful, honorable, and happy a man as does the boy-leader.

The ideal teacher will help to even up boys by discovering and giving chance for exercise before the whole school of each boy's special talent. The ideal home will furnish comfort for failure and stimulus for going on. Then we will not have discouragement and despair chronic in men.

Of course we can not remove or prevent the "knocks of the world" that come in some way to all. But we can do much to guide the growing boy, and help him to come out victorious to the extent that a healthy good cheer will always tide him over the dark places of life.

A boy's wardrobe or anything that enters into his personal appearance or behavior helps easy manners and social intercourse with others. In order to dress a boy on little money and yet keep him in clothes that are neither too large nor too small, requires careful thought and careful hands. A dark, plain color in blue, gray or brown makes the nicest Sunday suit, not expensive but well fitting. Then when the coat sleeves and pants get too short the pants can be used to make longer sleeves and a new pair of pants that match nicely be bought. And still later for school wear the same coat and vest may be worn with cottonade pants or overalls. Few boys look well in brightly colored ties when at the changing age. Aren't the very bright colors best for the little tots anyway?

I have found a damp whisk broom, after a thorough shaking in open air, will remove the dusty appearance of garments, and all spots will usually yield to a damp cloth from borax water.

It takes time and trouble but it pays to let floor-scrubbing and fine cake making go while one cares for the living boy.

School-work can be supplemented by home work or home conversation, and the text book work made of practical meaning and value by writing letters to young friends or relatives, or by doing any simple business transaction. All work of this kind gives interest and meaning to life, and gives a healthy staying power against vice. The more active interests a boy can have the more will he enjoy intercourse with the world, yet at the same time he will not feed dependent upon others for enjoyment, and will meet the common share of rebuffs and disappointments without losing courage and zest.

We mothers might tell each other of little ways to fill the growing boy's time with the best of developing work and recreation.—Mary Farmington in Farm, Stock and Home.

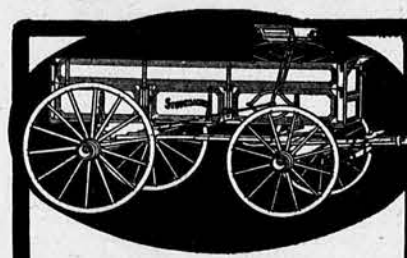
If warm weather makes you feel weary you may be sure your system needs cleansing. Use Prickly Ash Bitters before the hot weather arrives; it will put the stomach, liver, and bowels in order and help you through the heated term.

It is an old saying too often unobserved that only those of good memory should apprentice themselves to the trade of lying!

The stock of "in sight" wheat in the United States was about 7,000,000 bushels less on May 1, 1902, than on the same date last year.

National Educational Association, Minneapolis, July 7-11, 1902.

For this popular gathering the Chicago Great Western Railway will on July 5-7 sell excursion tickets to Minneapolis, good to return July 14 (or September 1, by payment of 50 cents extra) at one fare plus \$2 (membership fee) for the round trip. For further information apply to any Great Western Agent, or J. P. Elmer, G. P. A., Chicago, Ill.



Half a Century at Studebakers

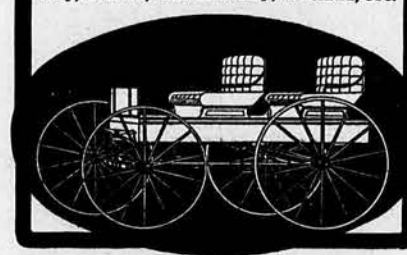
We use this space to remind you that the fiftieth year of wagon making has just been passed at Studebakers. Their wagons used everywhere are the best in the world. The people say so, and they keep the Studebakers busy. It is useless to say more about anything the merits of which are so well known.

Studebakers also make a full line of all kinds of vehicles, harness, etc. They control the entire output of the World Buggy Co. and make the "Izzer Line" of vehicles. All dealers handle Studebaker goods. Write us for catalogue.

Studebaker Bros. Mfg. Co.
South Bend, Ind.

REPOSITORIES:

Chicago, New York, San Francisco, Kansas City, Denver, Salt Lake City, Portland, Ore.



A NEW FAST TRAIN

Between St. Louis and Kansas City and

**OKLAHOMA CITY,
WICHITA,
DENISON,
SHERMAN,
DALLAS,
FORT WORTH**

And principal points in Texas and the Southwest. This train is new throughout and is made up of the finest equipment, provided with electric lights and all other modern traveling conveniences. It runs via our new completed

Red River Division.

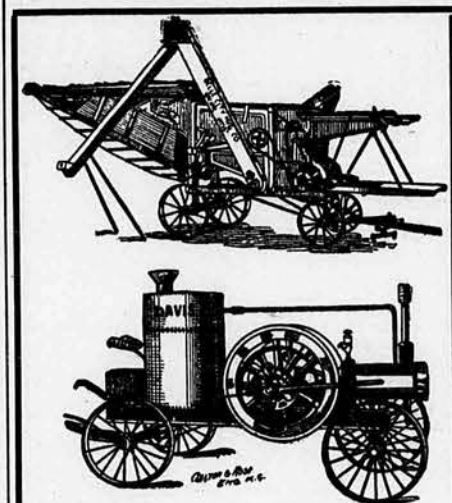
Every appliance known to modern car building and railroading has been employed in the make-up of this service, including

Café Observation Cars,

under the management of Fred. Harvey. Full information as to rates and all details of a trip via this new route will be cheerfully furnished, upon application, by any representative of the



When writing our advertisers please don't fail to mention this paper.

Little Columbia Thresher
Davis Portable Engine

FOR THE FARM.

Columbia Threshers are guaranteed as against any separator in the market. Have large capacity. Can be operated by 7 men or less, and reduce risk, expenses, work, worry, and trouble, to a minimum.

**Davis Gasoline Engines
Do Any Work—Any Time—
Anywhere.**

Write for catalogs.

**John Deere Plow Co.,
Kansas City.**

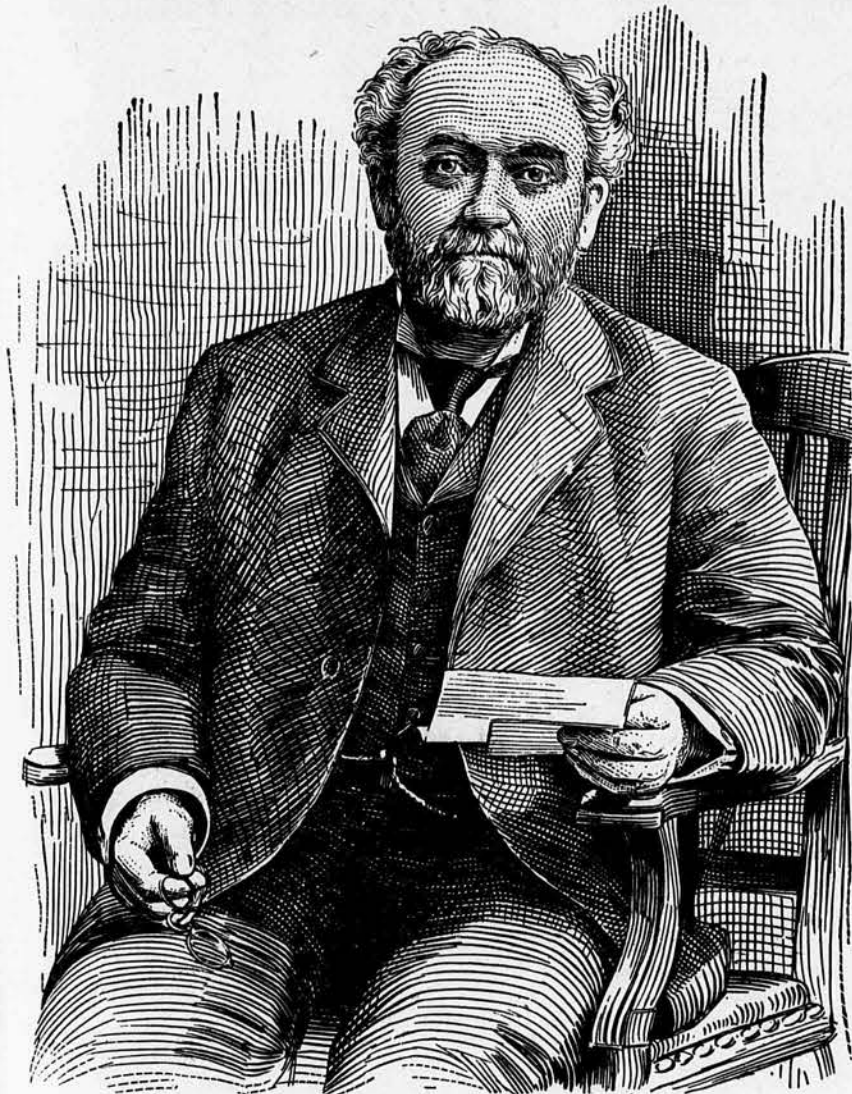
CROSS-ROADS' LOGIC: "WHEN IN DOUBT FOLLOW THE MAIN TRAVELED ROAD."

THAT is what the farmer said when he was directing a stranger on his journey. "When you come to the cross-roads keep to the main traveled way." There's a sound logic in that advice which those who are starting out in search of health might well heed.

"Stick to the main traveled road and you'll come out all right."

Many hundreds of thousands of people have marked a path for you to follow. It has led them to health. This path which they have trodden leads to the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., where Dr. Pierce, the chief consulting physician, and his staff numbering nearly a score of experienced and skilled specialists, are every day engaged in the treatment and cure of chronic diseases. Much of the treatment is by correspondence. Any sick person is invited to consult Dr. R. V. Pierce by letter absolutely free of charge and under the promise of absolute privacy.

There is hope for everyone who begins the use of Dr. Pierce's treatment. Out of the many thousands treated, ninety-eight per cent. have been absolutely cured by Dr. Pierce and his staff of physicians. A great number of these were the "hopeless" cases for which the home doctor said nothing could be done. People with weak lungs, obstinate cough, bronchitis, and other forms of disease which if neglected, or badly treated lead on to consumption, have been positively cured through the advice of Dr. Pierce and his staff of skilled specialists, and the use of that marvelous medicine, Dr. Pierce's Golden Medical Discovery.



Sarah E. Taylor, of Eureka, Greenwood County, Kansas, writes: "I wish to say to you for the benefit of suffering humanity, I had been a sufferer for fifteen years nearly all the time; and in August, 1896, was taken with severe cramping pain in my stomach. The doctor here said it was due to gall stones. He relieved me for a short time, and then there was a hard lump about the size of a goose egg formed in my right side. It became so sore I could scarcely walk about the house, and I had no appetite. I consulted two of the best doctors in town and they said medicine would do me no good. I gave up all hope of ever getting well again. One day I thought I would write to you telling you of my condition. You told me I had enlargement of one of the lobes of my liver and the gall bladder, and advised me to take your 'Golden Medical Discovery' and 'Pleasant Pellets,' which I did according to directions. I had not taken more than half a bottle of each when I began to feel better, and my appetite came back. Now it is a little over a year since I began to do my own work. I have taken seven bottles of Dr. Pierce's Golden Medical Discovery and seven vials of the 'Pellets,' and am stronger than I have been for five years."

"I was taken sick in July, last year, and was not able to do any kind of work until November," writes Mr. Noel W. Orvin, of Langley, Aiken Co., S. C. "Had been coughing up small, hard lumps of phlegm for about a year before I was taken down; I then called on a doctor who attended me for two months, and said that one-half of my left lung was gone, and advised me to leave my home (Charleston, S. C.), and go to the country, but did not say what sort of disease I had. I thought it was consumption, and wrote to you for advice. I took four bottles of Dr. Pierce's Golden Medical Discovery, which I sincerely believe has done me more good than all the other medicines I have ever taken."

Do not hesitate or delay if afflicted with any old, chronic, or obstinate disease. Write to Dr. R. V. Pierce,

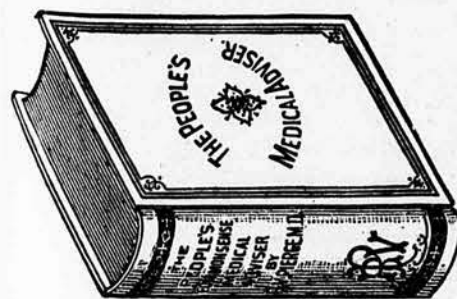
Buffalo, N. Y., and tell him your story. It will be treated as a sacred confidence, and you will promptly receive in reply an experienced physician's advice and fatherly counsel, which will put you in the way of health, if your case be a curable one.

DR. PIERCE'S GOLDEN MEDICAL DISCOVERY

GIVES STRENGTH TO THE STOMACH, PURITY TO THE BLOOD, AND LIFE TO THE LUNGS.



\$25,000.00 GIVEN AWAY!



In the past year, Dr. Pierce's great work, **The People's Common Sense Medical Adviser**, has been given away at a total expense (exclusive of the cost of mailing), of \$25,000.00. This book, aptly called the Bible of the Body, contains 1008 pages and 700 illustrations, and is invaluable to both old and young. It will save doctors' bills. It is a Medical Adviser who asks no fee and is always at hand. Sent free on receipt of stamps to cover expense of mailing *only*. Send 21 one-cent stamps for the paper-covered edition, or 31 stamps for the cloth-bound volume.

Address, **Dr. R. V. Pierce, 663 Main Street, Buffalo, N. Y.**

The Poultry Yard.

Wild Geese or Chickens, Which?

If a hen be set upon wild goose eggs, will she hatch wild fowl or domestic poultry? This question is now in dispute before the board of classification of the United States general appraisers. The question was brought up by S. H. Jones, of Bangor, Me., who protested against paying duty upon fowls which were bred from eggs of wild geese. The Government holds that the hatching of the egg determines the classification, while the importer contends that wild geese will produce wild geese, no matter where hatched. Mr. Jones' attorney, W. T. Waldin, has filed a brief in which he maintains that the birds under discussion are "water fowls," which is a term applied to web-footed animals. The Government has ruled that "poultry must pay duty at the rate of 3 cents a pound, while "wild fowl" are free. Mr. Waldin asserts that Mr. Jones' fowls are exempt, being sent to market wearing their plumage, like game birds. Albert H. Washburn, special counsel for the treasury department, has submitted a brief in reply, in which he holds that eggs hatched by domestic fowls produce "poultry," which term applies to birds of the feathered species raised in captivity.

When we were boys on the farm we used to hear the question propounded, "Which is the mother of the fowl, the one that laid the egg or the one that hatched it?" So far as the Government can decide the question, in the above case, it says the hen that hatches the young decides the matter and the product of the eggs hatched belongs to the class to which the mother belonged. If that be true, if one should set buzzard eggs under a hen, the young when hatched would be a table fowl, as that is the definition of poultry. Talk about improved breeds and the results of cross-breeding, when by simply setting any kind of eggs under a hen you can produce poultry.

All-the-year Poultry Business.

On the average farm the poultry business is congested into too short a time. It is true that the work of selling eggs for hatching has only a few short weeks of rushing business. Breeders are sold in only a few months, and thus it goes all the way through the various demands in the poultry business. On many a farm scores of dozens of eggs are sold in the spring, and then the business goes off and is not thought of until the return of another spring.

