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KANSAS FARMER.

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	The same of
E. B. COWGILL	Editor te Editor Manager

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



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well known to the publishers, or when acceptable rererences are given.

All advertising intended for the current week should leach this office not later than Monday,

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

Address all orders:

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

The KANSAS FARMER is in receipt of information to the effect that a man giving his name as John Low or John Long has been traveling over the State soliciting subscriptions and claiming to be our accredited representative. We desire to say that Mr. Low has made no remittance to this office for any sub-scriptions and if farmers have given orders for subscriptions to him and find these orders have not been filled it is due to no fault of this office. He is described as a large, smooth-shaven; rather fleshy man of good natured appearance. The KANSAS FARMER desires to hear from everyone who has been imposed upon by this person.

A CITY DESTROYED BY A VOLCANO.

The most awful catastrophe of modern times took place on the island of Martinique last week, when Mount Pelee, a slumbering volcano, suffered a mighty eruption, sending forth stones, ashes, fire, and deadly gasses. The city of St. Pierre, at the foot of the volcano, was suddenly overwhelmed and nearly all of its 30,000 inhabitants porished. Subsequent investigation indicates that the deadly gasses were the agents of death, and that the people died suddenly. The city was quickly buried.

While nearly all of the inhabitants of the city are beyond human aid, there are many in the outlying towns and in the country who have lost their all and many cases have been maimed, so that the appeal for active sympathy is most urgent. The island belongs to France, and that country is taking measures for immediate relief of the

table di- 38118 sted help comes from the ...es. Last Monday Congress .ated \$200,000 for the emergency Unitcresident Roosevelt is using char cteristic energy in making this aid promptly effective.

The afflicted island is north of the coast of Venezuela. It was at this is-land that Cervera replenished his Span-ish war-ships on his way to Santiago in The Empress Josephine, of France, whose triumphs and whose sorrows form such a touching part of the history of Bonaparte's times, was born here

The last previous eruption of Mount Pelee occurred in 1851. Its crater had become a beautiful lake and was used as a bathing resort.

The late eruptions are by many sup posed to have had some connection with the same causes that produced the violent earthquakes in Central America a few days before.

THE MARSHALL COUNTY HERE-FORD BREEDERS' ASSOCIA-TION.

It has long been an axiom that the farmer, from the very nature of his business and surroundings, must be in competition with every other farmer; that no permanent farmers' organization was possible in the sense that the large trusts and corporations exist. While this is true, it is also true that farmers may combine to their mutual advantage and compel success in their business where it seemed previously beyond reach. In Marshall County, Kans., there lives a larger number of breeders of pure-bred Hereford cattle than in any other one county in the United States, so far as we know. Heretofore these breeders have of necessity been rivals in the production and selling of their pure-bred cattle. Hereafter they will be partners in the Marshall County Hereford Breeders' Association, recently or-ganized. It is the purpose of the offi-cers of this organization to hold an annual sale each year at Blue Rapids, Kans., where permanent buildings are now being erected for this purpose. It is the determination of the executive officers that nothing but the best quality of cattle shall be offered in this annual sale, and, in order to insure this, the president and secretary will visit each breeder in the county, inspect the animals which he proposes to offer and admit them to the sale on condition that these animals when offered shall be representative animals and in creditable shape; otherwise they will be ex-cluded. The Commercial Club of Blue year will enable them to produce a far Rapids is now arranging for the erection of the first permanent sale barn for the cattle which will contain 150 eight-foot stalls and will be roofed with iron. It will be located in the beautiful park in the suburbs of the city, where it will be easily accessible from both railroads and hotels. This breeders' association is composed of active young men, many of whom have already won reputation as breeders of fine Herefords. The breeder or farmer who is not familiar with the conditions existing in this county and the quality of the cattle raised here, will be surprised and pleased to learn that some of the very best Herefords to be found any where in the West have their homes in this, the Herefordshire of Kansas. With the vim and vigor which characterizes all Americans in doing what they have

with both and make it a point to be in attendance at what will unquestionably prove to be an event in the Here-ford world, namely, the annual sale to be held under the auspices of the Marshall County Hereford Breeders' Association in November next, as shown in their advertisement on page 549. President Wm. Bommer, of Marietta, and Secretary E. E. Woodman, of Vermillion, have a personal knowledge of every herd in the county, and will be glad to furnish information to any one desir-ing it. But the annual sale will be the great Hereford event of the year in Kansas.

ANOTHER YEAR FOR THE FAIR.

Formal action for the postponement of the Louisiana Purchase Exposition to the year 1904 was taken on May 2, when the Secretary of State, John Hay, sent to the United States Senate a letter stating the necessity for an additional year in which to prepare the exposition. The reasons for the postponement exist in the fact that many ponement exist in the fact that many foreign governments would be unable to participate in the exposition in a besitting manner if compelled to prepare themselves for 1903. Inasmuch as the plans for the exposition contemplate a World's Fair in the broadest sense of the term, it became evident that without the complete participation of the leading governments of the world it would fall far short of the ideal which the projectors have in mind. The postponement of the fair to 1904 is provided for in an amendment to the sundry civil appropriations bill now pending in the Senate offered by Senator F. M. Cockerell, of Missouri. The amendment provides for the dedication of the build-ing of the exposition on April 30, 1903; for opening the exposition to visitors not later than May 1, 1904, and for closing not later than December 1 following. The amendment also provides for the coinage of \$250,000 in gold dollar pieces to be used as souvenir coins and to be a part of the \$5,000,000 appropriated by Congress for the fair.

The postponement will not only persistent and the postponement of all foreign

mit the participation of all foreign governments upon a much broader scale than otherwise would have been pos-sible, but it will assure a complete ex-position in many other details. The plans of the exposition management up to the time of action for postponement were based upon the expectation of holding the exposition in 1903, but, as President Francis has said, "While the management were ready to hold the exmore magnificent and complete exposi-tion."

HEREFORD SHOW PROGRAM FOR 1902.

We are in receipt of the preliminary premium list of the three National Hereford Shows to be held this fall, and Secretary Thomas informs us that prospective exhibitors should write him at once for same. The classification does not differ materially from that of last year except that there is an additional class for yearling bulls, so that this year there is a class for senior yearling bulls and another for juior yearlings. At the American Royal at Kansas City the stock yards company is giving \$500 in prizes for car-lots of Herefords, \$200 which is for fat stock and \$300 for feeding cattle. This is in addition to last year's premium list. For the In-ternational at Chicago the Hereford As-

Table of Contents

Abortion	n? is it
Absent Angus again	n? is it 55
Alfalfa, experience	with 60
Alfalfa covered 21/4 in	ches deep5
Alfalfa experience	ches deep 5.5 Insas City 55 lie 55 m) 55 m) 55 m) 55 ood 55 65
Augus sale, the Ka	neas City
Bacteria	made City
Badsky Mrs None	
Berry G W	ne
Best day the free	
Bighay T M	m)03
Bromus thomas to	
Bromus inermis is g	timber, the52 nfluence on the de-
Bullato nunt, a	
Catalpa as a post	timber, the52
Child's life, home i	nfluence on the de-
velopment of the	
Clothier, Geo. L	
Corn with reference	to its improvement, poor. t, second report of 5
analysis of	55
Cows, look for the	poor
Cow's test experimen	t. second report of 5
Entsminger, A. L.	Topott of
Experience, another	50
Fair, another year f	or the
Fairchilds F F	or the
Farley E P	
Galer John	
General which? (no	
Grange why west	em)
Grange, why was I	t organized?
Horsebbaness Form	tt, second report of 55 55 or the 55
Harshbarger, Eugen	e5
Hebering, Jennie E	
Heretord show prog	ram for 19025
Hog, characteristics	of a well-bred58
Kanr-corn and sorghi	ım
Kanr-corn compared	with ground Kafir-
corn for young c	alves, whole58
Kinsley, Prof. A. T.	
Mammitis	
Milk results with fif	ty fine cows, how to
get	
Obedience	
One of many (poem	
Orchard and how	to protect them.
friends of the	55
Poultry, advertising	
Poultry notes	
Pure-bred cattle, Or	egon wante
Ranges, overstocked	CBOIL Walles
Rittenhouse, Nosh	
San Rafael Hereford	eale
Shanhard M. T	
	Sale
Shorthorn sale the	Boone County
Shorthorn sale, the	e
Shorthorn sale, the Smyth, B. B.	Boone County5
Shorthorn sale, the Smyth, B. B. Strongest rabbit, th	Boone County
Shorthorn sale, the Smyth, B. B. Strongest rabbit, th Swine show, Kansa. Tipober Goo. W.	Boone County 55 e 55 s City 55
Smyth, B. B	e
Smyth, B. B	e
Smyth, B. B	e
Smyth, B. B. Strongest rabbit, th Swine show, Kansa Tincher, Geo. W. Tonganoxie Toulouse geese Uhl, Frank E.	e 55 e 55 s City 55 55 55
Smyth, B. B. Strongest rabbit, th Swine show, Kansa Tincher, Geo. W. Tonganoxie Toulouse geese Uhl, Frank E.	e

is in addition to the premiums offered by the International management, and should bring out an exceptionally large exhibition of "white-faces" in the pens. Write C. R. Thomas, Secy., 225 West Twelfth St., Kansas City, Mo., for a premium list, which will give full particulars.

In addition to the three National shows, the American Hereford Breeders' Association has made appropriation for most of the leading s trict fairs to the amount of \$6,400. The Central Kansas Fair at Hutchinson receives \$300 to be used as special prizes for Hereford exhibitors. amount is given to Iowa, Nebraska, and Missouri State fairs.

BLOCKS OF TWO.

The regular subscription price for the Kansas Farmer is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for France, and that country is taking measures for immediate relief of the sufferers. Other countries are also of its stock at this time, so that breed-coming forward nobly. The most no-ers everywhere may become familiar load lots of fat Herefords. This is in addition to pay for least year's premium list. For the In-both. In like manner two new subscriptors. Other countries are also of its stock at this time, so that breed-coming forward nobly. The most no-ers everywhere may become familiar load lots of fat Herefords. This amount Faimer Company, Topeka, Kans.

Agricultural Matters.

Experience With Alfalfa.

EDITOR KANSAS FARMER:-It seems so very strange that many Kansas farmers are slow to perceive the value of the alfalfa plant as a wealth-producer. The golden dream of every loyal Kansan should be the time when our State will contain five million acres of productive honey-flowing money-making states. honey-flowing money-making alfalfa meadows. An average yield of only two tons of alfalfa hay per acre for this area would be equivalent in feed-ing value to two hundred and forty

ing value to two hundred and lorty million bushels of corn.

I desire to relate a little personal experience with alfalfa. In the summer of 1898, I had a field of thirty acres in wheat, which crop was a total failure, owing to chinch-bugs and other causes. My farm is located in Waharana Courty twenty-five miles west. baunsee County, twenty-five miles west of Topeka, in a hilly limestone region. My thirty-acre field is thin upland with a very stiff clay subsoil and has been farmed without manure since 1881. The use of a lister by tenants had caused the soil to wash very badly and what never was a very fertile soil began to show signs of deterioration even before the failure of the wheat crop in 1898. I had been a firm friend of alfalfa for several years but had doubted the advisability of attempting its cultivation on upland until a trip to western Kansas in the spring of 1898 gave me un-bounded faith in this plant.

I decided after the loss of the wheat crop to seed this field to alfalfa at the earliest possible date. I hired the land plowed with the stipulation that I would not pay for any plowing done after August 1. The man who took the contract loafed until after July 20 before beginning the plowing. In order to have the plowing finished by August 1 my brother helped the contractor out. The plowing ought to have been done no later than July 15.

I employed my brother to seed the ground and asked him to be sure to sow the alfalfa immediately after the first good rain in August. A nice shower came about the 15th of the month and he thought the proper conditions had arrived so he seeded the thirty acres with about twenty bushels of seed. A few days after the sowing the hot winds began blowing and as fast as the young alfalfa plants came through the ground they were scorched off. About September 1 my brother wrote me that my alfalfa was all dead and my seed and labor lost. I felt a little blue but answered my

brother that we would seed again early next spring. On September 9 a good soaking rain came, the first in three months, and lo within a few days the ground was green again with young alfalfa plants, the result of seed that had been slow about greminating at first. My brother wrote me in a more hopeful tone, but his cheerfulness lasted only a short time, for a letter came a few days later announcing that the grasshoppers were marching into my

If You Are Sick

LET ME KNOW IT.

I wish simply your name and address no money. Say which book you want. I will send with it an order on your druggist to let you have six bottles of Dr. Shoop's Restorative. He will let you take it for a month; and if it succeeds, he will charge you \$5.50 for it. If it fails, he will send the bill to me. He will trust to your honesty, leaving the decision to you.

But in five years I have supplied my Restorative on these terms to 550,000 people. My records show that 39 out of each 40 paid for it, because they were

This remedy alone strengthens those inside nerves that operate all vital organs. It brings back the only power that can make each organ do its duty. No matter how difficult the case it will permanently cure, unless some organic trouble like cancer makes a cure impos-

I have spent my lifetime in preparing this remedy. I offer now to pay for all you take if it fails. I can not better show my faith in it. Won't you merely write a postal to learn if I can help

Simply state which book you want, and address Book No. 2 on the Heart Book No. 3 on the Kidneys Book No. 4 for Women Book No. 5 for Men. Sealed Book No. 5 on Rheumatism Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

alfalfa field at the rate of a rod a day, not leaving a green thing behind them. About the middle of October, winter set in, and I suppose every Kansas farmer remembers the terrible winter of 1898-99.

In the early spring my brother again wrote that all the alfalfa left by the grasshoppers had been winter-killed, and that he could pull up the dead plants all over the field with very little offert. I approved "Pur more seed tle effort. I answered, "Buy more seed and seed again, early." A few days later he wrote that some of the plants were still alive and were beginning to look green. I then advised him to seed a full sowing of twenty pounds per-acre on the portion eaten out by the grasshoppers, and to seed ten pounds per acre on the part of the field where some of the plants still survived. He found, however, that about five acres of the thirty contained a good stand and that about fifteen acres more had a good half stand. He sowed about five bushels of seed on twenty acres and left a corner of five acres of the thinnest stand without reseeding, and, of course, did not seed the five acres having a good stand. The reseeding was done by broadcasting and harrowing with a smoothing harrow.

As a consequence of the unevenness of the stand crab-grass and foxtail threatened to destroy the plants the first year on the area eaten out by the grasshoppers the previous fall. How-ever, I had no fear of these weeds because they are annuals and have to get a new lease of life as seedlings every year while alfalfa is a perennial that grows stronger and stronger with increasing age. These weeds have since retreated from the field as I predicted they would.

My brother, Dr. S. H. Clothier, of Vera, handles the land for me, and at my request gave the field a good disk-ing in the spring of 1901 and reseeded any bare places still left. The whole field is now a good stand except the five acres of original poor stand, which, by neglect, was not reseeded in the spring of 1899. It is hoped by disking to mend this portion of the stand within the next two or three years.

The market value of this land with-out a stand of alfalfa is \$20 per acre. The cost of seeding it to date has been \$5 per acre, a very high rate owing to adverse circumstances related above. The land paid good interest on the investment of \$25 per acre the first year, and the income has steadily increased until 1901, when the crop from this little field was worth \$514. The expense of harvesting and marketing last year's crop was \$100, leaving a net income of \$414, or \$13.80 per acre.

Now let us figure out a little prob-lem in simple interest. Thirteen dol-lars and eighty cents per acre is 10 per cent on \$138 per acre, or 5 per cent on \$276 per acre. The latter rate is twice as good as the average income from Government bonds. The value of any principal depends upon its ability to earn interest. Here is a phase of the subject that few farmers contemplate. I am receiving 5 per cent on an investment more than ten times as great as my original investment. In other words, the earning power of my land has been increased more than tenfold and, of course, its value to me as an investment has been increased tenfold.

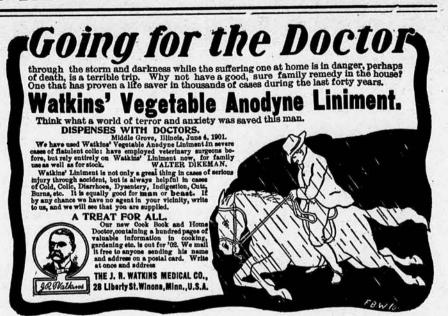
Some farmers may ridicule my statements, but I have a little thirty-acre field of alfalfa on poor upland that could not be bought for \$250 per acre unless I knew where I could buy other better land seeded to alfalfa, at a lower figure.

There are thousands of acres of worn-out pastures in Wabaunsee County which are not now earning 50 cents He will trust to your honesty, leaving the decision to you.

Such an offer as this could not be made on any other remedy. It would bankrupt the physician who tried it. I propose to disk up 200 acres of weedy Reviews which I now own and seed pasture, which I now own, and seed the same to alfalfa in August. I am certain that with an average winter this is the best season to sow alfalfa. By using the disk harrow, the labor of breaking and cultivating the land will be obviated. If seeded in the fall the prairie weeds and grasses will be dormant and will not start in the spring until the young alfalfa plants are large enough to take care of themselves. have seen this method tried on a small scale with good results, and I have faith to try it on a large scale.

GEO. L. CLOTHIER. New Haven, Conn.

Impurities in the blood produced by digestive disorders must be driven out before hot weather sets in, otherwise sickness will appear at a time when a strong, vigorous body is most needed. Prickly Ash Bitters will expel all impurities and put the system in perfect or-



Alfalfa Experience.

EDITOR KANSAS FARMER:-I sowed twelve acres of alfalfa on August 12 last year. Wheat had been on the land the year before. I burned off the stubble from a part of the field, but as a part was too thin to burn, I took some of it off with a hay-rake and burned it in the rows as the rake left it.

I then double-disked and harrowed the ground and then drilled in the seed both ways with a press drill, let-ting the chains drag behind each runner. I used ten pounds of seed to the acre each way. The seed came up after first rain in September. It got a good start last fall, except where the volunteer wheat had not burned off. There the wheat grew up and absorbed a part of the moisture and thus held the alfalfa in check. In some places it is thin; in some there is none.

Early this spring I drilled two quarts of seed to the acre over all the field, and ran over it with the harrow. The spring-sowing came up well, and I hought it might thicken the stand. The fall-sown plants are five or six inches higher now, and may smother out the spring-sown part. I am waiting results.

I sowed five acres more this spring on oat stubble by double-disking the ground each way and sowing as I did last fall. The ground was rather thin clay land and was quite rolling. It is up nicely.

C. O. Zurkleson, Moray, Kans., sowed a small piece last spring near his feed-lots, which he pastured to pigs last summer. He mowed the weeds off once. It was a thin stand and looked stunted the last time I saw it.

C. I. Moyer, Severance, Kans., sowed fifteen or twenty acres broadcast last September, on freshly-plowed land after the first rains came, and he reports a failure. He had an older piece that he mowed several times last summer and

which he speaks very highly of.
John Simpson, Highland, Kans., has
raised alfalfa two or three years on
clay bluffs that were so thin that they would hardly raise fodder, and he reports a success. He sowed one piece last spring and pastured a cow on it all summer. He reports a good stand, but says his horses will not eat the leaves.

This is the extent of my knowledge of alfalfa. I tell my neighbors I am going to raise cheap hogs on alfalfa; it costs too much to arise corn for hogs.

NOAH RITTENHOUSE.

Severance, Doniphan County.

Another Experience.

EDITOR KANSAS FARMER:-There has been a good deal said on the subject of seeding alfalfa. I will give you a little of my experience. I commenced sixteen years ago this spring it. I had ten acres that was fall-plowed and in good shape. I sowed two bushels of seed on it, got a good stand—plenty thick enough—and it is still good. That has been the amount that I have always sowed, twelve pounds to the acre, until two years ago this spring I had twenty-three acres of land that was fall-plowed and in good condition. My step-son who had rented my farm, wanted to sow fifteen pounds to the acre. He borrowed a drill of a neigh-bor, who told him it was set for fifteen

pounds, but it was only set for half

that amount, and he did not see his mistake until he had sown about twothirds of the piece, then he changed it. Where he sowed the seven and onehalf pounds there is the best stand that I have ever had. It is thick enough and there are no bare spots. Where the fifteen pounds were sown it is no thicker and there are a good many bare spots. I think where it is sowed too thick it smothers out and leaves it thinner than when sowed thiner. I be-lieve that all over ten pounds of seed sown to the acre is worse than thrown

Secretary Coburn, in his report, says that by actual count there is 210,000 seeds in one pound of alfalfa seed, and about three times that number of stalks on an acre, is the highest ever counted, and that another acre with a little over 400,000 plants yielded as much hay as the highest number. I can not see the philosophy of sowing more than three or four times as much seed as needed. I would rather risk five pounds than twenty pounds to the acre. As to the time of year to sow, I prefer the spring unless there is too much crab-grass. I would not sow in the fall after the first of September, unless there is moisture enough in the ground to bring it right up. It will be very surely winter-killed if it does not come up before October 1.

I. M. BISBEY.

Pavilion, Wabaunsee County.

Bromus Inermis is Good EDITOR KANSAS FARMER:—I have been a reader of the "Old Reliable" for twenty-two years and have in it found many valuable hints and suggestions, but your paper of May 1 is fully abreast of any number since I have been a reader.

Under the heading, "Alfalfa in Dickinson County," the writer, Mr. John H. Wertz, regards Bromus inermis as "an utter fraud and an unmitigated fake." Now, I have a small piece of Bromus inermis on my place, sown two years ago last April and it furnishes more fall, winter, and spring pasture than rye, and stands more pasturing, trampling, and drouth than alfalfa. When I sowed it there was a good stand, nearly as strong and vigorous as oats, and it was all up in a week.

About three-fourths of the piece sown was very foul with fox-tail which, towas very lour with lox-tail which, together with the dry weather, killed
it nearly all out, but the remainder
(about one-eighth of an acre), came
through with a fair stand. It was
heavily pastured from early fall till late
in the spring both years since sown in the spring both years since sown, and the stand is better and the growth more vigorous than the first year. The soil is thin upland, underlaid with white magnesia stone and gravel, at a depth of from one to two face. I believe it is the coming grass with which to renew our worn-out pastures.

Deliverance, Osborne County.

A Map of Kansas Free.

Send the Topeka Capital 35 cents to pay postage and they will send you a three months' trial subscription to the Semi-weekly Capital and one of their handsome i wall maps of Kansas and the United States, both absolutely free.

BINDER TWINE FARMERS wanted as agents.

AUGUST POST, Moulton, Iowa.



Borticulture.

The Catalpa as a Post Timber.

EDITOR KANSAS FARMER:—Catalpa speciosa (Warder) is a large tree, at-taining a height of sixty to eighty feet and becoming from two to five feet in diameter. It is indigenous to the lower valley of the Wabash River in Indiana and Illinois, seemingly preferring the overflowed alluvial lands. As freshets occurred the seed pods were distributed along the Ohio and Mississippi rivers. along the Ohio and Mississippi rivers, forming limited groves in Tennessee and Missouri. The distribution of the catalpa was not aided by birds and animals, being almost entirely scattered down-stream by water. The Catalpa speciosa has proven to be hardy in most places in the United States between lat-itudes 35° and 44° and from longitude 100° to New England.

The first white settlers in the Wa-bash Valley were instructed by the Indians as to the power of the wood to resist decay. The wood was used in many ways by the early inhabitants of the Wabash.

ARTIFICALLY GROWN WOOD.

The durability of artifically grown trees covers a period of about twelve From personal observation, I know of the tree being used for posts, and in every case but one it has given the best of satisfaction. If the tree is grown too quickly or is cut in the spring or early summer when the wood-cells are active, the wood will not give satisfactory results. The only case I ever knew of where the catalpa did not make a lasting post was for above reason. All catalpa posts should be planted with the big end down, as the increased age adds to the lasting quality of the wood. We have dozens of cases from reliable men where the wood has lasted longer when in contact with the ground than the best oak post from Missouri and Arkansas.

LOCATION AND SOIL.

One of the important features to be considered in starting a timber plantation in a prairie region is the location It ought to be near the railroad, and should, by all means, be in a good stock country. The freight rates are high and add considerable to the expense of post stock. By having them grawn where they are to be used there will be quite an advantage in favor of the grower. No fair-minded man who has watched the development of the stock interest in kansas would dare say but what the demand for posts will continue to increase with the cattle industry of the State. In a county where you find an abundance of corn, cattle, and hogs, you will find a pretty good local demand for

As a general proposition, the catalpa can be grown on any soil that will produce a good crop of corn. For post-timber I prefer good prairie because of the more exposed situation. The trees become more rugged, growing somewhat more slowly than they would on good bottom-land. Such a soil will grow about 1,000 trees per acre, suitable for posts, in from twelve to fifteen years. A smaller number of trees years. smaller number of trees would produce a larger wood growth per tree, but would call for more attention as to pruning. We have learned, during the last ten years, that catalpas will not drop their limbs by close planting as do the walnut and other sorts. The limbs remain on the tree for many years causing loose, ugly knots, very damaging to all the growing timber.

If the forest is to be grown for pole stock and lumber, bottom-land is the best, because it produces a more rapid growth, and the trees become much taller. Twenty years time with not more than 200 trees per acre will be the average for fair telephone poles,

least 25 to 30 years of age. VALUE OF THE CATALPA FOR POST TIMBER.

It has been thoroughly demonstrated that well-grown catalpa makes one of our most durable posts. History gives many cases where the wood has lasted years when in contact with the ground. It has also been proven that some soils cause decay much earlier than others; bottom-land of the larger streams and land adjacent to small creeks and draws are trying on the lasting qualities of all

kinds of post timber. The wood does not check or split in seasoning. I have seen small catalpa posts perfectly firm at the point where the staples were driven, while many other sorts would check so badly as to throw the staples out, thereby causing the wire to drop to the ground. I firmly believe the catalpa to be the best tree for posts we can grow in the eastern half of Kansas. The wood is light in

strong. The light straw color shows the annual growth and is susceptible of a bright polish. As the wood becomes better known it will be sought after for furniture and fine cabinet work.

I reproduce the analysis of the wood by J. W. Hurty, a well-known chemist of Indianapolis, Ind.

Moisture.....

Remarks:—It is probable that the fat and the resinous matters are the preservative in catalpa wood.

SEEDLINGS.

In starting a small plantation it is advisable to buy strong one year seedlings. The size should be from eighteen to twenty-four inches in height. They can be bought from any reliable nurseryman. The cost will be from \$2 to \$3 per one thousand trees. Spring planting gives the best general results. The trees become established by fall, and should some of the trees be girdled by rabbits, the following spring the strong roots will send up shoots and one of them will soon be as large as the original trees.

DISTANCE FOR PLANTING FOREST-TREES.

During the past few years there has been an increasing interest in forest planting. The required number of trees per acre has been a perplexing question. About twenty years ago the number was placed at 2,700 per acre, planting them four by four feet, and cultivating the same as for corn. The experience of those having trees planted on above plan has not proved very satisfactory The early advice given was that trees planted four by four feet would in from ten to twelve years average one post per tree. It is folly for any one to expect such results. One acre of ground will not sustain one thousand producing trees large enough for every one to make a post in ten years.

So far as the four by four foot plan is concerned, I will say from personal experience disappointment will surely come to any one expecting such favor-able results. I have gradually reduced the number from 2,700 to 1,000 per acre. It may be a few years hence I will pre-fer to plant only 500. I will suggest the following plan for Kansas planters: Plant at the rate of 1,000 trees per acre; have the rows eight feet apart, and settings the trees five feet apart in the row. Such a plan would give room enough between the rows to grow a crop of corn for two or three years, which would lessen the expense on the trees. They should have the best of cultivation for at least three years. Nothing puts as much vigor and life in young trees as constantly stirring the ground.

Many people claim that close planting causes an upright growth obtained in no other way. Suppose we look a few years into the future and see how little chance there is for a tree to grow any way but in an upright position by planting them five by eight feet. I have seen single rows of hardy catalpa almost perfectly straight planted ten feet apart in the row.

One acre of good ground may be expected to produce posts in ten years if planted on above plan. From the tenth to the fifteenth year one-half of the trees should be removed, no matter if they will not all make posts. The remaining trees will be of the age when they will need all the ground. From the fifteenth to the twentieth year small telephone-poles can be cut. It should be remembered the owner will make a much larger profit from pole than from post timber. This thinning process should continue until the number of trees is reduced to from 150 to 225. At 25 years of age the above number would completely occupy the ground, when good telephone-poles could be removed. By allowing one sprout to grow from each stump the timber could be reproduced in much less time than it took to grow the first

The strongest objection I have to close planting is, people will not cut the surplus trees at the right time, the result being detrimental to all the standfor posts we can grow in the eastern half of Kansas. The wood is light in weight but compact in texture and very surplus trees to be removed at an early

age to an encouragement to a fewer number of trees per acre. I have lived long enough and devoted enough time to the practical study of forestry to convince me that one acre of ground will be kept pretty busy caring for 1,000 young, thrifty trees.

PROCESS OF PLANTING.

In the establishment of an artificial timber plantation it will be necessary to have ground that has been under cultivation for at least one year. Prairie sod turned under early in the season and allowed to remain until the following spring, will if put in a good state of cultivation make a good seed-bed to start young forest-trees.

If we conclude to plant one thousand trees per acre, I prefer to use four strong horses and open up a dead furrow ten to twelve inches deep. Setting the trees some deeper than they stood in the nursery row and placing them five feet apart in the row. Draw just enough dirt around the roots to hold the tree in an upright position; tamp the ground firm; then proceed to the next tree; and in such manner until the row is completed.

