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KANSAS FARMER.

Established in 1863.

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Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
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KANSAS FARMER CO.,
116 West Sixth Ave., Topeka, Kans.

A few years ago Mr. Lucius M. Wilcox, editor of Field and Farm, produced a valuable book on Irrigation Farming. A second and much enlarged edition of the work has recently come from the press of the American Agriculturist. Every one interested in the kind of farming which is destined not only to a great development in the West, but to a considerable development throughout the country, will find Irrigation farming not only interesting reading but an essential help in his business.

A Geary County boy, Mr. Kary Cadmus Davis, graduated from the Kansas State Agricultural College in 1891. He has been improving his opportunities since that time. A little over a year ago he was elected professor of horticulture in the West Virginia Agricultural College. West Virginia had a capable worker in the young Kansan, but that ambitious commonwealth has just learned by experience that if she would retain in her employ the Kansas brand of talent and energy, she will have to pay for it. Professor Davis has been elected dean of the new school of agriculture and domestic economy at Menomonie, Wisconsin, at a salary of \$2,000 a year.

The secretary of the National Dairy Union writes as follows:

"The new oleomargarine law went into effect July 1. Oleomargarine is now the color of white tallow. A great deal of farm butter has come to this market so light in color as to be mistaken by consumers for oleomargarine. Kindly advise your readers that unless they want their butter sold as packing stock they must color it so as to resemble June butter. Otherwise consumers

in the cities, because of repeated misrepresentations made to them, will believe it to be oleomargarine and refuse to buy it. If uncolored or white butter is made in future it will entirely counteract the effects of the new law, because if people become accustomed to eating white butter they will be easily deceived by oleomargarine. The salvation of the butter business depends upon keeping up the standard color of butter to distinguish it from oleomargarine."

In the otherwise regrettable fact that Kansas has no State fair which is controlled and supported by the State, we have one satisfaction. We do not have to endure the violent chromos of beauty unadorned, and of impossible horses and cattle which are being used as advertising posters by the State fair authorities in other States. It seems strange that officers in charge of so great and important interests, as are those which are committed to the managers of the State fairs, should be so unwise as to adopt these methods of driving people away from their expositions. The average lithographed stock advertising poster with its wretched drawing and screaming colors is certainly not a temptation to win any one to attendance upon the exposition thus advertised, except possibly it be by the rule of contrast. Even the better class of these lithographs, which depict young ladies in ball costume with winter wraps for an August fair are of questionable utility for such purposes. The object of a State fair should be educational, and if posters are to be used they should at least be made attractive and in some measure to correspond with the object of the institution advertised. The adoption of three-pole circus methods for promoting the interests of so great an institution as a State fair ought to be, certainly has nothing to commend it. Real art in advertising is just as cheap and just as readily available as are the flaming lithographs now so often adopted, and which can have but the one effect of hurting the teeth of each one who looks at them. State fairs should be milestones in the progress of a State, but this progress should not be backwards.

KANSAS FARMER'S NEW WALL ATLAS.

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

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

The atlas also gives the growth of our country, showing the population of all towns by States, of 3,000 and over for the census years of 1880, 1890, and 1900.

This grand new census edition atlas also shows for every country on earth, the government, chief executive, area in square miles, population, capital and its population. This excellent educa-

tional work should be in every home. It sells for one dollar.

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

TWO PECULIAR MEN OF SILVER LAKE.

On the banks of Silver Lake—a crescent through which the Kansas River once flowed in the western part of Shawnee County—on the bank of this lake lives a man as interesting as the Indian who preceded him in possession of his beautiful location. The Indian was half Frenchman. He built a log house in which he kept a hotel before permanent white settlements amounted to much in Kansas. In this hotel Horace Greeley spent a night while traveling overland to the wilds of the farther West, and wrote one of those vigorous letters which he was wont to send to his New York Tribune. The old log house, has felt the tooth of time and much of it has gone the way of all the world. One section still stands, however, and looks as if it might endure another decade.

The old half-breed got large sums from Uncle Sam on account of his Indian blood. He built a commodious house beside his white successor to a part of his domain. He entertained freely; but he wept as his lands slipped from his possession at the hands of the sheriff. Finally when the old Indian died his white neighbor secured decent burial for his remains only by guaranteeing payment of the bills.

This neighbor is A. L. Entsminger, whose broad friendly features indicate the land of his ancestors as plainly as does his name. The interesting thing about Mr. Entsminger is the fact that he is a "crank." The writer uses the term "crank" with no intention of disrespect, being several kinds of crank himself. Mr. Entsminger is the very commendable kind of crank who improves plants by breeding. When the weather was dry and strawberry plants were casting their blossoms and dying, Mr. Entsminger's seedlings, which had been bred with especial reference to drought-resistance, were as vigorous and setting fruit as abundantly as could be desired. As a breeder of grapes, also, he has succeeded. He loves the work of plant-breeding and knows how to manipulate the forces of ancestry so as to produce the greatest probability of desired results. Such a man ought never to be allowed to expend his energies on anything but plant-breeding until there shall have arisen a generation of plant-breeders possessed of his skill and devotion to this most important line of creative work.

SWINE BREEDERS AT THE AMERICAN ROYAL.

Now is the time. Every breeder of pure-bred stock who expects to make a success of his business, realize remunerative prices and build for a prosperous future, is at the present time face to face with an epoch in the affairs of the swine-breeding fraternity. There never was a more favorable time or a more promising outlook for the breeder than to-day.

The American Royal Swine Show to be held at Kansas City, October 20-25, 1902, is the greatest national swine event ever planned in America, and its successful outcome means dollars and cents and a future prosperous business to every breeder of pure-bred swine in the Kansas City territory. But to insure the success that should be achieved,

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it is now up to the breeders to act at once and in a business-like way.

The American Royal Show management, in connection with the swine-breeders of the country, has placed the burden of the swine show upon the shoulders of H. M. Kirkpatrick, Wolcott, Kansas, as chairman, and Frank B. Winn, of Mastin, Kans., as secretary. These two gentlemen feel the burden of the responsibility but are helpless without the general, cordial, and prompt cooperation of the breeders, and they are sending out a stirring appeal to the breeders this week. This, we hope, will receive the earnest and careful consideration of all who read it. We also hope that no breeder will fail to respond promptly.

The Kansas City Stock Yards Company has provided every convenience for this show, besides donating \$500 toward the general premium list. The American Berkshire Association, with characteristic enterprise, is doing its part for that breed; but the Standard Poland-China Record Association, which should be at the front of this great movement in behalf of the Poland-China

breeds, is doing—nothing—a sad commentary upon the impecunious and backwoods-management of this quondam magnificent association, which is doomed to end in ignominious failure and act as a perpetual handicap to the Poland-China breeding fraternity unless there is a radical and forward movement inaugurated in its management. Nothing whatever can be depended upon from this source. Everything depends upon the individual efforts of public spirited breeders of Poland-Chinas, so far as the success of this breed is concerned in the great American Royal Swine Show.

PARK AND FORESTRY MOVEMENT IN IOWA.

The proceedings of the first annual meeting of the "Iowa Park and Forestry Association" constitute a book of 82 pages. The objects of the association are set forth as follows:

1. To present to the attention of the people of this State, and of their representatives about to assemble to legislate for them, the necessity of establishing as soon as possible, one or more State parks, embracing, within their boundaries large bodies of water and groves of native timber, whereby such parks would be greatly enhanced in beauty of scenery as well as made more comfortable and enjoyable for the people who throng them during the outing season, and at other convenient times.

2. To encourage the making of more parks in and about the chief cities of our State, more especially in every town, village, and hamlet, and neighborhood where there are now none.

3. To awaken increased interest in matters of forestry and the protection of our native timber.

4. To call the attention of all citizens to the propriety of more careful improvement and adornment of the silent cities of the dead, which, owing to the advancing age of the State, begin to stand out in bold relief on every landscape.

5. To recommend and urge such additional Congressional and State legislation as may be found, after consideration, to be necessary and expedient for the accomplishment of the above objects.

The association is the outgrowth of a movement started last November at the Iowa State Agricultural College. The proceedings of the first meeting, held at Des Moines, December 10 and 11, show that a wide-spread interest in the objects is taken by able and earnest men. If wisely directed the association will be able to add to the attractiveness of the already great and beautiful State of Iowa.

TO PURIFY CISTERN WATER.

EDITOR KANSAS FARMER:—I have a cistern full of water that is used for drinking purposes. Will some reader of the FARMER tell me how to keep it sweet through the summer months?

Crops of all kinds are very fine in Anderson County. C. R. W. Garnett, Anderson County.

The problem of keeping rain water sweet has received considerable attention from experts. If pure rain water be put into a clean cistern and kept clean it will remain sweet. The introduction of a small amount of organic matter will cause the water to smell and taste badly, especially during a period of hot weather. Forcing pure air through the water tends to purify it, and there are some kinds of bucket pumps which are excellent for this purpose. Filters which remove the impurities from the water as it passes from the roof to the cistern are perhaps more effective than methods of purification. The most common filter is known as the beehive. It consists of a hollow cone of porous bricks built in the bottom of the cistern inclosing the suction pipe of the pump. A better form consists of a partition of porous bricks built with the concave side towards the suction pipe and the convex side towards the inlet pipe. This is better because it admits of being cleaned out. The writer has just had constructed a filter as follows: A pit thirty inches wide and sixty inches long was dug to a depth of twenty-four inches and was lined with bricks and Portland cement plaster. A six-inch vitrified tile leads from one end of the filter to the cistern. The lower side of the tile is level with the bottom of the filter. The entrance to the tile is protected by a network of porous bricks set at distances of one-half to three-fourths of an inch from each other. These bricks are covered with two bushels of charcoal and the filter is filled nearly full of sand. The water enters the filter from above at the end farthest from the outlet. This filter has not yet been tried but it is guaranteed by the builders to take care

of the water from roof covering about 1,000 square feet of horizontal surface. It is covered with a fairly close fitting lid. This filter will probably work well until the filtering materials become filled with fermenting impurities when it is expected that the filtering materials will have to be removed.

It is possible to do much toward purifying cistern water by the use of the drug, permanganate of potash. This acts chemically upon the usual impurities and carries them to the bottom of the cistern. It is harmless when used in suitable quantities. Buy of the druggist one ounce of the drug for each twenty-five barrels of water in the cistern. It should cost not more than 10 cents an ounce. Mix the permanganate with a gallon or two of water and boil to bring it into solution. It will be blood red, and will make the cistern water red for a few days. Stir the solution into the water of the cistern. If the water be well stirred every day the purification will be more complete.

After trial kindly report results to the KANSAS FARMER.

FAIRS AT TOPEKA AND ELSEWHERE.

People of Kansas generally, and live stock breeders in particular, will be gratified to know that there will be a State Exposition at Topeka this fall. The dates set are September 8-13, 1902.

Last year there was organized the Kansas State Exposition Company, comprising the most public-spirited business men of Topeka. The old State fair grounds have been leased for a term of years and considerable improvements are being made on the same this year. Originally it was intended to only hold a race meeting the first year, but in response to the general demand of breeders of improved stock and by reason of the efforts of the Topeka Commercial Club, it has been decided to hold a fine-stock show and a very attractive program of fall festivities at the same time. This combination of attractions will make a State event such as Topeka has not enjoyed for many years.

As an earnest of the enthusiasm and determination of the Topeka Commercial Club to make a success of the event beyond peradventure, it has provided the Exposition Company with a guarantee fund of \$5,000 for the payment of the prizes and attractions offered. This with \$10,000 expended by the new Exposition Company augurs well for the State Exposition at Topeka in its first annual event.

The officers in charge of the State Exposition are as follows: President, M. A. Low; secretary, O. P. Updegraff, Topeka; treasurer, Chas. H. Sampson, Topeka. H. A. Heath has been selected as general superintendent of live stock.

Notwithstanding the late announcement of this event, the fact that the Topeka fair is in the grain circuit of Western State fairs will make it exceedingly convenient for exhibitors of live stock, who are preparing to show at the State and county fairs. The circuit referred to begins with the Missouri State Fair at Sedalia, August 18-23; the Iowa State Fair at Des Moines, August 22-30; Nebraska State Fair and Exposition at Lincoln, August 29 to September 5; the Kansas State Exposition and Fair at Topeka, September 8-13; the Central Kansas Fair Association at Hutchinson, September 15-19; and the announcements are just out that the Southwestern Exposition and Fair will be held at Wichita, Kans., September 22-27. These are all leading fairs that present the best opportunity of recent years for exhibitors of improved stock, and it is an exceptional opportunity for breeders to make a display and an acquaintance with people that will be of much permanent future value to the enterprising breeders who wish to succeed and make money.

In addition to the leading State and district fair dates mentioned here, Kansas will have a splendid list of county fairs, as shown in the list published in this issue. Most of these fairs are offering special inducements for live-stock displays. The Jackson County fair at Holton has nearly doubled the prizes offered last year, and the Wilson County fair at Fredonia is offering some extra big prizes for cattle and hogs, larger than have been offered for many years at any district or county fair. Following soon after the county and State fairs will come the national events, the American Royal at Kansas City, and the International Live Stock Exposition at Chicago.

In view of the great inducements offered breeders of improved stock and the exceedingly bright prospects for a big corn crop, the demand will be unusually brisk and remunerative for pure-bred stock of all classes, and the year 1902 promises an all-around record-

breaker for breeders of improved stock. The KANSAS FARMER will be pleased to hear from every breeder who expects to show live stock at any of these fairs.

THE KANSAS EDITORIAL EXCURSION.

On Friday, July 11, there converged at Columbus, Kansas, two trains on the great Frisco road, which bore from our State a jolly party of some 300 excursionists on a trip through the Ozark Mountains in northern Arkansas. The occasion was an excursion by the Kansas Editorial Association as the guests of the Frisco road. The location of Eureka Springs in the heart of the Ozarks has long been noted among both red men and white. Not only on account of the wonderful curative qualities of its waters, but on account of the beauty of its situation as well. As a remarkably cheap and satisfactory place for recreation and refreshment, as well as one which is of easy access, perhaps the town of Eureka Springs, with its population of 6,000 people, its numerous and commodious hotels and boarding houses, its picturesque location, its electric lights and street cars, its water system, and above all its wonderful springs, offers more inducements than any other resort in the Middle West. The country adjacent to the Springs has lately won fame both as a fruit-growing region and on account of its wealth of minerals, while it is now being developed more than heretofore as a stock-growing region.

On Monday the editorial party was taken in special cars to Harrison, the central town of the now famous zinc-mining region of northern Arkansas. The purpose of this trip was to give the excursionists an opportunity to see the wild gorges and timbered slopes of the Ozarks, through which the train passes, as well as to give them a glimpse of the agricultural, horticultural, and mineral resources of this territory. Harrison is a town of about 3,000 population, every one of whom is an enthusiastic believer in the future of northern Arkansas. The party was met at the station with carriages and after a bountiful luncheon, was driven on a tour of inspection. Naturally the agricultural, horticultural, and live-stock resources of the country were more attractive to us than are the mineral resources, though the latter are abundant and extremely rich. We find the valleys covered with crops that are "most as good as Kansas." The corn is exceptionally fine. The slopes are studded with peach- and other trees and the location of this section is such that fruit crops are practically sure each season, it being too far south for frost. This whole country seems to be underlaid with a rich deposit of zinc ore of unknown depth. The North Star mine which has been in operation but a short time seems to indicate the great possibilities in store for those who develop this underground resource. We shall probably have occasion to refer to this region again, and to the enterprising people whose open-handed hospitality, supplementing as it did that of the Frisco Railroad, served to send each one back with the feeling that there is a great future in store for this section and that its rapid development is but a matter of a short time in the hands of its energetic citizens.