About Thanksgiving time there is a general round-up of all the salable poultry (and a great deal that is not salable) and it is all rushed off to market whether the demand is for that kind or not. There is room for an all-the-year business in every branch of the poultry industry. Eggs should be produced and sold every month in the year either for hatching or for table purposes. Incubators make it possible to have good hatches almost every month, and brooders help out largely in rearing them in almost any season.

To get broilers when they are high priced means hatching chicks early in the winter. To get winter layers means

that the business of hatching should be as early as possible.

There is no good reason why eggs should not be produced the whole year around and why broilers could not be sold as well in the fall as in the spring. Spread the business over a great deal of the year and make a demand for poultry products by supplying them in an inviting manner. This is one way the business can be carried on all the year round.—Cor. of Michigan Farmer.

Domesticated Quails.

One of the most timid and it would seem naturally wild of birds is the quail. And yet it seems they can be tamed and domesticated. An Indiana farmer has already made good progress in the new industry of raising quails. For four years, says the Massachusetts Ploughman, he has not allowed a gun to be fired on his farm of four hundred acres. As a result the quail there have become so tame that they come to the barnyard and eat with the chickens, and when there appear to have lost all their wild nature, though they still are timid when approached in the field. He has raised one brood by setting the eggs under a hen and brought them up with the chickens, and they appear to be thoroughly domesticated.

This season he intends to gather eggs from the fields, as well as from those he has on hand, and to hatch them in an incubator, keeping the females, and selling a part of the males, but hoping to have 1,500 egg-producing quails in the spring of 1903, and to gradually increase the number if results are satisfactory.

The quail is one of our most useful birds as an insect destroyer, its only fault being its wildness, which usually keeps it away from our orchards and gardens. But we have noticed that since shooting was prohibited in Middlesex Fells, they have become more abundant in that vicinity, and that they can often be heard near the houses and highways.

Quail on toast is generally regarded a delicate and toothsome article of food. Our Indiana farmer is on the road to a fortune.

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

While the guinea is a noisy creature yet its noise often helps to frighten away enemies of the poultry yard. It lays a large number of eggs during the summer, and no class of fowls will so early take care of themselves; while they make an excellent table fowl if not allowed to get too old.

Indigestion, one of the worst diseases among poultry, is often caused by feeding sour or mouldy food. It may of itself prove fatal, or cause a derangement of the system, a condition that makes the fowl more liable to be attacked by other diseases. Impure food and drink, sameness of food, overfeeding, overfatigue, and vermin are causes of indigestion.

Especially with the late hatching it is nearly always best to sprinkle the eggs well with lukewarm water or immerse them for a minute in warm water the day before they are due to hatch. Hot, dry weather seems to toughen the inside lining of the shell so that the chick can not always break it. A little water at the right time softens it and lessens the risk of loss.

It is important to see that the fowls are not overcrowded in the poultry-house at night during the summer. Rather than have them too crowded it is better to allow a portion to roost out of doors during the summer; or else market the surplus as soon as they will average two pounds each. Either plan is better than to run the risk of loss by having too many in the house at night.

It is very essential that they be fed regularly. While they will be able to pick up a good portion of their food if given a good range, yet, when it is desired to push the growth, a little grain night and morning will aid materially in securing this. Another advantage in feeding regularly is that it lessens materially the liability of straying off.

A dry, hard floor will often cause lameness, crooked toes and sometimes bumble-foot, and on this account is objectionable. If hard floors are used it is a good plan to sprinkle two or three inches deep with soil, renewing sufficiently often to prevent its becoming too foul.

The raising of poultry, including the production of eggs and meat, goes well with the dairy. In fact the waste products of the dairy can be used to a good advantage in feeding poultry economically and the time and care necessary with the one need not interfere with the other; while the surplus products of each can be marketed together with advantage.

FOILED DEATH

Doctors Told Mrs. Wake That She Was Doomed to Quick Consumption---Cured by Dr. Williams' Pink Pills.

To lie at the point of death for months, to be told by the physician that there is no hope of recovery, and then to be restored to health and strength by Dr. Williams' Pink Pills for Pale People, was the experience of Mrs. W. H. Wake, of No. 84 Broad Street, Rahway, N. J. To look at her now one would think it hardly possible that she had ever had a serious illness. Speaking of it she says:

"About three years ago I was in a condition generally known as run-down. I was miserable indeed; lifeless and languid. I had no strength at all, all desire for food had left me, I was terribly nervous and could not sleep. What was worse I did not improve, and my weight went down from 135 pounds to 96. I was under the care of a physician for thirteen months, but still I grew worse. He said my blood had almost turned to water. I was so weak that I was obliged to lie down all the time; if I tried to stand or even to sit up I would faint away.

"Finally the doctor told me that unless I began to get better within two weeks I was doomed to quick consumption. Then I gave up all hope.

"But about this time a friend, who knew something of Dr. Williams' Pink Pills for Pale People, advised me to try them. I did so and, after taking the third box, I began to feel better. I continued using them faithfully until I was cured. Dr. Williams' Pink Pills for Pale People are a wonderful remedy for persons afflicted as I was, and I shall always recommend them."

The disease from which Mrs. Wake suffered was anemia. It is characterized by a palid complexion, pale lips, dull eyes tongue and gums bloodless; shortened breath on slight exertion—such as going upstairs; palpitation of the heart, feeling of impending death, weakness, loss of appetite and ambition; irregularity and pain in the natural functions of women.

The one remedy that has proved itself a specific for anemia is Dr. Williams' Pink Pills for Pale People. They are sold at 50 cents a box or six boxes for \$2.50, and may be had of all druggists or direct by mail from Dr. Williams' Medicine Company, Schenectady, N. Y.

A Joke that Cost a Senatorship.

There are quite a number of senators with bald heads. Senator Stewart is among the number. Mr. Stewart says that it does not pay to make fun of a man who hasn't any hair on the top of his head, in the place where the hair ought to grow, as the old song says. In proof of which he tells an interesting story of how Hannibal Hamlin was defeated for the senate.

"Up in Maine," says Mr. Stewart, "there was a man who was very bald. One day Mr. Hamlin came along and tapped the man's smooth skull. 'I just want to tell you,' he said, 'that one of your two hairs is crossed with the other.'"

"The remark was made only in fun, but the bald-headed man never forgot it. Long afterward he was a member of the upper branch of the Maine legislature and Hamlin was a candidate for the United States senate. Hamlin was defeated by one vote and that one vote was cast by the man who was bald."—Washington Post.

PILES

Fistula, Fissure, all Rectal Diseases radically and permanently cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business. Particulars of our treatment and sample mailed free.

Mr. M. McCoy, Goganc, Kans., Captain Company A., Fifteenth Indiana Infantry, writes: "I have doctored for piles since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully, "M. McCoy."

We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatment, and different methods of operation without relief.

Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT REMEDY COMPANY, Suite 738, Adams Express Building, Chicago, Ill.

POULTRY BREEDERS' DIRECTORY.

ROSE COMB WHITE LEGHORNS—White guinea. Leghorn eggs, \$4 per 100; guinea eggs, \$1 per 16. Mrs. Winnie Chambers, Onaga, Kans.

FOR SALE—World's greatest laying strain, Black Minorcas, beautiful in shape, color, and comb; grand winter layers. Eggs, \$1.50 per 15. Address George Kern, 817 Osage St., Leavenworth, Kans.

NO MORE PUPS FOR SALE until after May 1, but can furnish B. P. Rock eggs from large, vigorous, and finely-marked birds; 15 years' experience with this breed. Send me your order; you will be pleased with results. \$1.50 per 15.

W. B. WILLIAMS, Stella, Neb.

Gem Poultry Farm.

C. W. PECKHAM, Prop'r, HAVEN, KANS.

Four Yards—15 Acres. Exclusively taken by the largest and best flock of Buff Plymouth Rocks in Kansas. Eggs sold from two best yards only, at \$2 for 15.

Prize-winning M. Bronze Turkey Eggs, \$2 for 11.



DUFF'S POULTRY

All our Fine Breeders of this season, also Spring Chicks for sale after the first of June. Barred Rocks, White Rocks, Buff Cochins, Part-ridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, S. C. Brown Leghorns, and Belgian Hares. Buy the best now at the lowest prices. Write your wants. Circulars free. Choice Breeders and Show Birds.

A. H. DUFF, Larned, Kan.



Low Round Trip Rates VIA UNION PACIFIC

FROM MISSOURI RIVER

\$15.00 To Denver, Colorado Springs, and Pueblo, Col. June 22 to 24, inclusive. July 1 to 13, inclusive.

\$19.00 To Denver, Colorado Springs, and Pueblo, Col. June 1 to 21, inclusive. June 25 to 30, inclusive.

\$25.00 To Salt Lake City and Ogden, Utah. August 1 to 14, inclusive.

\$25.00 To Glenwood Springs, Col. June 22 to 24, inclusive. July 1 to 13, inclusive.

\$30.00 To Salt Lake City and Ogden, Utah. June 22 to 24, inclusive. July 1 to 13, inclusive.

\$31.00 To Glenwood Springs, Col. June 1 to 21, inclusive. June 25 to 30, inclusive.

\$32.00 To Salt Lake City and Ogden, Utah. June 1 to 21, inclusive. June 25 to 30, inclusive. July 14 to 31, inclusive.

\$45.00 To San Francisco or Los Angeles, Cal. May 27 to June 8, inclusive. August 2 to 10, inclusive.

\$45.00 To Portland, Ore., Tacoma and Seattle, Wash. May 27 to June 8, inclusive. July 11 to 21, inclusive.

Full information cheerfully furnished on application to

F. A. LEWIS, City Ticket Agent, 625 KANSAS AVENUE.

J. C. Fulton, Depot Agent.

SEVEN GREAT SCHOOLS.

Chillicothe Normal School
Chillicothe Commercial College
Chillicothe Shorthand College
Chillicothe Telegraphy College
Chillicothe Pen-Art College
Chillicothe School of Oratory
Chillicothe Musical Conservatory
Last year's enrollment 729. \$130 pays for 48 week's board, tuition, room rent, and use of text-books. For FREE Illustrated Catalogue, address ALLEN MOORE, President, Box 0, CHILLICOTHE, MO.

THE COATES HOUSE.

Absolutely Fire Proof.
Broadway and 10th, Kansas City, Mo.
Comfortable and Homelike in Winter.
Cool and Attractive in Summer.
Cuisine and Service Unsurpassed.
American and European Plan.
SPECIAL RATES TO STOCKMEN.
Electric cars direct to Union Depot and Stock Yards.
Interstate Hotel Co., Proprietors.



A Boon To Humanity

Is what everybody says who has used

St. Jacobs Oil

For it cures the most difficult cases of Rheumatism—after every other form of treatment has failed.

St. Jacobs Oil never fails.

It Conquers Pain

Price, 25c and 50c.

SOLD BY ALL DEALERS IN MEDICINE



In the Dairy.

Conducted by D. B. Otis, Professor of Dairy Husbandry, Kansas Experiment Station, Manhattan, Kan., to whom all correspondence with this department should be addressed.

Alfalfa the Key to Successful Competition.

FROM BULLETIN NO. 55, DELAWARE EXPERIMENT STATION.

Although payments for these concentrated feeds are this year heavier than usual, prices for dairy products have not advanced proportionately, for competition in the butter market is increasing; Elgin cold storage products selling in the smaller towns on this Peninsula at rates which rival the price secured for the highest grades of butter made by local creameries. The end is not yet in sight, for in spite of the small corn crop, Kansas is now a rival of Elgin in the markets of Philadelphia. Its creameries, according to public report, can pay two cents per pound for butter transportation, can accept for it one cent per pound less than the ruling market price, and can still compete, owing to economical production. Home grown protein in the form of alfalfa hay is the key to the position.

What Shall We Do With the Average Cow?

C. A. PEARS.

Each dairyman in the State will have to work out the answer to the question himself. If we studied only general statistics for the State, we would think there was only one thing to do—get rid of her. But we have nothing better to draw on, and as we are going to do dairying in Kansas, let us see if she has as poor an average as we might be led to believe.

We have a number of records of individuals, and what is much better, of herds, that go to show that the average man is as much to blame as the average cow for the record being low.

We are hearing a great deal about a balanced ration just now and men are hunting the earth over for new food plants and substances; are even feeding dried blood and tallow and what not to cows. It might be well while we are experimenting to use some brains and note the effect. Referring again to herd records, the one made by the Kansas State Agricultural College is in every way one of the fairest, most accurate, and most encouraging to the average dairyman or beginner. They have had thirty cows purchased, and while it is hardly fair to call the Kansas cow a scrub any more, it seemed appropriate to call that lot scrubs. No man in the State needs to start with a poorer herd and yet the records show that by intelligent feeding and regular attention and care 75 per cent of those cows not only paid their way, but paid a profit. They were only given such

feed as can be grown on our farms or purchased at a very moderate cost.

A little study of the record sheet will soon point out the unprofitable cows, and, in fact, it is a matter of only a few years until all these cows, good, bad, and indifferent, will be gone. The answer then seems easy as to what to do with them, as they are going to pay their way while they last we will keep them. And here is where the really important question comes to us; namely, what are we doing or going to do for the future herd? We must decide what we want to produce, what breed most nearly meets the requirements, all things considered, and then head our herd with the best male we can get of that breed. Next, we must think of the calf as being primarily for dairy purposes. It is a fact pretty well understood that those organs or parts of the body most used are most developed, and as we know it is absolutely necessary to have a vigorous animal and one with a well developed digestive tract, if we are going to produce milk we must steer clear of concentrated or fat-producing foods and give them such as will develop a rather loose jointed and bony structure with ample room for storing food.

The cow is an animal that will respond readily to good treatment and we need to make her surroundings pleasant and comfortable. We know, too, that the young cow is, like all other young animals, apt to continue the habits formed while she is young. If we make the conditions such as to develop viciousness, such as kicking and crowding or any other undesirable traits, she will be likely to continue them, and so it is with giving milk, if she is placed under conditions favorable to milk production, until the habit of giving large quantities of milk is formed, she will continue it when the conditions make it possible. But with all her habits she is something of a machine and can only use such raw material as is given her. We could just as reasonably expect a cider mill to turn out cider when we shovel in potatoes as to expect a cow to give milk when she is not given such food as can be changed into milk. This is largely the trouble with the so-called average cow in Kansas. We have been feeding her corn and prairie hay, food rich enough in carbohydrates and fat, but poor in protein. A miner does not expect twenty dollars in gold and twenty in lead from a ton of ore that assays five dollars in gold and only twenty in lead, even if he has the best concentrator on earth.

Man is never satisfied and never should be with the results of his efforts. Others may say he has done well and he may realize himself that he has, but still feel that he can do better.

We always find pleasure in raising a large crop of grain, but if we are going to feed it to cows that will only pay the cost of production it will cease to be a pleasure, but when we can feed it to our cows and multiply its value our satisfaction continues. The earth is the source of all our material satisfaction and the greater the tribute we can make its productions pay us the greater the pleasure in dealing with it. In Kansas there is no better way to use up and develop the raw material than by feeding it intelligently to the average cow and thereby making her a better average cow than is found anywhere else on earth. It has been said, "That the man who can cause two blades of grass to grow where only one grew before is a public benefactor." It is certainly not less true of the man who can cause his cows to produce two pounds of butter where they only produced one before, and this is what should be done with the average Kansas cow.

