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KANSAS FARMER.

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Mr. Constable, R. F. D. No. 5, Topeka, reports the presence in his pastures of a troublesome weed called horse weed or Canada fleabane, the botanical name being *Leptilon canadense*. The most alarming feature of this recently introduced weed is that it thrives among and crowds out alfalfa. It is, however, an annual and may be destroyed by cultivation if the cultivator cuts it off below the top of the soil. But the light seeds scatter immensely and in any neighborhood where it has obtained a foothold every farm will probably be seeded whether or not it grows any weeds. There is little trouble about keeping it down in corn or other cultivated crops.

In our journeyings up and down the earth and in our mingling constantly with breeders of pure-bred live-stock we are impressed with the absolute necessity which exists among these breeders for self training in their profession. We find breeders and owners of pure bred stock who, like all men, have an ideal type in mind which is the object of their work. These men in some instances have acquired this ideal by reading rather than by observation, and animals which they possess and think are well nigh perfect would prove a disappointment to them if entered in competition in any of the great show rings. It is a duty which these breeders owe to themselves and to their herds to not only visit the best of the show rings and sales where their favorite breeds are represented but to make entries for exhibition from their own herds as well. No man can breed to the best advantage who does not know what his competitors are doing and who is not sure that he has formed a

correct ideal. The breeder who stays at home and sees no other herds can at best have but a very imperfect idea of the true type which should be his aim in breeding. President McKinley once said that State Fairs are milestones which mark the progress of the nation. It is not only the duty of each breeder to attend the representative exhibitions but it has become an absolute necessity if he would succeed in the highest degree.

SEEKING FAR FOR A PROFESSOR OF AGRICULTURE.

The meeting of agricultural college regents called for the purpose of electing a professor of agriculture and animal husbandry, and of English, adjourned last Friday. The committee appointed in June to find and recommend a suitable man for the chair of agriculture presented the name of C. W. Burkett, of North Carolina, who was elected, and declined. He was not an applicant. The committee then recommended another eastern man, not a candidate, who has been offered the position, and in case he declines it was decided to try E. E. Elliott, who is agriculturist at the Washington State College, and desires the place.

As it could not be shown that any of the parties recommended had ever been in the central west or were in any wise familiar with conditions here, or were acquainted with any phase of animal husbandry and its vastly important feeding problems some members of the board demand that the institution be an agricultural college, especially regents Coburn and Stewart, endeavored to have Prof. D. H. Otis promoted to the agricultural chair. This was defeated by one vote.

J. M. Pieratt, another Kansas man and conspicuous educator, especially championed by Gov. Stanley and Senator Kennedy, was defeated by a like vote for the chair of English, and the place given to Clark M. Brink, of Kalamazoo, Mich., whom no member of the board had ever seen. Mr. Brink was highly recommended.

The new \$70,000 physical-science building was accepted from the contractor, and is highly satisfactory. A reapportionment of funds was made to provide for the equipment of the department of physics.

Out of experiment station funds provided by the National Government the sum of \$350 was voted with which to procure a pair of horses and a wagon for the great branch Experiment Station at Ft. Hays.

KANSAS FARMER'S NEW WALL ATLAS.

The KANSAS FARMER has arranged with the leading publisher of maps and atlases to prepare especially for us a new Wall Atlas, showing colored reference maps of Kansas, Oklahoma, Indian Territory, the United States and the World with the 1900 census.

The size of our new Wall Atlas is 22 by 28 inches. The outside map shows the flags of the United States, as well as the flags of all nations. In addition thereto is given a list of tables, an exhibit of the products and their values of the United States and the World. One of the maps shows all States, Territories and possessions of the greater United States and facts as to their capitals and the first settlements and in relation to their general government, areas, population, and legislature.

The atlas also gives the growth of

our country, showing the population of all towns by States, of 3,000 and over for the census years of 1880 and 1900.

This grand new census also shows for every country the government, chief executive in square miles, population, capital its population. This excellent educational work should be in every home. It sells for one dollar.

Every one of our old subscribers who will send us two new subscribers at 50 cents each for the remainder of the year, will receive a copy of this splendid new Wall Atlas postage prepaid.

SUGAR BEETS IN KANSAS.

The center of the sugar beet industry in Kansas this year is Lakin, Kearny county. Last year the big end of the crop came from around Garden City, Finney county. The soil of Finney county is no less productive of the sugar beet than its neighboring county west, but last year the farmers of Finney county were helped by bankers, merchants, lawyers, doctors, and others who had money, while in Kearny only men who farm for a living planted beets. The Garden City men paid for planting small lots of ten or twenty acres, and their object was to show to the world that the soil of that region is adapted to the growth of the beet. One season's experiment proved this, and now only farmers who are in the business for a livelihood are engaged in the industry. F. D. Coburn, secretary of the State Board of Agriculture, has received from Garden City some specimen beets grown this year and he says they are only additional proof that the upper Arkansas valley in Kansas is a sugar beet district. "The sugar beet has come to stay in Kansas," he says, "and in a few years it will be grown in all the counties of the southwest, where the water can be turned on. This year the acreage is not so large as last year, owing to the failure of the Garden City business men to repeat their experiment, but the same farmers who planted last year and more have planted this year, and if these half grown beets I have here are any sign the prospect must be encouraging."

THE SOIL MULCH.

The dry weather scares which come along in Kansas occasionally concentrate the attention of thinking farmers upon the problem of retaining in the soil the abundance of water which falls during a wet spell. The fact that every year a bounteous nature bestows upon more than half of Kansas enough moisture to grow two crops challenges thought. Much of this water runs off in the rivers, much is carried away by the sun and wind, and some goes to sustain growth of crops. It is not to be expected that all of our heaviest rains can be absorbed in the soil or that all of the water can be retained against the forces, which naturally remove it. But if by taking thought and suitable action a beneficial modification of nature's processes can be brought about Kansas will be the gainer.

The first problem is to get the water to enter rather than to run off from the soil. When our prairie soils were first brought into cultivation they were so full of grass roots and other fibrous materials that the surface was made very open so that the heaviest rain rarely caused much run-off. So, too,

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this open condition of the surface soil prevented the rise of the moisture to such position as to be directly exposed to the wind and sun. Early settlers were surprised at the sturdy growth of their corn and other crops during dry spells. Where corn has followed corn without rotation with grass or clover this fibrous condition has gradually disappeared. The fierce winds of early spring have taken advantage of the unbound condition of the soil and have added to the trouble by removing successive layers of "dust mulch."

If one inquired of several farmers as to the condition of the corn before the last rain he got answers which varied, not from river bottom to upland, but from the man who rotates grain with grass to the man who has followed grain with grain. Systems of cultivation are good; the dust mulch has great efficiency in keeping down the moisture and in tiding over the drought; but above and before all other means of storing and retaining moisture and of fertilizing the soil must be reckoned the grass crop or the crop of clover, cow-peas, etc. Rye or wheat, sown to be plowed under, will afford an immense amount of valuable fall and winter pasture besides placing the soil in

a greatly improved condition to produce a corn crop.

With plenty of decaying vegetable matter in his surface soil the farmer may feel reasonably safe in laying by his corn when it has grown too large to admit the use of a two-horse cultivator, assured that however driving the rains, the water will find its way into the soil without producing a mortar bed, and that a large proportion of that moisture will be effective in the production of grain. It is a good plan to fortify against possible unfavorable weather conditions by preparing the soil to receive and retain the water when it falls.

OUR FOREIGN TRADE.

The story of our foreign commerce in the fiscal year 1902 is told in outline in the opening page of the annual report of the Chief of the Treasury Bureau of Statistics, as follows:

The foreign commerce of the United States in the fiscal year 1902 was larger than in any year of its history except 1901. Compared with 1901 there was a reduction of about \$106,000,000 in exports, and an increase of about \$80,000,000 in imports. The reduction in exports was chiefly due to the shortage in the corn crop of 1901, the reduction in the price of cotton, and an unusual home demand for iron and steel manufactures. The increase in imports was chiefly due to larger demands for foreign materials for use in manufacturing.

The shortage of the corn crop of 1901, due to drought, reduced the corn exportations in the fiscal year 1902, 150,000,000 bushels below those of 1901, and caused a reduction of \$67,000,000 in the value of corn exportations. The export price of cotton averaged about 1 cent per pound below that of the preceding year, and although the exportations exceeded in quantity those in 1901 by about 170,000,000 pounds, the total value of the cotton exported fell nearly \$23,000,000 below that of 1901. In iron and steel the increased demand at home, coupled with abnormal conditions in the foreign market, caused a reduction of about \$19,000,000 in value of our exports of that class of manufactures.

In importations there was an increase of \$70,000,000 in material for use in manufacturing, \$20,000,000 in manufactured articles ready for consumption, and \$12,000,000 in articles of voluntary use, luxuries, etc., but a decrease of \$21,000,000 in food stuffs. Importations of raw materials for use in manufacturing amounted to \$328,000,000, which was \$58,000,000 in excess of the preceding year, and of articles partly manufactured for use in manufacturing the imports were \$91,000,000, an increase of \$12,000,000. This brings the total importations of manufacturers' materials imported far above that of any preceding year in the history of our commerce and industries.

The chief reduction in the exports occurred in the commerce with Europe. Compared with the fiscal year 1901, the total exports to Europe fell off \$128,000,000 and those of South America \$6,000,000, while those to North America increased \$7,000,000, to Asia and Oceania \$13,000,000, and to Africa \$8,000,000. The reduction in the exports to the United Kingdom was \$83,000,000, to Germany \$19,000,000, to the Netherlands \$9,000,000, and to France \$7,000,000. Nearly all of this reduction is traceable to the drought of last year and the reduction in the price of cotton. The great falling off in the corn crop not only reduced the quantity of corn available for exportation but caused the consumption at home of larger quantities of oats, so that exportations of oats fell off about \$8,000,000 in value. These conditions, coupled with the increased demand of the home market, also reduced the available quantity of beef and beef cattle for exportation and caused an advance in the price of beef, and the exportation of beef and beef cattle fell off about \$10,000,000. Thus the falling off in corn and corn meal, oats and oat meal, and beef and beef cattle amounted to nearly \$90,000,000. Of the \$83,000,000 reduction in the exports to the United Kingdom, about \$31,000,000 was in corn, \$11,000,000 in cattle and fresh beef, \$5,000,000 in oats, and over \$19,000,000 in cotton, although the quantity of cotton exported to that country increased meantime about 9,000,000 pounds as compared with the year immediately preceding. Of the \$19,000,000 reduction in exports to Germany, \$14,000,000 was in corn and about \$5,000,000 in cotton, although the quantity of cotton increased about 38,000,000 pounds as compared with the year immediately preceding. To Asia, Africa and North America there was a decided increase in exportations. To Japan, exports were

\$2,000,000 greater than in 1901, and to China there was an increase of \$14,000,000 over 1901; to Africa, an increase of \$8,000,000; and to North America, an increase of \$7,000,000. The increase in imports was, from Europe, \$45,000,000; Asia and Oceania, \$15,000,000; South America, \$9,000,000; Africa, \$5,000,000; North America, \$6,000,000.

The total importation of manufacturers' material amounted to \$419,000,000, or \$70,000,000 more than in 1901, and formed 46 per cent of the total imports against 42 per cent in 1901. Of this \$419,000,000 of manufacturers' materials imported, the value of \$328,000,000 represented articles in a crude condition for use in manufacturing, and \$91,000,000 articles partly or wholly manufactured for use in manufacturing. Of the \$328,000,000 worth of raw materials imported for use in manufacturing, the principal articles were hides and skins, \$58,000,000; raw silk, \$42,000,000; fibers, \$32,000,000; rubber, \$25,000,000; copper, \$25,000,000; wood and lumber, \$20,000,000; wool, \$18,000,000; tin, \$19,000,000; tobacco, \$15,000,000; cotton, \$12,000,000; while chemicals, which are chiefly used in manufacturing, amounted to \$58,000,000.

While manufacturers have increased their importations of materials for use in manufacturing, they have in many cases also increased their exports. The classes in which there has been an increase in exports is, as has already been stated, manufactures of iron and steel, in which the reduction in exports, in round terms, to \$20,000,000, while the total exports of manufactures show a falling off of but \$8,000,000, thus indicating that in other classes of manufactures there has been an increase of exports. This increase is chiefly in cotton manufactures, of which the total exports for the year were \$32,000,000, being larger than in any preceding year. The chief increase in the exportations of cotton manufactures is to China, to which the exports of cotton cloths last year were 335,000,000 yards against 84,000,000 yards in 1901, and 182,000,000 in 1900.

We are in receipt of the thirty-eighth annual catalogue of the officers and students of the Kansas State Normal College at Emporia with announcements of the Ft. Hayes branch for the ensuing year. This great institution now numbers forty-five members in its faculty besides other officers and has had a total enrollment of 2,034 students who have come from 95 out of the 105 Kansas Counties and from 13 States outside of Kansas. This institution is thoroughly well equipped and with the completion of the handsome new library building, now being erected, it will be an institution of which the whole West as well as Kansas may well be proud. The library already contains about 15,000 volumes which have been selected with special reference to the needs of the school. In addition to these books the reading room is supplied with all the prominent dailies and weeklies of the State together with many scientific and technical publications from other States. The KANSAS FARMER is kept on file for the benefit of these young people. The institution is evidently prospering under the presidency of Prof. J. N. Wilkinson, while the appointment of W. S. Picken as principal of the Ft. Hayes branch assures success in that department.

Farmers' National Congress.

EDITOR KANSAS FARMER:—I am receiving so many letters of inquiry in regard to the subjects to be discussed, the speakers who will be on the program, and the railroad routes and rates, and the entertainment while in Dixie, at the meeting of the Farmers' National Congress to be held at Macon, Georgia, October 7 to 10 next, that I beg space in your columns to reply in part. Every topic has been assigned with the greatest of care, and we believe that each speaker will be recognized as a leader in the line assigned him. Notice their names:

Address of welcome, State of Georgia—Gov. Allen D. Candler.

Address of welcome, City of Macon—Mr. George A. Smith, president chamber of commerce.

Response, on part of Congress—Hon. Harvie Jordan, Monticello, Ga.

1. Inter-oceanic Canal—Hon. Hoke Smith, of Georgia.

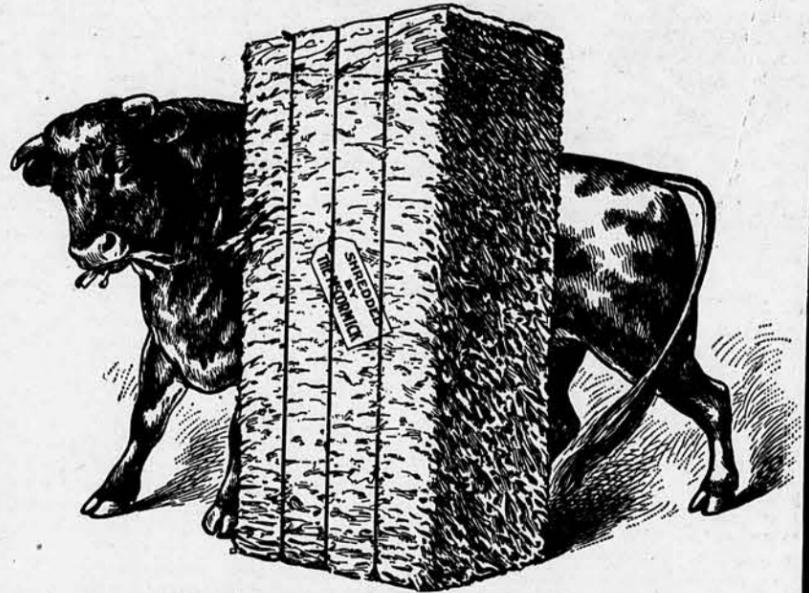
2. National Irrigation—Affirmative, C. M. Heintz, Los Angeles, Cal.; negative, Gilbert M. Tucker, Albany, N. Y.

3. Reciprocity, How May it Affect Agricultural Interests—Hon. John K. Campbell, Ypsilanti, Mich.

4. Effect of Present Insular Possessions on the Agriculture of the United States.

5. Preservation of Forest and Re-fore-

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estation—Hon. Geo. M. Whitaker, Boston, Mass.

6. A Birdseye View of the Cereal Fields of the World—Hon. John Hyde, Statistician U. S. Department of Agriculture, Washington, D. C.

7. Postal Reforms Particularly Affecting the Farmer—Hon. L. H. Weller, Nashua, Iowa.

8. Mutual Relations of Northern and Southern Farmers—E. W. Wickey, Ocean Spring, Miss.

9. The Relation of the Dairy Industry to the Agricultural Prosperity of the South—Hon. W. D. Hoard, Fort Atkinson, Wis.

10. Farm Products in the Markets of the World—O. P. Austin, chief bureau statistics, Washington, D. C.

11. The Labor Problem from the Farmer's Standpoint—John M. Stahl, Chicago, Ill.

12. How Can We Best Build Up Our Merchant Marine—Favoring subsidy, F. B. Thurber, New York City; opposing subsidy, Hon. Oliver Wilson, Magnolia, Ill.

So far as we have been able to secure a rate of one and one-third fare for the round trip from all points in the west, central, south and southwest, but the rates nor routes have not yet been finally decided upon.

The people of Macon are outdoing the proverbial southern hospitality in their efforts to provide for the comforts and pleasure of the delegates, and a great time may be anticipated.

Regarding the further entertainment of the members of the Congress, it affords us a great deal of pleasure to herewith present a copy of a letter which explains itself:

Macon, Ga., April 22, 1902.

Mr. Geo. L. Flanders, President Farmers' National Congress, Albany, N. Y.

Dear Sir—I am authorized by the management of the Georgia Southern and Florida railway to extend to you, and through you to the members of the Farmers' National Congress, who will assemble in Macon on October 7 next, an invitation to take a trip over our line from Macon to Palatka, Florida, and return, at such time during or after your session, as may best suit your convenience.

As the invitation is extended for the purpose of affording you an opportunity for investigating the agricultural conditions of Georgia and Florida, a special train will be placed at your disposal, so that stops may be made at such points

as you may wish and every opportunity afforded you for a thorough investigation.

Among the points of interest to be visited are the White Sulphur Springs, on the banks of the far-famed Suwanee River, the Agricultural College and Experiment Station at Lake City, Fla., the colony of northern settlers at Flomahome, Florida, and the St. John's River at Palatka. The stop at Palatka will enable the party to visit the historic and beautiful city of St. Augustine, which is only 28 miles distant from Palatka. Upon receipt of your acceptance of this invitation, we will submit you a definite program of the trip for your approval.

Very truly yours,
(Signed) W. L. GLESSNER,
Commissioner.

It is needless to say that President Flanders accepted the invitation and I understand that in further correspondence arrangements were completed whereby the members will all have the opportunity of spending Sunday, October 11, at the old city of St. Augustine. Having spent some months there, I can promise them a most interesting and enjoyable time.

Programs will be sent to all delegates and associate delegates as fast as their names and addresses are received by the secretary. Hon. John M. Stahl, 4328 Langley Avenue, Chicago, Illinois, who will furnish any further desired information.

J. H. REYNOLDS,
Treasurer.

Farmers' Institutes.

The following is a list of the coming farmer's institutes as arranged by the State Agricultural College and the speakers are members of the college faculty:

August 16, Michigan Valley—Albert Dickens, E. B. Cowgill, Kansas Farmer.

August 22, Highland Station—Albert Dickens.

August 26, Howard—Albert Dickens, J. D. Walters.

August 27, Leon—Albert Dickens, J. D. Walters.

August 28, Mulvane—Albert Dickens, J. D. Walters.

August 28, Union Center—D. H. Otis.

August 28, Blue Hill—A. T. Kinsley.

August 29, Canton—Albert Dickens, J. D. Walters.

August 30, Jennings—A. T. Kinsley.

September 9, Earleton—Mrs. Henrietta Calvin, Albert Dickens.

September 10, Altamont—Mrs. Henrietta Calvin, Albert Dickens.

September 11, Angola—Mrs. Henrietta Calvin, Albert Dickens.

Agricultural Matters.

Siberian Millet.

EDITOR KANSAS FARMER:—As Mr. Norton, of Moran, Kans. has had so much to say in favor of the new Siberian millet, I should like to add my experience in sowing it two consecutive years.

Seeing it advertised and highly recommended in several agricultural papers by a seed man in Kansas, I ordered enough to sow ten acres. This was sown early, on well-prepared but not very strong ground. The circular stated that anyone sowing it would be surprised at the fine crop of hay he would harvest. I have been surprised, and wherever I have seen any of this millet headed out it has been from three inches to eighteen inches in height.

I let my ten acres get ripe for seed. As it was too short to bind, I mowed it and then raked it over the land. As the seed shells out so easily, the land was completely seeded and came up thick, making another fine crop. It was too short to mow and chinch bugs seemed to be working on it all the season through. Last year the land was sown to flax and still enough millet came up to feed the bugs. This year the land was planted very early to Kafir-corn. Some millet came up in the rows and chinch-bugs damaged it considerably in places.

As feed was going to be scarce last winter, I plowed up some flax-stubble and sowed some of the millet seed which I had raised the year before. It was completely headed when frost came but was not high enough to mow. It was too fine.

I had also sown four acres of millet early in the spring last year on land well prepared for alfalfa. In fact I sowed about one-fourth of it to alfalfa along with the millet. The chinch-bugs got in their work on the millet. The weather was pretty dry for millet but they took what little there was, and also kept the strip free from crab-grass, and it has less crab-grass now than any of the thirty acres sown last year, and is a fine stand.

This Siberian millet does make a crop of hay or seed very quickly and will keep the land seeded if it has half a chance; but it is not growthy enough to make big crops on ordinary land. Being of such rapid growth it matures too rapidly for this climate and is over-estimated as a paying crop.

WM. B. BOWLEY.
Lone Elm, Anderson County.

New Irrigation Law.

EDITOR KANSAS FARMER:—It is gratifying to know that one of the most important laws passed by the last Congress is the irrigation law. This bill proposes to assist the regions lying west of the main belt, by procuring water in quantities that will enable the land owner to irrigate a portion of his land. Much of this land is held by the government and money spent in such an enterprise will cause many thousands of settlers to make application for land that is now considered almost worthless except for grazing purposes. It will cause more railroads to be built, more towns will spring into existence, more schools and churches will do their work, causing a better citizenship and a greater revenue to the government.