FARMERS' DAY AT OTTAWA.

When the board of directors of the Ottawa Chautauqua Assembly decided to establish Farmers' Day in the general program, they created a feature which was highly successful and which will be continued in the annual programs. The special features of the program for this year were addresses by Hon. James Wilson, Mrs. Nellie Kedzie Jones, and by Prof. A. D. Shamel. There is no higher authority on agriculture than Hon. James Wilson, of the U. S. Department of Agriculture, and when he talked on the need of higher education in agriculture, he spoke from an experience and an office which gives him the best insight into that subject. One remark he made during his speech is full of significance, "If you wanted a car-load of chemists or doctors, or lawyers, all you would have to do would be to send a telegram to Chicago, and two days later, they would be on the side-track waiting to go to work. But if you wanted a teacher to teach the application of the sciences to agriculture, or a man trained to handle large agricultural interests in a scientific manner, you could telegraph to Chicago and wait three months and then it would be hardly possible to find a man capable of filling the position." He strongly presented the need of more training in the sciences relating to agriculture, both in the public schools, the agricultural colleges, and in the higher universities. It will be remembered that Mrs. Nel-

AN EVENTFUL DAY

How Happiness Came Into a Clouded Life.

"It was an eventful day for me," said Mrs. Mamie McLean, of No. 206 E. Congress street, Detroit, Mich. "I looked into the future and saw health and happiness in store for me.

"I had led a gloomy life," she continued. My entire girlhood was saddened by ill health, the result of a cold contracted at a critical time in my thirteenth year. Months and years of suffering followed and doctors did not help me. My blood had turned to water and the natural functions of my sex had ceased. A noted specialist in the diseases of women who was treating me said my case was hopeless and that I could not live more than a few years at the most.

"I was so weak that I could not walk across the room, I had not the slightest appetite, my feet and hands were always cold and I was miserable and unhappy. I wasted away to a mere shadow; I looked frightful and no medicine that I took did me any good. I tried to be resigned to my fate, but it was hard. Then came the eventful day. An old friend of our family came in and told me so confidently that Dr. Williams' Pink Pills for Pale People would cure me that I began to hope and life looked brighter. I started taking the pills and I soon could see that they were doing me good. My flesh began to feel warm, my color came back and I felt stronger. Improvement was gradual but sure. I continued faithfully with the medicine and soon my functions became normal and health came back. My friends thought my recovery was almost a miracle and the physicians who had given me up for death were forced to admit that Dr. Williams' Pink Pills had done what they could not do."

No discovery of modern times has proved such a blessing to women as Dr. Williams' Pink Pills for Pale People. Acting directly on the blood and nerves, invigorating the body, regulating the functions, they restore the strength and health in the exhausted patient when every effort of the physician proves unavailing. These pills are sold in boxes at 50 cents a box or six boxes for \$2.50, and may be had at all druggists, or direct by mail from Dr. Williams Medicine Co., Schenectady, N. Y.

lie Kedzie Jones received her early education in the Ottawa schools; she also has the honor of being the real founder of the department of domestic science in the Kansas State Agricultural College. It is a well-known fact that she stands at the head of her profession, hence a lecture from her would naturally be highly appreciated by the Chautauquans.

Prof. A. D. Shamel, of the Illinois Agricultural College, a man who has spent five years in careful study and experiment with corn, and whom the world recognizes as one of the best living authorities on that subject, presented the possibilities of breeding corn, both in a scientific and a practical way. F. D. Coburn, in introducing him said: "Kansas is proud of her wheat, because her wheat has a world-wide reputation; but she should not forget her corn. The total value of the corn crop to her people in the last five years has been three times that of her wheat. The morning after the address of Professor Shamel before the State Board of Agriculture, last January, the Topeka papers spoke of him in flaring headlines as the 'Boy Whirlwind.' Now if Professor Shamel doesn't tell you more about corn in thirty minutes than you have ever heard in your life before, I'll set 'em up' to the biggest watermelon in Kansas."

Professor Shamel spoke of the improvement of corn made at the station under his direction. He exhibited an ear of corn from ancestry carefully bred since 1838 and compared it to a scrub ear. By five years of scientific breeding the experiment station had been able to increase the average yield of this pure-bred corn twenty bushels to the acre over the same variety of corn not subjected to the same system but selected as farmers usually practice. He then briefly outlined their method of breeding corn. They selected a plot of ground which was protected from cross-fertilization by natural surroundings. The usual method was to plant 300 rows, three and one-half feet apart hav-

ing the corn three and one-half feet apart in the rows. Then with the same variety of corn they used a separate ear for each row of corn, planting 300 hills in the row. The cultivation of this plot was ideal. A perfect mulch was kept on the ground throughout the season, every condition possible for the best development of the plants was furnished. Each barren stalk was detasseled.

The effect was remarkable, some rows being a foot higher than their neighbors. Others would have perceptibly broader leaves. Some would be short, stalky plants, but each row was uniform. Each row was harvested separately and marked. If they wished to produce a tall variety of corn they selected seed from the tallest row, and for five years this seed went through the breeding plot, each year the seed from the tallest row being used to plant the plot. The seed from such a plot being sufficient to plant 400 acres, the other seed not used in the breeding plot was used in the big fields, and at the end of five years the average height of the same variety of corn was two feet above the same corn not bred for this quality.

Proceeding in the same manner, corn from each row was chemically analyzed and in the beginning one row averaged 10 per cent protein, which element is the nutrient demanded for feeding purposes, and after five years of selection the rows averaged 15 per cent, an increase of 5 per cent. This means thousands of dollars to the feeding interests of Illinois.

By counting the number of stalks in an ordinary corn-field they found that 33 per cent of these stalks were barren. By detasseling these barren stalks and thus preventing their pollinating fertile corn the experiment station was able in five years to reduce the number of barren stalks to 8 per cent.

Professor Shamel left samples of the corn for study, and as the time for his train had arrived, closed with an appeal to his audience to study the corn plant, to take advantage of its peculiarities, and help increase the value of the Kansas corn-fields.

Taken as a whole, Farmers' Day was a most valuable education for all present.

INDIAN CREEK GRANGE.

On Friday last was held a farmers' institute and grange picnic at Indian Creek school house, about three miles north of North Topeka. Representatives of the KANSAS FARMER arrived just in time to participate in a bountiful picnic dinner spread under the trees of the school grounds. One of the objects of the Grange as an organization is the betterment of the farm population, and if the luncheon spread on this occasion is any index of the results accomplished in woman's sphere of the Grange, we can only express the wish that granges might exist in every locality. Almost before the luncheon was finished a rain storm began which drove the assembled guests within doors, and which kept up its beautiful rattle on the roof during most of the afternoon session. Worthy Master Cecil called the meeting to order and introduced State Lecturer A. P. Reardon, of McLouth, who made the introductory speech. He dwelt for a portion of the time on the insurance features which have lately become prominent in the order. His talk was useful and served to awaken renewed interest in the work of the order in Kansas.

The next speaker was Mrs. Calvin, of the faculty of the Agricultural College, who was formerly a resident of Topeka. Mrs. Calvin is one of the brightest women that ever graduated from our State Agricultural College, and she has a delightfully terse way of saying things in her speeches which at once carries conviction and supplies food for thought to her auditors. She remarked that it takes two good women to make one good man, his mother and his wife. A woman cooks to keep the children well and the men good natured. A woman owes more to her family than food and clothes. She owes a home. The basis of all true economy is home-making. Mrs. Calvin's speech was evidently appreciated by her audience and we hope many other like gatherings can have the privilege of hearing her.

The worthy master of the State Grange, E. W. Westgate, of Manhattan, then occupied a few minutes in dwelling upon the condition of the order in the State. His figures showed that the order had nearly doubled its membership in Kansas in the last two years, and that it had increased 20 per cent since last November, all of which points to the fact that the State Grange has made a wise selection in its choice of master. We do not number among our acquaintances a man in Kansas who has at once the ability and the inclination and who takes the time to work for the advancement of the Pa-

trons of Husbandry with the vigor which has been shown by Mr. Westgate since his election to the office of master of the State Grange.

Mr. Aaron Jones, of South Bend, Ind., master of the National Grange, was next introduced and made an intensely interesting speech, showing the history and development of the order, its present condition in the United States, and some of the more prominent results it has been able to accomplish for the good of the farmer and of humanity. The strength of this order in the United States now lies east of Ohio, though it is growing very rapidly in Canada and the West. New York alone numbers 65,000 members. Maine has 30,000; New Hampshire has 25,000 members and sends 1,000 delegates to the annual meetings of the State Grange. In this State 100 members of the State legislature are Patrons of Husbandry.

By acting in cooperation the Patrons of Husbandry have been the direct agencies in securing some very notable results. The creation of the office of Secretary of Agriculture at Washington is directly due to their energy, as was the passage of the Inter-state Commerce law, and the so-called Grout Bill, for the regulation of the sale of oleomargarine. Perhaps the achievement of greatest direct interest to the farming population is the securing of the establishment of the rural free delivery system which is the crowning effort of the later activities of the Patrons of Husbandry.

Mr. Jones' speech was well sprinkled with humor and made an excellent impression. We are told that Indian Creek Grange has not only doubled its membership recently, but has been the means of establishing another grange in a nearby neighborhood which has outgrown its parent. We predict that meetings held at Indian Creek will result in great good to the community in the fraternal feeling engendered, as well as in the development of the order of Patrons of Husbandry.

THE TOP OF THE OZARKS.

The best point from which to see the Ozark Mountains of northern Arkansas is from the top of the great Crescent Hotel at Eureka Springs. The best and only road from which one can reach this delightful point is the Frisco. The best time at which to see the mountains is in the early morning when you stand on the observation tower of the Crescent Hotel. It is in the month of July, but the air is deliciously cool and redolent of the wholesome and cleansing odor of resin from the pines on the surrounding mountains. A slight mist o'er-spreads the earth and fills the deep canons about us, reaching in ghostly waves to the very tops of the pine-clad hills. From our point of view we are above it all and, as the light grows, we gaze out upon the billowy expanse of white whose phantom waves dash in soundless fury upon a coastless sea. Gradually the tops of the mountains appear as green islands and, as the light creeps down into the darker shades of the canons and mingles with them, we see the most indescribably beautiful mingling of delicate colors. Instead of the dark blue, which the growing light gives to the deeper valleys, we see a mass of opal with all of the wonderful play of fire and gold, and emerald, and creamy blue. The greater depths retain the dark color for a long time after the peaks and ridges are glowing in the sunlight and, as they are penetrated by the arrows of light, they seem to glimmer with some half-hidden fire, which lights up and warms the surface into active colors and seems ready to burst into flame but does not. It is a mystery of glow and color and fire which hushes the common tongue and from which men who build and men who paint may well turn away despairing. As the light strengthens, these colors gradually vanish and the bold, rugged outlines of the near-by mountains and the softer slopes of the distant peaks stand revealed. We are in the midst of a vast expanse of huge rolling rounded billows—each one motionless forever. As far as the eye can reach are the shades and contours which cut the pine-clad mountains in the picture and show nothing greater beyond. At our feet nestles the beautiful little city with its houses scattered in the converging valleys or perched on picturesque eyries on the mountain sides. The marvelous springs gushing out below, each in its own home of nature-carved grotto or basin, are the haunts of the life-giving naiads, whose presence has made all else possible here. To the north towers Pivot Rock, and beyond are the caves, invisible here. To the east, the lake and tunnel, to the south, another lake and Greenwood Hollow, while to the Southwest unrolls at full

length the panorama of Pea Ridge, famous in war and story.

This delightful location which is North to the Southerner and South to the Northman, is an ideal spot for rest. To the brain-weary worker of the counting house or the editorial sanctum; to the fagged denizen of the sweltering streets; to the rural toiler who tires of his daily routine; to ailing humanity of all classes, as well as "to him who in the love of nature holds communion with her visible forms," we would say go to the Ozarks.

"Where nature's God has roughest wrought;
Where springs the purest fountains;
Where long ago the Titans fought
And hurled for missiles, mountains;
Where never chilling snows abide,
Nor tempest clouds are driven
Along the solid limestone side
Of yawning canons, riven
Deep in the Ozarks' grandest pride
That lift their heads to Heaven."

PICNIC INSTITUTE AT JARBALO.

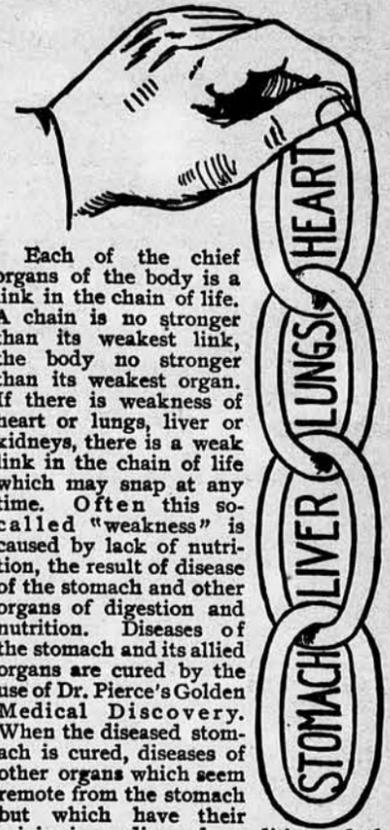
The "Stranger Valley Grange" held a picnic institute in a fine grove near Jarbalo last Saturday. Jarbalo is not much of a town, so far as size goes, but it is situated in the eastern part of Leavenworth County in a country unsurpassed for beauty and fertility. Appearances indicate that the staple crops are corn and grass, with a fairly liberal sprinkling of oat- and wheat-fields. If one were to judge from what he saw in looking over the audience from the speakers' stand he might conclude that artificial flowers and other forms of millinery were staple products of some nearby country.

A "cloudburst" of the day before the picnic caused a postponement of the program until afternoon and deprived the people of the advantages of a grand lot of visiting at dinner in the grove. But in the afternoon the farmers' carriages, buggies, and spring wagons brought in about 600 people who gave as much attention to the program as was possible in the presence of the amusements and refreshment stands.

The meeting was opened with a few appropriate remarks by Mr. R. M. Petherbridge, president and officer of the day. The editor of the KANSAS FARMER was introduced and made a few observations on feeds with especial reference to the economy of balancing the ration by the use of alfalfa with corn. Mrs. H. S. Ballard, of Tonganoxie, read one of her characteristic papers dealing with the social and economic side of farm life. The editor hopes to be able presently to secure this excellent paper for publication in the KANSAS FARMER. Mr. E. W. Westgate, master of the State Grange, delivered an address in which were presented several features of Grange history and Grange work in Kansas. This was followed by the principal address of the day by Aaron Jones, Master of the National Grange. Mr. Jones showed that while, as a business proposition, the awakening of men's mental activities by the Grange results in better use of their opportunities and more money for the uses of the farm and especially more to give to the wife—a situation the appreciation of which by the wife was humorously and feelingly described—the great advantage of the Grange is in its power to make life more worth living by putting more social enjoyment into it, by training people in the right ways of doing things. Mr. Jones is one of the great men of the country who can not be heard without profit to the hearer. The KANSAS FARMER advises every Kansan who can to hear him. He is an Indiana farmer of large experience and broad views, and he possesses the happy faculty of entertaining people while he instructs them.