Raising the Standard of Milk Production to the Top Notch.

H. V. NEEDHAM, BEFORE TONGANOXIE FARMERS' INSTITUTE.

Mr. T. A. Borman, so far as I know, has set the standard of Kansas. Commencing with a herd of common cows he, by careful breeding and selection, in six years had a herd that averaged about \$80 per head at creamery prices for butter-fat. I do not imagine for a minute that his selection of sires was similar to that of regions around here. I have never read any statement of his own, but I am sure that he did two things; one was to get rid of every cow that did not come up to a certain yield, and the other was to have a sire at the head of the herd that had a good dairy heredity.

To show you what this means, let me speak of some cows of my own raising. I have a fine Holstein and two daughters. One daughter is a cross with a Guernsey and is a better cow than her

mother, giving more and richer milk; the other daughter gives less than half as much milk as her half-sister. The difference was in the sires. A Durham cow, a fine milker and very high tester, has three daughters. One gives five gallons of milk per day when fresh, and now, almost nine months after calving, is giving nearly four gallons per day. The net best one gives a little over four gallons per day when fresh, and milks well through the season. Number three gives a little less than four gallons when fresh and does not milk as well as number two through the season. The heredity of the sires fixed the milking qualities of these cows.

If the heifers and young cows now being raised around this neighborhood equal as a class in milking qualities the present stock, then I am neither a prophet nor the son of a prophet. If my views are correct, your standard must come down several notches instead of being moved up as it should be. If the farmers must stick to the Shorthorn, which is now the favorite, then we should club together and get a car-load of young bulls from Wisconsin or Illinois where this herd has been bred for high milking qualities for many years.

Another important factor in moving up a few notches is in having nearly all the cows come fresh in the fall and early winter. There are several reasons for this: The cows will give from one to two thousand pounds more milk during the year; we get the most milk when it is worth the most money; if the calves are to be raised by hand a better calf can be raised in this way and when grass comes the calves can be turned out and they will grow like the weeds, thus lightening the chores and leaving the skim-milk for the young pigs.

When to Cut and How to Cure Clover.

The clover crop is coming on apace and it is in order just now for the farmer to consider what he will do with it and how he will handle it to the largest profit. Those who have empty silos will do well to put a liberal store of the clover in them, both for economy of storage and to provide a convenient and serviceable supplementary feed when the July and August drouths turn the pastures brown.

But the number of those who have silos for this purpose is all too limited, and even those that have them will want to make some clover hay to go with the corn silage this winter. It follows then that every man who is so fortunate as to have a clover-field should be interested in the latest and best methods of cutting and curing the crop for hay.

Clover is at its best, whether for hay or silage, when in full bloom because at that period the nutritive elements are most evenly distributed throughout stalk and leaf and flower, and the plant has practically attained its maximum growth for profitable purposes. But as every plant does not reach this stage of development at the same time, and if it did it would be impossible to cut and secure a large acreage in one day, the prudent farmer will adapt himself to the law of averages by commencing his clover haying a few days before half the plants are in full flower, in order that he may complete it before many of the stalks have become mere woody stems, the leaves ripened and ready to fall, and the heads simply seed pods and chaff.

Of course at this stage of development the clover plant contains approximately 75 per cent of water and the great problem in hay-making is to get rid of 70 to 80 per cent of this so that the hay when put in the mow will contain less than 25 per cent of moisture. Bearing this condition and necessity in mind, the prudent hay-maker will not cut his clover when it is exteriorly wet with rain or dew for the reason that this extra water will evaporate (dry off) much more readily when the plant is standing upright, where the breeze can get on all sides of it, than when lying flat on the ground.

Next in order comes the consideration of the important but unappreciated fact that direct sun heat retards, rather than hastens the evaporation of this surplus water, because it dries to a crisp the leaves of the plant, which are the most available avenues for moisture to escape from the stem. No one needs to accept this statement for the truth, because it can be easily verified or disproved by a very simple experiment. Take several stems of clover and remove all the leaves from some of them, leaving the others entire, and hang them all in the shade, but not away from free circulation of air. Then note which of the stems dry out most quickly. Or, take several bunches and

SAVE \$10.-PER COW

EVERY YEAR OF USE.

DE LAVAL CREAM SEPARATORS

Prices \$50.- to \$800.-

"Alpha" and "Baby" styles. Send for Catalogue.

THE DE LAVAL SEPARATOR CO.,
RANDOLPH & CANAL STS. 74 CORTLANDT STREET,
CHICAGO, NEW YORK.

spread out in the hot sun and at the same time put other bunches near them in the shade, and note results.

The meaning of all this is that for celerity of curing and retention of all the best elements in the hay, clover should not be exposed to the direct heat of the sun, but as soon as it is wilted, put it up in small and not too compact bunches, and let a free circulation of air carry off the moisture exhaled by the leaves.

If one could be assured of good hay weather all the time, these bunches or hay cocks might be left without further attention, for three or four days, then open up to the air for a few hours, when the hay would be well cured and fit for the mow.

Unfortunately, good hay weather can not be expected all the time, and hence hay caps are coming more and more into use as they demonstrate their value. A square of cheap cotton cloth, with a small stone attached to each corner to hold it in place when thrown over the top of a hay cock, is a sure protection against damage by rain. This cap need not necessarily be more than a yard square, but for some purposes forty inches square would be better. Two hundred of these hay caps, costing \$12 to \$15, may be the means of saving several tons of hay in a single season, not to mention the saving many hours of labor in opening up and re-assembling the bunches after every shower.

In brief, these directions are: Cut early, but not when grass is wet with dew or rain; wilt but slightly, and then assemble in small bunches where about nine-tenths of the curing is to be done; cover with hay caps to protect from rain and dew; at any convenient time, after two to four days, open up the bunches lightly so that they may be thoroughly aired, and in good drying weather, after two or three hours, hay will be ready for hauling.—Hoard's Dairyman.

The Beef Steer's Sister.

A dairy division of the Agricultural Department is the next thing in the development of the dairy industry in the State. Kansas now ranks lower than any State in the Union in her dairy and pure-food laws.

The Kansas cow is good for three square meals a day for the next eighteen months even if it doesn't rain another drop. Forage, roughness, hay, and all kinds of fodder is plentiful and will be for some time and no matter what becomes of the wheat and corn crop, the old cow will be giving down her milk just as though nothing had happened.

The thing most needed in Kansas is a closer organization of the dairy farmers. Every other industry in the State has a close organization, but the farmers are as yet in the infancy of their work in that direction.

The milk flow is now at flood tide. It has gone higher this year than ever before in the history of the State, and good prophets say will stay high longer than it ever did. About 12,000 gallons per minute are flowing now into the udders of the cows of Kansas, to be extracted at milking time by an army of dairymen and maidens.

Kansas is averaging 6,000 gallons of milk per minute for every day in the year, enough to make a river fifty feet wide and two feet deep, flowing at the rate of a foot per second. This milk makes about fifty million pounds of butter, worth twelve million dollars. Within the next ten years this will be doubled, perhaps trebled. Kansas is capable of producing 300,000,000 pounds of butter a year.

The prize dairy county of Kansas is Dickinson. One company in that county turned out 525,000 pounds of butter for the year ending March 1. This was scant half of what was made by creameries in the county and does not take into consideration that which was made by farmers in the old way! Almost as

A PENNY SAVED

is a penny made. Every ounce of butter-fat saved by a De Laval Separator is pure profit. Get one and put it to work for you.

DE LAVAL SEPARATORS

Save Time. • Save Labor.

Save Butter-fat.

Save Money. Save Backaches.

Saves Heartaches.

CONTINENTAL MILK CHECKS

Pay Taxes. Settle Debts.

Lift Mortgages Buy Groceries

These two agencies are the greatest trouble-removers of the age. Write us or see our operators. They will show you the way to get either or both. It is easy.

THE CONTINENTAL CREAMERY CO.
Topeka, Kansas.



much cheese was made in this county besides. It is the most profitable industry in the county, all things considered.

Grain Markets.

Conducted by James Butler, Secretary of the Farmers' Co-operative Grain and Live Stock Association.

"The human race is divided into two classes,—those who go ahead and do something, and those who sit still and say, why wasn't it done the other way."—Oliver W. Holmes.

Nebraska Farmers Organizing.

We attended the farmers' institute at Benedict Saturday. Those who laughed at the tillers of the soil and their proposition to build an elevator are not laughing now. The best and ablest men in four townships were there and came for business.

J. M. Senter, the State organizer of Kansas, was present and talked to the intelligent men who had assembled in the opera house. The argument was of the convincing and satisfying sort. He said nothing unkind about any one or any business. Made a little fun at the expense of the grain men, but not in offensive spirit or words.

The farmers heard the speech, asked a string of questions, and every question was answered in such an earnest and plain old-style way that the organizer reached the judgment as well as the sentiment part of the farmer. Mr. Senter is an able man and is in the right kind of business for all concerned. The history of the fight in Kansas was intensely interesting.

The grain trust kept the farmers from getting an elevator at first. The farmers built one off the right of way and put up a 40-foot spout and carried the grain to the cars in that way. *** Then the Grain Trust fixed it so no one would handle the grain in Kansas City. The commission houses let the grain stand on the track and be sold for freight and demurrage.

The farmers organized commission houses in Kansas City and now handle not only their own grain but all that is consigned to the Farmers' Commission Company. They have saved from 3 to 8 cents a bushel on every bushel and are ready for another battle. We can not give you all the speech but want to tell you that if you ever get a chance you want to hear J. M. Senter on trusts.

It will not only please you, but pay you. When he quit talking some one made a motion for an organization at Benedict. The motion carried and temporary officers were elected. D. W. Baker, president; Ralph Shiley, secretary; and W. C. Conkle, treasurer. In a few moments \$1,460 was subscribed, since which the secretary writes us, they have \$6,000 promised. Those men mean business and they have the money to put up.—Teller, York, Neb.

Victory for the Farmers.

Under the above heading the Central Farmer of Omaha, Neb., comments on the press dispatch sent out from here regarding the Smiley case decided by the Supreme Court, as follows:

Readers of the Central Farmer will be more than usually interested in this short dispatch. They have been watching the farmers' cooperative grain movement and its bitter fight with the grain trust. The trust received unlawful rebates on freights from railways; it induced the Kansas City Board of Trade to boycott the farmer shippers; it secured false weights on farmers' shipments and in many ways sought to deprive farmers, singly or collectively, of the power to market their own grain except through the trust that was skinning them to the tune of five cents margin on every bushel of wheat placed on the market.

Mr. Butler, for the Farmers' Co-operative Grain and Live-Stock Association, went into the courts to break up the unlawful grain trust that was operating in restraint of trade. The Secretary of the trust, E. J. Smiley, was indicted, tried and convicted and given a jail sentence. The judge, however, suspended the sentence pending an appeal to the Supreme Court, which has just handed down an opinion sustaining the law. It is a great victory for Mr. Butler and the cooperative association.

This is the organization that is coming to the aid of the Nebraska wheat-growers. Mr. Butler's experience is very valuable and Nebraskans may have his assistance if they will show a disposition to wake up and take an interest in their own affairs. By the way,

is this not a good time to push a call for a meeting of Nebraska wheat-growers?

Nebraska Will Join Farmers' Central Cooperation Association.

Last week we published an account of the organization in York County of a grain-shipping association, and this week a letter from Kansas headquarters says the prospect is good for six or seven more, similar organizations in York County. But why stop at York? Why not the whole wheat-belt arrange for a State meeting to plan for organizing the State? And why would not York be a good place for such a meeting?

It is central and has three railroads. There are many good points for such a meeting and this is only a suggestion. We would like to hear from farmers in all parts of the wheat-belt. Other parts of the State will fall in line when the wheat counties start the ball rolling. Do not wait. Send in your suggestions for time and place for holding a State meeting.

We are assured that Mr. J. M. Senter, the Kansas organizer, and James Butler, the secretary of the Kansas organization, would both attend and do all in their power to explain how Kansas worked out the difficulties, and this information would render organization in this State much easier than in Kansas, where they had to go with little to guide them.

Send your suggestions here, or send them to James Butler, Topeka, Kans., but Nebraska should begin to move in this matter and save for herself the money that Kansas farmers are now saving for themselves.—Central Farmer, Omaha, Neb.

The trust members are not nearly so much to blame as farmers who patronize them.

The Stafford County Grain Company has subscribed for ten shares of stock in the Central Association. The intelligent farmers around St. John realize and appreciate the benefit of the Central Association.

Don't forget that on each one thousand bushels of wheat you sell to a trust member you have contributed at least twenty dollars to assist the trust in defeating the farmers' shipping association. Then they will be able to fix the price they will pay you for grain as they have done in the past.

If you patronize the grain trust and aid them in defeating the farmers' shipping association, you are worse than they are. While there is no law to punish or restrain you for your acts, you are beyond question a fit subject for an idiotic asylum and the probate judge should look after you and at least appoint a guardian for you.

THE MARKETS.

Kansas City Live Stock Market.

Kansas City, Mo., June 16, 1902. Last week's cattle and sheep markets thoroughly demonstrated what a bearish effect an early run of grass stock will have upon prices. Receipts of cattle for the week were 26,800 head, a number which included a very small proportion of fat steers. The general quality of all offerings could be termed the commonest of the season. A total of 8,481 cattle and 2,325 calves were received in the quarantine division. Receipts of grass cattle from above the quarantine line were also liberal, making a heavy percentage of half-fat stock among the week's arrivals. The very choice beef steers sold well all week, bringing as high as \$7.65, the top notch of the year. A. N. Nelson, of Mound Valley, Kans., marketed the bunch at that price. Medium beefs and grass stock of all sorts that was good enough to go to the slaughtering houses, sold sharply lower. A general decline of 25c@75c would not be an excessive figure. Cow and bull stock broke 25c@50c during the six day period, and calves sold at the low point of the spring. Stock calves early assumed a summer basis. Stockers and feeders declined 50c@75c. Grass continues good throughout the country, but operators claim harvesting has taken farmers' attention away from cattle-buying. Top feeders sold for \$5.50, but shippers should not figure on receiving much over \$5 for their best offerings during the present week. Plenty of good boned, but not fleshy steers sold from \$3.50@4.

Hog receipts continued on the same plane as the previous week and were below the demands of local killers, who bought several thousand hogs at Omaha, St. Joe and Sioux City and shipped them to Kansas City. Packers claim they can get hogs so much cheaper on those markets that they can afford to ship their stock alive rather than kill it where it was bought. Hogs sold up to \$7.65 during the week, thus breaking another record for the season. Satisfactory markets were had all week, on account of a better feeling all over the country and the small local receipts. Compared with our previous report, the hog market closed 10c@20c higher. Compared with a year ago they are at present \$1@1.50 higher. Traders claim July will see \$3 swine, but there are plenty who take the other view.

Sheep broke sharply during the week. Receipts were liberal at 21,800 head. The runs of native stock in the East were liberal and this in conjunction with the good



A RECORD BREAKER.