One hundred seedlings can easily be carried under the arm for the convenience of the planter. The above plan would place the trees about five by eight feet. After the entire field has been planted go over the rows with a two-horse cultivator, so as to finish fill-ing up the furrow. Such a plan will be beneficial to the trees, as the moisture contained in the bottom of the furrow will greatly assist the young trees dur-ing the dry times of summer.

CULTURE.

The young plantation should be kept free from weeds. It is advisable to use the cultivator until the last of August. After that time any weeds that may come will be caught by frost before time for seeding. Within a reasonable length of time after planting, most of the young trees will begin to show signs of life. It will be an easy matter to cultivate because the trees will ter to cultivate because the trees will be up out of the way of the weeds. The work can be done just the same as for corn, care being taken not to plow under any of the trees, until they become firmly established.

It will be necessary to go over all the trees with the hoe and get the few weeds the cultivator did not reach. Such work should be done about the last of July. It is understood that weedy foul ground will need more work than clean ground, yet we lose most of the young trees by not giving them the proper attention at the right time.

After the first season the culture can be lessened some, although it is desirable to give the best of culture for three or four years, when the trees will be large enough so as to stand some neglect. Should the trees be planted at the rate of 500 per acre the harrow can be used long after the cultivator has been laid aside.

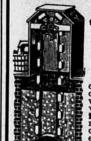
NATURAL FOREST CONDITION.

One of the satisfactory features in the establishment of a new forest, is reaching the point where natural forest conditions exist; where the trees, by their own growth and shade produce conditions most favorable to the growing forest, that will retard evaporation of the moisture, thereby causing a low temperature to the land; and this has a wonderful influence on the health and development of the growing trees.

It should be borne in mind that many young forest trees are badly neglected simply because they have reached the age where they need no more attention I know people who plant thickly be-cause it will only be a short time until the land will be occupied. Permanent injury comes to many forests because the surplus trees were not removed at the proper time. Experience has taught me we can get the natural forest concomparatively snort time by a liberal application of the cultiva-tor. The number of trees per acre and their subsequent management is an important point in artificial forestry.

PRUNING.

As the catalpa will not drop their limbs as other sorts do because of close planting, they must be pruned in order to make clean smooth trunks. The first trimming should be done when the trees are five or six years old. A little experience soon teaches the operator to trim in the quickest possible time and give the tree the proper shape for the future. Do not allow trees to grow forked; one fork should be removed. The trees at this time will stand prun-



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ing up to five or six feet, the work can be done at any time of the year. The limbs should be allowed to remain on the ground as the young tender twigs soon decay, and assist to enrich the ground.

The second pruning should occur about the tenth year, and can be per-formed in the same manner as the first, the result will be very satisfactory, as it will improve the general appearance of the grove. All the best trees should average seven and eight feet to the first limb, no more trimming will be necessary until after the first crop of posts are cut.

AGE OF TREES FOR POSTS.

Mistakes have been made by using the wood of the catalpa when it was too young. The trees should be from 12 to 15 years of age before they are used for posts. The wood must have time to harden and become solid before cutting. The best time to cut timber in Kansas is the last of August, after the summer growth is over and before the leaves begin to fall. After August any of the winter months will give favorable results. Second-growth catalpa will produce a clean straight trunk, but care must be taken not to use such wood for posts at too early an age.

MARKETING.

My timber grove is located two and one-half miles west of Wilsey, Morris County, Kans. I find many people who seem to be afraid to try the catalpa in large quantities, despite the fact we have positive proof of the wood lasting longer than the best oak. I cut all posts full seven feet in length, and sort in three sizes—No. 1, No. 2, and

I have one block consisting of thirtyone acres of catalpas, planted in the spring of 1885, on the four by four foot plan. I am removing one-half of them by taking out every other row, even if they will not make cull posts. The cost to me is 50 cents per 100 posts. The remaining trees are trimmed up six to eight feet. I do the sorting and cording. Some of the ground has a stand of more than two thousand posts per acre, while a small portion will produce no posts at all. Large bodies of well-grown catalpa could be cut for less than 50 cents per 100, but said price would not include sorting and cording. If the posts are heavy, at least 50 per cent should be added to the expense.

I procured many thousands of posts and stakes, and I expect to sell all on hand with very little effort. Catalpa posts should not be used until fairly well seasoned. Trees cut in November and December will be in good condition to use the following spring. In shipping posts by rail, it cost me \$15 to load and haul posts enough to fill one car. The amount the car will hold depends entirely on the size; an average will be from 1,800 to 2,800. The freight rate for a distance of from thirty to sixty miles will average about 1½ cent per post.

CONCLUSIONS.

Successful forestry requires a careful study of the growth and development of each tree, intensive cultivation when the forest is young, with the best selection of land and trees. The proper care as to culture, pruning, and thinning during a period of twenty years will as-tonish those who expect the most favorable results.

Nature is her own best teacher. The more we study and learn her methods, the sooner we will be able to produce practical results. By assisting nature we may expect to grow profitable tim-ber in much less time than it took to

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grow the same in the native forests. Post and pole timber will continue in demand with the development of the Middle West, of which eastern Kansas is the center. Kansas soil, rain, and sunshine will be anxious to assist the man who plants timber for profit during the coming decade.

GEO. W. TINCHER. Topeka, Kansas, May 11, 1902.

Friends of the Orchard and How to Protect Them.

PROF. B. B. SMYTH, BEFORE THE SHAWNEE COUNTY HORTICULTURAL SOCIETY.

Birds are among the best friends of the horticulturist. The horticulturist who expects to be successful in raising fruit must use every endeavor to prevent his enemies from destroying his fruit. His principal enemies are the insects, and by far the best agency within his reach for the purpose of destroying the injurious insects are the birds. He must learn to distinguish between the bird that destroys his fruit and the bird that destroys the insects that destroy his fruit. The one is his enemy, the other his friend.

The best means that we know of for

determining the food of a bird is an examination of his stomach. We can not do this with live birds; but many birds of all kinds have heretofore been killed, the contents of their stomachs examined and notes made of them. What birds are they that frequent our orchards, and what do they eat?

THE ORIOLES.

The Baltimore oriole, or hanging-bird, as it is called lives mostly upon the destructive apple-tree caterpillars and other caterpillars. Caterpillars form the principal food given to their young. These birds also gather and destroy large numbers of beetles, bugs, ants, grasshoppers, and spiders. They also feed occasionally on the blossoms of the apple, pear, maple, and a few other trees. A inice charge is reliched on trees. A juicy cherry is relished oc-casionally, and different kinds of small berries are fed upon to a more or less extent.

Mr. Gentry, a bird lover, says of this pecies: "This oriole deserves our species: favor and esteem for the numerous inof an injurious character which it destroys thus compensating for the trifling injuries committed in the destruction of the succulent pea and the blossom of the cherry and the apple, which it robs of their stamens and ovaries." But the oriole does not harm the trees by cathon and the trees by ca the trees by eating some of their blos-soms. Every tree bears more flowers than it can possibly ripen fruit.

Prof. A. Wanner, York, Pa., says: "Several years ago I observed some Raltimore orioles in my orchard opening the rough almond-shaped cocoons that hang from the limbs of fruit-trees. The birds systematically hunted limb after limb in quest of the cocoons; and as soon as they were found, the orioles opened them and took out the larvæ at the rate of two a minute. I watched the birds and timed them." With such a record before us how can we overestimate the good work

of the orioles? The orchard oriole feeds mostly upon the worms from apple-trees, also on flies, beetles, grasshoppers, of various insects. They subsist to a small extent on strawberries and mulberries, when in season, and occasionally feed on apple and pear blossoms. Their depredations, however, in this direction are very unimportant. In addition to the usefulness of these birds, their bright plumage and peculiar mode of nesting are reasons why they should be protected. Protect the orioles.

THE ROBIN.

The food of the robin, one of our commonest birds, consists in summer time of the larvæ of night-flying moths, beetles and their larvæ, grub-worms, cut-worms, cabbage and radish flies, and other insects; also cherries and grass.
Most of the larvæ they dig from the ground. They are very voracious birds and require considerable food.

They are extremely quick to see insects and to hear grubs and cut-worms under the surface of the ground. They stand on the ground in the garden and listen, then presently hop to a spot erous the bluebirds usually withdraw to

near by and with a few vigorous strokes of the bill extract a worm or grub from the ground.

They always place it upon the ground and look at it for an instant before eating. This trait has made the English sparrow a robber; for an English spar-row, knowing that a robin in the grass will soon extract a worm from the ground, hops along behind the robin at a safe distance of three to six feet from him, apparently attending to his own affairs; and as soon as the robin has dug a dinner from the ground, the sparrow, which has been paying strict attention to business, improves the op-portunity and snatches the worm from under the beak of the robin and flies away with it. The robin, without resentment or appearing to be disturbed, works away and proceeds as before.

The food of the robin in the fall consists almost entirely of wild cherries and wild grapes, and in the winter consists mostly of fruits such as dogwood, viburnum, burning-bush, coral-berry, bitter-sweet, wild grapes, and berries of the Virginia creeper and climbing ivy. Dr. Coues writes: "The robin is a Dr. Coues writes: "The robin is a great eater of berries and soft fruits of every description, and this forms, during the colder portion of the year, its chief sustenance. Some of the cultivated fruits of the orchard and garden are especially attractive; but the damage in this way is wholly inconsiderable in comparison with the great benefit resulting from the destruction of the noxious insects by this bird."

Because you know that the robin eats berries in the fall and winter, whenever you see him at work in your berry-patch during ripe berry season, it is but natural for you to imagine he is eating your berries. So perchance you shoot him. But now examine his stom-The last food eaten should be in his crop yet. Lay open the crop. Now notice. Not a berry will you find in it but instead you will find an abundance of insects gathered from the berry bushes, insects that are injurious to the vines and fruit. You have killed the most faithful friend of the berry bushes, and when it is too late you realize your mistake. Do not kill the robins.

THE BLUEBIRD.

The common bluebird is a favorite with nearly every boy; not alone for his bright pleasing colors, but for his charming notes, his lack of shyness, and his confidence in people, as though he felt sure he could trust even a rude boy. What boy has not watched the bluebirds coming and going, building and caring for their young in some hole but little secluded from the eye of man? And when a boy approaches too close to the nest, what boy would not be touched by the sweet plaintive notes of both parent birds standing on a branch very close by, watching intently and pleading, as if to say: "Oh, please, do pleading, as if to say: "Oh, please, do not touch my nest!" If, on such occasions the boy merely looks and passes by all is well, but if he insert his hand and goes to carry off any of the eggs the manner of the birds instantly changes With wrathful strokes and distressful cries both birds fiercely attack the intruder, trying to get at his eyes and save if possible their precious eggs. One such encounter is enough for any boy unless he is a hardened wretch. The bluebirds usually raise from two to four broods in a year, according to the favor of the circumstances surrounding the season.

In 1882 a pair of bluebirds in early spring took possession of some old swallows' nests on the porch of a house in which I lived at Council Grove, and selected the best of the nests and relined it. A week later, when the swal-lows returned from the South, the bluebirds refused to allow them to come within several feet of the nest selected. nests on the porch, half a dozen or more of them within the influence of the bluebirds. All the swallows re-garded the bluebirds with considerable interest for several days, but none ofinterest for several days, but none offered to fight. After remaining about the house for about a week considering what to do, they departed and were seen no more. That pair of bluebirds that year raised four broods of young, each time except the last consisting of five birds. There were four in the last brood. One clutch of five eggs became brood. One clutch of five eggs became destroyed by severe lightning one night in July. These the birds threw out in July. These the birds threw out early the next morning, making the only litter or muss of the entire year on that porch.

Bluebirds are brave and pugnacious, and are not usually driven away by English sparrows. They fight for their nesting-places with a vigor that is unequaled by any of our common birds, but when the sparrows become too num-

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on that binder for which so much was promised, and there is an enforced halt in the midst of the busy harvest, the farmer instinctively turns to the Deering for succor.

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some place where their nest is less likely to be molested.

The food of the bluebird, when insect life is scarce, consists of small fruits and berries. They are seldom known, however, to touch a cherry or other garden fruit. But they do good in collecting the insects about the fruit-trees and berry bushes. Potato-beetles and larvæ form a large part of the food they give their young, but cut-worms are con-sidered dainty picking. Take good care of the bluebirds.

THE FLYCATCHERS.

The flycatchers are all very useful birds, as their principal food consists of flies and other insects caught on the wing. The more birds we have of this kind, up to a certain limit, the fewer Among the flycatchers are classed the chimney-swifts and whip-poorwills, birds that give us very little concern but are exceedingly useful. Let the flycatchers live.

THE KINGBIRD.

The kingbird is not the enemy of the bee-grower that he is represented to be, and therefore not the enemy of the orchardist. His favorite place is standing on top of a fence to watch, like all flycatchers, for the insects that fly If he takes his station near a beehive as he sometimes does, it is not to catch the bees, but the drones of the catch the bees, but the drones of the hive. The kingbird, strange as it may seem, recognizes the difference, even in their swift flight, between a worker bee and a drone. Experience has no doubt taught him that the bee has a weapon he does not desire to encounter while the drone is not so expendent. ter, while the drone is not so armed. Drones frequently fly out; and without the aid of the kingbird, they would become too numerous toward fall and have to be driven out by the worker bees. The only trouble with the kingbird is, there is not enough of him. Spare the kingbirds.

THE HOUSE-WREN.

The little house-wren is not to be despised on account of its size, as there is not a more useful bird about the house and orchard than this very little house-wren. He is a very pugnacious little fellow and has been known to drive away blue jays from the orchard, and sometimes to attack even a hawk. The hawk or blue jay can do nothing with the wren. He is so nimble that they can not touch him, and he annoys the birds to such an extent they are glad to get away and leave him alone.

Put up a box or a gourd on a pole

or a tree for the little wrens, and make the entrance about an inch in diameter or just large enough to insert your thumb. That will keep the English sparrows or bluebirds from robbing him of his nest. Cherish the house-

THE THRUSHES.

The common brown thrush, the catbird, and the mocking-bird, are among our most vigorous and accomplished song birds, and should always be protected for the abundance of their rich, sweet songs, if for no other reason. They seldom give the orchardist any trouble on account of any fruit they may take; and in consideration of the benefit they are, on account of the insect life they destroy, they ought to be permitted to take such fruits as they need, for the reason that they never take fruit except when insect food is scarce. I have known farmers and orchardists to plant Russian mulberry trees purposely for

the birds and believe it to be an excellent plan. The mulberry season, if the fruit is left to be cared for by the birds, will last from four to eight weeks, they taking the berries as they ripen, or even less rapidly on a large tree. Do not frighten the brown thrushes, catbirds, and mocking-birds.

THE WOODPECKERS.

The woodpeckers are all the orchardist's best friends. The facility with which a woodpecker manages to extract a borer from a tree is astonishing. The woodpeckers climb all over the trees, closely examining every spot for a sign of a worm or beetle, and listening attentively to hear the faint sounds caused by the gnawing insect within the tree. Fruit-growing in many places would be absolutely impossible with-out the aid of the woodpeckers and other birds.

Flickers are mainly insectivorous. The vegetable food, what little there is of it, consists of berries, seeds, and weeds. Flickers live more on the ground than other woodpeckers and feed on ants and May beetles, sometimes ground beetles and grasshoppers. But the special friend and auxiliary of the orchardist is the red-head. Besides the borers and insects that he captures in and on the trees, the red-head likes to sit on a prominent limb high up, where he sees everything that flies past. Like the kingbird he makes a quick dive and captures a flying insect, then returns to his perch. Never shoot a woodpecker, or stone him.

THE BARN-OWL.

It is hardly to be hoped that people, with the intense prejudices relative to owls of all kinds that we bear, would permit a barn-owl to live about the

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place. Yet there is no more useful bird to be found, and the barn-owls ought to be encouraged and protected even more than pigeons, because they are far more useful and less injurious. A pair of barn-owls on the place are more useful than a whole house-full of cats to catch mice, rats, gohpers, prairie squirrels, snakes, and other small mammals and reptiles. Kill the cats and spare the

THE MEADOW LARK.

The meadow lark lives largely on grasshoppers and beetles of the prairie. The meadow lark of the West has a remarkably sweet and powerful song, often, during mating season, long con-tinued while on the wing. The bright plumage and gentle habits of the meadow lark make him a general favorite. The meadow lark, and there are no cats, if protected, will nest near the house in preference to farther out. Keep the cats away from the meadow

THE SPARROWS.

The field sparrow in summer subsists largely on different forms of insect life, such as small beetles, ants, spiders, crickets, earth-worms, plantlice, and different larvæ. They also feed on raspberries, blackberries, and other fruits, but the entire food of the young birds consists of insect life. In the winter they feed on small seeds of various weeds and grasses. common ground sparrow feeds during the summer time almost entirely upon different forms of insect life; in the fall and winter on the seeds of grass, etc. This is true of all species of sparrows.

Sparrows and other birds need water in which to bathe. Provision should be made in the shade of a thicket or orchard. Provide water for the sparrows and other birds.

THE WARBLERS.

The warblers mostly feed upon small beetles, spiders, flies, and plant-lice. Occasionally they take a blackberry or other berry, but never feed such to the young. The cardinal or common redbird, which is often more noticeable here in winter than in summer, feeds mostly upon the seeds of common weeds and grasses. They also feed on wheat, rye, and oats. Among their insect foods the principal are beetles, grasshoppers, crickets, ants, flies, and various larvæ. They eat the fruits of the red cedar and mulberry-tree, also blackberries, raspberries, and wild cherries. Encourage the warblers.

THE QUAIL.

It has been said that the quail can not be domesticated, but the quail can be rendered less wild and will stay around the outskirts of an orchard, where there is a little brush shelter if it is at all protected and not hunted with dogs or guns. More than that. If the quail is not molested on your place it will come there from your neighbors or from other places where quails are hunted, and will even go with the chickens for protection and food in the winter time. After all we are a somewhat savage people. We can not bear to see a quail on our place, or anybody's else for that matter, without an unholy desire to kill or capture it. Who does not love to hear the loud clear whistle of the quail? Or his cheerful call to his mate? Quails destroy many insects and only pick up scattered or lost grain. Protect the quails.

CONCLUSION.

On the whole, I can not just now name any birds that should not be protected. Even the blue jay, as much of an evil as he is, does a good deal of benefit, and I am in some doubt whether his evil traits are greater than his good traits. I am inclined to think he has a place in nature and unless he becomes too numerous or too obstreperous, he should not be molested. O, erous, he should not be molested. nan, boy, spare the birds and protec

One especially marked characteristic of the commerce of the United States, in comparison with that of other countries, is its large excess of exports over imports. Of the thirty countries whose average monthly imports and exports are shown by the Bureau of Statistics, only twelve show an excess of exports over imports. These twelve countries are Argentine, Brazil, Bulgaria, Canada, Chile, Egypt, British India, Mexico, Russia, Uriguay, and the United States. The average monthly excess of exports over imports in the case of India amounts to about nine million dollars, and Russia also about nine millions; while that of the entire list of countries which show an excess of exports over imports (exclusive of the United States), amounts to but thirty-eight millions per month, while from the United States alone the excess of exports over imports is \$42,637,127 per month.

The Stock Interest.

THOROUGHBRED STOCK SALES.

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

May 25-27, 1902—National Hereford Exchange, Omaha, Neb. (Sotham management.)
November 18-19, 1902—Marshall County Hereford Breeders' Association Sale, Blue Rapids, Kans.
December 16, 1902—Gifford Bros., Manhattan, Kans, Shorthorns.

The Characteristics of a Well-bred Hog. G W. BERRY, BEFORE THE BERRYTON FARM-ERS' INSTITUTE.

The quality of fat hogs that bring the highest prices paid by packers and butchers, as well as the type preferred by breeders and feeders is not valued according to any fixed weight. Sometimes the market prices favor the hog weighing 200 pounds, while at other times the heavy hog brings the highest price. However it is found that on an average the most profitable weight for selling to butchers is 250 to 350 pounds and the demands of the market require a hog in smooth, prime condition 8 to 12 months of age, weighing 250 to 400 pounds.

Experiments made at the stations prove that in the early stage of feeding, animals make the greater gain per pounds of food eaten, and the same is found of young animals in comparison with old. In other words, as the animal grows heavier he consumes more food to produce a unit and old animals, as a rule, do not give as good returns as do young ones for the food consumed. Fortunately, the requirements of butchers meet the preferences of breeders from the fact that up to the attainment of these weights and ages the hogs are making the most profitable gains. The pig puts on more flesh and at lower cost per pound up to the age of 9 to 12 months than beyond this age, to say nothing of the loss of time and risk of carrying the stock beyond this limit. Size, quality, and early maturity should be the motto.

The hog that feeds quickest and meets the butchers' demands is long, low, deep, wide, and thick-fleshed, with slightly arched back and straight side and bottom lines, standing on short, straight legs and over all, with smoothness of form and mellowness to touch that indicate desirable development of form and quality of flesh.

The model hog is one that snugly fills the pork barrel at both ends and in the middle, cutting the largest percentage of choice or high-priced meat and the least percentage of offal and low-priced

Standards of excellence adopted for the various breeds of swine are similar, and they show the relative importance and value of the different parts of the hog. It will be seen that fat hogs in the markets bringing the top prices and demanding a premium resemble most in their form the scale of points as set up for the improved breeds, and the top hogs on the market show pure breeding or high-grade crosses from pure-bred sires. I heard a farmer say he sold hogs by weight, and common stock was as good for him as pedigreed stock. Never was a man worse mistaken. Jacob Dold, the packer, said the most unprofitable part of the hog lies in front of the shoulders, while the profit-able parts lie behind the shoulder. The relative prices of the various parts of a fat hog show the most valuable parts to be the loin, the ham, and the sides; and when loin, ham, and becon are rated at 14 to 16 cents, the head and trimmings are rated at only 4 to 8 cents.

Well-bred hogs are especially developed in the most valuable points while scrubs are not only deficient in these parts, but are more prominent in the cheap and unprofitable parts. Herein the distinguishing characteristics which establish the superiority of the well-bred hog over the scrub.

A study of the improved breeds, their different types and characteristics, will show many good points to which the respective breeds may justly lay claim. Some criticisms will be suggested, intended to point to corrections, and where improvements might be made and suggestions made in selection of breeding-stock.

THE BERKSHIRE.

The history of Berkshire swine is authentically traced back 150 years and the breed is believed to be at least two centuries if not three centuries old. As far back as 1780 the distinct markings, a dash of white in the face, four white feet and white tip to tail on a dark establish a breed of swine and get it

up to a fixed type.

Notice the head. A neatly curved or dished face; wide between the eyes; short, meaty nose; wide, deep, full, smooth jowl, a bright hazel eye; and fine, soft, erect ears make up a characteristic Berkshire head that should be included to a heady of great length; with joined to a body of great length; with top line slightly arched; well-sprung ribs; long, deep sides; and long, broad, deep hams; thus producing the longest, deepest cuts of bacon and thick-fleshed hams which for firmness and quality and percentage of lean meat places this favorite English breed in the front rank.

The early importations of Berkshires to the United States, beginning in 1823 and continuing at intervals up to the Civil War, were permitted to run out and this retrograded stock is known as Small Berkshires, as distinguished from the late importations, known as the Large English Berkshires. Thousands of people believe the Berkshire to be a small hog yet the appearance at the fairs of late years, in surprising regularity, of growthy youngsters of this breed weighing 400 to 550 pounds at 10 to 12 months of age and 500 to 750 pounds at 18 months of age annually astonishes the exhibitors of other breeds. In changing from the small, round, plump, fine Berkshire of twenty-five years ago and breeding exclusively from late import-ed English stock, Berkshire breeders have occupied sure ground. But in some instances, in the attempt to gain extreme size, breeders sacrificed style, symmetry, quality of hair, and short-ness of leg, and got coarseness of fiame, harsh coats, and longer legs. These faults can be and are corrected by thoughtful breeders who have the skill to combine style and finish and length and depth of body with shortness of legs.

THE POLAND-CHINA.

The history of the Poland-China hog commences in Ohio about 1840, and not much is known of the breed prior to the last fifty years. These large-boned, lengthy, mellow, easy-feeding hogs soon won for the breed first place in the estimation of thousands of farmers and they elected the Poland-China as the most popular hog in the great corn-belt of the West, and his admirers often re-fer to him as the "American hog." The breed has undergone changes in style, form, and color since the early years of the large spotted hog. The fashionable color now is black with white points similar to the Berkshire, and the up-todate hog of this breed possesses a very neat head with short, tapering nose, fine, soft ears carried up at base but breaking about one-third or half way from tip and drooping gracefully. The back is broad and strongly arched, and hams very wide and full and rounded. The body is longer than it appears to be, is set down on neat, flinty bone, standing erect and firm.

In the struggle to fix the color, to secure finish of head and ear, to escape swirls, and in a mad worship of pedigree, the breed has lost size, substance, and fecundity in fineness of bone, approaching the danger line, while the tendency to produce disappointingly small litters of pigs in many herds of finely-bred Poland-Chinas is remarkable. In plumpness of form and fineness of bone some herds of Poland-Chinas resemble the little black Essex more than the large, deep-bodied, true type which made this magnificent breed so popular in the estimation of those who sought to market their corn by the easier means of converting it into pork. The defects must be corrected by se-lecting animals possessing length of body with sufficient bone and substance to remedy the evil and in like manner the short, plump "butter ball" individual belonging to a strain that persists in raising three, two, or one pig will be d in more prolific sort.

THE CHESTER WHITE

The Chester White hog originated in Chester County, Pennsylvania, about one hundred years ago. The Chester White is of good size when grown. The head is slightly dished with pendant ears. The chest is deep and the sides long and deep. The pigs are vigorous and growthy. It is claimed to be the most prolific breed of swine, producing uniformly large litters. Chester Whites uniformly large litters. Chester Whites have undergone little change during its history. It can be safely said that the breed has neither improved or retrograded in the last twenty years. There seems to be a lack of interest among breeders who are in want of a leader.

ground, corresponding to the color of the breed at the present time support the belief that it would have taken a number of years prior to the time to white hogs wanting in finish, fullness of Here may be found the opportunity

A FINANCIER'S LUCK

How it Changed when Things Seemed Going from Bad to Worse.

Mr. Charles H. Bradley, the president of the State Investment Co., with offices in the American Trust Building, Cleve-land, Ohio, is known in business and social circles throughout Cleveland not only as a person of ability but as a man of sterling integrity. In speaking of his experience, he said:

"It was about three years ago. I was just recovering from a long attack of typhoid fever and my strength was so long in returning that it seemed I would never be a sound, healthy man again. My appetite was poor and my nerves unstrung and the doctor's medicine did not help me at all.

"Things were going from bad to worse when one day I chanced to read a statement of a man who had been cured of trouble similar to mine by the use of Dr. Williams' Pink Pills for Pale People. It encouraged me to try them.
By the time I had used the first box I
felt a decided improvement and I kept on taking them until I had used six boxes. By that time I was restored to perfect health.

"I consider Dr. Williams' Pink Pills the best remedy made for troubles like mine and am always glad to recommend

The after-effects of fevers and other acute diseases are frequently worse than the ailment itself and the utmost care is required during this stage in order that permanent evils do not result. The system is worn out in its long struggle with the disease; the blood is impoverished and the nerves weakened. Vitality is low. The blood needs to be purified and supplied with the elements to build up the wasted tissues, the nerves need a tonic to strengthen them. Dr. Williams' Pink Pills for Pale People will do this as no other medicine will be the property of the page 100 to will do this as no other medicine will. They are an unfailing specific not only for the after-effects of fevers of grip and of other acute diseases but also for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous head-ache, palpitation of the heart, pale and sallow complexions, and all forms of weakness either in male or female. Dr. Willaims' Pink Pills for Pale People are sold by all dealers, or will be sent postpaid on receipt of price, fifty cents a box, or six boxes for two dollars and fifty cents, by addressing Dr. Wil-liams Medicine Co., Schenectady, N. Y.



MOL CURES SORE SHOULDERS, COLLAR GALLS, SCRATCHES, CRACKED HEELS, SITFASTS, CHAFES, ROPE BURNS, WIRE CUTS/ SORE TEATS, OLD STANDING SORES AND ALL FLESH WOUNDS ON PREVENTS FLIES, MAGGOTS, SCREW WORRS AND PROUD PLESH. ALL DEALERS

B. H. BOHUY, Ph. C., STATION A, BENYER, COLORADO.
MINDORSED BY HORSEMEN EVERYWHERE

Dr. B. H. DeHuy, Denver, Col. Dear Sir:—I have given your Balmo-line a thorough trial this season in our training stables, and it gives us pleasure to say that it is the best preparation we have ever used for Sore Heels,

Chafes, Galls, and all Flesh Wounds. Yours truly, H. L. MILLER.



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

MOORE CHEMICAL CO., 1501 Genesee St., Kansas City, Mo.

Real Estate Wanted and for sale. If you want to sell or buy (no matter where located) send description and cash price and get (FREE) my successful plan. W. M. OSTRANDER, North American Bidg., Philadelphia, Pa.

Duroc Jerseys have been bred as such Duroc Jerseys have been bred as such for about seventy-five years and origin-ated in the States of New Jersey and New York. The standard color is cher-ry red with out-markings. The type is a very compact hog, smooth in all its parts set on very short legs. The type is that of a very early-maturing hog, easy feeding, hardy, and prolific. To easy feeding, hardy, and prolific. To breed a true type the blood must be kept pure. When crossed on other kept pure. When crossed on other breeds the stock deteriorates in color

We have no secrets in feeding. On every Kansas farm may be found the elements necessary to grow good hogs. elements necessary to grow good hogs. Namely, corn, clover, and milk; or corn, alfalfa, and milk. Do not expect to grow good hogs on corn alone. Feed for what is desired. A pig can live on corn and water, but its growth will be retarded. The frame will be light, the body short and fat. While exercise has a great deal to do with quality of flesh, the formation of muscle—lean flesh—veriety of food is necessary to growth, variety of food is necessary to growth, form, quality, and health. To prove that variety of food effects the quality of the meat as well as the vitality of the hog, the results of experiments as illustrated in an address by Professor Henry on corn v. other protein feeds in handling hogs, follow. It will be seen that the corn diet alone did not begin to compare with the other feeds in the experiments:

loin, breadth of ham, and firmness of limbs.

