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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—R. 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, Mo.

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-

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:

Table with columns: NAME, POUNDS, OUNCES, STAPLE, AGE IN DAYS, SEX, LIVE WEIGHT. Lists exhibitors and their respective sheep statistics.

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 frozy 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



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.

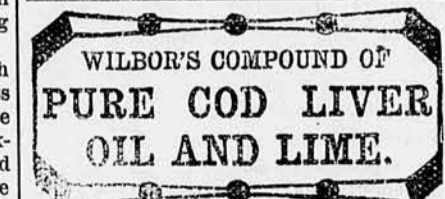
IT IS NOT A LIQUID OR SNUFF.

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 irritation. Send for circular. By mail, prepaid, 10c a package—stamps received. Sold by all wholesale and retail druggists.

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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, Ayres-shires, 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." F. CUYLER HUTCHINS. Beverly, N. J.

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

"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 stranguary, 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, 15c

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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AGENTS WANTED in Every County in Kansas.

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A MAN

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



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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 Kan-keo, 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 Tkt. & 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 clouds 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 fellows. 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 wrapped in a shroud of ashes, and all met their fate together.

CURIOS 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 banquet 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 hedychiiums, 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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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.

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.

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THEY CURE DYSPEPSIA & INDIGESTION,
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APPLIANCES are sent on 30 Days' Trial TO
MEN ONLY, YOUNG OR OLD, who are suffer-
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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 casticum 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.)

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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.

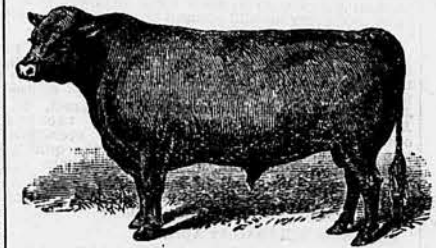
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Stands at **GLENVIEW FARM**, 8 miles southwest of Humboldt, at \$20 to insure. Free pasture for mares.
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For a combination of blood, size, style, speed and action, united with beauty of the highest type and the power of transmitting these qualities to his progeny, this horse has few equals.
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Near 400 Bulls.
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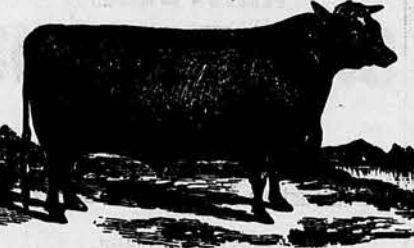
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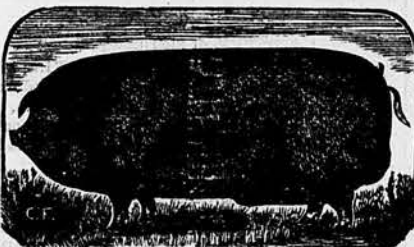
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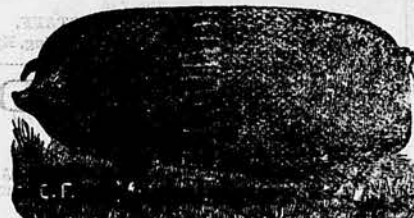


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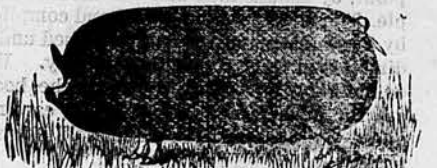
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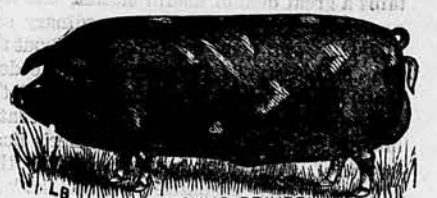
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We have been breeding Poland-China Hogs for twenty years. The long experience obtained has enabled us to select none but the choicest specimens for breeding purposes. We now have
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Easily fattened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

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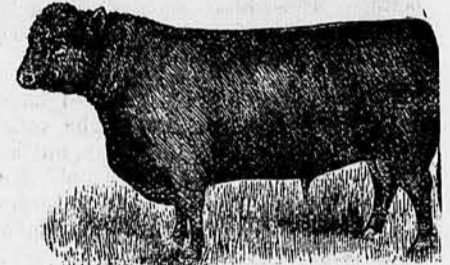


MARSHALL, MO.,

—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. Ramey, 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, Cowslips, 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, Cowslips, 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,
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THOROUGHbred BULLS and HIGH GRADE BULLS and HEIFERS for sale. Inquiries promptly answered.