The Scientific American says: "It is one of the best measures that has become a law in the beginning of the Twentieth Century."

The New York Commercial considers it President Roosevelt's "triumph."

The New York Times says: "The country is to be congratulated," and speaks of the opposition to the irrigation law on the ground that it will develop hurtful competition against the eastern farmers as the "cry of all who are afraid of a fair field of progress."

The Chicago Inter Ocean says: "The irrigation bill is likely to pass into history as the wisest legislation of the present Congress."

The Cincinnati Commercial Tribune says: "The passage of the irrigation bill is a strong evidence that broader views are being entertained, and that even Congressmen are beginning to understand that what ensures to the benefit of one section, ensures to the benefit of all."

The Louisville, Kentucky Commercial says: "Every intelligent business man will approve of the great work which was proposed by President Roosevelt in his first message to Congress." Many other such quotations could be used which have appeared in the larger daily and weekly papers with an uplifting influence in the locality in which they are published. Some few critics of the east have found fault with the Gov-

ernment for favoring the west to such a degree. Ten years hence they will be pleased to think that Congress as early as 1902 passed such an important measure.

The passage of the bill will be of great benefit to Kansas because many of the western counties will greatly increase their resources wherever the improvement is made. The success of a few of these irrigation plants is far reaching. I am glad that one of the first of these will be located in north-west Kansas. GEO. W. TINCHER.
Topeka, August 4, 1902.

Improving Alfalfa Stand.

EDITOR KANSAS FARMER:—I want to tell you how pleased I am with the KANSAS FARMER. In every issue I find something which seems as if it had been written for my especial benefit. Don't think I could run my farm without it. Would like to tell you my experience in improving a poor stand of alfalfa. I have thirty acres, five acres in one corner was fine and three acres in another was good but the balance was scattering. Good and scattering in patches. Three years ago in the spring I drilled it all over. Seed came up fine but crab-grass and dry weather killed all of it. The next year I disked and sowed the seed broadcast. This came up fine but met the fate of the year before. Last year I disked again and thought I would keep it at and perhaps would strike it sometime. It came up nice and some managed to live. I let the third crop last year go to seed. Was so dry last year the third crop was not very tall. Some was so short the mower did not cut it and some the rake did not get. Had it raked in straight windrows and bunched. Then harrowed it. When harrowed to a row of cocks a man moved them onto that which was harrowed. The ground was in fine shape having been disked in the spring and just after the August rains. In raking, some of the ripest seed fell out and that with what the mower and rake failed to get gave me a fine stand. It came up so even it really looked as if each seed had been placed by hand. It stood the hard winter all right. The old alfalfa protected it and is now as fine a stand as you would wish to see.

H. D. NUTTING.
Emporia, Lyon County.

Bermuda Grass a Success.

EDITOR KANSAS FARMER:—Your article, Experiment Station in short grass country, tempts me to say that I have been experimenting here with Bermuda grass, and can report favorably. It was known that it was a good pasture grass, that stock would eat it satisfactorily, that it made a close velvety lawn. It was uncertain whether the winter would kill it. Having passed through two winters without harm this point is settled.

The Bermuda remained green through all last summer, when everything else was brown. Its interlacing habit helps keep lands from washing.

H. C. HAMMOND.
Superintendent Kansas School for the Deaf.
Olathe, Johnson County.

Pasture Grass for Overflow Land.

EDITOR KANSAS FARMER:—Can you tell me through your paper what is the best grass for pasture or meadow on low ground that overflows with backwater and sometime stays as long as a week? The land is very rich soil. Would alfalfa do? D. E. SPENCER.
Oswego, Labette County.

Alfalfa will not stand such conditions. Does any reader know of a grass that will?

Horticulture.

Shawnee Horticulturists.

The regular monthly meeting of the Shawnee County Horticultural Society took place Thursday, the 7th inst., in the pleasant grove of the State Reform School, northwest of Topeka, with a moderate attendance.

After lunch which was spread at 12 o'clock, the program was taken up at 2 p. m. Many beautiful flowers for the table were furnished by Mrs. Kleinmans of Grantville and other ladies.

Prof. E. B. Cowgill talked of the plan of arranging solar motors for the purpose of raising water for horticultural use. He stated that at present the only machines in operation are those at Los Angeles, California. It was hoped that before the close of this year machines would be erected in Kansas.

Mr. Cowgill, on request, described the machine and its mode of working. He

IT IS SOLVED The question that has most agitated the ginner and compressors for years is that of a proper tie for cotton baling.

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Has solved the problem. It combines strength and durability, ease and rapidity of application, and is adapted to any kind of press. These ties are made from very tough and expensive steel, manufactured especially for the purpose by the Illinois Wire Co., Chicago. There is absolutely no breakage and the wire never slips, hence more density. The wire is round, therefore does not cut the bagging or fiber of cotton. Write for circular and prices.

WILLIAM CHRISTIAN, Agent, 203 1/2 Main Street, Houston, Texas.

stated that it was expected to be more reliable, cheaper, and steadier than wind power, as it should be always ready to work when the sun shone. In cloudy and rainy weather, when it would not work its labor would not probably be needed for irrigation.

Discussed by Mr. Goodell, A. B. Smith, J. F. Cecil, B. H. Pugh, and others.

Mr. A. E. Dickinson talked of bitter rot in apples, and exhibited specimens of apples affected by bitter rot. His specimens showed spots of a dry rot near or at the surface of the apple, having concentric rings of a brownish color, growing darker toward the center, where there is a black spot appearing as if stung by an insect. He explained the difference between bitter rot and apple-scab fungus. The scab dries up the apple so that it is not fit for cider. Bitter rot is later in the season and is known by its characteristic circles of varying color, with an apparent puncture in the center.

He read an extract from the Farmers' Review claiming that bitter rot is not disseminated by the wind, but by rainfall, usually starting from some point on a twig high up on a tree and spreading from there downward in a conical form on the tree, all apples on the tree outside of that cone not being affected. He stated that the Willow-wig, Huntsman, and Ben Davis were the varieties most affected by bitter rot.

Mr. B. H. Pugh, on request, made some remarks on raising potatoes in the Kaw valley. He suggested raising with irrigation, two crops a year—one a crop of early potatoes to be harvested in June, and the second to be of northern seed wintered over and kept in cold storage. This should be ripe before frost. In case of an early frost, with suitable arrangements for irrigation, the frost could be warded off by flooding.

Pears, crab apples, and beans, were presented for name and were named by Messrs. Van Orsdal, Cecil, Ham, and others.

The next meeting of the society will be held at Mr. Goodell's at Tecumseh, Thursday, September 4, with the following program: Roses and Hardy Plants—Mrs. A. J. Kleinmans; Cooperation in Marketing—A. B. Smith; Economy of Woman's Work—Mrs. Kittie McCracken. B. B. S.

Fruit Bark Beetle.

EDITOR KANSAS FARMER:—I am sending you some bugs I found on a peach tree which is dying; also a twig from an apple tree. I wish you would inform me through your paper what they are. Drexel, Mo. A. N. CRAWFORD.

The above question was referred to Prof. E. A. Popenoe, entomologist of the Kansas Experiment Station, who says:

"The insect is commonly known as the 'fruit bark beetle' or 'shot-hole borer.' It is a beetle known to the entomologist as Scolytus rugulosus.

The little dark beetles appear in early spring and bore little round holes through the bark to the sap-wood. The eggs are laid in little channels, the larvae soon hatch and make channels of their own. The larvae pupate in these

channels and come out through the round holes in the bark, which resemble the holes made by fine shot.

Their life history is short. There are probably several broods in the course of the season. Trees that are diseased or weakened in some way are much more liable to be attacked than healthy trees. Good culture and fertilization, if the ground is poor, are good preventives.

"If the insects are few, painting the trunk with whitewash or soft soap and sal soda mixed to the thickness of paint may save the trunk, but all affected branches should be cut out and burned at once, and if the tree is badly affected, the entire tree should be burned. No dead wood or prunings should be left in the orchard to breed the pest."

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J. R. RATEKIN & SON, Shenandoah, Iowa.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

- August 22, 1902—Harry Sneed, Smithton, Mo., and McFarland Bros., Beaman, Mo., Duroc-Jersey hogs at State Fair, Sedalia, Mo.
- September 2, 1902—L. M. Monsees & Sons, registered saddle horses, mules, and registered Poland-Chinas, at Smithton, Mo.
- September 8-13, 1902—Kansas State Exposition, Topeka, O. P. Updegraff, Secretary.
- September 17, 1902—J. F. Finley, dispersion Short-horn sale, Breckinridge, Mo.
- October 1, 1902—Wm. Plummer, Poland-Chinas, Barclay, Kans.
- October 7-8, 1902—J. S. McIntosh, Kansas City, Mo. Short-horns.
- October 13, 1902—J. W. Dawdy, Abingdon, Ill., and D. L. Dawdy, Arrington, Kans., at Galesburg, Ill., Short-horns.
- October 20, 1902—E. E. Axline, Poland-Chinas, Oak Grove, Mo.
- October 21 and 22, 1902—Herefords at Kansas City, Mo., under auspices of American Hereford Cattle Breeders' Association. (Week of American Royal.)
- October 22-23, 1902—Combination sale of Berkshires, at Kansas City, Mo. (Week of American Royal.)
- October 23, 1902—J. B. Davis, Duroc-Jersey, Fairview, Kans.
- October 20-25, 1902—American Royal Swine sale, Berkshires, and Poland-Chinas, Kansas City Stock Yards.
- October 31, 1902—J. C. Hall, Hallsville, Boone Co., Mo., at Centralia, Mo., Short-horns.
- November 1, 1902—H. M. Kirkpatrick, Farm sale of Poland-Chinas, Wolcott, Kans.
- November 3, 1902—Peter Blocher, Richland, Shawnee County, Kans., Duroc-Jersey swine.
- November 6, 1902—Thos. Andrews & Son, Cambridge, Neb., Short-horns.
- November 7, 1902—Manwaring Bros., Lawrence Kans., Berkshires.
- November 10, 1902—Branstetter, Robinson & Wright, Short-horns, Vandalia, Mo.
- November 13, 1902—Geo. W. Berry, North Topeka, Manager. Combination sale of Berkshires. Manhattan, Kans.
- November 14, 1902—Harry E. Lunt, Poland-Chinas, Burden, Kans.
- November 15, 1902—A. B. Mull, pure-bred Poland-Chinas, Iola, Kans.
- November 18-19, 1902—Marshall County Hereford Breeders' Association Sale, Blue Rapids, Kans.
- November 23-29, 1902—W. F. Harned, Vermont, Mo., and F. M. Marshall, Blackwater, Mo., at Kansas City, Mo., Goddy Short-horns.
- December 4 and 5, 1902—Herefords at Chicago, Ill., under auspices of American Hereford Cattle Breeders' Association. (During week of International Cattle Show.)
- December 8-9, 1902—J. E. Logan and Benton Gabbert & Sons, Kansas City, Mo., Herefords.
- December 16, 1902—Gifford Bros., Manhattan, Kans., Short-horns.
- December 19, 1902—Hanna & Co., Howard, Kans., Percheron horses, at Kansas City.
- January 12-17, 1903—C. W. Armour and Jas. A. Funkhouser, Herefords, at Kansas City, Mo.
- January 23-25, 1903—U. A. Jamison, Peoria, Ill., Short-horns, at Chicago.
- February 17, 1903—Geo. F. Kellerman, Short-horns, Kansas City, Mo.

The Ox Warble.

C. L. MARLATT, FIRST ASSISTANT ENTOMOLOGIST, U. S. DEPARTMENT OF AGRICULTURE.

GENERAL CHARACTERISTICS AND ORIGIN.

One of the worst insect enemies of cattle, especially in the great grazing regions of the West and Southwest, is the so-called ox bot, or ox warble. It bears, also, a number of other colloquial designations, such as the "ox worm," "bot-fly," "heel fly," and is often known merely as the "grub." With reference more particularly to the injury occasioned by it, we have the terms "grubby cattle," "warbled stock," and the expressions "licked beef," or "jelly," in description of the peculiar appearance of the region infested on the beef and on the hides.

This insect belongs to the family Oestridae, which includes the gad-flies and bot-flies, various species of which affect all of the larger herbivorous mammals, some of them living in the cavities of the body, as in the nostrils and the digestive tract, and others beneath the skin, as in the case with the species under discussion. Until comparatively recent years the general belief has been that our ox bot-fly was the common warble fly of the Old World (*Hypoderma bovis*), but it has been more recently shown that the only bot-fly affecting cattle so far discovered in this country is a different species (*Hypoderma lineata*). This species is also quite abundant in Europe, where it occurs in company with the old species *H. bovis*, and often on the same animal. The *Hypoderma lineata* is a common cattle pest throughout the United States, and infests also the buffalo. In Europe it has been found from England to the regions of the Balkans and the Caucasus. Whether it is of European or American origin can not be very readily determined. It was present in this country at a very early date, and may have been the characteristic bot-fly of our native buffalo and have been introduced into Europe from this continent. Its great abundance, however, on our domestic cattle, and its wide range in Europe, leave its origin open to doubt. It is rather remarkable, on the other hand, that the *Hypoderma bovis* has never been found in this country, occurring, as it does, rather commonly in Europe. Nevertheless of the many hundred larvae examined in this country by experts all of them have proved to be *lineata*, and all of the captured and reared adult insects of this nature in the various collections which have been

examined prove to be of this species. At the present time, therefore, so far as known, no larvae or adults referable to *bovis* have been collected on this side of the Atlantic.

AMOUNT AND NATURE OF DAMAGE.

Some years ago a careful investigation of the percentage of cattle infested with the ox bot in this country was made by a Western farm paper. From the averages reported from the chief cattle States of the Mississippi Valley it was shown that 50 per cent of the cattle received in the Union Stock Yards at Chicago during the grubby season, which includes the months from January to June, were infested and more or less injured by the presence of the larvae of this insect. The depreciation in the value of hides from this cause was estimated at more than a half-million dollars on the customary reduction of a dollar for a grubby hide. Adding to this the loss from the depreciated quality of the beef, together with the lessened quantity of the same from the inferior condition of affected animals, a total loss during the season in question was estimated at over three million dollars.

The appearance known as "licked beef," which results from the presence of the grub, and which may be described as a moist or running surface of a greenish-yellow color, frequently presenting a frothy or jelly-like appearance, is sufficient to condemn it for use in all first-class hotels and restaurants.

The effect upon dairy animals has been estimated by Mr. T. D. Curtis at a shrinkage of from 10 to 20 per cent of the normal yield. In England Miss Ormerod has made an estimate of the loss resulting from the presence of the larvae of the *Hypoderma bovis*, basing her figures on reports from various practical men, showing a depreciation of from £2,000,000 to £7,000,000 sterling per annum, or as much as £1 per head of horned cattle. This loss is shown to fall very largely on the cattle-owners and also, to a less extent, on the butchers in the depreciation of the value of the carcass.

These figures seem very large and startling, but the loss is of such a nature and so widely distributed that, until comprehensive statistics like the above are collected the amount of damage annually suffered is hardly appreciated. The losses are sufficient, at any rate, to indicate that the cattle interests have few worse enemies than this bot-fly. Before entering upon the subject of remedies, the habits and life-history of the insect will be briefly detailed.

LIFE HISTORY AND HABITS.

It was formerly believed that the parent bot-fly deposited its eggs on the backs of cattle, on the hair, or attached them to the skin, and that the young larvae on hatching burrowed through the hide and gradually developed until they attained full growth in a cell formed by them in the connective tissue immediately beneath the skin. Dr. Cooper Curtice, who has made very careful and interesting studies of the life history of this insect, has shown that an entirely different course is followed. The facts obtained by Dr. Curtice have been supplemented by investigations, more particularly of the egg-laying habits and first stages of the larvae, conducted through the agency of the Division of Entomology, U. S. Department of Agriculture. Briefly, the life habits of this insect are as follows:

Very early in the spring, as early as January or February in southwestern Texas and later northward, the flies begin to appear about cattle and frequent their legs, and especially the region just above the hoof, for the purpose of oviposition. It is from this common habit of placing their eggs on the part of the body noted that they get the name in the South and West of "heel fly," and it may be for this reason in part that cattle almost invariably seek running water in which to stand to protect themselves from the fly. Furthermore, the fly seems not to approach the animals while standing in or over water, even if the parts where the eggs are likely to be placed are above water, as with animals standing on exposed rocks in streams.

The eggs are also placed occasionally, if not frequently, on other parts of the body, as the flanks and lower portions generally. In one instance a correspondent observed an old and feeble animal, which had lain down and could not get up to escape, attacked by some fifty flies, which were observed about her at one time. A dozen or more of these flies were afterward captured and submitted to us for identification, together with a large number of eggs.

Along the Pedernales River cattle would come to the water to escape the

flies as early as 9 o'clock in the morning and remain there, for the most part standing on exposed rocks in the stream, until 5 o'clock in the evening. In the meantime the flies were observed along the banks of the stream in extraordinary numbers, but none of them seemed to care to approach the cattle.

One of the most noticeable features connected with the presence of this fly among cattle is the intense excitement which it causes, often amounting to frenzy, stampeding the stock and causing them to run violently through shrubbery or to water where the fly will not follow them. This can not come from any pain caused by the placing of the eggs on the animals, but must be from an instinctive dread of the insect, and is analogous to the similar frantic actions of the horse when approached by the throat bot.

The injury to fattening range cattle in the spring is due very largely to the annoyance occasioned by the presence of the fly. A Texas correspondent, Mr. George W. Holstein, calls attention to this fact as follows: "A cow quietly grazing will suddenly spring forward, throw up her tail, and make for the nearest water at a headlong gait. Seemingly deprived at the moment of every instinct except the desire to escape, she will rush over a high bluff if in the way, often being killed by the fall. This, with miring in water holes and the fact that cattle are prevented from feeding, causes the loss."

As observed, in the act of egg-laying the flies approach the cattle very swiftly, being almost too quick in flight to be observed except at the very moment of placing the eggs. The eggs are fastened to the hairs, in the examples received here usually four to six together. The structure of the lower portion of the egg is of such a nature that it clasps the hair almost entirely and forms a very firm and strong attachment. In length it measures about two millimeters, and is of a dull yellowish-white color.

The eggs once in position, the larvae probably rather than the eggs, are carried into the mouth by means of the licking of the leg and the region about the hoof and flanks of the animal. As seen from the examination of our material, the egg, as soon as deposited, has the larva already formed in it, and it is probable that the young larva escapes from the egg at the moment it is conveyed to the mouth, the pressure and moisture of the tongue facilitating its escape. The egg, at any rate, splits readily at the anterior end, and the young larva being conveyed into the mouth soon penetrates the esophagus by means of its strong spines. These young larvae have been found in the walls of the esophagus, and it is not until about the end of December that they appear in any numbers in the back.

After penetrating the esophagus, the larva soon moults and assumes a nearly smooth surface, and for several months wanders through the connective tissue of its host between the skin and the flesh, penetrating gradually along the neck and ultimately reaching a point beneath the skin in the region of the back. In the meantime all traces of the larva or attending inflammation disappear from the region of the esophagus. The "lick," according to Dr. Curtice, is nothing more than an effusion of serum in the connective tissue caused by the inflammation induced by the wanderings of the young grubs.

When the final position in the back is reached the larva moults again, becomes more spiny, and penetrates or bores a hole through the skin, caudal end first, through which it gets air for respiration at this stage. At this time the anal spiracles, or breathing pores are much more prominent than they were during the long period of the wandering life of the larva, when respiration must necessarily be very limited. The larva now develops much more rapidly, subsisting on the pus and bloody serum which its presence beneath the skin induces. The final moult soon follows, which brings it to the form that is commonly seen by stockmen.

When full grown the larva has a length of more than an inch and is rather robust and of a yellowish-white color. It works its way out by means of its strong spiny covering through the hole which it has previously used as a source of air, drops to the ground, which it may or may not enter, but, at any rate, contracts and hardens, and gradually darkens, ultimately becoming almost black in color. This contracted and hardened larva is what is known as the puparium, which, except for its changed color, texture, and shape, preserves all of the characteristics of the larva. From three to six weeks later the perfect fly escapes by pushing off a sort of circular

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Yours truly,
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piece or cap at one end of the puparium.

The establishment of the wandering habits of the larva in its early stages and the fact of its entrance into the animal through the mouth and esophagus, instead of the skin of the back, is based on careful experiments and examinations conducted by Dr. Curtice, and is apparently now well established, though differing so radically from the views formerly held.

In general appearance and size, the adult insect, roughly speaking, is not unlike the common honeybee. It is about one-half inch long, the general color black, and is clothed with yellowish-white and reddish-brown and black hairs. The margin of the head and thorax and a band on the base of the abdomen are covered with long whitish hairs.

The European bot-fly (Hypoderma bovis) is a much larger insect, and is strongly banded with yellow and black.

PREVENTIVES AND REMEDIES.

It is possible to greatly diminish the loss occasioned by the ox bot, and this is notably true of the smaller herds belonging to the general farmer, dairyman, and to the raiser of improved breeds, which are better cared for and more easily handled.

The common means of preventing the attacks of this fly and of killing the larva after they have reached their final location in the back are of very ancient origin, having been referred to, in fact, by Pliny, writing in the first century of our era, and were probably known much earlier.

The substances used are any strong smelling oils and fats, by means of which it is possible to prevent the fly from depositing its eggs on the animal and also to kill the larva in their final stages in the back.

The oils commonly used for the purposes mentioned are the train oils or fish oils, either alone or with sulphur or carbolic acid mixed. The addition of the later is especially favorable to the healing of sores and diseased places left by the grubs.

To protect the animals from the attacks of the fly, or in other words to deter the fly from placing its eggs on them, it is necessary to smear or spray the oil or grease on the legs, flanks, or other parts of the animal most likely to be approached.

The application of oils is often recommended to kill the grubs in the backs of animals, either smearing the substance liberally over the infected region, or preferably applying it at the mouth of the breathing hole of the grub, the location of which is indicated by a hard swelling and a slight exudation of pus.

through which they breathe and which penetrate nearly to the end of the hole in the skin. One or two applications during the winter are said to be sufficient. The grubs may be killed also by placing a small quantity of mercurial ointment in the hole, or a few drops of spirits of turpentine, carbolic acid, or kerosene, and further by piercing them with some sharp instrument.