THE DUROC JERSEY.

to five in the morning, and feed corn, all they will clean up. Give them skimmilk or other slop after breakfast, and about four in the afternoon water and feed corn again.

Pigs should be fed at least five times Pigs should be fed at least five times a day to get best results. Poland-China pigs raised near Wichita, Kans., principally on alfalfa and wheat, weighed 550 pounds at the age of 11 months, and when taken to the World's Fair at Chicago in 1893, were protested by some Eastern exhibitors on account of great-size as being over age. After inspection experts approved the ages as given and judges of unquestioned ability and and judges of unquestioned ability and entegrity awarded first premiums in classes and herd to the Kansas hogs fed on Kansas grain and Kansas alfalfa, shedding lustre upon the fair name of Kansas, and adding fame and renown to the Kansas man. "Again," in the language of Coburn,

"for all these years the hog has been feeding a hungry world. In the peasant homes of Europe, on the cotton plantations of the South, in the mining camps of the West, and wherever great armies move, pork products are to be found as one of the staple foods of man. The toothsome ham is as grateful to the palate of the millionaire as it is to the palate of the soldier, or miner, or peas-ant. Tender, sweet, and toothsome, it is as grateful alike to the palate of the child, of the laborer, and of the old man who looks back over his long years of good feeding and remembers with pleasure the hog.
"Vegetarians have inveighed against

the practice of eating pork products;

SLAUGHTER TEST OF PIGS FED PROTEIN-RICH AND PROTEIN-POOR RA-TIONS. WEIGHT PER 100 POUND CARCASS:

				Tende		r 100-lb
Station and feed. Shrinkag hissouri— Shrinkag per cwt.		Liver oz.	Kidneys oz.	loin oz.	Leaf-lard oz.	carcas
		48	7.1		45	= 11
t 1, middlings, blood 23 t 2, corn-meal 21	_	48 32	4.1	••	86	•
Visconsin—	55	27	5.0	17	80	50
t 1, milk, middlings, blood. 19 t 2, corn-meal 20	42	27 24	4.2	14	89	38
ongog_	227			100	05	35
t 1 charte bran 23	51	45	7.4	13	. 75	33
t 2, potatoes, tallow, corn. 21	37	34	0.8	10	V 10	HARL

Wisconsin station results when feeding: Bone-meal, Ashes. Neither.

making a total of 800 pounds of pork to an acre of clover. It takes good corn to make fifty bushels to the acre and to make nity business to the acre and counting ten pounds of pork made from a bushel of corn gives 500 pounds of pork from an acre of corn. It is well known that hogs thrive better when fed some corn with the clover. It is claimed that steller is equal to or superior to

Is it Absent Angus Again?

During the American Royal Cattle Show at Kansas City last year, one of the greatest exhibitions of thoroughberd cattle ever made in America, the only "knockers" yere the Advantage of clover or alfalfa by referring to the 800 pounds of pork produced from an acre of clover against 500 pounds produced from an acre of corn.

Yet "Corn is king," and must remain the basis of food rations for the hog. Early spring pigs running on clover pasture and fed a liberal feed of corn are receiving a good balanced ration and will come up in the fall weighing about two hundred pounds, and can be finished before hard winter, weighins about three hundred pounds.

The development of the dairy industry in Kansas furnishes another very desirable supply of feed in the way of skim-milk, which fed with corn forms nearly a perfect ration for pigs. A lot of pure-bred Berkshire pigs running in a clover field and liberally fed on corn and given sweet skim-milk to drink averaged 380 pounds at the exact age of the months. They took all the first and second prizes in classes and herd at the State fair, and the culls were sold at the packing-house at a premium of 10 cents above the top market price. Two of the lot waighed exactly 400 nounds

Is the American Royal Cattle Show at Kansas City last year, one of the greats exhibitions of throoughberd cattile ever made in America, the only "knockers" were the Aberdeen-Angus breeding frater-nity and their only "kick" was the absence of the Aberdeen-Angus showing of Aberdeen-Angus have delighted with the magnificent display of the other breeds of cattle but felt considerable chagrin and humility and their only "kick" was the absence of the Aberdeen-Angus showing of Aberdeen-Angus Sposcia title and their only "kick" was the absence of the Aberdeen-Angus showing of Aberdeen-Angus have delighted with the magnificent display of the other breads of cattle but felt considerable chagrin and humility and their only "kick" was the absence of the Aberdeen-Angus have lead to participate cents above the top market price. Two of the lot weighed exactly 400 pounds each and the head of the young herd weighed 403 pounds at exactly nine menths of age.

When pigs do not start out well on corn the grain should be ground, made into fine meal. Coarse corn-chop is not as good as the whole grain, but when the grain is ground fine enough for bread it is made more digestible. for bread it is made more digestible. After the shoats are well started, it does not pay to grind feed. Hogs do fully as well fed on ear corn. When feeding on the ground, ear corn should be fed in the shuck as the grain will be kept from mixing with the dirt and mud. Of course, the best method is to use feeding floors, which should be kept clean. Water the hogs at four

Much of the protein rations and succulent feeds required can be supplied in the milk and grasses produced on the farm. It has been estimated that an acre of clover with a little grain will raise eight pigs to 200 pounds each, making a total of 800 pounds of pork to an acre of clover. It takes good corn to make fifty bushels to the acre and counting ten pounds of pork made from milk of the dairy, and fattened on the ripened product of the Western corn-

Is it Absent Angus Again?

American Royal Show at Kansas City this call.

The following signatures are attached:
J. O. Van Orsdal, Bucklin, Mo.
S. M. Neel, Kansas City, Mo.
G. W. Switzer, Harrisonville, Mo.
R. H. Brown, Harrisonville, Mo.
W. H. Poindexter, Harrisonville, Mo.
Geo. Drummond, Elmdale, Kans.
T. J. McCreary, Highland, Kans.
A. L. Wynkoop, Bendena, Kans.
Elm Park Cattle Company, Harris, Mo.
M. Halzhey, Bendena, Kans.
E. M. Gates, Laplata, Mo.
I. D. Brockway, Wellsville, Kans.
J. B. Withers, Missouri City, Mo.
H. H. Anderson, Laredo, Mo.
N. R. Tracy, Trenton, Mo.
Eugene Rust, Kansas City, Mo.
Marion C. Stone, Milan, Mo.
Berry Lucas, Hamilton, Mo.
Berry Lucas, Hamilton, Mo.
H. M. Beckill, Olathe, Kans.
Andrew E. Cromwell, Atchison, Kans.
O. A. Bridgeford, Joy, Ill.
C. H. Butler, Frankfort, Kans.

Wm. Miller, Fayette, Mo.
W. T. Ballard, Liberty, Mo.
Wm. Rea, Carrollton, Mo.
J. E. Long, Rock Creek, Kans.
Chas. E. Sutton, Russell, Kans.
H. W. Elliott, Estill, Mo.
Geo. Stevenson, jr., Waterville, Kans.
R. S. Williams, Liberty, Mo.
W. W. Massle, Paris, Ky.
Frank Van Voorhees, Tonganoxie, Kans.
J. N. Harshberger, Lawrence, Kans.
Otto Benninghover, Mayday, Kans.
J. W. Austin, Carrollton, Mo.
W. C. White, Carrollton, Mo.
W. G. White, Carrollton, Mo.
S. W. Munson, Clinton, Mo.
E. Gregory, Osceola, Iowa.
Jos. H. Rea & Son, Carrollton, Mo.
J. R. & M. Hughes, Fayette, Mo.
W. J. Turpin, Carrollton, Mo.
J. R. & M. Hughes, Fayette, Mo.
John P. Greer, Harris, Mo.
J. T. Haley, Harris, Mo.
Every breeder who signed the list was extremely enthuslastic over the prospects

John P. Greer, Harris, Mo.

J. T. Haley, Harris, Mo.

Every breeder who signed the list was extremely enthusiastic over the prospects of the Angus cattle being represented at the Royal. Mr. Sutton, in speaking of the movement said:

If the National Association does consent to aid us in the exhibition, I think it will be the greatest thing done for the breed in years. The Western men all favor the Royal and do not wish to see the other prominent breeds carry away laurels at that event while they must keep their cattle at home just because there is no authorized place for them at the great show. The National association has as much money to spent on the Angus exhibit as has the other breeds in proportion to the number of cattle entered and I can promise that if the thing is pushed the Angus breeders will make an exhibition this fall that not only they themselves will be proud of, but the whole country as well. One reason that made us decke to send in the resolution to Sec. Thos. McFarland, of the central association, is that the St. Louis exposition has been postponed until 1904. The only big show that the Angus men could participate in before next year was the International at Chicago. This would not give the Kansas and Missouri men much chance to show cattle for the reason that it is too far for them to go. The prospect of the big St. Louis show in 1903 served to appease our wants for the present, but when we found that it was to be postponed a year, we at once decided to do everything in our power to secure an Angus representation at the Royal.

The Kansas City Angus Sale.

The Kansas City Angus Sale.

On May 6 there was held at the fine stock sale pavilion at the Kansas City Stock Yards, a combination sale of Aberdeen-Angus cattle from the herds of W. J. Turpin, Carrollton, Mo.; J. H. Rea & Son, Carrollton, Mo.; Berry Lucas, Hamilton, Mo.; H. H. Anderson, Laredo, Mo.; N. R. Tracy, Trenton, Mo.; W. M. England, Callao, Mo.; W. W. Massle, Paris, Ky.; J. B. Withers, Missouri City, Mo.; Jno. D. Blackwell, Fayette, Mo.; Marion C. Stone, Milan, Mo.; J. F. Hanna, Tarkio, Mo.; I. D. Webster, Pleasant Hill, Ill.; O. A. Bridgeford, Joy, Ill.

The offering was quite creditable to the breeders interested, but the bulk of the advertising was outside and the local field was not sufficiently exploited, especially in view of the fact that the bulk of the offering was bulls, consequently the forty-six head sold for only \$6,370, an average of \$138.47, the bulls averaging \$116 and the cows and heifers \$190.

Following are the sales made: Grapewood Ceus 49069, to Charles E. Sutton, Russell, Kans., \$155.

Grapewood Becky 3d 42802, to William Miller, Fayette, Mo., \$190.

Oak Ridge Carlyle 47380, to J. M. Duff, Chestnut, Ill., \$100.

Graceful Nosegay 23798, to G. W. Switzer, Harrisonville, Mo., \$200.

Oak Ridge Emerson 47378, to H. Kerrick, Lone Tree, Mo., \$190.

Oak Ridge Tyson 47381, to E. M. Gates, La Plata, Mo., \$80.

Oak Rigge Tyson 47381, to E. M. Gates, La Plata, Mo., \$80.

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Oak Rigge Tyson 47381, to E. M. Gates, La Plata, Mo., \$80.

Oak Rigge Porter 2d 47653, to Mrs. M. T. Lisk, Syracuse, Neb., \$95.

Mellie 40488, to I. D. Webster, Pleasant Hill, Mo., \$360.

Moss Rose B. 33446, to William Miller, \$180.

Bogard Dlamond, 41182, to H. M. Beekett Oak Riige Forter 2d 47653, to Mrs. M. T. Lisk, Syracuse, Neb., \$56.
Mellie 40488, to I. D. Webster, Pleasant Hill, Mo., \$305.
Mellie 40488, to I. D. Webster, Pleasant Hill, Mo., \$305.
Dodd 48929, to I. D. Brockway, Wellsville, Kans., \$250.
Dodd 48929, to I. D. Brockway, Wellswille, Kans., \$350.
Hogard Diamond 41182, to H. M. Beckett, Olathe, Kans., \$450.
Mass Creek Ladd, 47789, to W. Stevenson, Com of Paris 473, to R. H. Brown, Harrisconville, Mo., \$405.
Blanche W. 17100, to W. H. Poindexter, Harrisonville, Mo., \$405.
Blanche W. 17100, to W. H. Poindexter, Clinton, Mo., \$425.
Louisa T. 28251, to J. O. Van Orsdal, Bucklin, Mo., \$405.
Hubert Anderson to J. K. Drummond, Janssport, Mo., \$455.
Kies, G. and J. Leaf Prairie Queen 36152, to G. W. Switzer, \$440.
Oak Ridge Gilbert 47372, to Charles E. Sutton, \$30.
Oak Ridge Allen 47375, to John Marshall, Dubols, Neb., \$55.
Oak Ridge Allen 47375, to John Marshall, Dubols, Neb., \$55.
Dake Ridge Valentine 47370, to J. E. Long, Rock Creek, Kans., \$445.
Filack Monarch of Paris 44770, to J. E. Long, Rock Creek, Kans., \$445.
Filack Monarch of Paris 4770, to J. E. Long, Rock Creek, Kans., \$445.
Filack Monarch of Paris 4770, to J. E. Long, Rock Creek, Kans., \$456.
Pleasant Ridge Thickset 2d 46004, to Theodore Defendefier, Lees Summin, Mo., \$450.
Prairie View Raven 24791, to J. J. Smith, Golden City, Mo., \$100.
Mattle Withers 2d 25880, to William Miller, \$200.
Mark Ridge Thickset 2d 46004, to Theodore Defendefier, Lees Summin, Mo., \$450.
Prairie View Raven 24791, to J. J. Smith, Golden City, Mo., \$105.
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Prairie View Raven 24791, to J. J. Smith, Golden City, Mo., \$105.
Prairie View Raven 24791, Moss Rose B. 33446, to William Miller, \$180.

Dodo 48029, to I. D. Brockway, Wellsville, Kans., \$250.
Bogard Diamond 41182, to H. M. Beckett, Olathe, Kans., \$190.
Mass Creek Lad, 47789, to W. Stevenson, Hepler, Kans., \$140.
Con of Paris 4473, to R. H. Brown, Harrisonville, Mo., \$105.
Blanche W. 17100, to W. H. Poindexter, Harrisonville, Mo., \$290.
Victor M. 45278, to E. Gregory, Osceola, Iowa, \$145.
Pride of Paris 44771, to S. W. Bunker, Clinton, Mo., \$235.
Louisa T. 26261, to J. O. Van Orsdal, Bucklin, Mo., \$105.
Hubert Anderson, to J. K. Drummond, Jamesport, Mo., \$80.
Bonnie Black 4th 45581, to C. E. Sutton, \$75.
Maple Leaf Prime 42244 to A. M. Duff

Epidemics Controlled by Mulford's Vaccine

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

cures Pneumonia. Tetanus Antitoxin prevents and cures

Tetanus or Lockjaw Tuberculin and Mallein detect Tuberculosis and Glanders.

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

Write for our

—FREE BOOK—

It contains valuable information to every breeder and dairyman.

H. K. MULFORD COMPANY

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

Bonnie Black 7th 45582, to J. W. Black, Chillicothe, Mo., \$95. Elmleaf Topsy 51642, to G. W. Switzer, \$115.

\$115. Elm Leaf Lass O'Lowrie 2d 51640, to W. M. England, Callao, Mo., \$205. Elmleaf Lass O'Lowrie 51631, to E. M. Gates, \$150. Tom Reed C. 28801, to J. J. Smith, Golden City, Mo., \$80. Ferndale Duke 48901, to William Miller, \$80.

**Maple Leaf Dewey 31779, to R. T. Mc-Clement, Olathe, Kans., \$205.

Maple Leaf Regina 33271, to A. E. Cromwell, \$160.

Oregon Wants Pure-bred Cattle.

Oregon Wants Pure-bred Cattle.

Secretary Thomas of the American Hereford Breeders' Association has returned from Oregon, where he went with a party of Missouri Valley breeders during April to introduce pure-bred stock to the rangemen of the coast. There were nine cars of bulls in the shipment which were disposed of at public auction at Baker City, La-Grande, Pendleton, and Hepner. With the consignment were Geo. W. Scott, C. A. Stannard, Frank Gudgell, J. M. Buckner, T. D. Barroll and R. G. Rannie.

Mr. Thomas says that the shipment of bulls to the Northwest may be set down as a red letter event in Hereford history.

"The move was a success from start to finish," said he. "We did not sell all the animals at auction, but had a good reason for not doing so. At the first city we struck there was a big crowd of buyers and spectators out to welcome us. The event had been advertised far and wide and the crowd responded with a will. The sale was held at the baseball grounds and the grand stand utilized to seat the people. The crowd was so great that the framework gave way with a crash. No one was seriously hurt, but it naturally detracted attention from the sale. We sold about twenty bulls at Baker City. At LaGrande another big crowd awaited us and twenty head more were sold. At Pendleton the biggest auction of the trip was held and forty head changed hands. At Hepner, the last place a public sale was held, a dozen of fifteen head were sold. In all we disposed of eighty-five head at an average of \$167.

"Had the venture not been such an entire innovation, I am sure a better average would have been realized. You see this

cess and will bear fruit in time to come."

"I verily believe that from 1,000 to 1,500 pure-bred Hereford and Shorthorn bulls would meet with ready sale in Oregon and the Northwest," said Col. R. E. Edmonson, of Kansas City, who was the auctioneer for the Hereford breeders who sent nine cars of Herefords to that section of the country for sale. "The cattlemen of that country are good judges and will pay long prices for good individuals of serviceable age, and enterprising breeders who wish to extend their trade should cultivate the trade of Oregon and the Northwest."

The Boone County Shorthorn Sale.

The Boone County Shorthorn Sale.

The second annual sale of Shorthorn cattle held under the auspices of the Boone County Shorthorn Breeders' Association at Columbia, Mo., on May 9, was something of a disappointment to some of the contributors. The stock offered for sale was in rather thin condition and by far the larger number of animals were young buils, for which there seemed to be no ready sale. The greatest impediment, however, in the way of a successful sale lay in the fact that it was not properly advertised. A single announcement of a sale of pure-bred cattle in any paper is hardly enough to attract the attention of breeders who mean business in attending a sale. The new stock-judging amphitheater belonging to the Agricultural College of Missouri was crowded with men at the time of the sale, but they proved to be largely college students and sightseers rather than buyers. Colonels Woods, Sparks, and Harriman did their work nobly, but they did not have the buyers. The results of the sale are as follows:

Hall's consignment.—Five cows brought \$475; average, \$55. Two bulls brought \$475; average, \$62.50.

Harned's consignment.—Two cows brought \$125; average, \$62.50.

Murray's consignment.—Nineteen bulls brought \$1,245; average, \$85.52.

Dorsey's consignment.—Two bulls, average \$35.

Wright's consignment.—Three bulls averaged \$38.33.

King's consignment.—Two bulls, averaged \$38.33.

Kurtz's consignment.—Two bulls, averaged \$35.50.

%30.

Kurtz's consignment.—Two bulls averaged \$52.50.

McClanahan's consignment.—One bull,

Burrus' consignment.—Three cows, average. \$83.33.
Stewart's consignment.—One cow, \$150.
Brown's consignment.—One cow, \$150.
Brown's consignment.—One cow, \$10; one bull, \$50.
The buyers were: M. H. Pemberton, Centralia, Mo.; J. W. Tucker, Hallsville, Mo.; Robertson Bros., Vandalia, Mo.; D. G. Bragg, Huntsville, Mo.; J. H. Keen, Columbia, Mo.; J. W. Cutler, Hallsville, Mo.; Jas. L. Love, Macon, Mo.; J. A. Bradford, Columbia, Mo.; E. S. Stewart, Sturgeon, Mo.; B. F. Lowrey, Columbia, Mo.; W. K. Stone, Columbia, Mo.; J. C. Hall, Hillsville, Mo.; Jno. R. Hepler, Bunceton, Mo.; H. O. Leonhardt, Lowman, Mo.; W. P. Harned, Vermont, Mo.; Jno. S. Chandler, Columbia, Mo.; Lee Anthony, Columbia, Mo.; Jas. Turner, Columbia, Mo.; T. H. Stone, Hinton, Mo.; E. F. Howell, Hallsville, Mo.; W. A. Leech, Joplin, Mo.; J. L. Wilhite, Columbia, Mo.; H. Periguy, Barnett Mills, Mo.; J. T. Kenett, Millersburg, Mo.

San Rafael Hereford Sale.

San Rafael Hereford Sale.

The two days' public sale held on the 7th and 8th inst. at Kansas City, by Colin Cameron, Lochiel, Ariz., was, everything considered, a very successful sale of ranch-bred and branded Herefords. While these cattle were apparently under size, yet the cows having calves at foot showed them to be phenomenal producers.

This is the third annual sale of ranch Hereford cattle held at Kansas City and eighty-six head sold for \$9,415, a general average of \$109.47. Seventy-three cows and helfers sold for \$8,250, an average of \$113.45; thirteen bulls for \$1,135, an average of \$87.30. The top price realized for females was \$250 for the cow Vistosa 2d 5540 and helfer calf by Warwick, and sold to H. C. Cunningham, Weston, Mo. The top price for bulls was \$130 for the 2-year-old bull, Majestic 13336, sold to C. C. Hampton, Harrisburg, Neb.

The bidding was fairly lively throughout and although the showing made the first day was much better than that of the second, there was no great falling off of interest at the close of the sale, such as is often the case where a goodly number of animals is sold. Kansas and Missouri breeders were right to the front in all of the bidding as they usually are in sales held in this part of the country, and over two-thirds of the offerings went to those two States.

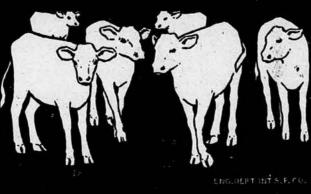
The purchasers of cows and heifers were: P. E. Spellman, Clark, Mo.; W. P. Goode, Lenexa, Kans.; H. C. Cunningham, Weston, Mo.; H. Monroe, Frederick, Kans.; R. O. Deming, Oswego, Kans.; C. E. Woodall, Marcus, Iowa; Humphrey Hereford Co., Belton, Mo.; M. A. Weir, Billings, Okla.; L. M. Todd, Wellsville, Kans.; A. A. Rose, Holden, Mo.; Go. Sigler, Humboldt, Neb.; C. C. Hampton, Harrisburg, Neb.; David Hood & Son, Perry, Iowa; M. C. Hoskins & Son, Milton, Iowa; S. J. Moss., Melvern, Kans.; G. W. Segrest, Humboldt, Neb.; Chas. Strubein, Holden, Mo.; Jacob Hanna, Wichita, Kans.; H. Monroe, Frederick, Kans.; C. C. Hampton, Harrisburg, Neb.; Humphrey Hereford Cattle Company, Belton, Mo.; F. M. Hall, Dyersburg, Tenn.

Kansas City Swine Show.

The committee in charge of the swine show to be held in connection with the cattle show at Kansas City next autumn have arranged the following prize-list: \$2,000 is the money that will be awarded to the two breeds, Poland-Chinas and Berkshires, on the regular classification, with a number of special prizes that will be arranged for at the next meeting of the committee, to be held in June.

Boar 2 years old or over; \$20, \$15, \$12, \$8, \$5.

\$5.
Boar 18 months old and under 24; \$20, \$15, \$12, \$8, \$5.
Boar 12 months old and under 18; \$20, \$15, \$12, \$8, \$5.



THE QUICKEST CALF GROWER!

MECHANICSBURG, OHIO.

GENTS:—I feed my cattle and calves "International Stock Food" summer, and also in the winter, when it brings them out in good shape, so they get the full advantage of early spring pasture, and none of them have ever had the scours, spring pasture, and none of them have ever had the scours, which is so common at that time. My milk cows are giving more milk, winter and summer, since I commenced feeding "International Stock Food," and the butter is of better quality. I tested "International Stock Food" on a steer that had made no growth for a year. Afterfeeding "International Stock Food" one month he had made a net gain of 125 lbs. His rations were corn fodder and "International Stock Food." As a special test I fed and raised one calf on skim milk and "International Stock Food" during the winter and secured a weight of 450 lbs. in the spring. C. S. MITCHELL. C. S. MITCHELL. secured a weight of 450 lbs. in the spring.

IT CONTAINS 47 183 LARGE COLORED ENGRAVINGS OF HORSES, CATTLE, SHEEP, GOATS, HOGS, POULTRY, ETC.

WE WILL GIVE YOU \$14.00 WORTH OF "INTERNATIONAL STOCK FOOD" IF BOOK IS NOT AS REPRESENTED. This Book Mailed Free, Postage Prepaid. If You Write Us (letter or postal) and Es Answer These 3 Questions:

Rame this Paper. 2nd-How much Stock have you? \$74-Did you ever use "IRTERRATIONAL STOCK FOOD" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs?

Largest Stock Food Factory in the World. Capital Paid in, \$1,000,000.00.

International Stock Food Co., MINNEAPOLIS. A. INTERNATIONAL WORM POWDER INTERNATIONAL GALL CURE INTERNATIONAL HEAVE CURE INTERNATIONAL GALL CURE

Boar 6 months old and under 12; \$20, 15, \$12, \$8, \$5.

Boar under 6 months; \$20, \$15, \$12, \$8, \$5.

Row 2 years old or over; \$20, \$15, \$12, 80W \$8, \$5. 80W \$12, \$8, 80W 18 months old and under 24; \$20, \$15,

\$8, \$5.

Sow 18 months old and under 24; \$20, \$15, \$12, \$3, \$5.

Sow 12 months old and under 18; \$20, \$15, \$12, \$3, \$5.

Sow 6 months old and under 12; \$20, \$15, \$12, \$3, \$5.

Sow under 6 months; \$20, \$15, 12, \$8, \$5.

Champion boar cver 12 months; \$25.

Champion boar under 12 months; \$25.

Champion sow over 12 months; \$25.

Champion sow under 12 months; \$25.

Champion sow under 12 months; \$25.

Champion sow under 12 months; \$25.

Boar and three sows over 12 months; \$25.

Boar and three sows under 12 months; \$25, \$20, \$15, \$10, \$5.

Boar and four of his get any age; \$25, \$22, \$15, \$10, \$5.

Sow and four of her produce under 6 months; \$25, \$20, \$15, \$10, \$5.

Animals that have been exposed to infectious diseases or suffering therefrom will not be allowed upon the exhibition or sale will be examined by a Government inspector and every precaution possible will be taken to protect the stock from danger. A thorough system of disinfecsting will be adopted. The two breeds will be shown and sold alternately during the week. Those desiring a place in the sale should make application early to the secretaries, Frank D. Winn, Mastin, Kans., and Chas. F. Mills, Springfield, Ill., stating the number they would like to put in. The arrangements for the sale will be published in the agricultural journals in due time. Eintries for exhibition will cloce October 6. All future arrangements for both exhibition and sale will be in the hands of H. M. Kirkpatrick, Frank D. Winn, and R. D. Burnham for the Poland-Chinas, and N. H. Gentry, C. A. Stannard, and C. F. Mills for the Berkshires.

H. M. KIRKPATRICK, Chairman Managing Committee.

H. M. KIRKPATRICK, Chairman Managing Committee.

How's This?

We offer One Hundred Dollars Reward for any case of Catarrah that can not be cured by Hall's Catarrah Cure.

F. J. CHENEY & CO., Props., Toledo, O. We the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions and financially able to carry out any obligations made by their firm.

carry out any obligations and firm.

West & Truax, Wholesale Drugists, Toledo, O.
Walding, Kinnan & Marvin, Wholesale Druggists, Toledo, O.
Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75c per bottle. Sold by all druggists. Testimonials

Hall's Family Pills are the best.

Gossip About Stock.

Stockmen interested in the prevention of anthrax or splenic fever or blackleg in cattle will find that Mulford's Charbon or Anthrax Vaccine, advertised on page 532, is a scientific remedy of superior excel-

The Kansas Farmer gladly welcomes to the ranks of improved stock the Spring Creek Stock Farm of Large English Berkshires owned by Rice & Glies, of Abe-line, Kans., whose card appears this week on page 545.

The annual meeting of the Nebraska Stock Growers' Association was held at Crawford this week where a very interest-ing program is being rendered. A very large delegation from the South Omaha stock yards will attend in a body and will help to make the meeting a success.

What is known as the South Pasture of the Moon Ranch in Cottle County, Texas, containing 34,265 acres, was recently sold to W. P. Richards for \$111,461.25, cash. As a part of this land was purchased on the first of last May for \$1.75 per acre from Wm. Garnett, of England, it will be seen that ranch land is advancing in value.

be stricken down at the beginning of his promising career.

INTERNATIONAL STOCK FOOD: INTERNATIONAL POULTRY FOOD. INTERNATIONAL LOUSE KILLER

We are in receipt of "Facts and Figures," of Chicago live stock trade for twenty-four years, with other valuable information. This little book contains sixty-four pages of improved live stock data. It was compiled by Wood Bros., live stock commission agents, Union Stock Yards, Chicago. It will be sent free to any one interested in live stock who mention this paper in making their request.

R. W. Park, secretary of the American Galloway Association, informs the Kansas Farmer that his executive committee has offered \$100 in the way of special prizes for Galloways show nat the Central Kansas Fair, to be held at Hutchinson, September 15-19, 1902. I. B. & A. M. Thompson, of Nashua, Mo., and C. N. Moody, of Atlanta, Mo., contribute \$20 to this fund.