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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—
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Wednesday, Thursday, Friday and Saturday, May 7 to 10, 1884, at—

The American Horse Exchange, Limit'd,
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(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.

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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.

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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,
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I will sell at my farm, three miles from
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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.

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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.

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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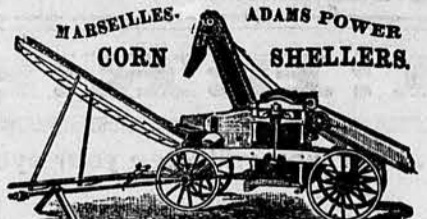
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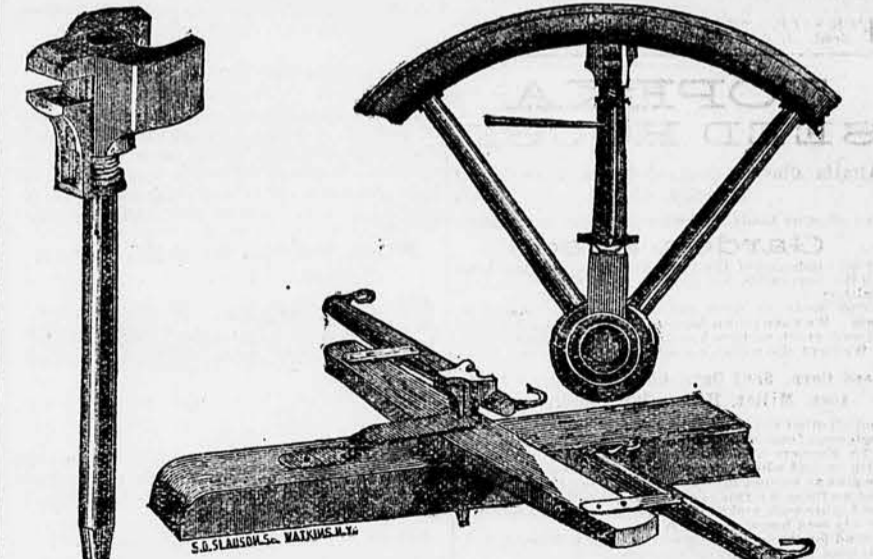
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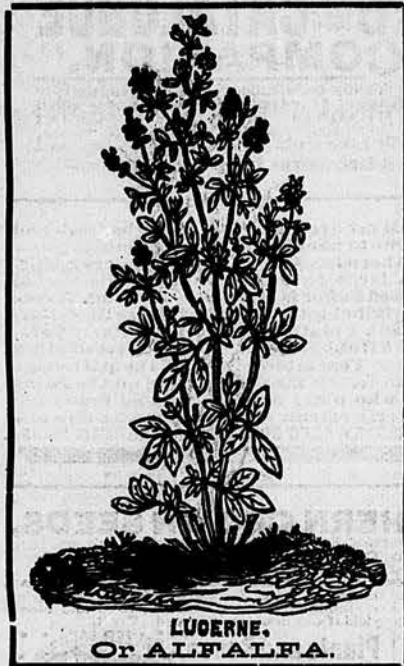
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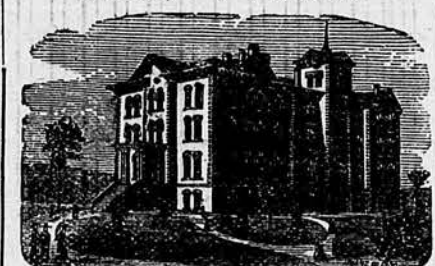
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