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Each of the chief organs of the body is a link in the chain of life. A chain is no stronger than its weakest link, the body no stronger than its weakest organ. If there is weakness of heart or lungs, liver or kidneys, there is a weak link in the chain of life which may snap at any time. Often this so-called "weakness" is caused by lack of nutrition, the result of disease of the stomach and other organs of digestion and nutrition. Diseases of the stomach and its allied organs are cured by the use of Dr. Pierce's Golden Medical Discovery. When the diseased stomach is cured, diseases of other organs which seem remote from the stomach but which have their origin in a diseased condition of the stomach and other organs of digestion and nutrition, are cured also.

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Agricultural Matters.

Cow-peas for Kansas.

GRADUATING THESES AT KANSAS STATE AGRICULTURAL COLLEGE, BY WM. B. HILDRETH, ALTAMONT, LABETTE COUNTY, KANS.

THE COW-PEA AS A LEGUME.

The great need in Kansas is more leguminous crops, such as cow-peas, soy-beans, clover, and alfalfa. The superior value of these crops lies principally in their nitrogen-gathering power. On their roots are found tubercles. These are caused by bacteria which possess the power to gather free nitrogen from the air and prepare it for the use of the plant. In this way great stores of the most valuable as well as the most deficient of plant foods are obtained. The tubercles on the roots of cow-peas are larger than on the roots of any other legume, besides they form in Kansas soils without inoculation which is not the case with the soy-bean.

Another value of legumes is their high protein content. This element is very deficient in most Kansas feeds, as corn, prairie-hay and the like, so in order to supply the need the feeder must buy high-priced nitrogenous foods or raise leguminous crops. The cow-pea is equal to alfalfa in protein content.

The power of legumes to enrich the soil by adding nitrogen also adds to their value. Even when the hay crop is removed about one-half of the nitrogen content of the plant remains in the roots and wasted leaves. The cow-pea is superior to the soy-bean as a fertilizer, and has the advantage of clover and alfalfa in being produced in one year or as a second crop.

Since legumes have an extensive and deep root system they act as nature's subsoilers. This deep root system enables the plant to bring plant food to the surface from a great depth, to loos-

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en and aerate the soil, and to withstand drouth. The roots of the cow-pea are larger and more branched than those of the soy-bean. The cow-pea also withstands drought as I saw demonstrated during the excessive drought of last season. We grew in Labette County the Whippoorwill Cow-pea and the Early Yellow Soy-bean side by side and under similar conditions. The cow-pea leaves maintained a rich, dark, color during the drought, while at least half of the soy-bean leaves turned yellow and fell off. At the Kansas Experiment Station the same conditions prevailed. With them the cow-pea stood the drought better than either the soy-bean or Kafir-corn.

COW-PEAS IN THE SOUTH.

Cow-peas have been grown for about one hundred and fifty years in the southern States, and to-day they form their principal hay crop. They are also used extensively for enriching their unfertile soil. The cow-pea is naturally adapted to that climate and yields heavily there. A hay crop of from two to five tons per acre is not uncommon with them. They often use cottonseed and cow-pea hay for fattening beef cattle. The Arkansas Experiment Station fed such a ration to steers which made the excellent gains of three pounds per day.

COW-PEAS IN THE NORTH.

It has only been in recent years that efforts have been put forward to grow cow-peas in the northern States. These efforts, however, have not been in vain, for to-day there are numerous successful growers and staunch friends of the cow-pea in the north. The Wisconsin Experiment Station planted a plot to cow-peas in 1887. By the middle of August it had made a luxuriant growth covering the ground with a dense foliage eighteen inches high. It was cut on August 21 and yielded at the rate of twenty-one tons of green feed per acre.

Mr. Geo. A. Downs has been growing cow-peas in Vermont with considerable success for several years. The variety known as Warren's Extra Early has succeeded best with her.

Hans Buschbauer of Jefferson County, Wisconsin, reports that he has grown cow-peas with success for three consecutive years. They yielded an abundance of both vines and peas. He says that the Whippoorwill cow-pea planted June 1 ripened about September 1.

At the Missouri Experiment Station cow-peas were raised on naturally poor upland, clay, soil. The yield was 1,430 pounds per acre of dry cow-pea hay. They report that the soil on which these were grown was almost too poor to raise other crops.

SUCCESSFUL KANSAS GROWERS.

During the past four or five years the cow-pea has been making its way into Kansas, especially into the southeastern portion. Some growers never fail to produce a profitable crop while others never succeed. Mr. A. B. Roller of Altamont, Labette County, Kansas, has raised them with success since 1894. He says a yield of two tons per acre is not uncommon with him. He raises them on rather light, upland soil. Mr. E. C. Chase of Merriam, Johnson County, Kansas, has been growing the cow-pea "off and on" since 1865. They produce an abundance of feed with him but are hard to handle and cure. He considers them of great value as a soiling crop for cows during the dry season of the year. Mr. S. S. Dickinson of Larned, Pawnee County, Kansas, raised a good crop of cow-peas in 1899. The following year he failed to get a good stand which he thought was due to too wet a condition of the soil at the time of planting. Last year the drought made the crop a failure. He expects to sow twenty acres in his orchard this year and pasture it with hogs. Mr. Edwin Taylor, the famous potato grower of the Kaw valley, has been growing the cow-pea more or less for six or seven years. As to their yield he estimates them at about three tons of hay per acre. He grows them chiefly for their effect upon the potato ground. He says that potatoes following cow-peas have never failed, within his observation, to yield better than where there was not such a succession.

CAUSES OF FAILURES IN KANSAS.

The cow-pea like all other new crops

has met with many failures. One of the most common causes of failures is due to sowing before the ground is thoroughly warmed. The cow-pea is a tropical plant and will not thrive under cool conditions. Sometimes their failure is due to planting in too wet a soil. Some try to raise cow-peas on the poorest soil they have and expect to raise a good crop. As a result their expectations are not fulfilled. Since it is difficult to secure native grown seed most growers have to buy southern grown seed. This throws another difficulty in the way of profitable crops of the cow-pea. Many fail because they raise varieties unadapted to Kansas conditions.

GROWING COW-PEAS IN KANSAS.

VARIETIES.—There are many varieties of cow-peas which vary greatly in habit of growth, size and shape of pod, shape and color of seed, and in the season of maturity. Only the medium or earlier maturing varieties are adapted to Kansas conditions.

The Whippoorwill variety has proved the most successful in Kansas and is the one most generally grown here. It grows erect, is medium early, and produces a good crop of both vines and seed. It retains its leaves well which makes it a good hay crop. The pods are seven or eight inches long and well filled with seed. The bean is medium size, kidney shape, and spotted.

The Clay variety is later than the Whippoorwill, runs more to vines, and produces less seed. Planted June 1 at the Kansas Experiment Station. Last season it failed to ripen. In southern Kansas, however, it will mature, and is better for winter pasture than the Whippoorwill. Its vines are too long and tangling to raise for a hay crop.

Warren's Extra Early has been raised in southeastern Kansas with good success. It is extra early as its name signifies, and grows in a bush form, producing much seed but few vines. It may be used to advantage as a catch crop.

Nine varieties were planted at the Kansas Experiment Station, June 1, 1901, and made the following records as to time of blossoming and ripening:

	Blossomed.	Ripe.
Black.....	No blossoms.....
Black Eye.....	August 6.....	September 1.....
Clay.....	August 12.....	Did not ripen.....
Granite Growder.....	July 21.....	August 20.....
Iron Pea.....	July 30.....	August 31.....
Niger.....	August 8.....	August 30.....
Two-Crop.....	July 24.....	August 25.....
Unknown.....	Did not mature.....
Whippoorwill.....	August 2.....	September 1.....

WHERE TO OBTAIN SEED.

The native-grown seed is undoubtedly the best to use, yet it is often impossible to secure such since the Kansas growers seldom save more than they need for their own use. This is due to the difficulty in harvesting the seed. In southeastern Kansas where the cow-pea is being most extensively raised, native seed may sometimes be secured from the growers direct or from the seed stores. Most of the seed for sale in the seed stores of Kansas City or St. Louis has been grown in the south. The selling price of cow-peas is about two dollars per bushel.

TIME TO SOW.

As a rule cow-peas should not be sown in Kansas soil before June 1. If sown before the ground is thoroughly warmed or when the soil is too wet the cow-peas are apt to rot, and even if they do come up they do not thrive well. Rather late sowing produces more seed and less vines. They are often sown with good results after a wheat or oats crop is removed, or at time of last plowing of corn. They may be sown late in the season for a cover crop.

KIND OF SOIL.

Cow-peas will grow on the poorest of soil yet they do not thrive there. They produce the largest crops on a good rich loam that is well drained.

PREPARATION OF SOIL.

Plow the soil deep and either give it time to settle or subsurface pack it before sowing. Put the surface in a fine mellow condition and free from weeds like a garden seed bed and then plant.

METHODS OF SOWING.

Perhaps the best method is to drill in rows about thirty inches apart with the seed two or three inches apart in the row. Many growers plant them with a corn planter doubling the rows. This method puts the rows rather close together for cultivation. The cow-pea is often sown broadcast. This method takes more seed than either of the above and is more difficult to harvest for hay. The cow-pea should be covered about two inches deep.

CULTIVATION.

Those sown in rows should receive shallow, level cultivation with a small shoveled cultivator. About two cultivations is all that would be necessary

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

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since the vines would then shade the ground.

HARVESTING.

For hay the cow-pea should be cut as soon as the pods are well formed and the earliest ones are turning yellow. If cut later the leaves, which form the most valuable part of the pod, are apt to shatter off and be wasted. Cow-peas are most generally cut with a mower. It is impossible however, for the mower to cut off all of the vines. When sown in rows a soy-bean harvester gives best results. After the rows are cut one man recommends crossing the rows with a disc in which the discs have been removed except every third one. This method cuts the vines up and aids greatly in the handling of them.

CURING AND STORING.

There is great difficulty in curing cow-pea hay since their large vines contain so much water. As a rule they can be cut one day, raked and cocked the next, and then left in the cock until cured. They should be handled as little as possible. If the cocks should get wet they should be turned carefully and not spread out as too much handling shatters off the leaves. After they are dry enough so that water can not be squeezed out of the stems by twisting a bunch then they are ready to be put in a stack or haymow.

YIELD.

In the south the yield of cow-pea hay is generally from two to five tons per acre. In the north the yield as a rule is not so great. Mr. A. B. Roller, one of the oldest growers in Labette County, claims that two tons per acre is not an uncommon yield on rather poor upland soil. Mr. T. T. Perry of Girard, Crawford County, Kansas, claims to have raised about five tons of dry cow-pea hay per acre. Many fail to secure more than one ton per acre, yet I believe that when properly treated an average yield of two tons could be secured. The yield of seed varies from six to twenty bushels per acre.

HARVESTING THE SEED.

The gathering of the seed under present methods is very tedious and expensive. The pods are often picked by hand, stored in barrels and flailed out in winter. Sometimes the vines and all are run through a threshing machine. This method often cracks nearly half of the seed. If a thresher is used it should be run slowly and have in blank concaves.

USES.

Perhaps the principal use of the cow-pea is for hay. Under good treatment it will yield in Kansas from two to three tons of hay equal in feeding value to alfalfa or double the value of prairie hay. It contains about 10.8 per cent digestible protein, 38.6 per cent carbohydrates, and 1.1 per cent fat. Feeding experiments have proven its high value as a food. The cow-pea, however, will not supplant alfalfa for hay since the latter is easier handled and cured and produces a larger yield.

The cow-pea is often sown for pasture. It may be sown between corn rows at last cultivation and then pastured with the stalks. It is sometimes sown with Kafir-corn or sorghum for either pasture or hay. This combination makes a valuable feed and at the same time makes it easier to cure the cow-pea vines. Cow-peas, like alfalfa, should be pastured with care since there is danger from bloating.

The cow-pea is recommended by some Kansas growers as a soiling crop for cows during the dry season of August and September. It is excellent for this since it retains a green foliage even in the driest of weather.

The cow-pea is greatly needed in Kansas to rotate with other crops for the purpose of soil renovation and to increase the supply of nitrogen. In these respects as stated above it is superior to the soy-bean and is better adapted than either clover or alfalfa since the latter two are perennials. The cow-pea should be grown two years in succession on the same ground since the root tubercles become much thicker the second year and consequently more nitrogen is added to the soil.

perior to the soy-bean and is better adapted than either clover or alfalfa since the latter two are perennials. The cow-pea should be grown two years in succession on the same ground since the root tubercles become much thicker the second year and consequently more nitrogen is added to the soil.

CONCLUSION.

The cow-pea has a valuable place as a Kansas crop. It may not equal alfalfa as a hay-producer, yet it can be grown when the time is too short to raise alfalfa and on soil unadapted to the latter. It should be raised for rotation purposes, for soiling, for a catch crop, and to some extent for hay and pasture.

American Flour for British Troops.

"After prolonged observation and numerous careful tests, the British War Office decided some time ago that American flour was preferable for use in the armies of the United Kingdom. In this preference there was nothing remarkable, inasmuch as all Britons, who could afford it, long ago used American flour exclusively. With a patriotism that does them credit, the officials of the English War Office resolved that the very best flour to be had was none too good for the men who uphold Britannia's honor on fields of battle and in garrisons.

"Instead of applauding so considerate a course toward the defenders of their flag, certain commercial Britons wanted to know officially whether the army contract specification, calling for bread 'made from the best American flour,' could not be construed to mean British-American or Canadian flour, instead of flour produced in the United States.

"The Secretary of State for War replied promptly and pointedly that the contracts in question were 'for flour made in the United States.' By way of a clincher the war minister adds, 'Canadian flour is dearer than that from the United States.' He might truthfully have added 'to the British government only,' for the rabidly loyal sons of Canada always look for golden rewards for their attachment to the British crown. Their zeal for royal rule usually takes the mercenary form of pounds, shillings, and pence, as, for instance, their keen resentment at the English Chancellor for not exempting Canadian wheat from the new import duty in recognition of Canada's help in the Boer war. That the first families of England gave their sons freely in the same cause carries no weight with the Canadian. He is loyal to royalty right alongside of a great republican neighbor, and he desires pay therefor, even at the expense of the King's soldiers, who, in his estimation, are pampered on the very best flour made on this continent or anywhere else."

[The above is an extract from the Millers' Review of Philadelphia, and is a sample of how facts may be perverted when self-interest is at stake. It is a fact known to all those not blinded by bias that Canadian or English-made flour would have been just as good for the purpose intended as American-made flour, but the "officials" in the English War Office who gave the order for American-made our probably know as much of the various qualities, as they cared. We wonder what our Philadelphia contemporary would have said if the American Government had accepted a tender of Canadian flour for the troops in the Philippines.—Ed.]—Millers' Gazette, London.

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Horticulture.

Celery Growing in Michigan.

There has been much inquiry about the best methods of handling celery. The following by George C. Brock of Ottawa County, Michigan, in the Orange Judd Farmer gives valuable information on these points as well as the treatment earlier in the season:

Celery growing for commercial purposes commenced about twenty years ago in this vicinity, and about two acres was planted. A great many people predicted failure for those who ventured to grow this new crop. But these men were not to be turned from their purpose. When they commenced to ship and received from seventy-five cents to \$1.50 per dozen stalks, they said nothing but determined to put more land into a crop that promised to pay such large profits. One man had grown the first crop on rented land, going in debt \$1,000 for five acres of land. He paid for it in two years beside improving his farm. This man's success caused others to look around for available land, until now there about 250 acres devoted to this crop in the vicinity of Grand Haven.

With increased competition the prices dropped, but to offset this, the cost of production was reduced as growers became more familiar with the crop. I believe the cost of production to-day is 50 per cent lower than during the first eight or ten years. At first double rows, eight inches apart, six inches between plants and rows four and one-half feet apart were the rule. The plants were bleached with earth. Now single rows two to three feet apart with plants four inches apart prevail, and the celery is bleached with boards.