The Londan Meat Trade's Journal shows that the imports from the United States of live stock and fresh meat for 1901 was 82 per cent of the total received, as compared with 70 per cent for the preceding year. Our exports to Great Britain in 1901 consisted of 403,946 head of live stock and 3,180,291 pounds of beef, which goes to show that the popularity of United States live stock and meat products is in no way diminished in Great Britain.

The Brown Brothers' sale of Shorthorn cattle held at Humboldt, Iowa, on May 7, was fairly satisfactory though no sensational prices were reached. The top of the sale was brought by the Cruickshank cow, Lavender 52d, and her twin bull calves, who went to L. A. Lind of Rolfe, Iowa, for \$450. The forty-seven animals sold for \$7,535, an average of \$160.31. Of these thirty-six were cows, which brought \$5,835, average \$162.08; and eleven bulls, which brought \$1,700, averaging \$154.54.

The National Swine Breeders' Association will hold a convention at Ames, Iowa, on June 1. One day of this convention will be devoted to judging and scoring swine in order to pass upon the qualifications of those who apply for certificates as expert swine judges. Already a number of men holding the Iowa certificates have been employed by prominent breeders in the West and this action of the convention seems to be a move in the right direction.

Those in close touch with Texas affairs say that we may not look for many cattle from that source this year. Northern buyers have bought up the available crop pretty thoroughly, and, though Chicago will get these cattle indirectly, either through the Northern ranges or the feedlots, the old-time plan of marketing from Texas is becoming obselete. The breaking up of the ranges in the Indian Territory will have something to do with the smaller supply of grass cattle available this year.

Perhaps few people realize the value of the poultry products of the United States. According to the Department of Agriculture the United States in 1892 actually imported twenty-three times as many eggs as were exported, while in 1901 the exports were twenty-nine times greater than the imports. The figures for 1901 show the imports of eggs alone to be 126,520 dozen, worth \$10,515, while the exports were 3,692,875 dozen, which brought \$676,232, an increase in exports of eggs alone of 2,000 per cent in ten years.

A. C. McQueen, Mesa, Ariz, a prominent breeder of Galloway cattle, also chairman of the Arizona Live Stock Sanitary Board, in a recent letter to Secretary Park, of the American Galloway Breeders' Association, Kansas City, says: "I have sent you by separate mail fifty-six applications for entry in the American Galloway herd-book, forty of which are for helfers and sixteen for bulls. Please send me about seventy-five transfer blanks. Galloways are doing all right in this section, and there is a better demand for my Galloway breeding-stock this spring than ever before."

first of last May for \$1.75 per acre from Wm. Garnett, of England, it will be seen that ranch land is advancing in value.

Breeders generally will regret to learn of the recent death of W. O. Park, Atchison, Kans. He had shaped his affairs to build up one of the finest Aberdeen-Angus establishments in the West, and it is a lamentable fact that so young an enterprising a devotee of improved stock should

so of the ordinary newspaper and send it to the press it would be read by active farmers and thereby attain one of the re-sults for which the station is maintained.

Representative Lacey, of Iowa, has lately introduced a bill in Congress for the purpose of forming a general-lease system, the leases to be restricted to small herders whose holding shall not exceed 3.200 acres each. These leases shall not to transferable. The object of the bill is to prevent syndicates and corporations from acquiring possession of large tracts of pasture-lands. The theory of the author of the bill is that a man holding a lease upon a comparatively small area will take an interest in it and see that the grass is kept up, while under the present custom no such interest is maintained and the country is simply robbed of its grass. This bill will probably have the hearty support of the entire West.

Dr. H. G. Slavens, of Neosho Falls, Kans., the owner of Inglefield Herd of Shorthorns, is now the fortunate owner of Red Gauntlet, stred by W. P. Harned's great bull, Geodoy 115675, out of Christmas Violet, Vol. 40, by Barbarosa, tracing back to Amos Cruickshank's imported Autumn Lady, by Senator (27441). As is well known by Shorthorn breeders, Godoy contains the concentrated blood of the Cruickshank families in a greater degree than any other animal now in service, and Red Gauntlet is a worthy son of this great sire. Red Gauntlet combines the excellent qualities of both sire and dam and his breeding is excelled nowhere in the world. We especially congratulate Dr. Slavens on this accession to his herd.

A decision just rendered by the Secretary of the Interior in regard to homestead entries in Oklahoma and the Indian Territory may prove of far-reaching importance to the cattlemen and farmers of the "New Country." This decision is to the effect that lands covered by homestead entries are subject to exploration under the mineral laws and that the homestead entries will be defeated if the lands covered thereby are found to be valuable for minerals at any time prior to the completion of the homestead requirements. This means that if mineral is discovered upon a homestead claim at any time prior to the completion of the three years' residence, the homestead claim will revert to the Government and become at once subject to entry under the mineral laws.

By an oversight last week we unfortunately stated that Miss Lou Goodwin, of Blue Rapids, who is the owner of one of the finest herds in the United States, and who divides the honors evenly with Mrs. Cross, of Emporia, as being the only lady breeder of Herefords in Kansas, would contribute a number of her cattle to the first annual sale of the Marshall County Hereford Breeders' Association in November next. Miss Goodwin's cattle are not for sale. She values them too highly and the quality is too excellent for her to part with any of them until she has attained her ideal as to the size of the herd that she hopes some day to possess. Her herd now numbers about fifty-five animals, but they are for show and for breeding purposes rather than for sale.

During the International Live Stock Show at Chicago last fall the Argentine government sent a special representative in the person of Senor F. D. Serantes. Who was intensely interested in what he saw and made a flattering report to his government in regard to our cattle and the conditions under which they were reared. This has resulted in the opening of the ports of Argentina to American pure-bred cattle, with the result that a new market of large size has been opened to the products of our breeding-farms and with the added result that the cattle of Argentina must be improved by this influx of pure-bred stock to the destruction of the old-fashioned long-horned cattle. It is now confidently predicted that a regular line of steamers for the carrying of the cattle trade will be at once established between the United States and Argentina. for the reason that America supplies the best cuttle in the world and at a cheaper cost of production than any other country.

Our neighboring States, notably Illinois

Our neighboring States, notably Illinois and Wisconsin, have established through their Legislatures, the office of Director of Farmers' Institutes and have made appropriations for the holding of a large series of farmers' institutes throughout

(Continued on page 588.)

The Houng Folks.

Conducted by Ruth Cowgill.

THE BEST DAY.

Some skies may be gloomy,
Some moments be sad.
But everywhere, always,
Some souls must be glad;
For true is the saying
Proclaimed by the seer—
"Each day is the best day
Of somebody's year!"

Each day finds a hero,
Each day helps a saint,
Each day brigs to some one
A joy without taint;
Though it may not be my turn
Or yours that is near—
"Each day is the best day
Of somebody's year!"

The calendar sparkles
With days that have brought
Some prize that was longed for,
Some good that was sought;
High deeds happen daily,
Wide truths grow more clear—
"Each day is the best day
Of somebody's year!"

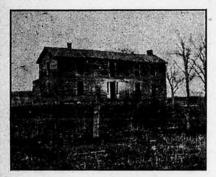
No sun ever rises
But brings joy behind;
No sorrows in fetters
The whole world can bind;
How selfish our fretting,
How narrow our fear—
"Each day is the best day
Of somebody's year!"
—Precilla Leonard.

Tonganoxie.

At the time when the plains Indians were gathered upon reservations, the Government built a house for each chief, many of which are still standing, though in somewhat diapidated condi-They were well and substantially built, covering a much larger space than seemed necessary to the Indians, accustomed to the narrow lodgment of a log hut or a wigwam. They were fre-quently put to use as wayside inns, travelers on foot or horse being often glad to obtain shelter in their trips across the sparsely settled prairies.

Such a house was Tonganoxie's midway between Lawrence and Leavenworth. Tonganoxie was a small chief of the Delawares, a favorite of the white men, against whom he seems to have cherished none of the animosity which one might expect from a chief of a conquered tribe.

One who was a child in those days re members the kindness of the old chief. The boy's father had business with Tonganoxie one cold day, and had taken his son and daughter with him on the



Tonganoxie's House, Built by the Government.

drive from his home to the inn. The boy, a man now, tells how Tonganoxie insisted that he and his sister should go into the house and how the chief and his squaw bustled around to make them comfortable, seating them before the big fire-place (which was an indispensable part of an Indian's house) and of-fering them milk to drink while they warmed their little toes.

Tonganoxie's visitors however, were not always on peaceful errands. Indeed, not far from his house are now resting the bones of one victim of a tragedy which must have seemed terrible even to an Indian, reared though he was to bloodshed and butchery.

It was in '56, the time when border ruffianism was most reckless, when the only safety of many a good man lay in flight. One must remember that the early settlers of Kansas were not war-riors; they were for the most part peaceful, inoffensive tradesmen, unused to danger and lawlessness.

Three such travelers came to Tonganoxie's house one day, carpenters forced to flee from Leavenworth, that "hot-bed of border ruffians," on account of anti-slavery sentiments, and anxious to reach Lawrence where they knew they would find protection and sympathy. They stopped only long enough for dinner, then hastened on their way, for the afternoon was already growing old. But they had hardly disappeared over the little hill toward Lawrence before they met a gang of men, in the regulation border-ruffian apparel—red shirt, slouch hat, gun, pistol, and bowie-These men compelled them to where they stayed until early morning, sleeping heavily in their exhaustion on the hard porch, softened only by the blankets which Tonganoxie spread for them. Before they had been allowed to sleep, however, their captors had robbed them of everything of any possible value, money, watch, papers,

What must have been old Tonganox ie's reflections as he observed the coarse villiany of his white brothers, whom he had been taught to look upon as infinitely more civilized than he! Methinks he must have thanked his lucky stars that he was an Indian pro-tected by the Great Father at Washington, instead of a good white man to be robbed and insulted by his brethren.

In the early morning, long before the sun arose, the three men were ordered by their harsh captors to move on. They were of unequal physical endurance, so that the ruffians who drove them before them were unable to keep them togeththem were unable to keep them together, though they prodded the laggard unmercifully. At length, tired of being hampered by their weary, slow-moving prisoners, they resolved to rid themselves, and at the same time their villianous cause, of them. They fired, without warning, simultaneously upon the three unarmed and defenceless men, who fell at their feet. Two of them who fell at their feet. Two of them were apparently dead; to make sure of the other, they pounded him in the back of the head with the butt of a gun. Then they rode on their way, happy, no doubt, in the consciousness of duty thoroughly negtoned. oughly performed.

Their work, however, had not been so thoroughly accomplished as they imagined. One whom they supposed their firing had killed, lay face downward in his own blood, perfectly conscious, yet preserving, with rare self-control, a per-fect quiet. The other man also whom they had so cruelly pounded still lived; he, as soon as the rufflans had departed thinking his companions were dead, arose stealthily and wandered away. The other one imagined him to be one of the enemy returning to make sure of his work, and lay quietly for an hour or more, then arose and staggered back to Tonganoxie's. The bullet had entered the jaw, splintering it and then passed on toward the throat. It caused him great pain and loss of blood. The old chief and his squaw did what they could for him, which was little. The ruffian came later and sought for him, but did not think to look in the place where Tonganoxie had hidden him, the barn-loft.

As the day came on the man felt that he must move onward toward his destination, doubtless longing more and more for safety and care. He hid in the brush that grew along the road past Tonganoxie's house all that day, sheltered by a blanket which the Indian gave him. He slept when he could for the pain in his throat. He was unable to eat, and drank with great difficulty. When evening came, Tonganoxie came out to him and told him to start on, which he did, traveling by slow degrees, for he was compelled by his weakness to rest often. When he at last reached Lawrence; haggard, blood-stained, and exhausted; kind friends cared for him and physicians attended him; and as soon as he was able to travel they started him off toward his home in Pennsylvania. Before he left, however, he met his companion in that bloody journey. Each was as surprised to see the other as if he had risen from the grave, for each thought himself the only survivor.

One of them lived to a hale old age, coming back to Kansas after a stay in Pennsylvania. The other one died within a year, from the effects of the blows

So ends one bloody page in the tragedy of early Kansas.

A Buffalo Hunt.

In the biography of General Custer is the following very interesting of his first buffalo hunt:

"Although an ardent sportman, I had never hunted the buffalo up to this time, consequently was exceedingly desirous of tasting of its excitement. I had several fine English greyhounds whose speed I was anxious to test with that of the antelope, said to be—which I be-lieve—the fleetest of animals. I was mounted on a fine large thoroughbred Taking with me but one man, the chief bugler, and calling my dogs around me, I galloped ahead of the column as soon as it was daylight. A stirring gallop of a few minutes brought me near enough to the antelope, of which there were a dozen or more, to enable the dogs to catch sight of them. Then the chase began, the antelope running in a direction which took us away from the command. By availing myself of the turns in the course, I was able to keep well in view of the exciting chase, until it was evident that the antelope go with them back to Tonganoxie's, were in no danger of being caught by

the dogs, which latter had become blown for want of proper exercise. I succeeded in calling them off, and was about to set out on my return to the column. The horse of the chief bugler, being a common-bred animal, failed early in the race and his rider wisely concluded to regain the command so that I was alone.

"How far I had traveled from the troops I was trying to determine, when I discovered a large, dark-looking animal grazing nearly a mile distant. As yet I had never seen a wild buffalo, but I at once recognized this as not only a buffalo, but a very large one.

"Here was my opportunity. A ravine near by would enable me to approach unseen until almost within pistol range of my game. Calling my dogs to follow me, I slowly pursued the course of the ravine, giving my horse opportunity to gather himself for the second run. When I emerged from the ravine I was still several hundred yards from the buffalo, which almost instantly discov ered me, and set off as fast as his legs could carry him. Had my horse been fresh the race would have been a short one but the preceding long run had not been without effect. How long or how fast we flew in pursuit the intense excitement of the chase prevented me from knowing. I only knew that even the greyhounds were left behind, until finally my good steed placed himself and me close alongside the game.

"It may be because this was the first I had seen, but surely of the hundreds of thousands of buffaloes which I have since seen, none have corresponded with him in size and lofty grandeur. My horse was above the average size, yet the buffalo towered even above him. had carried my revolver in my hand from the moment the race began. Repeatedly could I have placed the muzzle against the shaggy body of the huge beast, by whose side I fairly yelled with wild excitement and delight, yet each time would I withdraw the weapon as if to prolong the enjoyment of the race. It was a race for life or death, yet how different the award from what could be imagined.

"Still we sped over the springy turf, the high breeding and mettle of my horse being plainly visible over that of the huge beast that struggled by his side. Mile after mile was traversed in this way, until the rate and distance began to tell perceptibly on the bison, whose protruding tongue and labored breathing plainly betrayed his distress. Determined to end the chase and bring down my game, I again placed the muzzle of my revolver close to the body of the buffalo, when as if divining my in-tention and feeling his inability to escape by flight, he suddenly determined to fight, and at once wheeled, as only a buffalo can, to gore my horse.

"So sudden was this movement, and so sudden was the corresponding rearing of my horse to avoid the attack, that to regain my control over him I hastily brought up my pistol hand to the assistance of the other. Unfortunately as I did so my finger, in the excitement of the occasion, pressed the trigger, dis-charged the pistol, and cut the fatal ball into the very brain of the noble animal I rode. Running at full speed he fell dead in the course of his leap. Quick as thought I disengaged myself from the stirrups and found myself whirling through the air over and beyond the head of my horse.

"My only thought, as I was describing this trajectory, and my first thought on reaching terra firma was, "What will the buffalo do with me?" Although at first inclined to rush upon me my strange procedure seemed to astonish him; either that, or pity for the utter helplessness of my condition, inclined him to alter his course and leave me alone to my own bitter reflections."

He remained by his dead horse a lit tle while, decidedly crestfallen; and then started for his command, attended by his dogs only. Luckily, the course of his last chase unwittingly took him ahead of his own column, and he was found by them.

There is no subtler form of selfishness than that which makes us, even while we long to be popular, pride ourselves upon our "sensitive-plant" na tures, as if it were the mark of a great soul not to be able to "get along" with people! How much we miss by it how much of joy and experience and glad comradeship which would have made us richer all our lives—how much of the deeper joy of helping others?

It is never great to hold ourselves aloof from those around us; it is a sign of greatness rather to find lovable things in those whom hasty judgment names the unlovable, and to look up to the best in people, not down to the

Who wrote MACBETH? wise woman who got into some lamp trouble or other.

My name on every one.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp. MACBETH, Pittsburgh,

FOR THE LITTLE ONES

WHICH GENERAL?

Sometimes mamma calls me "general,"
I wish I knew which one;
But I always try to tell the truth,
So I hope It's Washington;
But when I tell my papa that
He laughs loud as he can,
And says if she calls me "general,"
She must mean Sheridan.
Because whenever she wants me,
And I am out at play,
I nearly always seem to be
'Bout "twenty miles away."
—Kate W. Hamilton, in School Education.

VIOLETS.

"Oh, violets, violets! How do you know The way from your little earth-prison be-low? Who taught you to climb through the darkness and gloom
To freedom and light, from your prison-like tomb?"

The violets answered "Cold winter is o'er, The gentle spring rain softly tapped at our bright golden sunbeams then pointed the way; the way; heard the Lord call us and rose to obey."

—Anon.

The Strongest Rabbit.

EUGENE HARSHBARGER. (NINE YEARS OLD.) I have four rabbits. The way I startwas, last fall I found a black rabbit shut up in an empty barn and I caught it and took it home and fixed a cage for it. Then I fed it, and it was hungry for it ate about twenty-five green peaches, besides a lot of clover and peach-leaves. After I had had it a while, I got two silver rabbits, but the silver and the black rabbit had a fight. The black one killed the other and then I had only two. One day I was trying to catch the silver one that was still alive and it was then I saw some straw and rabbit's fur moving and I found six little rabbits. But a great maltese cat came up to the cage I had in the hay-loft—I did not keep them shut up hay-loft—I did not keep them shut up because they would not jump down—and the cat managed to get four little ones. But after awhile the black rabbit got even with it. It knocked it about and finally ended up by chasing it out of the door, which is about twenty feet high. It had to jump because the high. It had to jump because there was not a thing to climb down on. There is not a cat in the neighborhood that can whip him. They have another nest, but I don't know whether there are any little ones in it or not. Cats do not come up there any more, because they know better now. When a cat comes up there, the big black rabbit thumps upon the floor and all the others run into the cage for safety and then he manages the cat.

One evening Paul was getting in kina are when it began to sprinkle a little; then it stopped. Paul said. "The little raindrops came down and kissed me on the lips, and then they said 'We will not come down yet, we will wait until this little boy has fin-ished getting in his kindling."

"The stream is calmest when it nears the tide,
And flowers are sweetest at the eventide,
The birds most musical at close of day,
And saints divinest when they pass away.

Morning is lovely, but a holier charm Lies folded close in evening's robe of balm; And weary man must ever love her best, For morning calls to toll, but night to rest."

The greenwood is filled with the cuckoo's call,
And the sky with the skylark's lay,
And the fairles are ringing the flower bells Shouting "'tis May! 'tis May!"

"Put all your eggs in one basket and then watch that basket."-Andrew Car-

The Some Circle.

Written for the Kansas Farmer. ONE OF MANY.

Well, wife, I've tho't it over and to me it's pretty clear,
We'd better sell the homestead where we've lived for thirty year,
For times have changed and farmin' ain't what it used to be,
For everything is vetoed unless its quality.

Time was when I could sell my cows and calves and hogs and sich
'Thout answerin' no questions as to which belonged to which.
But nowadays a feller's got to be right up to snuff
If he'd save a heap of trouble in disposin' of his stuff.

Last year I sold some three-year-olds and it made me mighty blue
When they only bro't about two-thirds what I'd counted on 'em to,
And when I asked the butcher what the reason of it be
"They're jest 'bout fifteen months too old, we want baby beef," sez he.

Well, it made me kind o' huffy, but I was willin' for to learn
So this year I tried to sell my calves to that young neighbor of ourn
That they say had never seen a farm two years ago, until
He bought that quarter-section over yonder on the hill.

But he'd had a course of larnin' at the agricultural school
And he mighty soon convinced me that he wasn't any fool.
And so I went and told him I'd some calves I'd like to sell
But he said he guessed he'd seen 'em, couldn't use 'em very well.

And then he took and showed me a bunch that he had raised
That certainly was beauties; and I was just amazed
To see 'em all so much alike, for when the first one came
The Lord surely liked the pattern and made 'em all the same.

I read about them thoroughbreds some fif-

teen year ago
But I never 'lowed they 'uz meant for
much 'cept rich folks and for show.
But now it seems like everybody wants to
get the best
And us fellers who are out of date can't
mingle with the rest.

So, although I'm not complainin' I guess
we'd better quit
For it's jest the same old story 'bout the
old dog and new trick.
But when I see my boys a-raisin' thoroughbreds and sich
I guess I can die happy although I can't
die rich.
—Genevieve Lingard Pendléton.

Home Influence on the Development of the Child's Life.

MRS. NANNIE BADSKY, BEFORE BERRYTON FARMERS' INSTITUTE.

The influence on the first years of a child is generally such that, be it good or ill, the whole life's career is guided by it. It is to some a curse, to others a blessing. It is very important to begin early with the child.

What rights have a child in the home? There are writers and lecturers who write and talk of man's rights and

woman's rights, but few who speak of children's rights. Children are by ig-norant parents petted and caressed one minute and perhaps the next thumped, scolded, neglected, and abused. The educated and humane parent is too apt to overlook the fact that most children are keenly sensitive to right and wrong. If we wish to have a tall, straight, beautiful tree, and the tree is somewhat crooked, we must straighten it while young and tender or we never can. All our efforts will not make a silver leaf maple of a scrubby oak or a stately elm of a thorny cactus. Now we have spent some time in planting this tree, it must be properly nourished and cared for.

If every human soul were fittingly protected from evil inflences, the results would be magical. We protect our young plants from the crowding of weeds, from the devastation of insects and animals; our house plants from the scorching rays of the sun. Just so should the child be protected. No fath-er or mother can inspire the child under them, unless they are above them mentally and morally. For the benefit of not only the child, but for those whose association he seeks, this ought and should be an incentive to each and every parent to inspire into the mind of the child nothing but high and lofty as pirations.

Surrounding influences have made many a murderer, thief, idolater; many a profane man, gambler, and drunkard The father has much to do with wielding these influences, but in nearly every case he considers his business of much more importance than devoting a small portion of his time to the welfare of his child. If that child should possibly make a wrong step then he is ready and only to willing to criticise mother and child, and perhaps cast the child out on a cold and friendless world. he had spent for the benefit of the child a few of the hours he idled away gossiping on the street, how different the character of that life might have been.

Let us imagine for a moment the various influences children are subject to. There stands a Christian home. Early in life the children are taught the vast amount of difference between right and wrong. Their associates are carefully and wisely chosen; they are made to realize that each one is placed here to perform some duty in life. Children learn to talk and act as their parents do. Here only quiet, pleasing, firm, clear voices are heard, only true words are uttered. Once the example of purity and uprightness are instilled into their young minds they soon learn to imitate the copy. No stone is left un-turned that may be helpful in the future of these children, consequently their lives are pure and upright, be-cause they have had sown into their hearts while young seeds of purity and integrity, mercy and kindness at every opportunity.

Now the boy becomes the most respected and influential citizen, attains the henor and glory only bestowed on a noble and gloricus life. The girl is not taught that her life is so valueless that it is counted as naught, that there is no sphere for her than to be a wife and daughter, subject to father's and mother's will, first, then to the husband's. Her suhere is widening as the years roll on, and she may live an independent life.

Bad influence on the child life is exactly the opposite of the former. Many a poor child has had his life's ambition crushed by the merciless parent. His life is neglected. He receives no word of encouragement, and is allowed to choose his own supercilious associates. He soon learns that he is not expected or compelled to perform any duty whatever; he loses interest, his mind travels in different directions, he idles away his time and does not realize that he is inflicting the injury upon himself. Who is to blame? There is no tender care, no loving hand to guide him in the right path from birth to boyhood. When he attains to manhood the influence of his careless youth still clings to him and thus he goes through life snubbed and reprimanded, his life a failure.

Thus you will readily perceive the difference in the environments of the influence thrown around children, and perhaps many of you can recall the results of such lives. This little piece of poetry is quite good on this subject:

A BOTHERED BOY.

I wonder why it is that girls are always told that they
Should do jist like their mamas do in every single way?
It's offul easy fer a girl to git along, become CUZ
They praise her up fer actin' jist the way
her mama duz.

I wonder why it is that boys can't go and do the way
Their pas do and still not git licked or lectured every day?
Their pas, they nearly always smoke, and many of them chew,
And wunst my pa he got so mad I heard him swearin', too!

I wisht somebody'd tell me why it's always dreadful wrong
For boys to do things that their pas keep
doin' right along;
I wisht I knew why girls can act jist like
their mamas do
And, what is more, git loved a lot and
praised up fer it too!

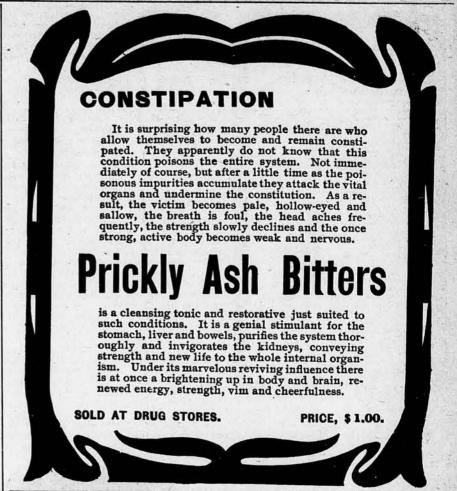
Obedience.

JENNIE E. HEBERLING, BEFORE BERRYTON FARMERS' INSTITUTE.

This subject may seem to many rather a peculiar one to bring before a farmers' institute, but it is one that some of the events of the past year, particularly that of the assassination of the chief executive of the Nation, must cause us all, whatever our vocation, to think upon long and deeply.

In the beginning, as recorded in Genesis, Adam and Eve, the first farmers of whom we have any record, were expelled from the Garden of Eden as a punishment for disobedience. Thus it has been ever since that time, that disobedience of law, be i or State or tion; martial law, civil law, moral law, parental law, school discipline, the laws of nature, the laws of health-whatever law you can think of, brings a result sooner or later that is disastrous.

The punishment of the disobedience of the laws of nature and of health is sometimes long deferred; sometimes the real offender does not receive it; as in the case of the man who, when suffering from the effect of the intemperate habits of his grandfather, said that his grandfather had the port wine, and he had the gout and he did not consider that a fair division. But "the iniquities of the fathers shall be visited upon the children, even to the third and fourth generation." Abused and out-raged, Mother Nature is patient and long suffering and forgiving, as mothers usually are; but there is a limit to her endurance and persistent disobedience of her laws will be punished sometime,



In the Army and Navy, discipline, I unchecked, if they uphold their child in am told, is very strict. Every person disorderly conduct in school, if he is from private up to the highest ranking encouraged to break the laws of his officers must obey his superior in rank, and any disobedience or act of insubor-dination is speedily and effectually overcome. It must be so; if it were not, confusion and disorganization would soon follow. One of the Govern-ors of this State, who it is claimed by some, did more for the enforcement of the prohibitory law than any Governor before or since, was not himself a believer in the justice or expediency of that law; but he believed in obedience to law whether he approved the law personally or not, and strove to enforce it accordingly. Sometimes in the fra-ternal lodge or club we find ourselves face to face with a law or ruling we do not approve, but if we set it aside or overrule it, a bad precedent is estab-lished. It will be easier to go wrong next time and such disregard of law will cause confusion if not disruption.

There are certain laws of decency and morality that are unwritten on any statute book, yet they are none the less binding, and woe be to the man or woman who disobeys them.

I think there is a little bit of anarchy hidden away in the hearts of the majority of human beings; anarchy, as I understand it, being disregard of government and rebellion against law. It is sometimes so hard and disagreeable to obey those who are superior in authority, particularly so in the case of children. Perhaps their own plans and preferences are much more to their liking than those of their parents or teach-They long to set aside the irksome rules and have their own way. Some one has said "Men are but children of a larger growth," and I can easily believe it, for grown people can act very childish and unreasonable sometimes.

One could hardly pick up a paper for some time after that terrible event that occurred last September without reading something about anarchy and its remedy, and great has been the variety of remedies prescribed. There is one thing, however, that all can do that will do much toward undermining anarchy, ing it in generation, and that is to refrain from instilling it in the hearts and minds of our children. I heard of a mother who, on becoming displeased at something on becoming displeased at something said or done by the district school-teacher, exclaimed to a friend, "Well, I tell my children they just don't have to mind that old thing." Was not that mother planting the seed of anarchy in the hearts of those children? "Whatsoever a man soweth, that shall he also reap.

A successful, honored manhood and womanhood, a noble character depends so much upon the foundation com-menced in infancy by the father and mother. If a child is taugh first to obey his parents, then when he can go to school to obey his teachers, to honor and obey the laws of his State as fast as he learns what they are, he stands a pretty good chance of growing up to be a good, law-abiding citizen; but if the parents allow disobedience to pass ALLEN MOORE, President, Box O, CHILLICOTHE, MO

disorderly conduct in school, if he is encouraged to break the laws of his State, the probability is that he will never have much respect for law or government of any kind.

I think disobedience is often allowed to pass uncorrected because the parent is too tired or too indolent to enforce obedience. I have heard weary, careworn mothers say that it would be such a help if their daughters would assume certain duties, but it would be more work to make them do them than to do the work themselves. There is certain-ly some discipline needed there.