There is one objection to this method of killing the grubs, viz, that the dead grub remains beneath the skin of the animal and may cause an abscess or suppuration by its subsequent decay. These methods of treatment, however, have been long recommended both in this country and Europe and no bad results have been reported.

Wherever it is practicable, however, the grub should be entirely removed, and this may be effected by applying pressure on either side of the swelling indicating the presence of the grub, forcing the latter out. Dr. D. E. Salmon reports that the grubs may be very successfully removed by means of small tweezers, applying a slight pressure with the fingers to cause the grub to slightly protrude, then drawing it fully out with the tweezers.

The benefit following the removal of the grubs is immediate, and will repay considerable trouble in its accomplishment.

If by such winter treatment the majority of the larva can be killed or removed from the backs of the cattle, this in itself will furnish considerable protection for range cattle if it be generally adopted. This is, at least, about the only step which presents any practical possibilities for the great grazing districts of the West and Southwest.

As a rule, the application of these remedies will necessitate means of bringing the animals into close quarters in small pens, and is necessarily attended with some expense and considerable labor.

C. L. MARLATT, First Assistant Entomologist, U. S. Department of Agriculture.

Scale of Points for Judging a Dairy Cow.

YEAR-BOOK OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

In the accompanying illustrations are indicated the parts of the cow taken into consideration in judging her merits as a dairy animal.

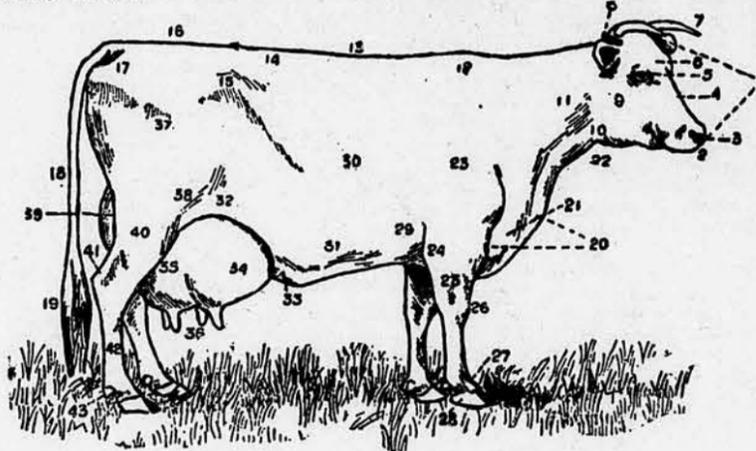


DIAGRAM OF COW SHOWING POINTS.

- 1. Head. 2. Muzzle. 3. Nostril. 4. Face. 5. Eye. 6. Forehead. 7. Horn. 8. Ear. 9. Cheek. 10. Throat. 11. Neck. 12. Withers. 13. Back. 14. Loins. 15. Hip bone. 16. Pelvic arch. 17. Rump. 18. Tail. 19. Switch. 20. Chest. 21. Brisket. 22. Dewlap. 23. Shoulder. 24. Elbow. 25. Forearm. 26. Knee. 27. Ankle. 28. Hoof. 29. Heart girth. 30. Side, or barrel. 31. Belly. 32. Flank. 33. Milk vein. 34. Fore udder. 35. Hind udder. 36. Teats. 37. Upper thigh. 38. Stifle. 39. Twist. 40. Leg, or gaskin. 41. Hock. 42. Shank. 43. Dew claw.

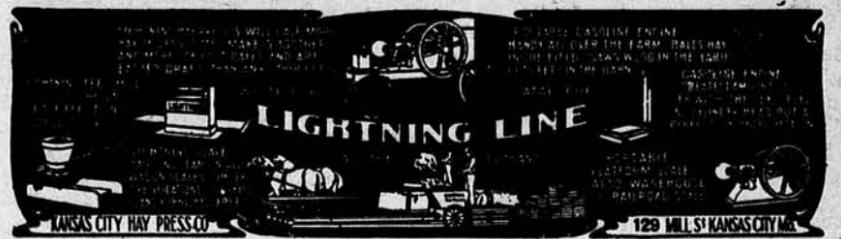
In judging dairy stock, 100 is assumed to represent the ideal or perfect dairy cow. The following is a list of the general qualities and particular parts considered with the figures at the right indicating the "weight" or importance attached to each in making up the total of 100 points which stands for perfection:

GENERAL APPEARANCE.

Constitutional vigor, as shown by size, apparent health, strength, activity, and "general appearance"..... 5 Form, wedge-shaped as viewed from front, side, and top..... 5 Quality, hair fine, soft; skin medium thickness, loose, mellow and unctuous, with yellow secretion..... 5 Temperament, active and nervous (but not "wild"), indicated by movements, eyes, and lean appearance..... 5

HEAD AND NECK.

Forehead, broad and full..... 2 Horns, small and fine, not too long, set well apart..... 1 Eyes, large, prominent, bright, and yet placid..... 1 Face, lean, not too short, straight or slightly dished..... 1 Muzzle, clean and strong, mouth and nostrils large..... 1 Ears, medium size, fine in texture, yellow secretion abundant..... 1 Neck, rather long and thin, fine; clean throat and light dewlap..... 1



FOREQUARTERS.

Chest and brisket, broad and strong, low, but not too fleshy..... 3 Withers, well defined, firm, and lean.... 1 Shoulders, light, not fleshy, and oblique.. 1 Legs, straight, rather short, and not too large or coarse..... 3

BODY.

Back, well defined, lean, open-jointed, not too level, and smooth; a good spine..... 3 Barrel or body, long and large; ribs broad, well arched, open, and well defined; a large, strong body..... 8 Heart girth, large and deep; abundant room for active heart and lungs..... 4 Belly, large, broad, and deep, with a large and strong navel..... 6 Loins, broad and strong..... 3

HIND-QUARTERS.

Hips, wide apart..... 2 Pelvic arch, prominent and strong..... 3 Rump, long and wide..... 2 Tail, long, fine, with a good switch..... 1 Thighs, long and lean, no beefiness; thin flanks..... 3 Legs, straight, rather short, wide apart, giving open twist, and not too large or coarse..... 3 Fore udder, full, broad, and extending well forward, not fleshy..... 8 Hind udder, broad, full, and attached high, not fleshy..... 8 Teats, of good size and form, evenly placed..... 5 Milk veins, upon the udder and in front of it, prominent, large, and tortuous, leading to large, open "milk wells".... 5

Notes.—In scoring or marking, give to each part the number of points which it appears to deserve upon the scale given; use fractions of one-fourth if necessary. Thus is forehead is broad, full and satisfactory, mark 2; if neck is short, thick, and beefy, mark 3/4 or 1/2, or perhaps 0; if fore udder is deficient or defective, mark 6, 4, or 2, as the case may be. A good cow closely criticised and scored should have a total of 100 points or more.

About Exhibiting Fine Stock.

In our issue of July 31 we reproduced from the Breeder's Gazette an editorial, "As to the Shows," which we failed to give credit at the time. In the issue of the Breeder's Gazette of July 23 is published a symposium of the opinions

good line of goods, and I can see no reason why the breeding of registered cattle should be any exception.

Experience has taught me that it is impossible to make a creditable show even though you may not be good enough to win without receiving more or less recognition from would-be customers. And if by chance one can develop and bring out just one animal that is a winner he will undoubtedly receive more than enough advertising to pay for all. It is remarkable how impressions last, as almost every exhibitor can tell you of sales made on the strength of your show possibly two years previous. Again, I believe if the exhibitor will leave home with the determination to use his judgment unprejudiced and learn to see other cattle as he sees his own (and he is unfit for an exhibitor until he can), the schooling he will receive will more than pay him in qualifying him for the work of breeding cattle. One of necessity must meet many strangers, thereby extending his acquaintance, and usually wider acquaintance means more business. The only way by which we can measure the standard of our cattle is by comparison and I am quite sure that there are exhibitors who have not appreciated the merits of their animals until brought to the show. I am quite sure the reverse is true. Some exhibitors have appreciated their animals more than any one else, but such will generally come back better the next year.—E. B. Mitchel.

We think any breeder who has the usual facilities for putting out a show herd should do so. One of the great secrets in any business venture is properly advertising that business, and no more effective way of advertising the cattle business can be found than through the medium of the show herd. We would not say that this alone would be advisable, but used in connection with advertising in the live-stock journals it makes sure work of it. No matter how small the herd, a few things should be fitted and exhibited at some of the many live-stock shows of the country. If you do not feel able to go to State fairs at first go to the county fair. Get acquainted with the breeders and their ways and compare your cattle with those of others in the show yard. There is no educator equal to experience at the fairs. And in beginning do not get discouraged if you do not win all you think you should, but see where the animal that beats you is better than yours. Then go home and begin getting ready for the next year. We are of the opinion that the advantages secured from the show herd in connection with the breeding herd are not fully appreciated by cattle-breeders. Show your cattle and give the newspaper boys something to talk about and they will use it. Do not get discouraged but remember "Success comes to those who hustle wisely."—J. G. Robbins & Sons.

In answer to the new beginner I would advise that he fit his animals up well and enter them at the shows. This is the quickest way for him to find out whether he has the right kind of animals or not. By comparing them with those owned by others he will see at once, if he is any judge, just where he is and if he has the wrong ideals in his mind he will get them knocked out if he is disposed to learn and profit from others he will soon get set right in judgment. The show yard is a great educator, as it is only by comparison that we judge animals, good or bad. At home we are apt to be of the opinion that we have as good as any one and by entering the show ring and comparing our products with those of others we may find ourselves far behind. Again, nothing stimulates the development of our herds as much as the show yards. We think more of our animals, too, when we see them developed right. The old foggy idea that we must have animals in thin form to judge them to

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.**

jest advantage has long been proved erroneous. Not until an animal has been properly developed can any one tell for a certainty how good it is or can be made. Development proves what is in them.

"Anything that is worth doing is worth doing well" will apply to showing as well as anything else. Nothing will advertise a breeder and give him an acquaintance quicker than showing, but the benefits he will derive from showing will depend on his efforts—that is, the quality of stock he shows and the development of it. Some breeders spend a life-time almost in advertising to the world that they have a poor class of live stock by never showing anything in proper condition and also by showing a class of stock of low grade naturally. Such efforts are certainly worse than thrown away. Such breeders are simply advertising to the world by hard work and the spending of money, too, that they have nothing any one should buy.

In regard to the question whether it pays the breeder to show his cattle or not I will say it has paid me and paid me well. At the first show I did not win many prizes, but as it afforded me the opportunity of comparing my cattle with others it proved a great educator for me, and as time went on I bred and showed better cattle each year. I can look back now and see that if I had never gone into the show-yard I would not have accomplished much as a breeder. As an advertising medium I believe it is the best and cheapest. I do not believe that a man should be discouraged if at his first show he does not win but should try again. While the prizes may not pay his expenses of fitting the cattle for show I believe he will be amply repaid by getting his cattle before the public and becoming better acquainted with the breed and breeders. If he is successful in winning prizes he will be paid both ways.—Geo. Bothwell.

From my personal experience I will say most emphatically it does pay to show cattle. Showing cattle will pay directly with a good herd and good herdsmen to fit and carefully manage them. I think it is well for the beginner to start at the county and district fairs. The acquaintance with farmers and cattlemen at these shows is very valuable. After some experience at the smaller shows one is better prepared to enter the field of the professional showman. Never be satisfied with just a place in the money, but always aspire and strive to the possession of a herd, or at least some individuals, to stand at the top. I do not favor overfitting cattle, but they must be in prime condition; and it is best that cattle make their reputation under 3 years of age. They are not ruined for breeders. The advertising gained in the show-yard is the most effectual advertising there is, and is gained without expense; and as I have before said the acquaintance of breeders, feeders, and farmers gained in the show business is the most valuable of all and something money will not buy.—F. A. Nave.

If the young man has fully made up his mind that he is going to make the breeding of live stock a life business and will stay with it I answer yes. If not I think I would advise him to let it alone. In the first place there are many conditions required to make a successful herd of show cattle as well as to be competent to show them. Many a good animal has been turned down in the show-yard because the show man was not competent and ought not to have been at the end of the halter.

The first year or two out the young show man will learn more about cattle and especially show cattle than he would ever know just to sit at home and breed them. Therefore I think it is a fine education for the young breeder to show his cattle. Show cattle must have character, style, conformation and type, and the quicker he recognizes this fact and gets it into the herd, the sooner he will be brought into prominence—and the advertising is great. My experience as a show man was the hotter the competition the more I learned, and these lessons to a breeder from a breeder's standpoint are priceless. Now as to the advertising it gives and whether it will pay. I answer yes. A herd of successful show cattle will clear enough money to pay all expenses and to run a good "ad" in several of the best live-stock papers, besides the advertising and the acquaintances that are useful to you.—Wallace Estill.

Directly the benefit is not so great as might be expected, although an exhibitor can make expenses and considerable more to compensate for feed and labor, but indirectly benefit comes in

from advertising received in the show-yard, and this is worth many times the cost and trouble.—Edwin Reynolds & Son.

Taking it for granted that the young man means to go into the business of breeding as a permanent one I think it pays to show. In conjunction with newspaper advertising it shows that we have what we represent. Again it brings us in contact with other breeders and gives us a much larger personal acquaintance with men in our calling. But the most valuable of all the experience we get and the lessons we learn is the opportunity we have to compare our cattle with other men's cattle and our ideas with other men's ideas and thus learn the good from the bad.—Jas. A. Funkhouser.

Finely Bred Live Stock.

Senator W. A. Harris of Kansas, who is now in Europe as special commissioner of the World's Fair to arrange with foreign live-stock men for the exhibits of fine animals at the Exposition of 1904, has definite ideas of what the exhibit should be. Before his departure abroad he said:

"My idea of the exhibit for the St. Louis Exhibition is that it should be made a great International Live-Stock Show. The breeds should be distinct, typical and characteristic. There will be many fine stock exhibits from the United States and Canada and I believe arrangements can be made for many interesting foreign displays. I was in Europe ten years ago and met several of the principal live-stock traders and breeders in England and on the continent and also representatives of live-stock associations. They were all interested in the stock raising industry in this country.

"I shall endeavor to interest these men to the extent of obtaining from them exhibits of their herds and I believe they will be glad to send their stock over when they learn the magnitude of the Exposition plans. I shall also call upon the editors of the stock publications in Europe, and if possible, obtain their support. The first place I shall visit after I leave Liverpool will be York, where I am well acquainted and where are to be found some of the famous English breeds of cattle and horses. From York I shall go to Aberdeen, Scotland, where there are many distinct breeds of high priced Short-horns and fine strains in draft horses and mutton. I shall also visit other points in Scotland and Wales, and after which I will go to England and spend three weeks. There the stock-raising associations have headquarters and there a large part of my work will be done.

I expect to go to France, where several breeds of fine coach horses and heavy harness horses are raised, as well as two distinct breeds of cattle. From France I shall probably go to Switzerland and arrange for the exhibition of Swiss dairy cattle and then to Holland, where several pure strains have originated, among them the celebrated Holstein Freisian cattle, of which there are many in this country. I am also anxious to secure an exhibit of the Belgian coach horses.

"I should like to extend my trip to Russia, as interesting breeds of live stock are to be found there. I shall consult with the Russian Ambassador in Berlin and through him and the United States ambassador to Russia, endeavor to arrange for a Russian stock display. Among the Russian horses is the Orloff trotter, bred originally by Count Orloff, famous in the time of Queen Catherine. The King of England has one of the most complete herds of Shorthorns in Europe at Sandringham and Queen Victoria's herd at Windsor was also a celebrated one. Both have been exhibited at the Royal Agriculture show. I believe they can be obtained for the St. Louis Exposition.

"The stock show at St. Louis will be the first international affair of that character and I am anxious that it shall be a notable one. The St. Louis Exposition will attract thousands from South American countries as well as from Mexico and Central American countries, and, as there is a large market for European stock in South America, the European stock raisers will be anxious to place their stock where it can be inspected."

Kafir-corn as a Feed.

EDITOR KANSAS FARMER:—I would like to know through the columns of your paper whether Kafir-corn is hard on the land or not and if the seed alone is a good hog feed, or should corn be with it to make the pork weigh heavy.

JOHN VAN BEEK.
Prairieview, Phillips County.
Kafir-corn is good hog feed but not

quite equal to corn. But corn is not the proper material with which to balance the Kafir-corn ration. Alfalfa, cow-peas, soy-beans, and other feeds rich in nitrogen give good results with either corn or Kafir-corn.

What Can We Afford to Pay for Soy-beans for Hog Feed?

Mr. W. M., Atchison, Kansas, writes: "About what price should we pay for soy-beans for hog feed? By feeding four-fifths corn or Kafir-corn and one-fifth soy-beans, would the added cost of the soy-beans still yield a greater net profit than could be secured by corn or Kafir-corn alone?"

An average of the feeding trials conducted at the Kansas Experiment Station show that it requires 574 pounds of Kafir-corn meal to produce 100 pounds of pork. With a mixture of four-fifths Kafir-corn meal and one-fifth soy-bean the same class of hogs require 428 pounds of grain for 100 pounds of gain. This is a saving of 146 pounds of grain for every 100 pounds of gain. Similar differences have been found with corn. Kafir-corn-meal is selling in Manhattan at \$1.20 per hundredweight; this would make the 574 pounds worth \$6.86. The Kafir-corn in the 428-pound mixture (four-fifths of 428=342.4) would amount to \$4.10. The difference \$2.78 represents the value produced by the one-fifth soy-beans (one-fifth of 428=85.6). In other words 85.6 pounds soy-beans are valued at \$2.78 or at the rate of \$3.24 per hundredweight or \$1.94 per bushel.

If Kafir-corn is worth \$1 per hundredweight, the 574 pounds would be worth \$5.74, the Kafir-corn in the 428-pound mixture would be worth \$3.42, difference to be applied to soy-beans would be \$2.32 or at the rate of \$2.71 per hundredweight or \$1.62 per bushel. In a similar manner we find that if Kafir-corn is worth 80 cents soy-beans would be worth \$2.16 per hundredweight or \$1.29 per bushel. D. H. OTIS.
Kansas Experiment Station.

Oil Cure for Cancer.

Dr. D. M. Bye has discovered a combination of oils that readily cure cancer, catarrh, tumors and malignant skin diseases. He has cured thousands of persons within the last eight years, over one hundred of whom were physicians. Readers having friends afflicted should cut this out and send it to them. Book sent free giving particulars and prices of oils. Address Dr. D. M. Bye Co., Drawer 505, Indianapolis, Ind.

A Big Angora Goat Sale.

Is announced to be held at Kansas City on Tuesday, August 19, 1902, at the Sheep Division of the Kansas City Stock Yards, at which time from 4,500 to 5,000 head will be offered by a combination of leading breeders of the West. The offering consists of 50 registered yearling bucks, exceptionally fine; 500 registered does; 1,000 high-class does; almost eligible to register, and 3,000 2- and 3-year-old wethers, including some old-fashioned brush-cleaner goats. The principal consignors to the sale are, W. H. Woodlee, J. J. Gentry, Col. J. W. Stewart, E. L. Witt & Son, L. S. Friday, Sam Heymann, W. G. Perkins, W. T. McIntire. For further detailed information about this sale address W. T. McIntire, Mgr., 221 Live Stock Exchange, Kansas City, Mo.

Gossip About Stock.

A splendid opportunity is offered to secure a grand lot of Hereford females as shown by the advertisement on page 829, of J. A. Carpenter, Carbondale, Kansas, who is settling up some matters of estate and offering seventy young cows and heifers which are bred to the splendid herd-bull, Gondolus 133227, and out of Gwendoline 10th 71732. This is one of the great sons of Guggell & Simpson's bull, Beau Brummel, and the dam of the bull is the famous show cow, consequently intending purchasers may count on getting a rare bargain.

Mr. Geo. L. Clothier, a graduate and former instructor of the State Agricultural College at Manhattan, is now a special agent and expert for the Bureau of Forestry of the United States Department of Agriculture. In pursuance of his duties he is announced to speak to the citizens of Hardeman and neighboring counties in Texas at Quanah on August 21. He will endeavor to interest the Panhandle farmers in forestry and grasses and will recommend as to the kinds of trees, grasses, and forage plants best adapted to that locality.

Under a law recently adopted by Congress the Secretary of the Interior is authorized to sell certain timber lands at public auction. The first sale of this kind is announced for March 4, 1903, at Crookston, Minn. The chief of the Department of Agriculture has dispatched an expert forester to Minnesota to begin a series of experiments looking to the reforestation of a tract of denuded lands of 225,000 acres. Should this prove successful further plans will be carried out for the restoration of the forests in different sections of the country.

Lately the Galloways seem to have a fashion of coming out on top in the competitive sales which are always in progress in the big live stock markets. Not only is this true but they are Kansas Galloways that win. Less than a month ago Galloway cattle topped the Kansas

DR. REA'S CALF FEEDER



MAKES FAT CALVES.

Prevents scours. Gives the calf perfect digestion, and gives you the full use of the cow. Quickly detached; easily cleaned.
Single Calf Feeder, \$2.00
Three Calf Feeders, 5.00
BOOKLET FREE.

Dr. Rea's Calf Weaner



is easily and quickly adjusted; weans the calf while running with the cow; no bawling; no shrinkage. Prevents cows from sucking themselves.

Single Calf Weaner, \$.50
One Doz. Calf Weaners, 5.00

Mailed on receipt of price. No agents, not sold by dealers, no discounts. Made and sold only by
DR. CHAS. L. REA, NEW YORK.
220 East 32d St.,
DR. REA'S BLACKLEG VACCINE
Positively Prevents Blackleg. Treatise free.

City market at \$3.35 which was the record up to that time. Now comes a bunch of Galloways bred by L. E. Chase of Brown County, Kansas, which averaged 1,335 pounds and sold for \$8.30 the top of the market for the week. A Kansas Galloway is hard to beat.

Mr. J. R. Johnson, of the Western Breeders' Journal, Clay Center, Kansas, writes us that he has arranged for a combination sale of Poland-China swine to be held at that place on October 15. This sale will be composed of selected animals from among the best herds of Clay, Washington, Republic, and Dickinson Counties, and from what we know of the man himself and of the herds from which he will draw, this sale promises to be a good one. Cut this date out and remember it, and write Mr. Johnson for detailed information.

