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ON THE RANGE.

An Important Meeting of Stock Men at Dodge City--Interesting Matters Discussed.

The second annual meeting of the Western Kansas Stock Growers' Association met at Dodge City April 2, 1884, and was called to order at 2.30 p. m. by President McCoy. The attendance was large for the opening, the hall being well filled. It was estimated that four hundred thousand cattle were represented worth sixteen million dollars.

In his opening remarks the President congratulated the members on the prosperity that had been manifest during the year past, upon the harmonious workings of the association, and general good will and good fellowship existing among the members and the general outlook for the coming year. He called particular attention to the need of more stringent measures for the prevention of the burning of ranges both by accident and maliciously and the need of more effective efforts for the suppression of cattle and calf stealing. He pointed out the great difficulty of convicting parties under the present regime of legal lights in that community.

SECOND DAY--MORNING.

The Executive Committee submitted a very interesting report. The membership at the close of the year was ninety-five, representing 350,000 head of cattle valued at \$10,000,000. They gave a detailed report of their system of inspection during the year, employing inspectors at Dodge City, Kansas City, St. Louis and Chicago at a cost of \$350 per month, or a total of \$1,958 for the season. These inspectors recovered a total of 455 head that they reported, but they were turned over direct to the owners and no report made. The committee recommended the same system for the coming season.

When the symptoms of what at first was thought to be foot and mouth disease in cattle, first appeared in the eastern portion of our State, your committee at once telegraphed Governor Glick, urging upon him the necessity of immediately convening the Legislature for the purpose of enacting stringent laws for the prevention of the disease and for confining it to the narrowest possible limit.

The committee recommended some change in the clause offering a reward for the arrest and conviction of parties committing depredations on stock belonging to the members of the association, making it more explicit, and it is now hard to construe it where one party causes the arrest of several persons, or where two or more cause the arrest of one party. In the matter of round-ups the experiment tried last year of having the foreman of each ranch act as foreman of the round-up on the range that he represented, did not prove to be in all respects a success. Your committee would suggest that the system be revised, after careful consideration, by the round-up committee, possibly by appointing one man as foreman of each division to have full charge, with the understanding that he consult and advise with the foreman of each as to the best manner of working said range. Your committee prefer hearing an expression from practical men on this subject, that a more thorough system may be adopted which will prove satisfactory to all.

With regard to the system adopted by this association in the publishing of a brand book we would suggest for the ensuing year

that the secretary be instructed to prepare and have published a book of similar character to that in use at present, to contain the constitution and by laws of the association together with such resolutions and amendments as shall be in effect at the adjournment of this meeting, and in order that the book may be prepared in season and made available for spring round-ups, we would urge upon each member the necessity of handing it to the secretary before the adjournment of this meeting the list of brands he desired inserted, or the corrections he wishes made for the ensuing year.

It is the unanimous opinion of your committee that the time has now come when an entire change of policy should be inaugurated regarding the driving and holding of through Texas cattle over and upon ranges occupied by members of the association. The State of Texas at the recent session of its legislature passed very stringent laws regarding the herding of cattle upon lands other than those to which the parties so herding could show title, either by ownership or lease, placing an annual rental value of from five to twenty cents per acre upon all lands occupied for grazing purposes and making it a misdemeanor punishable with heavy fines, or imprisonment, or both, for violation of these laws, thereby declaring to the world that so far as the State of Texas is concerned the day of free ranges and open trails is a thing of the past. In view of the character of the legislation whereby Texas demands by her citizens such absolute protection from invasion and attaches such high value to her grazing lands, how can it be expected that we, with our countless thousands of high grade cattle ranging over a country already crowded beyond its capacity, should continue to permit the passage of hundreds of thousands of through Texas cattle annually over a trail through the very heart of our grazing country, leaving in their wake the germs of disease which have already cost stockmen hundreds of thousands of dollars from the losses thereby incurred without any compensation, or direct benefit whatever to them? We are fully convinced that the time has now come when this character of business, carrying with it no compensating advantages to us, should close. We have spent years of care and labor and have expended thousands of dollars in the purchase of high grade and thoroughbred bulls to bring our herds to their present high degree of improvement, by which very improvement they are rendered more susceptible to the contraction of diseases; hence our interests are endangered, and with each ensuing year and we see no reason why we should not demand and receive the same protection that is given to Missouri, Iowa and the eastern part of our own State. We claim that the necessity for a dead line no longer exists and ask that the law now in force in this State preventing the driving, or holding, of through Texas cattle through the section of country east of the present dead line should be amended so as to make it apply to the entire State.

The business of driving Texas cattle northward is now confined to hardly more than a score of men and these few men claim to make but a small margin of profit on the purchase and driving of their cattle to be sold in this and other northern markets. Assuming this to be the fact, we believe it would be cheaper for the stockmen of this section of the country to pay the drovers annually the profits realized by them on the

cattle driven, than to have their interests constantly jeopardized and suffer continued loss of valuable cattle. There is no reason why the great State of Texas, with her system of railroads, to-day should not be placed in the same catalogue and on the same footing with other States in exportation and marketing of her products. It is probably not an exaggeration to say that ninety-five per cent. of the cattle raisers of Texas do not wish to drive their cattle to this, or other States, but prefer making contract for the sale and delivery of their cattle at some railroad shipping point either at home, or at the point of destination, and we believe it to be almost the unanimous opinion of the northern cattle buyers that it is a wise policy and a positive economy as a matter of finance to have their cattle shipped by rail and delivered to them early in the season at a slightly increased cost, thereby securing the benefit of the growth and acclimatization of the cattle for the entire season, rather than have them driven over an open trail from two to five months in a half-starved condition and arriving at their destination late in the season weak and stunted, from which condition a large per cent. never entirely recuperate, entailing heavy losses by death during the winter and those surviving, mature a year later, than would the same class of cattle shipped by rail. We do not desire that Texas cattle should be driven to us for purchase.

We desire to call the attention of this association to a circular letter calling for a national cattle growers' convention to be held at St. Louis in November, 1884. Your committee are keenly alive to the advantage and necessity of an organization of this character and cordially endorse the movement. The recent convention of cattle associations throughout the west and south have already responded to this call and named delegates to attend this convention, and your committee would suggest the appointment by the president of this association of not less than fifteen delegates to represent us.

AFTERNOON.

Mr. Russell offered a resolution in relation to the animal industry bill now before Congress, and urging our senators to use their utmost efforts to pass the same.

After a full and able discussion of the matter by Messrs. Russell, Towers, Gorham and others the matter was referred to a committee of three appointed by the president, viz: Messrs. Russell, Towers and Bloomfield.

Mr. Gorham offered a resolution asking the railroad commissioners to leave the fixing of rates on cattle to the shippers and railroad company. Adopted.

Mr. Russell offered the following.
Resolved, That, inasmuch as it is required of all applicants for membership to furnish a description of the range claimed by them, that the present members be and are hereby required to file with the secretary of the association within thirty days from this date, a full description of their ranges describing the boundary lines thereof, and such other information as may be to their interest and the mutual protection of the members of this association.

Mr. Gorham moved that the chair appoint a committee of twenty to attend the National Live Stock convention at St. Louis in November next, the president, vice president, secretary and treasurer to be at the head of said committee. Carried.

Mr. Russell offered a resolution asking the Legislature at its next session to repeal the law establishing a dead line and quarantine grounds for Texas cattle. Adopted.
On motion, the executive committee is

empowered to send a representative to the National or State capital, if at any time in their judgment laws are likely to be enacted deleterious to the interests of the stock business.

The proceedings of the last day related to practical details of the association's interests. Delegates were chosen to attend the Denver association and the National Live Stock association which is to meet at St. Louis next November.

There was a great deal of business done and done well. It was a practical gathering of practical men for practical purposes.

Johnson Grass.

Kansas Farmer:

It might interest some of your readers who are in very dry sections, to know that the *sorghum halapense* is a grass that will stand the severest drouth. It grows with less moisture than any other grass. Its roots are white, tender, as large as one's finger and grow to the depth of a dozen feet, making excellent hog feed and yielding more than 1,000 bushels per acre. Neither flooding, drouth nor freezing can kill them. It makes excellent hay, yielding from four to eight tons to the cutting per acre, and may be cut from three to six times a year, according to the soil and latitude. It can be started on pasture lands without plowing, yet the best way is to break the land, sow the seed and drag in. It should be sown after the ground warms in the spring. It is a perennial and requires no cultivation, and when it once gets a start it is there to stay—spreading by seed and roots until it runs out everything else. It is a good grazing plant, equaling blue grass and timothy in milk and fat-producing qualities. It has been a success in the dryest sections of this country.

J. W. WALKER.

Franklinton, N. C.

Southern Kansas.

Kansas Farmer:

Let me report Southern Kansas, through your good paper. The winter is past (we hope) and spring weather, with its flowers and birds is here to gladden our hearts after a long cold winter. The weather has been and is still dry.

Many will plant some corn this week, but most will commence next week. Stock of all kinds are in good condition and feed will prove abundant, although the winter was rather protracted. All kinds of stock are in good health, and the fat cattle are getting very fat and heavy. We will have a good peach crop in the best orchards, and all other fruits promise a very heavy crop. The peach crop will be confined mostly to the bottom lands this season.

Let me close by expressing my satisfaction with the management of the FARMER. I have no gratuitous advice to give. Let it move on just as it has, in its broad, comprehensive style.

D. C. B.

Hart's Mill, Chautauqua Co., March 30.

The Metairie, the most fashionable burying ground in New Orleans, was formerly a race-course owned by a fashionable club. The president of the Louisiana Lottery company was blackballed when he tried to enter the club, and in revenge bought the race-course and turned it into a cemetery.

There are 7,000,000 farmers in the United States, the next largest number engaged in other pursuits being the miners and manufacturers, who number nearly 4,000,000.

The Stock Interest.

PUBLIC SALES OF FINE CATTLE.

Dates claimed only for sales advertised in the KANSAS FARMER.

April 10 and 11—Leonard Bro., Angus and Galloways, Kansas City.

April 18—S. T. Bennett, Safford, Kas., Short-horns.

April 23—C. M. Gifford & Sons, Short horns, Manhattan, Kas.

April 24 and 25—Saline Co. (Mo.) Short-horn Breeders, at Marshall, Mo.

April 29 and 30—Hunton & Sotham, Herefords and Short-horns, Kansas City.

April 30—E. L. McDonald and J. G. Cowan, Short horns, St. Joseph, Mo.

May 1 and 2—LaFayette Co. (Mo.) Breeders, Short-horns and Polled, Higginsville, Mo.

May 6, 7 and 8—Jackson Co. (Mo.) Breeders' Association, Short-horns, Kansas City.

May 13, 14 and 15—Leonard Bro., Angus and Galloways, Kansas City.

May 27—J. C. Stone, Short-horns, Leavenworth, Kas.

May 29—W. T. Hearne, Short-horns, Lee's Summit, Mo.

June 6—J. H. Poits & Son, Jacksonville, Ill.

October 9—C. S. Eichholtz, Wichita, Kas., Short-horns.

November 6—S. E. Ward & Son, Short-horns, Kansas City, a. o.

WOOL AS A COLLATERAL PRODUCT.

As times and seasons change and things keep moving ahead, men must modify their opinions and change their plans if they would keep above the tide. In the last fifty to a hundred years a great change has taken place in eastern methods of farming. And it has come about through a combination of many forces.

In the following discussion, Geo. S. Pierson says some pertinent things. We found his article in the *Michigan Farmer*. He says:

That wool-growing as a specialty has numbered its days on the high priced lands of the eastern and middle States there can be no question.

There is nothing new in this fact, although it is stated by several writers who have discussed it since the last tariff changes as a recent condition, a fact not heretofore established. It has long been unprofitable as a specialty upon these lands, and the fact need cause no alarm to-day to the owners of choice flocks, not even to the unfortunate owner of choice Merino grades shearing from eight to fifteen pounds of wool per head.

Wool is a collateral product, and the questions of the profitable keeping of the flock and the abandonment of the industry do not hinge upon a few cents per pound in the price of wool.

The following are pertinent questions to be met to-day, not only by farmers grazing sheep upon highly cultivated lands, but by every farmer situated upon them. Is it profitable or possible to maintain or increase the fertility of our soil without making the production of live stock an important factor in our farming operations?

What class of live stock will bring the greatest net profits considered with reference not only to the cost of production, but taking account of the returns made directly to the soil, and the actual draught made upon constituents of the soil by the products sold? For the soil is but our storehouse, continually reimbursing itself it is true, to a certain limited extent, from the atmosphere and the weathering of its particles, but requiring in addition to these the return of the greater bulk of its annual crops, and suffering rapid depletion of its available constituents when this return or an equivalent one in commercial fertilizers is not made. Many a once fertile farm in the older States demonstrates the truth of this statement and the folly of expecting a limited supply to fill an unlimited demand. If we feed an animal just sufficient to keep it in its present condition, we not only lose our feed but our time and the use of our capital. After these are paid every additional pound of food digested brings us a net profit. So with the soil. If it produces just sufficient to remunerate our labor, the land is of no value. We are obliged then to keep the fertility of our soil up to a certain standard or conduct our business at a loss. The small difference in yield of five bushels per acre between

two fields of wheat, if both crops be obtained by the same labor, enhances the value of one field over the other not less than \$60 per acre.

The rotation of crops is one of the fundamental principles of advanced husbandry and necessitates the keeping of a certain amount of live stock. Up to a certain point the increase in quantity of live stock upon land which has been long under tillage is followed by a parallel increase of grain products. It is notably a fact that in England upon lands far above those of our eastern and middle States in value, the present tendency is strongly toward the increase of permanent pasturage and the number of live stock, sacrificing for the purpose a portion of the acreage formerly devoted to grain. One of the foremost advocates of this course is J. B. Lawes, of the famous experimental farm at Rothamsted, to the report of whose elaborate and long continued experiments we are indebted for much practical information. In the State of Michigan, for every \$100 invested in farm land and buildings there are \$11 invested in live stock, and this is very closely the average ratio in all other States.

It being a well established fact that the keeping of a certain amount of live stock is necessary, the question to be decided by the flock-master before abandoning the industry in consequence of the late reduction in the tariff and lower price in wool, is whether he can replace his flocks by any kind of live stock from which he may hope to derive a larger revenue; and the question of his being able to compete in wool production as a specialty against the cheap lands and the open winters of Australia and the Southwest, is a secondary one. The limit of profitable production is measured not only by the cost of production in competing countries, but by the price of collateral products and the other uses to which the soil may be put to bring an increased revenue. It is said that wool can be grown in the Southwest at 10 cents per pound. Obviously we cannot compete. Shall we abandon our flocks and increase the acreage of wheat? It is said that wheat can be grown in the Northwest at 30 cents per bushel. If we investigate the cost of beef production to the western ranchman we are met by the same apparently ruinous competition. There is nothing new about these figures. The cost of production on new lands has been relatively as cheap for years. A generation ago the fathers of many of us in the then famous wheat growing district of the Genesee valley were greatly alarmed at the prospect of western competition in wheat raising. To-day, after forty years of competition ten-fold greater than they feared, it is the main reliance there, as it has been in the interim, and lands for this use are changing hands readily at prices above \$100 per acre. Let us consider well these facts before we abandon our flocks, lest we seek to repurchase them ere long at a sharp advance.

If we examine the profits of wool growing in connection with those of mutton production, from which it is inseparable in the eastern and middle States, we shall be able more fully to decide this question. I can give no better instance of what has been accomplished with well bred sheep than the following: In the winter of 1882-3, Hon. Wm. G. Kirby, of this county, fed nearly 1,000 wethers, among which were a small party of high grade Merinos. They were sheared in April and shortly after sold for the English market. The average fleece was 13 1/2 pounds, which sold in Boston for 33 cents, and the average net weight of carcass in Buffalo 130 pounds, which sold at 4 1/2 cents.

13 1/2 lbs. wool @ 30c.....	\$ 4 14
130 lbs. mutton @ 4 1/2c.....	5 12
	\$12 06

It cannot be denied that the \$4.54,

supplemented by the previous yearly receipts for wool, is an important factor of the gross receipts, and the collateral product securing to us this additional revenue is worthy of our earnest attention. It is probable that wool of equal value for the manufacture of worsteds or other fabrics requiring a true and strong fiber can be produced in no other way, as the conditions to which the sheep are subjected when being judiciously fed for mutton are especially favorable to the growth of a fiber of this character. Life upon the range, with its attendant exposure to extremes of weather and alternations of plentiful and scant feed can never, with certainty, produce this class of wool.

The sale of the fleece, in this case representing about one-half the gross receipts, alienates from the soil but a very small per cent. of the constituents removed by the sale of an equal value of mutton or almost any other product, and hence its percentage of the total product should be as large as is compatible with good feeding qualities. The feeding qualities of the Merino are not a fixed quantity, but are being rapidly developed by our best breeders to-day, as they have been by earlier ones, being desirable not only from the mutton standard, but essential to the production of heavy fleeces and to the nursing qualities of dams.

The weights attained by the Merino wethers as given above, though exceeded by the larger mutton breeds shearing comparatively light fleeces, were heavy enough to bring the top price, and in Mr. Kirby's opinion were grown and fed at a greater profit than any other of the 1,000 head, which numbered equally choice specimens of the mutton breeds.

It is probable that the recent increased facilities for the transportation of meats will indirectly favor the wool-grower upon high-priced lands. Heretofore the shipping of meats from Australia and the South American States has not been practicable. This trade is now being rapidly developed and is likely to absorb a part of the capital now invested in wool growing, a product suffering no damage from its long ocean transportation, and upon which the freight charges have been comparatively light.

I look forward with confidence to the showing of thoroughbred Merino wethers to be made by one of our Michigan breeders at the coming Chicago Fat Stock Show.

DISEASES OF SWINE.

An address read at the Indiana Swine Breeder's convention, 1884, by D. L. Thomas.

The outbursts of disease among the swine of the United States during the past twenty years has attracted the earnest attention of thoughtful men. And while absolute immunity from disease can not be expected it is a fact highly complimentary to the practical breeders that they of all hog raisers are now suffering least from such ravages. It confirms the belief that careful management has much to do in preserving the health of swine while negligence receives its reward. Experience and observation demonstrate that the best remedies are found in the removal of causes which produce disease. The chief causes which promote disease are found in the food, drink and range of the stock. In fact these nearly cover the whole ground. But I wish to specify some particulars.

FOOD.

The unfortunate sentiment prevails with many men that anything is good enough for a hog. In preparing food many farmers are governed by the idea: "Will hogs eat it?" On this account unwholesome food is often furnished. Unsound corn is fed with impunity. I

know a well-to-do farmer who raised excellent corn for 1883, and last fall he tried to buy defective corn to feed, so as to sell his own crop at a good figure. In other words, in order to make a few extra dollars on corn he would risk losing his stock in an attempt to make bone, muscle, fat and blood out of unsound food. Many farmers in buying corn for feeding purposes will take defective in preference to sound corn because it comes at a few cents less per bushel. They think it is economy.

DRINK.

Impure water has destroyed more hogs than any one thing. Hogs can be induced to drink filthier water than any other domestic animals. On that account they get more of it to drink. The conformation of the hog makes it need water worse in hot weather than other animals. Its legs being short bring its body nearer the ground which makes it feel and inhale the hot air more freely; its body is composed largely of fat. These circumstances subject the animal to excessive heat. If only very filthy water is obtainable they must drink it or perish.

Then for the sake of convenience in obtaining a supply and in pumping water farmers quite frequently seek the lowest parts of their farms to establish wells. Water is found nearest the surface in those basins, so that shallow wells answer the purpose. Generally rain washes surface filth into those wells, if it does not, the water carries the impurities into the well through the pores of the soil.

During harvest and threshing season, farmers are from home the entire day, engaged in the interchange of labor. Hogs must endure the longest days of most oppressive heat, without water to slake their thirst and cool their fever. Late in the evening they are supplied with drink at which time they are apt to gorge their stomach with putrid water. This deranges the digestive apparatus, and not unfrequently causes a sudden outbreak of disease.

And during dry seasons swine diseases prove quite fatal along water courses. At such times water ceases to flow in many brooks, what water is visible stands in pools and soon becomes stagnant. Live stock is forced to drink such water, as men not accustomed to pumping water for farm stock seldom resort to the practice while any water is visible. Swine drink and wallow in the scum and filth. Amid such destroying agencies death numbers its victims.

The proprietor of a large rendering establishment claims that he has for years obtained his principal supply of dead animals along water courses. The success of his business confirms what I have stated. Many diseases are due to minute organisms known as "disease germs." The vitality of these germs is preserved for some time in water. The germs are thus conveyed to the stomachs of swine. In short all decaying animal and vegetable matter found in such impure water is soon transferred to the hog's system. In a few weeks after the inception of these germs the disease is fully developed. This accounts for the greatest fatality among swine during the latter part of summer and early fall.

Then there are strong collateral evidences to condemn the custom of permitting hogs to drink impure water. Scientific investigation has detected impurities in milk caused by cows drinking filthy water. Such milk is declared unwholesome for food. Now, if impure matter in water can be conveyed through a cow's system thereby rendering her milk and butter unhealthy for the consumers, how apparent must be the evil likely to result to the animal that drinks such impure water. In numerous cases where entire fam-

illies have been prostrated with typhoid fever while near neighbors were wholly exempted the attending physician traced the causes to impure water or foul air. In some cases the surface water of the yard and slops from the kitchen run into the wells where the families got their supplies of water. In other cases the presence of sewer gas was found to be the source of the malady. Now, the swine plague or fever (so-called "cholera") is closely allied to typhoid fever, indeed, physicians who have studied closely both diseases pronounce them identical. Then, if certain influences produce fever in the human family, like influences will certainly develop diseases among swine. For the circumstances are parallel.