So much of the beauty of obedience depends upon the way it is rendered. Many a parent's heart has been sorely grieved by the sulky, unwilling manner in which her request was obeyed; the in which her request was obeyed; the reply, "All right, after a while," or "Yes, in a minute," ending in the request being forgotten and the task finally falling upon the tired mother. Children, your parents' foremost and greatest wish is to advance your welfare and interests both spiritual and material; so remote prompt and chearful chedience. render prompt and cheerful obedience to their wishes as a return for the many hours of patient thought and labor they spend in your behalf. Give to your teachers the same obedience; they will not require of you something you are unable to do or ought not do, and disobedience and unruliness in school will react upon yourselves instead of injur-ing the teacher whom you may wish to annoy. Of course, it does annoy him somewhat, but with him it is soon past and gone, while it leaves its mark on your character forever. If you wish to become honored, useful, law-abiding citizens your conduct will show it at an early age.

Let us resolve to endeavor more earnestly than ever before to observe law and order. The laws to which we are subject are generally good. If unscrup-ulous men sometimes succeed in getting bad laws enacted, they must be obeyed while they are laws, but at the same time we can work for their repeal, remembering that earnest, patient, worthy effort will eventually be crowned with success.

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If no agent will bring you a Sharples Separator, we will loan you one for trial free of cost. Though hundreds of our latest have gone on trial, not one has been returned. The truth is, they give more butter than any other separator, enough to pay big interest on the whole first cost, and they turn much easier (former capacity doubled withless driving power) and are entirely simple, safe and durable. Separator improvements come fast here. These new machines are far ahead of anything else known. We have been making super-

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Other agents will try and draw comparisons between their new machinesand our old ones, hard don't let them. Have

but don't let them. Have a trial of a "Tub-ular" Dairy Separator, they are double the money's worth. Free book "Business Dairying" and catalogue No.166 Sharpies Co., P. M. Sharpies, Chicago, Ills. West Chester, Ps.

In the Dairy.

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

Look for the Poor Cows.

Did you ever see anyone trying to buy a poor cow? It is nothing unusual to find a man looking for a good cow, or a fresh cow, but how many look for the poor ones? Finding the cow that is eating up the profits of a good cow is often of more financial importance than adding another uncertainty to the

Before weeding out a herd, however, one must establish a standard of production, up to which each cow must come or pass to the block, provided some one else who can produce milk cheaper does not outbid the butcher. This standard will vary in different localities and with different owners. The calities and with different owners. The price of feed, value of calf, price of butter-fat, shelter, conveniences, help, etc., are variable conditions which will determine the minimum point for the value of the cow's product. Let us suppose the cost of feed to average \$20 yearly on the average farm (it is much more this year), the labor of milking, etc., at \$10, cost of hauling the milk at \$5, making a total of \$35 expenses. The estimate is certainly low enough as for each cow 5,000 pounds of 4 per cent milk with butter-fat at 15 cents, plus \$5 for the calf would be required to pay the expense of keeping. Any receipts above this would be profit. Some would probably place the value of the calf higher, but in many places a steer calf, such as the dairy cow produces, will

not bring as much.

How is the farmer to know the productive power of a certain cow? Guess-

of one milking is not a fair test of the cow. From the above record an aver age for the month can easily be estimated. Continuing such a method for a year will expose the poor cows. These can be sold and this will repay the farmer many fold for the trouble of test-ing his herd. FRANK E. UHL. ing his herd.

How to Get Milk Results With Fifty Fine Cows.

F. F. FAIRCHILDS, BEFORE TONGANOXIE FARMER'S INSTITUTE.

If you want milk you must feed for milk; feed food that makes milk, the same as you feed bees for honey. Did you ever stop to think how near this place is like the place where milk and honey flow? Milk almost flows now, and I think it will in a few years if this dairy business continues to pro-

gress as it has in the last ten years.

To show you what can be done on a small farm in the way of producing milk, I will tell you how much milk we have made in the last five years on a farm of 135 acres. We have more land than that at the present time, but for the last five years it has made an average of 135 acres of land that we could till or pasture. This 135 acres could till or pasture. This 135 acres has pastured all the cows and furnished all the hay and roughness they have had through the winter, except \$175 worth of hay. What grain we have raised would amount to over \$50 in the last five years, so you see the farm has furnished enough feed for all the cows and seven horses except th grain. cows and seven horses, except th grain. The number of cows would average fifty-five.

If the milk from this dairy for the last five years, could all be here it would take 20,000 ten-gallon cans to hold it, and it would load 1,000 wagons with a ton on each wagon. And if the wagons were lined up out here in the street all close together, they would reach out in the country over six miles. If the cans were standing in a row, close enough to touch each other, they would reach four and one-half miles.

Fifty thousand gallons of this milk was shipped to the Soldiers' Home, twenty miles away. The milk contract I signed read, "Fifty thousand gallons of milk, pure and sweet, and to be delivered at such times and in such quantities as required." Every can had to stand inspection. In furnishing that 50,000 gallons of milk we lost thirty

gallons or three cans.

The facilities for making this milk or running this dairy have been no better than any one could have if they would take a little time to fix up. Nearly all of this milk was made in an old cheap barn. It does not take fine costly improvements if you are not able to have them. Our cows now have a good barn, but they furnished the money to barn, but they thin side the planning. I think they are well pleased with it, for they seem to enjoy it. Sometimes, when I go to the barn, it almost makes me dealous of them to see how comfortable and independent they are. But I know they have a right to it.

Second Report of Cow's Test Experiment.

The record of the nine cows for March was published in the Industralist, April 22. The April record is as follows:

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as possible one year from the date of 157.7 pounds per head. Each lot was last calving. May Qeen, containing a fed all the skim-milk grain, and hay the last calving. May Qeen, containing a large percentage of Jersey blood, was bred to our Jersey bull, Brown Elsie's Grandson 60412. Rose of Cunningham, being a grade Holstein-Friesian, was bred to the bull of that breed, College Emperor 28751.

Whole Kafir-corn Compared Ground Kafir-corn for Young Calves.

PRESS BULLETIN, DEPARTMENT OF DAIRY HUSBANDRY, KANSAS EXPERIMENT STATION.

Twenty head of young young grade Hereford, Shorthorn, and Angus_calves were purchased by the Kansas Experiment Station during April and May, 1901. The feed of these calves was gradually changed to skim-milk, with what grain they would eat, composed of a mixture of whole and ground Kafircorn. It was found that the calves would eat the ground Kafir-corn from

calves would eat without scouring. roughness for both lots consisted of prairie hay only until the caives were twelve weeks old. Alfalfa was then added gradually. It for a time constituted one-half of the roughness fed and later supplanted the prairie hay altogether. Salt and fresh water were available at all times.

Ground Kafircorn Lot.—For the 112

Ground Kafir-corn Lot.—For the 112 days under experiment, these ten calves consumed 14,748 pounds of skimmilk, 1,394 pounds of ground Kafir-corn, 2,381 pounds of prairie hay, 125 pounds 2,381 pounds of prairie hay, 125 pounds or chard-grass hay, and 6,222 pounds alfalfa hay. The total gain of the lot during the experiment was 1,580 pounds or 1.41 paunds daily per calf. With skim-milk at 15 cents per hundred-weight, grain at 50 cents per hundred-weight (plus 3 cents per bushel or 6 cents per hundred weight for grinding), and hay at \$4 per ton, the feed-cost of and hay at \$4 per ton, the feed-cost of raising these calves amounts to \$47.37 or \$4.73 per head. The cost per hundred pounds of gain is as follows: Skim-milk, \$1.40; grain, 49 cents; roughness, \$1.10; total, \$2.99.

Whole Kafir-corn Lot.—These calves

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RECORD FOR APRIL, 1902.

				Yield	1.	F	eed o	consumed-	-pounds.		for	
						Grain.		Rough	ness.		k b	
Name of cow. Bel	lected by	Fresh. J	Milk, ounds.	Test, per ct.	Butter-fat, pounds.	Bran.	Al- falfa	Kafir-corn, fodder.	Soy-bean	To-	Ran Judg prof	
CowslipJ. W. I HasterE. C. C	owlesDec	c. 10, 1901		4.2 3.9	32.00 29.00	240 240	823 823	37 37	87 87 87	947 947	. 1	
Rose of Cunningham J. W. Clover Leaf M. L. I	DicksonJan	n. 12, 1902	1090.1 642.9 726.8	3.3 3.15 3.35	35.97 20.25 24.34	266.5 153.5 180	823 823 823	37 37 37	87 87 87	947 947 947 947 947 947 947 947	7	
MollyA. H. I Rose of IndustryC. Else Datsy BellS. A. J	aserJar	n. 20, 1902 n. 15, 1902	791.5	3.4	26.91	180	823 823	37 37	87 87	947 947	8	
Floss C. C. L. May Queen G. W.	ewisOct	t., 1902	477	5.25 5.05	25.04 29.43	180 240	823 823	37 37 .	87 87 87	947 947	6	

work is impracticable, as many have learned after trying something more systematic. Probably the most practical method for the dairyman is to provide himself with a balance scales such as are used at the college station, but a 25-cent spring balance is better than none at all. It is not necessary to record every milking of the year. Simply weigh and sample the milkings from each cow for two to four days in succession each month, or better still, twice each month. Have a certain time to do this or it will be neglected. If not the owner of a testing machine, the nearest creamery or skimming-sta-tion is usually willing enough to pro-mote dairy interests to test the samples without cost to the dairyman. Samples for testing should be taken from the whole milking thoroughly mixed for successive days. The percentage of fat fore. In breeding these cows the aim is continually fluctuating, hence a test has been to have them fresh as near Kafir-corn weighed 1,577 pounds, or

TOTAL RECORD FOR MARCH AND APRIL, 1902.

			Yi	eld.			***		
	March		A	pril.	T	otal.	Feed con- sumed—Total.		
	Milk, lbs.	Butter- fat, lbs.	Milk,	Butter- fat, lbs.	Milk,	Butter- fat, lbs.	Grain,	Rough- ness,lbs	
Cowslip	849.5	32.28	762.1 743.7 1090.1	32.00 29.00	1523.7 1593.2	65.89 61.28	462.5 488.0	2011 2011	
Rose of Cunningham Clover Leaf Molly	733.1 824.0	36.00 21.62 25.95	642.9 726.8	35.97 20.25 24.34	2290.2 1376.0 1550.8	71.97 41.87 50.29	489.0 372.5 391.5	2011 2011 3011	
Rose of Industry	802.0		791.5	26.91	1593.5	52.18	391.5	2011 2011 2011	
Floss May Queęn	630.3	30.88	582.8	29.43	1213.1	60.31	462.5	2011	

some of the cows was reduced and for others it was increased. This was to correspond more closely with the pro-duction of butter-fat. The roughness consumed was reduced about seventy

It will be noticed that the grain for | ten days to two weeks of age and would begin to eat the whole Kafir-corn when from three to four weeks old. On June 19, these calves were divided into two lots, as nearly equal as possible, the lot to receive ground Kafir-corn weighconsumed 14,620 pounds of skim-milk, 1,641 pounds of whole Kafir-corn, 2,381 pounds prairie hay, 125 pounds orchard-grass hay, and 5,982 pounds alfalfa hay. The total gain was 1,406 pounds or 1.26 pounds daily per calf. The feed-cost amounts to \$47.09 or \$4.70 per head. The cost per hundred pounds of head. The cost per hundred pounds of gain is as follows: Skim-milk, \$1.56; grain, 58 cents; roughness, \$1.20; total, \$3.34.

Comparing the two lots it will be noticed that the whole Kafir-corn lot consumed 247 pounds more grain but 240 pounds less of alfalia hay and made 74 pounds less gain. There were a large number of grains, in the case of the whole Kafir-corn lot, that passed through the calves, undigested. This experiment indicates that better and more economical gains are made from more economical gains are made from ground Kafir-corn than from the whole Nevertheless, if a man is so situated that he can not grind his Kafircorn, very fair gains can be made with the whole seed. Again, it is possible to feed the ground Kafir-corn the first two or three months and then gradually change to the whole. The weekly weights and gains show that the calves receiving whole Kafir-corn gained near-ly as well the last five weeks of the experiment as those receiving the ground Kafir-corn. Feed ground Kafir-corn until the calf is three or four months old, then if it is more convenient or economical, the whole Kafir-corn may be substituted.

Over-stock Ranges.

A recent bulletin by the botanist of the New Mexico Experiment Station presents some important facts and considerations of interest to stockmen and meat-consumers throughout the country. After discussing the forage plants of the ranges, it says:

Another factor, usually lost sight of, is the fact the forge crop grows upon land which pays no taxes and costs the users nothing. While this is a direct gire to the stockman, it does no one else any harm since the land is of no value for any other purpose.

Very few if any of the stockmen consider themselves as the recipients of any privileges, yet they all unhesitating ly lay claim to the range immediately surrounding the water places which they have patented. This is a necessity at the present time, and can cartainly not be otherwise, but the fact that the range is really free gives rise to endless squabbles for possession, and all sorts of schemes are worked in or all sorts of schemes are worked in or-der to drive out rival claimants. Since no claimant has a legal or just right in the case, there is no court of appeals in which the disagreements may be set-tled. All parties suffer, but what is worse, the range suffers and the territory in the end is the loser by all such private disagreements.

It is out of place in this article to discuss the details of just how this all comes about, but it would be easy to demonstrate that all these selfish cortentions for ranges, which really be-

long to none of the contending parties, lead to but one thing. The range is more or less heavily overstocked. All the contestants admit this as a natural result, and each one lays the blame on the other fellow; they all suffer loss and sometimes all are forced to take their cattle entirely off the range. But what is worse, the range has in the meantime suffered almost irreparable damage; they have killed, or at least, crippled the goose that laid the golden egg. And as a result the whole commonwealth feels the consequences. monwealth feels the consequences.

Already there is hardly a stock range in New Mexico which does not show the effects of overstocking. Once level or gently sloping grass-covered mesas are now cut by arroyos which are old time cattle trails; flats which have been trampled and fed over too often by sheep are now covered by weeds, which even sheep will not eat; the run-off of streams is materially affected and so

the agricultural industries are somewhat interfered with.

And what is the remedy to be applied? It is about as patent as is the damage and its cause. Stop overstocking and give the range as charge to the range as the stop overstocking. ing, and give the range a chance to re-cover. The native plants are used to very unfavorable conditions, and, with favorable ones, develop tolerably rapidly. This is in our favor, and if we but assist slightly we get great gain.

The ranges must have rest, bare spots must be reseeded, thin spots cultivated, weeds must be killed, arroyos and washes must be stopped, and the sediments carried down will fill the open rocky beds. Subterranean water must be developed in order that stock need not travel so far from water for their food, and hence the damage due to trails be lessened. Most of these things have been demonstrated to be financial. ly worth while. The difficult question to answer is to outline the method of proceedure, which will induce men to do all this work.

Under our competitive system there is but one answer to the problem. Make it possible for a man to control his own range, and he will soon find it necessary to take care of it, or it will not take care of him. There are many difficulties to overcome before this can be done, but it is the next step in advance of the stock-raising industry in our territory

Analyses of Corn With Reference to its Improvement.

Kansas Experiment Station Bulletin No. 107, with the above title, is a pamphlet of forty-four pages containing an account of the chemical work, in con-nection with the efforts of the Experiment Station, to improve corn in respect to its content of nitrogen. The following is a summary of the bulletin prepared by Professor Willard:

Corn is deficient in protein and in 1898 experiments were begun, which are still in progress, having for their object the origination of varieties that should be richer in protein. three varieties were analyzed, and these showed percentages of nitrogen ranging

SPRINGTIME,

the great awakening season, is upon us. The meadows are wet. The grass is jumping. Nature stirring in energetic, strenuous action, setting every farmer in the state a splen dcd example of industry. Every leaf and blade of grass in the country is saying to the farmer:

GET BUSY!"

This is going to be the banner year for the dairy business in the West. Every cow in the state will be asked for all the milk she can give. Everything milkable will be milked. Every dollar iu every cow in the state will be made to show its color. Every farmer ought to make a resolve that he is going to get every cent of the profit there is in his cows and to handle as many as he possibly can. There is a good market for every pound of milk the state can produce. The Continental Creamery Company will buy it all. We are paying on the basis of the New York market, which in April was 28 3-4 cents, the

Highest Price in Its History!

We always pay 2 1-2 cents below this market for butter-fat in cream separated and in the can at railroad stations, which made our price to patrons during April 26 1-4 cents. You can deliver your milk or cream to our stations or ship your cream direct to us. We will take all you can produce. We are after Business and we Stay aud Pay. Our army of patrons is adding recruits every hour of every day. We want every farmer of every county every day of the year to produce every possible pound of milk. We will make it into money for you. Month for month, prices were never better in the history of the business and it will continue so. As never before known in butter-making, push, hustle, energy, action, is paying. GET BUSY! See our operators or write us. Watch for our ad. next week.

The Continental Creamery Co.

TOPEKA, KANSAS.

from 1.56 to 2.26. Analyses of single the average is above 2.40 per cent of niears of two varieties showed great dif-ferences in the nitrogen content of different ears of the same variety, the percentages ranging from 1.53 to 2.24 in a variety that has been grown for thirty years on the same farm without admixture, and from 1.35 to 2.22 in a cross originated the year previous. Analyses of single kernels from the same ear showed considerable differences in nitrogen content, though not as great as among different ears of the same va-

Analyses of a large number of single ternels, the specific gravity of which had been determined, show that, while there seems to be a tendency toward higher nitrogen content with lower specific gravity, there is no uniform connection between these factors, and therefore corn richer in nitrogen can not be separated from that poorer in ni-

trogen by means of specific gravity.

From the original thirty-three varieties twenty-one were selected and used in making crosses by the botanical department. Each ear saved was pollenized by hand, and all other fertilization prevented. The crosses originated in 1898 in this way were planted in 1899, and each close-fertilized. The ears obtained that year were analyzed, and the next season those showing 2 per cent or more of nitrogen were planted, as a rule. These were again close-fertilized, the crop of each analyzed, and the same ones, in general, planted in 1901. They were again close-fertilized, and the ears produced analyzed. These crosses show remarkably high percentages of nitrogen in many cases, and all contain 2 per cent or more of nitrogen as the average for three years. In twelve cases

trogen, or 15 per cent of protein.

The unsatisfactory outcome of a co-

operative experiment is detailed, and analyses are given of a number of varieties of corn offered on the market, which shows how inferior the seed-corn now available is in nitrogen content. The selection of seed-corn richer in nitrogen, by choosing ears in which examination shows that the kernels possess relatively large germs, is strongly urged upon farmers as a practicable method of increasing the percentage of both protein and fat in corn.

European tourists and others destined to Eastern points, will find the low rates applying over the Nickel Plate Road to New York, New England, and other Eastern destinations, especially attractive. The Eastern terminals via this line are only from three to ten minutes from all ocean steamship docks, and the service afforded is first-class. Three trains daily from Chicago. Uniformed colored porters are in charge of day coaches, whose duties require that proper care shall always be given to keeping cars clean and attending to the wants of passengers enroute. Meals served in dining-cars at prices that are reasonable and within reach of all. Details cheerfully furnished on application to John Y. Calahan, General Agent, 111 Adams St., Chicago, Chicago City Ticket Office, 111 Adams St.

SECURITY CALF our Calf Food you CAN SAVE \$2.00 PER Ask your local write us for pamphiet.

STOCK FOOD CO., Minneson MONTH ON EACH CALF.

The Way That Loses .. Money..

The Old Way. The Hard Way. The Long Way. The Poor Way

Skimming Milk Hauler. Dairyman. Station.

Creamery.

Consumer.

Way That he

The New Way. The Short Way. The Easy Way.

Dairyman.

Creamery.

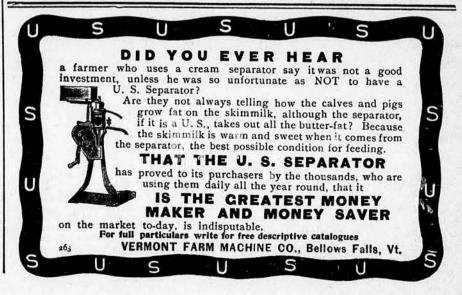
Consumer.

The road from the Dairyman to the Consumer on the skimming station route is a long, rough, and tedious road. The man that takes it has an expensive trip. For every Ten Dollars realized, there is Six and a half expended. The road from the Dairyman to the Consumer on the new route, the Hand Separator Route, is a short, smooth, and delightful road. The trip is cheap. For every Ten Dollars realized, there is less than One expended. Do you want to reach the consumer by the new route? If so, write to the

BLUE VALLEY CREAMERY CO.,

ST. JOSEPH, MISSOURI.

Pioneers of the Best Creamery System On Earth.



Gossip About Stock.

(Continued from page 588.)

(Continued from page 538.)

the State. In order to render this measure more effective the Illinois board has established a circulating library which contains practically everything that has been written of direct interest to the farmer and his family. In Illinois the library contains the works of about 325 authors, which are arranged in series of five or tenso that a number of demands for the same author from different portions of the State can be met at the same time. Would not an extension of our present institute system in Kansas so as to include something of this kind increase its value many fold by allowing people whose neighborhoods can not receive the benefit of an institute each year to have the advantages of access to a distinctively farmers' library?

cess to a distinctively farmers' library?

Mr. F. H. Schrepel, owner of the Cheyenne Valley Stock Farm, at Ellenwood, Kans., reports that his locality has recently been visited by some good showers, which have greatly helped local conditions. He also reports a very strong demand for his Percheron horses, and the recent sale of several head at satisfactory prices. Among others we note the sale of a stallion to Jacob Alfs, Great Bend, and of a yearling colt to C. B. Cain, Potwin, Butler County, and a 2-year-old to L. Inge, Syracuse. Thesyoung horses are all of excellent quality, and the buyers have certainly succeeded in getting good value for their money. Mr. Schrepel still has a few 3-year-olds, which he says will mature into 2,000-pound horses or better, and which he guarantees to be all right in every particular. Any one desiring to purchase a good, sound, useful Percheron stallion will undoubtedly find it to his interest to visit Cheyenne Valley Stock Farm or to write to the owner for catalogue and prices.

The agricultural experiment stations as well as the Department of Agriculture at Washington have been doing a wonderful work for the benefit of agricultural science in the United States, but they have unconsciously furnished inspiration to a horde of fakes and swindlers who take advantage of the results of the experiments to force some worthless thing on the community and make of the farmers a prey. Thus if an experiment station announces a new insect pest or an epidemic of animal disease, the country is at once flooded with advertisements of so-called remedies which are utterly worthless. The red albumen being a case in point. We would caution our readers to keep in close touch with the agricultural experiment stations and the reliable farm journals, each of which is always willing to furnish accurate information free of cost. When in doubt write to the experiment station or your farm paper and take nothing for granted.

granted.

We are in receipt of a cheerful communication from that famous fine stock autcioneer, Col, R. L. Harriman, Bunceton, Mo. He reports a business more than double that of last year. Has made fifty sales since February 1, covering a range of six States. A few days since he returned from Stuttgart, Ark., where he had conducted a three days' trotting-horse and Hereford cattle sale for the Stuttgart Live Stock Sale Company, of which P. Reinsch, a former Cole Camp, Mo., man is the head. Mr. Reinsch has been in Arkansas twenty years and has acquired a fortune. He owns 5,000 acres of the best land in the State, several large stores, and a fine lot of thoroughbred horses and cattle, and is, according to Colonel Harriman, a man of whom all Missourians ought to be proud. The sale was most satisfactory, cattle selling well and horses bringing from \$200 to \$1,500. Mr. Harriman also visited Memphis, Pine Bluff, and Little Rock. At the former place he inspected the fine new race-course, built by C. K. Billings, of Chicago, at a cost of \$250,000. There he saw "Narrita," the splendid stepper that he formerly owned, and at Pine Bluff was the guest of Mr. Hearn, her present owner.

Several prominent cattle-feeders in different parts of the country have been questioned as to the profits to be made in their business under existing conditions. We notice that Mr. O. H. Blakeslee, of Marne, Iowa, who recently sold forty-two head of 1,700-pound Shorthorns at \$7.40 is quoted as saying that these cattle averaged \$45 per head at 1,000 pounds, last September when purchased. He fed them about 100 bushels corn per head, which, at sixty cents per bushel, would make the cost of the cattle \$105 per head exclusive of rough feed. These cattle he sold for \$125.80 per head, leaving \$20.80 out of which to pay for the rough feed, the labor, and the profit on investment. He claims that except for the hogs that followed his cattle he should have had no profit other than the satisfaction he had in making his cattle gain 700 pounds in seven months. J. H. & Geo. Teachout, of Imogene, Iowa, figure that their 1,000-pound steers cost them \$40 per head and that they fed seventy-five bushels of corn at 55 cents and 1½ tons of hay at \$10 per ton, which makes the total cost to the feeder \$96.25 per head, without counting the interest on investment, the labor involved and the risk assumed, and claims that there can be little profit in selling fat cattle for less than 7 cents.

Mr. C. S. Nevius, of Glenwood Stock Farm, Chiles, Kans., reports the sale of a 13-months-old Shorthorn bull, weighing 1.035 pounds, by Gloster 137952, to W. E. Robb, of Greenwood County, and a 12-months-old calf to Dr. Stevens of Miami County, to be used on his ranch in Lane County. We understand the prices were very satisfactory. Some of his best calves are still unsold and the spring crop is coming on nicely. While the Glenwood Stock Farm has a justly celebrated reputation for Shorthorns it is equally prominent as a Poland-China center. H. J. Dancaster, Lamar, Mo., has just bought four sows and two boars from this farm which are in every way satisfactory. The Glenwood Farm began in the Poland-China business with the sow May Sanders by J. H. Sanders, Jr. and the herd-boar Moorish Shortstop 23570, by R. H. Wheeler's great boar, Tecumseh Shortstop, he by Tecumseh Duke, out of Moorish Mald 3d, by Moorish Pride. The second herd-boar was Glenwood Chief, by J. R.'s Tecumseh, by Chief Tecumseh 2d. The third herd-boar was

Black Joe Jr., by Black Joe, by R. S. Cook's Lawrence Perfection, by Glenwood Chief Again, by W's Chief Again, by Chief Again, by Chief Tecumseh 2d. They now have a number of boars and glits for sale of this breed and welcome visitors at the farm, or will answer correspondence promptly. promptly.

promptly.

Willow Brook Farm, Irving, Kans., belonging to B. M. Winter, is the home of some Hereford cattle that it would do anyone good to see. Much of the cow and heifer herd was sired by the old Funkhouser bull. Arkell, by Governor Simpson, out of Lilly, and by Sheriden, the present herd-bull, who was sired by Boatman, now owned by William Bommer, Marletta, the president of the Marshall County Hereford Association. A noticeable attraction on this farm, however, is the great herd-bull, Theodore 65921, by Wild Tom, out of Mary Broadgage 2d, who in his yearling form stood side by side with the great Dale at the Indiana State Fair and was so nearly like him in good qualities that the judges were unable to decide between them without the aid of a referee. Theo dore has made a great record as a sire on Willow Brook Farm, and is yet one of the best bulls of the breed. Mr. Winter is a man who not only studies the problems involved in scientific breeding, but who has mastered the art of feeding as well and who now has a herd that it would be extremely difficult to duplicate in quality anywhere in the country. He is an active member of the board of directors of the county breeders' association and will undoubtedly contribute to the first annual sale to be held at Blue Rapids in November next. His advertising card will be found on page 545.

During the past week we had the pleasure of visiting the Amos Cruickshank of America, Mr. W. P. Harned of Vermont, Mo., and of inspecting Godoy the Great and his numerous family. This family of Shorthorns is notable in several particulars. Not only does it include Godoy, who is more intensely Cruickshank in blood than any other animal now to be found in the world, but it includes as well Anna Lancaster by 2d Baron Booth of Lancaster out of Imp. Anna Regina, who is the only pure Booth cow in America. Aside from the richness of Godoy's breeding he has made a wonderful record as a sire in that his progency are nearly all bulls. This, together with his concentrated Scotch blood gives his a preeminence that is scarcely equaled in the Shorthorn world. Godoy is now in his tenth year but has lost none of his superior excellence as a sire and is very much in evidence on Mr. Harned's farm, which consists of 450 acres of solid blue-grass pasture, beside the cropping land. As there have been numerous inquiries for pure Scotch bulls we may mention that the quality of Godoy's blood is transmitted very successfully. His first sire was Imp. Spartan Hero 17932, second sire Roan Gauntlet 45276, third sire Champion of England (17526), all bred by Amos Cruickshank. His first dam was Imp. Golden Princess, by Lord Ragland (18244). It will thus be seen that this bull is entitled to the proud distinction of being named by his admirers "Godoy the Great," and that he possesses the strongest concentration of Roan Gauntlet and Champion of England blood of any bull now in active service. As mentioned elsewhere Dr. H. G. Slavens is the purchaser of one of his best sons in Red Gauntlet, which was calved May 1, 1901. We are glad to see this class of blood come into Kansas.

Many articles offered for sale to-day will have a short lived success. This also

Gauntilet, which was calved May 1, 1901. We are glad to see this class of blood come into Kansas.