The long list of new patrons that were influenced by the experience of their neighbors to ship us their cream in May, and the sudden change of hundreds to this market since pay day in June, all testify to the merits of our system and is farther proof that these cuts represent the keys that unlock the safe containing ALL the money that is to be had in the dairy business.

They are the Corner Stones of a modern, live, wide-awake, up-to-date 20th Century Creamery Business

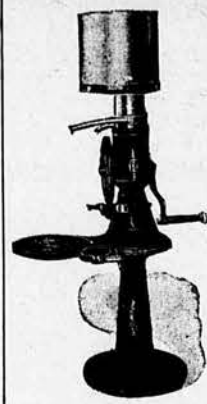


They are the gateway to the Dairyman's Klondike which he has been seeking for forty years as he wandered through the gathered cream and skimming-station wilderness. They remove difficulties and make dairying profitable. This is the business. This is the year. This is the plan, and we have the market. Remember,

We Want Your Cream

Write to us immediately. We are "The Pioneers" of the plan that increased the revenue of the Kansas and Missouri Dairyman one-quarter Million Dollars in one Month.

BLUE VALLEY CREAMERY CO.,
ST. JOSEPH, MISSOURI.



supply of Texans upon the local market caused prices to fall off here. Native ewes sold at \$4.25@4.75, against \$4.75@5.25 a week ago. Bucks broke fully 50c, making the decline from the high point of the season \$1.25@2. Good bucks sold at \$2.25@2.75 during the week. Lambs declined 10c@15c. Shippers should not figure on lambs going above \$7 during the coming week, if they reach that mark.

Horses and mules sold on a summer basis. Receipts were the second lightest of the year and included but few choice animals. The inferior quality of the offerings was not conducive to any show of strength. A sale of rangers was held on Wednesday. They brought from \$9.85@24.50. Similar auctions of Western horses will be held every Wednesday.

Eggs were in good demand all week at steady prices. Canned eggs are quoted at last week's figures, 14c per dozen. Chickens weakened in some cases. Broilers under one pound in weight were slow sale. Quotations: Broilers 18c; hens 9c; young roosters 20c, old 17c each; ducks 7c, young ducks 12c (lower); turkey hens 10c; geese 4c. POWELL.

Last Week's Grain Market Review.

Topeka, Kans., June 16, 1902. An apathetic feeling continues to prevail in all speculative wheat markets, with every effort on the part of manipulators to keep prices down. In this they are strongly supported by the good crop prospects alleged to exist abroad, together with the inflated reports of good crop conditions existing at home. Through real estate and railroad interests the papers are filled with crying demands for harvesters to save the great crops. To such an extent are the bears working the magnificent crop racket, that in their zeal to hammer prices down, they do not hesitate to engage in the most unreasonable commercial transactions. For instance: The first car of new wheat arrived in Chicago early this month from Clifton, Texas. It was bought from Kell & Gebie, Clifton, Texas, for 85c per bushel, shipped to Chicago and sold at 78c per bushel, making a clean loss of 6c per bushel, besides probably 12c to 15c per bushel for freight. But it had its effect: It proved that wheat was moving, not only from the drought stricken territory, but moving early, with every expectation of large shipments in the immediate future, and the markets quickly slid off almost 1c per bushel. Of course the bears made tremendous gains on millions of bushels on their deferred options by this transaction. Yet, the fact remains, that in every market in America the demand for the actual cash wheat is such that it sells several cents per bushel above the September options.

In Minneapolis the premium at one time last week was 6c per bushel, 3c in Duluth, 4c@5c in Chicago, 2c in New York, and several cents in both St. Louis and Kansas City winter wheat markets. The first car of new winter wheat, "No. 2 Red," arrived to-day in Kansas City and sold for 75c per bushel, while the September price for the same kind of wheat is only 69c in St. Louis. Nor does the late Government crop report warrant such a discount in the deferred options. The Government report in acres for 1901 was 49,895,000. For 1902 Government report is: Spring wheat acreage, 16,950,000, winter wheat acreage 27,193,000, total 44,053,000; deficiency 5,842,000. The deficiency is nearly 12 per cent. When it is considered that the late report on condition made the winter wheat crop only 76.01 per cent, it must become manifest that we will raise at least 100,000,000 bushels less in 1902 than we did in 1901, notwithstanding the almost perfect condition of the growing spring wheat at this time. The visible supply decreased over 2,500,000 last week and at the present rate of decrease will be pretty low by the time the movement of spring wheat begins, especially so, if exports keep up at the present rate. Under these circumstances it seems to the writer that the low prices ruling for September wheat are not warranted by existing conditions, unless as the bears and short sellers claim, there will be a tre-

mendous movement of winter wheat early in the season, in which let us hope they will be fooled.

Corn is ruled largely by speculation, the crop prospects are as good as they can be but the visible supply is very small and consequently it may be expected that the price of corn will be kept up for some time to come, for while the demand has largely fallen off, it is still quite large when the visible supply is considered. Oats continues easy largely on account of the expected large yield which will probably be crowded onto the market early.

To-day's markets closed as follows:
Chicago.—No. 2 red wheat, 79c@80c; No. 2 hard winter wheat, 75c@76c; September option 70c; No. 2 corn 64c; September 58c; No. 2 oats, 42c; September 23c.
Kansas City.—No. 2 red wheat 72c@73c; No. 2 hard wheat 69c@70c; September 68c; No. 2 corn 52c@60c; September 31c.
Topeka.—No. 2 hard wheat, 69c.
F. W. FRASIER.

Elgin Butter Market.

Elgin, Ill., June 17, 1902. The quotations committee announces butter 21c.

The Country Woman and the Life Beautiful.

LOUIS E. VAN NORMAN, IN HOME AND FLOWERS.

Betterment of any kind, like charity, begins at home. The life of the individual will follow the trend of its home training almost as inevitably as water seeks its level. No nation can rise higher than its homes, no race of good, strong, clean men can come from weak, unworthy mothers. Without the mother there is no home at all. It is the mother and the home which determine the character of a people. It is with the mother and the home, therefore, that every consideration of character must begin.

Prof. L. H. Bailey, of the department of horticulture at Cornell University, and editor of the Cyclopaedia of American Horticulture, touches the vital point when he says: "I feel that we have placed so much stress on mere matters of information in our agricultural teaching during the past few years, that we have been in danger of forgetting the importance of the spiritual, moral and artistic sides of the farmer's life. I believe that what we need to do just now is to give the farmer a touch of enthusiasm and of spiritual interest in his work."

How can this refining and spiritualizing influence be exerted? By education, yes. By nature study in the schools, yes. Something should certainly be done through the medium of the rural schools to help the children of the rural districts to see and become interested in the possibilities of the beautiful life all about them. But, above all, it can be done by arousing the mothers, wives and daughters of the farms to a sense of the beauty and opportunity of life, and of their own power over their "men folk." True, while the father grumbles the son will follow his lead. But the mother can influence the father to better things before the son is old

enough to follow any one but her own gentle self.

The plan of the Secretary of Agriculture for creating nobler farmers' homes, provides for courses in practical home-keeping and all the kindred sciences and arts, to be given the young girls on the farm—in sanitation, cooking, and "The rational practice of all the arts of home." The farmer's daughter may perhaps scorn the suggestion that she should regard her life work as that of being some one's good wife, and prepare for that future. But, as being some one's good wife is the happy lot or dismal fate (whichever way she may look at it) of most women, is it not better to be prepared for such lot or fate? Most agricultural colleges and many universities indeed already offer some instruction in these "rational arts of home." Let the gentlemen already quoted speak on this phase of the question.

"The whole matter would be settled," declares G. W. Flint, former president of Storrs Agricultural College, "if the woman on the farm could be taught to idealize the work she elects to perform when she begins her home." Superintendent C. D. Smith, of the Michigan Farmers' Institute, believes that the education of the wives of the farmers, "in the matters of sanitation, domestic science and domestic art, is going to do a large share in helping the rural communities to a better status." The University of Minnesota in its school of agriculture is now training young women in all the arts of home, and President Northrop declares that, already, homes have been brightened by this influence. The pressing needs, he says, are "better homes, made attractive within, presided over by mothers who know how to make home pleasant and comfortable, more books and more social life." Professor Roberts, of Cornell University, believes that, "if, in the future, the farmer's wife be well trained in cooking and sanitation, both of which tend toward health and vigor, and the rational practice of home arts, the flowers will appear as a result, and the gratification of the desire for something that is more pleasant and more elevating than the ordinary necessary routine of daily life, will follow as naturally as growth and joy follow in the pathway of the life-giving sun."

"Cooking and sanitation on the farm are in a lamentable condition," declares Prof. Andrew M. Soule, of the Tennessee Agricultural Experiment Station, and, "were it not for the abundance of good, pure air, people could not live without paying more attention to these sciences than they now do. Educate the farmers' wives," he continues, "by providing means of practical training in the sciences and arts of home-making, and the conditions of country life will improve a hundredfold in the next few years." "Correct household economics," says Prof. John Craig, of Cornell University, "will undoubtedly do a vast deal to improve the condition of the rural home." He congratulates the American League for Civic Improvement on "the important progress it is making in the crusade for the betterment of civic and moral homes," and continues: "The home should be the center of the universe. Often the farm home, which has great natural advantages, is the place from which the children flee. Attention to principles of sanitation and a knowledge of the laws of domestic science, coupled with the good cheer without which home is only such in name, will do wonders in building up a vigorous, large-hearted American manhood." If the women were relieved from much of the drudgery they are now forced to perform, Gen. C. H. Howard, the editor of Farm, Field and Fireside, believes a vast improvement would be noted at once.

"Yes, indeed," says Prof. J. H. Worst, of the North Dakota Agricultural College, "the beginning must be at the fountain, at the home. From the home must emanate not only cleanliness of body, but also of mind, not only physical, but moral sanitation, and food for the body and for the mind adapted to scientific and practical ends." The farmer must become impressed with the dignity and importance of his calling. He owes the world more than to grind his face for the world's well being. The world is a heavy debtor to him, but he does not realize it. The earth is his, but he does not know it, or does not seem to care. I should think, therefore, that the proper place to begin this reform is with the cook and the mother. Heredity must be placed behind it." "Teach the practical arts, but do not forget to provide culture training also, and to inculcate a love

for the beautiful. The 'practical' training referred to above will not generally do that." This is the opinion of acting President F. Yale Adams, of the University of Arizona.

The future of the nation is in the hands of the men who till the soil. The character of these men is in the hands of their mothers and wives. This is laying a grave responsibility on the women of the farm; but the statement is a true one.

What do the women of the country home, of the farmstead, of the small village or suburb, need to help them in their great work of refining and spiritualizing their "men folk," and through these men folk, the nation at large? The wise masculine opinion has been delivered. What have the women themselves to say? Thousands of women, mothers, wives, sisters, daughters, in country homes all over the land, read these lines. What do they think they most need now to help them appreciate the beauty and dignity of their lives, and influence the men of their households to a higher, finer living? How can they make the most of what they have within reach?

Of course most women in the country need more money, but that is not a subject under discussion, not more money or other material possessions. Nor does the home beautiful necessarily mean the home which is much decorated. It means the best ordering of what one has, the best, the most beautiful way of living. How can the woman of the American country home of moderate means live the life beautiful now? How can she best help her husband, father, son, to do so?

[Let the women answer these questions through the KANSAS FARMER.]

Great Success.

Camp Creek, W. Va., March 8, 1902.
Dr. J. B. Kendall Co., Enosburg Falls, Vt. Gentlemen:—Please send me your book entitled "A Treatise on the Horse and his Diseases." I have used your Spavin Cure with great success in many cases of old standing, as well as new. Your Prof. Flint's Condition Powders cannot be equalled for run down horses. Please send the book by return mail, and oblige. Very truly yours, GEORGE W. HELMS.

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. Cash with the order. It will pay. Try it.
SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

SWINE.

FOR SALE CHEAP—Poland-China fall boars, 4 of them show pigs, black with white points. Bred gilts and spring pigs. Popular blood lines; good color. G. W. Harman, Ridge, Woodson Co., Kans.

PEDIGREED POLAND-CHINAS—\$5 each; choice Shorthorns cheap. Send stamp for booklet. M. C. Hemenway, Hope, Kans.

FOR SALE—QUICK—One EXTRA good young Poland-China herd boar and a few very fancy gilts. Excellent breeding. Leon Calhoun, Rural Route No. 1, Potter, Atchison Co., Kans.

CHESTER WHITE BOAR—For sale, 20-months boar by Eclipse. Sure breeder and guaranteed to be all right. Call at Seabrook, or address Robert Stone, 501 Jackson Street, Topeka, Kans.

HORSES AND MULES.

FOR SALE—Big, black jack, mealy nose, 4 years old, very cheap; reasons for selling—have sold my farm. G. A. Stites, Burns, Kans.

FOR SALE—Shetland ponies. Address J. T. Marshall, Concordia, Kans.

FOR SALE—3-year-old Percheron Stallion, Favorite, dark bay, blocky, and heavy boned, will make a heavy horse; has proved sure; price \$400. Reason for selling, going to Oregon. G. W. Southwick, Riley, Riley Co., Kans.

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

SEEDS AND PLANTS.

FOR ALFALFA, wheat, corn land, and ranches write Charvoz & Co., Emporia, Kans.

CANE-SEED—KAFFIR-CORN—Choice white Kaffir, choice cane-seed. All home-grown, thoroughly tested and warranted to grow; \$2 per 100 lbs., sacked in jute sacks f. o. b. Kremlin, O. T. M. T. Williams & Co.

WANTED—If you wish to buy or sell corn, oats, hay, cane seed, Kaffir-corn, corn chop, or anything in the feed line, correspond with us. Western Grain & Storage Co., Wichita, Kans.

PATENTS.

UNITED STATES PATENTS
AND FOREIGN
F. M. COMSTOCK & CO.,
Office, 529 Kansas Avenue, Topeka, Kans.

J. A. ROSEN, Patent Attorney,
418 Kansas Avenue, Topeka, Kansas.

CATTLE.

FOR SALE—28 head of young cattle. A. Vining, Narka, Kans.

FOR EXCHANGE—Twelve head of thoroughbred Shorthorn cows and heifers, all dark red; will furnish pedigree with each animal. Want to trade for dairy cows and young cattle. John G. Howard, Morgan, Chase Co., Kans.

FOR SALE—Ten registered Hereford bulls, \$100 each; sired by imported Southington, I ord Pretty Face, Young Kansas Lad, Leaurate; 1 to 2 years old. Don't write, come and see. Two miles south and twelve west of Hutchinson, Kans. D. W. Hart, R. R. D., Hutchinson, Kans.

RED POLL BULLS FOR SALE—From 7 to 11 months old. D. F. Van Buskirk, Blue Mound, Kans.

D. P. NORTON, Dunlap, Kansas, has a few young bulls, by British Lion, fit for service the coming season.

FIVE HEREFORD BULLS FOR SALE—Never used in a herd, they are in fine fix, at a bargain for cow men. O. L. Thistler, Chapman, Kans.

FOR SALE—Six good Shorthorn bulls, four of them straight Cruickshanks; prices reasonable; now is your chance to get a good individual. H. W. McAfee, Topeka, Kans.