THE RANGE.

The rankest vegetation is found along water courses and on the low lands of the farm. Impurities are eliminated in the decay of vegetable matter. Heat and moisture generate poisonous gases. Swine ranging in such localities, have these additional difficulties to encounter. Science has long since discovered carbonic acid gas in the atmosphere. A practical chemist can generate the gas as dense and visible as clouds in the air. During long periods of dry weather the air becomes more highly charged with the gas. Rain washes the atmosphere and beats the gas to the earth, then we feel invigorated and remark about the air being so fresh and pure. The gas being heavier on the atmosphere, settles on the surface and winds carry it along until it finds the lowest places. By this means it drops into wells and basins. This carbonic acid gas in wells is commonly known as "damps" and is deadly to inhale in such a dense form. It cannot help but exist often in a diluted form in basins and marshes. Stock ranging in such localities must suffer to some extent by its presence. Now there are instances where nearly, if not all these unfavorable conditions combine at once. Just think of it. Hogs eating unwholesome food, drinking germs of diseases, inhaling noxious gas, wallowing in filth, and ranging in malaria. This picture is not overdrawn, for there are farmers who are annually paying the penalty for such gross negligence.

THE REMEDY

lies in removing the causes. Tile drainage is incidentally proving a powerful remedial agent, as low lands are being drained for purposes of cultivation and stagnant water removal, yet, farmers unwittingly are still seeking the lowest and spouty land for watering places. They construct their feeding lots adjacent and fatten their hogs in the same. Further tiling which is going on continually will give still further relief.

Indiana was formerly notorious on account of its malaria. But recently a wholesale drug house in this city informed the editor of the *Drainage Journal* that tile drainage has reduced the sale of quinine and other fever and ague remedies nearly sixty per cent. So it is aiding in preserving the health of swine, but the unfavorable conditions along water courses remain to foster disease which is damaging us at home and abroad. We must agitate this matter and hold up this suicidal policy till the most careless and reckless hog raiser shall be awakened to a sense of his own interest as well as the general good. Those pest wells and stagnant ponds—the receptacles of filth and promoters of disease—must be abolished. It is the height of folly to attempt to arrest a disease with nostrums in broken doses while the disease is entering the hog at its mouth, nose and every pore. But when the hog raiser makes his hog range on elevated land and supplies his swine with pure water and protects them from extreme cold and heat and furnishes wholesome food, he proclaims to the world that he has insured his herd against the majority of swine diseases.

About the Use of Incubators.

Artificial incubation is becoming very interesting to all persons interested in poultry. By examining cases of success and failure we may learn what is essential to progress in every case. A writer in *Poultry Post* gives a bit of experience that may be interesting and useful. He refers to a December hatch and says:

Our hatch was 50 per cent. of the apparently fertile eggs; out of these we lost seven chicks before the third day, they being weakly from the shell. These chickens, after twenty-four hours in the drying box, were put in the artificial mother in runs on a cement floor, covered with three inches of broken straw and two inches of dry earth, in a well lighted room, where there was a uniform temperature of 50 degrees. We soon found that would not do; the almost universal trouble of leg weakness or cramps came, and from that we lost five chicks. We then put them for some hours on a heated surface (103 degrees), and they came out all right. Finding the cold came up from contact with the floor, we raised the runs two feet on frames, and since then the chicks have done as well as any we have ever seen. We fed the first few days chopped eggs and bread crumbs, then Indian meal baked into a hard bread; this is made to a paste with warm water. They are fed every two hours, from five o'clock a. m. to ten o'clock p. m., and at each feeding get a little meat, green food, shell and bones chopped up together. As yet they have had no drink, and when milk is put before them so far will not touch it. We now, at a month from hatching, have 40 per cent. of the fertile eggs in fine, healthy chickens. From past experience we are sure we can not raise winter chickens, if they run on cold earth or a hard floor, even if the mother is all it should be. It is evident this way of handling chickens will not pay any one, but we know of no way of doing it cheaper at present. This may seem to your readers a gloomy account that have taken their views from the letters and articles in the papers. We do not consider it bad for December and January, and we are among those who have hatched 90 per cent. and raised a fair percentage of incubator chickens at a more favorable time of the year. We should be pleased to hear of better results with hens during this time, if any of your readers will favor us.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

It is recommended as a good thing to throw evergreen boughs into the sheep pen occasionally through the winter for the stock to nibble at, in lieu of the grass which cannot be reached.

Ask your Druggist for a free Trial Bottle of Dr. King's New Discovery for Consumption.

There are 36,000 sheep suffering from foot and mouth disease in Great Britain

Oatarrh of the Bladder.

Stinging, irritation, inflammation, all Kidney and Urinary Complaints, cured by "Buchu paiba." \$1.

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TO FARMERS' SONS AND DAUGHTERS

A full four years' course of study in English and Sciences most directly useful on the farm or in the home with careful training in the industrial arts adjusted to the wants of students throughout the State, with shorter courses in common branches, and all

Tuition Free.

Other expenses are reasonable, and opportunities to help one's self by labor are afforded to some extent. The work of the farm, orchards vineyards, gardens, grounds and buildings, as well as of shops and offices, is done chiefly by students, with an average pay-roll of \$200 a month.

THE TWENTY-FIRST YEAR OF THE COLLEGE BEGINS SEPT. 13TH, 1883,

with sixteen instructors, 350 students, buildings worth \$90,000, stock and apparatus worth \$35,000, and a productive endowment of \$405,000.

For full information and catalogue address, PRES. GEO. T. FAIRCHILD, Manhattan, Kansas.

YORK NURSERY COMPANY
(Established 1870). Nurseries and Green Houses at FORT SCOTT, KANSAS. Largest Stock of Nursery and Green House Plants in the West. BEAUTIFULLY ILLUSTRATED CATALOGUE for 1883, now ready. Mailed to applicants free.

BREEDERS' DIRECTORY.

Cards of three lines or less, will be inserted in the Breeder's Directory for \$10.00 per year, or \$5.00 for six months; each additional line, \$2.00 per year. A copy of the paper will be sent the advertiser during the continuance of the card.

CATTLE.

GEO. T. BORLAND, Iowa City, Iowa, Breeder of Short-horn Cattle. Car-load lots of Thoroughbred or Grade a specialty. Send for catalogue and prices of good individuals with good pedigrees.

J. W. LILLARD, Nevada, Mo., Breeder of THOROUGHBRED SHORT-HORNS. A Young Mary bull at head of herd. Young Stock for sale. Satisfaction guaranteed.

W. M. P. HIGINBOTHAM, Manhattan, Riley Co., Kansas, Proprietor of the Blue Valley Herd of Recorded Short-horn Cattle of the best families, and choice colors. Also High Grade Cattle. Offers some choice bargains in Bulls, Cows and Heifers. The growing of grade bulls for the Southern and Western trade a specialty. Correspondence and a call at the Blue Valley Bank is respectfully solicited.

PLEASANT VIEW FARM, Wm. Brown, Lawrence, Kansas, Breeder of JERSEY CATTLE of the best strains.

D. R. PATTON, Hamlin, Brown Co., Kas., breeder of Broadlawn herd of Short-horns, representing twelve popular families. Young stock for sale.

OAK WOOD HERD, C. S. Eichholtz, Wichita, Kas. Live Stock Auctioneer and breeder of Thoroughbred Short-horn Cattle.

ALTAHAM HERD, W. H. E. Cundiff, Pleasant Hill, Mo. Fashionable-bred Short-horn cattle. Straight Rose of Sharon bull at head of herd. Young cattle for sale; bulls suitable to head any show herd.

A. HAMILTON, Butler, Mo. Thoroughbred Gallo-way cattle, and calves out of Short-horn cows by Galloway bulls, for sale.

Hereford Cattle.

E. S. SHOCKEY, Lawrence, Kansas, breeder of Thoroughbred Hereford Cattle. Three cows and 11 bulls for sale. Also Grade bulls and heifers for sale.

W. C. MCGAVOCK, Franklin, Howard Co., Mo., Breeder of Thoroughbred and High-grade Hereford and Short-horn cattle. 100 head of High-grade Short-horn Heifers for sale.

F. W. SMITH, Woodlandville, Mo., Breeder of Thoroughbred Hereford Cattle. Dictator 1889 heads the herd. 50 Grade Bulls for sale.

GUDGELL & SIMPSON, Independence, Mo., Importers and Breeders of Hereford and Aberdeen Angus cattle, invite correspondence and an inspection of their herds.

CATTLE AND SWINE.

JOS. E. MILLER, Breeder of Holstein Cattle Shropshire Sheep and Yorkshire Swine. Eliwood Stock Farms, Belleville, Ill.

J. E. GUILD, CAPITAL VIEW STOCK FARM, Silver Lake, Kansas, Breeder of THOROUGHBRED SHORT-HORN CATTLE and POLAND-CHINA SWINE. Correspondence solicited.

D. R. A. M. EIDSON, Reading, Lyon Co., Kas., makes a specialty of the breeding and sale of thoroughbred and high-grade Short-horn Cattle, Hambletonian Horses of the most fashionable strain, pure-bred Jersey Red Hogs and Jersey Cattle.

H. B. SCOTT, Sedalia, Mo., breeder of SHORT-HORN CATTLE, POLAND CHINA HOGS, COTSWOLD and SHROPSHIRE SHEEP. Send for catalogue.

W. H. & T. C. EVANS, Sedalia, Mo., Breeders of Short-horn Cattle, Berkshire Hogs, Bronze Turkeys, Plymouth Rock Chickens and Pekin Ducks.

SMALL BROS., Hoyt, Jackson Co., Kansas, Breeders of Short-horn Cattle and Chester White Swine. Correspondence solicited.

WOODSIDE STOCK FARM, F. M. Neal, Pleasant Run, Pottawatomie Co., Kas., breeder of Thoroughbred and high-grade Short-horn cattle, Cotswold sheep, Poland-China and Berkshire hogs. Young stock for sale.

SHEEP.

H. V. PUGSLEY.

PLATTSBURG, MO., breeder of Vermont registered Merino Sheep. Inspection of flocks and correspondence invited. Stubby 440 heads the flock. One hundred and fifty rams for sale.

Plymouth Rock eggs, \$1.50 per 13; Bronze Turkey, \$3.50 per 12. Of the best strains.

D. W. MCQUILTY, Hughesville, Pettis Co., Mo., breeder of SPANISH MERINO Sheep, Berkshire Swine, and eight varieties of Poultry. Eggs, \$1.50 per setting.

G. B. BOWWELL, Breckenridge, Mo., has 1,100 Merino rams for sale. 250 of them are registered. His seven best stock rams shear from 27 lbs. to 33 lbs., weigh from 145 lbs. to 180 lbs.

MERINO SHEEP, Berkshire Hogs, and fourteen varieties High-class Poultry, all of the best strains. Bucks a specialty. Harry McCullough, Fayette, Mo.

PURE-BRED Registered Vermont Spanish Merino Sheep and Light Brahma Poultry for sale. Satisfaction guaranteed. R. T. McCulley & Bro., Lee's Summit, Mo.

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W. M. PLUMMER, Osage City, Kansas, breeder of Recorded Poland-China Swine. Young stock for sale at reasonable rates.

ROBERT COOK, Iola, Allen county, Kansas, Importer and breeder of Poland-China Hogs. Pigs warranted first-class. Write.

L. W. ASHBY, Calhoun Mo., Breeder of BERKSHIRE SWINE of largest size and choicest strains.

I. L. WHIPPLE, Ottawa, Kas., breeder of Recorded Poland-China and Red Berkshire swine. Stock for sale at all seasons. Correspondence solicited.

POULTRY.

H. A. THOMAS, Scranton, Kas., breeder of Fancy Pigeons, English Carriers, all colors; Blue Antwerps, Owls, Trumpeters and Jacobins. Few prs. for sale.

POULTRY.

WICHITA POULTRY YARDS—J. Q. Hoover, Wichita, Kansas, breeder of PARTRIDGE COCHIN, BUFF COCHIN, LIGHT BRAHMA, PLYMOUTH ROCK, BROWN LEGHORN, HOUDANS and BLACK SPANISH Poultry Eggs now for sale.

SEND TWO DOLLARS and get one setting of Ives celebrated Jayhawk strain of Plymouth Rock eggs. The finest in the State. No stock for sale until fall. Address S. L. Ives, P. M., Mound City, Linn Co., Kas.

PEABODY POULTRY YARDS, Weldlain & Byrum, proprietors. Light and Dark Brahmas, W. and B. Leghorns, Buff and Part and Black Cochins, B. B. R. G. Bantams, W. F. B. Spanish, LeFleche B. B. R. Game, S. S. Hamburg, Blk. Javas, W. E. B. Polish, Houdans, P. Rocks, Langshans. Eggs now for sale; \$2 per setting. Chickens Sept. 15th.

NEORHO VALLEY POULTRY YARDS—Established, 1870. Pure-bred Light Brahmas, Partridge Cochins, Plymouth Rocks, Eggs in season. Stock in fall. Send for circular. Wm. Hammond, box 190, Emporia, Kas.

W. M. WIGHTMAN, Ottawa, Kansas, breeder of high-class poultry—White and Brown Leghorns and Buff Cochins. Eggs, \$2.00 for thirteen.

GET THE PLYMOUTH ROCKS. One dollar will pay for 13 Plymouth Rock eggs, delivered, nicely packed, at express office. Gerald Hoisinger, Rosedale, Kas.

LOUIS DUISCHER No. 90 Madison street, Topeka, Kansas, has for sale 100 Light and Dark Brahma and Black Cochin pure-bred poultry of the Jevelyn and Fitch strains. Also, for sale a Centennial and Common-Sense incubators. All the above will be sold very cheap.

RIVERSIDE POULTRY YARDS, Cricket Randolph Prop'r. Emporia, Kas. Plymouth Rock, Partridge Cochin, Light Brahma, or Brown Leghorn eggs, \$2.00 for 13.

WAVELAND POULTRY YARDS, Waveland, Shawnee county, Kansas, W. J. McCollm, breeder of Light Brahmas Plymouth Rocks, and Pekin Ducks. Stock for sale now. Eggs for hatching in season; also Buff Cochins eggs.

PLYMOUTH ROCKS—Corbin's Improved strain—\$5.00 per trio; eggs in season. Also Pekin Duck eggs. Address M. J. Hunter, Concordia, Kas.

G. W. PLEASANT, Wright City, Mo., breeds the very best Light Brahma, P. Cochins, P. Rocks, W. Leghorns, Aylesbury Ducks, etc. Established in 1871. Write for circular.

A. N. BAKER, Proprietor Lawn Field Poultry Yards, Sabetha, Kas., breeds Buff Cochins, White Leghorns, Partridge Cochins, Houdans, Plymouth Rocks, B. B. R. G. Bantams, and Pekin Ducks. Eggs, \$3.00 per 13; \$3.50 per 24. Also Black and-tan Dogs.

SEND TWO DOLLARS to Mark S. Salisbury, box 831, Kansas City, Mo., and get a choice young Plymouth Rock Rooster. Three for \$5. Fitch strain.

THE COMMON-SENSE INCUBATOR, is made and sold by JACOB YOST, P. O. Box 818, North Topeka, Kansas.

MISCELLANEOUS

STOCK FARM FOR SALE.—640 acres, together with stock and farm implements. Address J. H. Reinta, Odin, Barton Co., Kas.

J. G. D. CAMPBELL, Junction City, Kansas, Live Stock Auctioneer. Sales made in any part of the United States. Satisfactory reference given.

N. ALLEN THROOP, Englewood, Ill. Live Stock Artist and Engraver. Will sketch from life or photograph. Terms reasonable and work guaranteed.

STRONG CITY STOCK SALES will be held the fourth Saturday in each month at Strong City. Address G. O. HILDBRAND, Secretary.

S. A. SAWYER, Manhattan, Kas., Live Stock Auctioneer. Sales made in all the States and Canada. Good reference. Have full sets of Herd Books. Complete catalogues.

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TOPEKA TRANSPORTATION OFFICE, No. 130 Kansas Ave. Topeka. All orders promptly filled. Also storage for all kinds of goods at reasonable charges. Orders taken for hacks. Moving families a specialty. A. G. DRAKE, Manager.

Waveland Poultry Yards,

WAVELAND, : KANSAS, (Shawnee Co.)

W. J. McCOLM, —Breeder of—

Pure Bred Poultry.

Pekin Ducks, Plymouth Rocks, Light Brahmas, Buff Cochins, Black Javas.

My Pekins are very fine, and took first premium in 1882, and first and second in 1883 at Topeka State Poultry Show—B. N. Pierce, Judge.

Eggs for hatching nicely packed in baskets. Pekin Duck eggs, eleven for \$1.75; twenty-two for - \$3.00 Black Java, thirteen for - 3.00 All others, thirteen for \$1.75; twenty-six for - 3.00

THE LINWOOD HERD

SHORT-HORN CATTLE



IMP. BARON VICTOR

W. A. HARRIS, Linwood, Kansas. The herd is composed of VICTORIAS, VIOLETS, LAYENDERS BRAWTH BUDS, SECRETS, and others from the celebrated herd of A. Cruickshank, Sittlyon, Aberdeenshire, Scotland. GOLDEN DROPS, and URYs, descended from the renowned herd of S. Campbell Kinellar, Aberdeenshire, Scotland. Also YOUNG MARYS, YOUNG PHYLISES, LADY ELIZABETHS, etc. IMP. BARON VICTOR 4224, bred by Cruickshank, and IMP. DOUBLE GLOSTER head the herd. Linwood, Leavenworth Co., Kas., is on the U. P. R. R., 27 miles west of Kansas City. Farm joins station. Catalogues on application. Inspection invited.

MISSOURI WOOL GROWERS.

Special correspondence KANSAS FARMER.

The annual shearing and convention of the Missouri Wool Growers took place at Kansas City last Wednesday. The leading breeders and those whose all is in sheep made an unusual effort to get out a full representative attendance of those engaged in this business over the State, but in a word this was a decided failure, and only regular breeders of thoroughbred sheep were in attendance. The exercises were of a high order and the shearing a success.

THE SHEARING.

The lot of sheep exhibited for shearing were the best lot ever shorn at any of the public shearings of this association. The following is a list of the exhibitors: Sam and P. D. Jewett and Mrs. C. Pugsley, Independence, Mo.; R. T. and J. V. McCulley and B. Stoner, Lee's Summit, Mo.; H. V. Pugsley, Plattsburg, Mo.; Harry McCullough, Fayette, Mo., and D. W. McQuitty, Hughesville, Mo.

The following is a tabulated result:

NAME.	Age	Pounds	Quines	Staple	Age in days	Sex	Live weight
McCullough & McQuitty	3	17	8	33	358	ewe	95
H. V. Pugsley	2	18	4	33	350	"	94
Sam Jewett	3	18	2 1/2	33	350	"	86
R. T. McCulley	16	13	3 1/2	33	350	r lamb	111
Sam Jewett	15	13	3 1/2	33	350	ewe	108
R. T. McCulley	21	7	3 1/2	33	350	ewe	145
B. Stoner	4	26	8	33	350	ewe	88
R. T. McCulley	3	18	8 1/2	33	350	ewe	116
H. V. Pugsley	3	20	8 1/2	33	350	ewe	99
Sam Jewett	9	14	5 1/2	33	350	ewe	99
McCullough & McQuitty	3	17	14	3	267	ram	133
Mrs. C. Pugsley	3	22	2	3	312	ram	118
B. Stoner	1	12	15 1/2	3	350	e lamb	60
McCulley Bros.	2	17	14 1/2	4	350	ewe	102
McCulley Bros.	1	14	13	2 1/2	350	e lamb	81
Jewett & McQuitty	2	28	1	2 1/2	362	ram
McCullough & McQuitty	3	16	11	2 1/2	350	ewe	81
Mrs. C. Pugsley	2	20	2 1/2	3 1/2	350	ram	135
H. V. Pugsley	2	28	8	3 1/2	362	ram	133
McCulley Bros.	18	12	3	3	358	r lamb	124
H. V. Pugsley	18	6	4	3	358	ewe	106
Sam Jewett	2	31	6	4	362	ram	169

The breeding ewes shorn by the Association averaged 17 lbs., 10 1/2 oz. The rams, 27 lbs., 15 1/2 oz.

THE EXERCISES.

The Association held their meeting at the St. James hotel, and the new President, H. V. Pugsley, presided. Addresses of welcome were made by Mayor Gibson, of Kansas City, and A. B. Matthews. The response was given by Prof. J. W. Sanborn, of the Missouri State Agricultural college.

Mayor Gibson said: On behalf of an active and enterprising people, I extend to you a hearty welcome. I hope you all will frequently come and visit us and trade with us.

Kansas City has a territory unbounded. Chicago has a good northwest, while we have an unbounded western and southern territory, and a magnificent stretch of country to the north and east of us from which to draw support and supplies. Our interests are mutual, and we hope to see you among us often.