Many articles offered for sale to-day will have a short lived success. This also may be said of many proprietory medicines. Many patent nostrums endeavor, by the aid of that powerful agency, advertising to pose as remedies until the time has demonstrated their worthlessness. Time lays away in oblivion every year hundreds of cure-alls, which at their birth seemed big with promise. When the work is done, it is effectually done. The field is cleared. Shams are suppressed and buried; the meritorious survive, and they stand out with all the greater prominence like truth in falling error. The above line of thought is suggested and naturally given a turn in the direction of veterinary matters by the reappearance in our columns of the advertisement of Kendall's Spavin Cure. It is upwards of a quarter of a century now, possibly thirty years, since the writer, as a boy, recalls having seen the advertisement of Kendall's Spavin Cure painted on his father's stable door in western Pennsylvania. It was then, as it is to-day, the one approved horse remedy in that region, and year by year it has widened its influence and gone with the horse to the settling up of every part of this country, and to many foreign parts. This has only been possible because of its intrinsic worth. The spavin cure was not originally quickly propared and hurriedly advertised for immediate gain. Dr. Kendall made a study of the horse. He knew its ailments. And the preparation grew out of the horse's needs. It embodies what was known to be valuable for the treatment of the horse is liable. Probably at first the commercial spirit had no consideration it is preparation. If such is true, it argues for the good of the remedy. It is purely an article for merit, and has the better stood the test of time. Certain it is that Kendall's Spavin Cure has witnessed the rise and fall of hundreds of horse remedies, while it still stands the standard remedy of its kind. It

Genuine stamped C C C. Never sold in bulk. Beware of the dealer who tries to sell "something just as good."

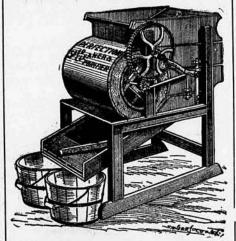
dall Company, Enosburg Falls.. Vt., to-day for their book on "The Horse and His Diseases." They send it free if you men-tion this paper.

Publishers' Paragraphs.

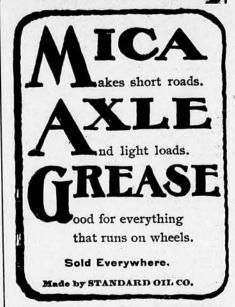
Mr. A. G. Landis, Lawrence, Kans., is prepared to fill large orders for sweet-po-tato plants immediately. See his adver-tisement on page 545.

The dairyman is always interested in the "way that pays." This scheme is set forth in a practical way by the Blue Valley Creamery Company of St. Joseph, Mo., in their announcement on page 537. The Blue Valley Creamery Company is meeting with unqualified success with their creamery system and we have not received a single complaint. As a matter of fact, they have been paying practically New York prices for cream and the way their business is expanding in Kansas it is quite evident that their plan is an exceedingly popular one with the dairymen.

Mr. J. A. Buffkin and Mr. W. E. Wieman are in Topeka arranging for the establishment of a large factory in which to manufacture a perfection seed-cleaner and grain-separator. They propose to organize a company with a \$10,000 capital for the purpose of supplying these grain separators to the farmers of Kansas, Nebraska, and



Oklahoma, and we understand that they are meeting with every encouragement and that a large portion of the capital stock has already been subscribed. The experiments made by the United States Department of Agriculture and by the soveral experiment stations have demonstrated beyond question that the planting of large seed gives uniformly increased yield over the light or ordinary seed that is usually planted, and we welcome the new factory to this, the center of the greatest grain-growing region of the country.



ful climaxes. No reader suspects the identity of the cattle-thief who causes so much trouble, and the relation existing between Horton, the cattle king, and the other prominent characters, when disclosed, is as much a surprise to the reader as it is to them.

Fetching humor is harmoniously blended with gentle pathos throughout the story. Much of it is inspired by Judge Lynn, a rollicking country lawyer, whose oddities and quaint sayings are highly amusing. Hs appears as a grotesque contestant in a remarkable foot-race that is an absolute novelty.

Kunch and range life on the Western plain sare faithfully depicted. The fresh and invigorating air of the prairies is instilled into every chapter. There are beautiful graphic descriptions of the natural phenomena of the great Southwest, a field in which the author is fortunate; for it is probably less known than any other region of the United States.

The publishers have done their part in good taste and the volume is far more substantial and attractive than the majority of novels.

Cheapen the Growth of Hogs.

Cheapen the Growth of Hogs.

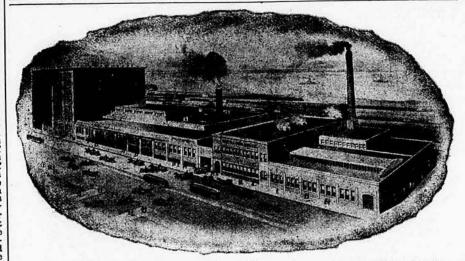
On account of the high price of corn this year and other feed-stuff, it is necessary for the farmer to consider every means by Department of Agriculture and by the soveral experiment stations have demonstrated beyond question that the planting of large seed gives uniformly increased yield over the light or ordinary seed that is usually planted, and we welcome the new factory to this, the center of the greatest grain-growing region of the country.

A Story of Kansas.

We are in receipt of "Buel Hampton," a story of Kansas, published by Forbes & Company, Boston. It is one of the most thrilling and entertaining books of the year. It should be in every home library in Kansas. Throughout the story persons breathing with life are saying and doing things—action, action, is on every page; there are no wearisome excursions into history or side talks on good behavior. When the author does leave his characters it is usually to give some beautiful touches of local coloring, just enough to make the scenes and personages more vivid and true, as in the realistic picture of a great prairie-fire and the impressive description of the terrible hot winds.

True and tender filial ites are delicately and exquisitely portrayed in the love of Ethel and her father, and Captain Osborn's affection for little Harry. The frivolous Mrs. Osborn and the base Lord Avondale are strong contrasts to the nobler natures of the tale.

The story is full of surprises and force-



Last week we had the pleasure of inspecting the enormous manufacturing plant of the Smith & Sons Manufacturing Company, at Kansas City, Mo., a cut of which we reproduce herewith. As will be seen, the building is 550 feet long by 120 feet deep, and six stories high, and is devoted to the manufacture of agricultural implements and machinery. The special articles manufactured at this time are the two- and three-wheel hay-rakes, which are made especially for the handling of such heavy crops as alfalfa, millet, Kafir-corn, and sorghum hay, and which are so constructed that, should a farmer buy the two-wheel rake and afterwards decide to use the three-wheel kind he can couple on the additional part in a few minutes on the additional part in a few minutes itme. This rake solves one of the great problems which comes with alfalfa farming, namely, handling of the heavy crop, which lasts from early spring until frost.

This company also manufactures as a specialty a hay press, which we have not seen excelled by any other factory, and a wheeled road-scraper, which is operated entirely by a lever in the hands of the earti

WEEKLY WEATHER CROP BULLE-TIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending May 13, 1902, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

GENERAL CONDITIONS.

Fine rains have fallen over the larger part of the State, with lighter rains extending from Hamilton, Stanton, and Norton northeastward to Smith and Mitchell, the rainfall being heaviest in the southeastern counties. Warmer weather has prevailed, which, with the increased moisture, has made the general conditions for more favorable than had yet obtained this spring.

RESULTS. EASTERN DIVISION.

EASTERN DIVISION.

Wheat is heading in the southern and central counties, and is beginning to head in some of the northern; it has greatly improved during the past week; in Anderson, it has grown very rank, and is beginning to lodge; in Chase and Doniphan, it is heading short. Corn generally presents a good stand, and is growing rapidly; cultivation is becoming general south of the Kaw River. Oats, grass, and alfalfa are much improved, and in Greenwood and Wabaunsee the alfalfa is nearly ready to cut. Early strawberries are being marketed in Chautauqua, Labette, and Montgomery. Apples promise well in Doniphan, Leavenworth, and Wyandette, but canker worms have done some damage in Chase, Morris, and Shawnee. Blackberries and raspberries are in bloom in Coffey. Potatoes are generally improved. Sweet potatoe planting is progressing in Potawatomie. Ground generally in very good condition.

Allen County.—Crops of all kinds very promsome of the northern; it has greatly improved during the past week; in Anderson, it has grown very rank, and is beginning to lodge; in Chase and Doniphan, it is heading short. Corn generally presents a good stand, and is growing rapidly; cultivation is becoming general south of the Kaw River. Oats, grass, and alfalfa are much improved, and in Greenwood and Wabaunsee the alfalfa is nearly ready to cut. Early strawberries are being marketed in Chautauqua, Labette, and Montgomery. Apples promise well in Doniphan, Leavenworth, and Wyandotte, but canker worms have done some damage in Chase, Morris, and Shawnee. Blackberries and raspberries are in bloom in Coffey. Potatoes are generally improved. Sweet potatoe planting is progressing in Potawatomie. Ground generally in very good condition.

Anderson.—Good growing week; corn a good stand, and being cultivated; wheat growths; prairie grass fair, but weeds to numerous.

Brown.—Good growing week; corn a good stand, and being cultivated, with ground in good condition.

Chase.—Corn coming up well, but being injured by cut-worms and chinch-bugs; wheat promises fair crop; grass improved; corn about all plantical; growth; prairie grass fair, but weeds too numerous.

Chautauqua.—Wheat improved, heading and doing finely; oats benefited by rain; corn be-for work beading and doing finely; oats benefited by rain; corn be-for week Ending May 10, 1902.

Osage.—Rains benefited crops; corn coming up and looking well; plenty of water in pastures.

Pottawatomie.—Week favorable for all crops; wheat prospects fair; corn coming up; sweet potato-planting being pushed, and the acreage will be large.

will be large.

Riley.—Good growing week; wheat much improved since rain first of week; oats doing well; corn-planting finished; some corn washed out by rain.

Shawnee.—Wheat, oats, rye, and potatoes growing rapidly; corn coming up nicely, a good stand; grass made good growth, pastures green; cattle doing well; apple, cherry, and plum very promising.

Wabaunsee.—Wheat conditions excellent; corn coming up nicely; first crop of alfalfa ready to cut, a large yield.

Wilson.—Crops growing rapidly; wheat beginning to head; corn growing, and is larger than usual for this time of year.

Woodsen.—Corn and wheat greatly benefited by rain; farmers cultivating corn; pastures good.

Wyandotte.—Wheat much improved by rain;

good. Wyandotte.—Wheat much improved by rain; corn being damaged by cut-worms; good prospect for apples and cherries.

MIDDLE DIVISION.

nicely; alfalfa fine; grass good, and cattle improving rapidly.

Graham.—Wheat needs more rain; corn-planting about completed, and forage crops being put in; potatoes look well; grass good, and stock doing well.

Hamilton.—Grass green and growing, and all crops growing.

Kearney.—Rain insufficient, more needed.

Lane.—Grass and crops benefited by rain first of week, but more rain is needed.

Morton.—Growing weather; plowing and planting being pushed for fodder crops; not much corn.

motion.—Growing weather; plowing and planting being pushed for fodder crops; not much corn.

Ness.—Dry, windy week, light rains first of week doing little good; corn coming up, not a very good stand; small grains improving slightly, but needing rain; gardens doing poorly; grass good, and cattle doing nicely; grapes in bloom.

Norton.—Growing crops greatly benefited by rains; some damage done by heavy rain and hail; good outlook.

Sherman.—All crops doing well, and stock in excellent condition; early sown alfaifa growing nicely; buffalo-grass excellent; fruit promising.

Thomas.—All crops improved by good rains; some hail the 3d damaging gardens; cut-worms injuring barley; early rye heading; wheat jointing; Kafir-planting about completed; ranges in good condition; early corn coming up nicely; cut-worms in gardens.

Trego.—Good rains in the northwestern part of

Trego.—Good rains in the northwestern part of the county revived the crops, and put barley and oats in fine growing condition; southeast portion very dry, and crops not doing well; grass and alfalfa generally fair.

Wallace.—Crop conditions made much better by rains of the first of week; gardens doing nicely; grass making good growth; alfalfa do-ing well; corn and forage crops being planted.

Gavitt's \$550 Prize Offer.

An interesting contest is at hand. Our readers will not fail to notice the display announcement on page 544 of the W. W. Gavitt Medical Company, Topeka, Kans., who offer \$550 in prizes for a list of words formed by using letters occurring in, "Gavitt's System Regulator is Guaranteed."

The W. W. Gavitt Medical Company is

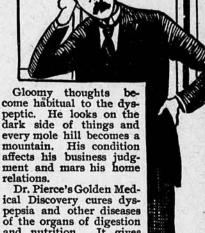
The W. W. Gavitt Medical Company is a firm of manufacturing chemists of Topeka, and have built up a tremendous business during recent years. No firm in Topeka receives a larger daily mail than this house. Their business has grawn to such an extent that they occupy three buildings, each of which is taxed to its fullest capacity. Every reader of the Kansas Karmer should feel a special interest in this Kansas institution and enter the contest at once.

The difficulties and inconveniences involved in sending small money payments through the mail have been experienced by nearly everybody engaged in business. To be sure, we have an excellent money-order system connected with the post-office, but to secure a money order one has to sacrifice some time and money, and when the amount to be sent is small this fact is an objection to the system. In addition to this, many post-offices are not authorized to issue money orders and the people of such communities have absolutely no way of sending money through the mails except by the use of postage stamps or small coins, which can almost always be detected in a sealed envelope. This Post check currency plan certainly seems to offer a practical solution of the problem. It is greatly favored in Congress, especially by the members representing constituencies that do not enjoy the benefit of the money-order system and the chances of money-order system, and the chances of the passage of the bill look very favorable.—New York Commercial.

It is a disgrace to the Government that everyone is put to such inconvenience in making small remittances. Either one has to enclose silver, which is unsafe, stamps that are more or less of a nuisance, or go to the bother of getting a postal or express order. What is wanted is a postal currency or Post check that everyone may have a little of in his pocket so that one may slip it into an envelope for anything he sees advertised. President C. W. Post, of the Postum Cereal Company, has invented just the thing needed, and offers to give the patent to the Govern-ment outright. Everyone who feels the need of such a convenience should drop a line to his Senators and Representa-tive at Washington to hurry along this plan.—American Agriculturist.

Stock Breeders' Annual for 1902. To the stock breeder of the West

there are few publications of more di-rect personal interest and value than the Stock Breeders' Annual for 1902, which is just from the press. This book is about ten by seven inches in size and contains the complete proceedings of the twelfth annual meeting of the Kansas Improved Stock Breeders' Association, together with the Kansas Breeders' Directory, which shows a complete list of breeders' names, arranged in alphabetical order as well as by counties and by breeds. The book is illustrated by a life-like portrait of Pres. E. E. Harrington, of Baker, Kans., and contains in detail the papers read at the meeting, together with a write-up of the sixth annual banquet with which the meeting closed on the evening of January 8. The book contains about eighty pages of valuable reading matter, inclusive of the Breeders' Directory, and reflects credit, not only upon the great organization which made it possible, but also upon the effecient secretary, H. A. | Thompson, A. G. P. A., Topeka, Kans.



of the organs of digestion and nutrition. It gives buoyancy of mind as well as health of body because it removes the

physicial cause of mental depression.

It enables the perfect digestion and assimilation of food, and the body is strengthened by nutrition which is the only source of physical strength.

only source of physical strength.

"I was afflicted with what the doctors called nervous indigestion. Took medicine from my family physician to no avail," writes Mr. Thos. G. Lever, of Lever, Richland Co., S. C. "At night would have cold or hot feet and hands alternately. I was getting very nervous and suffered a great deal mentally, thinking that death would soon claim me. Always expected something unusual to take place; was irritable and impatient, and greatly reduced in flesh. I could scarcely eat any thing that would not produce a bad feeling in my stomach. After some hesitation, I decided to try a few bottles of Dr. Pierce's Golden Medical Discovery and 'Pelleth After taking several bottles of each, found I was improving. I continued for six months or more, off and on. I have to be careful yet, at times, of what I eat, in order that I may feel good and strong. I fully believe if any one suffering with indigestion or torpid liver or chronic cold would take Dr. Pierce's Golden Medical Discovery and 'Pleasant Pellets' and observe a few simple hygienic rules, they would soon be greatly benefited, and with a little perseverance would be entirely cured."

Biliousness is cured by the use of Dr.

Biliousness is cured by the use of Dr. Pierce's Pleasant Pellets.

Heath. Owing to the size of the publication the cost of mailing will be about 5 cents per copy, and this should be borne in mind by any member or other person who desires to use extra copies. Every member of the Kansas Improved Stock Breeders' Association will receive a copy of the Annual, postage paid, but it is suggested that it would be a wise stroke of policy on the part of each and every one to order a supply of extra copies to be sent to friends and customers from the secretary's office, with the compliments of the member. Such orders should be sent to Secretary H. A. Heath at once before the supply is exhausted.

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

Mr. M. McCoy, Goganac, Kans., Captain Company A., Fifteenth Indiana Infantry, writes: "Hermit Remedy Comfantry, 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. I beweeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully,

We have hundreds of similar testi-

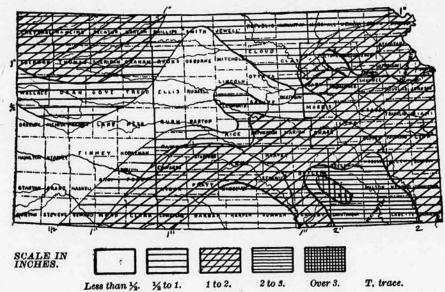
monials of cures in desperate cases from grateful patients who had tried many cure-alls, doctors' treatment, and different methods of operation without

Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT REMEDY CO., Suite 736, Adams Express Building. Chicago, Ill.

Cloudcroft

is a splendid summer resort, high up in the Sacremento Mountains, in New Mexico, on the El Paso Short Line (Great Rock Island Route). If you are looking for rest and recreation, you can find them at Cloudcroft. The mountain breezes, fresh with the fragrance of the great pine forests, bring health and cool nights. Cloudcroft gives all the pleasures and benefits of a sojourn in the mountains. Its story is best told in a handsome booklet just published by the Great Rock Island Route and which can be had free on application to E. W.

For Week Ending May 10, 1902.



ing cultivated; alfalfa doing well: pastures in prime condition, and stock improving rapidly; all fruits doing well, with prospects for full crops; grapes in blossom and prolific; early strawberries on the market.

Cherokee.—Crops doing well, but corn getting weedy; potatoes look exceedingly well.

Coffey.—Fine week for farming; corn and other crops growing nicely; wheat heading; cattle turned on grass; worms appear to be decreasing; blackberries and respherries in bloom, fine prospect.

cattle turned on grass; worms appear to be decreasing; blackberries and respherries in bloom, fine prospect.

Crawford.—Splendid week for growing crops; wheat heading and in excellent condition; rye in full head; corn a good stand, and cultivation progressing; apples will not be a full crop; cherries fair; strawberries a light crop. Doniphan.—Corn coming up, with a good stand; wheat improved by rain; winter wheat looking well, but heading low; apples promise well, grapes about half a crop, small fruits poor.

well, grapes about half a crop, small fruits poor.
Douglas.—All crops in splendid condition.
Elk.—Good week for crops; some chinchbugs in wheat; stock doing well.
Franklin.—All crops doing well.
Geary.—Vegetation benefited by recent rains; corn coming up, a good stand being indicated; ground in fine condition for cultivation. Greenwood.—Rains greatly benefited wheat, pastures, and gardens; wheat doing remarkably well; corn being cultivated; some alfalfa about ready for cutting.
Jackson.—Rains first of week helped all crops and pastures, but was insufficient, and ground is dry; some corn being replanted; early wheat heading.

prospect for apples; cherries and plums will be light crops; grapes killed by last year's drouth.

Labette.—Condition of all crops excellent; wheat heading; strawberries ripe.

Leavenworth.—Rain beneficial; wheat looking fine; oats growing nicely; pastures excellent, and stock doing well; ground in prime condition; apple prospect good; early potatoes and gardens growing nicely.

Marshall.—All grops improved by rain, but wheat badly injured; corn coming up with prospect of a good stand; grass backward; some chinch-bugs in wheat.

Miaml.—Corn good stand and growing rapidly; good week for wheat.

Montgomery.—Week of rapid growth, good rains, and heavy dews; all crops in fine condition; strawberries being marketed, with promise of a good yield.

Morris.—Good showers; wheat on bottoms in good condition, that on uplands light; some fields of corn being replanted on account of chinch-bugs; alfalfa fine; stock doing well; potatoes and gardens making good growth; canker-worms bad in orchards not well sprayed.

Nemeha.—Rains beneficial; fall wheat fair in places, and oats give good promise; grass improved, and pastures fair; corn has good stand; potatoes looking well; fruit buds set well; worms injuring trees at some places.

benefit to wheat, and Kafir and sorghum are being planted in its stead; grass growing rapidly; good stand of corn; all spring crops improved; ground in good condition.

Harvey.—Oats and corn doing well and growing rapidly; rye excellent; wheat badly damaged, did not stool, and looks poorly; more rain needed.

rain needed.

Kingman.—Some corn being replanted; corn stand fair; wheat beginning to need more rain; grass fair; oats looking well.

Lincoln—Early corn damaged by drouth; wheat a total failure; oats suffering for moisture.

McPherson.—Showers materially improved crop conditions; corn, grass, and all vegetation growing.

Ottawa.—Prospects for crops continue unfavorable.

Ottawa.—Prospects for crops continue unfavorable.
Phillips.—Wheat looking well; much corn being planted; pastures good.
Pratt.—Good rains first of week, followed by growing weather; wheat and rye improved; oats and barley made fine growth; corn being cultivated.
Reno.—Condtions improved by rains; wheat and oats looking fairly well; corn generally up well; cane and Kafir being planted.
Republic.—Rain helped wheat and all small grains; early corn up, growing finely; alfalfa seeds need more rain.
Rice.—Crops still in need of rain; wheat suffering.
Russell.—Drouth continues; wheat a total failure.

and pastures, but was insufficient, and ground is dry; some corn being replanted; early wheat heading.

Jefferson.—Fine growing week; ground in best of condition, and corn-planting nearly completed, some replanting to be done; cut-worms doing some damage to corn; canker-worms doing some damage to fruit and shade-trees.

Saline.—Rain too late to greatly benefit wheat; corn growing well; canker-worms doing much damage to fruit and shade-trees.

Sedgwick.—Good rain first of week; wheat and oats not very tall, but color good; corn looking well; early corn being cultivated. Simith.—Vegetation suffering severely; wheat a failure; grass short and dry; water scarce and wells failing.

Stafford.—All crops growing nicely since the failure; grass short and dry; water scarce and wells failing.

Stafford.—Cultivating corn; wheat beginning to head, very short; pastures good.

Washington.—Cultivating corn; cereals greatly improved by rain.

WESTERN DIVISION. WESTERN DIVISION.

Wheat has improved in Decatur and Ford: and early wheat in Thomas has improved and is jointing, but the late wheat there is dead. Corn is up in Ford and is coming up well in Thomas; it is coming up in Ness, but not a good stand. Oats and barley are much improved, except that cut-worms are injuring barley in Thomas. Alfalfa is generally growing well. Buffalo grass is good, and cattle are improving. Forage crops are being planted. Grapes are in bloom in Ness.

Clark.—Prospects good for grass and grain crops.

Clark.-Prospects good for grass and grain crops.

Decatur.—Rains of great benefit to crops; wheat and rye, thought to be dead, reviving and promise good crops; alfalfa making excellent growth, and buffalo grass affording good pasturage.

Finney.—Good growth; rain needed, but nothing suffering.

Ford.—Wheat somewhat improved by showers, will make a fair crop, with good rains; oats and barley much benefited; corn doing

Miscellany.

Bacteria.

PROF. A. T. KINSLEY, MANHATTAN, KANS. BEFORE THE BERRYTON FARMERS' INSTITUTE.

Bacteria are not animals as was formerly supposed, but are among the lowest forms of plant life. There are many examples that are quite common and are constantly appearing before us in their life activities. Tuberculosis, blackleg, hog-cholera, and many other common diseases are caused by the ever-present bacteria.

Bacteria are very small. Their average length is about one-twenty thousandth of an inch, that is, it would take twenty thousand bacteria placed end to end to make a line one inch long. Or it would take one and one-half millions to make a mass large enough to see with the naked eye.

Bacteria are omnipresent. They are in the air we breathe, in the crust of the earth, in trees, in grass, hay, flowers, fruits, vegetables, lakes, creeks, rivers, oceans, in the water we drink, in our food, in fact they are everywhere except in the interior of the earth, the upper layers of the atmosphere, and in the normal tissues of healthy bodies of animals and plants.

Bacteria, like all other organisms, require certain conditions for their de-

Bacteria, like all other organisms, require certain conditions for their development. They must have a certain required temperature, which varies according to the species, some being able to live and multiply at the freezing point while others will survive in a fluid with a temperature almost at the boiling point. Because of this wide range of temperature we find bacteria very widely distributed in nature. The temperature of disease-producing bacteria, generally speaking, is the same as the temperature of their host, that is, the temperature of the typhoid bacillus would be about 100° F., of chicken cholera about 108° F.

Another condition that is always necessary for their growth is the presence of moisture. In this respect they resemble all higher organisms for there is no life that can exist for any length of time without moisture.

Many food products are preserved from bacterial action because of their absence of moisture; for instance, condensed milk is a preparation in which the moisture is evaporated or sugar is added to form a syrup with the water and leave no available water as such in the milk. Jellies, jams, etc., are preserved without sealing hermetically, because sugar is added and the material is heated until nearly all of the water is combined with the sugar as a syrup or the water is evaporated. All of our cereals; corn, wheat, rye, etc., are preserved by nature because they contain a very little moisture.

a very little moisture.

The sunlight is very destructive to bacteria; it is claimed that two hours constant exposure to the direct rays of the sun is fatal to the tubercle baccillus. The sunlight is our greatest disinfectant. How distressing it is to see a pretty girl coming up the street with a thick, heavy veil over her face on the Fourth of July, simply because she does not want the freckles to come out on her face. That is, we take it for granted that the girl is pretty and the veil is over the face to keep us from hav-

ing our just dues, a fair sight of her face. What is the effect of the veil? Simply this: the air passing in through the spaces in the veil carries along with it germs; also, if there be any germs in the air she expires, they will be entangled in the veil and each inspiration will tend to draw them back into the lungs, where, if she had no veil on, the germs would pass off in the atmosphere from the expired air, and the germs from the already contaminated atmosphere would not catch in the veil; and, again, without the veil the sunlight would purify her face, make it more becoming and more beautiful to any ordinary observer. I do not mean to say that any one should go out in the hottest days in July without a hat and become sunburned; that is useless and unwise; but a simple shade is different than wrapping ones self up in some screen in which the germs become entangled.

Another essential condition of back

Another essential condition of bacterial development is a certain amount of food, without which they would die, as any other organism would die without food.

Since bacteria are inconceivably small, perhaps you wonder what they do in nature. They produce many actions; but we may summarize by saying their action consists in reducing organic compounds to simple inorganic elements. If bacteria would cease their work the earth would be covered in a few years with mummies, for there would be no decomposition of organic bodies without them unless they were cremated. But their action continues; the dead bodies are decomposed, thus giving us more space and at the same time returning the compounds of which the bodies are composed, to the earth, and air, to be again used in the process of nature.

This process is ordinarily known as putrification. As the complex compounds of the highly organized bodies are being decomposed, transition products are formed which are extremely poisonous. The ice-cream poison, sausage poison, cheese poison, are due to putrefactive products caused by bacteria. However, we must not think of bacteria as being in every case obnoxious. Many processes in nature upon which man is dependent are produced by bacterial action. Nitrification, a process in the soil, is caused by bacteria and all agricultural pursuits are dependent upon it. We know that we can increase nitrates in the soil, by producing favorable conditions for the nitrifying bacteria, such as drainage, thorough tillage, etc. If the nitrification is not carried on in the soil by bacteria artificial fertilization must be resorted to. Again, you all know that a soil that has produced peas, beans, alfalfa, or clover, will produce larger crops afterwards and this is simply because the soil has been enriched with nitrates through the activity of certain bacteria that live on the roots of the abovesaid plants.

The dairy industry is dependent upon bacteria. The souring of milk or the ripening of cream is a result of myriads of bacteria which convert the milk sugar into lactic acid. It is claimed by some that a thunder storm will sour milk. This is a mistaken idea. Whenever we have a thunder storm we have more favorable conditions for the development of the germs in the milk, consequently it sours more rapidly.

Vinegar, another product used in ev-

Vinegar, another product used in every-day life, is produced by the action of yeast and the bacteria upon cider or molasses. Sauer kraut, which some of us relish, is a fermented product caused by microorganisms. Vanilla extract is produced from the vanilla bean by a sweating process supposed to be due to bacterial action. Many other processes due to bacteria are very common, but perhaps we are most interested in those forms that produce disease.

Disease-producing bacteria are distributed very extensively in nature. We find them in the water, soil, air, diseased bodies, utensils, street-cars, coaches, etc. The germs may be introduced into the system through the digestive canal, in the food, or in the water. Or they may be introduced through the respiratory passage, wounds in the skin, mucous membranes of the eye, etc. The disease germs are constantly being deposited in the soil by diseased animals, then as the soil dries and the dust blows these disease germs are carried in the air, and may be deposited on food products, especially those which are exhibited on the main streets of cities, and by consumption of these foods, disease may be transmitted to the body. The dust of the street is very obnoxious and should be avoided. Fashion has introduced the long skirt which drags, sweeps, and stirs up, and agitates the dust, thus causing the germs to rise in the atmosphere and also these long skirts will



Mrs. Annie McKay, Chaplain Sons of Temperance, 326 Spadina Ave., Toronto, Cured of Severe Female Troubles by Lydia E. Pinkham's Vegetable Compound.

"DEAR MRS. PINKHAM: - Being a mother of five children I have had experience with the general troubles of my sex. I was lacerated when one of my children was born and from that hour I date all my afflictions. I found that within a few months my health was impaired, I had female weakness and serious inflammation and frequent flooding. I became weak and dizzy but kept on my feet, dragging through my work without life or pleasure. A neighbor who had been helped by taking Lydia E. Pinkham's Vegetable Compound insisted that I take at least one bottle. I did so and felt so much better that I kept on the treatment. For seven months I used the Compound faithfully and gladly do I say it, health and strength are mine once more. I know how to value it now when it was so nearly lost, and I appreciate how great a debt I owe you. The few dollars I spent for the medicine cannot begin to pay what it was worth to me. Yours very truly, Mrs. Anna McKay, Chaplain Sons of Temperance."