One of the most prominent breeders of Shorthorn cattle and Berkshire swine in the United States and a man who has probably done as much for both these breeders of live stock as any man of his age in the State of Missouri where he lives, recently remarked that he was much pleased to note during his attendance at the great live-stock convention held at Fort Worth, Texas, that the live-stock paper which was most quoted to him and which was apparently the best known among the cattlemen in attendance at that convention was the Kansas Farmer. Such words from such a source is praise indeed.

Some of our more prominent breeders of pure-bred swine complain of a skin disease in their herds which they attribute to the rape plant. One prominent breeder is authority for the statement that a portion of his herd which had free access to a small experimental patch of rape has suffered seriously from skin disease, while the remainder of the herd which was pastured on a different part of the farm had no such trouble. This convinced him that disease was due to feeding upon rape, though some other cause may have been the real one. We should like to have the experience of breeders who have suffered in like manner, if there are any such.

The war between the sheepmen and the cattlemen on the ranges of Colorado has lately taken a new turn and Angora goats seem to be included in the ban of the cattlemen. It is reported that on the night of July 26, fourteen masked men appeared on the grazing ground of the Angora Range Association, in Pinon Mesa, Colorado, and captured and bound the three herders in charge of the 1,000 goats that were ranging there. They then proceeded to slaughter between 600 and 700 of these goats by shooting and stabbing them. These goats were under the charge of Mrs. M. B. Irving, a widow lady who is the manager of the association. Her loss is estimated to be about \$8,000 and the officers of the law have gone to the scene of the disturbance to prosecute the invaders.

There is a snap within reach of some one who wishes to secure a bunch of Poland-China hogs of the very best quality and breeding at reasonable prices. J. W. Wampler & Sons, Brazilton, Kansas, have a bunch of Poland-China hogs in which the best and most popular blood lines are represented and which is headed by a Chief Perfection boar who is the sire of all the young stuff in the herd. Mr. Wampler has decided to close out his Poland-Chinas in order to devote his time and attention to other lines of breeding. He not only has the best of blood lines represented in his herd but has excellent individuals to represent them and his entire herd is in much better condition than the average herds of the State. He is making low prices on these animals and it will pay any breeder to inquire about this stock at once.

Opening the Hereford sale season at the Nebraska State Fair on Thursday, September 3, 1902, there will be held a Hereford breeders' combination sale, which will take place at the State Fair grounds at the time of the State Fair. It will be held un-

der the management of C. A. Stannard, of Emporia, Kansas, to whom requests for catalogues should be addressed. The consignors to this sale will be recognized among the leading and reliable breeders of America, whose establishments have a national reputation because of the high character of their cattle. As will be seen by the page advertisement on page 830, the consignors consist of Stanton's Breeding Farm, L. L. Young, and W. N. Rogers of Nebraska; C. N. Comstock & Son, of Missouri; and Messrs. Lowell, Barroll & DeWitt, of Colorado, who contribute seventy-five head of first-class cattle.

Col. J. N. Harshbarger, the popular livestock auctioneer of Lawrence, Kansas, writes us that the outlook for business this fall was never better. Among the later sales for which he has been employed we note the following: Wm. Plummer, Barclay, Kansas, October 1, Poland-Chinas; Herman Arndt, Templin, Kansas, October 8, Poland-Chinas; M. C. Vansell, Muscotah, Kansas, October 7, Shorthorns and Poland-Chinas; Clay Center, Kansas, October 15, combination Poland-Chinas; E. E. Axline, Oak Grove, Mo., October 20, Poland-Chinas; Kansas City Royal, October 21, 22, 23, 24; Mull & Son, Iola, Kansas, November 15, Poland-Chinas; combination Berkshire sale, Manhattan, Kansas, November 13; Man-waring Bros., Lawrence, Kansas, November 7, Berkshires; H. J. McMillan, Rock Rapids, Iowa, November 20, Percherons; Kansas City, April 7 and 8, 1903, Aberdeen-Angus.

Probably the best opportunity that will be offered to secure a representative herd of Galloways at private sale is that offered by the announcement of Geo. M. Kellam, of Topeka, who offers to sell forty head of registered Galloway cows and heifers. He prefers of course to sell these to a single purchaser, but has made up his mind to dispose of them in lots to suit purchasers. The cattle are especially well bred and a more uniform lot of the breed could hardly be found anywhere. Mr. Kellam is one of the oldest breeders in the West and has never had anything but exceptional sires in use in his herd and the wisdom of this is well demonstrated by the uniform excellence of the entire herd. Any one contemplating the purchase of Galloways would find it to his advantage to visit this herd, as he will have a chance to select forty choice animals out of a herd of about one hundred head. Mr. Kellam finds it necessary to reduce his herd as he has leased the farm and consequently offers this rare bargain in Galloway cattle.

Harry Evans, of "Sensation Herd" Poland-Chinas, Pleasanton, Kansas, this week doubles his advertising space, and offers some choice plums in extra well-bred sows for fall farrow. Mr. Evans is not much of a "hot air" man but his herd contains some of the best things for practical hog-raisers to be found anywhere. His two great boars, Chief Model 23460 by Missouri Black Chief 19399, whom Mr. Evans claims is the heaviest boned son of Missouri Black Chief he ever saw, and Evan's Perfection 28145, son of Chief Perfection 2d 21701, represent two of the greatest money-making families in existence. The two Missouri Black Chief sows he offers are like all of their sisters, fine mothers and have each raised four litters. Some one will buy a snap here. His herd motto "Big bone, large litters, quick maturing," is fully carried out. Last spring he sold a Chief Model Sensation pig to a customer who now reports "forty-six big boned pigs from the first four sows he ever served and he has more than paid for himself in breeding for my neighbors."

For a number of years Wichita has entertained the people of southern Kansas and Oklahoma, and this year the date for the week of festivities will be from September 22 to 27. The men at the back of the fair are the most conservative and energetic business men of the "Peerless Princess," and they have planned something new for this year's fair. The "Street Fair" has grown old and the people are demanding something new. The county and State fair is a thing of the past. The people demand something new that will entertain, interest, and amuse them, and this is what the Fair Association will do this year. It is not an exhibition of Sedgwick County's products, but those of every county in southern Kansas and Oklahoma. The association and city invites the farmers and stockmen of this section, to bring to Wichita the best of their products, and show their neighbors what has been and is being done in the State and Territory that are destined to become the greatest factors in the cereal- and stock-producing section of the United States.

Mr. Chas. Bull, "the Kid Cheese Maker" of Cimarron, Kansas, makes a remarkable showing for his cheese factory for the month of May last. With seven patrons he received during that month 44,379 pounds of milk from which he manufactured 4,424 pounds of cheese at the rate of 2.62 pounds of cheese for each pound of butter-fat. He paid 80 cents per hundred for the milk and sold \$347.38 worth of cheese at a total expense of \$60. As this cheese factory is located in the short grass country it is interesting to note that he received as high as twenty-six pounds of milk per cow daily and that this milk tested as high as 4.2. The highest yield of butter-fat during the month was 29.1 pounds, while the cost of keeping the cattle making this yield averaged not to exceed \$1 per head per month and the value of the milk ran as high as \$6.41 per head. These figures are taken from the Holstein herd of John Bull who has been breeding his herd for dairy purposes for fourteen years, and is a subscriber to the up-to-date farm and dairy papers and a reader of the bulletins of the experiment stations. His herd of twenty-seven cattle brought him a total of \$173.20 during this month.

A recent visit to the Poland-China herd of Dietrich & Spaulding, Richmond, Kansas, gave great pleasure in that it afforded an opportunity to see some exceptionally fine animals of this great Tecumseh herd. Among the show animals which this firm will exhibit this fall is a young boar by the first prize winner at the Iowa State Fair, who bears the name of Imperial Chief and was considered the best son of Chief Tecumseh 3d and Freertrade Beauty. This boar is out of Darkness Tecumseh by Highland Chief, who was the sire of most of the sows and gilts now in

this splendid herd. With this young boar will be shown three gilts by Imperial out of Silverine 2d, a granddaughter of Ideal Sunshine. They will make a hot competition for anything that may be shown against them and are sure to land well inside the money. This boar, which will probably bear the name of Perfect Tecumseh for obvious reasons, is a typical animal that it would be difficult to criticize, and the gilts are excellent companions for him. This herd of Poland-Chinas now numbers more than 100 head and in spite of the shortage of feed is in much above the average condition. The advertising card for this herd appears on page 829.

Some weeks ago the Kansas Farmer published an editorial showing the products resulting from the slaughter of a 1,200-pound steer. Some of the products which are now of staple value were formerly waste material and by-products. There is absolutely nothing wasted in the conversion of a steer to man's use and some of the things which are now manufactured from the animal are as follows: From the hides, leather of many kinds; from the tallow, soap, glycerine, butterine, lubricator, and candles; from the blood, albumen, fertilizer, and stock foods; from the tankage—which includes all manner of "refuse"—fertilizer and stock foods; from the hoofs, buttons, hairpins, fertilizers, chloride of potash for extracting metal from low-grade ores, glue and other fancy bone goods; from the oleo, oil, butterine, and compound lard; from the weasands, sausage casings, brewer's hose, and snuff packages; from the bladder, casing and packages for putty, lard snuff; from the tail, hair for mattresses and upholstery; from the neatfoot oil, polish, leather dressing, lubricant, and illuminant; from the bone-meal, stock food, fertilizer, material for tempering steel, anhydrous ammonia, and glue. The tongue, cheek, brain, lips, heart, liver, tail, sweetbreads, and tripe are all sold for meat.

Mr. B. W. Gowdy, of Garnett, Kansas, has long been known as a breeder of a good type of Shorthorn cattle, and a recent visit to his herd develops the fact that here is one of the few places yet remaining where would-be purchasers can obtain individual animals of the famous Governor Glick breeding. The present head of this herd is Waterloo Duke of Garnett 145764 by the 53d Duke of Airdrie out of Waterbaby 13th and is by a Glick bred bull possessing the merits of that famous herd and showing the ideal of that famous breeder. One of the young bulls that attracted special attention is a yearling by Roan Winsome 141815 by Winsome Duke 11th and out of the Ambassador cow Juniata. Like the herd-header he is a sappy, growthy youngster in the pink of condition but is not loaded down with fat. Both these animals are of the good, thick flesh type but this flesh is beef, not fat. A Colonel Nelson cow named Duchess of Independence, who was bred by A. Frazier, Independence, Mo., and was sired by 15th Duke of Hilldale 102707 out of 3d Duchess of Vermillion, is a grand matron of special merit. This herd now numbers something like 100 head and these animals are mentioned simply to indicate the type which expresses in the concrete the ideal attained by Mr. Gowdy.

When a man wants a herd-boar or some good sows or gilts it is always wise to get as near to the fountain head in breeding as is possible. Young breeders especially have to be guided by the experience and actions of their successful elders. These older breeders are being watched carefully and studiously by the great army of farmers and breeders who are either just beginning with pure-bred stock or replacing that disposed of during the last dry season and when one can visit such a herd as that found on the Meadow Brook Farm of J. R. Killough & Son at Ottawa, Kansas, he finds he has gotten as near to the fountain head of the blood which has won the great reputations for Poland-Chinas as he can reach. This herd is strong in Chief Tecumseh 2d, Chief Perfection, R's Perfection, and Corrected blood, and now has Ottawa Chief by Chief Eclipsed out of a Chief Perfection 2d sow at the head of the herd. This is a show boar which is so nearly akin to the herd that he will probably be offered for sale at the American Royal if not by private treaty. Not only is he close in breeding to the famous animals which have made the reputation for the Poland-Chinas, but he is a remarkably fine individual as well as a great sire. A little later we shall give some full notes in regard to this herd which has already won a reputation as being one of the best.

Things are kept moving in the Glenwood herds of Shorthorn cattle and Poland-China hogs. Mr. C. S. Nevius, owner of the Glenwood farms, Chiles, Kansas, is a hustler as well as a successful breeder. He has been having the most profitable summer season in the history of his breeding farm and the only criticism that could be made of himself or his work is that he has been too busy in selling and shipping stock to allow him to prepare any of his good things for exhibition at the State fairs this fall. He now reports that he has sold his second herd-bull, Glenwood Sir Kellerman 184115, to Mr. Thomas Swartz, of Miami County, Kansas, who is also a breeder of high-grade Shorthorns and Poland-China hogs. When it is remembered that this bull was bred by D. K. Kellerman & Son, of Mound City, Kansas, the owners and breeders of one of the very best Scotch herds of Shorthorn cattle in the United States, it is hardly necessary to remark that Mr. Nevius considers him one of the very best bulls in his part of the State. The Glenwood Farm still has a few extra good bulls and the best crop of Glenwood Chief Again spring pigs that they have ever raised. It is worth a trip to these farms just to see the stock, whether one buys or not, and the man who goes there and does not buy is truly unfortunate.

The Kansas Farmer is in receipt of a letter inquiring where the writer can purchase pure-bred Tamworth hogs. This letter has been answered personally but for the benefit of others who may be interested we call attention to the fact that the Tamworth is peculiarly a bacon hog and at present there is no particular market for this type, either for breeding or for pork in the Southwest. The bacon hog has its home in those regions where there is a demand for his peculiar product. It would certainly be unwise for any one to invest in any type of hog for breeding purposes with the capabilities of which he is not thoroughly familiar.

No breeder can succeed in handling a breed for which he does not have a liking and the new breeder who should start with the Tamworth or Large Yorkshire in this country without a previous investigation of their capabilities and of the market which they are intended to supply and who should then find that he had made a mistake would be sure of nothing but failure. The bacon type of hog seems to be adapted especially to Canada and the Northern States and as yet has developed no market in the South and West. While the Tamworths are exceedingly prolific and thoroughly well adapted for their purpose their deficiency in the qualities demanded in our markets makes it doubtful if they would be locally profitable at the present time.

About two miles north of Smithton, Mo., and seven miles east of Sedalia, is the Lime-stone Valley Farm, which has become famous for its semi-annual sales of high-grade horses, cattle, and hogs. On September 2, this great breeding farm will hold its twenty-first semi-annual sale, at which time will be offered saddle and harness horses, mares, fillies, mules, and high-grade cattle of all ages, together with a bunch of extra good Poland-China hogs. This will be a great occasion and will be of special value and interest to the farmers of Kansas who have the necessity upon them of securing sufficient live stock to care for their enormous corn and forage crops this fall. Free transportation will be given from Beaman on the M. K. & T., and from Smithton on the Missouri Pacific to the farm. Would-be purchasers are invited to come the day before in order to inspect this great offering of 400 animals. Surely in such a large offering made under such favorable conditions and by such reputable breeders one can pick up snaps. Dinner will be served on the grounds by the ladies of the Christian church and all the visitor will have to do will be to pick out the animals he wants and take them home with him. Write L. M. Monsees & Sons, Smithton, Mo., for catalogue or other information or send them your bid. See advertisement on page 830.

Brilliant 9265 is the name of the now famous herd-boar which Mr. Harry Sneed, Smithton, Mo., will offer in the combination sale of Duroc-Jerseys to be held at the Missouri State Fair at Sedalia on August 22. Brilliant is the sire of the show herd with which Mr. Sneed won eight out of nine prizes contested for last year. He is the best son of Prince Marti 7093 and H. E.'s Choice 16632. He is large in size with extra good bone, a beautiful coat of hair, as good a back as any boar ever had and stands right up on his toes. In addition to this great boar there will be seven boars and five sows of his get in the sale. The great Shakespeare yearling boar, Bernard, who have proved so successful a sire in Mr. Sneed's herd will also be sold, as will also five of his get. McFarland Bros., Beaman, Mo., who combine with Mr. Sneed in this sale, will also offer prize-winning stuff. Their herd-boar is the great Ingomar 7897 A who holds the championship of Missouri and others of like quality. There will be nothing but choice animals in this sale and the low railroad rates which are given for the State Fair makes of this sale an opportunity that no one can afford to miss. The State Fair will be a great mile stone in the history of Missouri and this sale of Duroc-Jerseys will be one of the most important and attractive events of the week. Write to either of the contributors for catalogue and other information. See advertisement on page 830.

In the great demand for improved breeding stock of all classes it will be of interest to swine-breeders to know where good Chester White swine that will answer their requirements can be obtained. A recent visit to the herd of Mr. A. E. Staley, Ottawa, Kansas, answers this question in full. His herd-boar, Challenge 8783 by Fitzsimmons 6073 by Jerry Simpson 6065 out of Mrs. Lease 9564, and whose dam is Wimple Todd 9526 by Orient 3679 out of Alma 6184, is a boar that stands in ordinary breeding condition at 650 pounds. He was bred by C. P. Stoffer, Richter, Kansas, and is a boar remarkable not only for size but for quality as well. We understand from Mr. Staley that he is willing to part with Challenge, because he can no longer use him in his herd. He is a choice animal that has a great record as a sire behind him and will be a plum for the lucky purchaser. The young stuff in this herd have proved themselves remarkable feeders and great flesh-carriers with ability for rapid development. One of the typical sows is White Rose 13045 by White Badger by Freertrade and out of Ottawa Silver. As a matron this sow leaves nothing to be desired and is but a fair representative of the quality of the animals of her sex now in this herd. There are many good things in this herd that it would be a pleasure to describe but the fact which most impressed us was the ability of the youngsters to put on flesh rapidly. We shall have more to say about this herd later on but buyers who are interested in this well-known and well-established breed will find a great opportunity at this time to secure an excellent herd-boar if they get a move on themselves.

One can hardly pick up a paper nowadays which does not call attention to the remarkable shortage of hogs, as a result of the shortage of feed last year, and the question of where to replace the stock which was sold off under stress of weather conditions last season with good animals which it will pay to raise is one of interest to a vast number of breeders in the Southwest. One answer to such a question may be found on the farm of Mr. A. B. Mull, Iola, Kansas, whose large herd of more than 100 pure-bred Poland-Chinas is an object lesson to any visitor. In this herd is found the best blood of Missouri's Mlack Chief, Chief Perfection, Ideal Sunshine, Perfect I Know, L's Perfection, Chief's Model, and other good ones. A herd-boar of exceptional merit is Black Missouri's Chief 27206 by Missouri's Black Chief out of the best U. S. sow, Blackbird 2d. Another of the best is an Ideal Chief Perfection 2d boar out of the Chief Tecumseh 2d sow, Leoma, and goes by the name of Raulker. We were also impressed with the Chief Perfection 2d boar, Skylight Perfection 27161, and many other good things which we can not now even mention. A visit to a herd of this quality of breeding

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and one which has been kept up in fine growing and breeding condition in spite of adverse weather conditions last year, is a pure joy to the enthusiastic admirer of Poland-Chinas. Mr. Mull claims the date of November 15 for his large sale at Iola, Kansas, and will have a liberal consignment in the Royal American Show and sale at Kansas City. Meantime those who desire to get those good individuals from these royal lines can have one or two chances before all the reservations are made for these two sales.

For years it has been supposed that the height of perfection in the breeders art has long since been attained in the magnificent examples of the beef, pork and dairy types which have long been so prominent and so popular. Such magnificent results have been attained among the breeders of beef and dairy cattle that the expert in either class can lay little claim to being expert in both and it was at one time the dream of some men to create



a breed of cattle which should be general purpose animals combining the good qualities of both the milk and the beef producing breeds. This idea has been in part abandoned for the better one which has resulted in the production of the dual purpose cattle. These have now come to be recognized as a distinct type with a sphere of usefulness all their own and we take pleasure this week in printing cuts of two Red Polled cows which have been bred for the ideal sought by the breeders of Red Polled cattle. This ideal includes a typical beef animal with the size, thick flesh and confirmation necessary to meet all the requirements of the beef type, together with great milking abilities. As will be seen from the small cut herewith the beef type has been attained while the records of the breeding farm where these cattle have their home show them to be far above the average as milkers. Beulah Farm, Girard, Kansas, is the home of the choicest strains of Red Polled cattle and Poland-China hogs and is also the home of Mr. Wilkie Blair their owner and breeder. This herd of Red Polled cattle has attained a well deserved reputation on account of its quality alone. It is now headed by Legal Tender 7232 by Imp. Radical 5125 out of 10423 Likely V. 10. Radical was bred by Garret Taylor of England and is a remarkably fine bull of the Norfolk strain of Red Polls. He has a great depth of body, short legs, a typical head and eyes, good quarters, a perfect underline and an excellent crop with which he marks his get. As second herd bull stands Sovereign 9864 by Legal Tender and out of Sunshine 7560 who is one of the best cows on the place. There is some show stuff in this herd which would give a hot competition in a sweepstakes race in any Western State Fair. The picture on the right is that of Tea Rose T. 1. 17731 by Boss 3398 out of Chloe T. 1. 10097 and is a young heifer of such quality and finish that she leaves nothing to be desired as a beef animal while she has already begun what promises to be a great record as a milk producer. Beulah Rose K. 19 is the picture on the left and equals her in quality but is older in years. Mr. Blair's advertising card appears on page 829 and interested parties can write to or visit him with the assurance that they will get nothing but the most satisfactory treatment along with the best quality of stock. We shall have occasion to say a word about his Poland-Chinas later on.

These will I love, my crown of gladness,
These will I love, my God and Lord,
Amid the darkest depths of sadness;
Not for the hope of high reward,
For Thine own sake, O Light Divine,
So long as life is mine.
—Johann Scheffler.

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The Young Folks.

Conducted by Ruth Cowgill.

THE GOOSE.

I knew an old wife lean and poor,
Her rags scarce held together;
There strode a stranger to the door,
And it was windy weather.

He held a goose upon his arm,
He uttered rhyme and reason,
"Here, take the goose and keep you warm,
It is a stormy season."

She caught the white goose by the leg,
A goose—'twas no great matter.
The goose let fall a golden egg
With cackle and with clatter.

She dropped the goose, and caught the
pelf,
And ran to tell her neighbors,
And blessed herself, and cursed herself,
And rested from her labors.

And feeding high, and living soft,
Grew plump and able-bodied;
Until the grave churchwarden doff'd
The parson smirked and nodded.

So sitting, served by man and maid,
She felt her heart grow prouder;
But ah! the more the white goose laid
It clacked and cackled louder.