Kansas City was incorporated in 1853. In 1865 it contained a population of about 5,000. It now has 95,000 people, and with the suburban towns, 130,000. For 1883 our assessed valuation was \$26,755,815, and \$30,000,000 for 1884. The actual value is about \$75,000,000. Our municipal indebtedness is but \$1,095,000, a decrease in 1883 of \$75,264. During 1882 our bank clearings were \$98,135,590, an increase in 1883 of \$33,602,510. In 1882 we had a banking capital of \$2,100,000, and in 1883 \$3,000,000. In 1882 our bank deposits were \$7,275,000, and in 1883 \$8,735,411. In 1882 our loans and discounts were \$5,517,000, and in 1883 \$7,103,228. In 1882 our postoffice handled 10,425,599 pieces of mail matter, and in 1883 13,044,864 pieces. Our live stock receipts in 1883 were 1,990,420, an increase of 33 per cent. over 1882. For the year, November 1, 1882, to November 1, 1883,

Milwaukee packed 387,000 hogs; Cincinnati, 442,000; Indianapolis, 460,000; St. Louis, 565,000; Kansas City, 1,033,000. Our grain receipts for 1882 were 15,350,917 bushels, and in 1883 there was an increase of 9,786,776 bushels. In 1883 Kansas City built 2,152 houses, costing \$4,492,364. In 1883 our real estate transactions amounted to \$8,601,936; our street improvements, \$551,344. Eighty-two railroad passenger trains leave and arrive daily. During 1882 our Union depot ticket sales amounted to \$1,546,811, an excess of \$315,811 over St. Louis. One-seventh of all the railroad mileage in the United States is represented in the management of the Union depot. In 1883, 1,200,000 cars arrived and departed, and 1,500,000 cars were switched in the yards. Under roof there are 100 acres of railroad floorage.

Mr. Matthews followed the Mayor in a neat address referring particularly to the sheep and wool industry.

Prof. Sanborn made some pleasant allusions to Mayor Gibson's figures on the city, and added "I think we have passed that period when jealousies existed between the city and the country. I am not among those who think that agriculture is the greatest pillar of all the industries, but I think it one of the pillars, and as Webster once said, may be the greatest. Mr. Chairman, if you were to blot out the civilization of the day I might wish that the whole race was also blotted out. With the printing press there came a dissemination of information, and since its advent the march of civilization and progress has been steadily onward. In passing through the evolution of the steam power we cannot but say that the manufacturing interests are as necessary to our interest as we are to theirs. I believe in building up all our manufacturing interests as much as possible that we may build up good markets for our products of the farm. I am much surprised in looking over the evolution of industries of this country. One-half of France is given to agriculture, while here in the United States but 41 per cent. is engaged in agricultural pursuits. I wish to say a few words to our city friends. That as glorious as has been the development of the manufacturing industries the past twenty-five years, agriculture has kept pace with them in the march of progress. There are now probably 1,000 men doing nothing but investigating problems exclusively agricultural. Look at the agricultural experimental stations. In Europe there are to-pay 1,200 schools of agriculture. In this country as yet there are only one to each State. In France one of the primary studies of the schools is agriculture. If I had time to investigate the chemical evolutions it would surprise you. In Washington there is to be found in the patent office models of 35,000 articles that have been invented for the convenience of the farmer. I glory, however, as much in the rise of the industries in the city as I do in the advancement of agriculture." He said, "that for every advancement in the city we promise you an equal advancement on the farm."

A. D. Simons, one of the editors of the Live-Stock Indicator, read a practical paper upon, "Double-deck Cars Essential to the Success of Sheep-raising in the Missouri valley." He presented facts showing the unfair discrimination against this class of stock in freight rates. There is a law in Missouri requiring double-deck cars when asked for, but as the stock yards were in Kansas it was inoperative. Kansas and Nebraska need a law like the one in Missouri before this discrimination by the railroads can be avoided.

After an address by Sam Jewett, of

Independence, the following officers were elected: President, H. V. Pugsley, Plattsburg; Vice President, G. H. Wallace, Fayette; Secretary, L. L. Seiler, Osborn; Treasurer, N. H. Gentry, Sedalia.

On Friday several very interesting papers were read, and the following committees appointed: G. H. Wallace, A. J. Childs and Prof. Sanborn, to confer with the wool-growers of Kansas upon the subject of equitable transportation and the tariff; Sam Jewett, R. T. McCulley and A. B. Matthews, to represent Missouri at the National Wool-Growers convention, May 19.

W. E. Gowdy read the following paper:

EFFECTS OF BAD ORDER AND BURRS IN SELLING WOOL.

In discussing the above subject the first question naturally arises, What constitutes the condition known and termed bad order? and as the territory embraced by this association is a territory of unwashed wool, almost exclusively, we will give the several conditions which make wool in bad order in this territory. And first—I shall here have to reiterate an assertion I made two years ago, that no one can grow good conditioned wool from bad blood.

Secondly.—Another cause of bad order is injudicious feeding; first, of too little feed, making a wool of stunted or stubby growth, weak or broken and a frouzy staple, and while the amateur manufacturer or dealer may sometimes buy it on account of its light shrinkage, the practical manufacturer will reject it because of its after shrinkage in all of the stages of carding, weaving and spinning, and make after all an undesirable piece of goods or yarn. I have found by experiment in this direction a difference in the card shrinkage alone of fifty per cent. Secondly, of using too much feed, making not so good wool as grease or yolk and throwing the wool from a choice to an ordinary or heavy conditioned article.

Thirdly.—By taking the fleece off carelessly and putting it all up in a mass with a portion of the flesh side and a portion of the outside out, thus giving the fleece an undesirable mottled instead of a bright and beautiful appearance which a well-bred, well-fed and carefully handled fleece will present.

Fourthly.—Tags, dunglocks and balls, particles, straws, sticks, and any foreign matter adhering to and put up with the fleece.

Fifthly.—Hay-seeds and chaff, also, are a source and a bad one of bad order, and this condition should probably be more appropriate under the head of burrs.

The effects of this bad order are first, a reduction in price of from three to five cents per pound, and in some cases of from three to eight cents, and generally dissatisfaction to the owner and very often of genuine disgust to the manufacturer and purchaser.

Burrs of Missouri consist first, of the cockle burr, which can generally be taken out of fleece by hand by the owner of the wool or sheep before shearing, but they can also be taken out by the burring machine and while they are perhaps one of the easiest to get out, yet they often pass through and are not only a source of annoyance to the manufacturer, but damage to the machinery and the goods. Second, the dock or burdock burr, is one of the worst, for when it is fully ripe the spires and seed get scattered through the fleece, and the only way to get rid of them is by clipping, which usually takes with them two or three times their weight in wool or by what is termed the processing method.

I find, thirdly, some of the sand burr which is also a mean fellow, as it is liable to pass through the burring machine along with the wool, too small and expensive for hand picking, and damaging to the machinery; and the only safe way to get rid of it is by the acid process, and the effect is a depreciation in price of three to ten or more cents per pound, and like the other conditions named of annoyance to both the dealer and manufacturer, and after all his trouble a source of injury to his goods, and finally, these wools are generally left until the last, and then only disposed of at a concession in price.

In conclusion, let me advise you to breed well and to a definite purpose, that is, to obtain the greatest amount of the most perfect staple per head, to feed well but judi-

ciously. Handle well and with care; keep the burrs off the farm, consequently keeping them out of the wool; feed in racks, so constructed that the seeds and chaff will fall to the bottom and be consumed as food instead of getting in the fleece at the stack, and you will always have a wool in good order, always wanted because of its perfection; always satisfactory to the producer, because it will always be at the top of the market.

"Preparing Wools for Market," by A. J. Childs, St. Louis; "The Effect of the Tariff on the Price of Wool," by G. H. Wallace, Fayette; "Merinos as Wool and Mutton Sheep," by Sam Jewett, Independence, and "Double-deck Cars Essential to the Success of Sheep-raising in the Missouri valley," by A. D. Simons. The foregoing papers are crowded out this week but may appear in later issues of the FARMER, as they are too good to be lost. H.

Kansas City, April 5, 1884.

That Husband of Mine

Is three times the man he was before he began using "Well's Health Renewer." #1 Druggists.

Iowa claims the distinction of having more hogs within its borders by a round million than the next highest State producing the porcine animal.

We recommend Ely's Cream Balm where a cure for Catarrh is called for, and consider that we are doing the public a service by making its virtues known to those afflicted with this loathsome disease, for which it is in most instances a perfect cure. PECK BROS., Druggists, Grand Rapids, Mich. (Price 50 cts. See adv.)

In saving eggs for early hatching be careful to gather them before they have opportunity to get chilled, as they will hatch with much greater certainty.

PHENOL SODIQUÉ is one of the most useful mixtures the chemical art has produced. It cures cuts or burns more quickly than anything else we have ever used. For catarrhal affections, infectious fevers, etc., it is one of the best preventives known. We know it to be a good disinfectant, and heartily recommend it as such—Times, Marietta, Pa.

Observations made at the New Jersey experimental station on the tilting tendency of rye shows that rye is commonly sown too thick for best results.

Be Careful.

The genuine "Rough on Corns" is made only by E. S. Wells (proprietor of "Rough on Rats") and has laughing face of a man on labels. 15c

CATARRH ELY'S CREAM BALM

ELY'S CREAM BALM CURES COLD IN HEAD. CATARRH OF NOSE AND THROAT. HAY-FEVER. DEAFNESS. HEADACHE. EASY TO USE. PRICE 50 CENTS. ELY BROS., OWEGO, N.Y., U.S.A.

has gained an enviable reputation wherever known, displacing all other preparations. An article of undoubted merit. It is convenient and cleanly it causes no pain nor sneezing.

IT IS NOT A LIQUID OR SNUFF.

Apply by the finger into the nostrils; it will be absorbed, effectually cleansing the nasal passages of catarrhal virus, causing healthy secretions. It allays inflammation, protects the membranous lining of the head from additional colds, completely heals the sores and restores the sense of taste and smell. Beneficial results are realized by a few applications.

A thorough treatment will cure.

Unequaled for COLD in the HEAD, Headache and Deafness, or any kind of mucous membrane irritations. Send for circular. By mail, prepaid, 10c. a package—stamps received. Sold by all wholesale and retail druggists.

ELY BROTHERS, Druggists, Owego, N. Y.

Unequaled for COLD in the HEAD, Headache and Deafness, or any kind of mucous membrane irritations. Send for circular. By mail, prepaid, 10c. a package—stamps received. Sold by all wholesale and retail druggists.

WILBOR'S COMPOUND OF PURE COD LIVER OIL AND LIME.

Cod-Liver Oil and Lime.—That pleasant and active agent in the cure of all consumptive symptoms. "Wilbor's Compound of Pure Cod-Liver Oil and Lime," is being universally adopted in medical practice. Sold by the proprietor, A. B. WILBOR, Chemist, Boston, and all druggists.

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MISSOURI SHORT-HORN BREEDERS.

Special Correspondence KANSAS FARMER.

The annual meeting of the State association of the Missouri breeders of Short-horns was held at Sedalia, Mo., April 2, in Sicher's Park. The meeting was attended by about fifty of the representative Short-horn breeders of the State, a very meager number when you take into consideration the hundreds of breeders that are actively engaged in the work. There were but thirty-one that paid their annual dues; nevertheless the breeders of this State have as good individuals and as well bred as any in the country. The main thing lacking with Missouri breeders is organization, co-operation and enthusiasm.

Mayor C. E. Messerly delivered the welcoming address, which was followed by a short response by the president, C. E. Leonard, Bell Air, in which he dwelt upon the improvement and merit of Short-horns. No family of this breed but what possess considerable merit, although the time has now come when weeding out is advisable. It would not do to continually rest upon the laurels of the past, now that other breeds are being pushed forward so zealously; and it is only by careful and judicious breeding and selection that we may continue in favor of this rightly famous breed.

Norman J. Colman, of the *Rural World*, St. Louis, next addressed the convention on Breeding Practical Short-horns. Col. Colman first roundly scolded the breeders for a lack of general attendance, thus missing the manifold benefits and advantages that come from association. He paid a high tribute to Missouri, pronouncing it the garden spot of the world. He dilated upon the advantages of climate, soil, location, etc. He referred to the extensive industry in stock raising being carried on in New Mexico and Texas, and the constantly increasing demand for fine stock in those localities, especially in Texas. He mentioned a recent visit to that State and spoke of the cordial welcome he received at the hands of stock breeders, many of whom he was pleased to learn were former residents of Missouri. The speaker called attention to the handsome prices being obtained for stock in Texas by many dealers, and gave as the reason that the Texas cow was bred to Short-horn bulls. He said that in most every other business there is more or less rivalry, but in this business there should be none.

Whenever a group of thoroughbreds come into a neighborhood, it is a positive benefit to all. Neighbors should encourage each other to raise the best stock. The demand for it is almost limitless in the vast country west of us. There should be a greater demand in our own State. Every farmer in the State should be a breeder of Short-horns. They can be raised as easily as scrubs.

One trouble is, our farmers are too modest. They do not advertise the merits of their breeds. They do not blow their horns, their own horns, enough. They do not advertise liberally enough. Farmers should be contributors to their papers and thus benefit their brother farmers.

This is an age of progress and enthusiasm. Missouri is a grand and noble state. We hear of "poor old Missouri." This is not true. If it is, we must change it and make it grand old Missouri.

The speaker next discussed at some length the milking qualities of Short-horns and said that too much attention was paid to beef qualities and too little to developing milking qualities. In all localities where creameries and dairies had been established, the country had grown enormously wealthy. We can grow wealthy in the same way, because we have all of the facilities and natural advantages required.

In conclusion the speaker said it was to be hoped that so important an industry as stock breeding would not be neglected. Farmers must get out of the habit of running all to grain and pay more attention to stock breeding.

Many breeders are running too much to color. It makes no difference about color, that is mere fancy. It is the material points that should be considered.

Dr. W. H. H. Cundiff, Pleasant Hill, Mo., read a very able and elaborate paper on the subject of Milking Qualities of Short-horns. The paper was replete with facts of history and statistics relating to the Jerseys, Ayreshires, Holsteins and Short-horns. The facts presented showed that the Short-horns had made the best records as milkers, which, in

addition to their famous beef qualities makes the Short-horns the best cattle for this country.

An interesting paper on the History of Short-horns was read by A. A. Walker, Pleasant Green, Mo. This was followed by one of the most interesting and practical addresses of the session by Prof. Sanborn, of the Missouri State Agricultural College, on the subject of Feeding Qualities of Short-horns and How to Feed Them. The Professor believed in Short-horns first, because they are not only a good dairy breed but a beef breed as well; second, because they are a quiet, docile breed and are good feeders; third, because this breed matures early, eats more food and digests it better than any other breed.

"Why the general farmer should use thoroughbred sires," was ably discussed by Phil Chew, of St. Louis, after which Dr. Cundiff made a few remarks in reference to the last fat stock shows in Kansas City and Chicago.

A committee of five were appointed on resolutions and reported the following:

Resolved, That from reliable information in possession of this committee that we do not believe that there has been a solitary case of the foot and mouth disease either in the State of Missouri or Kansas.

Resolved, That this association petition our Senators and Representatives in Congress to take such means as are necessary to prevent the introduction and spread of pleuro-pneumonia and all other infectious or contagious diseases that threaten the great cattle interests of this country and we hereby tender our hearty thanks to the Hon. Wm. Hatch, member of Congress from our State, for the active interest he has displayed in protecting the stock interests of the United States.

A motion was made and carried that the association duplicate all premiums taken by Short-horns and their grades of Missouri at the Chicago and Kansas City Fat Stock Shows.

On motion a guarantee fund was subscribed by the members of the association to pay said premiums in case the breeders throughout the State would not pay their pro rata assessment.

Col. Marmaduke offered the following resolution:

Resolved, That it is the sense of this association that the Legislature should establish a chair of veterinary at the Missouri State Agricultural College.

The old officers were re-elected as follows: President, C. E. Leonard, Bell Air, Mo.; Vice President, Dr. W. H. H. Cundiff, Pleasant Hill, Mo.; Secretary, Phil Chew, St. Louis.

The next meeting will be held at Kansas City, November 8, during the Fat Stock Show.

Sedalia, Mo., April 3.

Inquiries Answered.

Will some one tell me where I can buy Bronze turkey eggs, and a large kind of geese? I have looked over the *FARMER* without finding what I want. Will you please give directions for rooting wisteria cuttings?

If you don't find what you want in the *KANSAS FARMER*, write to the *Poultry Monthly*, Albany, N. Y.

Wisteria cuttings are treated precisely like those of grape vines. Lay an eight or ten-inch piece of last year's growth about six inches in the ground with one or two eyes above ground.

Prof. Snow's weather report for March says the temperature, wind velocity, and humidity of this month departed but slightly from the March averages; the rainfall was 25 per cent. greater than usual, and the cloudiness was somewhat in excess. Maple blossoms (*Acer dasycarpum*) were first observed on the 10th, elm blossoms on the 17th and dog-tooth violets on the 23d.

Norman C. Jones has been appointed General Agent of the freight and passenger department of the Kansas City, Fort Scott & Gulf and Kansas City, Springfield & Memphis railroad companies, with headquarters at New Orleans, La.

When a bachelor says he is single from choice, it makes him mad to ask him why the girl made choice of some other fellow.

See that water does not stand in the oats and corn fields.

IMPOSSIBLE ESCAPE.

Absolute Truth With Collateral Proof
From Which There Can Be
No Appeal.

For the past three years we have had a standing offer of \$5,000 for any statement of cure published by us which was not, so far as we know, *bona fide*. We did this in order that all readers might know the absolute truth of all our assertions and that they were based upon the value of our remedy and not upon idle words. Below we give a few extracts from recent letters, which speak for themselves. We will only add that we could furnish one hundred thousand more of a similar nature did occasion require, but we believe the entire American public is now convinced of the positive value of Warner's Safe Cure.

H. H. WARNER & Co.

Rochester, N. Y.

"Warner's Safe Cure does all claimed for it."
MAJ. JAMES SINGLEY.
Petaluma, Cal.

"I was cured of kidney disease and bleeding piles by 11 bottles of Warner's Safe Cure."
B. H. HOWARD.

"I was a physical wreck by kidney disorder, but Warner's Safe Cure has completely cured me."
G. C. LANING.
Columbus, O.

"I was a sight to behold from kidney dropsy, but was restored to perfect health by Warner's Safe Cure."
JAMES ALLEN.
Troy, N. Y.

"My physician said I would never get out of bed again. I took Warner's Safe Cure and felt like another being."
Beverly, N. J. F. CUYLER HUTCHINS.

"I had 22 quarts of water taken from me caused by dropsy. Ten bottles of Warner's Safe Cure entirely restored me."
Manchester, N. H. GEO. B. PEASLEY.

"A neighbor of mine, W. A. Thompson, has been raised from the dead by the use of your Warner's Safe Cure."
JOHN NORTON, P. M.
Summit City, Pa., Feb. 8th.

"Physicians said I could never be cured of calculus and strangury, but four bottles of Warner's Safe Cure entirely removed my complaint."
T. O. LEWIS.
San Francisco, Cal.

"I was wholly prostrated by a complication of diseases and as a last resort purchased Warner's Safe Cure. Every one of the old troubles have disappeared and I am very grateful."
W. E. BENEDICT,
Albany, N. Y. *Press and Knickerbocker*.

"I suffered for over twenty years with a lame back caused by kidney complaint, and my spine and nervous system were badly affected. When I had abandoned all hope I began the use of Warner's Safe Cure, and have not felt so well and strong for twenty years."
J. J. WRIGHT.
Fon du Lac, Wis.

"For two years I suffered intensely and was made miserable through diseased kidneys and bladder, with nervous exhaustion and entire prostration. Doctors and medicine did not afford me any relief, and I was advised to use Warner's Safe Cure, which I did in connection with the Safe Pills, and am thankful to state I am entirely cured of the dreadful malady."
MRS. DORMER,
448 South Tenth street.
Denver, Col., Feb. 19th.

"I want to state how much my husband has improved while taking Warner's Safe Cure. All swelling has disappeared from his limbs; his water trouble is much better and his voice is so improved that he preaches every Sabbath. We are very thankful. The people all around here are taking the remedy, and some are getting well by the use of a few bottles. Multitudes more must have it."
MRS. REV. F. A. SOULE.
Sing Sing, N. Y., Feb. 20th.

"For a score of years I suffered with what the doctors pronounced dilation and valvular disease of the heart, but now I am led to believe that the heart trouble was only secondary and a symptom of other complaints. Frequently I was threatened with death by suffocation, my breath fail-

ing me entirely. I became cold and numb, and was as near death as any living person ever has been. This was three years ago and I have ever since enjoyed complete health through the use of Warner's Safe Cure."
A. BILDERBECK,
Chicago, March 1st. 28 13th street.

The success of many farmers is owing in part at least to the way they have of doing little things at the proper time and in the right way.

Don't Die in the House.

"Rough on Rats." Clears out rats, mice, roaches, bedbugs, flies, ants, moles, chipmunks, gophers, etc.

Agents Wanted!

To sell the "AMERICAN FARMER'S PICTORIAL CYCLOPEDIA OF LIVE STOCK," by Hon. Jonathan Perlam, Editor of *Prairie Farmer*, Chicago, Ill., and Dr. A. H. Baker, Veterinary Editor of the *American Field*. The latest and most complete work ever issued in America. Sixty Thousand already sold. Full treatment of all stock diseases. Includes full history and treatment of the late cattle disease now prevalent—Foot and Mouth disease or "Epizootic Apha." Nearly 1,200 pages, 700 illustrations. Price \$5, postage paid to any address. For liberal terms and full particulars, address, KANSAS CITY PUB. CO., 100 West 9th St., Kansas City, Mo.