STARTING AND CULTIVATING.

Seed is started in greenhouses about February 1, plants are placed in open fields April 15 to May 20. By the latter date the first setting needs cultivating and weeding. In cultivating the soil is gradually worked toward the plants until about two to four inches of earth is around them. When the celery is from eight to ten inches high boards eight inches wide are set against each side of the row and held in place with a few pieces of heavy wire ten inches long, bent at each end so that a kind of staple six inches across the top with two-inch prongs is secured. The wires are much handier and cheaper, and they hold just as well if care is used in setting the boards.

As soon as the celery is boarded and sometimes before, the second crop grown from seed sown at time of first setting is set between the rows of the first crop. Shipping commences in June and continues until the lake steamers cease running in the latter part of November.

PREPARING FOR SHIPMENT.

In preparing celery for shipment the boards are taken down and moved over to where the other celery needs bleaching. Then the stalks are pulled by one man, who is followed by the stripper, who strips the old and unbleached leaves. Next comes the knifer, generally a boy, who cuts the roots off, leaving an eight-sided point on the stalk. He places the stalks in baskets to be carried to the wagons or to the celery house.

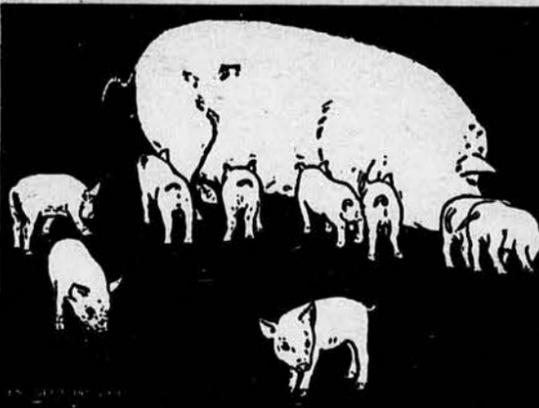
After it gets to the celery house it is washed and tied in bunches of one dozen stalks each and graded in two or three grades. Sometimes a few more stalks are added to some bunches to make all uniform in size for each grade.

Most growers use water from the city mains, as with the pressure they obtain they can wash about 100 per cent faster than with the water and brush method. We now use nothing but "cigar boxes" for shipment. Size six by twelve-inch ends and sixteen-inch sides instead of the old ten by sixteen-inch boxes.

The celery carries better in the smaller sizes, with less danger of breaking during hot weather than in the larger sizes. The cigar boxes hold from one to five dozen bunches of celery and prices average about fifty cents per box.

PROFIT IN CELERY GROWING VARIES.

In regard to profits will say that with celery as with other special crops, profits are not the same every year. When fruit is plentiful the demand for celery is lessened to a considerable extent. Some years growers are satisfied if they make all expenses and about \$25 per acre. In other years, profits are \$100 and sometimes more. About three years ago, growers only made expenses and last year they made a good profit. The average profit is about \$50 per acre, exclusive of interest on land or taxes. Celery lands are worth from \$150 to \$300 an acre.



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GENTLEMEN:—"International Stock Food" gives excellent satisfaction to all my customers. I have used it and can say that for brood sows and young pigs it is the best preparation I have ever used, both to maintain health and promote growth.

L. G. PALMER,
Druggist and Stockraiser.

"International Stock Food" is prepared from Herbs, Seeds, Roots and Barks.

A \$3000.00 STOCK BOOK FREE

IT CONTAINS 437 103 LARGE FINE ENGRAVINGS OF HORSES, CATTLE, SHEEP, GOATS, HOGS, POULTRY, ETC. The Covers are Printed in Six Brilliant Colors. It cost us \$3000 to have our Artists and Engravers make these Engravings. Our International Stock Book contains a finely illustrated Veterinary Department that Will Save You Hundreds of Dollars. This illustrated Stock Book also gives Description and History of the different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry of All Kinds. The Editor of this Paper will tell you that you ought to have our Stock Book for reference.

WE WILL GIVE YOU \$14.00 WORTH OF "INTERNATIONAL STOCK FOOD" IF BOOK IS NOT AS REPRESENTED. This Book Mailed Free, Postage Prepaid, if You write Us (letter or postal) and Answer These 3 Questions: 1st—Name this Paper. 2nd—How much stock have you? 3rd—Did you ever use "INTERNATIONAL STOCK FOOD" for Horses, Cattle, Sheep, Hogs, Cols, Calves, Lambs or Pigs?

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

International Stock Food Co., MINNEAPOLIS, MINN., U. S. A.

DEALERS SELL THESE INTERNATIONAL STOCK FOOD INTERNATIONAL WORM POWDER INTERNATIONAL GALL CLRE
ON A "SPOT CASH" INTERNATIONAL POULTRY FOOD INTERNATIONAL COLIC CURE INTERNATIONAL HEAVE CURE
GUARANTEE INTERNATIONAL LOUSE KILLER INTERNATIONAL HARNESS SOAP SILVER PINE HEALING OIL ETC

Do not attempt to grow this crop on a large scale unless you have the proper soil and facilities for handling it, as it demands instant attention when ready. If left too long rust and other diseases attack it and thus reduce chances of success.

Notice of a Large Pear Tree in Indiana.

"We have in our State, a pear tree so remarkable, that, if you have seen no notice of it, the following may be thought of some value. We heard of it from various gentlemen, and saw some notices in country papers, which interested us in gaining better information. One of our nurserymen being in that part of the State, we requested him to visit and gain exact information. He is an accurate man and his account may be depended upon: "This tree, one foot above the ground, measures ten feet in circumference, and six and one-half feet at nine feet above the ground. The space covered by the branches from outside to outside, is 69 feet; that is the circle formed by a line described around the ends of the branches, would be 69 feet in diameter.

In the year 1834 it yielded 134 bushels of pears; in the year 1839 it produced 80 bushels; and in the year 1840 it produced 140 bushels. In another year (but which the account before us does not state) it produced 138 bushels. This tree grows about ten miles north of Vincennes, Knox County, Indiana, and is said to have sprung from a seed planted some 35 or 40 years ago, by a Mrs. Ockletree. The tree is a very rapid grower. It is perfectly hardy, a constant bearer and I need not say an enormously productive kind. The fruit is about the size of a turkey's egg; rating as to quality, with about the third grade of desert pears. It is a fall—early fall pear. The accounts of the time between the planting of the seed and the bearing of this tree, vary from nine to fifteen years. The original owners are dead. We have the fruit growing in our nurseries, near town, and grafts may be sent, should any gentleman in your neighborhood desire it. I regret that the young man did not ascertain the height of the tree.—H. W. Beecher, Sept. 29, 1842."

Writing to the Indiana Farmer of the above letter W. H. Regan of the Department of Agriculture writes:

"I found this letter of H. W. Beecher's, written as you will see from Indianapolis in 1842, in the Magazine of Horticulture, published by the late C. M. Hovey & Co., of Boston, Mass., for January, 1843. The "young man" referred to, who measured the tree and reported its dimensions to Mr. B. was the late Maj. Z. S. Ragan, of the 70th Ind. Reg. and a cousin of the writer. A number of years ago, perhaps twenty or more, the lightning struck the old pear tree and killed it. The variety was cultivated to a limited extent, but did not prove to be worthy and is now probably extinct."

This Season's Apple Prospects in the East.

Interest is beginning to grow strong in the coming apple crop. Buyers are already appearing in the fields, we are told, and offers are being made for the crops from various orchards. Some conflicting estimates of the crop reach this office. There seems to be a feverish

anxiety to know what the summer will bring forth in quality, quantity and price.

It is quite too early yet to make more than a rough guess on any of these points; and we wish to caution readers especially against hasty conclusions. In general, the indications are for something below an average crop, if not for a distinct shortage. The late freezes did some damage in some localities; and there has been an unusually heavy drop, due to insufficient pollination, to continued bad weather, and to disease.

At the present moment, the orchards of the northeastern States seem to be badly infested with scab fungus, which has gained headway during the wet weather. Tender varieties like Greening and Fameuse are already considerably damaged, so that the pick of the first-grade fruit will be much shortened. Fire blight has also appeared in some orchards, and is hurrying its usual deadly work. With these and other adverse conditions tending to shorten the crop, it is hardly likely that the market this fall will be overstocked. No price has yet been fixed by the buyers, so far as the public knows, for the coming crop; but just now it seems probable that prices will rise rather than fall with the advancing season. We think it would be unwise for any grower to contract his crop at this time.—Country Gentleman.

United States Department of Agriculture,

BUREAU OF FORESTRY.

Washington, D. C., July 16, 1902.

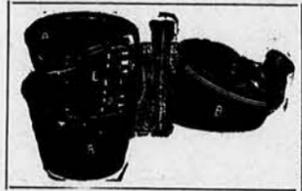
On July 1 the Bureau of Forestry began its field season, and its work is now being carried on in twenty States. The Bureau has appointed ninety new student assistants for this season, the entire field force numbering 165 men. The work includes, among other things, the gathering of the necessary data for several working plans, a study of a number of well known commercial trees, the examination of farm woodlots, and a study of the treeless areas with a view of devising plans for forest extension.

The Bureau of Forestry begins the new fiscal year of 1902-1903 with an appropriation of \$291,860. The amount for the year just ended was \$185,440. This increased appropriation shows how this work commends itself to Congress, and it makes possible a much wider range of work. The present season's work is by far the most varied and interesting yet undertaken by the Bureau of Forestry, and is being carried on in Maine, New Hampshire, Vermont, Massachusetts, New York, New Jersey, Maryland, Tennessee, Kentucky, West Virginia, North Carolina, Michigan, Minnesota, Nebraska, Oklahoma, South Dakota, Montana, Arizona, and California. Later in the season it will be extended to still other States and Territories. Kansas has furnished several of the most competent workers in the forestry bureau, but her name is sought in vain in the above enumeration.

A Pennsylvania fruit grower says he saturates a woolen cloth with black machine (lubricating) oil fastens it to the end of a long pole, and stirs it in and through every caterpillar's nest he can find, selecting for this job the

Buy the Double Dewey Hog Waterer

from your dealer or write us. We Guarantee Every Fountain. If not satisfactory return and get another, or your money back. We make this guarantee to every dealer. VERY CHEAP THIS YEAR.



The B-B Mfg Co., Davenport, Iowa
Mention the Kansas Farmer.

CAR-SUL CATTLE DIP

CURES Mange and Itch; KILLS Lice, Ticks and Screw-Worms; HEALS Cuts, Wounds, Galls and all Sores. GUARANTEED to do the work without injury to eyes or other parts of animal. At dealers or by express, prepaid, \$1.50 per gallon. 25 cent cans—dealers only. Special price in quantities. Write to-day for book and free trial Car-Sul. Address MOORE CHEMICAL CO., 1501 Genesee St., Kansas City, Mo.

DISEASES OF MEN ONLY.

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

Chicago Medical Institute,

513 Francis St.,
ST. JOSEPH, MISSOURI.

You Get More Bales

In the Car when the hay is baled with an "ELI" BALING PRESS. That saves freight and adds to profit. Feed hole 33x30 ins. makes it easiest and safest to feed. Remember—this is not a bundler, it is a press. Automatic block placing device saves time, arms and hands. Requires less power than any other machine of equal capacity. ILLUSTRATED CATALOGUE FREE. COLLINS FLOW CO., 1120 Hampshire St., QUINCY, ILL.

early morning hours, when the caterpillars are at home. It makes short work of them. Wild cherry-trees are their favorite breeding-places, and should be cut out of all the fence-rows.

If you have no appetite for your meals something is wrong with your digestion, liver, or bowels. Prickly Ash Bitters cleanses and strengthens the stomach, purifies the bowels and creates appetite, vigor, and cheerfulness.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

- August 1, 1902—American Berkshire Association, at Kansas City, Mo.
- August 8, 1902—Combination sale of Berkshires, at Kansas City, Mo. Chas. F. Mills, Mgr.
- August 13, 1902—American Berkshire Association, at Kansas City, Mo.
- August 22, 1902—Harry Sneed, Smithton, Mo., and McFarland Bros., Beaman, Mo., Duroc-Jersey hogs at State Fair, Sedalia, Mo.
- September 2, 1902—L. M. Monsees & Sons, registered saddle horses, mules, and registered Poland-Chinas, at Smithton, Mo.
- September 8-13, 1902—Kansas State Exposition, Topeka, O. P. Updegraff, Secretary.
- September 10-12, 1902—Mid-Missouri Combination Sale of Angus, Galloways, Shorthorns, and Herefords, in connection with the North Missouri Fair, Chillicothe, Mo.
- October 1, 1902—Wm. Plummer, Poland-Chinas, Barclay, Kans.
- October 7-8, 1902—J. S. McIntosh, Kansas City, Mo., Shorthorns.
- October 18, 1902—J. W. Dawdy, Abingdon, Ill., and D. L. Dawdy, Arrington, Kans., at Galesburg, Ill., Shorthorns.
- October 20, 1902—E. E. Axline, Poland-Chinas, Oak Grove, Mo.
- October 21 and 22, 1902—Herefords at Kansas City, Mo., under auspices of American Hereford Cattle Breeders' Association. (Week of American Royal.)
- October 22-23, 1902—Combination sale of Berkshires, at Kansas City, Mo. (Week of American Royal.)
- October 23, 1902—J. B. Davis, Duroc-Jerseys, Fairview, Kans.
- October 20-25, 1902—American Royal Swine Sale Berkshires and Poland-Chinas, Kansas City Stock Yards.
- October 31, 1902—J. C. Hall, Hallsville, Boone Co., Mo., at Centralia, Mo., Shorthorns.
- November 1, 1902—H. M. Kirkpatrick, Farm sale of Poland-Chinas, Wolcott, Kans.
- November 3, 1902—Peter Blocher, Richland, Shawnee County, Kans., Duroc-Jersey swine.
- November 6, 1902—Thos. Andrews & Son, Cambridge, Neb., Shorthorns.
- November 7, 1902—Manwaring Bros., Lawrence, Kans., Berkshires.
- November 13, 1902—Geo. W. Berry, North Topeka, Manager. Combination sale of Berkshires. Manhattan, Kans.
- November 18-19, 1902—Marshall County Hereford Breeders' Association Sale, Blue Rapids, Kans.
- November 28-29, 1902—W. P. Harned, Vermont, Mo., and F. M. Marshall, Blackwater, Mo., at Kansas City, Mo., Godoy Shorthorns.
- December 4 and 5, 1902—Herefords at Chicago, Ill., under auspices of American Hereford Cattle Breeders' Association. (During week of International Cattle Show.)
- December 8-9, 1902—J. E. Logan and Benton Gabbert & Sons, Kansas City, Mo., Herefords.
- December 16, 1902—Gifford Bros., Manhattan, Kans., Shorthorns.
- December 19, 1902—Hanna & Co., Howard, Kans., Percheron horses, at Kansas City.
- January 12-17, 1903—C. W. Armour and Jas. A. Funkhouser, Herefords, at Kansas City, Mo.
- January 28-29, 1903—C. A. Jamison, Peoria, Ill., Shorthorns, at Chicago.
- February 17, 1903—Geo. F. Kellerman, Shorthorns, Kansas City, Mo.

Live Stock Next Fall.

FROM THE SOUTHWESTERN STOCKMAN AND FARMER.