It clattered here, it chuckled there;
It stirr'd the old wife's mettle;
She shifted in her elbow-chair,
And hurled the pan and kettle.

"A quinsy choke thy cursed note!"
Then waxed her anger stronger.
"Go, take the goose and wring her throat,
I will bear it no longer."

Then yelped the curr, and yawled the cat;
Ran Gaffer, stumbled Gammer,
The goose flew this way and flew that,
And filled the house with clamor.

As head and heels upon the floor
They floundered all together,
There strode a stranger to the door,
And it was windy weather.

He took the goose upon his arm,
He uttered words of scorning:
"So keep you cold, or keep you warm,
It is a stormy morning."

The wild wind rang from park and plain,
And round the attics rumbled,
Till all the tables danced again,
And half the chimneys tumbled.

The glass blew in, the fire blew out,
The blast was hard and harder.
Her cap blew off, her gown blew up,
And a whirlwind cleared the larder;

And while on all sides breaking loose
Her household fell the danger,
Quoth she "The Devil take the goose,
And God forget the stranger."

HEAVEN.

Written for the Kansas Farmer.

When we have crossed the river deep and
reached the yonder shore,
We then will meet the long-lost friends
who have gone on before.
They know the great Redeemer is a
mighty one to save—
Where there's neither sin nor sorrow—We
will meet beyond the grave.

Life is brief and full of trouble, still what-
ever may befall,
We must ever do our duty 'till we hear
the master's call.
We must struggle on and upward, though
the road of life be hard—
Only those who're good and faithful can
be sure of their reward.
—Chas. F. Foran.

A College Girl's Letter.

Dear Sue:
We have been having exciting times
up here lately. Everybody has been
getting engaged; I think it must be
in the air.

A week ago to-night, I came bounc-
ing into our room singing—I must be
honest, I was humming "Georgia Camp-
meeting." Well, I struck a match and
lit the lamp and encountered a most
tragic-looking face. It was Nannie, of
course. Nannie has one quality that
makes her always interesting, she is
always radiantly happy or deeply and
darkly blue. The cause for her happi-
ness may be a joke on a professor, or
a new dress, and she will be equally
wretched, whether her best friend has
forsaken her or she gets B in Latin. So
now when I saw her with the tears
streaming down her cheeks, I merely
gave her a good hug and asked her what
was the matter, for I didn't want to be
offering her deepest sympathy when
she might laugh at me, in her dear hap-
py way, next minute. But this was
evidently something serious. Finally
she said "I'm engaged" with a big heart-
broken sob. It took all the breath I
had left to gasp "which one?" She
jumped up and pelted me with all our
thirteen sofa pillows, but she wouldn't
tell me a word more, and I don't know
who it is yet. I believe she has for-
gotten herself, which one it is, for one
day she's lovely to one and then to an-
other and then to all at once, and I'm
she likes all three.

Well, Margaret is just as bad. You
see we three girls keep house together
while we go to school, so we know all
about each other, nearly. I wish you
could see Margaret. She is a perfect

Annie Laurie of a girl, bonnie blue eyes
and all. If John Sterling should really
take it into his head to "lay him down
and die," for her, she would sweetly
and sadly acquiesce and all the girls
would love her just the same and it
wouldn't be long before someone else
would be following her around and
sending her flowers and candy and fall-
ing irrevocably in love with her. But
evidently Mr. Sterling will not be re-
duced to that martyrdom right away,
for he looks quite contented and Mar-
garet is wearing a ring that is the envy
of all the girls except me. And that
brings me to my own troubles. You
see, I was engaged already. Charlie
and I grew up together and we've al-
ways been engaged, I guess. I just took
it as I have taken everything else that
has always been mine. But, you know
Charlie is always, always smiling.
Charlie McDonald's smile is proverbial
here in the school. He says he's going
to be a preacher—he'll have to get rid
of that smile, someday, before then. I
don't want to be a preacher's wife, any-
how. Oh, dear, I wish Charlie weren't
going to be a preacher. Well, you see
how it was. I couldn't get engaged, so
—I got disengaged.

I wanted to see if I couldn't make
a remark that he wouldn't smile at, so
when he "thought maybe I'd like to go
to the temperance meeting to learn how
to keep sober," I said with all the non-
chalance I didn't feel, "Why, I'm going
to the theater to-night, Charlie." Charlie
doesn't believe in theaters, but he
grinned and said, "When you're a min-
ister's wife, you'll have to give up those
things, won't you dear?" Now this was
exasperating, wasn't it? So I said with
great decision, "Oh, I'm not going to
marry a minister." Well, Charlie can
be serious, I found, and I like him bet-
ter when he isn't. But I stuck to it,
and now I'm not engaged, but I'm lone-
some.

Well this week has been rather
stupid. Charlie has had his lessons
and I've flunked along as usual. But
the evenings are tiresome. The girls
have gone some place almost every
night and I've stayed at home "to write
my thesis." The thesis I've written
this week would take the prize. But
yesterday I decided to go to the concert
to-night. In the afternoon we were
studying and—the light hurt my eyes,
and pretty soon Nannie ran over and
threw her arms around my neck. You
don't know how excruciating a hug can
be if you have never experienced one
of Nannie's. It is usually brief and to
the point and you usually have to do
your hair immediately afterward. Nan-
nie said, "you poor—" and I didn't let
her get any further; I stood up in my
wrath and told a lie, "I don't want any
of your pity. I'm perfectly happy and
contented and satisfied with the present
arrangement of—of everything." I
was sorry as soon as I had spoken so
sharply but I didn't care to say so or
I should have cried. Margaret came in
just then and I asked her if she would
loan me a dollar to go to the concert.
(I'm always out of money, except the
first week after I get my allowance,
then I live like a princess, metaphoric-
ally speaking.) Margaret said she'd
loan me anything, to the half of her
escort, for which I thanked her coldly
and said the dollar would be enough.
Then the trouble was to find someone
to go with. I suppose I should have
managed some way, but I've changed
my mind about going. I have another
engagement. This afternoon after Phys-
ics Charlie said, "Will you take a walk
with me on the campus to-night, Edith?"
(He always drawls like that.) Well I
was so surprised and he seemed so sure
that I would, that I said yes, before I
thought. But maybe I won't—maybe
I'll be gone to the concert. I suppose,
though, when I see his waving coat-
tails—he always wears that kind—and
his smile, coming up the walk, I'll run
and get my hat and go, just as I always
have. I'll tell you about it next time.
Ta ta—with love—
GRACE.

Reading.

There was a time when there were
few books in the world, and they, such
as they were, costly and impossible to
obtain except by the very few rich and
educated who cared for them. Then
the people were ignorant and bigoted,
opinionated with little to support their
opinions save their own assertions.
Now, the difficulty is not to obtain
books, nor yet is it in the lack of edu-
cation to read and understand them;
but it is the multiplicity from which to
choose. And yet, abundant and cheap
though they are, it is oftentimes difficult
to possess many. There are so many
places to put one poor inadequate little
dollar that the things one would like
exceedingly to have must give way to
the things one must have. It is only

Poor time has its ending



Good time has its beginning

in an

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ELGIN NATIONAL WATCH COMPANY, Elgin, Illinois.

by careful economy that luxuries are possible. Every one must economize. Economy is the doing without one thing in order to obtain another; and upon our own wish it depends whether we do without the things that perish with the using, or the things that leave an eternal impress.

There is no joy like the joy of buying a new book—one that you have thought of and longed for and saved for, for months. To see the first one or two lonely volumes growing gradually into a library of respectable dimensions; to have books to loan, a treasure to share—does not this well repay a little self-denial?

In general it does not pay to buy the new, so-called "popular" books. A book's worth is not full proven until it has been in existence several years—until at least a generation has pronounced it good. The majority of the "popular" books are written for the present moment, to while away an idle hour for some leisurely and purposeless individuals, who must kill Time to escape being killed by it.

But there are grand old books almost innumerable which have stood the test of years, and which well repay hard sacrifice to obtain them. Though even they are full of faults, one is richer for every one that he reads. One must learn to look for the true and the right in whatever he reads, discarding the false and unholy; for all writers are but men and women like ourselves, frail and full of mistakes. But in the truly great there is always to be found something of inspiration, something of helpfulness or of warning, if only we have the will to look for it. To read, not with blind and stupid credulity, but with lively thought and intelligent doubt, is the only safe path to reliable knowledge and just opinions. Weigh and consider what you read, reason out each new thought that is presented and if it stands the test of your best judgment, accept it and make it a part of the working apparatus of your mind; if you prove it false or unworthy put it from you rejoicing in your daily-growing ability to discriminate.

A Noted Indian.

Not many months since, there departed from this life a very noted Indian character whose home was at the little town of Warren, Pa., on the Alleghany River, at the junction of the Conewango. The history of this town dates back to 1749, but the town was located and named about 1795. This Indian was born on the Seneca Reservation about 1830. His name in Indian dialect was Hot-tyo-so-do-no, interpreted, "He-peeks-in-the-door." His English name was Lewis Bennett. He was the fastest and most noted long distance runner that is known in history. They called him "Deerfoot." He was descended from a noted Seneca family. His father was killed at the battle of Chippewa and served in the war of 1812.

Deerfoot's first public appearance was at a county fair at Fredonia, N. Y., where he ran on the race-track five miles in twenty-five minutes, winning a purse of \$50. The same year he ran again at Buffalo, N. Y., a ten mile race in fifty-eight minutes.

Then, after a training, in 1861 he went to England, where he challenged James Putney, the English long-distance running champion, to a race of ten miles, which Putney did not accept. In November, 1861, he visited the Prince of Wales at Cambridge where he raced six miles in thirty-three minutes. The Prince of Wales entertained him at dinner and gave him presents. His great achievement was at London, England, April 3, 1863, where he ran decorated in his native garb, with porcupine quill

work, feathers and bead ornaments; on his head a silver cord adorned with an eagle's feather; and buckskin moccasins on his feet. His figures at that race, as recorded, are, 11 miles in 52 minutes 52 seconds; 11½ miles and 99 yards in 59 minutes 44 seconds; 12 miles in 1 hour and 2½ seconds; 10 miles in 52 minutes 26 seconds. In the exact hour he covered 11 miles 970 yards. He won the championship of England and became the lion of all England and America. He returned to his native land in the Great Eastern in 1863. He raced at Chicago against horses and finished six miles at the last quarter in advance of the horse, winning the purse.

This is of course not a full sketch of his wonderful career, which would be too lengthy even if I had the records of all his great performances. I have never seen a published account of his death. When he was at the zenith of his powers, the American press was full of his performances, and I presume this little sketch may be of interest to the young people who read the FARMER, many of whom have never heard of Deerfoot.

Dunlap, Kans. D. P. NORBON.

FOR THE LITTLE ONES

THE TREES' PARTY.

Our orchard gave a concert and a party for the trees;
The trees brought all the birdies and the blossoms brought the bees;
The birdies did the singing, while the bees just hummed a tune,
And the froggies in a little brook came in with their bassoon.

Old Mother Nature gave the trees new gowns both rich and gay,
Of most becoming shades of green with posies applique;
It was as gay a gathering as one would wish to see—
Bright colors flaunting gorgeously on peach and apple tree.

The concert was a swell affair, the orchestra was fine,
Breezes whispered to the branches and the branches kept the time;
But I've some shocking tales to tell—I'm blushing, I declare—
Bees boldly kissed the blossoms and the blossoms didn't care.

A giddy robin redbreast flirted scandalous with a wren;
She simpered and looked modest, but she flirted back again;
And then a saucy bluebird, spick and span in brand-new clothes,
Trilled out the sweetest notes of love to other birdies' beaux.

The leaves were green with envy as the love notes flew around;
Some grew so agitated that they fluttered to the ground;
Just here a gruff old bull-frog in discordant tones of bass
Said to a little tadpole that she had a pretty face.

At this the tadpole wiggled and the gossips, it is said,
Are sure the silly creature has a bad case of "big head."
The revelry waxed wilder as the shades of night grew deep,
And then the whole creation went a-snoring fast asleep.
—Sara Babbitt Butler.

A Tree-top Comedy.

The amount of so-called "human nature" to be observed in the lower animals is wonderful.

Early one beautiful morning this summer I was out under the trees listening to the cheery twitter of the sparrows in their branches. The birds were evidently as happy and care-free as a light-hearted flock of sparrows can be.

Suddenly a large gray cat appeared upon the scene, strolling with pompous dignity down the walk. Then such a commotion! The cat was evidently a well-known character to the birds and one whose valor had not impressed

them with very great respect. They all squawked derisively; they scolded and jeered. They came down by ones and twos and threes to the lower branches and to the low fence-rail, daring him to approach, while the others railed at him for a coward. Poor Tom quickly lost his complacent pomposity at this treatment and began to mew plaintively in abject humility. Yet they had no mercy but continued their insults and abuse even more vigorously. At last Tom decided he would try a bluff and gathering about him the few remaining tatters of his dignity he sidled timorously toward the foot of the tree in which most of his small tormenters had congregated and made as though he would climb into it, and jump up into the lower branches. Then there was an uproar, greater than ever. They hooted at him and taunted him until in sheer dismay poor Tom fled to the back yard and the kindly shelter of the gooseberry bushes. Then once more peace and kindly good nature reigned in the tree-tops.

The Home Circle.

TALE OF A STAMP.

I'm a stamp—
A postage stamp—
A two-center;
Don't want to brag,
But I was never
Licked;
Except once;
By a gentleman, too;
He put me on
To a good thing;
It was an envelope—
Perfumed, pink, square;
I've been stuck on
That envelope
Ever since;
He dropped us—
The envelope and me—
Through a slot in a dark box;
But we were rescued
By a mail clerk;
More's the pity;
He hit me an awful
Smash with a hammer;
It left my face
Black and blue;
Then I went on a long
Journey
Of two days;
And when we arrived—
The pink envelope and me—
We were presented
To a perfect love
Of a girl,
With a stunningest pair
Of blue eyes
That ever blinked;
Say, she's a dream!
Well, she mutilated
The pink envelope
And tore one corner
Of me off
With a hairpin;
Then she read what
Was inside
The pink envelope,
I never saw a girl blush
So beautifully!
I would be stuck
On her—if I could.
Well, she placed
The writing back
In the pink envelope;
Then she kissed me,
O, you little godlets!
Her lips were ripe
As cherries.
And warm
As the summer sun.
We—
The pink envelope and me—
Are now
Nestling snugly
In her bosom;
We can hear
Her heart throb;
When it goes fastest
She takes us out
And kisses me.
O, say
This is great!
I'm glad
I'm a stamp—
A two-center.

—Ohio State Journal.

Leaves from a Colorado Tourist's Note-Book.

REV. H. A. OTT, TOPEKA.

The writer confesses to have a great fondness for the mountains. Having spent four vacations traveling over the most rugged parts of the Rockies, and having a fifth vacation at his disposal, he found himself more inclined to go westward than to any other part of this fair country of ours. The Colorado Rockies are unique among the mountains of the earth for the sublimity of their scenery; for easy accessibility to their higher altitudes; for their large percentage of daily sunshine, and for the magnificence of their climate. We have just completed a circle trip of over 1,000 miles through the most rugged parts of Colorado—climbing lofty passes, winding through twisting canons, descending from dizzy heights above timber line, spending nights in interesting mining camps, riding over torturous narrow-gauge railroads, penetrating gloomy mining shafts and tunnels, viewing sublime vistas of the beautiful snowy range, sleeping in tents on the mountain slopes between woolen blankets and comforters, meandering along the rippling waters of splendid trout streams, and at times scudding down steep snow-banks as we did in the days of our boyhood in wintertide, at

one time riding in a carriage through an actual snow tunnel a hundred feet long, the remains of a terrible avalanche of last winter, and all this while your thousands of readers were sweltering in the heat in the more somber plains below. The famous Denver and Rio Grande Railroad, with its branch lines penetrating every important mining center in Colorado makes such a trip possible and delightful.

But it is not the mountains about which so much I wish to write, as the possibilities of Colorado's noble plains and plateaus, of which there are thousands and thousands of square miles, at present but little used. On former trips over this land it seemed to me to ask bread of Colorado would likely result in being given a stone! However, after repeated journeys over its surface and studying its topography we have been profoundly impressed with the vast agricultural possibilities. It may be a surprise to your readers to learn that at the present time Colorado's agricultural products are actually larger than its mineral products. A trip north from Denver for one hundred miles in the Platte valley reveals a veritable garden spot where once the prairie dog, the sage and cactus held sway, but now is made to blossom as the rose by a judicious spreading of the waters, from the melting snows above, over its surface. Yet when one takes into consideration the vast plains spreading out eastward over Colorado, Kansas, and Nebraska, it is easily seen that the waters of the melting snows during July, August, and September, can irrigate only a small fraction of the land.

The problem of husbanding the abundant waters of the springtime in huge mountain reservoirs and in wide spreading artificial lakes upon the plains, to be used later just when needed, is about to be solved. The National Government proposes to come to the rescue. Its plan is to aid in building these vast reservoirs, which when made will infinitely increase the value of the land benefited, by devoting the proceeds of the sale of the lands to this object. It seems now that in the near future, long before another generation shall have passed, thousands of these water treasure-houses will be built, and when once accomplished, Colorado's splendid sunshine above, and her life-giving water springs beneath will cause her rich soil to bring forth fruit second to none in the land, as is now the case where the waters are abundant. Every crop raised in the East can be raised in her soil only excepting those which mature late in the fall. The early frosts will preclude the raising of corn. Colorado potatoes are the finest in the world, and her wheat and fruit are marvels. We visited vast orchards bending with fine peaches, pears, plums, apricots, apples, grapes, and small fruits galore, orchards not governed by the weather conditions but orchards for which the farmer made the weather conditions to suit himself!

In the day when the great water problem shall have been solved these waste lands will not go a begging for a buyer. Millions of Uncle Sam's quarter section homesteads now idle and unsought for will be eagerly taken, and our wide-spreading trans-continental railroads will be carrying their harvests from the mountains as well as to them. To our mind this problem is not one of the very great ones before our Government, but one relatively easy.

Given, first, a strong soil; second, an adequate water privilege; and third, a diligent and intelligent, painstaking farmer, and the result will be conditions which neither drouths nor floods can affect. These surprising returns will truly be a miracle from both an industrial and social standpoint. Irrigation so vastly increases the productive capacity of the soil and at the same time demands so much increased personal attention of the farmer, that it will compel the adoption of the small farm unit. While the great Mississippi Valley years ago was preempted in quarter sections, here

it seems to us the size of the farms will necessarily be much smaller. A forty-acre farm will be all a man can manage but it will bring better returns than a quarter section does elsewhere where the crops depend so absolutely on the natural rainfall. In fruit culture a twenty-acre farm will keep a man very busy. The natural result will be the bringing of homes in much nearer proximity, and social conditions will be castly multiplied. Indeed it is possible for the people to live in villages with all the pleasant associations of village life, and at the same time cultivate, and profitably, too, their productive farms in the near vicinity. Such conditions will enable this country, which now supports such a meager population, to actually support a larger farm population per square mile than Eastern agricultural districts. When once the precious fluid which now rolls in the spring time to seeming useless waste down to the Gulfs of California and Mexico, are stored and available just where and when they are needed, then irrigation will discount the prevailing system of dependence upon the rains, as the railroads discount the old stage coach, and the electric light discounts the tallow-dip.

The supreme advantage of irrigation is seen in the ability of the farmer to put the moisture into the ground just when and just where it is needed. What a Godsend will such conditions be in eastern Colorado and western Kansas and Nebraska. After the millions are spent for reservoirs and reservoirs, then such returns will come as will startle the world. Then it will be seen how easily the great regions along the Nile, the Tigris, and the Euphrates, in olden times were made to support such vast populations. For those regions, now so full of dead wastes, have every evidence of having been once irrigated with vast systems of ditches, of which remains exist to this day. Looking at this great Western plateau from this rosy standpoint it remains to be seen whether the startling statement of Mr. William E. Smythe, in his "Conquest of Arid America" is true, namely, that "The western half of the United States is the better half." To our mind the possibilities of this section are thrilling, and we have come to such conclusion after repeated journeys over its surface and a careful study of the present conditions. Before another generation will have passed the foundation of vases of fortune will have been laid, and millions of comfortable homes will have been located where the climate for health has already excited world-wonder, but where now the traveler from the car window looks out upon miles and miles of scanty prairie from which a few herds of cattle gather only a meager subsistence, many acres being needed to support one bovine, and where the worthless sage and chico draw the poisonous alkali to the surface. When these vast irrigation schemes are launched then will the Great West afford thousands of profitable places for safe investment of ready Eastern capital.

Only a personal trip over this wonderful country, with an adequate conception of its extent mapped out in the mind before hand, and a careful canvass of the vast reach of the water-shed comprehended, and the real amount of water now going to waste, and the absolute ease with which this water when once husbanded, can be sent rippling over those vast plains so gently sloping eastward from an altitude of 5,000 feet at the foot hills of the Rockies down to an altitude of 1,000 feet in central Kansas and Nebraska. To many of your staid readers in the East these statements may seem impossible. However, we believe the thrilling enlargements of the future will carry out all we have

said, and further were the doubter to cover the 25,000 miles we have in traversing this section eastward, westward, northward and southward, coming a doubter he would return a believer.

Colorado Chautauqua, Boulder, August 1, 1902.

Beware of Ointments for Catarrh That Contain Mercury,

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

Sold by Druggists, price 75 cents per bottle.

Hall's Family Pills are the best.

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.

WANTED!

YOUNG MEN AND YOUNG WOMEN. We can place them in GOOD POSITIONS through our Employment Bureaus. Must be good Stenographers or Book-keepers. We prepare such at The Kansas Wesleyan Business College. Largest and best equipped Business College west of the Mississippi; highest standard, national reputation. Fourteen professional teachers. Positions guaranteed to all competent Stenographers and Book-keepers from our school. Tuition low. Board Cheap. For Journal Address, T. R. ROACH, Supt., Salina, Kans.

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 O, CHILLICOTHE, MO.