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Farm Property and Live Stock Against
Fire, Lightning, Tornadoes and
Wind Storms.

AGENTS WANTED in Every County in
Kansas.
For any information, address the Secretary,
Abilene, Kansas.

A MAN

WHO IS UNACQUAINTED WITH THE GEOGRAPHY OF THIS COUNTRY WILL SEE BY EXAMINING THIS MAP THAT THE



CHICAGO, ROCK ISLAND & PACIFIC RY

By the central position of its line, connects the East and the West by the shortest route, and carries passengers, without change of cars, between Chicago and Kansas City, Council Bluffs, Leavenworth, Atchison, Minneapolis and St. Paul. It connects in Union Depots with all the principal lines of road between the Atlantic and the Pacific Oceans. Its equipment is unrivaled and magnificent, being composed of most comfortable and beautiful Day Coaches, Magnificent Horton Reclining Chair Cars, Pullman's Prettiest Palace Sleeping Cars, and the Best Line of Dining Cars in the World. Three Trains between Chicago and Missouri River Points. Two Trains between Chicago and Minneapolis and St. Paul, via the Famous "ALBERT LEA ROUTE."

A New and Direct Line, via Seneca and Kankakee, has recently been opened between Richmond, Norfolk, Newport News, Chattanooga, Atlanta, Augusta, Nashville, Louisville, Lexington, Cincinnati, Indianapolis and Lafayette, and Omaha, Minneapolis and St. Paul and intermediate points. All Through Passengers Travel on Fast Express Trains. Tickets for sale at all principal Ticket Offices in the United States and Canada.

Baggage checked through and rates of fare always as low as competitors that offer less advantages. For detailed information, get the Maps and Folders of the

GREAT ROCK ISLAND ROUTE
At your nearest Ticket Office, or address
R. R. CABLE, E. ST. JOHN,
Vice-Pres. & Gen'l Mgr., Gen'l Trk. & Pass. Agt.
CHICAGO.

The Home Circle.

The Tryst.

Farewell, beloved! we will not weep; 'tis but a little while;
When the snow is gone I shall return with spring's returning smile,
Where sunlight falls with shade and rain from hurrying clouds that sweep
With nought betwixt me and the sky, there lay me down to sleep.
The place is known to you and me, nor needs it more should know,
So raise no stone at head or feet, but let the wild flowers blow.

And then some little part of me will creep up through the mould,
The brightness of my hair will gleam from kingcup's hearts of gold,
The blue that's faded from my eyes will meet your eyes again,
When little speedwells on my grave smile softly after rain.
When the warm blood is frozen at my heart and on my lips,
Kneel down above the dust and kiss the daisy's coral tips.

And when from out the sunset a little breeze comes by,
And a flush of deeper color steals across the upper sky;
When the beach leaves touch and tremble, whisper soft and then are still,
And a bird hid in the thicket sings out sudden, sweet and shrill;
When faint voices of the evening murmur peace across the land,
And silver mists creep up and fold the woods on either hand;

Or in the early morning, when the world is yet asleep,
And the dew lies white in all the shade where the grass is green and deep,
You'll find me there, love, waiting you; and you may smile and say,
"I met my darling all alone at our old tryst to-day;
I looked into her eyes so blue, I stroked her hair of gold,
We kissed each other on the lips as in the days of old."

"It was her voice so low, so clear, that in my ears did sound,
'Beloved, there's no such thing as death; 'tis life that I have found;
The life that thrills in leaf and flower, and fills the woods with song,
That thrills in all the gleaming stars, when winter nights were long—
The life that passes with the winds from utmost shore to shore,
Embracing all the mighty world, is mine for evermore."
—*Cornhill Magazine.*

A Word on Cooking.

Take one or two common dishes as cooked by ordinary servants, and compare them with what they should be; for instance that much abused dish, "hash." No wonder, as it is brought to the table too often. The odds and ends of meat, left over from many meals, are picked up; some are fresh and some dry, some with tough gristle on, and all chopped together with potatoes (the last perhaps just cooked and hot, which spoils all hashes.) It is put into a cold spider, with fat of some kind, and moistened with water, sometimes too much and sometimes too little. When hot it is sent to the table. The real, appetizing hash is something very different and a nice breakfast dish. Water in which meat of any kind has been boiled should be set away to cool, the fat removed and the broth saved for soups, stews and hashes. All gravies should be saved and treated in the same way, and no fat at all left in them. A jar of "Extract of beef" should be in every house, and if there is neither of the above on hand, a quarter of a teaspoonful of the extract in a half cup of hot water will moisten and flavor the hash, and add very much to its richness. More should be used if the quantity of hash needed is large. Corned beef is always best, but the hash is good when made of cold roast beef, mutton, or fowls. A roast beef bone will often have on it meat enough for hash, when there is not enough for the table in any other form. It should be boiled in a very little water (and the water saved to moisten it) until the meat loosens from the bones; then chopped with twice the amount of cold boiled potatoes, seasoned with salt and pepper and moistened before putting on the fire. The spider with a little butter or beef dripping in it, should be boiling hot, the hash put on and covered until a light brown crust has formed; then turned over on the platter and served.—*American Agriculturist.*

If a little pure soap is put in cold starch it will add to the ease with which collars and cuffs are laundered, and give them a beautiful, smooth appearance. Only enough is required to make the starch water a little foamy.

Western Life.

"What makes the angel, makes the beast." We are coming to be, more and more, both. And rapidly, too, for are we not bearing down on futurity with railroad speed? We doubt and run and run and doubt but never halt. He who stops to doubt is lost. The optimist cries "all aboard." The pessimist is left behind and the world tortures him with its jeers and yells, aha! he is as milestones. Millions of cycles hence he may be found along the old pathway of human progress but mostly in the ground. He is useful, though. But for him we could not so easily reckon how fast we run nor how advanced we are. Humanity cries to him, keep out of the way! All is ordered for the best.

It is orthodox to thank God for Christ and immortality. Oh, holy angels, weep for those who do not. As a stream of pure gold flowed on awhile the teachings of the great love and overflowed the classic age of Grecian love and Gnostic thought and then congealed for centuries.

"The deepest ice that ever froze,
Can only o'er the river close;
The living stream lies quick below—
It flows, and cannot cease to flow."

And darkness shaded wide and far. Cimmerian night broke. Human courage and stalwart muscle, as a great sun, thawed here a place and there a place and as through a glass darkly the living stream was found still flowing on. Thought came to aid courage and muscle. The congealed mass softened. Thousands came to see and died for conscience sake. Then millions came and lived. In numbers there was victory. But the death the martyrs died and the life the later christians lived was only of the earth—in the same faith they all lived and died and the same immaterial Paradise received them all. Do not the teachers teach that Heaven is sure through Faith and Grace? What odds then if soon or how the "golden bowl is broken?" Does not the watchman still proclaim that "all is well?" Westward led on the star of Bethlehem.

"The breaking waves dashed high
On a stern and rock-bound coast."
And laic morality finds a free home. We know the rest and pride ourselves therein. A hundred winters came and millions three another step advanced. Laic worship gave us laic civil rule. Do not the teachers teach a warfare to the very gates celestial? Do we not sing

"Am I a soldier of the cross?"
And what if Force did crimson hill and vale? Remember Calvary.

Fight or move if thou wilt be free if free thou art not now. There is no freedom without constant warfare. And victory must be won. All else are slaves. Mortal death in the world's great cause of right is but an incident—a tiny grain of sand on the shore of time submerged by a wave from the ocean of eternity.

Four score of years of laic rule and the beautiful star stood still over the winter—summer land. Christmas four times came and went. Blood of my blood, and of your blood consecrated anew the banner of love. It was our share and our sacrifice, for the world's great good.

Tolerance and corn grew again as never yet before. Heart and mind and body dwell in sweet accord. In easy pullman drawing rooms we speed along the road that millions died to build.

Thank God for the old log cabin home, and for the humble dugout of our plains, thank all the ministering hosts above. Was not the lowly earth's Redeemer cradled in a manger and did not the holy Virgin hide awhile from Herod's wrath among Bethlehem's rocks? And do we not all sleep at last, covered by the cold clods of the vale and the tears of those we love? And is it not home only where the heart is?

Do you seek the patriot, christian heart of my country? go find it where a single board or clod of earth protects from wintry blast. And where the heart is master muscled force. The strawless brickmaker's from Egypt's land subdued the kings of Canaan's hills. The Mayflower sailed more victoriously westward from the icy coast of a sterile shore than she had plowed the wide Atlantic main.

The old log cabin in the east is the dugout of the plain, only the mud among the chinks has grown and the chinks are well nigh gone; or maybe the old log cabin was transplanted yet the dwellers are the same.

Courage and muscle drove back the savage and coyote. But courage had heart and muscle had mind and so love and thought are here—strong if not matured—powerful if not tyrannous. It is only the springtime of a million monthed year.

"I am a part of all that I have met," but most of what I am; yet am "I the heir of all the ages in the foremost files of time." Leap for very joy that we are now and are at all. The past has built for us a more than dome Ephesian. Ceaseless activity and continuous endeavor is duty—is life. Sloth is death, and the future—shuddering thought, yet elysian!

And so "what makes the angel makes the beast." We worship Hertha and the Nazarine—the best religion in our world. Thereby we eat and rest in peace our three score years and ten and then pass on.

Like so many golconda gems are not these mind schools and heart schools everywhere that two or three are gathered together?

Poverty in purse and wealth in mind and heart makes the whole world kin. Wealth in purse builds colleges and stains the battle field with human gore. The world's great need is an educated purse.

We are building well for the architect Past taught us how. Hour by hour, day by day, year by year, in all these humble western homes some little work is being done, completing that majestic temple which shall cover the whole of earth as with a diamond in which all people shall worship Him and to whom "joy is duty and love is law."

MRS. A. J. HOISINGTON.

Garden City, Kas.

Preserving the Teeth.

The means of preserving the teeth are often not well regarded. The permanent set need attention from the time of their first appearance above the gums. The habit of daily cleaning them in a safe and proper way is of essential benefit to their soundness. Those who eat a large amount of sugar may retain some of it between the teeth until it ferments and generates an acid that acts upon them and starts the initials of decay. Well cleaning them after each meal by means of a soft brush and water, and then rinsing out the mouth may keep them usually in a good condition. Warm—not hot—water is better than cold. It is more sure to cleanse the teeth from all harmful substances, that in the process of mastication have been deposited between them. The brush should not be hard lest a long use of it would injure the surface of the teeth and make it more difficult to clean the narrow spaces between them, in which not only food, but tartar is liable to collect. No hard friction should occur, lest it should cause absorption of the gums and so exposure of the neck of the teeth. The bristles of the brush should be firm and elastic and not too closely set. Once a week, instead of water, cider vinegar may be used. This will remove by its chemical action any amount of tartar. Lemon juice and water, half and half, is often used. It should not be forgotten that any acid may be injurious, if too freely, or too often used. Vinegar and water, half and half, once a week answers well. Tooth powders are often injurious, as they contain substances that corrode the teeth. These powders are offered for sale and urged as valuable for rendering the teeth white and beautiful. They do so, but at the cost of doing great injury to the surface. They usually contain tartaric or other acids, that may gradually decompose the enamel, or outer portion of the teeth. If a powder must be used the following is the best of any we have ever used, or known: Orris root, half an ounce; cuttle-fish, one ounce, prepared chalk, three ounces. These should be very finely powdered and sifted so that no particles can grit the finger tips on rubbing them on the powder. Add spirits of camphor, one quarter of an ounce, and oil of cinnamon a few drops, and triturate again until the compound is nearly dry. The small amount of camphor does no harm, but destroys those animalcule that produce the tartar and green incrustations on the surface of the teeth.

A microscopist says, "that he has found that not only the foul mucus covering of the tongue, but the tartar of the teeth consists of the dead remains of millions of infusorial animalcule, and that the tartar of the teeth consists of these dead remains compactly united in one mass. Place a portion of this

tartar in clean water and let it stand a few hours. Then place a few drops of the solution under a powerful microscope and you may see the delicate skeletons of these animalcule. The mother, then, must protect her children's teeth against the formation of tartar by cleaning them after each meal with a brush and water and then rinse out the mouth with cider vinegar and water, half and half, once a week. If tartar has appeared, use the tooth powder, once a day, until the tartar has been removed. Remember that washes or powders containing acids should be applied only once or twice a week.

If the gums are tender and bleed, rinse the mouth night and morning, with a cup of water and ten drops of the tincture of myrrh, and ten drops of the spirits of camphor. The following formula is very useful and often used: borax, one dram; tincture of myrrh, two drams, and distilled water forty drams. We use the word "drams" as meaning a teaspoonful. We ought to say once more that strong acids decompose the teeth and induce quick decay. Teeth are composed of two substances, enamel on the outside and bone inside. Acids decompose the enamel, and then the bone exposed at once begins to decay. All acids as medicines should be taken through a glass tube to prevent their coming in contact with the teeth. We need not say that using the teeth in cracking nuts, or other substances do them irreparable harm. The teeth are often injured by exposing them to sudden changes of temperature—especially to frequent exposures to high temperature, such as hot tea or coffee and hot puddings—so hot that they nearly burn the mucus membrane of the mouth. These things should never be taken so hot as to produce the slightest pain.

The tartar on the teeth is composed chiefly of lime and animal matter. The lime or earthy matter is a deposit from the saliva. Particle after particle is deposited upon the teeth near the gums in such quantities that in neglected cases the teeth are nearly encrusted with it. When the deposit first occurs, the tartar is soft and easily removed, but if allowed to remain for a long length of time, some of the animal and water disappears and the tartar becomes harder and clings with great tenacity to the teeth. The deposit upon the teeth usually begins at the edge of the gums. It does not injure the gums until it becomes hard, when it irritates and inflames them. Mothers should watch their children's teeth and see that they are properly brushed every day.—*C. H. Allen, M. D., in Western Rural.*

Tapioca Pudding.

Wash one cup of pearl tapioca, and soak it over night in a pint of cold water. About an hour and a half before dinner add to the tapioca one more cup of water and one of milk, and a little salt. Pare four or five sour apples, cut them in halves, core them and lay on the top, pressing them down till they are on a level with the tapioca. It is best baked in an earthen dish, and must be cooked slowly. It is done when the tapioca is clear, and the apples tender.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellow-men. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Power's Block, Rochester, N. Y.

If you have any spare land, with no prospect of its being put to remunerative use, suppose you plant a few forest trees. It will pay, and even if you don't live to see the day of golden harvest your children will.

S. Harvey Horner, druggist, of Caldwell, Kas., says that Lels' Dandelion Tonic sells better than any proprietary medicine found on his shelves, and that all who use it speak of it in the highest terms. In the same letter he orders another gross, to be shipped at once, and adds: "I have sold seven bottles to-day."

There are about fifteen millions of milch cows in the United States.

To prevent Typhoid Fever and Typho-Malaria there is nothing equal to Lels' Dandelion Tonic. It will also be found, by persons recovering from severe illness, a most admirable and grateful tonic and stomachic.

The Young Folks.

A True Baby Story.

I know a merry little girl
Her name is Ba-by Blue;
She can-not walk,
She can-not talk,
But she can creep and coo.

A pretty shawl was spread,
So soft and warm and gay;
With blocks and ball
And rub-ber doll
We left her there to play.

Some-thing round lies on the shawl;
Per-haps 'tis good to eat!
She goes to see
What it can be
On both her hands and feet.

Ba-by tries to take it up;
She picks and pulls again—
Stares in surprise
With big blue eyes,
Then tries—but all in vain!

Ba-by Blue knows what to do;
With sud-den roll and spring
O-ver she goes
Up-on her nose,
And tries to bite the thing!

A-las for you, sweet Ba-by Blue,
De-ter-mined little soul!
Don't tug and try!
Don't kick and cry!
'Tis noth-ing but a hole.

—Babyland.

A PEEP AT POMPEII.

The Uncovered City that was Buried Centuries Ago.

The covering of ashes has been removed from perhaps one-third of the city of Pompeii, and the paved streets and the walls of the homes stand there to-day as they did 2,000 years ago. The pavements are as they were, and the houses, except that they are roofless. A curious story they tell. Here is the house of a wealthy banker whose servants perished at their various employments. They did not realize the terror of the catastrophe till it was too late to make their escape. Skeletons were found in the kitchens with the implements in their hands; they were found just outside the door, having been stricken down the moment they left cover; they were found in the bed and everywhere just as they met their death. In the vaults under one house was found a skeleton with bags of treasure. When the alarm was given he rushed to save his wealth, and thus lost the time to save his life. Young women were smothered in their chambers at their toilets, prostitutes met their death while in their haunts, the sick, the well, the rich and poor all met a common fate. A soldier died at his post because he would not desert it without orders, his superiors who could give the orders dying at the same minute. Parties were surprised at banquets, and died wine cup in hand, and priests officiating in the temples died with those before their altars. Thirty thousand human beings were enwrapped in a shroud of ashes, and all met their fate together.

CURIOUS SIGHTS.

Curious relics have been taken out of these houses and preserved in the museums. Bread charred by the heat, but in a good state of preservation, coins, household utensils, furniture; everything known and used at the time remained preserved under the coat of ashes to show the world to-day how they lived 2,000 years ago.

Pompeii presents a curious sight. There are the walls standing and many of the frescoes on the walls being as bright as when the brush of the artist left them. The streets are very narrow, too narrow to admit of vehicles drawn by animals and the dwellings are very small in comparison with the places of to-day. The bath rooms were always large and commodious, and so were the dining halls, but the rooms for sleeping were merely dens furnished very plainly and cheaply. The bed was a block of stone on which mattresses were spread, the room being just large enough to receive it. The Pompeians were luxurious, but their tastes all ran to one or two things. They knew nothing of that general average which we call comfort, which insists that the sleeping room shall bear some proportion to the banqueting hall and that the bath shall not be the only magnificent room in the house.

IN ONE SHORT HOUR.

One experienced a curious sensation at wandering up and down through the city of

the dead. The houses are just as they were on the fatal afternoon that blotted out the city, and the temples, the theatres, and amphitheatres as well, only it is as silent as the grave. There are evidences on every hand of a busy, gay and luxurious population, but the population itself is not. All the record that is left of them are the standing walls, which they could not carry with them.

No description of it is possible. There are only evidences that life was. The life is gone, but what they struggled for in life remains. The stones they trod upon, the walls wherein they dwelt, the couches upon which they slept, the tables upon which they ate, the baths wherein they lay their limbs, the money they accumulated, that is here, but where are they? Lady and harlot, soldier and mechanic, poet and historian all enveloped in one winding sheet, and all gone in an hour. That is Pompeii.

WHO KNOWS?

Who knows but what cities existed 4,000 years ago on the very site of Pompeii, and that while Pompeii was being snuffed out, wise and learned men were examining skeletons and coins and such things that they had dug up, to the end of determining who they were, and all about them? Vesuvius may have erupted 2,000 years before Pompeii, and did just as wild work that time as she did for Pompeii.

Pompeii had been forgotten for ages. A peasant digging a well came upon a painted chamber, and he reported his discovery. The learned men, remembering Pliny and his account of the great eruption, dug and found it. Who knows but that 4,000 years ago a peasant dug a well near Pompeii and found a painted chamber, and that the learned men of that city were investigating just as we are?

It is rather an old world, and our knowledge of it does not extend back a great ways. And come to think of it, human knowledge doesn't stretch over a very great surface anyhow. If we only knew as much as we don't know!

WHAT WAS FOUND.

Among the exhumations of which casts were made was that of an old man prone upon the earthen floor of the cellar of his house, with bags of gold and jewelry clasped to his breast. When the alarm of the first shower of death fell upon the doomed city, he sought safety in flight. Then the thought of the gold that he had toiled and toiled for so long came to him. There was no time for delay. Minutes were everything—seconds counted at that awful moment. He started for the door, but could not leave his treasure. Down into the vaults he went to secure it, he grasped the precious bags, and turned to fly. At the very door the stifling, poisonous blast struck him, and he fell and perished. Twenty centuries after the body was found, the bony fingers clasping the bags to his bosom, as though he were determined that death should not wrest them from him. There was on his face a mixed expression—love for his gold and terror at death, and it would be hard to say which was the most pronounced, the terror of leaving his money or that of dissolution.

FATAL DELAY.

Another in the same house was pitiful. It was a young woman, probably the daughter of the miser. She had warning in time, but her child was in an inner room, and she rushed frantically to save it, and the delay was fatal to both. The hot, suffocating blast struck her at the door, and she perished upon the threshold, with her child clasped to her bosom. Both clasped to their hearts what was most dear to them—the father his gold, and the mother her child.

Gamblers were found scattered about the tables on which they were playing, the sulphurous death surprising them at their business or pleasure, as they were hawks or pigeons. The gold they were playing for was left upon the tables, and, by the way, to show that humanity is the same everywhere, and in all ages, dice was found in one gambling room, the six side loaded with lead to make sure of that number being always thrown. The gambler of Pompeii 2,000 years ago, could substitute false dice for honest ones, and plunder the innocent as well as now.

PRESERVED FOOD.