The future of the live stock market is an open book to most stockmen who take time to read and think. Of course nothing is certain in a market that depends absolutely upon the law of supply and demand, but this year the future of the demand and the conditions that will control it and what the supply will be, in a general way, are pretty well known and it is the general conclusion that the stockmen will see one of the most active markets next fall and winter that has prevailed in years. Of course the demand will be largely controlled, as usual, by the size of the corn crop. All indications point to one of the greatest corn crops the country has ever seen. The acreage is larger than ever before known and the conditions have been such that the outlook could hardly be improved. There are a few isolated sections where the crop has not done well, but these are so few and small that they really have little effect on the general result. There is only the danger of hot winds to be met yet, and there has been so much rain in the section from which the hot winds are usually expected, that it is almost a certainty that no hot winds may be expected this year.

The high price of corn due to the failure of the crop last year has resulted in very few cattle being fed and when the cattle commence to move next fall the feed lots in the corn states will be practically empty. There is every reason to expect a strong demand for feeders and with a scarcity of dry fed cattle on the market, the top cattle will be quoted at prices nearly if not quite as high as at present.

As to the supply, there is reason to believe that it will be the largest ever known from the western ranges. Last year there were thousands of cattle ready for market on the range that were turned back because of the low prices prevailing. They will be ready to come this fall and in addition there will be thousands of cattle that were shipped north out of the drouth states last fall. Then on top of these there will be the regular crop of cattle, which is naturally larger than usual this season and there may be added to this about 40 per cent more cows than usual.

With this condition of supply and demand, an active market must result. As to prices, we do not look for unusually high prices on range cattle. The high prices that must prevail on choice beef steers will have a tendency to

hold up the prices on range cattle, but the feeder buyers will insist upon fair prices, prices at which they can figure a profit. While prices will not be abnormally high, they will be on a basis that will net a good profit to the range grower and will enable the feeder to see some profit in his operations.

How is the Country to Increase Its Beef Supply?

It is very plainly seen that in the rapid narrowing of the western cattle ranges in public land by entry and settlement, the increase of beef must come from some other source. What is it? Plainly it is a fact that this increase must come through pure-bred cattle. The country can come to this as certainly as it did to pure-bred swine, which is the rule now, and not the exception as in beef cattle. Pure blood will increase the beef supply by making 1,200 to 1,400 cattle in twenty-four months, whereas such beef now requires, as a rule, thirty-six months. That is, the same acres which now produce feed stuffs for 1,000 pounds of beef will, with pure-bred cattle, produce 1,500 pounds of beef, though growing no more grain or forage. But another condition towards which we are moving rapidly, and which of course must add in a marked measure to the additional increase in beef production, is that of feeding a balanced ration, in which protein, carbohydrates and fat are duly proportioned, and so saving much more of the feed products now grown on the farm. Corn, now the chief reliance for feeding in all stages of live stock growth, is low in protein, but the latter can be produced abundantly on the farm by growing the cow-pea and soy-bean, both rich in protein, and so used as forage as to balance corn in its high qualities in the other respects. And so the beef supply is to be increased by pure blood in breeding; by growing protein foods as well as fat, and by a large saving in feed stuffs by using these in balanced rations. The agricultural colleges and experiment stations are doing a great work along all these lines, and a marked advance is being made by farmers.—*Indiana Farmer.*

Angora Sales and Specials.

The sixth Angora goat sale of the year was held at Kansas City on Saturday, July 19. The sale had been advertised to come off on the preceding Thursday but the death of Manager McIntire's sister necessitated a postponement of the event. About 2,500 goats were offered, including wethers and does. No recorded animals were in the sale, as at the June event, and on that account doe prices did not look high. Buyers were in attendance from as far east as Virginia. Bidding ruled fairly active and prices were up to the standard of spring sales. Wethers sold up to \$3.20 and does to \$4.35. Colonels Sparks, Edmonson, and White officiated at the auction. Among the sales were:

M. M. Sutherland, Wytheville, Va., 140 does at \$4.35, 56 does and kids at \$2.80, 1 buck at \$5, 50 does at \$4.10; E. L. Comfer, Kansas City, 104 wethers at \$2.90, 96 wethers at \$2.50, 41 wethers at \$2.10; George E. Dewese, Prentiss, Ill., 105 wethers at \$2.85; N. E. Steindrod, Kidder, Mo., 105 wethers at \$2.80; S. D. Moherman, Wellsville, Kans., 102 does at \$4.40; N. B. Corbin, Merwin, Mo., 125 wethers at \$3.15; T. Strahm, Berwick, Kans., 124 wethers at \$3.10, 125 wethers at \$3; R. B. Meek, Vincennes, Iowa, 125 wethers at \$3.15, 209 does and kids at \$3.40; J. D. Robinson, Kansas City, 135 mixed at \$1.65; J. D. Hammett, Huntsville, Mo., 181 wethers at \$1.95.

The executive board of the National Angora Association met in special session here on Monday, Tuesday, and Wednesday of last week. Rules and regulations for the big show and sale next fall were planned. It was decided to offer \$1,500 in cash prizes and \$500 in specials at that event. At least 4,000 goats are expected to be in the show and sale. The goat show will be held October 21 to 24, at the same time as the American Royal. **POWELL.**

A Hint to Breeders.

In the last issue of Printers' Ink we note a chunk of wisdom which reads like Holy Writ. It is as follows:

The results to be derived from continuous advertising can not be overestimated. That person or firm who desires to have his business grow and expand must continue to advertise. In continuity is strength. The advertising you did yesterday will help your advertising of to-day, and the advertising of to-day will help that of the morrow, and so on indefinitely.

The child that makes the greatest progress at school does not attend on Monday, then skip to Wednesday, and

out again until the next Monday. No, he is in attendance every school day.

Continuity is strength. Therefore that person who would add strength to his business must keep it before the public continuously.

In certain localities in Kansas, it is noticeable to any one traveling by private conveyance that the large and well-improved farms are very frequently occupied by renters. Inquiry develops the fact that the owners of these farms have acquired a competence and have moved to town for its better enjoyment. We doubt the advisability of any man who has grown accustomed to the active out-door life of the farm, moving to town and to a life of comparative inactivity. This sudden change in the mode of life of men who are generally well along in years, frequently results in the shortening of their days. But aside from this question comes another which affects both the owned and the renter of the land. With the rapidly increasing valuation of farm lands, can the average renter afford to pay what would be a fair interest on a cash valuation? And can the land-owner afford to lease his land to the average renter with his shiftless methods? The average tenant in America is one who is able to lease his land for but one year at a time and who almost invariably adopts a skinning policy which impoverishes the land and destroys the buildings. He feels that his tenure of lease is limited, and he must get all he can out of it while in possession. Quite frequently he is a man who adheres to the old rule of thump methods and who does not seek to advance. He does not possess a library of agricultural information nor does he read an agricultural journal. We are glad to say, however, that his race is rapidly decreasing and with the new problems which both he and the land-owner must face in getting satisfactory returns from an increased valuation, we read entire extinction for him.

Agriculture in the Census.

The census bureau has just issued a bulletin giving the condition of agriculture in the United States for the year 1900. It shows that there were, at that time, 5,739,657 farms in the entire country, which were valued at \$16,674,694,247. Of this amount, \$3,560,198,191, or over 21 per cent, represented the value of buildings, and \$13,114,492,056, or over 78 per cent, represented the value of lands and improvements other than buildings. The value of farm implements and machinery was \$761,261,550, and of live stock \$3,078,050,041. These values, added to the value of the farms, give a total value of farm property amounting to \$20,514,001,838.

The total value of farm products for the year 1899 is given as \$4,739,118,752, of which amount \$1,718,990,221 was for animal products, including live stock, poultry and bee products.

The bulletin places the average size of farms in the United States as 146 acres, and it is stated that 49 per cent of the farm land is improved. The total acreage for the entire country was \$841,201,546.

The number of farms in the United States has increased in every decade for the last fifty years, and so rapidly that in 1900 there were nearly four times as many farms as in 1850 and 25 per cent more than in 1890. The total acreage of farm land also has increased, but up to 1880 less rapidly than the number of farms, thus involving a steady decrease in the average size of farms. Since 1880, however, the total acreage has increased more rapidly than the number of farms, so that the average size of farms has increased. The total area of improved land has increased in every decade since 1850.

Texas leads with the greatest number of farms, 352,190, and also with the highest acreage, 125,807,017. But only a little over 15 per cent of the farm land in Texas was improved, and the value of the farm land in Texas was less than in Pennsylvania, Ohio, New York, Missouri, Iowa, or Illinois, being \$962,476,273. Missouri ranks second in the number of farms, having 284,886. Other States having more than 200,000 farms are: Alabama, 223,220; Georgia, 224,691; Illinois, 264,151; Indiana, 221,897; Iowa, 228,662; Kentucky, 231,667; Michigan, 203,261; Mississippi, 220,803; New York, 226,720; North Carolina, 224,637; Ohio, 276,719; Pennsylvania, 224,248; Tennessee, 224,623. Iowa leads the list in the percentage of improved lands, more than 86 per cent of the farm lands of that State being improved. Illinois follows with more than 84 per cent; Ohio comes next with 78 per cent, and is followed by Indiana with more than 77 per cent. Illinois occupies the first position in the matter of the total value of farm lands, the figures for that State being \$2,004,316,897. Other State

Horse Owners! Use



GOMBAULT'S
Caustic Balsam
A Safe, Speedy, and Positive Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

WORK THE HORSE IF NECESSARY

BALMOLINE

NATURE'S WONDERFUL HEALING SALVE.
CURES SORE SHOULDERS, COLLAR CALLS, SCRATCHES, CRACKED HEELS, SITFASTS, CHAFES, ROPE BURNS, WIRE CUTS, SORE TEATS, OLD STANDING SORES AND ALL FRESH WOUNDS ON

MAN OR BEAST
PREVENTS FLIES, MARGOTS, SCREW WORMS AND PROUD FLESH. - ALL DEALERS
SEND 4c FOR TRIAL SIZE TO
G. H. DeNUY, P. O. STATION A, DENVER, COLORADO
ENDORSED BY HORSEMEN EVERYWHERE

25 and 50 Cents

Goulding & C., City Stock Yards, Denver, Colo., Jan. 10, 1900.

Dear Sir:—After an experience of over twenty years in the care and handling of live stock, I feel justified in recommending your Balmoline as the best healing salve that has been put on the market. Horsemen and others can not make any mistake in its use.
GEO. L. GOULDING.

NO SPAVINS

The worst possible spavin can be cured in 45 minutes. Ringbones, Curbs and Splints just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners. Write today. Ask for pamphlet No. 98. Fleming Bros., Chemists, Union Stock Yds., Chicago.

LUMP JAW.

A positive and thorough cure easily accomplished. Latest scientific treatment, inexpensive and harmless. NO CURE, NO PAY. Our method fully explained on receipt of postal. Chas. E. Bartlett, Columbus, Kans.

HEAVES CAN BE CURED

We have a guarantee cure for Heaves, Coughs and Colds. Guaranteed to cure or your money refunded. One package by mail, 60c 12 pkgs. by exp. with written guarantee to cure \$5.00. WILBUR SEED MEAL CO., 204 2nd St., Milwaukee, Wis.

values are as follows: Iowa, \$1,834,345,546; California, \$796,527,955; Indiana, 978,616,471; Kansas, \$864,100,286; Kentucky, \$471,045,856; Michigan, \$690,355,734; Minnesota, \$788,684,642; Missouri, \$1,033,121,895; Nebraska, \$747,950,057; New York, \$1,069,723,895; Ohio, \$1,198,923,946; Pennsylvania, \$1,051,629,173; Tennessee, \$341,202,025; Texas, \$962,476,273; Virginia, \$323,515,977; Wisconsin, \$811,712,319.

The live stock farm lands of the country are put down at a value of \$7,505,284,273, or more than 36 per cent of the whole. The hay and grain lands at \$6,379,548,543, or 31 per cent of the whole; dairy produce over 8 per cent; cotton over 5 per cent.

There are 521 coffee farms in the country, valued at \$1,932,915.

A chapter of the bulletin is devoted to irrigation and the following extract from it summarizes the presentation:

"A comparison of the number of irrigators and of the number of acres irrigated at the beginning and end of the decade of 1889-1899, shows that these have approximately doubled. The number of irrigators in the arid States and territories increased from 3,564,415 to 7,263,273, or 103 per cent. The percentage of increase in the number of acres irrigated is somewhat larger than that in the number of irrigators, and occurs principally in what may be termed the newer States—Idaho, Montana, Utah, and Wyoming. This increase is explained by the irrigation within recent years of large areas on ranches, in forage crops and pasture. In California and Colorado the reverse condition is noticeable. The increase both in number of irrigators and in area irrigated has been proportionately less than in the newer States, showing a decrease in ratio of growth due to the more complete development and utilization of available water supply. In these States the acreage irrigated has

increased, respectively, 44 and 80 per cent, or, taking both States together, 61 per cent, while the number of irrigators has increased 86 and 82 per cent, respectively, or, together, 84 per cent. Thus, the number of irrigators is increasing more rapidly than the area brought under cultivation, showing a more marked tendency to subdivision of large irrigated tracts, and the cutting up of these into smaller homesteads, mainly devoted to fruit-raising."

Census Curiosities.

Some curious facts are developed by careful study of the census reports. For instance, one would naturally expect to find the largest Scandinavian city in the world to be in the Scandinavian Peninsula. On the contrary it is Chicago, which has a Scandinavian population of 173,981. The second largest German city in the world is New York, whose population from the Fatherland is about one-half that of Berlin, and more than 100,000 greater than that of Hamburg, which is the second city of the German Empire. The largest Irish city in the world is New York, with a population of 743,198 descendants of Erin. New York has 809,624 Germans; 743,198 Irish; 220,000 Italians, and only 177,089 persons of English descent. She possesses a larger Italian population than does the city of Florence, Italy. The Germans who immigrate to this country seem to flock in large numbers to our rural districts where they become one of our best classes of farmers, while the Irish seem to prefer urban life. In addition to the figures quoted for New York, the Irish population of Philadelphia is given as 284,576; Chicago 237,478, Boston 191,638, San Francisco 78,819, St. Louis 69,376.

Gossip About Stock.

Mr. H. G. Adams, Maple Hill, Kans., is credited with having recently been the purchaser of 4,000 steers of the famous J. A. brand, from the Panhandle of Texas. These steers are bought for fall delivery and will be full fed for the market at Maple Hill.

Anyone interested in light and heavy harness and all kinds of strap work and horse gods will be interested in the advertisement on page 765 of M. Kober & Son, Brownstown, Ind. The price list received at this office indicates a splendid quality of serviceable gods at reasonable prices, and it will doubtless interest many of our readers to write them for illustrated price list and discount.

The American Angora Goat Association, at a recent meeting held at Kansas City, has decided to offer \$2,500 in cash premiums in addition to valuable silver cups and other special prizes, for their third annual exhibit and sale which will be held at Kansas City during the week of the American Royal. The prize list and particulars in regard to the exhibit may be had of W. T. McIntire, Union Stock Yards, Kansas City, Mo.

The Kansas Farmer is in receipt of a change in the advertisement of Geo. Groenmiller & Son, of Centropolis, Franklin County, Kansas, who say: "Our stock is doing finely. We now have a number of choice young bulls for sale that are good enough to head any herd. Crops of all kinds never looked better. Oats are very heavy, in fact everything is out of sight. We expect to hold a public sale of fifty high-grade cows and heifers next month."