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SUPERIOR TO OTHERS

- 1.—IN QUANTITY OF WORK OFFERED—
General and special courses in Physics, Chemistry, Geology, Botany, Zoology, Mathematics, History, and Political Economy, Latin, German, Greek, French, Spanish, Philosophy, Pedagogy, Sociology, English Literature, Astronomy, etc. Special Courses in Music (five instructors), and Art (two instructors).
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The Faculty is unusually large. Its members are thoroughly prepared—graduates from the leading Colleges and Universities. No student instruction. Large Library, Museums and Laboratories.
- NEW ASTRONOMICAL OBSERVATORY**—The finest in the Missouri Valley.
Write for catalogue to WASHBURN COLLEGE, Topeka, Kans.

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.
Bottles only and 67¢ per pound.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer.

Snake Bite.—We have a 2-year-old heifer that has a swelling on the point at the shoulder and neck which I believe to be a snake bite.

Edgerton, Jefferson County. Answer.—Make a good free opening in the center and syringe out with carbolic acid and warm water.

Lame Cattle.—We have some lame cattle that we do not know how to treat. Their front legs swell up and break out at the knee joint.

Belleville, Republic County. Answer.—Put them in a good dry stable and take equal parts of oil of tar, fish oil, and black oil.

Miscellany.

Eli C. Benedict of Oklahoma. EDITOR KANSAS FARMER:—We are having hot, dry weather and late corn is suffering.

Our mill and elevators here in Alva are swarming with wagons loaded with wheat and oats.

Land is selling for from \$3,000 to \$6,500 a quarter section. The Santa Fe Railway Company is putting down a well here 700 feet deep.

An ice factory runs night and day and cannot supply the demand.

A new railway is surveyed here. We think it will go to our salt ocean thirty-five miles west of Alva.

(Talk No. 9.)

Overworked Muscles

Any muscle in the human body is capable of injury from overwork. The arm can be forced to do work too heavy for its strength until it becomes paralyzed.

CHAS. BENNETT,

OPTICIAN,

730 Kansas Ave., Topeka, Kans.

ESTABLISHED 1879.

Coldwater, Kans., asks how to save both seed and fodder of Kafir-corn. My way of gathering it is to shock the Kafir-corn like corn fodder.

Alva, Woods County.

The Live Stock and Meat Markets.

The five western live-stock markets of Chicago, Kansas City, Omaha, St. Louis, and St. Joseph, taken as an index of the trade generally.

Taking the Chicago market as typical, the monthly average weight of cattle has begun to recover from the lower level of 940 pounds per head in April.

A rough gauge of the increase in the consuming demand for meats is found in the trunk line shipments of provisions from Chicago and Chicago points.

One of the best lessons that could be given a young man who has his way to make in the world is to be gleaned from the success of breeders of pure-bred stock.

reasonable prices on both his Herefords and Berkshires that could be asked when quality is considered.

How to Handle the Corn Crop.

The most profitable way to handle the corn crop is to harvest it with a good corn binder and shred the stalks with a good husker and shredder.

Until within recent years, the growing of corn was primarily for the grain, the stalks and fodder being generally considered as having little value.

Western Normal College.

The Western Normal College, Shenandoah, Iowa, has an advertisement in Kansas Farmer this week to which the attention of all ambitious young men and women is respectfully invited.

\$100.00 Cash Prize for a Name.

For the new Daily Limited train to California to be placed in service November 1, 1902, by the Rock Island System and Southern Pacific Company.

Look at the advertisement of the Perfection Steel Tank. Notice the cheap prices and also notice the fact that this tank has the steel angle rim.

Some of the interesting problems encountered by the United States Secret Service in its search for counterfeiters are told by W. Herman Moran in the New England Magazine for August.

Leading Exhibitions for 1902.

- Missouri State Fair—Sedalia, Aug. 18-23. Iowa State Fair—Des Moines, Aug. 22-30. Ohio State Fair—Columbus, Sept. 1-5. Nebraska State Fair—Lincoln, Sept. 1-5. Minnesota State Fair—Hamline, Sept. 1-6. Wisconsin State Fair—Milwaukee, Sept. 8-13.

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:

- 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.

Glad with Thy light, and glowing with Thy love. So let me ever speak and think and move As fits a soul new-touched with life from heaven.

Praise to the Hollest in the height, And in the depth be praise; In all His words most wonderful, Most sure in all His ways.

PILES

without the knife, cutting, ligature or caustics, and without pain or detention from business.

Mr. M. McCoy Goganac, Kans., Captain Company A, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—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."

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.



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.

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

Brain 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.

Power of Grain Growers.

Grain growers have it in their power to break up the grain dealers combination and forever rid themselves of its baneful influence. Just patronize local farmers' cooperative shipping associations when you can, and when you cannot thus patronize the local association, then ship your own grain to the Farmers' Cooperative Grain & Live Stock Association. If local associations and individual farmers will follow this policy, the grain trust organization will not last six months. They will not only succeed in breaking up the trust but they will receive several cents more per bushel for their grain, than they would get were it not for the existence of the farmers' organization. Every farmer, grain-grower and member of farmers' cooperative associations should be constantly on guard for the next few months acting as a sentinel and solicitor for our cause.

Be firm and loyal in defending the farmers' organization against its allied arch enemy, the grain trust dealers and the grain trust receivers, who have formed a combination for the sole purpose of exploiting the grain producers. We are calling for volunteers in this battle for our rights and will be glad to record your name as one pledged to protect the welfare of the honest yeomanry of this State.

An Opportunity.

In order to increase our membership and locate our friends we offer you the following special opportunity to join in this work at once. On receipt of \$2 we will record you as a shipping member of our association. This will entitle you to the shipping privileges of the association. This will give you all the advantages of a stockholder of the association, except the sharing of the dividends that may be earned by the association.

Should you at any time desire to become a stockholder you may do so by making application and completing payment of one share of the capital stock of the association. You would then be required to make the additional payment of \$8 dollars. In other words we would give you credit for the \$2 paid, at the time you became a shipping member.

This is a small amount for you to advance for the advantages you will receive as a member of our association. Once a shipping member you are always a member without dues or further expense. This splendid offer should give us many thousand additional members by the first day of October, 1902.

PREMIUMS.

To the man or woman sending in the largest number of paid up shipping members by the first day of October, 1902 a prize of \$10 cash will be given or if preferred, one share of the capital stock of The Farmers' Cooperative Grain & Live Stock Association will be issued. To the one person sending the second largest list of paid up shipping members by the first day of October, 1902 \$5 cash will be given.

To every one who sends us five or more paid up shipping members a copy of the Kansas Farmer will be sent them free for one year. Here is a chance for you to help yourselves and help the greatest movement ever organized in the State in the interest of the farmers.

Traveling solicitors or organizers for our association will not be allowed to compete with you for these premiums. Go to work at once. A comparative statement will be published each week after September 1, showing the standing of the three leading competitors.

THE MARKETS.

Frasius' Market Review.

Topeka, Kansas, August 11, 1902. All snap seems to have left the wheat market and prices have been slowly sinking to a lower level, and it certainly looks to the writer that wheat is now low enough to suit even the most aggressive bears. Exports are increasing. They were 4,200,000 bushels last week and the Atlantic ports alone cleared over 700,000 bushels today. The visible supply was reported to have decreased 199,000 bushels the past week. This looks like a healthy situation when the primary receipts, large as they are, are considered. It shows a large consumption of wheat, to which result the increasing exports are materially contributing. The spring wheat movement will begin next week. During normal seasons, wheat is usually lowest in price, when the spring wheat movement is at its zenith.

But the poor quality of winter wheat this season has caused farmers to force it upon the market in such volume, that the price has severely suffered. With a letting up in winter wheat movement in the near future, it is probable that large spring wheat receipts may not cause any further recession in price, as the price is already low. The one depressing feature left, so far as Kansas wheat is concerned, is the advance in freight charges from Missouri River points east and south to take effect August 15. The advance is 5 cents per hundred, equalling 3 cents per bushel. This in a measure explains why deferred option in Kansas City are at such a discount under "cash" wheat. But the fact remains that the Southwestern farmer who has good milling wheat is safer in holding it; if he wishes to do so. Mills throughout Kansas are already paying several cents per bushel over value for shipment east, and there will be a great scarcity of milling wheat in the Southwest before long.

Corn and oats have suffered severely in price, since the ending of the July corners in Chicago and corn crop prospects being good, also favor lower price. The Government crop report this afternoon gives the condition of the cereals as follows:

Spring wheat 89.7c; corn, 86.5c; oats, 89.4c. Markets closed weak at quotations as follows:
Chicago.—No. 2 red winter wheat, 69c; No. 2 hard winter wheat, 67½c; No. 2 corn, 54½c; No. 2 oats, 28½c.
Kansas City.—No. 2 red winter wheat, 63½c; No. 2 hard winter wheat, 64½c; No. 3 hard winter wheat, 61½c; September option No. 2, 61½c; No. 2 corn, 53c; No. 2 oats, 28c.

F. W. FRASIUS.

Kansas City Live Stock.

Kansas City, Mo., August 12, 1902.

An irregular, featureless cattle market prevailed here last week, featureless because no sensational prices were recorded during the week, a most unusual occurrence this year. Corn cattle were scarce and generally sold strong. Grassers of all kinds were in liberal supply and sold at such a wide range of prices that salesmen were often at doubt as to the worth of the stock they had to offer. Half-fat Westerns sold as much as 75c uneven on the same day and medium quality dry lot cattle also showed a wide discrepancy in values. Thos. Bath, of Brownville, Neb., and L. E. Chase, of Brown County, Kansas, fed cattle that sold here during the week for \$8.30, the best prices of the market. Shippers would do well to allow themselves a good margin on grass-fed cattle. The market is now entering upon the fall season when values are not gauged so closely as at other times and cattle imprudently brought will lose big money.

A heavy trade in stockers and feeders was had during the week. A total of 606 cars were shipped from the yards during that period, the biggest seven-day shipments since last October. Missouri took nearly half the cattle, with Illinois a poor second. Missouri farmers are energetically trying to restock their farms with Westerns. In spite of the influx of Illinois and other Eastern buyers, the stocker and feeder market eased off under the heavy runs and closed much lower for the week. Over 20,000 feeders were received during the week. Heavy-boned, fleshy cattle are in the best demand at present. This stock is somewhat neglected. Toppay feeders, coarse killing cattle, bring \$5.25 or better, but farmers would do well to figure on \$4.05 for their feeders if they wish to avoid disappointment.

Receipts of Texas cattle were again liberal, approximating 12,000 head. Steers advanced 20¢ during the week under the stimulus of light receipts. Veals also sold well, tops bringing around \$5.75. The outlook for cattle the present week is good for desirable kinds. Prospects are for big runs of Westerns, but traders think that the demand will be strong enough to balance prices.

Buyers again ran the hog market their own way during the week just ended. Receipts were only 24,700 head, not half the supply of the corresponding week last year. Fully one-third of the receipts consisted of stock to packers which was bought at other markets. Receipts were light at all the chief hog centers but packers had control of the pork market and hammered away at hog prices with a will. The general decline amounted to 20¢. Eight dollar hogs now seem a visionary dream. Instead of soaring, the market has taken a downward course that salesmen and light receipts have not been able as yet to check. Farmers and shippers alike should figure on further declines. Everything favors the bull side of the argument, but packers seem determined to bring prices down to a level in accordance with their own ideas as to prices. Pretty good hogs are now selling for \$7.

Sheep receipts amounted to 13,000 head, compared with 7,600 a year ago. The free arrival of Western muttons is beginning to have a bad effect on native sheep prices. During the week, lambs lost 10c and muttons fully as much. Native sheep are selling at present from \$3.25 to \$3.75. Lambs bring from \$5.50. The last named figure will do as the extreme limit for lambs for a while longer. Feeding sheep are steady with the supply not equal to the demand.

Horses and mules moved slowly and generally at steady prices. Indications are for a moderate decline in mules. Horses, on the other hand, should advance in price as soon as cooler weather sets in. A good Eastern trade is promised for the coming winter.

The egg market holds steady with supplies moderate. Canded stock 14½c dozen. Poultry steady, springers easy. Quotations, spring chickens, 12c; hens, 9c; roosters, 20c each. Ducks, 60¢. Geese, 4c. Turkey hens, 11c; gobblers, 9c.

POWELL.

South St. Joseph Live Stock.

South St. Joseph, Mo., August 11, 1902.

The demand was vigorous for the class of cattle that were good enough to sell at \$6.75 and above, and prices advanced 15¢ for the week, while common natives, grassers, and Westerns were of slow sale and finished generally 10c lower. The market for all grades of cows and heifers except low grades and canners, which sold steady, was 15¢ higher. The movement of stockers and feeders to the country was the heaviest of the season. Receipts were liberal but the demand was equal to them up till Friday when prices broke 10¢. Offerings were principally Colorado, Ne-

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References—Inter-State National Bank and Cattlemen Generally.

braska, and Kansas stock, with buyers from Missouri, Iowa, Kansas, and Nebraska being noted. A string of heavy Nebraska Sandhill feeders went to a Missouri feeder at \$6.70.

The proportion of steers in the quarantine division was reduced and under a good demand values went up 10¢. Cows and heifers were in marked increased supply with the wants of the buyers liberal at 10¢ higher prices. Calves and bulls showed no change in value, with the demand strong.

The hog market was one-sided about every day last week, with the balance on the side of the buyers. They had little trouble in securing sharply lower concessions during the week, in spite of the moderate receipts, the lower trend of provisions greatly aiding them. The quality did not average as good as for the last several weeks and the average weight showed a marked decrease. The range of prices to-day was from \$7.05@7.35, with the bulk selling at \$7.10@7.20.

Western range sheep and lambs were the rule last week, with hardly enough native being marketed to feel the pulse of the market. Early in the week prices were on the toboggan under bad conditions existing in the East, but as the week advanced the undertone to the market became strong until on Friday lambs showed up with the 40¢@50c loss of the previous week fully regained and sheep appreciated 15¢ in value. At the close of the week the Gooding lambs sold at \$5.55 and the Stocklager lambs at \$5.25.

The Poultry Yard.

Poultry Notes.

N. J. SHEPHERD, ELDON, MO.

The egg shell is porous and any filth around it is very sure to effect the meat. Eggs should be cleaned as soon as gathered, if at all soiled, and those to be packed for winter should be eggs which have been gathered as soon as laid.

In determining whether eggs are stale or fresh it may be well to remember that fresh eggs are more transparent at the center, old ones at the top, and very old ones are not transparent at either place. Bad eggs float in pure water. In water in which one-tenth of salt has been dissolved good eggs will sink and indifferent ones will swim.

Molting is a severe drain on the system while it lasts; but after the old feathers are replaced by the new, and the birds are safely through the process, the stimulus of change makes them healthier and also makes them lay with increased vigor, after being fully recuperated.

For indigestion in fowls squeeze the crops gently in the hand to loosen or unpack the food in it. Then open the mouth of the bird and pour in all of the water that can run down the throat. Usually one dose is sufficient, but if the fowl has been sick for some time it may be necessary to follow up the treatment for several days.

Geese may be readily fattened on almost any kind of grain if they are fed all that they can eat, commencing about ten days or two weeks before the time it is desired to market. It is best to confine them as they will fatten faster; and if the grain is ground and softened by soaking in milk or water a still better gain may be secured, but corn, peas, and barley are rather the best fattening foods.

In hungry hens, that is, hens that are always kept hungry, there is no money, but between a well-fed hen and a hen that is over-fed there is a very considerable difference. A hen that is made to scratch for all the food she gets is in little danger of eating too much. While on the farm, fowls that have a good range will not require much feed-

ing at this time, yet it will be an exceptional case where it will not be best to feed grain at least once a day, as it will aid materially in keeping them in a goody thrifty condition.

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All our Fine Breeders of this season, also Spring Chicks for sale after the first of June. Barred Rocks, White Rocks, Buff Cochins, Partridge 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.

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You cannot afford to disregard the warnings of a weak and diseased heart and put off taking the prescription of the world's greatest authority on heart and nervous disorders—

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If your heart palpitates, flutters, or you are short of breath, have smothering spells, pain in left side, shoulder or arm, you have heart trouble and are liable to drop dead any moment.

Major J. W. Woodcock, one of the best known oil operators in the country dropped dead from heart disease recently, at his home in Portland, Ind., while mowing his lawn.—The Press.

Mrs. M. A. Birdsall, Watkins, N. Y., whose portrait heads this advertisement, says: "I write this through gratitude for benefits I received from Dr. Miles' Heart Cure. I had palpitation of the heart, severe pains under the left shoulder, and my general health was miserable. A few bottles of Dr. Miles' Heart Cure cured me entirely."

Sold by all Druggists.
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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.

Grange Field Meetings.

I have attended many field meetings in several different States the present season. I find the meetings more largely attended than ever before, and a greater interest taken by members of our order, farmers generally, business and professional men. The people recognize these grange gatherings as important social and educational events, and come to spend the day in restful relaxation from the cares of business and learn more fully the objects and purposes of the Order of Patrons of Husbandry. It is admitted by all that the grange is an important factor in moulding public opinion along educational and economic lines, and the entire people are deeply interested to learn the drift of grange teachings. All understand the grange is a great fraternal order seeking the elevation of the farming population by providing greater social and educational advantages for all rural communities. The grange seeks to make more profitable and successful the pursuit of agriculture, not by building up agriculture at the expense of any other industrial pursuit, but by more intelligently managing the farm, by system and forethought reducing physical labor and at the same time increase the products and profits of the farm. These objects can be attained by the application of more brain force and less physical labor, by closer calculation on probabilities, and learning to supply the demands of the markets of the country with such products as are most attractive.

The growing importance and popularity of these field meetings add to the responsibility of those who are charged with their management. The speakers should at all times be given to understand that the grange field meetings are no place to discuss politics.

No grange speaker should abuse, belittle or misrepresent any other business or fraternal association.

The advantages and benefits, the objects and purposes of our order, what has been done and what we hope to accomplish should be clearly and truthfully stated.

The conservative course and the achievements of the order are sufficient recommendations to attract the best men and women to seek membership in our great fraternity. The order desires to increase its membership by securing all the best men and women of the country, and these can only be secured by a faithful adherence to the principles of fraternity and the elevation of the citizenship of our country.

To secure the greatest benefit in addition to newspaper advertising, circulars and posters, personal invitation should be given to all those whose membership is desirable, and a judicious distribution of grange literature, to call attention to the work of the grange is desirable, and after the meeting the local membership should improve the opportunity by inviting to membership all who would make desirable members. People but rarely make application in any order except on invitation and being assured they will be welcomed.

The wonderful growth of the order in 1902 can be still further accelerated if all of our members will act faithfully and earnestly on the above suggestion.

Patrons, let us make the field meetings as profitable as possible, remembering always that the harvest must be garnered as well as the seed sown. See to it, that your programs are of a high order, and that on all these occasions that due time will be afforded for social recreation and friendly greetings, and that all speeches be of such character as will elevate, improve and advance the cause of agriculture and tend to a better citizenship.

AARON JONES,
Master National Grange.

Oak Grange.

Oak Grange, after many years of active existence, is still a live coal on the altar of progress. At present it is deep in contemplation of the admirable results of the wise outlay of time, labor, and the important dollar, many of them

giving to all appearance a "spick and span" new hall. Walls freshly papered, and woodwork retouched, new carpets, sash curtains, window shades, chairs and tables newly varnished, pictures hung, etc. Small wonder that Oak Grange patrons indulge in commendable pride of ownership.

Imagine, Brother Westgate, the pleasure in store for us as the third Wednesday in each month comes round bringing the day set apart for an all day meeting. The events par excellence of the day being the feast and the social enjoyment neither of which are on the "stinted" plan.

There seems to be a revival of the telephone interest here. Mrs. Crumb of Harveyville will address the grange on that subject at the next all day meeting which will occur August 20.

The subject of "Postal Savings Banks" has been quite thoroughly discussed, but still remains subjudice.

Oak Grange was well represented at the Indian Creek picnic. It was a splendid success. All the arrangements evidenced much labor and wise forethought. With Brothers Cecil and Dickenson to the "fore" failure was out of the question.

Although all public questions of vital interest to the farmer were aptly touched upon, each speaker emphasized the benefits derived from the cultivation of the social life of the grange. Mrs. Calvin of the Agricultural College made warm friends by her charming grace of manner and her happy address which was all too brief.

They are rejoicing in that neighborhood over the revival of activity in grange work.

How can we hold the interest of members has also been an oft recurring theme for discussion in our grange. I am inclined to put it on record that a close study of our constitution and by-laws would be most beneficial.

Officers and older members should endeavor to surround the new members with a truly fraternal interest.

A common cause makes common interest. Unite upon some project, as, for instance, the building of a grange home. The common sacrifice each member might be obliged to make would but bind closer the true fraternal ties. If that scheme seems not practicable gather a library for both edification and profit.

Above all do not omit the literary part of the lecturer's hour.

There are two things quite essential to success. The presence of every member at every session of the grange. The cheerful performance of every duty imposed by the lecturer.

Finally, Brothers and Sisters, we must adopt the wise conclusion that time spent in grange work is not labor lost. The social part counts for much. You cannot afford to neglect it. It means culture.

KITTIE J. McCracken, Secretary.

The Annual Grange Picnic.

One of the largest and most interesting grange picnics ever held in the county was enjoyed at the park last Saturday by the people of the city and surrounding country. The local grange had charge of the affair and the committees who had the work in hand performed their work faithfully and well and as a consequence the affair was a big success.

The speaker's stand was decorated in the products of the farm, green and yellow bunting, with old glory appropriately in the foreground.

The Democrat man didn't make a particularly close examination but his unagricultural eye took in the following items which were used artistically and displayed on the stand: Wheat, oats, pumpkins, squashes, turnips, tomatoes, cabbage, Kafr-corn, alfalfa, potatoes, cane, Johnson grass, apples, pears, peaches, grapes, cut flowers and sunflowers. It made a nice display and was commented on freely and admired by all.

The assemblage was called to order by G. W. Ramage, and after the invocation by Rev. McDonald the address of welcome was made by Major W. J. Pollock with an appropriate response by Hon. E. F. Greene. The address of the morning was made by E. W. Westgate of Manhattan, master of the State Grange. He spoke of the growth of the Grange over the country and showed the strength of the Grange in other lo-

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Every tablet of Cascarets Candy Cathartic bears the famous C. C. C. Never sold in bulk. Look for it and accept no other. Beware of fraud. All druggists, 10c.

calities, and where such strength was in evidence remedial legislation favorable to the farmer was enacted. In Kansas, he said, there are but 3,000 grangers while in the Eastern States the membership is much larger, New Hampshire having an enrollment of 25,000. His address made it clear that a farmer ought to be a granger for his own satisfaction and the help received from interchange of ideas, and also the power of organization.