Cellars and depositories of food were found, some of them in a good state of preservation, as the shower of ashes had hermetically sealed them. It is a singular fact that we are indebted to Pompeii for the great

industry of canning fruit. Years ago, when the excavations were just beginning, a party of Cincinnatians found, in what had been the pantry of a house, many jars of preserved figs. One was opened and they were found to be fresh and good. Investigations showed that the figs had been put into the jars in a heated state, an aperture left for the steam to escape, and then sealed with wax. The hint was taken and the next year canning fruit was introduced into the United States, the process being identical with that in vogue in Pompeii twenty centuries ago. The old ladies in America who can tomatoes and peaches, do not realize that they are indebted for this art to a people who were literally ashes but a few years after Christ. There is nothing new under the sun. Canned tomatoes and loaded dice; the people of Pompeii had both.—*Nasby, in Toledo Blade.*

The Guatemalan Forests.

[Extracts from an essay read before the Massachusetts Horticultural Society in Boston, March 22, by William T. Brigham.] Early in the seventeenth century it was found there were at least two things worth having in the forests of Honduras and Yucatan—mahogany and logwood. In the tropics, as a rule, you may stand in almost any forest position, and not see more than one tree of a kind; there may not be a dozen of a kind to the square mile. It is like a vast collection of samples. There is no sod of grass as in the eastern States or flowers as in the west.

The mahogany tree is found in abundance, but so ponderous is its timber that only near streams can it be readily got at. As a tree it is preeminently majestic, towering nearly 150 feet high, its thick head far above the foliage of other trees, and its stem sometimes twelve feet in diameter. Mahogany land is valuable not merely for a single cutting, but in thirty years the tree has again grown to a diameter of two or three feet. In Guatemala, benches, stools, wash tubs, etc., are made of this fine wood. A tree called a cedar, but not even a conifer, is much used for canoes, the essayist having made a voyage in one fifty feet long and five and a half feet wide, strong and of good model. Owing to the looseness of the soil and the small extent of root required to nourish trees in such rich land, some unusual support is required, and large buttresses are thrown out twenty or thirty feet from the stem on every side. In felling such trees a stage is built above the buttresses, and a stump, perhaps thirty feet high, is left, which the ants or other insects will run over before another year. These buttresses are not found in trees growing out of the forest.

Many of the trunks were white or gray, like birches and beeches, and on these the vanilla plant is often found. The India rubber of this region is not the favorite house plant, the ficus, but a very different tree. The gum is brought in by the Indians in flat masses weighing from twenty-five to seventy-five pounds. The cacao comes next in importance, and the finest quality has been found growing wild. The blossoms being on the trunk and not on the branches gives it a peculiar appearance; otherwise it resembles a beech. Rosewood and sapota are much used for posts and underpinnings, as they do not readily decay, and are not eaten by insects. Perhaps the most characteristic forms of tropical vegetation are the palms and bananas, the latter appearing in some form in almost every forest view, and the wild forms having tougher leaves and most curious inflorescence. The members of the ginger family look much like dwarf bananas, and some, as the alpinias and hedychiums, are very showy.

In clearing the forest the trees are felled in January, February and March, and during April and May the fallen timber is burned, only the huge logs and stumps being left for the ants to remove. The field is then tolerably clear and ready for planting, which should be done before the rainy season begins, in June. The crops best adapted for cultivation are in a measure indicated by the existence of wild specimens. Thus the cacao, which abounds wild, is a most valuable crop. Rows of bananas or plantains are set out, fourteen to fifteen feet apart, to protect the young cacao trees until the erythrinus, or "Madre Cacao," are sufficiently grown, for the cacao is impatient of the direct sun. Plants are raised from seed, and begin to flower at three years; but do not bear a good crop until five years. There

are two crops yearly—one in December and January, and a larger one in May and June. The tree endures about forty years, and each yields about 1½ pounds. Pineapples grow wild wherever there is a clearing, and the quality is far better than any we find in our markets. When cultivated, the field is cleared five or six times a year, and the crop is ready sixteen or eighteen months after planting, and may be computed at 4000 fruits per acre. No replanting is necessary, and it is only needed to thin out the plants yearly. The nutmeg tree grows about thirty feet high, and is very long-lived. The climate and soil are very suitable for it. It begins to bear at the seventh year, and by the ninth the yield may be 5000 fruits and seventy-five pounds of mace.

The cocoonut is, perhaps, one of the most profitable ventures, as after the first two years no care is required. At five years they begin to bear, and two years later the crop in these favored lands should average 200 nuts to a tree. Bananas are cultivated in all the bottom lands, and are exceedingly profitable. Great mistakes have been made in its cultivation, especially in not giving the plants room enough, for, if crowded or shaded, the bunches, which may weigh ninety pounds, dwindle to twenty-five, and are no longer marketable. The plantains are much larger, often fifteen to twenty inches long, of firmer substance, and are generally eaten cooked, and it is a matter of surprise and regret that we do not find this most excellent vegetable in our markets. Maize produces three crops in a year, and grows so tall that the essayist could not reach the ears (three to a stalk) on horseback, and had to fell the corn tree to get them. The most important crops are coffee and sugar cane. Coffee trees require shade, especially when young, and bananas are usually planted with them. The labor of picking, the care needed in drying and the mechanical processes of hauling, render this a more difficult crop to harvest than any hitherto mentioned, and where the soil is not deep it is soon exhausted by coffee; but it is a very profitable crop, notwithstanding.

These rich lands are most admirably adapted to sugar raising. In Louisiana this is profitable, thanks to the tariff protection, but it is evidently a forcing of nature. The planter there has great difficulty in preserving his seed cane through the winter, and must grind his crop before frost. Hence he has to have an immense mill in proportion to his acreage, and must grind his entire crop in ten days or a fortnight, while his expensive mill is idle all the rest of the year, and the crop seldom exceeds a ton to the acre of the poorest quality of sugar. In Guatemala the land is not even plowed for sugar, but a hoe scratches the furrows, into which the seed cane is laid, and a few strokes of the hoe cover it. Then begins the fight with weeds; as the planting is done in May, before the June rains come on, the first weeding will be needed in June, and by the end of July the young cane will be high enough to get ahead of the weeds. Twice at least thereafter the process of thrashing goes on. This consists in passing down the rows and breaking off the dead lower leaves and trampling them under foot, which makes an excellent mulching. In January the cutting begins, and as there is no frost it may last three months if necessary, and the yield averages four tons to the acre of the best refinery sugar. But the most remarkable contrast to Louisiana sugar raising is that while there the laborious planting must be done every year, in the bottom land of Guatemala crops have been cut sixteen years without replanting, with no perceptible diminution in the yield.

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T. A. Hubbard..... Rome Stock Farm.
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Nine applications have reached Dr. Holcombe, asking him to visit different points in the State to treat glandered horses.

TRIAL SUBSCRIPTION.—The KANSAS FARMER for the remainder of the year 1884 for seventy-five cents. Send in your order and money.

The wool growers of Coffey county are hunting up buyers for their increase of sheep. Frank Fockele is secretary of the county association, postoffice Leroy.

If there are any low spots in the wheat field, and the wheat is looking yellow and sickly and ground is cracking and weeds appearing, run a furrow or two from them out to lower ground to serve as drains.

Dr. A. A. Holcombe, who was appointed Veterinarian for Kansas, is well educated in his profession, and he comes well recommended as to his personal character. Thus far he is making friends wherever he goes.

The American Forestry Congress has appointed a meeting at Washington city, May 7th prox., in the rooms of the Department of Agriculture. The object is to call attention of Congress to the importance of our forest interests.

We are requested by Dr. A. A. Holcomb, State Veterinarian, to state that his post-office address is Topeka, and not Leavenworth. All letters addressed to him at Topeka will reach him promptly and will have his attention.

It has been demonstrated that soft and otherwise damaged corn may germinate when planted in soil, but have not vitality sufficient to continue the growth. Hence it is that we wonder why corn that sprouted did not appear on the surface.

G. C. Brackett, Secretary of the Kansas State Horticultural Society, reminds us of the fact that the last report of the society contains letters from persons in a large number of our counties opposing the repeal of the timber culture act.

We call attention this week to a new advertiser in the KANSAS FARMER, T. A. Hubbard, Wellington, Kas. He has been several years establishing the "Rome Park" herd of Berkshire and Poland China swine, which will now compare well with the best. Look for his card.

THE FUTURE OF FLAX.

Our farmers are not increasing the area of flax fields, and it is because there is no market for anything but the seed. At 12 to 15 bushels of seed per acre, and the market price a dollar a bushel, there is not much money in flax. Still, when the labor attending its culture and preparation for market is considered in comparison with corn raised only for sale, the pay is not so bad.

The fiber of flax is one of the best materials known for manufacture into textile fabrics. It was known when man was young, and has been favorably regarded by men of high estate in all ages. The finest drapery, excepting silk only, was made of flax when Greece and Rome were in their glory. Linen goods always were and now are prominent and valuable articles of commerce. The only reason why the growth of flax in this country has fallen off is that, because of the slow processes of preparation, the labor necessary is not profitable. Our farmers can do better at something else in most cases, and they let persons do this who can afford, or who must afford to work for less pay.

But, if we are not mistaken in the correctness of late news, and if the inventor and his friends are not mistaken, the future of flax in this country and the world is very bright, indeed. Could our Kansas farmers, for instance, sell their straw as well as the seed, flax would be a profitable crop, because its value would be doubled. And that is what seems to be coming. An Eastern man has discovered, or thinks he has, a process by means of which the wood and lint of fibrous plants are separated in a few hours. This does away with the old-fashioned tedious processes. And besides separating the fiber, it bleaches and whitens it. That we had to do long years ago by laying it out in the dews. This invention does in a few hours what has heretofore required months to do. And the labor is light.

In the Boston Advertiser, March 25th, we find a description of this discovery, and some pertinent comments. What the subtle, incisive, pervasive element is that works the various wonders whose primary source is petroleum, is not yet set forth in any academic or technologic work, says the Advertiser. Petroleum, or one of its elements, it has now been demonstrated, can invest and invade all fibrous growth, compel the husk to let go its hold, kill and drive out the resinous and coloring matter, and show as a result for each vegetable stalk a hank of white flossy fiber ready for the spinner's cards or the paper-maker's vats. The cotton stalk thus treated yields a softer, nicer, and in various respects better material, for the webs of commerce, than does the cotton boll. Even the root of the cotton plant can now be used for threads and cloth. The annual conflagration of the world's cotton area for getting rid of last year's stalks and stumps is now to be stopped. American flax fields are to yield a harvest. Now an acre produces \$10 worth of seed and in all \$15,000,000 worth is gathered and sold. By utilizing the flax-hay as well as the flaxseed \$100 can be obtained. The flax-stalks subjected to three or four hours' treatment by the new method can be shaken clear of all unavailable matter, and the white flax of finer and even filaments than are now possible can be at once obtained. This country at present has little interest in raising flax for its fiber, and it may be said that the cheapness of labor alone in linen-producing countries permits the industry to exist.

By the methods now followed it requires some six months' time to bring

the flax from the field and lay it as linen goods upon the shop counter. A briefer process, affecting more or less injuriously the fabric, is, however, sometimes resorted to. For making linen the flax must be dew-rotted during a term of from six weeks to three months, and it requires constant care and frequent manipulations. After being spun and woven, it is bleached by boilings and frequent exposures to the weather on the bleaching green. There must be eight boilings of three or four hours each in a weak solution of soda ash, with three or four days or a week's exposure on the bleaching green. Then four more boilings are necessary, with chlorine and an acid bath treatment. The material requires thirty-eight handlings to get it into merchantable goods, and in many of these no machinery can be used. The time of field-rotting of the flax coincides with the general harvest-time in this country, and the housing of other crops is too important a matter to permit of applying labor to the flax crop other than to gather for seed. The new method for linen is the same as for cotton fabric, but it goes a step farther. The flax may be perfectly bleached in the fibre in not more than four hours' time. There is no necessity for dew-rotting, and the flax hay, a product now sold to some extent to upholsterers for next to nothing, may be bleached upon the field and made to yield a merchantable fiber for spinners and weavers.

The Advertiser adds: "Much of what has now been indicated of the possibilities of manufacture is prospective, though deemed certain to be effected. But bank deposits have been drawn upon by men of wealth in this city and New York, and will continue to be ad libitum. A large mill and a water privilege have been purchased in Canton, in this State, where business under the patents already secured will be started within a few weeks. Agents have been sent to the West to buy up before the annual spring burnings begin all the flax product obtainable. This material will be treated at or near the place of purchase. The preparation of flax fibre and the bleaching of textiles, as well as various experimental lines of manufacture, will be comprised in the business. What may be possible in the manufacture of 1,001 vegetable fibres which commerce can lay hold of is, of course, conjecture, but experimental success has been achieved with many of the more common among them. The fibre of the cocoanut husk, and that of the pine-tree needles of our New England forests, have been successfully dealt with, and, while these may not be spun and woven into cloths, they may be wrought into pulp for paper, or applied in the many ways in which a clean, pliable fibrous substance is called for. Bromelia and ramie, two of the finest and best fibres, now bleached with great difficulty, may speedily become staple articles of commerce, when treated by the new process."

Flax culture is worth thinking about. A farmer that had a good flax crop in 1883, realized as much from that per acre as he did from his wheat of the same year. It has been our opinion for some time that the growing of flax would become more profitable in the near future. We believe the farmers of Kansas will do well to raise more or less flax every year. The discovery named in this article will be a stimulus of inestimable value.

Besides this, there seems to be a very general interest in flax culture springing up all over the country. Men are lending seed and contracting for the crop in advance. We have received a letter from Ohio, since the greater portion of this article was written, calling our at-

tention to the flax industry, and advising farmers of this State to sow. One bushel of flax-seed is now worth nearly as much as two bushels of wheat in Chicago.

The Dead-Line.

As will be seen by reference to the proceedings of the Dodge City stockmen published in another place, a new suggestion is made concerning the cattle dead-line. It is proposed to repeal that portion of the law which localizes the cattle trail and permits Texas and Indian cattle to cross our State west of certain lines and sets apart western counties for grazing lands.

Whenever Kansas stockmen take action of this kind, it is good evidence that the stock interests of the State would be benefited by the measure proposed. We suppose this dead-line legislation will soon wear out any way, because it will be found cheaper to send cattle direct from the grazing grounds in Texas or Indian Territory to market by rail than to drive and herd them a summer on the way. Time was when cattle as far west as Illinois were driven on foot to New York, Philadelphia and Baltimore, but the railroad has changed all that. So it will soon be in Texas. Kansas quit driving cattle some years ago, and it must be done all over the country sooner or later. It is doubtful whether the Legislature has any authority or would have any inclination to prohibit healthy cattle from coming into State. Cattle are property everywhere. Their chattelhood is not dependent upon particular State laws. Anything, therefore, which would interfere with the freedom of their movement from place to place, or with their coming in the same as any other property, would be in violation of the constitution of the United States, unless the animals are diseased or dangerous from any other cause.

But we are pleased to see this movement on the part of our stockmen. It shows progress in general, and what is of special interest to Kansans, it shows that our stock is becoming more valuable by improvement in blood and care.

Immediately after adjournment of the Legislature, Dr. Holcomb, State Veterinarian Surgeon, in company with several other professional gentlemen, went to the places in Woodson and Coffey counties where the cattle scare originated, for the purpose of inoculating well animals with the virus of affected ones, and to experiment otherwise with the disease. Nothing has been heard from them touching results. It may therefore be set down as settled that they have not been able to give the disease to any well animal.

Deep working of growing corn is not good. It tears away roots that are needed to hurry the growth of the corn. And it tends to hasten evaporation. If ground is well prepared for planting, the shallowest working which will keep the surface loose and destroy weeds, is the best. It is a mistake to run the teeth or shovels away down where the roots ought to be enjoying absolute freedom.

The Daily Kansas City Drovers' News is a five column quarto, neatly gotten up in new type and other material, and is steering for the top, where there is always room for one more. The News starts out looking and feeling well. The FARMER extends a friendly greeting and wishes nothing but good to the new settler.

To Our Friends, the Farmers:

The KANSAS FARMER for the remainder of the year 1884 for seventy-five cents. Send in your money and order.

The Coming Farmer.

This phrase is not intended to be used in a general sense, but as applied to Kansas. The first settlers here as elsewhere were rude and rough men in the sense that their ways of working were necessarily primitive and could not be otherwise than rude and rough. The dug-out in a hillside was no coarser as a house than were many others of the original devices for the purposes to which they were applied. But even now, only twenty-five years further on the way, in one-half of Kansas we have gone so far away from the days of the dug-out that it has become historic rather than useful. So, too, have the long horned and blue nosed cattle disappeared, and also those long stretches of open prairie that once charmed us with their beauties and wearied us with their monotony. Buffalo and cattle ranges of only a few years ago have been quietly transformed into farms, and the wild grass of the prairies has given place to meadows of clover and timothy. In place of the wild strawberry we have Winesaps and Pippins, and barns for thoroughbred cattle, sheep, hogs and horses cover the former haunts of the coyote.

But this does not mean that we have gone to the limit of progress. The boundary line of human ambition is not reached in a quarter of a century. We have passed on up the line with a stride never before equalled among men; yet we are still on the threshold. The future is coming and we are going; the meeting is taking place continually, and every year we are lifted higher. Our movement is not merely voluntary. This wonderful development is not the result of volition merely, and our continued improvement is not all ambition's work. Times change and men change with them. There is a current ever flowing and we move with it. Energy, will, courage, hope, pride, avarice—a thousand things impel us onward. The world moves, we say, and takes us along. Still we are contriving, inventing, planning, striving, as we ought to do continually; and it is this inner force, self-acting and persistent that helps us so wonderfully to increase our speed. Ambition helps the world along.

Thus far we have been learning how to farm in Kansas. We have been taking necessary lessons. In the meantime railways have reached us and gone away to the Pacific ocean and our lands have increased in taxable value. Our neighbors have grown more numerous, and they have fenced in their lands. Our ranges are dwarfed to meadows of tame grass. We have exchanged the stary heavens for pine shingles to cover our feeding animals. We go upon our own lands only to cut next winter's hay. Our resources are closing in upon ourselves. We must live on smaller areas, and must make less acres produce our supplies. Year by year we are driven in upon ourselves and compelled to do with less while we require more. This brings into play our best forces of mind and character. It sets our wits to work and we invent methods of finding a dollar where only a penny lay before. It brings us face to face with the future, and we inquire what must we yet do?

The coming farmer in Kansas will have learned that he must let everything possible remain on his land. That is to say, he will not remove anything from the land which it needs to maintain its fertility if it can be avoided. He will have learned that one acre of good land well cultivated and economically managed is worth ten acres of land used in the pioneer or range style. He will have learned that butter, cheese, beef, pork, mutton, eggs, poultry, wool, tallow, oil, etc., are as easily made as corn,

wheat, barley and hay, and that it does not cost one-tenth part as much to carry a dollar's worth of them to market. A bushel of corn occupies more space and weighs heavier than does the pork it would produce—say ten pounds. A hundred pounds of butter is more easily and cheaply handled than a ton of hay and a load of corn. Then, too, when the hay and corn are removed from the land, that much is absolutely lost to the soil, whereas, if they are fed to animals and put into butter, cheese, meat, wool, etc., all their essential soil elements are returned in the way of manure and more profit is realized besides. Land may be heavily cropped and yet improved every year. Under careful, frugal management a small farm may be made to produce in the ratio of its local increase in value, and the coming farmer will have learned that he can live as well on fifty acres of land as he once did on two to four hundred or a thousand, keep a larger family and be a better and a happier man.

The coming farmer will not run all to corn, or wheat, or hogs, or sheep. He will mix his farming. He will have his ground in the best possible tilth; he will raise only what he can use to advantage; he will grow little or no grains to sell; he will raise horses, cattle, hogs, sheep and poultry in numbers corresponding with the size of his farm, and he will make cheese and butter and grow wool and eggs; he will grow corn, wheat, rye, oats, sorghum, grass enough to support his stock well; he will have shelter for every animal he owns; his land will all be drained; he will save and use all the manure, both green and rotten, that he can make; he will study his business and conduct it in a business-like way, aiming always to reduce his products to the smallest and most valuable bulk. He will study the laws governing health of men and animals; he will educate himself and children; he will study all economic questions which in any manner involve his vocation; he will experiment, and learn and teach; he will regard himself and his neighbor as worthy of a good deal of respect; he will not undertake impossible things; he will not do two men's work; he will not strive to live a gentleman on a pauper's allowance.

The coming farmer will be an educated, active, enterprising man who will aim to get the best living possible out of the acres he possesses, and will take as much real enjoyment of life as a full-grown, healthy, live, good man can take in. He will have everything essential to happiness; he will be in the lead, he will have influence and honor among his fellows. Of all men the front rank farmer ought to be the happiest and the best.

Gossip About Stock.

April 16 is the date claimed by the Cass County (Mo.) Short-horn Breeders for their public sale at Pleasant Hill, Mo.

John Shoemaker, Perrin, Mo., purchased a yearling Hereford bull at Crane's Hereford establishment, Kansas City, for \$600.

Col. J. E. Bruce, Peabody, Kas., writes that he is to make a very good stock sale near Walton, this State, for Messrs. Rea & Magill, April 15.

J. E. Scott, Henstania, Mo., reports that three of his Merino ewes clipped fleeces which averaged 21½ lbs., and his buck fleeces averaged 29 lbs.