The Riverside Ranch of Ashton, Neb., recently held a sale of Hereford cattle at Yankton, S. D. This sale was attended chiefly by local farmers, although there were several breeders present who made purchases. The top of the sale was made by Opal 118098 and Mattie W. 110095, each of which brought \$155. The average for the 34 animals sold was \$95.73. The summary of the sale is as follows: 14 heifers brought \$1,385; average.....\$98.93 20 bulls brought.... 1,870; average..... 93.50 34 head brought.... 3,255; average..... 95.73

The Kansas Farmer was favored with a call from H. L. Resing, the new secretary of the Wichita Southwestern Fair Association. He informs us that they are going to make a special effort to have a big, fine stock show, and have already raised \$7,000 in Wichita for the purpose. They intend to hold some fine stock sales during the week of the fair, detailed announcements of which will be given on application to the secretary. The date, as will be noticed in our list of Kansas Fairs, is for the week of September 22-27.

We are in receipt of a communication which announces the pleasing intelligence that the Fredonia Agricultural Fair Association will hold their fair this year August 19-22. This association is anticipating the best fair ever held in Wilson County by reason of the fact that they are offering special inducements to stock breeders. \$100 is offered for sweepstake bull and best boar, other awards in proportion. They expect to secure expert judges so that exhibitors will find it to their advantage not to overlook the Wilson County fair at Fredonia, Kansas, this year.

C. S. Nevius, Chiles, Kansas, breeder of Shorthorn cattle and Poland-China hogs reports that his stock is doing exceptionally well. He will now dispose of one of his herd bulls, an excellently well bred animal and a good sire, also has five young bulls all past one year old. Now with the increased demand for high class bulls, buyers had better act quickly if they wish to get a satisfactory herd header. The Shorthorns bred by Mr. Nevius, are all right as to popular breeding and beyond question as to individual excellence and his prices are exceedingly reasonable.

In view of the fact that there is a prospect of an immense shipment of range cattle from the Northwest, it is reported that there is a movement on foot among the cattlemen of Oklahoma to effect an organization whose purpose shall be to hold all Oklahoma cattle for top prices. Owing to conditions which now surround the cattle industry there has been a notable increase in the cattle census in the last six months. Beaver County, Oklahoma, is reported to have an increase of over 28,000 head, as compared with last year. These cattle are all in good shape for grass cattle and it

is the intention of their owners to get the best possible price for them. They feel that with the abundance of grass which they now have it will be wiser to hold until the Northwestern cattle have been marketed.

A record for the agricultural college student is reported from McClain County, Ill. This young man is a graduate of an agricultural college and had never turned a furrow until he went into the experimental grounds of the agricultural college that helped in his development. Five years ago he started with a capital of \$25. Now he occupies and pays rent on 250 acres of land, has \$5,000 in the bank, a complete set of modern farm implements, a fine herd of Shorthorn cattle and does not owe a dollar in the world. It pays to get next to the cattle.

H. W. Cheney, North Topeka, Kansas, owner of Shady Brook Stock Farm Poland-Chinas, writes: "My herd is doing finely. Pigs are growing more and are coming along in lots of 9 to 12 at a clatter. They eat like hired men and are helping the alfalfa, clover, rape, and weeds fill up their stomachs where they are digested and turned into bone and flesh. A semi-monthly bath in the dipping tank and plenty of exercise and shelter from inclement weather insures a healthy, vigorous animal with strenuous habits that are in keeping with the strenuous times in which they live."

The government has recently issued an order providing for the admission of Canadian cattle to the United States, which are intended for the New York State Fair to be held at Syracuse, September 8-18, without subjecting them to the tuberculin test. This is on condition, however, that they are accompanied by a certificate from an official veterinarian to the effect that they are not infected with any contagious disease. Also on the further condition that they must be shipped direct to the fair grounds without being unloaded at any stock yards, and that if they are sold to remain within the United States they must be inoculated with tuberculin prior to their shipment to destination.

In view of the prosperous outlook for bumper corn and feed crops there seems to be an unusual and lively demand for live stock. There appears to be no summer dullness whatever this year. The first public sale of high-class Shorthorn cattle of the season will be the combination breeders' sale to be held at the stock yards, South St. Joseph, Thursday, August 14. This will be under the able management of Geo. Bothwell, of Nettleton, Mo., to whom all requests for catalogues should be sent. The contributors for this sale comprise fifteen breeders, from Missouri, Nebraska, and Kansas, as shown by their advertisement on page 757 in this issue.

According to current newspaper reports, the Harriman and Gould railway interests are doing a vast amount of work in the way of colonization in the West. It seems that about two and one-half years ago President Harriman of the Southern Pacific Railroad conceived the idea of settling Western railroad lands by colonizing Eastern farmers thereon. In carrying out this idea eight lecturers were employed, one of whom was sent to England, a second to Germany, and the other six were assigned to four lectures per week in New England and the Middle States. The plan is to give each settler 100 acres of land upon which a house and barn has been built for him, and to allow him ten years in which to pay for it. As a result of this move it is now stated that 22,000 families have been sent to Kansas, Colorado, and Texas and located in this manner. It is predicted that if the scheme is carried out to its fullest possible extent it will serve to double the population of Kansas in the next five or six years.

While attending a farmers' institute recently the writer overheard the remark from a man who breeds and sells grade cattle that a good grade was just as profitable as a pure-bred animal. This may be true in exceptional cases but can not be accepted as a rule. High grades make good beef, and it is noticeable that the higher the grade the better the beef. The fact that an animal is pure bred and registered does not make his beef of a better quality than is that of a grade, but it is an assurance that he carries more of high-priced beef in his carcass than does the scrub. One of the prime objects sought by the breeders of all classes of pure-bred animals is the attainment of a type which will develop a large amount of sirloin and porterhouse, and hence enhance the value of his carcass. The scrub develops little flesh in the loin region and a great deal in the sides with hams like a cat. The quality of the meat may be good enough but it is mostly "boll" meat and of the cheapest quality.

For the first time in their history Galloway cattle will be entered in all the Western State fairs. The Colorado State Fair Association has already appropriated \$500 for premiums for this breed. The Kansas Farmer has just received a copy of the rules and premium list which shall govern the national cattle shows to be held October 20-25, at Kansas City, and December 1-6, at Chicago. Two great national shows in one year, with larger premium list than ever before offered, give an opportunity to exhibitors of this breed such as they have never had. The Armour Packing Company has offered a trophy like those for the other breeds and the Union Stock Yards Company have inaugurated an experiment in cross breeding with the Galloways for foundation stock, which shall have for its object the production of beef animals that can rival the famous "Blue Grays" of Great Britain. The rules, regulations, and information concerning these national shows for Galloways may be had by writing to Secretary R. W. Park, Kansas City, Mo.

It sometimes happens that the field man is pleasantly surprised in discoveries made close at home. A few days since we had the pleasure of inspecting the Pleasant Hill Herd of Poland-Chinas, owned by Pitcher & Son, about four miles north of North Topeka. This farm is beautifully located and is well equipped for the business of swine-breeding. The owners have gotten together some choice blood in which is Corwin Chief, Tecumseh's 3d; Chief I Know Idius; Tiptop Jim; Tecumseh Chief;

COMBINATION SALE

OF

71--HIGH-CLASS SHORTHORN CATTLE--71

12 BULLS AND 59 FEMALES.

At St. Joseph Stock Yards, South St. Joseph, Mo.,
Thursday, August 14th, 1902.

Sale Commences at 1 O'clock.



CONTRIBUTORS.

Thos. A. Walls.....Jameson, Mo.
Geo. Manville.....Dearborn, Mo.
W. D. McKee.....Polo, Mo.
H. C. Zimmerman.....Polo, Mo.
D. Cresswell.....Braymer, Mo.
W. H. Trenchard.....Carrollton, Mo.
Geo. C. Goodbar.....Gallatin, Mo.
J. V. Goodbar.....Gallatin, Mo.
Geo. Spivey.....Jamesport, Mo.
W. L. Miller.....Jamesport, Mo.
Sam W. Roberts...Pleasant Green, Mo.
E. Upp.....Braymer, Mo.
L. C. Lawson.....Clarks, Neb.
Geo. Bothwell.....Nettleton, Mo.

There will be representative cattle from each herd.

Those wanting good Shorthorns can not afford to miss this sale.

For catalogues address

Col. H. W. Graham,
Col. R. M. Barclay,
Auctioneers.

Geo. Bothwell, Mgr.
Nettleton, Mo.

Hadley's Chief; and Tecumseh Shortstop are well represented. His herd-boar, Klondyke 26798 by Prince Imperial 25593, out of Shadybrook-Princess 53896, is a remarkably good animal. Like most other herds in the corn belt these animals are somewhat below show condition but with other breeders, the owners have learned that this very condition is productive of increased litters and a better condition of health in their herd. The objects sought by the Messrs. Pitcher in building up Pleasant Hill Herd have been to perfect a type which should have ample length of body, good bone, and early maturing qualities. These, together with the large litters secured in their herd, make it an especially desirable one from which to make purchases. We had not been previously acquainted with this herd, and were very much pleased to find the quality and blood lines that are here represented. They have a few bred sows and gilts which they can spare, as well as one or two young boars which are well worth having. Their breeders' card will be found on page 769.

All public institutions are the subject at various times of adverse criticism, and this has been peculiarly the lot of the agricultural experiment station. The excellent work done by these institutions in recent years has, however, served to remove this in a large degree. One point however, seems to be not fully appreciated by those in charge. The intention of the founders of the agricultural colleges and experiment stations, evidently, was to so word the organic law as to make them capable of adaptation to local conditions. Some stations have apparently felt it incumbent upon them to attempt to cover the whole field of agriculture in their experimental work, when what was really needed was a concentration of their energies in special work adapted to local needs. In the stock-raising States the work of animal husbandry should be prominent; in the grain-growing States seed-breeding and the development of field crops should have prominence, while in the semi-arid regions, irrigation problems are extremely important, and in the mining and manufacturing States questions in physics should have due attention. It should always be the effort of any governing board to direct the energies of its station to the solution of problems which are of local and vital interest to the State wherein the station is located. It is a matter of pride to all Kansans that the experiment station of this State has been headed in the right direction, and that a continuation of the policy outlined by Regent F. D. Coburn will land it a clever winner in its race for fame and usefulness with all like institutions.

Dunham, Fletcher & Coleman, owners of the great Oaklawn Farm, which is the home of 5,000 imported and pure-bred Percheron and French Coach horses at Wayne, Du Page County, Ill., write us as follows: "We take pleasure in announcing the safe arrival at Oaklawn Farm, Wayne, Ill., on June 28, of our second importation from France the present year, consisting of eighty-one head of Percheron and French Coach stallions and a few choice mares, brought by Mr. W. S. Dunham, who has been in France for some months. In connection, we may say that Mr. James M. Fletcher of this firm, its foreign buyer, will sail from France on July 17 bringing with him about as many more stallions. When these have arrived and are added to our already choice collection, many of which are young and growing home-bred

horses, our stables will be filled to repletion for our coming season's trade, nearly all being good, fresh animals of the high-class quality always found at Oaklawn. It is worthy of remark that our improved facilities in importing, of late years, relieve our horses of most of the fatigue incident to the old-time way which, in earlier years, left them at the end of the journey in a fagged condition which necessitated a long rest for recuperation before they were fit for sale and their work in the stud. The exceedingly long, deep draught steamers which now bring our horses across the ocean, with greatly improved accommodations, give them, even in rough weather, a comparatively smooth passage to New York, from whence they are brought in palace horse cars by express to Oaklawn Farm, Wayne, Ill., in about thirty hours. We are well pleased with our purchases for this year's importation, and will simply say that the horses are in every respect fully equal to those in our grand collection of last year with which we won such a sweeping victory at the International Live Stock Exposition at Chicago last December."

A Guaranteed Cure.
The Wilbur Seed Meal Co., of Milwaukee, Wis., makes an announcement on page 756 of this paper regarding their heave cure. Although the popular opinion has all along been that heaves cannot be cured they have clearly proved that such is not the case and present some very strong testimonials from reputable horse men proving their claims. The Wilbur Seed Meal Co. show their faith in their remedy by offering to refund your money if it does not do as they claim. This company has been in business for nearly a quarter of a century and holds an enviable reputation for honesty and fair dealing.

ALFALFA FOR FALL SOWING, SEED. New Crop; thoroughly re-cleaned, evenly graded, no chaff nor waste to pay for. Write for prices. In bushel or car-lots.
GEO. H. MACK & CO.
Garden City, Kansas.

Imperial Pulverizer, CLOD CRUSHER AND ROLLER
Leads Them All. Send for Circulars.
THE PETERSON MFG. CO., KENT, OHIO.

LIGHTNING WELL MACHY IS THE STANDARD. STEAM PUMPS AIR LIFTS. GASOLINE ENGINES. WRITE FOR CIRCULAR. THE AMERICAN WELL WORKS. AURORA, ILL. - CHICAGO - DALLAS, TEX.

The Young Folks.

Conducted by Ruth Cowgill.

WHAT ARE YOU WISHING?

Do you wish the world were better?
Let me tell you what to do—
Set a watch upon your actions,
Keep them always straight and true.
Rid your mind of selfish motives,
Let your thoughts be clean and high;
You can make a little Eden
Of the sphere you occupy.

Do you wish the world were wiser?
Well suppose you make a start,
By accumulating wisdom
In the scrapbook of your heart,
Do not use one page on folly;
Live to learn and learn to live;
If you want to give men knowledge,
You must get it ere you give.

Do you wish the world were happy?
Then remember day by day
Just to scatter deeds of kindness
As you pass along the way.
For the pleasure of the many
May be oftentimes charged to one,
As the hand that plants the acorn
Shelters armies from the sun.
—Ella Wheeler Wilcox.

The Worth of Courtesy.

Courtesy is such a little matter and yet,

"Oh, the little more and how much it is,
The little less, and what worlds away!"

An exchange writes thus truthfully
of its worth:

Courtesy is one of the rarer graces of character which many people neglect to cultivate. It is taken generally for granted that the average man will be honest, temperate, truth-loving, punctual; but it is rather assumed that beyond a few cardinal virtues which society rigorously insists upon, and a few conventional requirements which must be regarded by all who would share its smiles, character may go to seed and fray itself out in all sorts of raggedness of speech and action. Among these faults thus commonly condoned is the failure to be courteous. A man whose form and action may be perfect at an assembly is rude in a street car, and perhaps positively shabby in his speech to his clerk or "typist." A woman who is all graciousness when receiving her guests in a drawing-room is curt to her maid, and never thinks of bestowing a few kind words or even a smile on a shop girl. It would appear that some people have not manners enough to go around.

Yet much of this positive discourtesy to equals or inferiors, or what often amounts to much the same thing, want of courtesy, is due not so much to malice prepense as to sheer thoughtlessness or even in some cases bashfulness. Nothing in a small way is really so much worth while as good manners. To many people kind words are better than gold. Gold they may have or can earn, but kind words are not for sale on any social bargain counter. Many a heart is hungry for a gracious look, or a sympathetic touch of the hand; and this craving for sympathy exists among the rich as truly as among the poor. There is a moderate supply of conventional courtesy on hand, but a great want exists for this style of courtesy to which we have been referring, which is hearty, free, intelligent, tactful, and which goes out of its way to invent new ways of being gracious to its fellows. Courtesy may be an art, but if so it is the kind of art which implies the cultivation of natural aptitudes, and whose resultant is not the suppression but the supplementing of the spontaneous instincts of the heart.