\$5000 FORFEIT IF THE ABOVE LETTER IS NOT GENUINE.

No other female medicine in the world has received such widespread and unqualified endorsement. Refuse all substitutes.

Mrs. Pinkham invites all sick women to write her for advice.

She has guided thousands to health. Address, Lynn, Mass.

entangle some of those germs and they will be carried home with whoever lives up to the fashion. It is said that you "just as well be dead as out of fashion," and any one that lives up to this fashion will probably be gratified by being dead and in fashion.

Disease may be transmitted from one body to another by various means. We are often infected by hand-shaking. Kissing, a very, very bad practice, carried on between mothers and babies, is sometimes the cause of severe attacks of lung and throat troubles, and perhaps is the seal of the little one's death warrant. Kissing may not always be confined to mothers and babies. Suppose, for instance, a person has pulmonary tuberculosis, the germs will probably be discharged from the mouth, consequently a kiss in this case would probably mean infection of the tubercle germ. Cases are known where tuberculosis has been transmitted by means of kissing.

Hotels are, if not properly cared for, a hot-bed for the breeding of infectious diseases. Be careful about wiping your hands or face on towels that have been used by others. Never use public drinking cups. Barbers and their instruments are fertile sources of bacterial infection. Tonsorial artists, milliners, dressmakers, dentists are all likely to become infected and transmit diseases to their customers.

Prevention is as valuable as it ever was. Remember, bacteria requires certain temperatures, a certain amount of moisture, and a certain food supply for their growth; and remember also, that if you deprive them of one or more of these conditions you deprive them of their activity. Cleanliness should be preached in every household. Dirt and filth are the breeding places of disease. Keep away from infectious places. Germs may be carried in clothing, the dust by winds, in the water we drink, in our food, by pet dogs, cats, canary birds, flies, mosquitoes, etc. Nearly all infectious diseases of stock and of man are caused by bacteria. To prevent such diseases we must prevent infection.

Warm spring days produce a feeling of drowsiness if the body is loaded with the impurities of winter diet. Cleanse the blood, liver and bowels with Prickly Ash Bitters. It creates energy and cheerfulness

Feed Your Cattle Right

It pays to feed a variety of feeds. Make a grain ration of ground corn with

Gluten Feed and Germ Oil Meal

These digestible feeds are nutritious, easily assimilated and cattle, hogs, calves, etc. eat them with a relish. Write for samples and letters of recommendation, addressing Department K F.

The Glucose Sugar Refining Co., The Rookery, Chicago.





St.Jacobs Oil

It Conquers Pain

Price, 25c and sec.

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Brange Department.

"For the good of our order, our country and man kind."

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. Bachelier, Concord, N. H. Secretary.. John Trimble, 514 F St., Washington, D. C.

KANSAS STATE GRANGE. Master ... E. W. Westgate, Manhattan Lecturer ... A. P. Reardon, McLouth. Secretary ... Geo. Black, Olathe.

The Grange—Why Was It Organized? What Has It Done, Is It Doing, Does It Purpose to Do?

Mr. W. S. Eagle contributes an article to the Grange Bulletin upon the above subject. The first part of the article is similar to what has been recently published in these columns. We give the greater part of the article.

It was through the work and influence of the Grange that the majority of the agricultural colleges have been raised to such a high standard, and that the additional appropriations for agricultural colleges by the 1890 Act of Congress was confined to instruction only in agriculture and the mechanical arts. Hatch Act, providing for the establishment of State experimental stations, is attributable to the same source, as is also the fact that the Department of Agriculture at Washington was raised to the dignity of other departments of the National Government, that the Interstate Commerce Commission was established, that the extension of the patents on sewing machines was prevented, that State and National laws have been enacted to control the sale of oleomarga-rine and other butter frauds. It was the Grange that created the office of the Dairy and Food Commission at Columbus, Ohio. It was the Grange that created and is the backbone of the rural free mail delivery. All these and many other things have been accomplished by the legislative work of the Grange.

But the intellectual, moral, and social work of the Grange is too great to ever be measured. The social feature of the Grange constitutes its crowning glory, and is among its strongest claims for recognition and popular favor among our rural population. By the cultivation of this most desirable element in human nature, selfishness and jealousy are made subordinate to higher and nobler thoughts. Listen to what Rev. Geo. W. Patten says about the Grange:

"The amount of good that is done, the intellectual instruction and stimulus imparted, and the social life and friendly comradeship engendered by those meetings are beyond all computation. I believe in the grand functions of the church with all my heart, but I see more clearly every year that the Grange is doing a much needed work that the church can not do. It is demolishing the walls of sectarianism among the sects. It is constructing a bond of union between all forms of belief. It is furnishing a neutral field in which those of the most diverse theological and political beliefs and affinities may lean together and unite in all good works and works for the elevation of the race, the amelioration of business and of good citizenship."

One of the most distinguishing and ennobling characteristics of the Grange is that it accords to woman her true position, enlarges the sphere of her use-fulness, and gives to her an opportunity for the exercise of those noble qualities of mind and heart which reflect her wo-manly nature. In the Grange every position of honor and trust is open to her ambition. And as this body was the first to grant to woman her inalienable rights and still recognize her legitimate sphere, she is peculiarly interested in the success of the Grange; and we are glad she fully realizes the measure of the work the order is doing to relieve her from the restrictions of law and lisage which have been handed down from past ages.

My friends, there is no place this side of Heaven that can do you more good in intellectual, moral, and social lines than the Grange. There is no place on earth that will guard and guide you so Safely over the rough road of life more successfully than the Grange. And as for myself, it was "At the 'Grange,' at the 'Grange,' where I first saw the light, and now I am happy all the way."

Dear friends, the grange is a school where lessons are learned that will control our after life. It is the drill hall where the soldier is trained to keep step with his fellows in the forward march to higher and better manhood and womanhood. It is the home where the entire household receives inspira-

tion for the battles of life. Mabel, it is for you. Walter, it is for you. Yes, it is the farming population we wish to make happy.

The Grange treats of parliamentary law, politeness and common sense, and the principles of cooperation; and it gives an opportunity to secure by united efforts the enactment of such legislation as will protect the farmer and his occupation. The Grange develops brotherly feeling and good-will among the farmers, and gives them more confidence in each other. It gives a school of mental development for the boys and girls, as well as for the older members: stimulating culture and refinement for the home and the essential qualifications for public life. In short, friends, the Grange was, is, and always will be, "For God, for home, and Christian land."

The principles of the Grange teachings underlie all true statesmanship and if properly carried out will purify the whole political atmosphere. It seeks the greatest good of all.

I have tried to make clear why the Grange was organized, what it has done, and what it is doing; but, what will it do in the future? Just guess and you can't miss it, for as sure Christmas comes on December 25 the Grange is doing and will continue to do all it was organized for, with an addition of 50 per cent. But remember, those who stand outside and look on are "not in it." The Grange is helping all who will accept it or who will help the was less than the way to be the wa themselves, but I must pause a moment to state that you are deriving as much benefit from the legislative work of the Grange as we are; so we kindly ask you to take hold of a wheel and help us all you can.

I have heard some say, "the Grange has done all it can," but I reply, "It is not so." The Grange is stronger and has more influence than ever before. Farmers need the order now as much as ever (and a great deal more) and will need it as long as time lasts or un-til every farmer and his family are well posted on all that pertains to the farm to the minutest detail.

That the farm is the foundation stone of this Nation, you will surely agree. "The farmer feeds them all," you know. When the farm is neglected by a Government, the Nation must crumble as did Rome and other nations that taxed their farmers into tenants, crippled agriculture, fostered greed and avarice, and at last fell by the hands of those who, in their prosperous days, had never dreamed of revolt.

Brother farmers, to prevent this Nation from following in the paths of others, you must be organized. Almost every other profession is organized; why not yours?

Laboring persons who are not farmers need not think because the Grange is a farmers' organization only that it will do them harm, because it will not It never has and never will, for it seeks the greatest good of all. If you doubt my word, read its "Declaration of Purposes," which can be obtained of any State or National officer.

Every farmer who is not a member of the Grange is asked, yes urged, to carefully study the principles upon which our organization is based and is working, and the possibilities which lie before it. That organization among armers is a necessity none will deny; that the Grange meets this necessity better than any other organization, all must concede; and that its fees and dues are at a minimum can not be disputed.

The Grange, as you now know, is not an experiment. It has fought its own battles, it has fought a great fight, and now wants to share the victories with you; will you accept? It will only cost you \$1.20 a year—not one-fifth as much as many pay for tobacco and liquor. Which will do you the most good?

With all the above-mentioned opportunities and advantages which are opened up to farmers and their families through the instrumentality of our order there are the very best of reasons why every farmer and his family should join the Grange, the immortal Grange. and become brothers and sisters of our "for God, for home, and Christian land." grand fraternal band and, united, labor

It will be to your advantage to ascertain the rates from Chicago to New York, New England, and all Eastern points applying over the Nickel Plate Road and its Eastern connections. Three daily trains, on which there is no excess fare. One feature of service on that road is meals in diningcars, on American club plan. Pay for what you get, but in no event more than from 35 cents to \$1. Folders, rate and all information cheerfully furnished by applying to John Y. Calahan, General Agent, 111 Adams St., Chicago, Ill. Depot, Fifth Ave. and Harrison St. (4)

The Scrub-Lady's Baby

Motherhood and its Drawbacks.

A great deal has been said about the misuse of the word lady in such expressions as wash-lady, scrub-lady, sales-lady, etc. It may not be good form to use the word lady rather than the nobler word woman in such connection, and yet perhaps this emphasis of the "lady" in popular speech has its origin in a sort of necessity. In Europe a woman who works ceases to be a lady, according to social ruling. In America every woman is a lady, no matter what her occupation. There's many a lady in the land who scrubs her own floors, just as she sweeps, dusts and washes dishes. And there is where the drawback of motherhood comes in. It seems a little earthly paradise to enter upon the home life in the little cottage and keep it clean and attractive. It's so easy to do, too. But presently baby comes, and claims the mother's time and attention, and perhaps presently there come other | Prescription.

healthy by myself alone. I was so weak and run down I could hardly drag around. You may judge how well I am now, being left entirely alone with five children, of whom the oldest is four years, the youngest five weeks—and can do all my work. I am happy, indeed, for I love children, and I do not care how many I have if I can be well. I recommend Dr. Pierce's medicines to all I know, and am surprised to find so many who have already been benefited

"PASSING THE LOVE OF WOMEN."

It is worth noting that the highest comparison of human love the Scrip-tures could make is contained in that phrase, "Passing the love of women." When that love is surpassed we must step out of this world into a diviner one. There's only one thing that ever handicaps—not a woman's love, but the expression of it, and that is ill-health. There's many a mother will echo the words of Mrs. Timmisch, "I love children and do not care how many I have if I can be well." Her letter proves that a woman may undergo the extreme tax of maternity and be well and happy through the use of Dr. Pierce's Favorite

> "After my baby came in January, 1900," writes Mrs. Nancy Abner, of St. Paul, Ark., "I suf-fered severely from all sorts of aches and pains, until the following May until the following May, when I read one of your pamphlets treating on fe-male diseases. I wrote to you for advice, although I thought surely I would die, as our physicians told me I was more liable to die than to get well; your fatherly advice caused my health to be restored. took five bottles of Doctor Pierce's Favorite Prescription. three of

'Golden Medical Discovery' and three vials of 'Pellets,' together with your other remedies, and I am now able to do all my work."

Dr. Pierce's Favorite Prescription is peculiarly and essentially a medicine for the cure of womanly diseases. It establishes regularity, dries unhealthy drains, heals inflammation and ulceration and cures female weakness. Taken as a preparative for maternity it gives the mother strength to give her child, and makes the baby's advent practically painless. It is the best tonic and nervine for weak, worn-out, run-down women. It soothes the nerves, restores the appetite and gives refreshing sleep.

Sick women are invited to consult Dr. Pierce, by leter, free. All leters are held as strictly private, and the written confidences of woman are guarded by the same strict, professional privacy observed by Dr. Pierce and his staff in personal consultations with weak and sick women at the Invalids' Hotel and Surgical Institute, Buffalo, N. Y. Ad-dress Dr. R. V. Pierce, Buffalo, N. Y.

The invitation to consult Dr. Pierce, by letter, free, is not to be classed with offers of "free medical advice," made in the name of some man or woman who has no medical knowledge or experience. In a little more than thirty-years Dr. R. V. Pierce, chief consulting physician to the Invalids' Hotel and Surgical Institute Buffalo, N. Y., assisted by his staff of nearly a score of physicians has treated and cured hundreds of thousands of weak and sick women.

"Favorite Prescription" makes weak women strong, sick women well. cept no substitute for the medicine which works wonders for weak women.

WHAT IT COSTS.

It costs just twenty-one cents, for expense of mailing only, to get a paper-bound copy of Dr. Pierce's great work, The People's Common Sense Medical Adviser. If the book is desired in more durable cloth binding, send thirty-one stamps for mailing expense of this work, containing more than a thousand large pages and over 700 illustrations.



babies. There's still the same original house work for the "scrub-lady" to do. But every baby adds to the work and the care of the home. Yes and while each baby adds to the mother's burden it also subtracts from her strength. With aching back and quivering nerves she drudges on, a slave to love and

THE MOTHER'S REWARD.

What is the reward of motherhood? In many cases pain and suffering as a result of womanly diseases; to be left alone by the husband because the fret-ting children annoy him, or because the over-burdened wife can no longer devote herself exclusively to his comfort. Marriage seems a very one-sided bar-gain at the best, but it is especially so when the woman is weakened by disease

Women who have experienced all the misery and suffering which could be endured call the attention of other women to the fact that Dr. Pierce's Favorite Prescription makes weak women strong and sick women well. No more headache, backache, o rsideache. No more sleeplessness and nervousness. But in place of the old dragged out feeling a condition of perfect health, which finds no task too hard and no burden

too heavy.
"I am glad to tell you that I have been much benefited by the use of your medicines," writes Mrs. Th. Timmisch, of Yorkville, Ill. (Box 189). "I had in the state of the state o digestion so bad last winter, while expecting to become a mother, that I could not eat anything without it distressed me terribly. I took five bottles of 'Favorite Prescription' and three of 'Golden Medical Discovery' and went through with much comfort, and when baby came had nothing to suffer as compared with other times. I suffered so little this time that I was very much surprised when we had a twelve pound baby boy although all my babies have been large. I can eat anything now, and could do so after taking a few bottles of the medicine. It must be known that my case was a very remarkable one, not being over strong, and having had four children within less than three years, and all brought up strong and Address Dr. R. V. Pierce, Buffalo, N. Y.

Me have so the world, because ours is the Most Liberal Offer and Complete Written Guarantee ever made by any Responsible Manufacturer. Our goods have a reputation that we will uphold. Our plan is fully explained in our illustrated catalogue, SENT FREE—No matter when, where, or how you buy, you need this catalogue as a guide. It describes vehicles and harness fully, and quotes lower Factory and General Office, Columbi Western Office and Distributing illoue, St. THE COLUMBUS CARRIAGE AND HARNESS CO.

The Poultry Hard.

Toulouse Geese.

DUANE SHAW, IN AMERICAN POULTRY JOURNAL.

This grandest variety of water-fowl which has of late become so popular with the fancier and farmer is well deserving the interest which is being shown it. There is certainly no breed of geese that excels, or, in our opinion, comes near approaching the Toulouse for real value.

The rearing of the other breeds of geese has always been more or less objectionable, because of the deafening noises they make about the premises and the quantity of water required for them. The Toulouse makes little noise, and when bred to any size never raises from the ground to fly. So a very low fence will turn them. They do not require swimming water and thrive just as well if they have plenty to drink. One does not need a lake or creek to raise them advantageously. Unlike the white varieties they look well when ranging the pastures without swimming

For best results during the laying season geese should have plenty of green range. The lots sown in rye in the fall provide the best green food, as it is procurable during the winter months. This should be done when bluegrass or other early pasture is not to be had. Abundance of green food with geese, as with chickens, is a great factor for promoting fertility.

Two or three females are usually allowed with one male. We find that geese lay much better when divided in to small flocks with one or two males and three to six females. We mate our geese early in the season before the breeding time. Of course they mate off themselves naturally, but not always for best results, and it is best to separate the flocks before this time. If separated later they are usually uncontented, and do not mate as well. Tho gander retains the same mates year af-

ter year. Yearling geese lay as well or better than old ones, but their eggs, as a rule. do not hatch nearly so well and their goslings are not quite so vigorous as those obtained from eggs of matured breeders. Hence the old geese are val-ued much higher for breeders and sell for about twice as much as young ones. This season, however, we have a flock of seven young geese and two ganders very fine ones—which we have given extra good care. As a matter of course we did not expect to obtain much from them this season, but upon testing their eggs we found that nearly all are proving fertile, and the goslings which have hatched appear as vigorous as any we have. This is a little out of the ordinary, but we attribute it to the fact that the geese were hatched very early last spring and are well matured; also to the good care they have received. The eggs from our old breeders are practically all fertile. It is a common occurrence to get a gosling from every egg put under a hen.

The goslings are easily reared if one knows just what to do with them when they come from the shell. They should be hatched and reared by hens. Five to six eggs are allowed to the setting. But the old hen is puzzled when it comes to turning these big eggs, so she must be assisted if you want a good The goslings must be removed from the nest as soon as dry. When the old hen gets her foot on one's neck, as she often does, he's a "gone gosling," I will repeat that the most important thing to know about raising the goslings is, what to do with them when they are first hatched. I think that a little personal experience here would be of interest to the readers.

In our early experience with goslings, some years ago, we had a great deal of trouble in getting them started to eating, and several of them died simply because they would not eat. We fell them, or tried to feed them, on food we would give small chicks or turkeys, but this was no go with some of them. However, we found that they would gladly drink, and so concluded that sweet milk would be a good starter for sweet milk would be a good starter for them until they learned to eat. Then give them stale bread well soaked with milk. It is delightful to watch them fish the bread crumbs out of a small cup of milk. This they greatly enjoy doing, but they should not be allowed to get into it. They will also pluck tender grass when they are but a day or two old and it is necessary that they have plenty of good grass from the start. Where the proper grass is not at hand, the lots sown in oats at different periods provides tender pasture throughout the

tion to what they get themselves until the oats in their lots ripen, when they can help themselves. Although gos-lings are fond of water they are perhaps the easiest things drowned that are raised on the farm, so when a sudden rain comes up it is necessary to look after them.

Oats are also the best feed for the breeders in the winter and spring months, as it is not as fattening as other grain. We place a boxful in each lot to which they can go at will. They will not eat too much. In severely cold weather some corn must be fed.

The Toulouse goose was originated in France a number of years ago, near the village of Toulouse, on the Garrome River, but they are a comparatively re-cent introduction into the United States. The standard weights fixed for them by the American Poultry Association is 20 pounds for old ganders, 18 pounds for young, old geese 18 pounds, young 16 pounds. Although 20 to 23 pounds is considered very large in some instances they have been known to reach the enormous weights of 50 to 60 pounds per pair. In England single pairs of extra fine specimens have sold as high as 100 pounds sterling, or about \$500.

We Americans are also becoming awakened to the true value of the Toulouse, and at our big shows fine specimens have sold for extremely long prices. The Toulouse does not reach maturity until 3 years old and usually lives to a very great age, doing good service as breeders until 10 or 12 years of age. The mortality is very small, as they are not subject to the various diseases which all other poultry flesh is heir to. This alone is a point well worthy of consideration. For the farmer fancier a few Toulouse would be one of the best investments he could make. There is pleasure as well as profit in breeding them.

At the last Chicago show a club was organized which was named the National Toulouse Goose Club. The purpose of this club is to promote the breeding of the Toulouse and to urge the adoption of the true type in size, shape and color. At the annual meeting in 1903, which will be held during the week of the Chicago show, the club will adopt a constitution. In the mean-time the many friends of the stately Toulouse are requested to put their in terests together by joining the club and helping to push this grand variety to the front where it belongs. By so doing each member is furthering his own in-terests as well as those of the public. At the next club meeting we shall expect to see a good number of ardent members present.

Advertising Poultry.

Frank B. White has devoted his life to the study of advertising, and his success proves that he has mastered the science of publicity. In an address be-fore the National Fanciers' Association, he said:

Advertising is not a mystical, mysterious proposition. The ordinary laws of cause and effect apply in advertising just as they do in mechanics or to the sciences. Some of the best adver-tising that I know of is by keeping in close touch with old friends. When you have once sold to a man be so concerned in his success that he will feel that you are personally interested in his welfare and you will make him a walking advertisement for you. When he is ready for more he will remember how well you have treated him and will come back to you rather than to send his order to an untried breeder. He will talk for you at the poultry shows and with his neighbors.

I believe that the man who is willing to go a good long way to recitify a mistake and satisfy a customer is the

The knowledge necessary to construct a good circular or other advertiseing literature can not be bought over the counter. Advertising men are just as truly born as are poets. And I might say in this connection that this accounts for so many advertisers making a failure. They have been poorly advised, started wrong, or they try to copy somebody else instead of talking their own business. You may be the brightest on earth and know all about the science of breeding, etc., but if you are not satisfied of your own ability to prepare and execute a line of advertising you had better call on some one who does. Consult the publisher of your paper and let him tell you how best to reach your clients, or confer with some one who has made a success, either for

We feed our growing goslings on soft themselves or some one else; but do feed two or three times a day in addinot think that the same rules that he has employed will apply in your case. You must work out your own advertising situation. And this requires backbone, good and stiff. It is a daring proposition, but, "nothing ventured, nothing gained," and there is no need of your standing idly by and seeing the other fellow get all of the business and wonder why your advertising does not pay you when you the doing it han hazardly, half-heartedly, or incompletely,

You do not have to do a large amount You do not have to do a large amount of advertising if you have only a few birds; but if you have some choice ones you can afford to do a little. Of course, stock is necessary. I have presumed that you knew that unless you have something worthy of advertising it would not pay you. A poor thing will never pay as an advertising propit would not pay you. A poor thing will never pay as an advertising prop-osition. It may for a moment, but the buying public soon takes its measure. But an article of worth not only pays, but creates and establishes your reputation in your particular line of trade and carries your good name beyond into wider circles, yielding profits in years to come.—Commercial Poultry.

Poultry Notes.

N. J. SHEPHERD, ELDEN, MO.

The majority of egg-foods are composed of those elements that enter into the composition of an egg, and their success depends very largely upon the fact that they supply material which is often overlooked by those who keep

Poultry products, like those of the dairy, can usually be sold above market quotations, if put on the market in good shape and sold direct to good customers. In many cases a little care in feeding properly and in sending to market in a neat and attractive condition will secure better prices, and the better price is nearly all profit.

While it is usually desirable on ac count of giving a better protection from rats to have the floor of the coops for the little chickens wooden it is not best to confine young fowls upon wooden floors, as it frequently causes swollen feet and legs. They should always have some loose ground to scratch over, and a small yard or pen should be provided until they make such a growth that will

permit of giving a wider range.

The opportunity for profit with turkeys depends very largely upon their ability to pick up for themselves a good living after they are sufficiently grown to be allowed a free range. Usually after they are reasonably well feathered they can be given the free range of the farm and one feeding of grain daily is all that need be given. This is given rather more to keep them coming home and make them tame than because they really need it. Turkeys are good for-agers and only need to be given the op-portunity to range to pick up their own

It is a pretty safe rule now, as fast as the young chickens reach a weight of two pounds to market them. This ap-plies especially to cockerels. Some of the earliest and most promising pullets may be saved, as the early hatched pullets are the best to take the place of the hens that, after this spring, will have passed their most useful stage. But with all others in nearly all cases better prices can be realized now than later while the cost of feeding will be

The difference between the excrement of fowls and that of other stock is that the former contains in solid form all of the fertilizing ingredients of the food except what is retained in the body for growth or for eggs. It is in a form that makes it more readily applied than any other kind of animal manure and is very rich in the elements of plant-food and usually in a form readily soluble.

Carbolic acid is the greatest known man who will make his advertisement pay best. One who is in it to get every dollar he can irrespective of revery dollar he can irrespective of reserved who is advertising possess no antiseptic properties, but to destroy germs and insects acres that to destroy germs and insects ac-tual contact of the acid is necessary. Its odious smell may cause insects to get away from there, but does not kill or destroy. Its fumes are a powerful deodorizer in the sense that its powerful odor covers up or disguises bad smells.—Gem State Rural.



POULTRY BREEDERS' DIRECTORY.

S. C. B. LEGHORN EGGS—Thirty for \$1. New blood and good stock, f. o. b. here. F. P. Flower, Wakefield, Kans.

EGGS FOR HATCHING—From pure-bred, large boned B. P. Rocks \$1 per 15; \$5 per 100. Chas Ainsworth, Stilwell, Kans.

WORLD'S GREATEST LAYING STRAIN—Black Minorcas—beautiful in shape, color, and comb, grand winter layers. Eggs \$1.50 per 15. Address George Kern, 817 Osage Street, Leavenworth, Kans.

CORNISH INDIAN GAMES—Prize-winning; cock scoring 94. White Rocks, Black Langshan eggs \$1 per 13. Mrs. J. C. Strong, Moran, Kans.

ROSE COMB WHITE LEGHORNS. — White guineas. Eggs, \$1.50 per 16. Leghorns score to 95 points. Mrs. Winnie Chambers, Onaga, Pottawatomie

EGGS—From high-scoring Rose Combed White Leg-horns, \$1 per 15. Mrs. John Hill, Vinland, Kans.

EGGS—Sixty-five cents per setting, from pure, farm-raised Silver Laced Wyandottes. Mrs. M. A. Hall Winfield, Kans., R. R. 7.

BUFF PLYMOUTH ROCKS—We will sell pure-bred eggs from our flock (all good ones), for \$1 per 15; from pen prize-winners at Kansas State Poultry show at \$3 per 15. The Smiths, Manbattan, Kans

BLACK MINORCAS, biggest layers of biggest eggs.
Eggs for hatching, \$1.50 per 15. Also at same price
eggs from choice matings of Houdans, Buff Laced Polish, White Crested Black Polish, Buff, Brown and
White Leghorns, and American Dominiques. Satisfaction guaranteed. Write for illustrated descriptive
catalogue. James C. Jones, Leavenworth, Kans.

EGGS-\$1 per 15. Select Barred Plymouth Rocks. Fine fellows. Duroc-Jersey and Poland-China pigs— all sizes. D. Trott, Abilene, Kans.

WHITE WYANDOTTES—Exclusively. Eggs for hatching, \$1 per 15. Mrs. E. F. Ney, Bonner Springs, Kans.

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

W. B. WILLIAMS, Stella, Neb.

White Wyandottes Exclusively.

The big white kind that wins prizes and lays eggs. Eggs in season — \$2 for 13.

C. H. WILLSEY, - - - Dexter, Kansas.

PURE-BRED POULTRY.

Eggs for setting, 10 cents each. Barred Plymouth Rock, Rosecomb White Leghorn, Single Comb Brown Leghorn, Black Langshan, White Holland turkeys, Imperial Pekin ducks. J. C. Curran, Curran, Kans.



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Four Yards—15 Acres. Exclusively taken by the largest and best flock of Buff Plymouth Rocks in Kansas. Eggs sold from two best yards Prize-winning M. Bronze Turkey Eggs, \$2 for 11.



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Barred Plymouth
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Cochins, Partridge Cochins, Light Brahmas, Black Langshans, Silver Wyandottes,
White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares
First-class Standard Stock of Superior
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Write Your Wants. Circular Free.

A. H. DUFF, Larned, Kans.



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Let us make you prices on Red Wood Stock Tanks, Milk Tanks, and Refrigerators; freight paid to your station. While you are at it why not buy a good tank and especially so when the price is so reasonable. Write us describing the kind and size you want, give dimensions and we will make an interesting price. Address the SURE HATCH INCUBATOR CO., Clay Center, Neb

Borticulture.

Growing Seedling Grapes.

A. L. ENTSMINGER, BEFORE THE SHAWNEE COUNTY HORTICULTURAL SOCIETY.

The subject assigned to me is one which, I fear, will not interest many of you, as you are satisfied with the many very good varieties already produced, yet all of these excellent varieties were produced by hybridizing and rations speakings. raising seedlings.

FIRST SETTLERS

It may not be generally understood

It may not be generally understood that grape-growing by the first settlers in America was not successful, yet such is the case. When the early settlers came from Europe they thought the same varieties growing in their old home would do equally well here, but in this they were mistaken.

The first attempt of any consequence was made near Philadelphia soon after William Penn began his settlement there. Cuttings of some of the best grapes grown in Europe were brought over and planted, but the vines would not grow well and the fruit produced was scant and poor. Other trials were made along the Ohio River below Pittsburg, also in Kentucky and in Vincenes, Indiana, by some of the most skillful vineyardists of France and Switzerland. In some cases large sums of money were spent, but all to no avail; the vines dwindled and died.

DISEASES.

DISEASES.

Mildew and other fungous diseases were the causes just as they are now. Whenever the grapes from across the waters are tried in eastern and central parts of North America. They are not able to withstand the severe cold weather; and worse than all, they are unable to withstand the silent but patient enemies of the grape vine, and are overcome by them.

The Phylloxera, an insect then unknown to grape-growers, has since been found to be one of the most distructive enemies known. They work upon the roots far beneath the surface, and as yet no remedy has been found.

FAILURES.