Harry McCullough, Fayette, Mo., held a public shearing April 1. The Merino ewes ranged from 15 to 19 lbs., the rams from 16 to 24 lbs. His stock ram Denmark clipped 24 lbs.

Volume 1 of the Northwestern Poland-China Record is now ready for distribution. A notice of the volume will be found in another place under the head of "Book Notices."

The Western Kansas Wool Growers's Association hold their second annual public

shearing at WaKeeney, April 15 and 16. The KANSAS FARMER acknowledges the receipt of invitations and will try and send a representative.

Many of our readers are perhaps not aware that there is a herd of pure-bred Red Polled or Norfolk cattle in this State that compare with any in the country. Any information concerning this breed may be had by addressing W. D. Warren, Maple Hill, Kas.

Dr. E. L. Wilson, Marysville, Kas., recently returned from Scotland, importing ten head of pure-bred Clydesdale horses. This mark of enterprise on the part of the Doctor is commendable and will do much to add to the material wealth of Marshall county.

H. V. Pugsley, Plattsburg, Mo., held a public shearing of registered Merino sheep at his place, April 1. Twelve breeding ewes with a fleeco of a little less than a year's growth made an average of 17¼ lbs. The stock rams, Stubby 440, 6 years, clipped 34 lbs.; Ike 902, 3 years, 26¼ lbs.; Ed. 33, 2 years, 23 lbs.

The meeting of stock men at Medicine Lodge, recently, discussed contagious diseases and resolved to assist the authorities in enforcing protective stock laws. The meeting indorsed the Governor's action in calling an extra session of the Legislature, and agreed to prosecute persons for dogging or running other people's stock.

We call attention to the card of D. W. McCullity, Hughesville, Mo. If you need anything in the line of registered Merino sheep, swine or poultry, write him. In this connection we especially desire to call attention to our breeders' cards on page 3 of the KANSAS FARMER. All kinds of live stock are represented by good men and careful breeders.

The class of sheep brought in from Vermont this year by Missouri breeders, seem to have larger size and better constitution. R. T. McCulley & Bro., Lee's Summit, Mo., say some of their yearling rams weigh from 120 to 140 pounds. They now have a flock of 500 registered Spanish Merinos. Their whole ewe flock clipped an average fleeco of 14 lbs.; the heaviest ewe fleeco was 22 lbs. The young bucks clipped from 14 to 19 lbs.

It is a matter of pride to call the attention of the many persons desiring pure-bred stock, to the advertisements of public sales near at hand. They represent good stock bred by reliable breeders. The following comprise the present list: April 15, 16, 17 and 18, at Chicago, the Spring Sales of Kentucky Short-horns; April 19, Manhattan, Kas., C. M. Gifford & Sons; April 30, St. Joe, Mo., Messrs. Hickman, McDonald and Cowan & Son; April 24 and 25 and May 1 and 2, Marshall, Mo., Saline and LaFayette county series of sales; May 27, Leavenworth, Kas., J. C. Stone, Jr.

Pursuant to instructions at the last annual meeting of the Norman Association, the association has been incorporated under the laws of the State of Illinois, with a capital stock of \$1,000, divided into 100 shares of \$10 each, all of which has been subscribed. It is designed to have these 100 shares redistributed to 100 members before the capital stock is increased. There are no further assessments or liabilities connected with this stock—each share of stock will be assigned and issued upon receipt of application with \$10. J. Virgin, Fairbury, Ill., is President, and T. Butterworth, Quidey, Ill., Secretary. Address the Secretary for any desired information.

After the adjournment of the Missouri State Wool-Growers' Association, a number of the prominent breeders met and formed the Missouri Sheep Breeders' Association, with Sam Jewett, Independence, President; R. T. McCulley, Lee's Summit, Vice President; H. V. Pugsley, Plattsburg, Secretary and Treasurer. Directors—Harry McCullough, P. D. Jewett and L. L. Sells. Committee on Pedigrees—J. V. McCulley, Sam Jewett and Harry McCullough. The association proposes to get out a register of all the sheep in Missouri now recorded in the Vermont Register. The first volume will be published about July 1. Breeders in Kansas and Nebraska will be allowed to register their sheep with this association.

Look Here!

The KANSAS FARMER to any subscriber for the remainder of the year 1884 for seventy-five cents. Send in your order and money at once.

THE MARKETS.

By Telegraph, April 7, 1884.

STOCK MARKETS.

Kansas City.

The Live Stock Indicator Reports:
CATTLE Butchers stock 3 75a5 00; shipping steers 5 55a6 00.
*HOGS Heavy 5 95a6 05, mixed 5 75a6 00.
SHEEP Natives: Stockers 2 50a3 00, fat 3 00a 5 00.

Chicago.

The Drovers' Journal reports:
HOGS Receipts 10,000, shipments 4,500, Market sluggish and 5a10c lower. Rough packing 5 40a 5 95, skips 3 90a5 25.
CATTLE Receipts 6,000, shipments 1,100. Market brisk and firm. Exports 6 20a6 60, good to choice shipping steers 5 70a6 15, common to medium 5 15a5 60, corn fed Texas steers 5 00a 5 75.
SHEEP Receipts 4,700, shipments 2,600. Market firm. Inferior to fair 4 60a4 75, medium to good 5 25a5 75, choice to extra 5 80a6 25.

New York.

CATTLE Beeves, receipts 4,700. Market active, firm, higher. Native steers 6 40a7 60, eight cars Cherokee steers 6 22a6 40, fat bulls 4 70a5 50, general sales steers 6 50a7 00.
SHEEP Receipts 70,000. Opened firm at 7 40a 7 50; prime sheep 8 50, prime yearlings later, earlier, closing at 6 25a7 25 sheep, 6 95a7 25 yearlings.
HOGS Receipts 1,100, nominally dull at 5 50a 6 60.

St. Louis.

CATTLE Receipts 1,466, shipments 2,300. Butchers shade better, shipping firmer; exports 6 25a6 65, good shipping 6 60a6 20, common to medium 5 00a5 50, feeders 4 60a5 25, corn fed Texas 5 00a5 50.
SHEEP Receipts 250. Market scarce and firm. Inferior to fair 3 50a4 00, medium to good 4 25a5 00, choice to extra 5 40a6 00, Texas 3 00a4 75.

PRODUCE MARKETS.

Kansas City.

Price Current Reports:
WHEAT Received into elevators the past 48 hours 2,538 bus, withdrawn 11,689, in store 339,397. There was another sharp decline to-day carrying wheat to the lowest point for the crop or several crops. Cash wheat opened ½c lower at 78½c and dropped to 78c. May at last sold below 80c at 79½c.
CORN Received into elevators the past 48 hours 40,730 bus, withdrawn 44,584 bus, in store 170,018. There was a sharp decline in values to-day follows as a result of the general bear movement in the East which includes corn. Cash corn was 1¼c off, to 39c. April sold well, opening at 39½c and closing at 39¼c; 1½c drop since Saturday. May was badly rattled and fell below 40c for the first time to 39¼c.

OATS No. 2 cash 29c bid, 29½c asked. April and May no bids nor offerings.
RYE No. 2 cash, no bids nor offerings. April 48c bid 50c asked. May no bids nor offerings.
CASTOR BEANS Prime, on the basis of pure, 1 60a1 65 per bus.

FLAX SEED We quote at 1 35a1 38 per bus.
BUTTER The receipts to-day are light. The demand for choice packed goods is fair. Roll goods are slow.

We quote packed:
Creamery, fancy..... 29a31
Creamery, choice..... 27a28
Choice dairy..... 26a27
Fair to good dairy..... 20a22
Choice store packed (in single packages)..... 18a20
Medium to good..... 12a15
We quote roll butter:
Choice, fresh..... 16a18
Fair to good..... 12a15
Medium..... 10a

EGGS Receipts good. The market is unsettled and weak with downward tendency. We quote weak at 18c.

CHEESE We quote eastern out of store: Full cream: Young America 15¼c per lb; do twin flats 15c; do Cheddar, 14c. Part skim: Young America 11a12c per lb; flats 10¼a11c; cheddar 9a9¼c. Skims: Young America 9a10c; flats 8¼a9c; Cheddar 7a7½c.

POTATOES We quote consignments on track in car load lots 33a38c in bulk for native stock; choice northern 37a41c for Early Rose; Peach-blows 37a41c; White Neshannock 37a41c.

SORGHUM We quote consignments in car loads: Dark 18a20c, bright 22c.
BROOM CORN Common 2a2½c per lb; Missouri evergreen 4a5c; hurl 6a7c.

WOOL We quote: Missouri and Kansas tub washed at 28a33c; unwashed, choice medium 17a 23c; fair do. at 17a19c; coarse 14a15c; New Mexico 12a16c.

Chicago.

WHEAT Market feverish. April 78c, May 79½c a32½c, June 82a81½c, July 83a86c.
CORN Cash 4½a48¼c
OATS Cash 26a29c.
FLAXSEED 1 64.
BARLEY 66c.
RYE 51c.

New York.

WPEAT Receipts 109,000 bus, exports 43,000. No. 2 Chicago 83c, No. 3 red 91a91½c. No. 2 red 96a98½c do. April sales 82,000 bus at 94¼a96½c, May 3,688,000 bus at 95¼a95¾c, June sales 3,095,000 bus at 95¼a1 0¼.
CORN Receipts 61,000 bushels, exports 31,000. No. 3 51c, No. 2 55a57c, old do. 56c.

St. Louis.

WHEAT No. 2 red 1 04½c April, 1 05a1 06 May, 99½a1 01, June 93¼a91¾c, closing at 91½c July, 88½c August, 88a59¼c for the year, No. 3 red 86c bid.
OATS Cash higher, options slow, 35c cash.
RYE Lower at 64c bid.
BARLEY Quiet at 70a85c.

In the Dairy.

OLEOMARGARINE AND BUTTERINE.

The Live Cow Cannot Compete With the Dead Hog.

The subject of adulterated food is attracting a good deal of attention. Imitations of butter are on the market selling for and as butter, and though some of it is pure and not unwholesome, there is much of it that is fraudulent both as to composition and method of sale. The FARMER has given a good deal of attention to the matter and expects to make some suggestions on the subject to the next Legislature. In the meantime it is well to agitate the subject.

There have been many public efforts to ferret out the frauds and devise means to prevent their repetition. The *American Cultivator* refers to a recent investigation in New York by a committee of the State Senate, and says the evidence conclusively proves the enormous frauds and adulterations laid at the doors of oleomargarine and butterine manufacturers. The chief agricultural interest of the Dairy State is ruined by the open and unrestricted sale of these fraudulent and nauseous compounds. If offered for what they are, the public would never purchase such vile stuff. Oleomargarine costing twelve to fourteen cents per pound is frequently retailed as genuine dairy butter at thirty to thirty-five cents. These enormous profits are such a temptation to dishonest dealers that they embark extensively in this fraudulent business. Unprincipled men utilize the fat of diseased animals.

The method of making butter from swine or soap fats is substantially as follows: Lard, tallow and grease or solidified oils are run through a hasher and then rendered at a moderate temperature. Next it is deodorized or rendered neutral by the use of a solution of nitric acid in water, and cooled in ice water for from thirty-six hours to a period of four or five days. Afterwards it is drained off, melted, churned and mixed with fifteen to thirty per cent. genuine dairy butter to impart flavor, aroma and consistency. Swine resembles butterine, except that the former contains a larger percentage of lard or grease and oil than the latter, with a smaller percentage of genuine butter. The markets of the world are scoured for oils to use in this manufacture, and include cotton-seed oil, peanut oil, also bene oil and other fat from Egypt, Africa and Italy. When these artificial butters are made in the vicinity of slaughter-houses from raw fat one can imagine the temptation to use all sorts of vile material which can be so easily neutralized or deodorized through the use of nitric acid.

Nitric acid is extensively used in rendering the lard, bone, oil, grease and other fats neutral or tasteless so their presence may not be discovered in the compound. It is a mineral and a deadly poison. What is the effect of nitric acid upon the human system? Dr. Waller says: "The effect of nitric acid on animal life—fat and tissues—is to destroy it. It will form nitric compounds in the tissues. Its effect on the organs of digestion would be extremely injurious. Refined lard would not liquefy at a lower temperature than leaf lard. Nitric acid acts on the tissue rather than on the fat. After using the acid the neutral lard might not contain any of it if it were properly washed and pressed; but if left to drip merely the acid would not be removed. Salt water would not remove the acid. There might be enough acid left after the most careful process to affect injuriously the human stom-

ach. One-half a dram of nitric acid would be fatal. There is no antidote for this poison. As a disinfectant, nitric acid is dangerous." Dr. Pooler, of Goshen, N. Y., says: "Nitric acid is a powerful caustic, destroying animal tissue with which it comes in contact. Its use would occasion dyspepsia, colic, debility, and a whole train of difficulties. The object of using nitric acid with fatty substances is to destroy the animal tissue, deodorize the smell and to act as a preservative."

These fraudulent compounds are especially harmful to the human stomach, particularly so in the case of delicate persons or those of sedentary occupation. The digestive organs of the average individual find it difficult to digest raw lard, suet and pork. Even boiled pork requires one hour and forty-five minutes longer to digest than butter; boiled beef suet requires two hours more for digestion than butter. Dr. Bennet once said the lower the temperature at which fat ceases to be liquid the easier its digestion. Cotton-seed oil is not a fit article of food; bene oil is a powerful laxative. Impure fats may contain the germs of disease. Uncooked pork has caused the death of many who consumed it. The process of making oleomargarine is simply a mechanical one, and all the fats and oils used in the mixture have the same properties and the same injurious qualities in the finished article as in the raw product. Genuine dairy butter is a pure, healthful product and one easy of digestion.

The Senate committee, mentioned above, have recently made their report, stating that they have discovered that the adulteration of natural butter by various intermixtures of lard oil, tallow oil, bene oil and other foreign ingredients, of coloring matter, has been practiced to such an extent and under such fraudulent cover that the spurious product has found its way into almost every town and city in the State to an amount nearly equal in quantity to that of the whole production of natural butter sold in the markets. The fraudulent imitation has been so ingeniously contrived and executed that ordinarily it cannot be distinguished from natural butter by the unsuspecting purchaser, and even experts testify that the better qualities of the counterfeit can only be detected by chemical analysis.

The "butter" was largely purchased by restaurants, boarding-house keepers and second-class hotels; the poorer qualities being sold, for the most part, to laboring people at from twenty to thirty cents per pound, and the better grades often as high as forty or fifty-five cents. The cost of manufacture varied from twelve and a half cents to eighteen cents per pound, the great bulk of the article costing about fourteen cents, and retailing at about the cost of good dairy butter.

The committee state "That the retailer making so large a profit could at any time undersell the dealer in natural butter, but, lest a low price might excite suspicion of the purchaser, it was kept as nearly as possible to the price of natural butter, the price being reduced only when necessary to drive the genuine article from the market." It was learned that there are several concerns in this State manufacturing oleomargarine that turn out 3,000,000 pounds annually, largely from fats brought from Chicago and other western cities, and by oils imported from France and Italy. The bulk of the article, however, is made in Chicago, and is made almost entirely from lard oils mixed with a percentage of genuine butter, and the mixture, colored to represent butter, is sent to and received at New York as butter, "to the injury of the dairy butter of the State."

The most intelligent witnesses testi-

fied that it had almost driven the State dairies out of the market, and compelled a large proportion of the farmers to abandon the business of making butter, "inflicting a loss upon the dairy interests of the State of from \$5,000,000 to \$10,000,000 per annum." No accurate computation could be made of the quantity manufactured and sent into the State, but from all sources of information available the best judges testified that it would reach the enormous quantity of 40,000,000 pounds annually. The committee state that the selling of the imitation butter is corrupting retail grocers, and is threatening to demoralize the farmers. There is no evidence that the farmers of this State are adulterating their butter, but it was proved that in many of the creameries all over the country the deception is being practiced. Oleomargarine affects the New York State farmer to a greater extent than any other class of people, for the reason that the western farmers ship their butter fresh from the churn, and get the bulk of their goods in the market during the summer months, when oleomargarine is not used to any great extent, while the New York farmer brings his products to market late in the fall, and comes into direct competition with butterine and oleomargarine.

The secret of rendering and preparing the lards and fats, the committee state, is beyond all question the use of nitric acid or other chemicals, which destroy the natural smell, render the article more insoluble and indigestible, and serve as an agent to prevent decomposition or putrefaction. But nitric acid is a poison. While not averring that oleomargarine is necessarily always unwholesome, the committee believe that it is likely to be so, and to a large extent would necessarily be injurious if used by children or persons in delicate health, and is not in any sense nor can be a wholesome substitute for pure and natural butter.

The committee reach the following conclusions: The evil can only be effectually dealt with by the total prohibition of its manufacture and sale within the State. The laws already upon the statute book have been prepared with particularity and care to prevent its sale under the guise of natural butter. Six different enactments for this purpose have already been adopted, but they are evaded and unobserved, and scarcely an attempt is made for their enforcement. The farmers of this State must either submit to the gradual but certain impairment and destruction of the value of their farms and the profit therefrom, or prevent by legal enactment the manufacture and sale of the spurious article. This would have long ago been done but for the erroneous belief that the laws of the State could not prevent the manufacture of an article for which the general Government had granted a patent, or which had not been shown to be poisonous or injurious to the public health. The committee state that "This delusion has been dispelled. The Federal court has decided that the State has the power to prohibit the sale of any article within its borders when the public exigency requires it, and this even though the article prohibited is covered by letters patent from the general Government. The Missouri law prohibiting the manufacture and sale of oleomargarine is a sweeping one, and its validity has been tested both in the courts of the State and of the United States." The bill of the committee makes it a misdemeanor to sell or manufacture oleomargarine; and the person convicted of the act can be punished by a fine of not less than \$500 nor more than \$1,000. The State Dairymen's Association is given powers to enforce the act.



A SURE CURE FOR Sick Headache, Dyspepsia, Langour, Nervous Exhaustion arising from over-work or excess of any kind, —AND FOR—

Female Weaknesses.

—IT PREVENTS—

Malarial Poisoning and Fever and Ague, And is a Specific for Obstinate

CONSTIPATION.

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SOLD BY DRUGGISTS EVERYWHERE.

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THE GREAT BLOOD PURIFIER

Liver and Kidney Remedy,

Compounded from the well known Curatives Hops, Malt, Buchu, Mandrake, Dandelion, Sarsaparilla, Osceola Sagrada, etc., combined with an agreeable Aromatic Elixir.

THEY CURE DYSPEPSIA & INDIGESTION, Act upon the Liver and Kidneys, AND REGULATE THE BOWELS, They cure Rheumatism, and all Urinary troubles. They invigorate, nourish, strengthen and quiet the Nervous System.

As a Tonic they have no Equal. Take none but Hops and Malt Bitters.

— FOR SALE BY ALL DEALERS. —

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DR. DYES'

(BEFORE.) (AFTER.)

ELECTRO-VOLTAIC BELT and other ELECTRIC APPLIANCES are sent on 30 Days' Trial TO MEN ONLY, YOUNG OR OLD, who are suffering from NERVOUS DEBILITY, LOST VITALITY, WASTING WEAKNESSES, and all those diseases of a PERSONAL NATURE, resulting from ABUSE and OTHER CAUSES. Speedy relief and complete restoration to HEALTH, VIGOR and MANHOOD GUARANTEED. Send at once for Illustrated Pamphlet free. Address

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When I say cure I do not mean merely to stop them for a time and then have them return again, I mean a radical cure. I have made the disease of FITS, EPILEPSY or FALLING SICKNESS a life-long study. I warrant my remedy to cure the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a Free Bottle of my infallible remedy. Give Express and Post Office. It costs you nothing for a trial, and I will cure you.

Address Dr. H. G. ROOT, 145 Pearl St., New York.

The Veterinarian.

[The paragraphs in this department are gathered from our exchanges.—ED. FARMER.]

HORSE'S BREATHING.—Would a quick change in the weather, say from cold to warm, have a temporary bad effect on a horse not exactly sound in its wind? Also do breathing troubles in horses arise from any cause other than heaves? [Change of temperature will affect sick animals, as well as human beings. The organs of respiration in the horse are subject to all the diseases that those in a man are.]

HORSE OUT OF CONDITION.—I have a horse that does not seem to be well. I feed him good oats and hay, but he does not eat as much hay as usual. He groans when pressed over the kidneys. Doesn't seem to be lively. [We could not say definitely from the statement given what ails him. There are indications that the kidneys may be involved to some extent. Feed him bran mashes, middlings, and roots if you have them, salted, and give him two drams of capsicum once a day. See what that will do.]

WARTS ON COWS' TEATS.—One of my young cows is troubled with numerous warts on her teats. It makes her very troublesome to milk, and I would like to know how to cure them. [Various remedies are recommended for the eradication of warts from cows' teats; but, perhaps, the following is as good as anything we can suggest: Take of olive oil, 5 ounces; phenic acid, 1 ounce; mix, and apply at night, after milking. Before milking the following morning, be particular to wash the udder with soap and warm water.]

NASAL GLEET.—I have an eight-year-old mare that took the distemper last April, and has not yet recovered from it. She discharges a milky-colored pus from both nostrils, which has a very offensive odor. She eats well and is in good flesh. Can anything be done to hasten recovery. [Wash out the nose every day, for two weeks with a little mop dipped in a decoction of tobacco. Give sulphur and rosin every day, for four days, mixing two pounds—a pound each—and dividing it into four doses. Keep the horse out doors when the weather is nice, and feed soft mashes and oil meal.]