For the large majority of the people whom we meet in life, we can do no great thing. The most that can be done for multitudes is to give them an appreciative word, a wise counsel or a kind smile as we nod and pass on our way. Yet every one of these social or business contracts should be prized and improved as an opportunity for some exercise of courtesy. The word or look of the moment may serve as an index of the whole character. Others can gauge us in a twinkling and we them, for better or worse. Very desirable then it is that these flashlight judgments should be favorable, because of the exhibition there afforded of the spirit of true kindness which reigns at the heart of the stranger and that such hasty interviews should be memorable because of some sign or act of courtesy by which the episode was marked. Many a soul after a chance meeting with some kind and gracious spirit has gone singing on its way, by reason of the cheer or inspiration then and there obtained. If the whole history of the world were published, many of the most touching and thrilling chapters would be composed of stories from real life, stranger than fiction, illustrating the worth of courtesy.

Lincoln's Method of Study.

Many a boy or girl of the present who bemoans his lack of opportunities for education and self-development should read the following and take courage:

After his Cooper Union speech, February 27, 1860, Mr. Lincoln visited, among other places, Norwich, Conn. The following is his answer to a question of Mr. Gulliver, in the railway train on his way back to New York:

Well, as to education, the newspapers are correct; I never went to school more than six months in my life. But, as you say, this must be a product of culture in some form. I have been putting the question you asked me to myself while you have been talking. I can say this, that amongst my early recollections, I remember how, when a mere child, I used to get irritated when anybody talked to me in a way I could not understand. I don't think I ever got angry at anything else in my life. But that always disturbed my temper and has ever since. I can remember going to my little bedroom, after hearing the neighbors talk of an evening with my father, and spending no small part of the night walking up and down and trying to make out what was the exact meaning of their, to me, dark sayings. I could not sleep, though I often tried to, when I got on such a hunt after an idea, until I had caught it, and when I thought I had got it, I was not satisfied until I had repeated it, over and over, until I had put it in language plain enough, as I thought, for any boy I knew to comprehend. This was a kind of passion with me and it has stuck by me, for I am never easy now, when I am handling a thought, till I have bounded it north, and bounded it south, and bounded it east, and bounded it west. Perhaps that accounts for the characteristic you observe in my speeches, though I never put the two things together before.

Oh, yes, I "read law," as the phrase is—that is, I became a lawyer's clerk in Springfield, and copied tedious documents, and picked up what I could of law in the intervals of other work. But your question reminds me of a bit of education I had, which I am bound in honesty to mention. In the course of my law-reading I constantly came upon the word demonstrate. I thought at first that I understood its meaning, but soon became satisfied that I did not. I said to myself, "What do I mean when I demonstrate more than when I reason or prove? How does demonstration differ from any other proof?" I consulted Webster's dictionary. That told of "certain proof," "proof beyond the possibility of doubt;" but I could form no idea what sort of proof that was. I thought a great many things were proved beyond a possibility of doubt, without recourse to any such extraordinary process of reasoning as I understood "demonstration" to be. I consulted all the dictionaries and books of reference I could find, but with no better results. You might as well have defined "blue" to a blind man. At last I said, "Lincoln, you can never make a lawyer if you do not understand what demonstrate means;" and I left my situation in Springfield, went home to my father's house, and stayed there till I could give any proposition in the six books of Euclid at sight. I then found out what "demonstrate" means, and went back to my law-studies.

Boys.

MRS. J. RIDLEY LEWIS.

"Boys will be boys," and a fine thing it is that they will be; yet at times one thinks they presume too much upon their privileges as boys, forgetting that a boy need not wait till he has attained man's stature to be manly, and that he may be a gentleman at the same time that he is a boy.

How pleasant it is to see a hearty, vigorous boy swinging briskly down the road, whistling the song of his merry heart. But for some reason this same vigor and careless lightheartedness seem not so pleasant when they come into the house with a slam of the door, a stumbling over chairs, a forgetfulness of the comfort of others. The average boy lacks one great virtue, a conception of the value of little things. It does not seem to him a matter of very great importance that he thank his mother when she does one of the innumerable little services that he requires of her; that he lift his hat with the same courtesy to his sister that he shows to some other boy's sister; that he attend to his finger-nails and teeth with the same care that he bestows upon his horse; that his manners at his mother's table, in his mother's parlor, be as polished as though he were in the presence of the President. The average boy has his ideals of what he intends to become, yet he never

stops to think that the small discourtesy, the little uncouthness, the unnoticed selfishness which he permits himself now, are all influencing the man he is to be.

Some boys are not conceited, but, like angel visitors, such boys are "few and far between." The average boy has a pretty well-planted idea that there never was a boy like him. He thinks there is very little in the realm of possibilities that he himself could not accomplish and far better than it has yet been accomplished. He sees a man breaking a fractious horse. "Ho!" says he, "He don't know how to manage that horse. I bet I'd have had him tamed an hour ago." He hears of some man's successful business deal. "He didn't get half out of that he might have," said the boy, with a superior air, "But I could tell him how," etc., etc. It is an excellent thing to have confidence in one's ability, if it is well-grounded, but self-conceit is a weak and an inglorious thing that the average boy would do well to overcome.

Truly the average boy has his faults. But let us not dwell upon them longer. We can only point them out, and leave him the task of overcoming them. Let us look now at the bright side, the side that makes us love and respect him; the side that does not keep for exhibition, the side of his strength and nobility.

There is a story of Abraham Lincoln's finding a forlorn little bird and restoring it to its nest. We have only recently heard of Theodore Roosevelt rescuing some crying baby kittens from a deep sewer when they had been cruelly left to starve. The same quality which is illustrated in these stories of two beloved Presidents, is to be found in the character of the average boy; the pitying tenderness that the strong feel for the weak. A boy will always forget to be busy in his own interest at the sight of suffering which he can relieve. The knight of to-day wears, perhaps, a broad straw hat over his freckled face, and blue overalls above his bare feet, yet in his heart beats a courage as high, a chivalry as noble, as inspired the armored heroes of old.

It has been my ill-fortune to know a few very dishonest boys, yet I think they do not represent the average boy. A boy whose soul is above deceit, whose word is absolutely trustworthy, and who would not submit to the shame of a questionable transaction, such, we like to believe, is the average American boy.

We have time to mention only one other of the boy's good qualities, out of the many more that might be mentioned. Most boys are dependable, that is, you can always feel sure that you can safely depend upon them. If a boy knows that some one depends upon him to do some piece of work, he will do it, and one need not watch him to keep him at it. If he thinks some one is depending upon him for help, for kindness, even for heroism when it is necessary he will feel his responsibility and respond nobly to your faith in him. What a grand trait of character is this, and what a miserable makeshift of a creature is a boy without it!

All honor to our boys, strong, brave, happy-hearted, young America, for with all his faults "we love him still."

"Did you ever hear the joke about the guide in Rome who showed some travelers two skulls of Saint Paul—one as a boy and the other as a man?" asked an American of a German friend, who claimed that he had acquired the real New England sense of humor.

"No," said the German, beaming in anticipation of a good story. "Tell it me at once, friend, dot joke."—Register.

If You Wear a Watch In a Factory or Shop

you should have a Jas. Boss Stiffened Gold Case in order to protect the works and lessen the cost of repairs. The Boss Case is made of two layers of solid gold with a layer of stiffening metal between. It is better than a solid gold case because it is stronger and so close-fitting as to keep out gas, smoke, dust and dampness.

JAS. BOSS Stiffened GOLD Watch Cases

are recognized as the standard the world over, and sold as such by all jewelers. The Boss is the only stiffened case in use long enough to prove by actual wear that they will outlast the 25-year guarantee. There is none "just as good." The Keystone trademark here shown is stamped in each Boss case.

Consult the jeweler. Write us for booklet.

THE KEYSTONE WATCH CASE CO., Philadelphia.



FOR THE LITTLE ONES

RAINY-DAY FRIENDS.

One lonesome day I felt so bad,
Because it rained, you see;
I couldn't go to see my friends,
Nor could they come to me.
Then mama said, "I'll make some friends
With whom you'll like to play;"
And so she folded paper up
A sort of fanlike way.

She snipped and snipped with scissors—
then
The paper opened wide
And such a lot of little girls
Before me then I spied!
They all took hold of hands, like this,
Just so they wouldn't fall,
And I made noses, eyes and mouths
(With pencil) for them all.

I gave them names, and set them in
A row on my footstool;
I played they were my company,
My sisters, and my school.
I took them boating in a pan,
And riding on the train;
We "Ring Round Rosy" played a while,
And—I forgot the rain.

We "snapped the whip" and skipped the
rope,
And played menagerie,
And mama gave up pop-corn balls
And frosted cake and tea.
Oh, dear! 'Twas such a lovely time—
The hours just flew away!
I really hope 'fore long we'll have
Another rainy day.

—Youth's Companion.

The True Story of Jack and Sarah.

Jack and Sarah were just starting out to Mrs. Nichols' Mrs. Nichols was the lady who did the washing for their mama, and they were going after it with their little red wagon.

Mrs. Nichols had three or four little black terrier dogs, and they always came out at Jack and Sarah and the red wagon, and barked and ran at them so fiercely that they expected to be bitten every time, and always thought that they had been very lucky when they escaped. They always walked up to Mrs. Nichols' house as bravely as possible, and you would not have thought they were afraid, at all, and they did not want any one to think so, either—they would have been dreadfully ashamed if you had guessed it. Indeed, they had never told each other they were afraid. But this time they were just at the railroad track that ran along half-way between their house and Mrs. Nichols', Jack, who was the younger, and the braver, said, "Sarah, don't you tell anybody, but—I'm awful 'fraid of those dogs."

"Well, so am I," said Sarah. She was glad to learn that Jack was afraid, too. "I wonder if mama won't get some other lady to do her washing pretty soon."

"I'm afraid not. Mrs. Nichols is such a good washer," Jack answered. "Let's go up just as quietly as we can, and maybe they won't know we're here till we're gone." But their little wagon was a dreadfully squeaky little wagon, and no matter how carefully Jack and Sarah walked, anybody could know they were coming, by the noisy squeak of that little wagon.

"Say, let's leave the wagon by this tree," said Jack, suddenly struck with an idea. "We can carry the basket of clothes this far."

Sarah thought this was a good idea, so they left the wagon there and went on very quietly without it, and got almost up to Mrs. Nichols' door, before the little terriers began to bark.

Mrs. Nichols came to the door and quieted the dogs. "La, children! where's your wagon?" she asked.

"Oh, we thought we wouldn't bring it so far—it makes so much noise," answered Sarah. "We'll just carry the clothes till we come to where we left it."

It was a heavy load, they found, but they trudged bravely along with it, happy that they had found a way to

keep the dogs from barking, until they came to the tree where they had left the wagon, and oh, dear! the wagon was not there.

They but the basket down suddenly and looked at each other. Where was the wagon? It was a serious question. They could not get along without their wagon? How could they play train? How could they play horse and buggy without it? And worst of all, how could they get that heavy basket of clothes home without it?

"Oh, dear, we can't ever have any fun without it," moaned Jack. "Who could be so mean as to steal a little boy's wagon?"

"Well, we'll just have to carry these clothes home—that's all we can do," said Jack. So they picked up their heavy load and trudged wearily on. When finally they reached home, after many stoppings for rest, what do you suppose they saw? Their own little red wagon! They were too much astonished to speak at first.

"Why, how did that come home?" asked Sarah. She almost thought she was dreaming.

Just then their mama came to the door and called them to come in and rest their poor tired little bodies and she said their papa was riding along the road and saw their little wagon and brought it home, because he thought they had gone away and forgotten it. Their papa thought it was a pretty good joke, but Jack told Sarah that he would rather meet the barking dogs than carry that heavy basket home again.

The Home Circle.

THE CITY OF THE PRESENT AND THE CITY OF THE FUTURE.

(Written for the Kansas Farmer.)

I will sing you a song of the Kindling-wood city,
The kind that is bulid to-day.
The houses of wood are too close together
And are likely to burn in dry, windy weather
When the far-leaping flames none can stay.

The Kindling-wood city,
The private-owned city,
The unsafe city
That is bulid to-day.

We will sing you a song of the commonwealth city
That will be bulid some day.
The bulidings shall be, without and within,
Of iron and stone—and glass and of tin
That will not soon decay.

The commonwealth city,
The public-owned city,
The permanent city
That will be bulid some day.
—Mr. M. Jenness.

The Ship of the Desert.

The story of the experiment made nearly fifty years ago to utilize the Arabian camel as a beast of burden on the arid plains of Arizona, New Mexico, and the desert plains of Colorado, is one of the many interesting chapters in the history of the Southwest. The originator and chief promoter of the project was Jefferson Davis. During the last days of the session of congress in 1851, when the army appropriation bill was under consideration, Mr. Davis, then senator from Mississippi offered a bill providing for the purchase and introduction of thirty camels and twenty dromedaries, with ten Arab drivers and the necessary equipage.

In December, 1854, Major C. Wayne was sent to Egypt and Arabia to buy seventy-five camels. He bought the first lot in Cairo and taking these in the naval store ship Supply he sailed to Smyrna, where thirty more of another kind were bought. These had been used on the Arabian deserts. They cost from \$75 to \$300 each, somewhat more than had been paid for the Egyptian lot. The ship Supply, with its load of camels, reached Indianola, Texas, on the Gulf of Mexico, February 10, 1857. Three had died during the voyage, leaving seventy-two of the herd. At first the mild submissiveness of the drivers provoked the drivers. They could appreciate the vigorous kicking of an army mule in its protest against abuse, but the spiritless dejection and the mild-eyed pensiveness of the Arabian burden-bearer was exasperating. They soon learned that in pure meanness one lone camel could discount a whole herd of mules.

The camel could travel sixteen miles an hour, which was a virtue, but when camp was struck in the evening and it was turned loose to sup off the succulent sage brush, either to escape the noise and profanity of the camp or to view the country, the beast was always seized with a desire to take a tramp of twenty-five or thirty miles before supper. While this only took an hour or two of time, it involved upon an unfor-

tunate driver the necessity of spending half the night in camel chasing, for if it was not rounded up there was a delay of half the next day in starting the caravan. The animal could carry a ton—this was a commendable virtue—but when too heavily loaded the ships of the desert collided on a narrow trail, as they always did when an opportunity offered and tons of supplies were scattered over miles of plain. As the unfortunate camel pilots had to gather up the flotsam of the wreck, it is not strange that the mariners of the arid wastes anathematized the whole camel race from the beast the prophet rode down to the smallest imp of Jefferson Davis' importation.

Whenever one of the hump-backed burden-bearers of the Orient came trotting along past a corral of horses and lifted its voice in an evening orison to Mohammed or some other Turk every horse of the caballada was seized with fright and broke loose and stampeded. At the breaking out of the civil war some thirty-five or forty of the camel band were herded at the United States forts—Verde, El Paso, Yuma, and some of the smaller posts in Texas. When the eastern forts were abandoned by the government the camels were turned loose to take care of themselves. Those at Yuma and Fort Tejon were taken to Benicia, condemned and sold at auction to the highest bidder. They were bought by two Frenchmen, who took them to Reese River, Nevada, where they were used in packing salt to Virginia City. Afterward they were taken to Arizona and for some time used in packing ore from the Silver King mine down the Gila to Yuma. Even the Frenchmen's patience gave out at last. Disgusted with their hunch-backed burden-bearers they turned the whole herd loose on the desert near Maricopa Wells. The descendants of these camels are still running wild on the deserts of southern Arizona.—Denver Field and Farm.

Ideals of Womanhood.

ELEANOR STRONG.

King Solomon should be an authority on womanhood, for he certainly had ample opportunity for observation. It is said that the perfect picture of beautiful womanhood is the one painted in his words, "Who can find a virtuous woman? for her price is far above rubies," etc. I doubt if one can find a nobler ideal than the one this wise old polygamist has given us.