SHORTHORN CATTLE SALE—I will offer at public sale, 1 1/2 miles south of Marysville, at 2 o'clock p. m., on Tuesday, October 15, 17 registered Shorthorns, 19 high grade Shorthorns, and 3 thoroughbred Jerseys. Lewis Scott, Marysville, Kans.

FARMS AND RANCHES.

FREE 200 printed farm and ranch descriptions in 15 counties, 55 m. from K. C. Prices, maps, statistical book. Write G. Wingers, Ottawa, Kans.

FARM FOR SALE OR EXCHANGE—I have a large farm in eastern Kansas. I would like to exchange for a smaller one, or land that would do for a sheep ranch. For further particulars inquire of John Morrison, Drexell, Mo.

160 Acres, 7-room house, timber, bottom land, well located. Buckeye Agency, Agrícola, Kans.

SOME BARGAINS in farms and ranches. Correspondence solicited. J. M. Patten and Co., Dighton, Kans.

MISCELLANEOUS.

FOR SALE—Hacks, carriages, and entire livery stock of A. J. Huntoon. See or write T. E. Pounds, Topeka, Kansas.

SCOTCH COLLIES—A few fine pups ready to ship from Sunflower Collie kennels; male, \$6; female, \$4. A. P. Chace, Route 1, North Topeka, Kans.

FOR SALE—Five hundred Angoras with registered bucks. Three hundred-acre ranch, excellent water and climate; price \$2,000. Write for particulars. L. H. Hall, East Las Vegas, New Mexico.

GAS-RELEASING BIT—Write to Wilbern Bush 711 North Market Street, Wichita, Kans., and ask for his circulars showing his great invention for preventing bloat in dairy cattle and other stock. Every farmer would save money by using this bit.

WANTED—Pasture for cattle, or will lease a good pasture. E. W. Melville, Eudora, Kans.

COLLIE PUPPIES for sale, 3 1/2 months old, unexcelled in breeding, and individual qualities, \$6 and \$4. Address J. W. Babbitt, Hiawatha, Kans.

FOR SALE CHEAP—Pedigreed Scotch Collie pups. W. H. Richards, V. S., Emporia, Kans.

WOOL WANTED—Will pay highest market price for wool. Sacks for sale. Topeka Woolen Mill Co., Oakland, Kans.

THE BEST CUP OF COFFEE and plenty of good things to eat. Farmers' trade a specialty. Come and get something good. The Two Minute Restaurant, 532 Kansas Ave., Topeka, Kans.

FOR SALE—Feed mills and scales. We have 2 No. 1 Blue Valley mills, one 600-pound platform scale, one family scale, and 15 Clover Leaf house scales, which we wish to close out cheap. Call on P. W. Griggs & Co., 208 West Sixth Street, Topeka, Kans.

WOOL WANTED—We have just completed our New Woolen Mill in North Topeka and want at once 200,000 pounds of wool for which we will pay the market price. Write us if you have wool for sale. Western Woolen Mill Co., North Topeka, Kans.

When writing advertisers please mention this paper.

The Stray List.

Week Ending June 5.

Neosho County—B. W. Garvin, Clerk.

PONY—Taken up by J. R. Pierce, in Mission tp., 4 miles southwest of St. Paul, May 1, 1902, one sorrel mare pony, white spot in forehead, hind feet white, branded "E" on left shoulder; valued at \$25.

Butler County—H. A. J. Coppins, Clerk.

MARE—Taken up by M. M. Fresh, in Fairview tp. (P. O. Potwin), one dark bay mare, both hind feet white, branded on left hip, about 3 years old, weight about 700 pounds.

Montgomery County—D. S. James, Clerk.

HORSE—Taken up by M. H. Ross, in Caney tp. (P. O. Havana), May 11, 1902, one black horse, 9 years old.

Week Ending June 12.

Wallace County—O. N. Thorene, Clerk.

STALLION—Taken up by W. H. Seaverns, in Harrison tp., May 5, 1902, one bay stallion, about 3 years old; valued at \$25.

Smith County—Jno. A. Crabb, Clerk.

COW—Taken up by Charles Barrett, in Pawnee tp., May 6, 1902, one roan cow, medium size, point cut off of left ear; valued at \$25.

Elk County—G. J. Sharp, Clerk.

STEERS—Taken up by A. D. Mahoney, in Painterhood tp. (P. O. Busby), May 6, 1902, three red steers, 3 years old, underbit in each ear; total value \$75. Also one red steer, 3 years old, underbit in each ear, also each ear split; valued at \$25.

Shawnee County—J. M. Wright, Clerk.

HEIFER—Taken up by Vital de Donder, in Ross-ville tp. (P. O. Rossville), April 8, 1902, one red yearling heifer; valued at \$15.

Week Ending June 19.

Rush County—W. J. Hays, Clerk.

MARE—Taken up by C. H. Adams, in S. E. 1/4 of Sec. 1, T. 16, R. 16 W. (P. O. Fingal), April 22, 1902, one bay mare, 4 years old, with white strip in forehead, one white hind foot, Roman nose, black mane and tail; valued at \$30.

Allen County—C. A. Fronk, Clerk.

MULE—Taken up by L. H. Garrell in the city of La Harpe, Allen County, one bay horse mule, 2 or 3 years old, branded on left shoulder with letter "T"; valued at \$55.

PONY MARE—Taken up by W. L. Moon, 3 miles west of Humboldt, in Humboldt tp., May 13, 1902, one bay pony mare, about 8 years old, branded WB upside down on left hip, and R on left shoulder; valued at \$12.

Stafford County—J. B. Kay, Clerk.

CALVES—Taken up by Bertus Ukens, in Hudson May 21, 1902, three heifer calves, one black, 4 months old, valued at \$7.50; one black, 4 months old, valued at \$7.50; one black and white, 2 months old, valued at \$5.

Pawnee County—James F. Whitney, Clerk.

CALF—Taken up by Geo. A. Lemert, in Logan tp., May 4, 1902, one red steer calf, 6 months old; valued at \$15.

HAVE YOU SEEN THE
**Jack
of All
Trades?**

PUMPS
WATER—
SHELLS
CORN—
GRINDS
FEED—
CHURNS
BUTTER—

—and hundreds of other jobs with the strength of 15 men. Most Convenient and useful power ever invented. Costs only TWO cents per hour to run. Especially adapted to farm work.

IT IS A NEW ENGINE MADE BY

**Fairbanks
Morse &
Company**

Kansas City
St. Paul
Minneapolis
Omaha
Denver
Salt Lake City
San Francisco
Los Angeles
Portland, Ore.

**ECONOMY PITILESS
WAGON
SCALES**

STEEL JOISTS METAL FRAME
SCALE COMPLETE EXCEPT THE SEAL
PLANK FOR FLOORING
McDONALD BROS. PLEASANT HILL MO

COOL COLORADO
THE PLACE TO GO.

Think of a round-trip rate of only

\$15.00

To Denver, Colorado Springs (Manitou), and Pueblo.

On certain days in June, July, August, and September, via the

**Great
Rock Island
Route**

Write for books entitled

"CAMPING IN COLORADO,"
"FISHING IN COLORADO,"

—AND—

"UNDER THE TURQUOISE SKY."

The Camping book tells how, where, and at what cost parties of two, four, and six can enjoy an inexpensive vacation in that delightful climate.

E. W. THOMPSON, A. G. P. A., Topeka, Kans.

JNO. SEBASTIAN, G. P. A., Chicago.

STEM-WIND WATCH, CHAIN AND CHARM

You can get a Stem-Wind, Nickel-Plated Watch, warranted, also a Chain and Charm for selling 19 packages of Blaine at 10c each. Send name and address at once and we will forward you the Blaine and our large Premium List, postpaid. No money required. BLUINE MFG. CO. Box 125, Concord Junction, Mass.

20 Shorthorn Bulls For Sale.

Three of them, 3 years old, balance 10 to 20 months, in good, serviceable condition, by Cruickshank and Scotch-topped sires. This is the best and evenest lot of bulls we ever raised. Prices moderate. A. B. & F. A. HEATH, Republican, Neb.

Grange Department.

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

Conducted by E. W. Westgate, Master Kansas State Grange, Manhattan, Kans., to whom all correspondence for this department should be addressed. News from Kansas Granges is especially solicited.

NATIONAL GRANGE.

Master..... Aaron Jones, South Bend, Ind.
Lecturer..... N. J. Bachelder, Concord, N. H.
Secretary..... John Trimble, 514 F St., Washington, D. C.

KANSAS STATE GRANGE.

Master..... E. W. Westgate, Manhattan.
Lecturer..... A. P. Beardon, McLouth.
Secretary..... Geo. Black, Olathe.

Shall the Will of the People be Enacted into Law and Shall the Laws be Enforced?

Attorney-General P. C. Knox has brought suit against the beef trust and to prevent the merging of the Great Northern and the Northern Pacific railways and their control by the Northern Security Company. The common people of the United States hail this action of the Attorney-General with delight, and will watch with great interest the progress and result of these suits. We are pleased that the President of the United States approves and is behind these suits. The people are with the Attorney-General and the President in this matter. The United States is a grand nation, able and willing to defend our flag and people from injury or insult and protect the property rights of the humblest citizen of the United States against the encroachments of any nation on earth. The constitution of the United States gives to Congress the power to pass laws, if it has not already done so, to protect the personal and property rights of its citizens against infringement by any combination of capital that may be formed. The surprise of the people is that no attempt has been made sooner to enforce the Sherman anti-trust law.

We are also surprised that the beef trust and the merging of the Northern Pacific and the Great Northern railways should be the only trusts that suits are brought against. We can not understand why the steel trust, that has dominated and controlled the price of steel and divided millions of dollars in dividends on a fictitious valuation, and the coal trust which for years has from month to month dictated the price of coal. The sugar trust which has fixed the price of sugar. The oil trust that has divided millions of dollars on watered stock; and has been permitted to make contracts with railways for rebates on freight that has practically crushed all opposition and driven competitors into bankruptcy.

The people would be glad to see the Attorney-General bring suit against these and all other trusts. The Patrons of Husbandry have for years urged the enactment and enforcement of such law or laws as will protect the property of all American citizens from all forms of robbery whether under the forms of law or otherwise, and we are now pleased that public sentiment is thoroughly aroused to the importance of the matter; and that the Attorney-General and President of the United States have the courage and honesty to undertake to enforce the law, and we hope the entire power of the Government will be exerted to compel every trust and monopoly to obey the law.

If these suits, and others are brought where needed, and prosecuted to a successful termination, until all the people enjoy perfect liberty and equal privileges in the prosecution of their business and in the acquirement of property and the enjoyment of its benefits, the Attorney-General and the President of the United States will perform a service to the people and country that will endure them for all time in the hearts of the American people.

The time has come for decisive action and that all men who seek power by trying to be elected to Congress, to State Legislatures, to executives of States and the Nation, should clearly define their position on these great questions. The people have a right to know whether they will exert the power delegated to them to give trusts further lease to continue their methods, or whether they will stand for the common people. Words alone will not do, promises must be followed by action.

There is now pending in Congress a bill (the Nelson Bill No. 3,575), that expressly provides that no unjust charges shall be made by common carriers, and that no discrimination be made to individuals, localities, or commodities. Members of Congress have an opportunity in a decisive way to say how they stand on compelling all transportation companies to deal justly with the people, and give to all equitable and equal rates and privileges.

The Senate has passed a ship subsidy bill. The bill is now before the committee in the lower house of Congress. This bill appropriates large sums of money to ship owners, and is framed in their interest, and in the interest of some of the railway systems of the United States. In the light of the organization of the Atlantic steamship trust it would seem unnecessary to fear the passage of this bill, but nothing should be taken for granted. I am of the opinion that every candidate for Congress should be required to define how he will stand and vote on these measures before the people cast their ballot for them. When the people delegate their authority to members of Congress, they have a right to know how that authority will be exerted. Fraternally,
AARON JONES,
Master National Grange.

There is every reason why the grange should cooperate to save and make money for its members. Material prosperity is important as a basis for mental, social, and spiritual prosperity. It is our duty to enable Patrons to buy as cheaply as they can and to sell at the best going prices. Hence cooperative trade contracts, insurance companies, both fire and life, cooperative selling—anything and everything of this character—is not only proper, but wise. The grange ought to enable its members to be more prosperous farmers, to raise bigger crops at less cost than before, to do away with middlemen whenever that may be practicable.

We say that all this the grange is bound to do. And yet let no Patron forget for a moment that to enable the farmers to make or save money is not the final object of the grange. The grange believes that honesty and brains will finally win the day. So the grange tries to cultivate the moral and intellectual parts of man's nature. The grange believes that the farmer's position in American society depends entirely upon himself, that if he wants to take his place beside other men he must be worthy; that, in other words, the education of the farmer is the greatest farm problem.

Now, this education comes in many ways. Some of it comes in school—and the grange would have the farmers' children given the best of chances in school; some of it comes in practical business life—and the grange would have its members successful, practical men and women; some of it comes in politics—and the grange urges its members to take an active part in public affairs; some of it comes from discussion—and the grange provides the lecture hour for such discussion; some of it comes from the power of organization—and the grange is trying to teach the farmers how to organize and how to conduct organized bodies of men; some of it comes through social life—and the grange tries to break up isolation by compelling and attracting men and women to a healthful, happy social life; some of it comes from moral cultivation—and the grange continually emphasizes man's dependence on God and man's duty toward God; some of it comes from helping others—and the grange tries to help those of its own members who are in need, in sorrow, or in trial, and also to help others, farmers and not farmers, who can be helped by what the grange can offer.

But permeating all these efforts, influencing all grange works, molding all true grange deeds, is this fundamental idea of education. It is through all and in all. Yes, education, and not the dollar sign, is the true grange password.—Grange Department of Michigan Farmer.

"Under the Turquoise Sky."

This most fascinating, clear and interesting description of Colorado will be sent free by E. W. Thompson, A. G. P. A. Great Rock Island Route, Topeka, Kans. Also "Camping in Colorado" free, if you want it. Gives full details for the inexperienced. Information about Colorado hotels and boarding houses gladly furnished. It will be worth your while to learn the details of the cheap rates to Colorado effective this summer by the Rock Island. A postal to the above address will secure this information and literature.



DISEASES OF MEN ONLY.

The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter. BOOK printed in English, German and Swedish. Explaining Health and Happiness sent sealed in plain envelope for four cents in stamps. All letters answered in plain envelope. Varicocele cured in five days. Call or address

Chicago Medical Institute,
513 Francis St.,
ST. JOSEPH, MISSOURI.

ILBERMAN BROTHERS.

WOOL

ALL

the advantages of long experience, financial standing, superior lofting and storage and intimate and close touch with the great wool markets of the country are secured by the people who consign their wool to us. Liberal advances made on consignments. Sacks free to our patrons.

Remember—Ours is the largest Wool House in the West. Send for a copy of our Wool Circular, which will keep you posted on the conditions of the market.

SILBERMAN BROS.,

122, 124, 126, 128 Michigan St., Chicago.

CASH OR CREDIT.

CATALOGUE FREE.

PRICE \$33.50

It will pay you

to send for our Catalogue No. 6, quoting prices on Buggies, Harness, etc. We sell direct from our Factory to Consumers at Factory Prices. This guaranteed Buggy only \$33.50; Cash or Easy Monthly Payments. We trust honest people located in all parts of the world.