The dinner hour followed and the big basket dinner was properly appreciated by the farmers and their friends.

Following the noon hour Mrs. Henrietta Calvin, of the Agricultural College, was introduced and delivered an address on domestic science, letting drop some valuable hints on the home life which, if followed, will add happiness and pleasure to the home. A great many ladies heard the address who appreciated and enjoyed it, as did also the men. She was followed by Hon. Aaron Jones, the master of the National Grange, who spoke for an hour. He is a pleasing talker and interested his hearers. He stated that fifty years ago the wealth of the country was estimated at eight and one-half billion dollars and of that wealth the farmers owned five billion, three million, or about 61 per cent. From the census of 1890 he found that the wealth of the nation had increased to sixty-five billion, but only seventeen billion, or 26 per cent, was owned by the farmers, or a decrease for the farmer of 35 per cent. To find out why these things were so was the reason for the organization of the Grange.

The Grange is not a political organization and where politics has been injected into the order just so soon does it begin to decline and deservedly so. That was the experience in Kansas but now the order is stronger than at any time since its first organization thirty-six years ago, it now having a membership of one-half million.

"While the Grange is not in partisan politics," said Mr. Jones, "we do not object to the railroads taking more than their share of profits, the same to banking interests, the merchants combining and extorting, to business men putting the price on what we have to buy and what we have to sell. We do not propose to howl but we are going to organize and then we can get what we want."

"Farmers should keep a complete set of books and not spent too much time in hard, physical work. There is not enough hard mental study on the farm. The time has come when brain and not muscle wins success in this world and the farmer is no exception to the rule."

He interspersed his remarks with many spicy bits of advice, one of which was, "What you've got to sell, don't part with it until you get the last nickel out of it;" and another, "Build up a home where love, confidence, peace and happiness abide."

Prof. D. H. Otis, of the Kansas State Agricultural College, was the next on the program and was soon at home among his hearers. He began by giving an account of the Campbell method of cultivating land for wheat, corn and orchards. Mr. Campbell owns a large farm in Graham County and he makes a practice after every rain of harrowing the ground and thereby keep the moisture from evaporating, and Professor Otis recommended his plan. He gave a very interesting account of the work of Funk Bros., large corn-raisers in Illinois, who "breed up" their corn as farmers breed up their cattle, by having each grain inspected before it is planted, and he declared that the kernels had more protein in them than poorer corn, therefore making a more valuable food. He spoke of alfalfa and its relation to the dairy. "It is the most economical producer of butter-fat and two tons of it is as good, for that purpose, as three tons of red clover." By a careful test at the college they found that a ton of alfalfa put on 868 pounds of pork on some of the college hogs.

At the close of his address the meeting for the afternoon adjourned and as it was yet early many stayed on the grounds to visit, and then it was that the candidates who were on the ground got in their work.

The evening was given over to the good roads project, the crowd being called to order by Hon. E. F. Greene, and C. M. Scott who was made chairman of the evening. The Hon. Norman Barker was called upon for an address and he spoke at length upon the subject, showing that he had an extensive knowledge of the topic and the origin of the movement.

An organization was not attempted owing to the small number of business men present, but a meeting will be called soon by the chairman when the subject will be taken up.—Arkansas Valley Democrat.

TO YOUNG LADIES.

From the Treasurer of the Young People's Christian Temperance Association, Elizabeth Caine, Fond du Lac, Wis.

"DEAR MRS. PINKHAM:—I want to tell you and all the young ladies of the country, how grateful I am to you for all the benefits I have received from using Lydia E. Pinkham's Vegetable Compound. I suffered for



MISS ELIZABETH CAINE.

eight months from suppressed menstruation, and it effected my entire system until I became weak and debilitated, and at times felt that I had a hundred aches in as many places. I only used the Compound for a few weeks, but it wrought a change in me which I felt from the very beginning. I have been very regular since, have no pains, and find that my entire body is as if it was renewed. I gladly recommend Lydia E. Pinkham's Vegetable Compound to everybody."—Miss ELIZABETH CAINE, 69 W. Division St., Fond du Lac, Wis.—\$5000 forfeit if above testimonial is not genuine.

At such a time the greatest aid to nature is Lydia E. Pinkham's Vegetable Compound. It prepares the young system for the coming change, and is the surest reliance for woman's ills of every nature.

Mrs. Pinkham invites all young women who are ill to write her for free advice. Address Lynn, Mass.

Advancement of the Grange.

The universal commendation of the Grange by the press speaks well for the order and shows quite a contrast in the way in which the Grange was treated in its earlier history. Too often it was treated only with ridicule and no effort was made to ascertain its better deeds. Its present high standing has been gained by careful and faithful work and its relation to the farm is well put by the New York Independent as follows:

"The best influence of the Grange has always been educational. To be a better farmer and enable farmers to do better work has become the password of the Grange. It took up promptly and advocated the institute plan. At present a large part of institute work is done under Grange patronage. The Grange has done its most permanent work in solidifying the agricultural people socially and infusing them with the idea that farming is not inferior to other employments. The farmer and especially the farmer's family have heretofore lacked social organization. They have lived so far apart that it was not easy to act together for any special purpose. The Grange has done a great service in this direction. Who now has a better association, with a better lodge and a better program of cooperation than the farmer? Others can have their clubs, but none more full of social good will and intellectual pabulum than the Grange. We are glad to see an essentially American organization built up that has based itself squarely on the family; that has created social cooperation between the sexes; that has held so closely to the amelioration of existing conditions; and has in all ways shown a tendency to refuse to build up agriculture at the expense of other industries. But we especially congratulate the Grange that it is an organization that knows no North, no South, no East, no West, and thus becomes a bond of union between all parts of the republic. No one can say of it that it is local sentiment, or tends to the especial exaltation of the interests of any section of the country. It is doing a great deal to bind together the various disseminated elements which constitute the agricultural industry of the United States.—Stockman and Farmer.

When writing advertisers please mention this paper.



In the Dairy.

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

Fifth Report on Cow Test Experiment.

For detailed record for March, April, May, and June, see KANSAS FARMER for April 10, May 15, June 26, and July 17. The following is the record for July:

merous, but are not always located in the most desirable places. When they are not at too great a distance from the house or barn, and are upon a lower level, the hydraulic ram will often be found the best means of transferring the stream where it is wanted. The ram is so simple in construction that it is not at all liable to get out of order, and once started it may be said to require almost no attention. This is what a dairyman wants if he has a spring near by.

Watering devices for cows in the stable are being put in the up-to-date dairy barns. Water drawn in a comfortable stable will seldom be below 50°. There have been many ways devised for supplying cattle with water in the stables but most of them have a separate trough for each animal and these must be cleaned separately. By making a trough V shaped, the whole length of the stables and placing it directly in front of the cows, under the

install a plant at 544 Walnut Street, Kansas City, Mo., at a cost of \$25,000.

The government of Canada pays to every creamery in the dominion that builds a good refrigerator \$100 as a bonus and encouragement to so construct their creameries that the quality of the Canadian butter may best be preserved. In consequence of this and other careful scientific methods, Canadian butter is forging ahead in the English market. It is a good illustration of the value of doing things in the right manner. A good many of the American creameries have very deficient refrigeration rooms. They may make good butter, but for the lack of right ideas on this point they destroy good money in the value of their butter. They will put up a poor cheap refrigerator room, and call it good because it is cheap. The creameries of the United States have no government to come forward and tempt them into doing the right thing by paying \$100. They must depend on

DE LAVAL CREAM SEPARATORS

For twenty years the World's Standard
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scarcely if ever found with any feed in her manger, and is always ready for a fresh supply. This, however, is only one strong point in her favor. The following figures show that she has a great faculty for turning feed into milk. Having had the privilege of milking Harriet since her last calving, the writer is able to give accurate figures as to her milk record, up to July 15. Harriet calved March 5. Previous to the time of turning the cows to grass, May 1, Harriet was fed per day as follows:

	Pounds.
Alfalfa hay.....	15
Corn ensilage.....	40
Corn chop.....	7
Wheat chop.....	14
Oil cakes.....	1

Average for last 24 days of March...	64.9
Best day.....	71.8
Total for March.....	1,557.6
Average for April.....	67.5
Best day.....	72.5
Total for April.....	2,026.6

Owing to a change in feeders, Harriet got entirely off feed during the month of May, which brought her average down to 52.2 pounds per day. For June her average was 52.8 pounds per day, and for the first half of July, 46 pounds per day.

Unfortunately her milk was not tested until in the month of June, when it was found to test 3.05 per cent butter-fat. In the full amount of milk, up to July 15 (7,480.4 pounds), averaged a test of 3.05 per cent, her butter yield for the one hundred and thirty days was about 270 pounds, or 2.07 pounds per day.

When the reader considers that Harriet of Buffalo is only one of a herd of about 300 cows, many of which are on the next step below her, you will have put a faint idea of the class of dairy cows found on Watson's Ranch.

The Forest Park Creamery Company and Its New Equipment.

The Forest Park Creamery Company, of Ottawa, Kans., has just moved into its new plant. It now occupies one of the most complete and up-to-date plants

Send on Trial

BUTTER MAKERS
make better butter and more butter by using the

KNEELAND OMEGA CREAM SEPARATOR
simple, cheap, efficient. Easily cleaned. Free from repairs. Guaranteed to suit or money back. Send for Free book, "Good Butter and How to Make It." The Kneeland Omega Creamery Co., 26 Concord St., Lansing, Mich.

FIFTH REPORT OF COW TEST EXPERIMENT.

No.	Name of cow.	Selected by—	Fresh—	Yield.			Grain consumed.		Judges rank for profit	
				Milk, lbs.	Test, per ct.	Butter, fat, lbs.	Corn chop.	Total.		
243....	Cowslip.....	J. W. Bigger.....	Nov. 3, 1901.....	559.2	4.5	25.16	169.8	22.8	192.6	3
236....	Haster.....	E. C. Cowles.....	Dec. 10, 1902.....	657.5	4.15	27.29	169.8	22.8	192.6	1
244....	Rose of Cunningham.....	J. W. Cunningham.....	Jan. 28, 1902.....	826.6	3.7	30.58	197.2	25.8	223.	2
238....	Clover Leaf.....	M. L. Dickson.....	Jan. 12, 1902.....	403.9	3.4	13.65	86.5	13.	99.5	7
245....	Molly.....	A. H. Diehl.....	Jan. 20, 1902.....	633.2	3.8	24.06	114.2	16.2	130.4	5
241....	Rose of Industry.....	C. Ellsasser.....	Jan. 15, 1902.....	511.4	4.1	20.97	114.2	16.2	130.4	8
240....	Daisy Bell.....	S. A. Johnson.....	May 3, 1902.....	842.2	3.55	29.90	169.8	22.8	192.6	9
246....	Floss.....	C. C. Lewis.....	Oct, 1901.....	328.	5.9	19.35	114.2	16.2	130.4	6
242....	May Queen.....	G. W. Priest.....	Dec. 25, 1901.....	537.	4.95	26.58	169.8	22.8	192.6	4

Note.—Roughness for each 100 pounds.

RECORD FROM MARCH TO JULY, INCLUSIVE.

No.	Name of cow.	Yield										Grain consumed, lbs.	Roughness consumed, lbs.		
		March		April		May		June		July				Total	
243....	Cowslip.....	761.6	33.89	762.1	32.00	797.5	35.88	658.9	30.64	559.2	25.16	3539.3	157.57	1058.1	2474
236....	Haster.....	849.5	32.28	743.7	29.00	878.4	36.01	793.0	34.10	657.5	27.29	3921.6	158.68	1083.6	2474
244....	Rose of Cunningham.....	1200.1	36.90	1090.1	35.97	1241.2	41.58	1055.5	36.41	826.6	30.58	5413.5	180.54	1171.0	2474
238....	Clover Leaf.....	733.1	21.62	642.9	20.25	745.7	23.86	593.9	21.97	401.9	13.65	3116.9	101.35	692.0	2474
245....	Molly.....	824.	25.95	726.8	24.34	830.3	29.47	742.5	26.73	633.2	24.06	3766.8	130.55	802.9	2474
241....	Rose of Industry.....	802.	25.27	791.5	26.91	838.1	33.10	664.6	25.92	511.4	20.97	3607.6	132.17	802.9	2474
240....	Daisy Bell.....	.....	.....	.....	.....	876.4	29.79	999.3	34.48	842.2	29.90	2717.9	94.17	529.6	2474
246....	Floss.....	503.6	25.68	477.0	25.04	564.6	30.49	438.3	23.89	328.0	19.35	2311.5	124.45	789.9	2474
242....	May Queen.....	630.3	30.88	582.8	29.43	687.3	35.39	613.0	31.80	532.0	26.58	3050.4	155.08	1032.1	2474

The pasture was getting a little short during the last of July and the herd was fed some alfalfa hay in the yard morning and evening. Each cow consumed 100 pounds for the month. We also added a little corn chop to the grain ration and the total amount of the grain was increased somewhat over the amount fed last month.

The total yield of milk and butter-fat decreased for every cow. This is due somewhat to the flies and also to the advance of the lactation period. Efforts are being made to keep up the milk flow by giving extra grain and roughness and changing to new pastures. To check the ravages of the flies each cow is being sprayed with the rosin mixture.

The relative rank for total production of butter-fat remains the same as last month with the exception that Cowslip and Haster exchange places. Cowslip, which was second at the end of last month, becomes third in rank, and Haster, which was third, takes second place.
D. H. O.

Some Watering Devices.

W. W. BOGGS.

Kansas, on an average, is well watered and is therefore a good dairy State. There are many devices for supplying fresh water to the stock, when water can be found under the soil. But nothing is so good and nothing is so satisfactory to man and beast as a flowing spring or a running stream. Horace Greeley said that his first requirement when he began to look for a farm was a good spring, and in this he showed his good sense both from an aesthetic and a practical point of view.

In a lime stone region, springs are nu-

manger so that the lid of the trough may form a part of the bottom of the manger, water may run in at one end and the cows drink as it passes through, any surplus being drawn off at the other end. Water is usually supplied by a near by spring.

Cattle should never have ice water during summer or winter, therefore if you have a number of dairy animals you should have a tank-heater. This is a small arrangement which sets in the water and heats the surrounding water up to about blood temperature. This heater does not use very much coal. The water should never be heated to too high a temperature.

Water for the dairy calf is an important subject. The best thing found for watering purposes at the Kansas Experiment Station is the hog-waterer or fountain. It is a small arrangement attached to the bottom of a vinegar barrel, just large enough for the calf to get his nose into the spout, and when he drinks the water out of the spout, more flows in. The barrel is filled with fresh spring or well water and placed under a shed to protect the water and the animal from the hot sun during the months of July and August.

The dairyman should keep these three rules in mind. First, see that the water is fresh and clean; second, give the cow all the water she wants to drink, and last, but not least, see that the water is of the same temperature the year around—in other words, the cow must not be compelled to drink ice water in winter and boiling water in summer.

Creamery Items.

The Brady-Meriden Creamery Company, it is stated, is about to erect and

themselves for this good work.—Ice & Refrigeration.

The Premium Cow of Watson's Ranch.

M. M. COOK, KEARNEY, NEB.

Among the Holstein cows of this large and noted dairy ranch are to be found many valuable ones, both for breeding purposes and for milk production. Harriet of Buffalo is perhaps the choice or premium cow of the herd.

True, as many a visitor has remarked, "Harriet is a beauty." She is a large animal and possesses all the points of an ideal dairy cow. Her predominant color is white, with sufficient amount of black to make her typical of her breed. She is a perfect picture as she stands with her head erect and watches the lookers-on with kind, intelligent eyes; and she causes no fear from her evenly shaped and well-proportioned horns which add greatly to her beauty. Harriet is a hearty eater and is



Davis Cream Separator Co.

**BEST IN THE WORLD
EASIEST CLEANED
MOST DURABLE
CLOSEST SKIMMER**

CATALOGUES

Davis Cream Separator Co.,
54 TO 64 N. CLINTON ST., - CHICAGO, ILL.

Save time and freight by ordering from
PIONEER IMPLEMENT CO.,
COUNCIL BLUFFS, IA.



...WE GOT...

**20 Cents a Pound
for Butter Fat in July**

WHAT DID YOU GET?

600 Shippers to

BLUE VALLEY CREAMERY COMPANY

St. Joseph, Mo.

in the country. Everything is new from top to bottom.

The equipment consists of ten latest improved Farrington cream ripeners of 300 gallon capacity each, fitted with compressed air connections for forcing the cream into the churns; three No. 5 Disbrow churns; one No. 1 Alpha separator; two Idea skim-milk weights; one Vermont Farm Machine Company tester for long-necked cream bottles; a seventy-five horse-power Corless engine and direct connected ammonia compressor built by the Larson Ice Machine Company of Omaha, Neb.; large refrigerator rooms, store and stock rooms and the offices occupy the second floor of the building.

Cooling of cream and cold storage is effected by sodium chloride brine circulation.

The company is now manufacturing from 6,000 to 7,000 pounds of butter per day, and has ample room for increase to 20,000 or 25,000 per day. It has recently equipped its skimming-station with Jensen Pasteurizers and Cream Coolers. In every way they are in a position to turn out a fancy grade of butter and Mr. Chas. Dille, treasurer and manager of the company, is to be congratulated on his success in bringing his plant and stations up to so perfect a standard.

E. H. WEBSTER.

The Cunning Cow.

The average New York market price for butter-fat last week was 20 1/2 cents. Market healthy with an upward tendency.

Wisconsin farmers who have been feeding Kansas people with their cheese products, are noting with a good deal of anxiety the rapid growth of Kansas cheese factories. In ten years Kansas will be supplying most of the great Southwest with fine rich alfalfa and Buffalo grass cheese.

A local creamery received the following letter: "During the past year I have gone over my route 365 times. In that time I got out and in my wagon 4,872 times unloading and loading heavy cream cans. I am seventy-one years old but not dead yet.—W. Brodie, Victor, Kans."

It sounds unreasonable but it is the experience of the best dairymen that a good pair of scales will add the yield of one cow to a herd of ten. Try it and see. Hang them in the barn and put a record sheet alongside. It will work.

Prosperity breeds prosperity. Kansas dairymen are growing to be the best and they want the best. The dairy commission, like improved cow breeds, is of the present and the farmers are going to insist that the legislature give them a good commission. Address all inquiries to T. A. Borman, Secretary, State Dairy Association, Topeka, Kans.

The squirms of oleo are frightful to see. Hundreds of schemes have been tried to make it look like butter and evade the law, but the dairymen are only smiling and turning out more butter, protected by Uncle Sam from the frauds. The days of oleo are over. It rose and flourished in the night of the dairy business; it came up like mushroom but when the sun came out it withered and now is no more.

WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending August 12, 1902, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

The first days of the week were decidedly warm, the maximum temperature being 100° and upwards over the entire State except a few northeastern counties. The maximum temperature for the week ranged from 95° in Jefferson to 108° in Decatur and Thomas, but the week closed cooler. Light showers have occurred in nearly every part of the State, while heavy rains have fallen in Phillips, Reno, Sedgwick, Harper, Chautauqua, Allen, and intervening counties.

RESULTS.

EASTERN DIVISION.

The high temperature the first of the week was unfavorable to the corn crop, ripening the early corn too early and firing the late corn, but the cooler weather following has not only improved the corn but has materially benefited all growing crops; the early corn is hard enough to feed in the central counties and is being marketed in Chautauqua. Threshing continues with good yields of oats and poor to good yields of wheat and flax, the last named not fulfilling expectations. Prairie haying is progressing and an unusually large crop is in sight. The third crop of alfalfa is being cut in Chautauqua and Chase but needs rain in Geary. Apples promise a full crop in Morris and an average crop in Atchison, with prospects for a good crop in Johnson, but are falling in Chase and Leavenworth, with poor prospects in Bourbon. Plowing for fall sowing is progressing in Anderson, Johnson, Wilson, and Woodson, but has been stopped in several counties by the dry, hard ground. Pastures remain good. Potatoes are fine and abundant. The second crop of clover in Johnson is nearly as heavy as the first. Melons are abundant in Chautauqua. Grapes, light crop in Johnson. Allen County.—Threshing delayed by continued wet weather and hay and crops injured. Anderson.—Threshing from shock completed; fall plowing commenced, ground hard and dry; large crop wild hay being secured in fine condition; pastures good and stock doing well; late corn needs rain.

Atchison.—Corn needs rain badly, some fired, late in critical condition; pastures getting short and dry; heavy crop of prairie hay; early grapes ripening; apples an average crop.

Bourbon.—Crops need rain; early corn good, late being damaged; prairie-grass turning, extra good; flax yields from poor to fair; wheat good; potatoes good crop; no apples.

Brown.—Good threshing weather; rain needed for corn and to put ground in condition for plowing.

Chase.—Corn considerably fired; plowing about stopped by dry weather; prairie haying progressing; third crop alfalfa being cut; wheat-threshing slow, yield too light; apples falling; prospects of light crop.

Chautauqua.—Corn fine and on market; much hay put up during week; cutting third crop alfalfa; melons abundant.

Coffey.—Corn doing finely but will soon need rain; threshing and haying in progress; some local showers.

Crawford.—Some local showers but rain is needed for corn and to soften ground for plowing; wheat yields average well, oats well to excellent; flax a good crop; pastures good and stock in fine condition.

Doniphan.—Corn somewhat injured by heat. Elk.—Corn somewhat injured; Kafir doing well; flax very poor.

Franklin.—Rain, for which corn was suffering, last of week; flax disappointing. Geary.—Corn needs rain, that not on low land suffering materially, early ripening rapidly; Kafir, millet, sorghum, and alfalfa, need moisture.

Greenwood.—Weather warm with good rain last of week. Jackson.—Corn somewhat damaged by dry weather; good week for threshing.

Jefferson.—Corn needs rain badly; fine weather for haying. Johnson.—Good week for threshing, putting up hay, and plowing; corn hardening; second crop clover heavy; prospect for apples good; grape crop very light.

Leavenworth.—Threshing done, fair yield; corn fine; prairie haying begun; apples dropping, promise about half crop.