After all of these attempts and failures to grow the European grapes by the first settlers of America, the attention of growers was turned to native varieties, by testing and improving such varieties as gave evidence of their abundance and vigor in the wild state and of their ability to thrive under the conditions here. This step was a success from the start. Some of the wild varieties when planted in the gar wild varieties when planted in the garden and vineyards proved to be of tol-erable quality and to bear abundantly. From that time on the native grapes of America have been steadily improved until we have now many excellent vaieties.

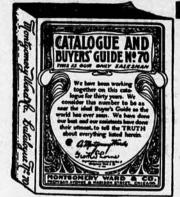
DILIGENCE.

This has all taken diligence and untir-Tals has all taken diligence and untiring labor in hybridizing, over and over again. Now and then, by blending in some vinifera blood, fair quality was reached. Among those most successful in producing new varieties are Rogers, Haskell, Bull, Campbell, Staymen, Munson, Miller, Bush, Grein, Routenberg, Tugle, Wallis, Chidester, and Chandler. Almost every variety now cultivated

Almost every variety now cultivated cast of the Rocky Mountains is of native origin, and principally of that species known as the Vitis Labrusca, with here and there a sprinkle of vinifera blood which is certain to result in weakness to the pay seedling. sult in weakness to the new seedling—such varieties as the concord, Worden, Moore's Early, Woodrough, and these are pure native seedling of the Labrusca type. This grape is found growing wild in the mountains of Pennsylvania, Virginia, Kentucky, Tennessee, Arkansas, and Missouri. There are at least two other native varieties which deserve mention as hardy varieties, viz., the Ripary and the Aestivalis. These varieties, blended in with the Labrusca, have produced some very fine seed-

METHOD.

The methods usually practiced to produce seedlings are classed as scientific, or accidental, or both. In order to preor accidental, or both. In order to preduce scientific seedlings it is necessary to exclude all polen other than that which you wish to use for the object in view. This is done by sacking the two varieties which you wish to use two varieties which you wish to use holding them in their confinement until they are in full bloom; then if you wish to use the Concord, for instance, the main parent and the Catawba for the fertilizing parent you go to the Catawba, cut the sacked bunch off carefully opening the Concord sack containing the bunch. Then you should take the bunch of the Catawba from the sack, slip it into the sack containing the Concord, carefully close the sack and



Why Not Start Now?

Spring is at hand and you will need supplies of all kinds. If you are a progressive, up-to-date buyer, go slow and place your order where you will get biggest returns for your dollar.

HAUE YOU EVER TRIED MONTGOMERY WARD & CO.

of Chicago? Perhaps you have long intended to, but never knew how to begin. Why not start now? Our Catalogue No. 70, revised for Spring and Summer, is just out, our building is piled from basement to roof with good things—the very best our active buyer could gather in the best markets; every employe in our big establishment is ready and waiting to serve you to the best of his or her ability—just as though you were shopping over our counters. We've been preparing for this event all winter, and believe that there never was a better opportunity for shrewd, active buyers to start purchasing on our wholesale prices—no middlemen—one profit plan. The Spring and Summer edition of

CATALOGUE NO. 70 IS NOW READY. Over 1000 pages packed with the good things of life—everything you use—gathered by our buyers from the markets of the world. Page after page of high grade merchandise, all illustrated and honestly described.

SEEMS TO US THAT YOU OUGHT TO HAVE A COPY. We want you to have one—so much so that we will furnish the book free and pay one-half the postage if you will pay the rest, lifteen cents. There are so many people in this country bubbling over with curiosity, or trying to get something for nothing, that we are compelled to make this trivial charge. It is only lifteen cents but it assures us that you are acting in good faith and are interested in our business. Why not ask for it today, before you forget it?

Montgomery Ward & Co., · Chicago



"Lincoln Park Farm" Residence.

The real purpose of the above halfone is to show how bees may be kept in cities where ground is too valuable to keep hives on. Bees are not out of place on the roofs of buildings and

hundreds of colonies are kept in this keep them and do not have any trouble that it is rather a dangerous undertak ing to keep bees in a city, but those who are well acquainted with the honey

way in the large cities. One might think with them. Hives on the roof of a building are comparatively out of the way of everything and the bees will selwho are well acquainted with the honey dom be seen down on the ground bee and its nature do not hesitate to where they might cause trouble.

give a few light taps and the work of fertilizing is complete, provided you have been careful not to allow either bunch to steal polen from some other

Another method which may be considered partly scientific is to put one single variety in the midst of a plant of another variety, let the single vine receive polen from all sources, then use

the seed of the single variety for the purpose of producing something new.

Another method which I sometimes practice is this: If I desire a very early variety I go through the vineyard as the vines are coming into bloom and select the very earliest, sack them and introduce them in a sack together, as before mentioned; still keeping in mind that hardiness is transmitted from a hardy vine. If you wish to use a variety which is a little tender that must be blended in by the fertilizing parent. After all of this scientific work, nearly all of our best seedlings are produced by chance.

Receives an Enormous Mail.

a small treatment free, as well as giving full particulars in regard to the discov-eries.

There is perhaps no gentleman in the State who reicelyes more mail than does Mr. Gavitt.



DISEASES OF MEN ONLY.

The greatest and most successful Institute for Diseases of Men. Consultation free at office or by letter BOOK printed in DR. E. J. WALSH, PRESIDENT. English, German and Swedish, Explaining Health and Happiness sent sealed in plain envelope for four cents in stamps. All letters answered in plain envelope Variance of the plain envelope of the plain envelope

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Send for a free copy of our large Illustrated Catalogue.

BEE Supplies, Best Goods, Lowest Prices Address KRETCHMER MFG. CO., Red Oak, la



Bee Supplies.

A complete stock of the famous Higginsville hives and all other supplies for Bee Keepers. Write for new Catalogue.

TOPEKA BEE SUPPLY HOUSE 113 H. Kans. Ave. Tepeka, Kas

Farming in Colorado, Utah and New Mexico.

The farmer who contemplates changing his location should look well into the subject of irrigation. Before making a trip of investiga-tion there is no better way to secure advance information than by writing to those most interested in the settlement of unoccupied lands. Several publications, giving valuable in-formation in regard to the agricultural, horticultural and live stock interests of this great western sec-tion have been prepared by the Denver & Rio Grande and the Rio Grande Western, which should be in the hands of all who desire to become acquainted with the merits of the various localities. Write

> S. K. HOOPER, G. P. & T. A., DENVER, COLO.

\$550.00 GAVITT'S SYSTEM REGULATOR \$550.00

IS GUARANTEED.

GIVEN AWAY Contest Closes July 1st, 1902. YOU MUST SECURE A COUPON. READ CONDITIONS.

Guaranteed." "Gavitt's System Regulator is

OFFER.

FIRST PRIZE. \$30.00 in cash will be given to party sending in the most words formed by using letters occurring in "GAVITT'S SYSTEM REGULATOR IS GUARANTEED."

SECOND PRIZE. \$25.00 in cash.
FOURTH PRIZE. \$5.00 in cash.
NEXT TWO HUNDRED PRIZES, A \$1.00 Box of Gavitt's System Regulator each.
NEXT FORTY PRIZES, 50 cts in cash each.
NEXT ONE THOUSAND PRIZES, A 25c Package of Gavitt's System Regulator each.

CONDITIONS.

1,254

PRIZE

FIRST. In order to enter this contest, the contestant must have a PRIZE COUPON, which can only be secured by buying a box of our Gavitt's System Regulator, from our agents or from us direct. Price \$1.00 per box for nearly one year's treatment. Guaranteed to cure all Blood, Kidney, Liver and Stomach troubles or money refunded.

nearly one year's treatment. Guaranteed to cure all Blood, Kidney, Elver and Stomach troubles of money retunded.

SECOND. The prize period will close on July 1st, 1902.

THIRD. In case of a tie, the party who sends in the words first will be eligible to the best prize.

FOURTH. The words must be numbered consecutively.

FIFTH. You may use the letters occurring in Gavitt's System Regulator is Guaranteed as often as you like.

Sixth. We expect a great many contestants and would thank you to write the words very plainly, giving your name, post office address, etc., on coupon, and also on the list. Send the coupon and list direct to us at once.

Secure a \$1.00 Box of our Gavitt's System Regulator, tablets chocolate coated or other forms and enter Contest at once.

PRIZE OFFER

1,254 PRIZES.

IMPORTANT NOTES.

For our medicine and coupon, apply to any of our agents, or if we have no

If the party buying the medicine does not care to enter the contest, they may sell or give their coupon to another. The coupon shall be evidence that there was a sale made by our agents or ourselves, therefore we will honor each coupon received, providing words are written plainly.

Any number of people may help select the words, but only one name must appear upon the coupon.

Cive the coupon to your son or daughter—they will have plenty of time to form

Give the coupon to your son or daughter—they will have plenty of time to form the words in the evenings, and with a little help from you, they in all probability, will secure one of the prizes.

You have 1,254 chances of receiving a prize; with a little work and thinking you should get one of the best.

W. W. GAVITT MEDICAL CO.

MANUFACTURING CHEMISTS. HARRY E. GAVITT, Mgr.

Three Buildings.

TOPEKA, KANSAS, U.S.A.

Agents Wanted in all Unoccupied Territory.

The Beterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to slok or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the inquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

Abortion.—Will you kindly tell me as well as you can how and where to cut to make a capon, what to look for, how and what to remove, and what age the bird should be operated on?

2. Is it practical to breed mares and cows artificially? How is it done most successfully, with capsule or injector?

3. I am having quite a little trouble

with my cows losing one or more teats at calving. Kindly tell me how to avoid the trouble. Would it be practical to inject water hot as the hand would bear, through the opening at the end of the test? of the teat?

4. Is a cow that has aborted from accidentally being squeezed liable to abort again about the same time an-

other year?
5. Would you advise giving carbolic treatment in such case as the time ap-

E. P. FARLEY. Dodge City, Kans.

Answer.-To caponize, keep chicken without feed twenty hours, lay it on the left side on an operating table, pull a few feathers out over the last two ribs and make the incision two inches long nearly between the two last ribs on the right side. Take the peritoneum with the hook made for the purpose and look up next to the back-bone in front of the opening and you will see the right testicle about the size and shape of a pea. Lift up the vein and intestine and you can see the left one about an inch from the right one. Take out the left or lower one first. Be sure and take them out entirely. Three months old is about the time, or as soon as you can tell well that they are roosters.

Yes, it is practicable to breed artificially and can be done best with the

metal impregnator.

3. Yes, you can inject warm water if it and the syringe and all is thoroughly sterilized first. I would use a good milk tube a few times, bathe the udder well with hot water, and apply the treatment for mammitis given in this issue.

No. 5. Not necessary.

Alfalfa Covered Two and One-half Inches Deep.

EDITOR KANSAS FARMER:know of any person who has had alfalfa come up when sown on well-prepared land and covered with a disk to a depth of two and one-half inches? We had some blown out this spring that was sown on the ground and lightly harrowed in rowed in.

Gridley, Coffey County.
Two and a half inches covering is
too much fo alfalfa seed. It may come up, however, if conditions are all favorable, that is, if the soil is light and no crust forms before it gets through.

THE MARKETS.

Kansas City Live Stock Market.

Kansas City, May 12, 1902.

A general letup in receipts at all of the leading Western markets was had last week, caused by the agitation of the beef trust and the reduced consumption of meats. In the East shippers generally

Mammitis.—I have a cow, fresh six weeks and milk all right, until three or four days ago, when her udder began to cake and turn very red, almost purple. She is almost dry and seems to have fever, runs a great deal at the nose, and is getting thin and is in great pain when milked. I have put turpentine and fresh lard and it has helped her some. What can be done for her and will it be contagious?

Marion, Kans.

Answer.—Give one pound of Epsom salts in a quart of hot water and repeat in twenty-four hours. Bathe with hot water and milk three times a day. Take campho pheinque, two ounces; belladonna, fluid extract, one ounce; and olive oil, five ounces. Mix and apply three times a day with the hand after bathing.

Mammitis.—I have a cow, fresh six ket the shortage in receips as compared with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the latter that say of seems the shortage in receips as compared with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the natural causes which have operated with a year ago was due mostly to the principal is the scarcity of feed and fat stock. Local receipts all spring, of which the principal is the scarcity of feed and fat stock. Local receipts all spring, of which the principal is the scarcity of feed and fat stock. Local receipts all spring, of which the principal is the scarcity of feed and fat sto

Kafir-corn and Sorghum.

Editor Kansas Farmer:—We get as many tons of feed per acre by drilling and cultivating Kafir-corn and sorghum as by sowing broadcast, and nearly every one in this vicinity uses the corniplate in planting them. It is better to drop oftener and less, say use a sixteenhole instead of the eight-hole plate. This is what I am doing. A bushel to six or seven acres is none too thick. The heads will not grow quite so large as when planted thinner, but there is as much and better fodder than when planted with the old standard plate. Try it.

O. G. Harmon.

White City, Morris County.

Western country. Freeders soid as high as \$5.50.

Hog receipts showed a shortage of 52 per cent from the corresponding week of 1901, but were slightly larger than the prevented to six days was the heavy hammering that the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The general deciline of light weight and 'trashy' stock was from 25 to 50c and salesmen claimed the packers gave plgs. The gener

higher hogs.

Kansas sheep and all fed stock with quality sold generally steady during the week, although the market evinced a weaker tone abou the middle of the week. On grass sheep and half-finished lambs there was a decided decline, amounting anywhere from 15 to 40c. Native spring lambs sold at \$7 as a top. Shippers had better figure on nothing higher than that at present. The week's receipts were 16,-600.

at present. The week's receipts were 16,600.

The horse market suffered a loss of \$5 to \$10 per head on Monday, in sympathy with weakness in the East. As the week progressed, however, and better quality stock arrived, this loss was regained and the close was nearly steady with the previous seven days on fat offerings. Coach horses sold as high as \$237.50, and drafts of the best kind sold around \$175. Mules were slow sale and generally moved on a weaker scale of prices. The demand from the South was so small as to be scarcely noticeable and the market depended almost entirely upon the Eastern mine and local railroad trade for an outlet.

H. A. POWELL.

Topeka, Kans., May 12, 1902.

We note very little change in price of grain the past week, and very little doing from a speculative standpoint. Demand

Elgin Butter Market.

Elgin, Ill., May 13, 1902.

The quotation committee announces butter 220.

for actual wheat of good quality, from mills is, however, quite urgent, with small receipts of this class of grain everywhere. The markets were firm with strong undertone in every city of importance throughout the country, to-day. Stocks of wheat everywhere are much lighter than they were a year ago, Minneapolis alone having five million bushels less wheat in stock this year than a year ago at this time. Exports of wheat and flour equalled one million bushels for to-day and the visible supply of wheat decreased 3,025,000 bushels for the week and is now down to 35,402,000 bushels, nearly ten million bushels less than a year ago. The world's visible supply of wheat is about 24,000,000 bushels less than it was a year ago and bids fair to continue to decrease rapidly. Exports of wheat and flour for the week were 3,302,000 bushels, about a million bushels less than for the same time a year ago, but it is said in explanation, that the cause of light exports last week was small stocks of available wheat at the seaboard. The Government crop-report was issued this afternoon and indicates a condition of 76.04, against a condition of 76.04 is based on the wheat left standing May 1. The Department also states that about 12 per cent of the winter wheat had been plowed up and put into other crops, which certainly leaves the condition of winter wheat a low one at this time. The Department will not issue a report on spring wheat until next month, but good authorities claim that the spring wheat acreage in the Northwest will be reduced about 10 per cent, on account of excessive rains in the Northwest. Now all this augurs for higher prices against which we have only the supposed splendid crop prospects of Europe and indifference of foreigners who have been educated to believe that we have an inexhaustible supply of wheat. For this reason they buy only as they need the wheat.

The demand for corn in the Southwest from feeders has been quite urgent lately. This may be caused by the agitation re-

need the wheat.

The demand for corn in the Southwest from feeders has been quite urgent lately. This may be caused by the agitation resulting from investigating the beef trust, because it is claimed that considerable of cattle are kept off of the market on this account. Outside of this, everything tends toward a lower level on prices for corn, the increased acreage all over the country, the splendid spring for getting the crop into the ground and reasonable corn weather, all has its effect. Of course the visible supply is quite low, only 5,767,000 bushels which may induce manipulation, but all other conditions are against a higher price for corn at this time.

Markets closed at the following quotations:
Chicago.—No. 2 red wheat \$4 to \$50. No.

Markets closed wheat, 84 to 85c; No. 2 Kansas hard wheat, 78 to 79c; No. 3 Kansas hard wheat, 77 to 78c; No. 2 corn, 62½ to 63c; No. 2 oats, 43½ to 44c; No. 2 rye.

10 36; No. 2 oats, 10/2 red wheat, 80 to 80%c; No. 2 hard wheat, 74 to 74%c; No. 2 white corn, 66c; No. 2 mixed corn, 63%c; No. 2 oats, 44c.

No. 2 oats, 44c.

No. 2 corn, 65c.

F. W. FRASIUS. F. W. FRASIUS.

Special Mant Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be inserted in this column, without display for 10 cents per line of seven words or less, per week. Initials or a number counted as one word. Cash with the order.

number counted as one word. Cash with the order. It will pay. Try it.

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

CATTLE.

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

TEN REGISTERED HEREFORD BULLS FOR SALE 475 to \$125; 3 unregistered thoroughbred bulls. SALE—\$75 to \$125; 3 unregistered thoroughbred bulls \$50 to \$60; 60 grade cows, \$35 to \$50; with calves. R. J Simonson, manager Cherry Red HEREFORDS, Cun ningham, Kingman Co., Kans.

FOR SALE—Two registered Angus bulls, 14 to 16 months old; good ones. R. L. Milton, Stafford, Kans.

FOR SALE—My entire herd of high-grade Hereford cows and heifers; also one registered Hereford buil 13 months old. A. Johnson, Clearwater, Kans.

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

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

t. TWO full-blood Polled Angus bulls, without pedigree can be bought very cheap at Conrad Kruger's ranch Address Hays, Kans.

FOR SALE—Three pure Cruickshank-Shorthorn bulls. Call on or address H. W. McAfee, Topeka Kans,

SHORTHORN CATTLE SALE—I will offer at public sale, 1½ miles south of Marysville, at 2 o'clock p. m., on 'Tuesday, October 15, 17 registered Shorthorns, 19 high grade Shorthorns, and 3 thoroughbred Jerseys. Lewis Scott, Marysville, Kans.

HORSES AND MULES.

FOR SALE—One Clyde stallion, 3 years old May 14, weight 1,610 an extra good horse, fine style and action will sell him right if sold soon. H. W. McAfee, Topeka, Kans.

FOR SALE—Black Percheron stallion Monthaber 13162 (24057), 12 years old, weight 1,800 pounds; an extra breeder; price \$400. Address G. W. Southwick, Riley, Kans.

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

SHEEP.

WANTED—To get pasture for 400 grade Shropshire sheep, or put them out on shares, or sell them Would give time on part. W. W.Cook, Russell, Kans

FOR SALE—9 high-grade Angora goats buck 3 does and 5 kids. \$30; takes the bunch. A. L. Bushnell Mound Valley, Kans.

FARMS AND RANCHES.

FREE 200 printed farm and ranch descriptions in statistical book. Write G. Winders, Ottawa, Kans

WANTED TO SELL OR TRADE—For an improved corn and grass farm of about equal value within 100 miles of Kansas City, a nice, clean, fresh, and well-selected stock of general merchandise, in a small town and fine farming country, 50 miles southeast of Kansas City. Goods will invoice at wholesale about \$2,500, and a good new two-story residence of four rooms, four lots, full of trees, flowers, and blue-grass. This property is worth \$600. Will give a good trade to one having a nice, good, well-located, improved farm. For particulars address "Business," Care Kansas Farmer, Topeka, Kans.

STOCK RANCH—A SNAP!—A fine stock ranch of 400 acres, within 22 miles of Topeka, located in Wabunese Count; 80 acres in cultivation, 80 acres timber, good living water, together with three good wells; good seven room house, 30 x 70; good out buildings, cribs and etc. Fenced and cross-fenced with stone fences; a desirable ranch at rock-bottom prica and easy terms. For price, terms, etc., call on or address Frank C. Bowen, care County Treasure, Topeka Kansas.

FOR corn, alfalfa, and wheat land, ranches and farms, write to Charvoz & Co., Emporia, Kans.

SOME BARGAINS in farms and ranches. Corres-condence solicited. J. M. Patten and Co., Dighton,

SPRING CREEK STOCK FARM.

LARGE ENGLISH BERKSHIRES.

Choice stock. Prices reasonable.

RICE & GILES. - - Abilene, Kansas.

WILLOW BROOK FARM

....IRVING, KANSAS..... Brea Hereford Cattle

THEODORE 65921 and SHERIDAN 65929 at head.
The best blood and the best individuals. Address B. M. WINTER, Proprietor.

TREES best by Test-77 YEARS

LARGEST NURSERY.

FRUIT BOOK free. We PAY Weekly

STARK BROS, Louisians, Mo.; Dansville, N. Y.; Etc

KANSAS IS ALL RIGHT

I have 160 acres in Lane county with some improva-ments, located 1½ miles from good railroad town, all nice level prarie land, which I offer for quick sale at \$8 per acre; it will not the buyer a profit of \$4 per acre before the end of the year; this is the farm bar-gain of the season.

Farm Specialist 619 Iowa Loan and Trust Bldg., Des Moines, Iowa.

SWINE.

FOR SALE—Extra fine November Berkshire boar, sired by Lord Oxford 2d 53894, he by Imp. Lord Oxford 41274, dam a daughter of Stueben Lass 53922, sired by Imp. Higble Boy 33114, imported by R. H. Stout, Trumansburg, N. Y. This pig is a good one, of fine form, and the choice of a litter of eight. J. B. Bourgette, R. F. D. No. 2, Augusta, Kans.

FANCY POLAND-CHINA Boars; of fall furrow ready for use, sired by full brother of Missouri Sweepstake Winner; Priced to sell. A. M. Jordan, Alma, Kans.

SEEDS AND PLANTS.

MAMOTH YELLOW SOY-BEANS—Fine seed, best variety to grow; price, \$2.25 per bushel. Wm Bowiby Lone Elm, Kans.

100,000 SWEET POTATO PLANTS—At \$1.75 per thousand by A. G. Landis, Lawrence Kans. discount to dealers.

SOY-BEANS FOR SALE—Early yellow variety, good; \$2 per bushel Wm. T. Baird lock-box 62 Aranses City, Kans.

SOY BEANS—For sale. Early yellow variety, good; \$2.25 per bushel, bags free. E. F. Scott, Rural Route 2, Burlingame, Kans.

BLACK HULL KAFIR SEED of my own growing, recleaned and screened; a choice article; crop 1901 Send for samples and prices. Asher Adams, Osage City, Kans.

FOR SALE—Improved Early Orange sorghum-seed \$1.50 per bushel. M. S. Miller, Florence, Kans.

CANE AND KAFIR-CORN SEED—Choice re cleaned; quantities to suit. V. S. Jones, Syracuse, Kas

SEED CORN FOR SALE—Choice white. Grown in Kaw Valley. Crops of 1900 and 1901 tipped, shelled, and sacked \$1.25 per bushel f. o. b. J. F. Godwin, North Topeka, Kans.

SEED SWEET POTATOES FOR SALE—All leading kinds; also plants in their season. Enquire of N. H. Pixley, Wamego, Kans.

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

MISCELLANEOUS.

FOR SALE—20 iron rain-water tanks at \$1.50. 111 East 6th St., Topeka, Kans.

\$25 REWARD—Lost, since January, yellow Shepherd dog, darker on back, white breast, white face, front feet white, bushey tail with tip of white. C. S. Pickering, Gardner, Kans.

EARLY YELLOW SOY-BEANS—Good quality. Seed beans for sale. E. E. Chronister, Abilene, Kans.

AM WANTING to buy Osage hedge posts by the carload. Parties who can furnish same correspond with D. K. Unsicker, Wright, Iowa.

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

COLLIE PUPPIES for sale, 3½ months old, unexcelled in breeding, and individual qualities, \$6 and \$4 Address J. W. Babbit, Hiawatha, Kans.

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

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

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

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

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

PATENTS.

UNITED STATES **PATENTS** FOREIGN

F. M. COMSTOCK & CO., Office, 529 Kansas Avenue, Topeka, Kans

J. A. ROSEN, Patent Attorney

The Stray List.

Week Ending May 1.

Cherokee County-S. W. Swinney, Clerk.

Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by H. R. Hubbard, in Lowell tp
(P. O. Galena), April 7, 1902, one bay mare, 5 years
old, weight about 950 pounds, shod all around, about
1½ hands high; valued at \$30.

MARE—Taken up by W. J. Darnell, in Lowell tp.
(P. O. Galena), April 22, 1902, one brown filly, 2 or 3
years old, about 600 or 700 pounds, white spot in forehead, a little white spot on end of nose and right hind
foot, white half way to the knee, and white spot on
the left fore foot; valued at \$30.

Montgomery County—D. S. James, Clerk.

Montgomery County-D. S. James, Clerk. HORSE—Taken up by Frank Barnes, near Elk City, April 8, 1902, one sorrel horse, 9 years old, bald-faced, crow-foot brand on left hip, figure 5 brand on left shoulder.

Allen County-C. A. Fronk, Clerk. PONY—Taken up by V. J. Sloan, in Marmaton tp., April 14, 1902, one sorrel pony, with strip in face, white right hind foot and left fore foot, a little white on left hind foot, 2 years old; valued at \$10.

Week Ending May 8.

Cowley County-Geo. W. Sloan, Clerk. MARE—Taken up by E. L. Miller, in Grant tp., (P. O. Otto), April 6, 1902, one bay mare, 3 years old; valued at \$25. Also one brown mare, 1 year old, indescribable brand; valued at \$15. Also one black horse, 1 year old; valued at \$15.

Your name and address on a postal (Beautiful Illustrated Pamphlets

on the opportunities of the **GLORIOUS NORTHWEST** Address P. O. Box 162, TACOMA, WASH.
Write today as the number is limited.

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What you are to get for your wool depends on your getting it into the right market and being ready to sell instantly when the time is ripe. Send it where the manufacturers gather to find their supply. And be sure you select a well known reliable house.

Brothers Silberman

facturers come to their great storage lofts for their wool. Liberal advances of money at 6% interest per annum. Low commissions, no storage, perfect insurance. Sacks free to patrons. Their wool market circular keeps you posted. Send for it. Free.

SILBERMAN BROS., 122, 124, 126, 128 Michigan St., CHICAGO, ILL.





Low Round Trip Rates UNION PACIFIC

MISSOURI RIVER

\$15.00 To Denver, Colorado Springs, and Pueblo, Col June 22 to 24, inclusive. July 1 to 18, inclusive.

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

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

\$25.00 To Glenwood Springe, Col. June 22 to 24, inclusive. July 1 to 18, inclusive.

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

\$31.00 To Glenwood Springs, Col. June 1 to 21, inclusive. June 25 to 80, inclusive.

\$32.00 To Salt Lake City and Ogden, Utah.

June 1 to 21, inclusive. June 25 to 30, inclusive. July 14 to 81, inclusive. \$45.00 To San Francisco or Los Angeles, Cal.

May 27 to June 8, inclusive. August 2 to 10, inclusive. \$45.00 To Fortland, Ore., Ta-

May 27 to June 8, inclusive. July 11 to 21, inclusive.

Full information cheerfully furnished on F. A. LEWIS, City Ticket Agent, 525 KANSAS AVENUE.

J. C. Fulton, Depot Agent.



NEW FAST TRAIN

Between St. Louis and Kansas City and

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

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

Red River Division.

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

Café Observation Cars,

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



Don't forget to take advantage of our Blocks of Two. See first page.

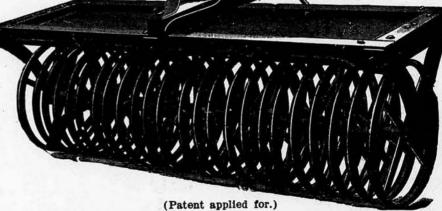
Equal to One Inch of Rain.

THEFTED.

230 Have needed them this spring, aiready.

Write for Prices and Circulars

TOPEKA FOUNDRY, Topeka, Kans.



Can be used East or West.
Can be used at any time.
Can be used on anything planted in rows.
Will pack anything planted in rows as well as prepare a good seed-bed.
It is no experiment.
One rolling is equal to one inch of rain.

MAY

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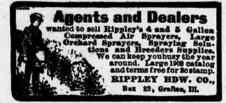
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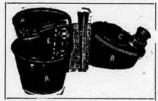
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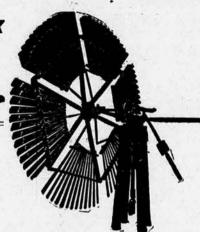
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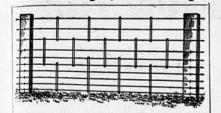
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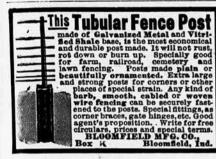
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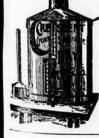
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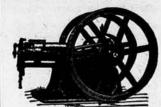
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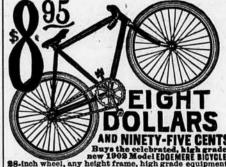
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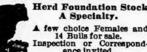
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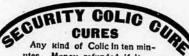
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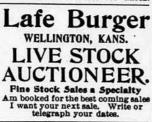
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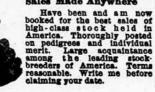
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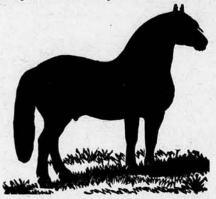
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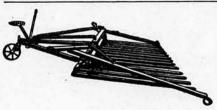
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