Write for Free Catalogue. MENTION THIS PAPER.

DEPT 54, East St. Louis, Ill.

CENTURY MFG CO.

The Farmers' Mutual Hail Association

OF TOPEKA, KANSAS

Insures all growing crops against damage by Hail. One-half of all premium receipts placed in Reserve Fund to pay losses only. Association is bonded to the state in the sum of \$50,000. All Application and Policy Forms approved by the Insurance Department. County and local agents in every part of Kansas. Call upon them or write home office.

W. F. BAGLEY, Secretary. Columbian Bldg., TOPEKA, KANSAS.

SWEEP RAKE

Three Styles, Two and Three Wheels.

Simplest, Strongest, Best

For Alfalfa and other heavy crops. If your dealer does not handle it, write to

The Smith & Sons Mfg. Co., Kansas City, Mo

The Topeka Business College

READING SCHOOL OF BUSINESS, SHORTHAND, PENMANSHIP & TELEGRAPHY

Large School. Reasonable Rates. Good Positions. Catalogue Free. Address L. H. Strickler, Topeka, Kans

Varicocele!

A safe, painless, permanent cure guaranteed. Twenty-five years' experience. No money accepted until patient is well. Consultation and Valuable Book Free by mail or at office. Write to

DR. C. M. COE,

915 WALNUT STREET, KANSAS CITY, MO...

DR. COE'S SANITARIUM

26th & Wyandotte Street, Kansas City, Mo.

Clark's Cutaway

The only Disk Plow turning a Square Cut Furrow.

Most Efficient, Durable, Light Draft, and Easy-to-buy Plow made.

ALL SIZES

If your dealer does not handle them, write to

J. C. CONLEY, General Agent,
North Water Street, - - WICHITA, KANSAS.

WINTER WATER

When the stock goes into winter quarters you will want to be sure of a reliable and constant supply of water. A bored well is the safest and surest. Our Well Machinery does it best and cheapest. Drills 6 to 1000 ft deep. We make all appliances. Have been the best of 15 years. We also have Gasoline Engines for all purposes. Read for free catalog.

W. M. Thompson Co., Kansas City, Mo.

Successors to Sioux City Engine & Iron Works

LIGHTNING WELL MACHY

IS THE STANDARD

STEAM PUMPS, AIR LIFTS, GASOLINE ENGINES

WRITE FOR CIRCULAR

THE AMERICAN WELL WORKS

AURORA, ILL. - CHICAGO - DALLAS, TEX.

When writing advertisers please mention this paper.

YOU CERTAINLY WILL
—If you order fence from us once you are certain to do it again.
THE ADVANCE FENCE
is sold direct from the factory to the farmer at wholesale prices. You get the best price. Entirely satisfactory. No loose ends. Many heights. Write for free circular and special price.
ADVANCE FENCE CO., 180N St., Peoria, Ill.



MANY A STRIP
of **PAGE FENCE** has outlasted two sets of posts, and is "keeping cattle out" yet.
PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

DUPLIX MACHINE
The only successful field fence maker. Ball Bearing. Automatic, simple, life-lasting.
A Child Can Operate It.
A level headed boy can take it apart and put it together. It makes most perfect **Fence at Cost of Wire.**
Machine sent on Trial. Plain and Barbed Wire at Wholesale Prices. Catalogue Free.
KITSELMAN BROTHERS, D 37 Muncie, Indiana.

GASOLINE ENGINES.
INTERCHANGEABLE SYSTEM.

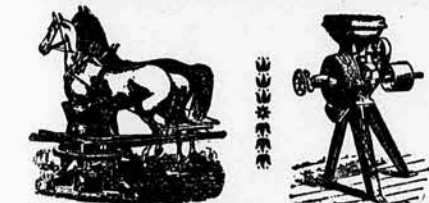
Describe work to be done and we will send specifications of what your power will cost you.
E. S. Shockey, 274 Exchange Bldg. Stock Yards, Kansas City, Mo.

When You Buy the best and avoid trouble.
THE ROSS ENSILAGE MACHINERY
is the best, and if you will send for Catalogue No. 49, we will tell you why. Send 10c for Prof. Woll's Book on Silage. Address,
THE E. W. ROSS CO., Springfield, O.

The BEST Mills, the LOWEST Prices
Gear back and direct stroke windmills, steel towers, steel tanks, un-gear and triple gear feed grinders. Write for our free catalogue.
CURRIE WINDMILL CO., Topeka, Kansas.

The Pump That Pumps
SPRAY PUMPS
Double-acting, Lift, Tank and Spray
MYERS PUMPS
Store Ladders, Etc.
HAYTOOLS
of all kinds. Write for Circulars and Prices.
MYERS STAYON
Flexible Door Hangers with steel roller bearings, easy to push and to pull, cannot be thrown off the track—hence its name—“Stayon.” Has no equal. Thousands sold. Ask your dealer or write us for descriptive circular D.
F. E. MYERS & BRO., Ashland, Ohio.

Special Machine Designers and Builders



THE BLUE VALLEY MFG. CO.,

MANUFACTURERS OF
The B. V. Sweep and Power Feed Mills; The Imp. B. V. Safety Corn Harvesters, Oak Stoves, and Stove Ranges. Structural Iron Work, Window Weights, Cast Thresholds, Chimney Caps, etc.
WRITE TO US. MANHATTAN, KANSAS.

\$8.95
EIGHT DOLLARS AND NINETY-FIVE CENTS
Buy the celebrated, high grade new 1902 Model **BURDICK BICYCLE**. \$10.95 for the celebrated 1902 Kenwood Bicycle. \$12.75 for the celebrated 1902 Elgin King or Elgin Queen Bicycle. \$14.95 for the highest grade 1902 bicycle made, our three-crown nickel joint, Napoleon or Josephine, complete with the very finest equipment, including Morgan & Wright highest grade pneumatic tires, a regular \$50.00 Bicycle.
10 DAYS FREE TRIAL on any bicycle ordered. Offer over heard of, our liberal terms and pay after received offer, write for our 1902 Bicycle Catalogue.
SEARS, ROEBUCK & CO., CHICAGO.

Catalogue Free.
FROM MANUFACTURER DIRECT TO USER
Road Wagons, \$24.25; Top Buggies, \$30.25; Harness, \$4.80; Saddles, \$2.65; Farm Wagons, \$55.00.
We are the largest manufacturers of Vehicles and Harness on the Missouri River. Patronize home industry and write for Catalogue.
THE ERHARDT WAGON MFG. CO., Atchison, Kansas

RUMELY
That is a name that means character and utility. It suggests the best in Threshing Machinery. If investigating, start with the Rumely and you will end at the same place. Get our catalog on the New Rumely Separator and the Rumely Gear Seared Traction Engine. All approved devices and appliances to each, and constitute the one perfect threshing outfit. Catalog shows our engines for all purposes. We send it for the asking. Write to-day.
M. RUMELY CO., La Porte, Ind.

THE LARGEST AND BEST LINE OF WELL DRILLING

MACHINERY in America. We have been making it for 20 years. Do not buy until you see our new illustrated Catalogue No. 41. Send for it. It is FREE.
F. C. AUSTIN MFG. CO., CHICAGO

GALVANIZED WIRE—AT BARGAIN PRICES.
Fifty car loads of new galvanized wire, in short lengths. Never was used. Comes from 6 to 10 gauge. Put up 100 lbs. to a coil and only one size wire to each bundle. Prices range from \$1.40 to \$1.90 per 100 pounds.
Our Free Catalogue No. 61 for the asking. We handle all kinds of supplies from Sherill's and Receiver's Sale.
Chicago House Wrecking Co., West 35th and Iron St., Chicago.

ALLIGATOR BRAND ROOFING
Is tough, durable and easily laid, made of chemically treated strong fibrous material coated with a slaty sand—not a tar paper or any kind of tar production. Waterproof, wind proof, acid proof, protection against fire. Suitable for any kind of building, for roofing or siding. For particulars and low prices write
KANSAS CITY ROOFING AND CORRUGATING CO., 218-220 W. 6th Street, Kansas City, Mo.

Bicycles Below Cost
5000 Bicycles, overstock. For 30 days only we will sacrifice at less than actual cost.
New 1902 Models.
"Bellise," complete \$8.75
"Cossack," Guaranteed High Grade \$9.75
"Siberian," a Beauty \$10.75
"Neudorf," Road Racer, no four bicycle stay type. \$11.75
Choice of M. & W. or Record tires and best equipment on all our bicycles. Strongest guarantee.
WE SHIP ON APPROVAL C.O.D. to anyone without a cent deposit & allow 10 DAYS FREE TRIAL before purchase is binding.
500 good 2nd-hand wheels \$3 to \$8.
Do not buy a bicycle until you have written for our free catalogues with large photographic engravings and full descriptions.
MEAD CYCLE CO. Dept. 245 F Chicago.

SECURITY GALL CURE CURES
Sore Shoulders on Horses and Mules while they are working.
Warranted. Feed our Stock Food. It will make you money. Ask local dealer, or write us.
SECURITY STOCK FOOD CO., Minneapolis, Minn.

Your Summer Outing.
Unite health, rest, pleasure and comfort on the handsome, luxurious **Steel Steamship MANITOU** (FIRST-CLASS ONLY.)



Exclusively for Passenger Service
Three Sailings Each Week.
Between Chicago, Frankfurt, Charlevoix, Petoskey, Harbor Springs, Bay View, Mackinac Island, etc., connecting with all Steamship Lines for Eastern, Canadian and Lake Superior Ports.
Descriptive reading matter, giving particulars about the voyage, terms and reservations can be secured by asking local Railroad agent or addressing
JOE. BEROLZHEIM, G. P. A. Manitou Steamship Company, CHICAGO.

New Fast Train to Colorado via Santa Fe.

Pullman Palace Sleeper, Composite Car, Observation Sleeper and Chair Car. Connecting Sleeper between San Antonio and Colorado Springs. Cafe Car Colorado Springs to Denver.

Leave Topeka daily 8.35 p. m., beginning June 1. Arrive Colorado early next morning. Just as desirable service eastbound.

This train is in addition to the Colorado Express leaving Topeka 11.50 a. m., and arriving Colorado following morning, and carrying free Chair Cars, Pullman Sleepers and Observation Car.

For particulars about the reduced rates to Colorado in effect this summer and copy "A Colorado Summer," apply to

T. L. KING, Agent, Topeka.
T. M. JAMES,
P. O. Bldg., North Topeka.

THE SMITH CREAM SEPARATOR.
The only separator on the market that does not MIX the milk and water, and sold under a positive guarantee. More Cream, Better Butter, Milk fine, and no labor at all. Get a SMITH. Agents wanted. Mention Kansas Farmer.
Smith's Cream Separator Co. 6th & Court Ave., Des Moines, Ia.

The Superior Cream Extractor.
"It Gets the Cream"—20 per cent more than by setting in pans.
WATER IS NOT MIXED WITH MILK
Therefore, impure water does not taint the Cream and the skim-milk is left pure and sweet. WE PAY THE FREIGHT. Descriptive circulars, reliable testimonials, and prices mailed on request. Write to-day. Can't get in touch with such a money-maker too quick. . . .
SUPERIOR FENCE MACHINE CO., 172 Grand River Avenue, Detroit, U. S. A.

STANDARD MILK COOLER. USED AS Strainer, Cooler, and Aerator
By actual tests milk has kept 36 hours longer than under other conditions.
Indorsed by practical dairymen and creameries. Write for price and testimonials
STANDARD MFG. CO., Topeka, Kansas

BRAND NEW STEEL ROOFING
Bought at Road "era" Sale. Sheets either flat, corrugated or "V" crimped. No tools except a hatchet or hammer is needed to lay the roofing. We furnish free with each order enough paint to \$1.75
A square means 100 square ft. Write for Free Catalogue No. 61 on General Merchandise.
Chicago House Wrecking Co., West 35th and Iron St., Chicago, Ill.



Uncle Sam's Mail Service

requires physical and mental ability of a high degree to withstand its hard labors. The high tension to which the nervous system is constantly subjected, has a depressing effect, and soon headache, backache, neuralgia, rheumatism, sciatica, etc., develop in severe form. Such was the case of Mail Carrier S. F. Sweinhart, of Huntsville, Ala., he says:

"An attack of pneumonia left me with muscular rheumatism, headache, and pains that seemed to be all over me. I was scarcely able to move for about a month when I decided to give
Dr. Miles' Pain Pills
and Nerve Plasters a trial. In three days I was again on my route and in two weeks I was free from pain and gaining in flesh and strength."
Sold by all Druggists.
Dr. Miles Medical Co., Elkhart, Ind.

Farming in Colorado, Utah and New Mexico.

The farmer who contemplates changing his location should look well into the subject of irrigation. Before making a trip of investigation there is no better way to secure advance information than by writing to those most interested in the settlement of unoccupied lands. Several publications, giving valuable information in regard to the agricultural, horticultural and live stock interests of this great western section have been prepared by the Denver & Rio Grande and the Rio Grande Western, which should be in the hands of all who desire to become acquainted with the merits of the various localities.
Write
S. K. HOOPER,
G. P. & T. A., DENVER, COLO.

VARICOCELE

A safe, painless, permanent cure guaranteed. Twenty-five years' experience. No money accepted until patient is well. **CONSULTATION AND VALUABLE BOOK FREE**, by mail or at office. Write to Suite O.
DR. C. M. COE, 15 WALNUT ST. KANSAS CITY, MO.

C. F. MENNINGER, M. D., Consulting Physician.
727 Kansas Avenue, Topeka, Kans.
Specialties: Chronic, and Obsolete Diseases Heart and Lungs.

BED-WETTING I will send FREE to any mother a sample of a simple remedy that cured my child.
Mrs. G. SUMMERS, Box C, Notre Dame, Ind.
Ladies Our monthly regulator never fails. Box FREE. **DR. F. MAY, Bloomington, Ill.**
BED-WETTING CURED. Sample free. **DR. F. E. MAY, Bloomington, Ill.**

Breeders' Directory.**DUROC-JERSEY SWINE.**

D. TROTT ABILENE, KANS., famous Duroc-Jersey and Poland-Chinas

Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains.

N. B. SAWYER, - - Cherryvale, Kansas

M. H. ALBERTY, - - Cherokee, Kansas

DUROC-JERSEYS.

100 head for this year's trade; all eligible to record.

MAPLE AVENUE HERD

DUROC-JERSEYS. **J. U. HOWE**, Wichita, Kansas, Farm 2 miles west of city on Maple Avenue

FAIRVIEW HERD DUROC-JERSEYS

Has a few September and October pigs at private sale. Everything not sold May 15 will be held for fall sale. **J. B. DAVIS**, Fairview, Brown Co., Kans.

ROCKDALE HERD OF REGISTERED DUROC-JERSEY SWINE

Stock for sale at all times. **J. F. CHANDLER**, - - FRANKFORT, KANSAS.

DUROC-JERSEY SWINE—REGISTERED.

Bred sows gone. June, July, August, September, October, November, and December pigs for sale reasonable. **NEWTON BROTHERS**, Whiting, Kansas.