CAKED UDDER.—I have a good milch cow that was fresh last fall, and in December one-half of her udder became sore and swelled and the milk was bloody. I kept it milked out. That half of her udder dried up. Please tell me whether it will come right when she has another calf? [Not without an operation, probably, and it is even not sure that that would remedy it. It is probable that it is caused by the obliteration of the duct. There is an instrument consisting of a steel probe flattened out to two lines at one extremity and with finely sharpened point, that is used in such cases. It would be better to employ a surgeon if anything is done.]

Since last October I have suffered from acute inflammation in my nose and head—often in the night having to get up and inhale salt and water for relief. My eye has been, for a week at a time, so I could not see. I have used no end of remedies, also employed a doctor, who said it was impure blood—but I got no help. I used Ely's Cream Balm on the recommendation of a friend. I was faithless, but in a few days was cured. My nose now, and also my eye, is well. It is wonderful how quick it helped me. Mrs. GEORGE S. JUDSON, Hartford, Conn. (Easy to use. Price 50 cts.)

Canadian farmers send large quantities of ashes to New Jersey, selling them at five cents per bushel. New Jersey farmers pay thirty cents for them, and are glad to get them at that price.



"I owe my Restoration to Health and Beauty to the CUTICURA REMEDIES."

Testimonial of a Boston lady.

DISFIGURING HUMORS. Humiliating Eruptions, Itching Tortures, Scrofula, Salt Rheum and Infamule Humors cured by CUTICURA REMEDIES.

CUTICURA RESOLVENT, the new blood purifier, cleanses the blood and perspiration of impurities and poisonous elements, and thus removes the cause.

CUTICURA, the great Skin Cure, instantly allays Itching and Inflammation, clears the Skin and Scalp, heals Ulcers and Sores, and restores the Hair.

CUTICURA SOAP, an exquisite Skin Beautifier and Toilet Requisite, prepared from CUTICURA, is indispensable in treating Skin Diseases. Baby Humors, Skin Blemishes, Chapped and Oily Skin CUTICURA REMEDIES are absolutely pure, and the only infallible Blood Purifiers and Skin Beautifiers. Sold everywhere. Price, Cuticura, 50 cents; Soap, 25 cents; Resolvent, \$1. POTTER DRUG AND CHEMICAL CO., BOSTON, MASS.

PROSPECT FARM.



The two imported Clydesdale Stallions Carron Prince and Knight of Harris will stand at the stable of the undersigned this season—the one at \$20.00, the other at \$25.00, to insure. Both horses imported from Scotland in 1882 and recorded in A. C. S. Book, pages 364 and 370.

The two High-grade Stallions, Donald Dean and King William, will stand at same place at \$10.00 each to insure. These two horses were sired and grand-sired by noted imported Clydesdale Stallions.

Farmers, come and examine these horses for yourselves. STALLIONS AND MARES FOR SALE.

H. W. McAFEE, Three miles West of Topeka, 6th St. road.

IVANHOE. Trial Mile at 3 Years Old, 1:46.

Dark Bay, 15 3-4 hands high, weight 1,100 pounds

Stands at GLENVIEW FARM, 8 miles southwest of Humboldt, at \$20 to insure. Free pasture for mares.

Sired by Glendower, (son of Evergreen and Imp. Knight of St. George); 1st dam by Panic, 2d by Dublin, 3d by Sir Richard, 4th by Whip, 5th by Costeaze, 6th by Imp. Dare Devil.

For a combination of blood, size, style, speed and action, united with beauty of the highest type and the power of transmitting these qualities to his progeny, this horse has few equals. G. A. LAUDE, Humboldt, Kas.

SHORT-HORNS FOR SALE.

THE BREEDERS' ASSOCIATION OF CLINTON AND CLAY COUNTIES, Mo., own about

1,000 Short-horn Cows,

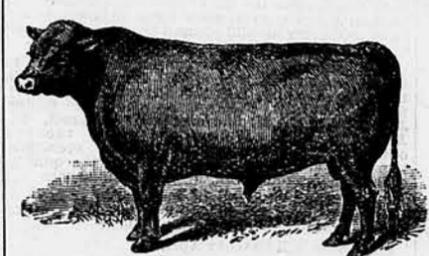
and raise for sale each year

Near 400 Bulls.

Will sell males or females at all times as low as they can be bought elsewhere. The Annual Public Sale will be held the first Wednesday and Thursday in June of each year. Parties wanting to buy Short-horns Write to

J. M. CLAY, President, Plattsburg, Mo.; H. C. DUNCAN, Vice President, Osborn, Mo. or S. C. DUNCAN, Secretary, Smithville, Mo.

Red Polled Cattle.



W. D. WARREN & CO.,

Maple Hill, : : : Kansas,

Importers and Breeders of

RED POLLED CATTLE.

A choice lot imported young Bulls and Heifers for sale.

Telegraph and R. R. station, St. Marys, on the U. P. R. R.

SUNNY SIDE STOCK FARM.



J. P. FENLON, P. O. Box 148, Leavenworth, Kansas,

—Breeder of—

SHORT-HORN CATTLE

of the most noted beef strains, and all superior individuals.

FOR SALE—Forty Thoroughbred Pure Short-horn Bulls—Rose of Sharon, Young Mary and Princess, from 9 months to 2 years old; also, 60 High grade Bulls, all Red and in fine condition, from three-quarters grade cows and pedigree bulls.

Correspondence or inspection of herd cordially invited.

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Imported and Home-bred Hereford Cattle of both sexes constantly on hand. Also choice Cross-bred and Grades, both sexes. Send for Illustrated Catalogue.

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Headquarters in the Southwest for WHITFIELD

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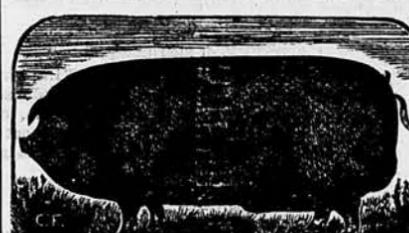
Wm. Gentry & Sons, Sedalia, Pettis Co., Mo.

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BREEDERS of and Dealers in Short-horn, Hereford, Polled Aberdeen and Galloway Cattle, Jacks and Jennets. Have on hand one thousand Bulls, three hundred sets cattle in calf by Hereford and Polled Bulls. Are prepared to make contracts for future delivery for any number.



ROME PARK STOCK FARM,

located seven miles south of Wellington, Sumner Co., Kansas; Rome depot adjoining farm. I have 35 breeding sows—Poland-China and Large English Berkshire swine. Also 230 high grade Short-horn cattle. Stock recorded in Ohio and American Records. The animals of this herd were and are prize-winners and descendants of prize-winners, selected with care from the notable herds in the different States without regard to price. The best lot of sows to be seen. Am using six boars—Cornish 2d, Kansas Queen, Kansas Pride, Cora's Victor, Ohio King, Hubbard's Choice,—sweepstakes. Orders booked for Spring Pigs. Address

T. A. HUBBARD, Wellington, Kansas.

Acme Herd of Poland Chinas



Fully up to the highest standard in all respects. Pedigrees, for either American or Ohio Records, furnished with each sale. All inquiries promptly answered.

Address STEWART & BOYLE, Wichita, Kansas.

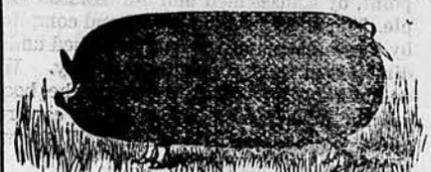
Chester White, Berkshire and Poland-China Pigs, choice Setters, Scotch Shepherds and Fox Hounds, bred and for sale by ALEX. PROFFERS, West Chester, Chester Co., Pa. Send stamps for circular and price-list.

WELLINGTON HERD ENGLISH BERKSHIRES.



The Wellington Herd of well-bred and imported Berkshires is headed by HOPFUL JOE 4889. The herd consists of 16 matured brood sows of the best families. This herd has no superior for size and quality, and the very best strains of Berkshire blood. Stock all recorded in A. B. R. Correspondence and inspection invited. Address M. B. KEAGY, Wellington, Kas.

PLEASANT VALLEY HERD OF Pure-bred Berkshire Swine.



I have thirty breeding sows, all matured animals and of the very best strains of blood. I am using three splendid imported boars headed by the splendid prize-winner Plantagenet 2919, winner of five first prizes and gold medal at the leading shows in Canada in 1881. I am now prepared to fill orders for pigs of either sex not akin, or for matured animals. Prices reasonable. Satisfaction guaranteed. Send for catalogue and price list, free. S. McCULLUGH, Ottawa, Kansas.

Riverside Stock Farm.



Herds of pure-bred and high grade Short-horn Cattle, Poland-China Swine, Shepherd Dogs and Plymouth Rock Fowls. The best herd of Poland-Chinas west of the Mississippi river, headed by Black-foot 2261, Young U. S. 4491, Laudable, vol. 6 (own brother to Look-No-Farther 40-5) and Look-No-Farther (a son of Look-No-Farther). All stock sold eligible to the Ohio Record. Send for new catalogue. MILLER BROS, Box 298, Junction City, Kas.

Thoroughbred Poland-Chinas



AS PRODUCED AND BRED BY A. C. MOORE & SONS, Canton, Illinois.

We are raising over 800 pigs for this season's trade. Progeny of hogs that have taken more and larger sweepstakes and pork-packer's premiums than can be shown by any other man on any other breed. Stock all healthy and doing well. Have made a specialty of this breed of hogs for 37 years. Those desiring the thoroughbred Poland-Chinas should send to head quarters. Our breeders will be registered in the American Poland China Record. Photograph of 34 breeders, free. Swine Journal 25 cents. Three-cent stamps taken.

Improved Poland-China Hogs



We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have

Hogs of Quick Growth,

Easily fattened and early matured, showing a great improvement in form and style, especially in the head and ears.

Our breeders consist of the finest lot of Sows and three of the best Boars in the State being descendants from the best families in the United States. Those wishing choice pigs should send orders in early as there is a very large demand for stock. Mail orders filled with dispatch. Pedigrees furnished with all hogs sold.

S. V. WALTON & SON,

P. O. Wellington, Kansas; Box, 207.

Residence, 7 miles west of Wellington, near Mayfield.

This, That and the Other.

The best made Persian carpets have from 200,000 to 300,000 stitches to the square yard. Shakespeare is the author whose books are the most badly mutilated of any in the Cooper Union Library.

Of the bronze articles found among the remains of the Swiss lake dwellings, forty-seven per cent. are ornaments.

The ancient Trojans carried the art of soldering gold and silver to a height to which modern jewelers cannot attain.

A New York doctor has become the victim of a hitherto unknown disease which has reduced the pulsations of his heart to twenty-six a minute.

A young farmer recently plowed up an earthen jug containing 1,900 half-eagles in a field near Island Shoals, Ga. It is supposed that his grandfather buried it before the Rebellion, during which he was killed.

Book Notices.

FORESTRY.—Report of Kansas State Horticultural Society on Forestry is on our table. It is made up from a Kansas standpoint, by Kansas men and for Kansas people. The matter was prepared and compiled by a special committee and published under direction of G. C. Brackett, Secretary. We do not know how many copies of the book are for distribution, but a postal card request to Secretary Brackett will insure prompt and respectful attention.

WORLD'S CYCLOPEDIA.—The name implies more than the book justifies. It is useful in its way, but it does not cover nearly as much ground as it proposes to do; and the printing is not well done, nor are the illustrations fit to present in any work intended to be really valuable.

SWINE.—Volume 1, Northwestern Poland-China Record, is out. This is a Kansas book, remember; that is to say, the headquarters of the N. W. P.-C. Association is at Washington, in Washington county, Kas. It is made up of members from Kansas, Nebraska, Missouri and Illinois. H. E. Billings, Linn, Kas., is President, and J. O. Young, Washington, Kas., is Secretary. Of animals registered there are 181 males and 370 females. The book contains 216 pages, contains a history of the association, together with charter, by-laws, rules, regulations, etc., and may be obtained from the Secretary.

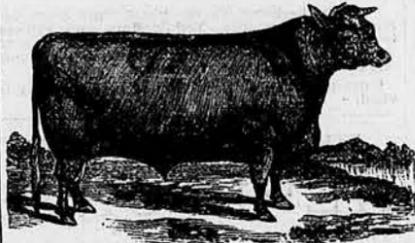
SORGHUM.—Dr. Peter Collier, a long time chemist in the Department of Agriculture at Washington, has prepared a book of some 550 pages, devoted wholly to sorghum, its culture and manufacture. The work contains a great deal of useful matter, but it is unnecessarily elaborate. The ordinary sorghum grower does not care a fig about the literary history of the plant, but he does want to know as much as possible about the culture and handling of it to the end that it may be made profitable. Dr. Collier's book treats of everything connected with this popular plant; preparation of soil, how to plant, when to plant and what varieties, how to cultivate, when to cut, how to manufacture sirup and sugar, what to do with the bagasse, etc. The book is exhaustive. We are pleased with it. The author has had a great deal of experience in this line, and is therefore competent to treat the subject upon practical as well as scientific grounds. The book is published by Robert Clark & Co., Cincinnati.

FRANK LESLIE'S SUNDAY MAGAZINE.—The May number contains some particularly notable articles, and is altogether most interesting and edifying. The editor, T. De Witt Talmage, D.D., has two articles—"The Arctic Martyrs" and "The Great Freshets"—which are of profound interest and admirably illustrated. "Cathedral of Our Savior, Moscow," "Love and Life in Norway," "A Summer Holiday Abroad," "The Pianoforte, Ancient and Modern," etc., are prominent features of the number. There are serial and short stories, essays, sketches, etc., by Rev. E. Barrass, Miss G. A. Davis, Alfreton Hervey, T. L. Meade, J. Alex. Patten and other celebrated writers; poems of great merit; the Home Pulpit, with sermon by Dr. Talmage; and miscellaneous articles, etc., entertaining and replete with information. Single copy, 25 cents, or \$2.50 a year, postpaid. MRS. FRANK LESLIE, Publisher, 53, 55 and 57 Park Place, N. Y.

Saline and LaFayette Series of PUBLIC SALES

—OF— Thoroughbred Cattle.

SHORT-HORNS, POLLED ANGUS AND GALLOWAYS!

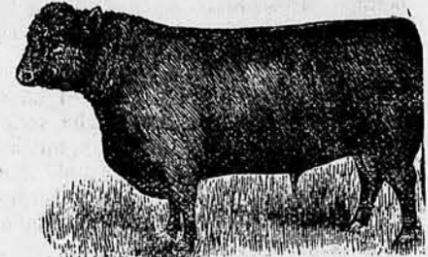


MARSHALL, MO.,

—ON—
April 24 and 25,

—AND AT—
HIGGINSVILLE, MO.,

May 1 and 2.



At MARSHALL, MO., on April 24th and 25th, 1884, the Breeders of Saline County will sell 165 HEAD OF SHORT-HORNS, about one-third of which will be young Bulls ready for service. There will be families and individuals worthy a place in the best herds in the country. Catalogues of this sale can be had on application to T. C. Rauey, Marshall, Mo. COL. J. W. JUDY, Auctioneer.

At HIGGINSVILLE, MO., on May 1st and 2d, 1884, the Lafayette County Breeders' Association will sell 85 HEAD OF THOROUGHbred SHORT-HORNS. Through the courtesy of the Association, Messrs. Leonard Bros., of Mount Leonard, Mo., will contribute 25 head of the above number of SHORT-HORNS, and will also offer for sale 75 HEAD of nice GALLOWAY BULLS AND HEIFERS. Bulls from 12 to 22 months old and Heifers safe in calf or with calf at foot. All of these are imported animals, purely bred, and recorded in the Herd Books of Great Britain. Catalogues of this sale can be had on day of sale.

TERMS OF BOTH SALES:—Cash or its equivalent in Bankable paper.

Spring Sales. KENTUCKY SHORT HORNS

April 15, 16 & 17, 1884,
At Dexter Park, Chicago, Ill.

J. M. BIGSTAFF, Mt. Sterling, Ky.

Will sell on April 15th, 1884, at Dexter Park, Chicago, Ill., from the Springfield Herd, 30 Short-horns, including two pure Bates bulls, one Place bull—the highest bred one we know of,—Lady Bickerstaffs, Roan Duchesses, Blooms, Rosabellas, Rose of Sharons, of the Renick Branch Marys, Cowalls, Galateas, etc., topped by pure Bates, Duke and Oxford sties.

J. S. BERRY, of Sharpsburg, Ky.

Will sell, on the 15th day of April, 1884, Kirklevingtons, Roan Duchesses, Cypresses, Marys, Goodnesses, Filligrees, Rose of Sharons, Amelias, Myrtles, etc. Among them will be a fine Kirklevington bull, out of imp. Kirklevington Princess 2d, sired by the Bates bull 8th Duke of Vinewood, a show bull.

JAMES CHORN, of Thomson, Ky.

Will sell, on April 16th, 1884, at Dexter Park, Chicago, Ill., about 60 Short-horns, of the following families: Craggs, Fletchers, Gem-Duchesses, Oxford-Cypresses, Bell Marions, Young Marys, Phyllises, Harriets, White Roses, Rosemarys, etc. The pure Bates bull Duke of Cornwall will be included in the sale.

HON. A. W. BASCOM, Owingsville, Ky.

Will sell about 50 head of Short-horns, from the Slate Valley Herd, at the same place, on April 17, 1884, of the following families: Young Marys, Josephines, Young Phyllises, Gems, Vellums, Cowalls, Donna Marias, etc. The pure Bates Fletcher Duke of Wilmont and 11th Duke of Kirklevington will be included in the sale, together with a nice lot of young bulls of the above mentioned families.

For catalogue of either sale, apply to

J. M. BIGSTAFF,
Mt. Sterling, Ky.

HEREFORD CATTLE.

THOROUGHbred BULLS and HIGH GRADE BULLS and HEIFERS for sale. Inquiries promptly answered.

WALTER MORGAN & SON,
Irving, Marshall Co., Kansas.

BEES FOR SALE.—I have a few colonies of Italian and Hybrid bees for sale—all in good condition. Also, will have choice Italian Queens for sale at \$1.00 each during the season.
J. B. KLINE, 314 Kansas Ave., Topeka, Kas.

A PUBLIC SALE OF FIRST-CLASS SHORT-HORNS

— Will be held —
WEDNESDAY, APRIL 30, AT EXPOSITION GROUNDS,
St. JOSEPH, MO.

The offering will comprise the entire herd of Col. Thad. Hickman, and a draft from the herds of J. G. Cowan & Son and E. L. McDonald, in all

20 Males and 55 Females.

All animals offered at this sale were either bred or kept for breeding purposes by their present owners (all of whom are well-established breeders); are in a thriving, healthful condition, acclimated, nearly all reds, and possess rare individual merit. The following families will be represented in the sale: PRINCESS, GWYNN, ROSE OF SHARON, JESSAMINE, JENNY LIND, FARWELL, YOUNG MARY, GOODNESS, LADY SARAH and others. Apply to either of undersigned for catalogues, which will be ready April 15th.
COL. THAD. HICKMAN, Ashland, Mo.
J. G. COWAN & SON, New Point, Mo.
E. L. McDONALD, St. Joseph, Mo.

L. P. MUIR,
Auctioneer, Independence, Mo.

PETER C. KELLOGG & CO.

Will Hold the FIFTH ANNUAL
SPECIAL COMBINATION SALE
—OF—
JERSEY CATTLE,

Consigned by Prominent Breeders,
Wednesday, Thursday, Friday and Saturday,
May 7 to 10, 1884, at—

The American Horse Exchange, Limit'd,
Broadway and Fiftieth St., New York,
(Office, 107 John Street.)

The unrivaled attractions of this great annual sale has made it a nucleus around which other sales have been dated, making an aggregate of about

500 JERSEYS TO BE SOLD

in New York within the space of a week. It will be preceded on Tuesday by the sale of the increase during 1883 of Mr. T. A. Havemeyer's herd.

Intending buyers of Registered Jersey Cattle in large or small numbers will find the fifth annual Special Combination Sale the most valuable opportunity of the year for securing them, with large numbers to select from, and every animal pledged to absolute sale, without limit or protection.

The catalogue contains consignments from such noted breeders as Messrs. S. M. Burnham, A. B. Darling, John I. Holly, J. V. N. Willis (all cup-winners in former sales), D. F. Appleton, Moulton Brothers, John D. Wing, S. M. Shoemaker, H. B. Russell, W. R. McCready, J. H. Walker and some twenty-five others, many of whom are likewise prominently known, and who take great pride in the quality of their representation in this great annual sale.

Every strain of blood of importance is creditably represented, and the offspring of some of the most noted cows in the country will be sold.

Catalogues will be ready April 28.

PETER C. KELLOGG & CO.,
107 John Street, New York.

Business Chance.—If some enterprising person, with \$350.00 and his own time and energy available, will address as below, they will be answered in detail. This is a single chance, and the right person will be fortunate. Write immediately. A. B. SMITH,
Box 454, Abilene, Kansas.

PUBLIC SALE

—OF—
Short-Horns

—ON—
Tuesday, May 27, 1884.