Linn.—Early corn made, late will need more rain; ground getting too hard to plow; wheat-threshing in progress; flax yields poor to good, some worth more for hay than for seed.

Marshall.—Corn doing well but needs rain; ground getting too dry to plow; wheat and oats yields light; pastures good.

Miami.—Crops doing well; plowing in progress. Montgomery.—Late corn injured; good rains and low temperatures last of week; flax a poor crop; oats yielding well, wheat fairly.

Morris.—Corn in fine condition; cane, Kafir, and all kinds of feed, making splendid growth; apples promise full crop.

Nemaha.—Ground dry and vegetation needs rain; late corn begins to suffer; heavy crop of millet being harvested; prairie-grass in fine condition; ground getting too hard to plow.

Pottawatomie.—Good rain Sunday morning was much needed by corn and pastures; all crops doing well.

Shawnee.—Corn injured; haying begun, a very heavy crop. Wilson.—Rain last of week fine for corn and grass and will fully mature them; fall plowing progressing nicely; fruit doing finely.

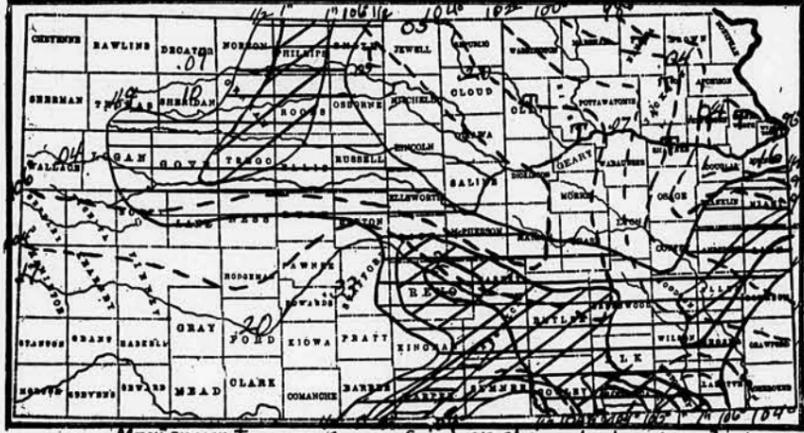
Woodson.—Good week for haying; plowing for wheat continues; good rain Friday of great benefit to corn and pastures; corn hard enough to feed and very promising; hay crop large; Kafir heading.

MIDDLE DIVISION.

Late corn needs rain; much of it was more or less injured by the hot weather first of week but the showers and cooler weather since have done much to restore it; the early corn is so far advanced that in some localities it is considered a safe crop. Threshing continues, wheat yielding poor to fair, oats yielding well, except that in Washington some is poor. Alfalfa is being stacked in Clay; the second crop is being cut in some parts of Sumner and the third crop is ready to cut in other parts; the third crop is light in Butler; a fourth crop is assured in Phillips. Prairie haying is general and a heavy crop is being put up. There is a fair yield of apples of good quality in Sedgwick, but in Butler the winter crop will be small. Plowing is progressing in a few counties, but in many of the counties the ground is too dry and needs rain. Stock is doing well.

Barton.—Hot winds 1st, 2d, and 3d; late corn and forage crops dried up. Butler.—Most of corn seriously damaged by hot wave; wheat low grade, poor to fair yields;

Rainfall for Week Ending August 9.



SCALE IN INCHES.

Less than 1/2. 1/2 to 1. 1 to 2. 2 to 3. Over 3. T, trace.

oats good quality and yield; third crop alfalfa light; few peaches; winter apple crop will be small; not much plowing done yet.

Clay.—Corn suffering some for lack of rain, late must have rain soon; much hay and alfalfa being stacked, quality excellent; melon crop almost complete failure.

Cloud.—Hot, dry weather has damaged corn in southern portion of county; rain needed in all sections.

Ellsworth.—Not enough rain for good plowing; early corn assured; wheat nearly all threshed.

Harper.—Corn injured by hot weather to some extent; plowing fine; wheat poor.

Jewell.—Dry and hot; corn doing quite well but needing rain.

Kingman.—Threshing continues; corn somewhat damaged by drought; no plowing; rain needed.

Lincoln.—Hard week on crops; corn damaged; late must have rain soon; putting up hay from prairie.

McPherson.—Some corn being cut for fodder; too dry to plow; threshing.

MORE BRAINS, MORE MILK.

The dairy farmers of Kansas are losing ten million dollars this year by not taking care of their opportunities for the manufacture of milk. Every cow in Kansas is a milk factory. It takes the same labor, the same feed, the same outlay of time and money to run a scrawny, poor-producing milk factory as it does to run an up-to-date wealth-producing one.

MORE MILK, MORE MONEY.

There is practically no risk this year to the dairy business. With plenty of feed at a low price and a good market for your butter-fat at the stations of the Continental Creamery Company, the only thing that will keep the dairy farmer of Kansas from coining money this year and for years to come will be an eruption like that of Mt. Pelee.

THIS IS THE AGE OF MONEY.

This is the argument we are making with our patrons in Kansas, and the best one: that we are paying better prices, surer prices, every day during all the year than any other like concern in the country. We base our price on the principle of co-operation and every patron we have is our friend. Bring or ship us your milk or cream. Start once and you will never want to quit. We will sell you a DeLaval Separator if you desire. It is the finest and best make in the market. The terms are right. Write us or see our operators.

THE CONTINENTAL CREAMERY CO., Topeka, Kansas.

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 leaving Topeka 11.50 a. m., and arriving Colorado following morning, and carrying free Chair Cars, Pullman Sleepers and Observation Car. Reduced rates to Colorado and Utah daily from June 1 to September 15.

For particulars and copy "A Colorado Summer," apply to

T. L. KING, Agt., Topeka. T. M. JAMES, P. O. Building North Topeka.

When I am with Thee as Thou art with me, Life will be self-forgetting power; Love, ever conscious, buoyant, clear and free Will flame in darkest hour. —George MacDonald.

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.

CATTLE.

DAIRY STOCK FOR SALE—To reduce our stock we offer for sale, Fifty High Grade Shorthorn Cows, all good colors and fine milkers, broke to halteres. Also twenty registered Jersey cows and heifers, three Jersey bulls. These are a fancy lot of cattle, and can be bought on 5 years time, real estate security, interest 6 per cent. Sam Swoyer, Winchester, Jefferson Co., Kans.

FOR SALE—Twenty head of registered Shorthorns for sale at a bargain. Cows and heifers, some with calves at foot, others bred. All good colors, good ages and in good condition. Mostly Scotch-topped. One a pure Cruickshank cow, coming 4 years old in October, solid red and a good individual. Has a fine red bull calf at side, 4 weeks old; sired by the Cruickshank bull Victor Ludding 148483. Will sell part or all. Geo. E. Ross, Aiden, Rice Co., Kans. Farm adjoining town on A. T. & B. F. R. R.

FOR SALE—2 double standard Polled Durham bulls and 3 Shorthorn bulls. A. L. West, Garnett, Kans.

DAIRY STOCK FOR SALE—To reduce our stock we offer for sale, Fifty High Grade Shorthorn Cows, all good colors, and fine milkers, broke to halteres. Also twenty registered Jersey cows and heifer, three Jersey bulls. These are a fancy lot of cattle. Sam Swoyer, Winchester, Jefferson Co., Kans.

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

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.

SWINE.

FOR SALE—Pure-bred Berkshire sows due to farrow not later than September 10. O. P. Upedgraft, North Topeka, Kans.

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

HORSES AND MULES.

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

ANGORA GOATS.

I have several thousand 1 and 2-year-old Angora weathers for sale at right figures. H. L. Hall, East Las Vegas, New Mexico.

FARMS AND RANCHES.

FOR SALE—435 acres, 150 bottom, 40 hay, pasture, water, stone barn, timber; \$27 per acre, or two best eighties, \$35 per acre. A. H. Harshaw, Junction, City, Kans.

FOR SALE—320 acres unimproved in Osage County near Carbondale. For particulars address, J. C. Carpenter, Carbondale, Kans.

FOR SALE—Good alfalfa, corn, and wheat land in the banner stock county of Kansas. Write the Verdigris Valley Land Company, Quincy, Greenwood Co., Kans.

FOR SALE—FOR SALE—A choice 320 acre farm located in Chase County, Kansas, 140 acres under plow, 125 acres now in crop, 20 acres native meadow, 160 acres in pasture, fair buildings, good orchard, good pure water. Will sell with farm all the crop. 30 head of cattle, 13 head of them are registered Shorthorns, 5 horses, harness, wagons, farming implements. Send for full printed description. John G. Howard, Homestead, Chase Co., 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.

SEEDS AND PLANTS.

STRAWBERRY PLANTS FOR FALL PLANTING—Now ready and for sale. Send for list and prices to Wm Brown & Sons, Lawrence, Kans.

FOR SALE—Red Amber seed wheat, pure and clean. Write for sample and prices. Humboldt Grain Exchange, Humboldt, Kans.

FOR SALE—Alfalfa seed, crop of 1901. Write for sample and price. Smoky Hill Ranch, Gill, Logan Co., Kans.

MISCELLANEOUS.

ANTI-HORSETHIEF ASSOCIATION—If you want to know all about it send 2 cent stamp to A. H. T. A. News, St. Paul, Kans.

\$5.00 OR MORE—Invested will average seven per cent per month profits paid monthly. Investment guaranteed. Write for particulars. Address box 212, Columbus, Nebraska.

FARMERS!—Sell your own farm. Deal direct with the purchaser. I can put you in direct communication with the buyer. It's a sure farm seller. For further information, write to Horace Grant, Mass. Bldg. Kansas City, Mo.

WANTED—To exchange one year's scholarship in a high-grade ladies' college near St. Louis for a team of good driving horses, 16 to 17 hands high, fairly well matched. Address Kansas Farmer.

\$5 TO \$12 WEEKLY; for copying letters for us in your own home, outfit and particulars free. Address Ladies' Home Magazine, Philadelphia, Pa.

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.

PATENTS.

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

The Stray List.

For Week Ending July 31. Sumner County—W. E. Wood, Clerk.

MARE—Taken up by C. M. Conner, May 1, 1902, one dark bay pony mare, 18 1/2 hands high, Spanish brand on right shoulder, bluish on right hip, star in forehead, wearing leather halter head stall.

Marshall County—James Montgomery, Clerk.

HORSE—Taken up by Wm. McDonald in Marysville tp., (P. O. Marysville), on July 3, 1902, one bay horse, 6 or 7 years old, weight about 1,100 pounds, Branded with T W on left shoulder, with half moon over letters. No evidence of having been worked.

Barber County—J. E. Holmes, Clerk.

PIGS—Taken up by Geo. T. Knight, in Medicine Lodge tp., (P. O. Medicine Lodge), on July 23, 1902, one black pig with white and red spots; one pig with black and red spots; one black pig one black sow weight about 250 pounds; four white feet, split in right ear; one black sow with white marks, weight about 140 pounds, split in right ear.

Week Ending August 7. Woodson County—J. P. Kelley, Clerk.

HORSE—Taken up by T. P. Alvis, in Belmond tp., July 8, 1902, one horse branded with letter C or G and T on right shoulder, about 15 years old. Also one brown horse with little white on right hind foot, about 12 years old, both work horses.

Bourbon County—L. Barton, Clerk.

PONY—Taken up by Nathaniel Williams, July 30, 1902, one stray mare (pony) sorrel color, halter marks, cut on left hind leg, and branded on left front shoulder 10.

Sedgwick County—J. M. Chain, Clerk.

MARE—Taken up by Wm. Patterson on May 11, 1902, 2 miles south and 1/2 mile west of Greenwich, one bay mare 14 1/2 hands high, 8 years old, white right hind foot. Valued at \$25.

Week Ending August 14. Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by Frank McGill, in Neosho tp., Cherokee County, on July 15, 1902, one brown mare 9 years old, foretop cropped, spavin on left hind leg, weight 800 pounds; valued at \$35.

Barton County—F. M. Lutch, Clerk.

MULES—Taken up by Martin Musel, Lakin tp., two female mules, coming 3 years old, dark brown; two male mules, coming 3 years old dark brown. MARE—Taken up by same, one dark brown mare, weight 2200 pounds, white spot on forehead.

FOR SALE INDIAN LANDS.

6,000 Acres of Inherited Land

Located in the Indian Territory, for which titles can pass. Consisting of 80-, 160- and 200-acre tracts convenient to railroads. Good farming land—some in cultivation. Prices from \$11 to \$20 per acre. Address

WILLIAM HIGGINS, VINITA, INDIAN TERRITORY

LIVE STOCK AUCTIONEERS.

CAREY M. JONES,

Live Stock Auctioneer, Davenport, Iowa. Have an extended acquaintance among stock breeders. Terms reasonable. Write before 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, Banceton, Mo. SALES made everywhere. Thoroughly posted and up-to-date on breeding quality and values. Have a large acquaintance 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.

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. Yarrick, Blue Rapids; J. H. Whiting, Frankfort; 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. Bachelorate 81567, bred by Gudgeon & Simpson, at head of herd. Write for prices now. Contributor to Annual Sale Marshall County Hereford Association.

I. D. YARRICK, Blue Rapids, Kansas.

When writing advertisers please mention this paper.

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 Glits, and a few aged Sows, bred for March, May, and June farrow. Write for prices. COTTRELL BROS., Irving, Kans.

Spring Branch Herd Original Stocks & Sons HEREFORDS.

Alliant females with Jim Wilton 106761 at head. MRS. A. J. STOCKS and C. D. HOLMES, OWNERS. Address C. D. Holmes, Mgr., Blue Rapids, Kans. Contributors to Annual Sale Marshall County Hereford Association.

Ash & Creek & Herd REGISTERED HEREFORDS

Anxiety 4th females with Edwards 113325 at head. WM. BOMMER, Marietta, Kan. Contributor to Annual Sale Marshall County Hereford Association.

ROME PARK STOCK FARM.

I. A. HUBBARD, Rome, Kans., BREEDER OF . . .

Poland-Chinas and Large English Berkshires.

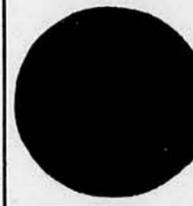
FOR SALE—12 Berkshire boars and 20 bred sows and glits, 20 Poland-China boars, and 50 bred sows and glits



STEELE BROS., Belvoir, Douglas Co., Kans., * * Breeders of SELECT * *

HEREFORD CATTLE

Young Stock For Sale. Inspection or Correspondence Invited.



GLENDALE SHORTHORNS.

Imp. Prince Levoly 155880 and Scotland's Charm 127264

IN SERVICE

Young Bulls, Cows, and Heifers for sale at all times. O. F. WOLF & SON, Ottawa, Kans.

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BILL BROOK BREEDING FARM, (REGISTERED SHORTHORNS),

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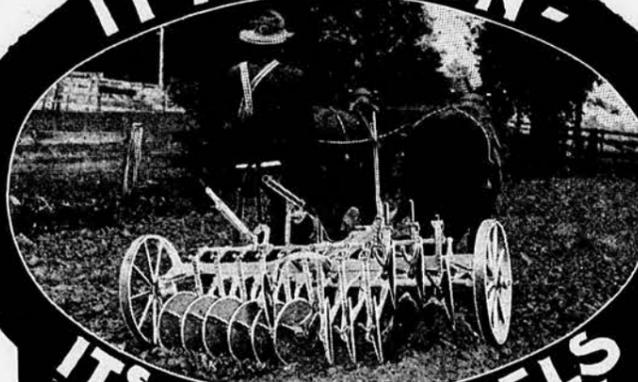
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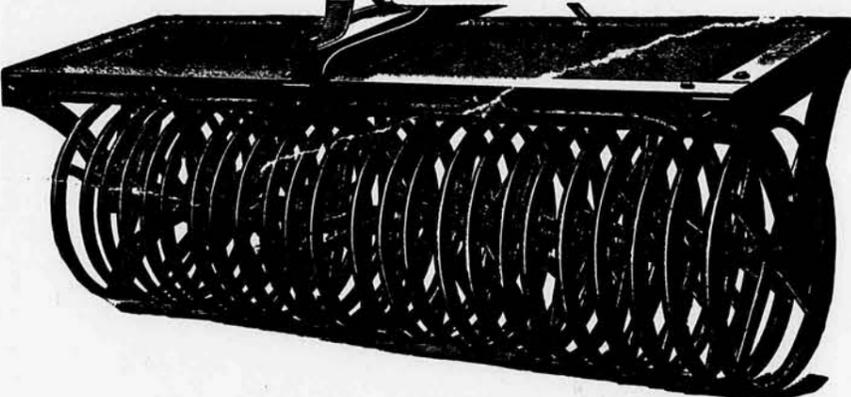
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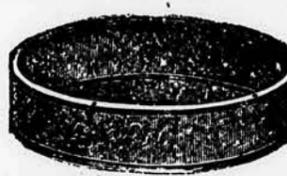
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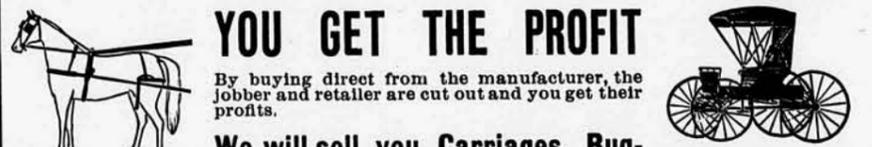
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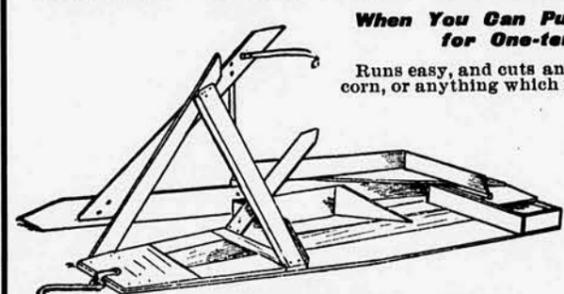
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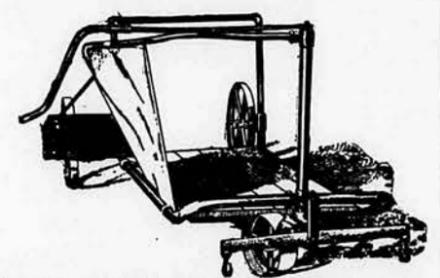
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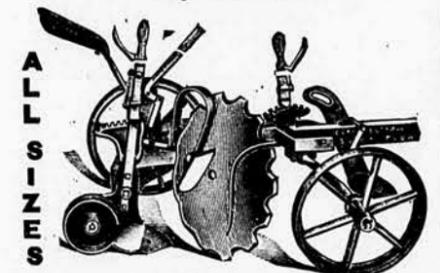
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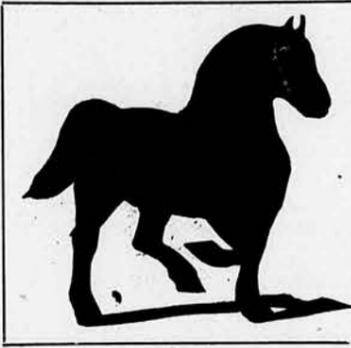
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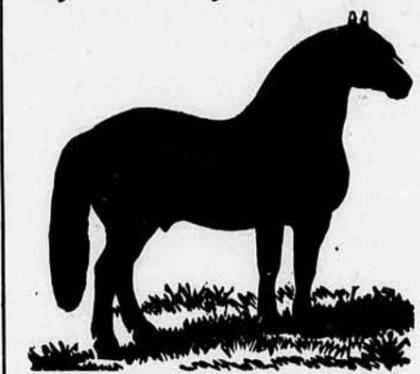
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POLAND - CHINA PIGS.

Sired by Black Missouri Chief 25785 [the magni-
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 Such a combination of nine of the great sweepstakes
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AUGUST 14, 1902.

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FOR SALE: 20 boars ready for service; sows bred or open. 100 spring pigs. Our **POLAND-CHINAS** are at the Top.

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FOR SALE—A few choice gilts bred, 2 mature sows bred, 50 spring pigs. Will sell Eclipse Rival 27217.

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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 27182, 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.

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REGISTERED BULLS FOR SALE.

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Bulls, Cows, and Heifers in reach of all. Write your wants.

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Giltspur's Knight 171591 at head of herd. Young bulls ready for service for sale.

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Herd headed by the Cruickshank bulls

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Sire of the champion calf and junior champion bull of 1900

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FEMALES are Scotch, both imported and home-bred, pure Bates, and balance 3 to 5 Scotch-tops.

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Sable, sable and white and sable black and white. All out of high pedigreed stock.

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Three of them, 8 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.**

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REGISTERED HEREFORD CATTLE

...AT...

Lincoln (Nebraska) Fair Grounds
THURSDAY, SEPT. 4th

During the Nebraska State Fair, when 75 head of strictly first class cattle will be sold at public auction. The lot consists of 40 cows and heifers and 35 bulls, of serviceable ages. They are consigned by the following well known breeders:

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All farmers and breeders are invited to attend the sale and inspect the cattle, whether they wish to buy or not.

For Catalogues address **C. A. STANNARD,**
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COMBINATION SALE OF DUROC-JERSEY HOGS

To be held at the State Fair Grounds,
SEDALIA, MISSOURI, AUGUST 22, 1902.

(At time of the State Fair)

The offering includes 51 head of grandly bred Duroc-Jersey hogs from the Maple Hill Herd owned by Harry Sneed, Smithton, Mo., and the Pettis County Herd owned by McFarland Bros., Beaman, Mo. Sale begins at 9.30 a. m. sharp. Col. J. W. Sparks, Marshall, Mo., Auctioneer.

All Missouri railroads make reduced rates for the State Fair August 18-23. For catalogue address either of the owners. Bids by mail may be sent to Col. Sparks.

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...AT...

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25 Registered Saddle and Harness Horses, Mares, Fillies, and Young Stallions.
10 good Mule Colts.
100 good three-year-old Steers, ready for the feed lot; 40 good two-year-old Steers; 50 good yearling Steers; 100 extra good Steer Calves; 20 high-grade Shorthorn Heifer Calves; 10 high-grade Shorthorn Bull Calves; 20 head Cows and Heifers.
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DINNER ON THE GROUNDS BY LADIES OF CHRISTIAN CHURCH.