WALNUT HILL HERD

DUROC-JERSEY SWINE. **H. A. J. COPPINS**, County Clerk, Eldorado, Kans. Stock of both sexes for sale.

ROSE HILL HERD OF DUROC-JERSEY HOGS

Boars ready for service, gilts bred for fall pigs, and also for early spring farrow. Pigs now ready for shipment. **S. Y. THORNTON**, Blackwater, Mo.

STANDARD HERD OF REGISTERED DUROC-JERSEYS

PETER BLOCHER, Richland, Shawnee Co., Kans. Herd headed by Big Joe 7863. Only male pigs for sale. **S. C. B. Leghorns**.

POLAND-CHINA SWINE.

V. B. HOWEY, R. F. D. 5, Topeka, Kas

BREEDER AND SHIPPER OF

POLAND-CHINA HOGS, JERSEY CATTLE,

S. L. WYANDOTTE CHICKENS. Eggs in season

Dietrich & Spaulding, Richmond, Kans.

Have FOR SALE six boars 1 year old. Fall pigs both sexes. Sows bred for fall litters.

We have Up-to-date **POLAND-CHINAS.**

Kansas Herd of Poland-Chinas

Has some extra fine gilts bred; also some fall boars. Will sell Sen. I Know, he by Perfect I Know.

Address—**F. P. MAGUIRE**, Haven, Reno County, Kans

High-Class Poland-China Hogs

Jno J. Marshall, Walton, Harvey Co., Kans

Breeds large-sized and growthy hogs with good bone and fine finish and style.

SENSATION HERD OF Practical Poland - Chinas.

The blood of Missouri's Black Chief, Knox All Wilkes, Chief Perfection 2d, Black U. S., and Corwin represented by typical individuals. Big boned, large litters, quick maturing. My references are my customers. Call on, or write me. **Harry Evans**, Pleasanton, Kans.

VERDIGRIS VALLEY HERD OF**POLAND-CHINAS**

FOR SALE: Six 8 and 10 months old boars, every one a show boar and as good as I ever bought to use in my herd. Also 150 spring pigs that are immense.

E. E. WAIT, Altoona, Kans.

SHADY BROOK STOOK FARM

North Topeka, Kans.

Devoted to Breeding High-class

POLAND-CHINAS

Address all communications to

H. W. CHENEY, Owner, NORTH TOPEKA, KANSAS

THOROUGHbred**Poland-China Hogs.**

Special price for next 20 days on 10 bred gilts, to farrow in April and May; they weigh from 200 to 275 pounds, and most of them are bred to Black Perfection 27132, the best breeder I ever owned. Also 20 fall pigs, and 4 boars large enough for service. 100 head in herd. Write for anything you want in Poland-China hogs.

JOHN BOLLIN, R. F. D. No. 5, Leavenworth, Kans.

Poland-China Hogs!

I will sell registered sows or gilts open or bred, 6 months old boars and weaned pigs of the most fashionable breeding, at reasonable rates. Pairs, trios, and small herds not akin. Missouri's Black Chief, Perfection, and Black U. S. blood. Can also sell a few choice Berkshire boars of the very best breeding; 4 Shorthorn bull calves for sale.

J. CLARENCE NORTON,

Moran, Allen Co., Kans.

When writing advertisers please mention this paper.

POLAND-CHINA SWINE.**SHADY LANE STOOK FARM**

HARRY E. LUNT, Proprietor, Burden, Cowley Co., Kans.

A few choicely bred Poland-China Boars for sale, some choice open gilts and bred sows. B. P. Rock eggs from pens #2 for 15, free range stock #1 for 15, \$5 per 100, from high scoring, line bred stock. Satisfaction guaranteed.

KNOLLWOOD FARM HERD

B LUE BLOODED
IQ BONED
ROAD BACKED
ERKSHIRES . .

A few fancy young boars ready for service.

Orders booked for spring pigs.

E. W. Melville, Eudora, Kansas.

BERKSHIRE SWINE.**SPRING CREEK STOCK FARM.**

LARGE ENGLISH BERKSHIRES.

Fine lot spring pigs, few bred sows. Choice stock.

Prices right. **RICE & GILES**, Abilene, Kas.

Ridgeview Farm Herd of**LARGE ENGLISH BERKSHIRES**

Pigs of fall farrow for sale. No more bred gilts.

White Wyandotte eggs, \$1.50 per 15.

MANWARING BROS., Lawrence, Kans

CHESTER WHITE SWINE.**CHESTER WHITES.**

I am offering 80 head of Chester White fall and spring pigs, either sex, at reasonable prices. The best strains of this breed. **Will Michael**, Selma, Iowa.



D. L. BUTTON, North Topeka, Kas

BREEDER OF

IMPROVED CHESTER WHITES

Stock For Sale.

Farm is two miles northwest of Reform School.

...IMPROVED...**Chester White Swine.**

Best blood in the Union represented

Largest Chester herd in the West. All Immured.

Fine, Illustrated Catalogue Free.

Spring pigs ready to ship.

E. W. BROWN, Box 30, SHELBY, NEB.

CATTLE.

ENGLISH RED POLLED CATTLE—Pure-bred Young Stock For Sale. Your orders solicited. Address **L. K. HASELTINE**, DORCHESTER, GREEN CO., Mo. Mention this paper when writing.

MEADOW BROOK SHORTHORNS—Ten fine

young bulls for sale—all red. Red Laird, out of Laird of Linwood, at head of herd.

F. C. KINGSLEY,

Dover, Shawnee County, Kansas.

RED POLLED CATTLE.

Herd numbers 115 head.

Geo. Greenmiller & Son, Centropolis, Franklin Co., Kans.

A. BUMGARDNER & SON, Holton, Kansas, Breeders of**RED POLLED CATTLE**

A herd bull and a few young ones for sale.

HEREFORD CATTLE.

Twenty head of thoroughbred cows, all with calves, this spring. For particulars, write to

E. S. COWEE, Rural Route 2, BURLINGAME, KANS.

MAPLE LEAF HERD OF THOROUGHbred**Shorthorn Cattle, and****Poland - China Swine.**

Farm is 2 miles south of Rock Island depot.

JAMES A. WATKINS, Whiting, Kans.

ALLENDALE HERD OF**Aberdeen-Angus Cattle**

The Oldest and Largest in the United States

Splendid recently imported bulls at head of herd Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Allendale, near Iola and La Harpe; address, Thos. J. Anderson, Manager, Iola, Allen Co., Kans., R. R. 2, or—

ANDERSON & FINDLAY, Prop's, Lake Forest, Ill

North Elm Creek Herd**Pure-bred Shorthorns****and Poland-Chinas**

Scotch-topped Young Mary females with 9th Knight of Elmwood 161507 at head. Call on, or write,

W. J. Smith, Oketo, Kas.

SUNFLOWER HERD OF**SHORTHORN****CATTLE****and POLAND-CHINA****SWINE**

Two Scotch bulls in service. Representative stock for sale. Address

Andrew Pringle,

Esbridge, Wabaunsee County, Kansas.

**CATTLE.****Registered Herefords**

Ten extra good bulls, one year old and over; 8 are sired by Klondike 72001, and 2 by Young Autocrat 101417. Will sell cheap. **ALBERT DILLON**, Hope, Kans

SHORTHORN BULLS.

FOR SALE: Registered and high-grade Shorthorns of Cruikshank breeding. No better bulls anywhere. Bargains for quick buyers. Address

A. C. JORDAN, Lyons, Kans.

Forest Park Stock Farm

FRED COWLEY, COLUMBUS, KAS.,

BREEDER OF REGISTERED

SHORTHORN CATTLE

FOR SALE: FOUR YEARLING BULLS.

Aberdeen-Angus.**EVERGREEN STOCK FARM.**

Have 15 registered bulls—7 to 21 months old, sired by Niel of Lakeside 25545; also registered cows and heifers, highly bred. Will sell in lots to suit. Call or address

Geo. DRUMMOND, Elmdale, Chase County, Kansas

SCOTCH-TOPPED**SHORTHORN CATTLE.**

FASHIONABLE

POLAND-CHINA SWINE.

REGISTERED BULLS FOR SALE.

L. A. MEAD, Carbondale, Kansas.

Wayside Herd of Registered**HEREFORDS.**

Anxiety-Wilton females with Printer 66684 and March On 14th in service.

Ten Heifers For Sale.

W. W. GRAY, Fayette, Mo.

RICE COUNTY STOCK FARM.**PURE-BRED****SHORTHORN CATTLE AND****POLAND-CHINA SWINE.**

First-class young stock for sale. Just ready for use on the range.

Address **Geo. B. ROSS**,

Alden, Rice County, Kansas.

SHORTHORN CATTLE.

Bulls, Cows, and Heifers, and

Poland-China Boars.

One Jack and one Saddle Stallion for sale in reach all. Write your wants.

George Manville, Dearborn, Mo.

GLENWOOD Shorthorns and Poland-Chinas**HERDS**

Shorthorns headed by Victor of Wildwood, by Golden Victor, he by Baron Victor. Late herd bull Gloster 137852. Polands headed by Glenwood Chief Again. For sale choice young bulls; also females. Prices right. Choice fall boars and gilts cheap. Visitors invited. Cor response solicited. Address

C. S. NEVIUS, Chiles, Miami Co., Kans.

40 miles south of K. C., on main line of Mo. Pac. R. R.

H. R. LITTLE,

HOPE, DICKINSON CO., KANS.,

Breeds Only the Best,

Pure-Bred

SHORTHORN CATTLE

Herd numbers 135, headed by ROYAL CROWN, 125698, a pure Cruikshank, assisted by Sharon Lavender 143002.

FOR SALE JUST NOW—16 BULLS of serviceable age, and 12 Bull Calves, Farm is 1 1/2 miles from town.

Can ship on Mo. Pac. R. I., or Santa Fe. Foundation stock selected from three of the great herds of Ohio.

CLOVER CLIFF FARM**REGISTERED GALLOWAY CATTLE.**

Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbu, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome.

Address—**BLACKSHERE BROTHERS**,

Elmdale, Chase County, Kansas.

E. H. WHITE,

Estherville, Iowa.

IMPORTER AND BREEDER OF

GALLOWAY CATTLE

Herd Foundation Stock

A Specialty.

A few choice Females and 14 Bulls for sale.

Inspection or Correspondence invited.

A Carload of Bulls**AND THEN SOME.**

HEIFERS

Sired by the biggest Shorthorn bull in Kansas—Royal Bates 123675, one of the best sires of the breed. Young stock in fine condition. Can ship at once.

LOUIS HOTHAN, Proprietor,

Carbondale Shorthorn Farm, Carbondale, Kans

CATTLE.**D. P. NORTON'S** Breeder of Pure Br

SHORTHORNS **SHORTHORN CATTLE**

Dunlap, Morris Co., Kans. **SHORTHORN CATTLE**

Herd Bull, Imported British Lion 133692.

Young stock for sale.

...INGLEFIELD HERD...**Pure-bred Shorthorns**

A few choice, young bulls, sired by Baron Ury of Inglefield 131581, for sale.

H. G. Slavens, Neosho Falls, Woodson Co., Kas

Norwood Shorthorns

V. R. ELLI Gardner, R

Sir Charming 4th at the head of herd. Cruikshank top crosses on best American families. Young stock for sale.

ESKDALE HERD OF**ABERDEEN-ANGUS CATTLE**

YOUNG STOCK FOR SALE.

JAMES FRATER, Fredonia, Wilson Co., K

PIPE CREEK HERD REGISTERED**Galloway Cattle**

of either sex for sale.

Address **J. A. DARROW**,

Heber, Cloud Co., Kans.

Silver Creek Shorthorns

The Scotch bull, Gwendoline's Prince 139013, in service. Also the imported Scotch Missie bull, Aylesbury Duke, 100 head of the best Scotch, Bates, and American families. High-class Duroc-Jersey swine for sale.

J. F. STODDER, Burden, Cowley Co., Kans.

Rocky Hill Shorthorns and**...Saddle Horses...**

Three extra good young bulls and 20 first-class females sired by Waterloo Duke of Hazelhurst 11th and Gold Victor Jr., for sale right. Heifers old enough are to the Scotch bulls Semstress Valentine and May.

J. F. TRUE & SON, Proprietors.

Postoffice, Perry, Kans. Railroad station, Newman, Kans., on Union Pacific R. R., 12 miles east of Topeka.

JAMES A. FUNKHOUSER

PLATTSBURG, MO., BREEDER OF

HIGH-CLASS**HEREFORDS**

BULLS IN SERVICE: Hesiod 2d 40679, March On 96537, Hesiod 85th 116352, Onward 2d 116599.

Scotch Shorthorns**FOR SALE**

The Great Missie Bull, Imp. Mariner 135024.

BRED by W. S. Marr, Uppernill, sired by Golden Ray (67132

Marshall County Hereford Breeders' Association.

President,
Wm. Bommer, Marietta.
Vice President,
Wm. Acker, Vermillion.
Secretary,
E. E. Woodman, Vermillion.
Treasurer,
F. J. Faulkner, Cottage Hill.



Directors:

The President, the Secretary,
Fred Cottrell, Irving; Chas.
Drennan, I. D. Yarik, Blue
Rapids; J. H. Whiting, Frank-
fort; B. M. Winter, Irving.

First Annual Sale at Blue Rapids, November 18 and 19, 1902

VERMILLION HEREFORD CO.

VERMILLION, KANSAS.
Imported Alberta 2d blood. Boatman 56011 at head of
herd. A few excellent, young bulls for sale.
Contributor to Marshall Co. Hereford Ass'n Annual
Sale. E. E. WOODMAN, VERMILLION, KANS.

Wild Tom Herefords.

SUNNY SLOPE TOM 14th AT HEAD.
Contributor to Annual Sale Marshall County
Hereford Association.
A. H. BIRD, AXTELL, KANSAS.

Weston Stamp Herd

REGISTERED HEREFORD CATTLE
Anxiety 4th females with Weston Stamp 9th at head.
Contributor to Annual Sale Marshall County
Hereford Association.
WM. ACKER, Vermillion, Kansas.

Capital Bluff Stock Farm.

**PURE-BRED
HEREFORDS.**
Baechalaureate 81587, bred by Gudge & Simpson,
at head of herd. Write for prices now.
Contributor to Annual Sale Marshall County
Hereford Association.
I. D. YARICK, Blue Rapids, Kansas.

When writing advertisers please mention
Kansas Farmer.

CATTLE.

Registered Herefords.

THOS. EVANS, Breeder,
Hartford, Lyon County, Kansas.
Special Offerings: Young cows and heifers, and
few bulls for sale.

LIVE STOCK AUCTIONEERS.

R. E. EDMONSON, late of Lexington, Ky., and
R. Tattersall's (of Chicago, limited), now located at
208 Sheldley Building, Kansas City, Mo., offers his ser-
vices as Live Stock Auctioneer. All the Herd and
Stud Books. Wire before fixing dates.

COL. JOHN DAUM, Nortonville, Kans.,
Live Stock Auctioneer

Am ready to book dates for sales anywhere in the West.

CAREY M. JONES,
Live Stock Auctioneer,
Davenport, Iowa. Have an extended acquaintance
among stock breeders. Terms reasonable. Write be-
fore claiming date. Office, Hotel Downs.