I will sell at my farm, three miles from
LEAVENWORTH, KANSAS,
50 head of Short horns, of such quality, style, and breeding as have seldom, if ever been offered in the West. They are composed of

KIRKLEVINGTONS, CRAGGS,
VELLUMS, BRACELETS,
MISS WILEYS, YARICOS,
LADY ELIZABETHS,

and other families equally good and well-known. 9 are bulls from 8 months to 2½ years old, all red but two (roan); 31 2 year-old heifers, all red but two (roan); the balance a splendid lot of cows from 3 years old up to 7 years.

All recorded, and all guaranteed in all respects.

TERMS:

Six months, on approved paper, with a rebate of 3 per cent, for cash.
Sale will commence promptly at 1 o'clock.
Catalogues sent on application after April 1st.

J. O. STONE, Jr.,
Col. L. P. MUIR, Auctioneer.

HELP WANTED. 1 Agent wanted in every place to sell our new goods. Big Pay. 40 samples only 10c. None free. Cut this out. ACME NOVELTY Co., Clintonville, Conn.

Horticulture.

Cultivating the Orchard.

Mr. J. N. Shepherd, an experienced orchardist of Miller county, Mo., gives his opinions on the subject of cultivating an orchard in a late issue of the *Prairie Farmer*. He says nearly all agree that at first—during the first three or four years, the orchard should be cultivated, that is, some crop should be planted which would in some measure keep the soil stirred, whether the crop be corn, oats, wheat or potatoes. Rye and corn are hardly the best for the first year, especially for a very young orchard where the trees are small; and again with a cultivated crop, like corn or potatoes, there is always more or less risk of damaging the trees with the chains single-tree, or plow. Some plant in potatoes and then cover with straw, but so far as my experience goes this is a very poor plan.

I had a neighbor once in Illinois, who nearly ruined a fine young orchard of fruit set out that spring. The soil was first well plowed and put in good condition before the trees were set out. Later in the spring the whole was furrowed off in rows three feet apart, one way, running the plow as close to the trees as possible. Then the whole plot was planted in potatoes, in drills, the hills eighteen inches apart. After they had sprouted well, or in about ten days, the whole was covered with straw, from twelve to eighteen inches apart. The orchard had been set out near his house and barn buildings. The trees seemed to do first-rate during the summer but late in the fall when the potatoes were dug the trees showed the effect, as fully four-fifths of them were ruined by the mice. They had burrowed under the straw and had stayed all the time, living on the potatoes and the bark of the young trees. Although a fine crop of potatoes was raised yet the damage to the orchard was greater than the profit on the potatoes.

In two or three instances I have noticed a crop of vines such as watermelons, pumpkins, etc., raised in a young orchard to a good profit, and without damaging it. Oats or sweet corn are good crops, as neither occupy the land for any considerable length of time, and yet long enough to keep down the greater part of the weeds.

The usual practice is to plant to some crop for two or three years, and then sow to grass. This plan is a very good one if in following it out we do not neglect the orchard. If we want to secure two crops in this way from the same land in one year, we must care for it in such a manner that the land will be able to do this, and the only way to accomplish the result we seek is to manure.

A good top dressing should be applied if possible every fall; a light dressing of well-rotted manure spread evenly all over the surface—that, too, without any lumps to damage the grass, will prove better and give more profitable results than a heavy dressing given every three or four years in such a way as to damage the grass.

The trees should have the soil for a considerable distance around the trunk stirred up and good fertilizers applied; for this purpose wood ashes unbleached are very valuable. The worst objection to seeding down an orchard is the tendency to let it take care of itself, after a good stand of grass is obtained. I know of an old orchard that had been neglected until it was worse than unprofitable, it was an expense. The owner first plowed up the whole plat as well as he could, and then gave a heavy application of manure early in the winter; this was spread evenly, not only around the trunks of the trees but all

over the ground. Twice during the winter the plat was well harrowed, so as to incorporate the manure into the soil; early in the spring, as soon as the soil could be worked well, the whole was plowed, again, harrowed as fine as possible, then rolled and seeded to clover. Since then the owner has realized four fine crops of apples, and has a tip-top clover pasture besides in which he keeps his sheep or hogs.

I know of another orchard—and it is a good one—that the owner acknowledges has paid him better than any plat on the farm. He manages it in this way: after the orchard became established he plowed the land in strips, but only plowed between the trees, never running nearer than four feet on either side of trees; that is, he left a strip about eight feet wide one way of the orchard that was left unplowed. Potatoes were planted and covered with straw; in the fall the straw was piled in long rows opposite to the ground plowed and planted the year before, and the potatoes dug the next spring. This soil was plowed cross-ways, and in the same manner as before, and planted to potatoes. This old straw was used to cover again. The next fall the straw was thrown off the same as before, and the potatoes dug; after this the ground was well plowed, and at each round of the plow the furrows were filled with the straw, and then covered up the next round. During the twelve years the orchard has been treated in this way, but two applications of other manure—rotted manure from the stable—have been applied. The rotting straw has been of considerable benefit.

The fertility of the soil has been kept up, a fair crop of potatoes raised, and the owner, of course, thinks it an excellent plan. One thing is certain, we must enrich the soil if we expect an orchard to prove profitable. The idea that an orchard after it once gets started will take care of itself is a decidedly mistaken one, and if we expect to raise some other paying crop in the orchard extra care in this respect must be given.

Taking all things into consideration I prefer to cultivate an orchard at least three years after setting out, and then give a good application of manure, put in good condition, and seed to clover, using it then for hog and sheep pasture. In this way the fertility can in a great measure be kept up without extra application of manure, and although we may not find the clover a profitable crop for hay, yet it will furnish a very large amount of the very best of hog feed, and then, too, at a very low cost, and by using it in this way we will be able to make the orchard yield as great profits, taking one year with another, as any other part of the farm.

Just what I Need. One Sugar-Coated Pill.

Such as the natives of India call a SUMMER PILL. Because it not only

- Cools the Blood,
- Controls Perspiration,
- Sharpens the Appetite,
- Promotes Digestion,
- Regulates the Bowels,
- and Cleanses the Kidneys,

But produces sound and refreshing slumbers, preventing headache, and giving a good flow of spirits to the otherwise languid dyspeptic.

These Pills are an East India herb flower, and vegetable compound; 75 pills in a box—each pill a dose. Price, \$1.25. Ask your druggist for Dr. H. James' Purifying and Regulating Pills.

CRADDOCK & CO., Proprietors, 1032 Race St., Philadelphia.

BUY A TILE OR BRICK MACHINE



H. Brewster & Co., Tecumseh, Mich., for Cat'g.

Seed Potatoes.

White Star and Mammoth Pearl. I have choice seed of these varieties, of my own raising, that I will sack and put on the cars at \$1.25 per bushel, while stock lasts. Satisfaction guaranteed. Order at once.

S. W. HINCKLEY, Brenner, Doniphan Co., Kas.

THE STRAY LIST

HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the day on which they were taken up, their appraised value, and the name and residence of the taker up, to the KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice. And such notice shall be published in the FARMER in three successive issues of the paper. It is made the duty of the proprietors of the KANSAS FARMER to send the paper free of cost, to every county clerk in the state to be kept on file in his office for the inspection of all persons interested in strays. A penalty of from \$5 00 to \$50 00 is affixed to any failure of a Justice of the Peace, a County Clerk, or the proprietors of the FARMER for a violation of this law.

How to post a Stray, the fees fines and penalties for not posting.

Broken animals can be taken up at any time in the year.

Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful enclosure of the taker-up.

No persons, except citizens and householders, can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up an estray, must immediately advertise the same by posting three written notices in as many places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days, the taker-up shall go before any Justice of the Peace of the township, and file an affidavit stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out and return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars, it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray, may within twelve months from the time of taking up, prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom proof will be offered. The stray shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs. If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to three householders to appear and appraise such stray, summons to be served by the taker up; said appraiser, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also determine the cost of keeping, and the benefits the taker up may have had, and report the same on their appraisement.

In all cases where the title vests in the taker up, he shall pay into the County Treasury, deducting all costs of taking up, posting and taking care of the stray, one-half of the remainder of the value of such stray.

Any person who shall sell or dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Strays for week ending March 26, '84.

Leavenworth county—J. W. Niehaus, clerk.
SEVEN STRAYS—Taken up by Bernard Clason, of Sherman tp. March 14, 1884, seven strays, as follows: one red cow, 6 years old; one spotted cow, 5 years old; one pale red cow, white forehead, 7 years old; one white steer, 1 year old; one roan heifer, 1 year old; one red heifer, 1 year old; one red steer, with ears off, 1 year old; total value \$125.

Cowley county—J. S. Hunt, clerk.
BULL—Taken up by I. W. Burnett, in Bolton tp, Feb 4, 1884, one bull, red and white, about 4 years old, O on right hip; valued at \$15.

Chase county—J. J. Massey, clerk.
STEER—Taken up by H. V. Simmons, in Diamond Creek tp, Nov 9, 1883, one 2-year-old steer, marked with nick or notch in under side of each ear, red-roan with some white on both sides, branded with letter C on left hip; valued at \$35.

Strays for week ending April 2, '84.

Brown county—G. I. Prewitt, clerk.
HEIFER—Taken up by Henry Isely, in Walnut tp, March 15, 1884, one dark red heifer, about 3 years old this spring, all red except tail, the end of which has some white hairs, horns stand forward, no marks or brands visible; valued at \$18.
HEIFER—By same, one red and white heifer, about 2 years old this spring, large white spot in forehead, partly blue-back, white extending down both shoulders, more white on left shoulder than on right, some white on all legs, both sides of body mostly red, white strip under neck extending back, white under belly, tail mostly white, no marks or brands; valued at \$12.

STEEB—Taken up by J. E. Winterscheid, in Mission tp, Feb 1, 1884, one steer, coming 2 years old, branded with letter M on right hip.
THREE HEIFERS—Taken up by Richard Barker, of Pownattan tp, Jan 1, 1884, three 1-year-old heifers, red and white spotted, no marks or brands visible.

Harper county—E. S. Rice, clerk.
STEER—Taken up by J. W. Ellis, in Lake tp, Jan 3, 1884, one dun steer, running brand of 8 A on right hip and both ears cropped; valued at \$30.

Greenwood county—A. W. Hart, clerk.

STEER—Taken up by Wm Ott, in Janesville tp, Nov 1, 1883, one red and white spotted yearling steer, no marks or brands visible; valued at \$25.

SOB—Taken up by Fred Ott, of Janesville tp, March 11, 1884, one black and white spotted sow, weight about 175 pounds, crop off right ear and slit in left, no other marks; valued at \$10.

Strays for week ending April 9, '84.

Miami County—J. C. Taylor, Clerk.
MARE—Taken up by Milo Baxter, in Sugar Creek tp, March 4th, 1884, one dark bay mare, star in forehead, no marks or brands visible, about 7 years old, about 14 high, pony built; valued at \$45.
FILLEEY—By same, one bay filley, supposed to be 2 years old, sway back, no brands; valued at \$25.

Linn county—J. H. Madden, clerk.

STEER—Taken up by Joseph Lamont, in Potosi tp, March 24, 1884, one red and white mottled faced 2-year-old steer, under slope in left ear; valued at \$35.

Chautauque county—A. C. Hilligoss, clerk.

MARE—Taken up by Michael Mehan, in Sedan tp, Feb 14, 1884, one roan pony mare, 4 or 5 years old, blaze in face; valued at \$25.

Lyon county—Roland Lakin, clerk.

COW AND CALF—Taken up by E. E. Watkins, in Elmendaro tp, Nov 3, 1883, one red cow, right horn drooped, white on belly, white stripe on ribs of left side, slit under right ear, light crop off left ear, branded on left hip with C or O; valued at \$30. Also one white heifer calf; valued at \$12.

HEIFER—Taken up by Nancy Carey, of Reading tp, March 3, 1884, one 2-year-old red heifer, hole in right ear, indistinct brand on back; valued at \$15.

Hodgeman county—J. P. Atkin, clerk.

COW—Taken up by W. F. Roth, in Roscoe tp, Feb 22, 1884, one yellowish-red muley cow, medium size, indescrutable brand on left thigh; valued at \$25.

FARMS On James River, Va., in a Northern settlement. Illustrated circular free J. F. MANCHA, Claremont, Virginia

RACCOON, SKUNK, MINK, MUSKRATS

bought for cash at highest prices. Send for circular which gives full particulars. E. C. BOUGHTON, 5 Howard St., New York.

Business Chance.—If some enterprising person, with \$350.00 and his own time and energy available, will address as below, they will be answered in detail. This is a single chance, and the right person will be fortunate. Write immediately. A. B. SMITH, Box 454, Abilene, Kansas.

Get This Out & Return to us with TEN CTS. & you'll get by mail A GOLDEN BOX OF GOODS that will bring you in MORE MONEY, in One Month, than anything else in America. Absolute Certainty. Need no capital. M. Young, 173 Greenwiche St., N. York.

A PRIZE. Send six cents for postage, and receive free a costly box of goods which will help all, of either sex, to more money right away than anything else in this world. Fortunes await the workers absolutely sure. At once address TRAVE & Co., Augusta Maine.

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The Busy Bee.

Apiary for April.

Kansas Farmer:

During this month care of bees will not differ very materially from that required through March, such as feeding if required. Look out for robber bees, as field forage is yet out of the question, except perhaps that in some localities pollen may be collected. The scarcity of honey in the fields is sure to set bees to searching for weaker and queenless colonies, whose stores they are certain to appropriate to use in their own hives if permitted to do so by the bee-keeper. The entrance to hives occupied by weak colonies should be contracted, so as to permit but one or two bees to pass or re-pass at one time. In feeding such colonies be careful not to open the hive during the warm part of the day when many bees are on the wing, as they will scent the food and attack the colony at once; also, avoid letting the syrup drop down on the bottom board, as this is also a means of attracting robbers.

During the warm days that we usually have during this month, and while pollen (or what is commonly called bee feed) is yet scarce, rye flour may be put in shallow basins and set out near the apiary. The bees will pack it into pellets on their legs, as they do pollen, and carry it into their hives. They may be attracted to it by filling a few cells of empty comb with liquid honey or with syrup and placing it in the vessels containing the flour.

During very windy days it will scarcely be proper to put out flour, as the wind will blow it away.

To such as are locating on our open prairies this spring, and contemplate taking bees with them, I would say, that bees are not likely to be profitable in such a situation, unless they are in easy reach of timber belts containing linden or basswood, for in such regions there are but few honey-yielding plants that I am aware of.

In another number, the honey-yielding portions of Kansas will be considered at greater length than space will admit of now. G. BOHRER.

Plants for Bees.

The blue birds, the sweet harbingers of spring, have arrived, and we may now reasonably expect that snow and ice will disappear, and that planting and seed-time will be the order of the day. It would be well to remember the bees when making out orders for nursery stock or seeds. Prominent among forage plants for bees or stock is the genus *Trifolium*.

White or Dutch clover (*Trifolium alba*) stands at the head of honey-producing plants, and has a world-wide reputation for yielding the purest sweet known. It is called by the Indians the "White Man's Foot," and is very widely disseminated; it is so well known that no description is necessary.

It is claimed that Italian bees can work upon red clover (*Trifolium pratense*), especially upon the second growth, as during dry weather the heads are smaller and the tubes shorter, thereby enabling the tongue of the bee to reach the nectar. There is a new variety of this clover, known among bee-keepers as Pea-vine or Mammoth red clover, claiming public favor. A writer in "Gleanings" speaks thus: "For pasture it can't be beat; it does not hurt to feed it down, as it grows very rapidly, and will keep green all summer. Besides being a first-class forage plant you get a good crop of honey right through the hottest, driest part of the season. After alsike, white clover, and basswood are gone bees have very little to work on, so it will

pay any bee-keeper to try it." Another writer says: "For the improvement of land it has no superior."

Alsike clover is a native of Sweden, claiming to be both hardy and prolific, and producing hay of a very fine quality. The honey produced from it is of fine quality and flavor. From observations of this plant we infer that it can stand cold better than heat. From repeated trials to raise it in a very dry, sandy soil we only succeeded in getting one plant, which disappeared in a severe drouth the same season. We saw it growing luxuriantly in a damp place in Vermont, on a clay soil. Judging from reports of this clover from different points, it is not at home in all soils and climates, like its near kinsman, the Dutch clover.

Bokhara or sweet clover (*Melilotus alba*) is of little value as a forage plant, but a boon for bee-keepers, as it yields honey during a dearth from other sources. It is almost impossible to find a locality where it will not thrive, from dry, barren sand hills, to low bog-holes and marshes. There are two varieties, the white and yellow, but the first named is best. One characteristic of this plant is that it springs up spontaneously wherever the feet of bee-keepers tread; they are a seed-drill, with their pockets full of it, with little openings, so that it trickles out as they walk. It soon appears in wood-piles, brush-heaps, in gravel-pits, along highways—everywhere where duty or pleasure calls them to travel. It is called by some a noxious weed, but this is a misnomer, as it dies, root and branch, the second year after blooming, and has no burr. It is a nice plant to grow in chicken runs, as they feed eagerly upon it in early spring, and it affords delightful shade later in the season; they harbor among its dry stalks in cold windy weather.

Alfalfa, or Chili clover: It would be well for those who have an opportunity to experiment on a small scale with this clover, and ascertain its value as a honey plant. Climatic influences have much to do in the secretion of nectar, and a plant that secretes honey well in some regions, fails entirely in another locality.

A great deal has been said pro and con by bee-keepers as to the value of sweet corn as a honey plant. It is no doubt subject to climatic influences, like other plants in this respect, but there is no safer one to invest in than this. In our locality, at least, it is a favorite with our winged stock; they do not work upon the tassel very much, but in early morn sip the sweet juice from the oils of the leaves. It is food for man and beast; its delicious ears are enjoyed in a green state, and what is more enjoyable on a winter's day than dried sweet corn? No part of the plant need be wasted, as the sweet stalks are relished by stock. Plant so as to have it in rotation all the season, and thus add to the happiness of the family and bees.

Some seasons, and in favored localities, large amounts of honey are gathered from buckwheat. The honey is dark but relished by some persons, and furnishes good winter stores for bees; it also keeps them raising young bees late in the season, which favors their wintering. Buckwheat cakes and honey are fit to set before a king.

Sunflowers (*Helianthus*): Most, if not all, the plants of this family are honey-bearing. Russian sunflowers are attracting considerable attention for the seed as food for fowls. Hens are said to lay in winter without meat, if they are fed on the seed, as it is rich in oil.

It has yet to be proven that it will pay to raise a crop for honey alone. Some bee-keepers claim that it will, while others think differently. Those previously mentioned are all valuable in other ways. Teasel is raised to some extent in New York State, and bee-keepers in the vicinity reap rich harvests of white honey from it. It is a biennial and grows very finely in our locality. Where land has become foul with corn-worms, by raising many successive crops, it might be well to try a crop of teasel. Bee-keepers are experimenting with many plants that have little value apart from honey production, such as fig-wort, catnip, spider-plant, etc. The desideratum is to find a source from which honey can be obtained in the interim between the blooming of basswood and fall flowers. —Mrs. L. Harrison, in *Prairie Farmer*.

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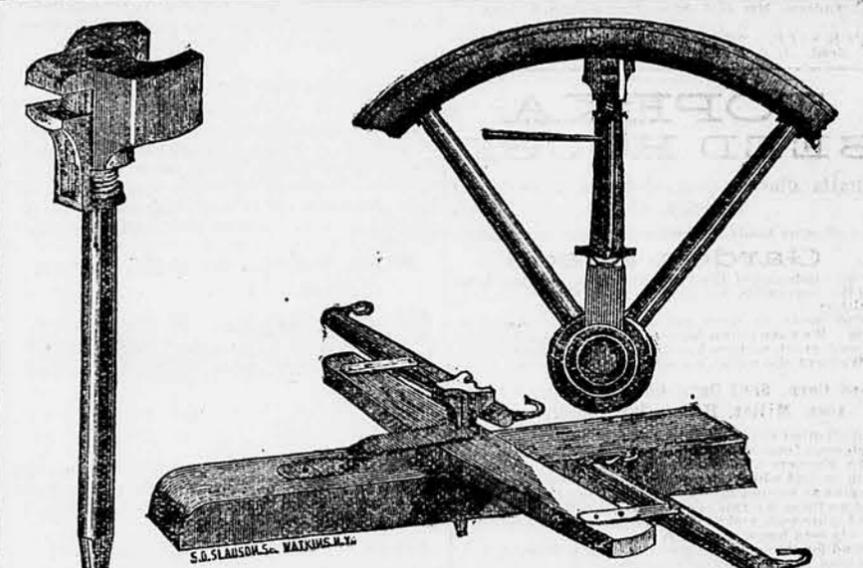
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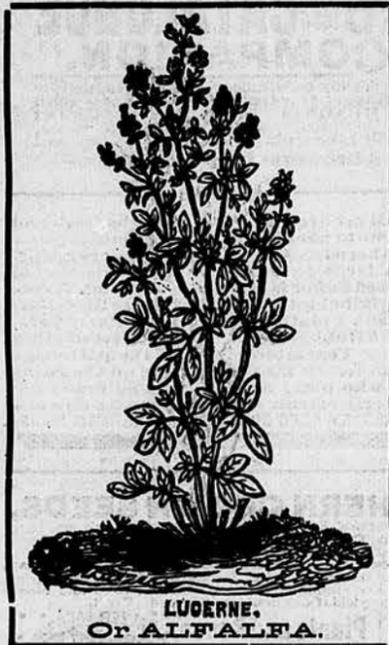
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