HARRY W. GRAHAM,
Live & Stock & Auctioneer
Chillicothe, Mo.
Fine Stock Sales a Specialty. Up to date on breeding
and values. SALES MADE EVERYWHERE.

Live Stock Auctioneer

COL. J. N. HARSHBERGER
Lawrence, Kansas.

Special attention given to selling all kinds of
pedigreed stock; also large sales of graded
stock. Terms reasonable. Correspondence
solicited. Mention Kansas Farmer.



R. L. Harriman
LIVE STOCK AUCTIONEER,
Bunceton, Mo.

SALES made everywhere.
Thoroughly posted and up-to-
date on breeding quality and
values. Have a large acquaint-
ance among and am selling for
the best breeders in the country.
Terms low. Write for dates.

LAFE BURGER

WELLINGTON, KANSAS,
**LIVE STOCK
AUCTIONEER**

Fine Stock Sales a Specialty

Am booked for the best coming sales.
I want your next sale. Write or
telegraph your dates.

JAMES W. SPARKS,
Live Stock Auctioneer
Marshall, Mo.



Sales Made Anywhere.
Have been and am now
booked for the best sales of
high-class stock held in
America. Thoroughly posted
on pedigrees and individual
merit. Large acquaintance
among the leading stock-
breeders of America. Terms
reasonable. Write me before
claiming your date.

Spring Branch Herd

**Original Stocks & Sons
HEREFORDS.**

Allant females with Jim Wilton 106761 at head.
MRS. A. J. STOCKS and C. D. HOLMES,
OWNERS.
Address C. D. Holmes, Mgr., Blue Rapids, Kas.
Contributors to Annual Sale Marshall County
Hereford Association.

BLUE VALLEY HERD

Herefords and Poland-Chinas
FOR SALE—25 Bulls, 12 to 20 months old, 25
Cows and Heifers, 1 to 3 years old, 75 to 100 Gilts,
and a few aged Sows, bred for March, May, and
June farrow. Write for prices.
COTTRELL BROS., Irving, Kans.

Ash & Creek & Herd

REGISTERED HEREFORDS
Anxiety 4th females with Edwards 113325 at head
WM. BOMMER, Marietta, Kas.
Contributor to Annual Sale Marshall County
Hereford Association.

The Colorado Flyer via Santa Fe.

A Convenient
Train
for Summer
Tourists.

Composite Car,
Palace Sleepers,
Free Chair Cars,
Observation Sleeper,
Cafe Car between Colorado
Springs and Denver.
DAILY, BEGINNING JUNE 1.

Leave Topeka 8.35 p. m.
Arrive Colorado early next
morning.
This train is in addition to
the Colorado Express leav-
ing Topeka 11.50 a. m., and
arriving Colorado following
morning, and carrying free
Chair Cars, Pullman Sleep-
ers and Observation Car.
Reduced rates to Colorado
and Utah daily from June 1
to September 15.
For particulars and copy
"A Colorado Summer," ap-
ply to

T. L. KING, Agt., Topeka.
T. M. JAMES,
P. O. Building North Topeka.

Mention this paper in writing to advertisers

HORSES AND MULES.

PERCHERON HORSES, and ABERDEEN-ANGUS OATTLE.

GARRETT HURST, Breeder, ZYBA, SUMNER
COUNTY, KANSAS. Young stock for sale of either
sex. All registered.

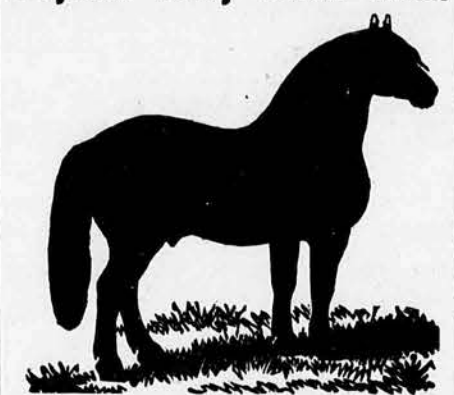
Pleasant Hill Jack Farm.

PHILIP WALKER, Breeder,
Moline, Elk Co., Kans.,

25 Mammoth, Warrior, and Spanish
Jacks Now For Sale.
Quality and Breeding Unexcelled
Inspection and Correspondence Invited.



Cheyenne Valley Stock Farm.



F. H. Schrepel, Ellinwood, Kans.,

—Breeder of—
**PERCHERON HORSES, AND
POLAND-CHINA HOGS**

For Sale—Twelve young stallions and a few mares.
Inspection and correspondence invited.



PERCHERONS.

J. W. & J. C. ROBISON,
IMPORTERS AND BREEDERS, TOWANDA, BUTLER CO., KANS.
Largest Herd in the State. CASINO (45402) 27830 at head of herd.
Prize-winner at last National Show of France. Highest priced stallion imported
from France to America, in 1901. Inspection Invited.

German Coach, Percheron, and Belgium Horses.

OLTMANN'S BROS., Importers and Breeders, WATSEKA, ILLINOIS.
Three Importations in 1901. 100 Stallions For Sale.
No other firm enjoys such buying facilities; the senior member being a resident of Germany is person-
ally acquainted with the best breeders in France, Germany, and Belgium. We can save you money.
Come and see us.

SNYDER BROS., Winfield, Kans.,

—Breeder of—
**POLAND-CHINA SWINE, SHIRE and PERCHERON HORSES,
and POLLED DURHAM CATTLE.**
Stallions of both popular Draft breeds for sale; also two jacks.

America's Leading Horse Importers

We import not only far the greatest number of stallions
from France, but far the best ones.
We import more prize-winning stallions than all others
combined at the three greatest shows of France, at
Nogent-le-Rotrou, Nantes, and Mortagne.
Our Percherons won every first prize including grand
championship over all draft breeds at the
great Pan-American Exposition.
Our success at the Iowa State Fair and Ohio Exposition
was equally as good.
Our French Coach Stallions did not sustain one defeat at
any one of these great shows.
The best horses and just and honorable treatment of
customers have given us the lead.
McLAUGHLIN BROS., COLUMBUS, OHIO.
BRANCHES: EMMETTSBURG, IOWA; LAWRENCE, KANS.



\$1,000 FOR \$1.00

Pay us \$1.00 a week for 20 years and we will guarantee you \$1,000. You also
are entitled to dividends on your money and if you die after the first annual
payment is made, we pay your estate \$1,000 at once.
The securities for this contract are held by the State of Iowa.
If this interests you fill out coupon below and mail to

PALMER S. WILSON, Mgr., THE "ROYAL UNION", Care of Kansas Farmer.

COUPON

My name and address is.....
I was born.....
(give day and month.)

POLLED DURHAMS AT OMAHA!

**A. E. Burleigh of Knox City, Mo.,
and F. F. Failor of Newton, Iowa,**
will sell 45 head of Double Standard POLLED DURHAMS
ON JUNE 26, 1902.

Cattle of show yard character and very best of breeding may be secured at this sale.
Catalogues after June 1.

H. O. TUDOR, HOLTON, KANSAS. BILL BROOK BREEDING FARM, (REGISTERED SHORTHORNS),

Comprising cattle from the following well-known families, (topped with the best Scotch and Bates blood): Rose of Sharon, Zella, Belina, Ruby. This is a select draft from my herd and will constitute one of the best offerings of the year 1902. Also breeds registered and high-grade Angora goats.

ROME PARK STOCK FARM.

T. A. HUBBARD, Rome, Kans.,

... BREEDER OF ...

**Poland-Chinas and
Large English Berkshires.**

For Sale—12 Berkshire boars and 20 bred sows and gilts, 20 Poland-China boars, and 50 bred sows and gilts.

STEELE BROS., Belvoir, Douglas Co., Kans.,

* * Breeders of SELECT * *

HEREFORD CATTLE

Young Stock For Sale. Inspection or Correspondence Invited.

Bulls Cut Price 30 Days.

We have a carload of registered Bulls, 12 to 20 months old, several are pure Scotch and herd headers. Will sell singly, or in lots to suit purchasers. These bulls were sired by Lord Mayor 11277 and Knight's Valentine 157068, both Scotch bulls. The dams of these bulls are splendid cows with from two to five Scotch-top crosses. We desire to close these out during the next 30 days and for that reason will sell at reduced prices.

T. P. BABST & SONS, Auburn, (R. F. D.), Shawnee Co., Kans.

GLENDAL SHORTHORNS.

Imp. Prince Lovely 155860 and Scotland's Charm 127264
IN SERVICE

Young Bulls, Cows, and Heifers for sale at all times.
O. F. WOLF & SON, Ottawa, Kans.

SCOTT & MARCH BREEDERS OF PURE BRED HEREFORDS.

BELTON, CASS COUNTY, MO.

BULLS in service, HESIOD 29th 64804, Imp. RODERICK 80155, MONITOR 58275, EXPAN-
SION 93662, FRISCOE 93674, FULTON ALAMO 11th 83781.

25 miles south of Kansas City on Frisco; Ft. Scott & Memphis; and K. C., P. & G. Railroads

Pearl Shorthorns.

YOUNG BULLS FOR SALE
sired by the Cruickshank bulls La-
fite 119915, and Baron Ury 2d 124970,
ranging in age from 8 months to 2
years.

Inspection Invited

G. W. TAYLOR, Pearl, Dickinson Co., Kans.

Secretary Coburn's Great Books.

SWINE HUSBANDRY.

A practical manual for the breeding, rear-
ing, and management of swine with a chap-
ter on swine diseases and their remedies.

A Book Without a Rival.

The Standard Authority.

Cloth Bound, Postpaid \$1.50.

ALFALFA.

Practical information on the production,
qualities, worth, and uses of Alfalfa in the
United States and Canada. No single crop
has so much interest and value for the
Kansas farmer.

Worth Many Times Its Cost.

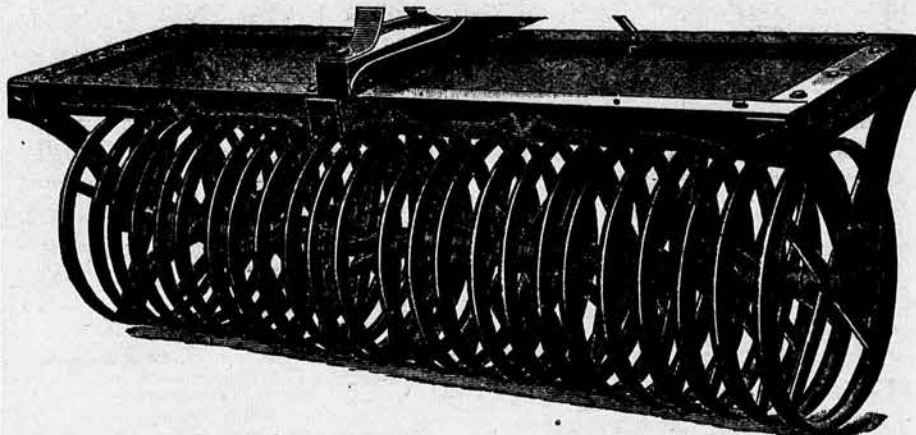
Cloth Bound, Postpaid 50 Cents.

THE KANSAS FARMER has made special arrangements to furnish these books to its
readers. Write direct to this office and we will prepay the postage for you. Cash in
advance.

\$30 WHAT'S IN A NAME? \$30

There's Success, Happiness, and Independence for the
Farmer Who Sends in the Most Appropriate Name
for Our Soil Packer, Pulverizer, and Roller.

MONEY FOR YOUR IDEAS. \$30.00 FOR A NAME.



Our many sales made this season to progressive farmers and the universal satisfaction that
has been expressed by the use of our Packer has led us to believe an appropriate name should
be given the implement. We have decided to place the naming of it in the hands of its friends.
To the farmer who first sends us the most appropriate name (to be determined by ourselves)
we will make a present of one Packer. Put your thinker to work. The prize is worthy the
game. Any farmer can send in a name free of cost. Write for descriptive circulars, sending 4
cents in stamps.

TOPEKA FOUNDRY, Topeka, Kans.

BOISSEVAIN **TURTLE MT. MANITOBA**

WILD & IMPROVED FARMS FOR SALE AT
\$ 5.00 TO \$ 15.00 PER ACRE.

BEST WHEAT LANDS IN THE PROVINCE. CROP IN 1901 AVERAGED
35 BUSHELS TO THE ACRE.

TURTLE MT. MANITOBA, WHEAT TOOK -
1st PRIZE WORLD'S FAIR CHICAGO IN 1893
1st PRIZE PAN AMERICAN BUFFALO IN 1901
COMPETING AGAINST THE WORLD.

ALL INFORMATION & ILLUSTRATED PAMPHLET FORWARDED ON APPLICATION TO
I. I. MILLIDGE, UNION BANK OR A. S. BARTON, RECORDER OFFICE
BOISSEVAIN, MANITOBA.

29 YEARS SELLING DIRECT.

We are the largest manufacturers of
vehicles and harness in the world sell-
ing to consumers, and we have been do-
ing business in this way for 29 years.

WE HAVE NO AGENTS
but ship anywhere for examination
guaranteeing satisfaction. You are
out nothing if not satisfied. We make
196 styles of vehicles and 65 styles of
harness. Our prices represent the
cost of material and making, plus
one profit. Our large free catalogue
shows complete line. Send for it.

Elkhart Carriage & Harness Manufacturing Co., Elkhart, Ind.

WHITMAN'S BALING PRESSES

VICTORIOUS IN EVERY CONTEST.



The largest and most complete line of Balers in
America. Highest award at World's Fair, Chicago;
Paris Exposition, and every other contest. Not the
cheapest, but guaranteed THE BEST. See our "New
Model Steel Beauty" and "Universal" Presses for this
season. Also manufacture large line of strictly first-
class Farm Machinery. Send for Catalogues and prices.
WHITMAN AGRICULTURAL CO., St. Louis, Mo.

BLACKLEGINE

Pasteur Blackleg Vaccine ready for use.

Single Blacklegine (for common stock): No. 1 (10 doses) \$1.50;
No. 2 (20 doses) \$2.50; No. 3 (50 doses) \$6.00. Double Blacklegine (for
choice stock) \$2.00 for 10 doses, first lymph and second lymph inclusive.
Blacklegine Outfit, for applying Blacklegine, 50 cents.

Pasteur Vaccine Co.,

Chicago, New York,

Ft. Worth, Denver, San Francisco.

BLACKLEGOIDS

BEST PREVENTIVE OF BLACKLEG.

Blacklegoids afford the latest and best method of vaccination
against blackleg—simplest, safest, surest. They are always ready
for use; no filtering, measuring or mixing is necessary. Accuracy of
dosage is always assured, because each Blacklegoid
(or pill) is exactly sufficient for one inoculation.

Administration with our Blacklegoid Injector is
easy. The operation need not consume one minute.
Blacklegoids are sold by druggists; ask for them.

Our newly printed eight-page folder on the "Cause and Nature of Blackleg" is of
interest to stockmen. Write for it; it is free.

PARKE, DAVIS & CO. - DETROIT, MICH.

Branches: New York, Kansas City, Baltimore, New Orleans, Chicago;
Walkerville, Ont.; Montreal, Que.; London, Eng.