Wordsworth's ideal is not far different. He says, "It was written from my heart."

"Her household motions light and free,
And steps of virgin liberty;
A countenance in which did meet
Sweet records, promises as sweet;
A creature not too bright or good
For human nature's daily food,
For transient sorrows, simple wiles,
Praise, blame, love, kisses, tears, and smiles.

"A being breathing thoughtful breath,
A traveller between life and death;
The reason firm, the temperate will
Endurance, foresight, strength, and skill;
A perfect woman, nobly planned,
To warn, to comfort, and command.

Henry Van Dyke, of modern fame writes thus:

"A woman's power avails most when it is asserted least. I take it for granted that a man and a woman are of the same worth and not of the same kind. A woman's special and inestimable value in the world lies just in the qualities which make her womanhood.

"A serene and gentle dignity, a tranquil wisdom to counsel and restrain; a fine delicacy of feeling, quick to rejoice, tender to suffer, yet patient to endure; a subtle sense of the values of small, unpurchasable things; a power of great confidence and of self-sacrifice almost limitless where love speaks the word and duty shows the task; an instinct of protection and a joyful pride in mothering the weak; a brave loyalty to the rights of the heart against "the freezing reason's colder part;" a noble hunger and thirst for harmony; an impregnable strength of personal reserve; and an exhaustless generosity of personal surrender—these are the native glories of womanhood. These are the things that life, if true and well-ordered, should deepen, unfold, brighten and harmonize in the perfection of a woman's character."

Truly it would seem that woman has no small task in living up to the ideal the man of all times has set for her.

Politics and the Experiment Stations.

We regret to note through an article in the American Agriculturist that the politicians are at work on the New York Experiment Station. Wherever politicians get hold of a station or an agricultural college the result is ruinous to the station and college. It is hoped that the New York Station will escape

from their clutches. In the same paper Mr. Chas. B. Calvert, one of the oldest members of the Board of Trustees of the Maryland Agricultural College, tells some plain truths about the management of that institution, and shows that the college, with an income of about \$100,000 has but four or five students in agriculture. This will usually be the case when the effort is made to run a college with the old time classical curriculum and a little agriculture tacked on as an excuse for getting the land scrip fund. The students in the regular college course form a caste to themselves, and in a great measure discourage the study of agriculture at such a college, by constituting themselves a superior class of beings and looking down on the "clod hoppers." The colleges of agriculture should be purely technical institutions, and not cheap colleges where young men intending to study law or medicine can get a classical education at the expense of the agricultural appropriations. The Maryland College and Station has long suffered from politics, as we know.—The Practical Farmer.

A Coronation Seat for a Fourth of a Cent.

The countries of the days of the first Edwards of the James, and of Elizabeth would probably regard with amazement and incredulity, if they could know the prices paid for good points of view for royal functions in these days. English Coronations and Sovereigns of the Past is the title of a very interesting article in the August number of Pearson's Magazine, which gives a few interesting facts in connection with these early ceremonies: "It was a comparatively inexpensive matter to view a coronation procession in the times of Henry VI, and of Elizabeth. London was not so crowded a city in those days as it is now, and people did not travel from other countries to see a foreign monarch crowned. The earliest recorded price paid for coronation seats was, in the reign of King Edward I when a few extravagant sightseers are reported to have spent a 'Q,' a coin equivalent to half a farthing, or a fourth of a cent, for a good place from which to view the pageant. After that the price of seats steadily advanced. till at the time of Queen Elizabeth it became necessary, in order to have a satisfactory view of things, to pay a tester, or sixpence. When James I was crowned the price had mounted to a shilling, and it kept creeping up with each successive coronation, till in George II's time as much as half a guinea was in some instances paid. At the crowning of George III large sums were for the first time given for the best seats, no less than 100 guineas being paid in a number of instances. This figure marked the high-water point, until the present year, for when Queen Victoria was crowned seats sold at from ten to thirty snillings, although in a few cases two guineas were paid for specially favored localities."

Sweet Cucumber Pickles.

EDITOR KANSAS FARMER.—Having noticed your receipts for canning various kinds of fruits, and especially corn, but not seeing anything in regard to pickles I write to find out if any of your subscribers can furnish me with a good receipt for making sweet cucumber pickles. I am anxious to secure a good receipt for making good sweet pickles and I wish also to learn the best and most successful way to put up ordinary cucumber pickles. A SUBSCRIBER.

Ablene, Dickinson County.
The following receipt is said to be excellent: Select small cucumbers of uniform size, and soak them in salt water over night. Scald vinegar, sweeten to taste, and spice with cloves and cinnamon. Pour over the cucumbers and can. The same method with the omission of the sugar is good for the ordinary sour pickle. Let other good housekeepers give their well-tried recipes for pickles, sweet, sour, and mixed. We can learn best by the experience of others.

A Mixed Recipe.

A fashionable young lady visited a cooking-school the other afternoon, where her attention was equally divided between a new dress worn by an acquaintance and the directions for making a cake. Upon returning home she undertook to write down the recipe for making the cake for her mother, and the old lady was paralyzed when she read the following:



**Take
A Bellows**
when you get home
with that bulk coffee
and blow the dirt and flies
and foreign substances out of it. Then
open a package of
Lion Coffee
see how clean and fresh it looks
and note its rich aroma.
The sealed package insures uniform quality.

"Take two pounds of flour, three rows of plaiting down the front, the whites of two eggs cut bias, a pint of milk ruffled around the neck, half pound currants, with seven yards of bead trimming, grated lemon-peel with Spanish lace fichu; stir well, and add a semi-fitting paletot with visite sleeves; butter the pan with Brazillian topaz necklace, and garnish with icing and passementerie. Bake in a moderately hot oven until the skirt is tucked from the waist down on either side, and finish with large satin rosettes."

Her mother said she wouldn't eat such a cake, and she thought these new-fangled ideas in cooking ought to be frowned down.—Michigan Badger.

Hot Weather Cookery.

Croquettes and patties form an important division in the class of dishes known as entrees, and the last is nearly interminable. An excellent article on this subject in the August Delineator will prove useful to housewives in its general instructions and its tested recipes. In addition will be found a variety of cold dishes for summer, and a useful article on the possibilities of apricots, and two illustrated pages of a temptingly cool dinner for hot weather.

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Twenty-five Cents a Bottle.

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Miscellany.

Nutritive Value of the Russian Thistle.
 PROF. E. H. S. BAILEY AND C. F. GUSTAFSON,
 OF THE STATE UNIVERSITY, LAWRENCE.

The attention of farmers and stock-growers has frequently of late been called to the Russian thistle (*Salsola kali*, variety *tragus*) as a dangerous weed and one to be eradicated as soon as possible; but in some sections of the State, either from lack of care or probably because the plant propagates so rapidly, it seems to be increasing. On this account it has occurred to those most interested to try to utilize the thistles till it is possible to destroy them. Some writers have claimed for the Russian thistles a very high feed value for live stock, and have indeed asserted that sheep especially are attracted to the plants on account of the large amount of salt which they contain.

Mr. J. G. Smith, who has studied the forage conditions in Australia, says of the salt-bushes, the family to which the Russian thistle belongs: "These are not cultivated plants. In many portions of Australia they have become well-nigh extinct, through the same causes that are leading to the extermination of our own native forage-plants and grasses, the overpasture of the ranges and the consequent destruction by too close feeding and by trampling. * * * This weed in its early stage furnishes good forage for sheep and cattle, and while it may be a blessing on a sheep ranch, it is an undisguised curse on the prairie-hay lands and in cultivated fields."

Secretary Wilson, of the United States Department of Agriculture, speaking of the thistle, says: "Sheep and cattle eat it readily in its young stage, but horses and hogs refuse it; no doubt they would eat it with usage. The most striking economic feature concerning it, from the farmer's standpoint, is the shortness of the time when it can be grazed by animals. It is an annual and must begin growth every spring. Observing men know that we get our first grazing from perennials, like timothy and blue-grass, or from biennials like the clovers, and winter rye that makes a rapid growth the year previous; having roots established, they send up leaves as soon as it is warm enough. The Russian thistle must start from the seed, and its growth is quite slow for several weeks, when the stock is grazing perennials and biennials."

The forage value of Russian thistles has been made the subject of investiga-

tion at the experiment stations of Iowa, Minnesota, and West Virginia. At the last-named station the investigation was directed particularly to the composition of the ashes, to determine the amount removed from the soil. The conditions on the plains of western Kansas are, however, somewhat different from those in the above-named States, so it has been thought advisable to make analyses of the plants as grown in this State, with reference to their possible forage value.

Of the samples analyzed—
 No. 4 was of green thistles, taken from where stand was thin and the plants rather coarse; cut May 23, 1902.
 No. 5 was bundle of thistle hay, as fed with success by the party supplying it; harvested in 1901.

No. 6 was a bundle of thistle hay, as used with satisfaction by the sender for feed for live stock; cut and stacked in July, 1901.

No. 7 was of green thistles, cut at the stage of growth when cattle are said to prefer them to the grazing afforded by native grasses; cut May 23, 1902.

No. 8 was a bundle of thistle hay badly discolored by heavy rains and heating in stack, but which was relished by animals as well, apparently, as other forage or the brighter hay.

It will be noted that the samples No. 5, 6 and 8 are of the hay, and Nos. 4 and 7 are of young, green plants, for grazing.

Some of the samples were slightly musty when received, but they were all thoroughly dried before the analysis was made. The moisture was as follows:

Moisture.....	No. 4. 9.49	No. 5. 10.96	No. 6. 16.92	No. 7. 13.03	No. 8. 10.74
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The analysis of the dried samples gave the following results:

	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Ether extract.....	1.59	1.36	1.79	1.79	1.59
Protein.....	20.62	12.37	11.88	19.16	9.42
Nitrogen-free extract.....	34.77	44.31	48.03	37.55	49.87
Crude fiber.....	12.92	18.98	18.11	12.21	23.58
Ash.....	30.10	22.98	20.19	29.29	15.54
Total.....	100	100	100	100	100

The ether extract is largely fat, and as such is of course valuable food. It is the custom to calculate the protein from the amount of nitrogen in the food, and the analysis given shows that this material is by no means deficient in the thistle. The comparison of the amount of protein is considered one of the best methods of comparing the values of different fodder-plants. In another table is given the comparison between this and other food plants. The nitrogen-free extract includes the soluble carbohydrates, always valuable for nutriment.

One of the interesting facts that has been noticed by previous investigators is that the ash of thistles is exceptionally high. That about one-third of the material of the dried plants, if young, should be ash, seems almost incredible. By comparison with other fodder-plants, it will be seen that the ash of the thistle is often three times as heavy.

An examination of the table shows, what has been previously noticed in plants in general, that those young and growing contain a much greater per cent of ash than the older and more mature plants. In the Agricultural Experiment Station Bulletin No. 34 of Minnesota, Harry Snyder says:

"The separate composition of the ash shows that the weed has strong foraging powers, and feeds on the best materials that are in the soil. There is a large amount of potash and lime taken up by the plant. From the small amount of silica (sand) present, the plant evidently does not feed upon the silicates, but takes large amounts of the very best materials from the soil.

"The amount of sodium, one of the elements of common salt, is large compared with the amount found in agricultural plants, but not any more than is found in the alkali plants to which it is allied. The draft which the plant makes upon the sodium is a benefit to alkali lands, but with the beneficial loss of sodium from these soils there is a serious loss of nitrogen, lime, and potash, and, to a less extent, of phosphates.

"The amount of sodium present in the plant is quite variable, indicating that the plant is capable, to a certain extent, of adapting itself to the conditions where there is a less amount of alkali in the soil. This is generally followed by a diminished vigor of growth.

COMPOSITION OF THE ASH.

Components.	Small and tender.	Thorns out.	Ripe
Total insoluble.....	1.73	2.43	3.95
Potash.....	26.82	31.21	27.36
Soda.....	9.16	4.25	12.46
Lime.....	26.37	24.55	22.39
Magnesia.....	9.95	7.66	5.56
Iron oxide.....	.88	1.01	.85
Phosphates.....	3.49	4.00	3.11
Sulphates.....	1.52	1.26	4.39

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NEW ASTRONOMICAL OBSERVATORY—The finest in the Missouri Valley.

Write for catalogue to WASHBURN COLLEGE, Topeka, Kans.

Carbonates.....	19.28	20.25	17.34
Chlorides.....	1.56
Totals.....	98.89	96.62	98.97

"From the time the thorns are out until ripe, the thistle takes up a large amount of sodium from the soil, and only small amounts of other materials. The thistle makes its heaviest draft upon the soil before the thorns are well out; after that it takes but little of the essential plant-food. To prevent the heavy draft of the thistle upon the soil, it should be destroyed while young. In the last stage of growth, the large amount of sodium taken from the soil is a benefit to strong alkali lands, but before this beneficial loss takes place there is a serious loss of nitrogen, potash, and lime. An ordinary thistle of two pounds weight, covering a square yard, will take more potash and lime

No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
9.49	10.96	16.92	13.03	10.74

gave the following results:

	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.
Ether extract.....	1.59	1.36	1.79	1.79	1.59
Protein.....	20.62	12.37	11.88	19.16	9.42
Nitrogen-free extract.....	34.77	44.31	48.03	37.55	49.87
Crude fiber.....	12.92	18.98	18.11	12.21	23.58
Ash.....	30.10	22.98	20.19	29.29	15.54
Total.....	100	100	100	100	100

than two good crops of wheat from the same area."

Because the thistle yields so much ash, this is one of the objections to its use as a fodder. The fact that it is prickly at a later stage of growth would also be against it.

In the following table there are given analyses of the Russian thistle from other localities, and that of other forage-plants for comparison:

RUSSIAN THISTLE.

	Small and tender.	Ripe.	Sample cut June 12.	Sample cut July 12.	Blue-grass.	Pea fodder.	Young Kansas thistle
Ether extract.....	3.91	3.77	2.20	1.14	2.25	3.97	1.79
Protein.....	17.78	12.34	18.46	9.11	9.67	19.84	19.16
Nitrogen-free extract.....	41.72	32.44	39.39	44.63	50.50	37.80	37.55
Crude fiber.....	16.27	37.70	17.94	30.82	29.11	28.80	12.21
Ash.....	20.32	13.75	22.01	14.30	8.47	9.59	29.29
Totals.....	100	100	100	100	100	100	100

The analysis of the pea fodder shows that it is quite similar to the young thistle, with the exception that the thistle, instead of containing a large amount of crude fiber, contains much ash, and the pea is richer in fat. The protein in the thistle is higher than in either blue-grass or pea fodder.

Taken altogether, then, it will be seen that, so far as chemical analysis is concerned, the thistle compares very favorably with other fodder. There are other considerations, however, to be noticed, as the digestibility and palatability; so a decision as to the value

Stanberry Normal School.

There will be found elsewhere in this paper advertisement of the great school at Stanberry, Mo. This is one of the pioneer educational institutions of the State and has done much to help uplift the young men and women of Missouri. There is one feature especially that we like about the Stanberry School. It is supported without a dollar of endowment, and has constructed one of the handsomest buildings in the State on a beautiful location, and surrounded its pupils with culture and refinement.

The members of the faculty have been chosen from the best colleges and universities of the country and many of them have been teaching in the school from twelve to sixteen years.

No one is ever turned away who is an earnest worker, because of finances. The school has helped hundreds of young men and women to secure an education who otherwise would never be able to go to school at all. It might be termed really an industrial school, for many of the students work for part of their expenses, and everything around the school is done by student help.

For many years the Stanberry Normal has been sustaining elective courses and permitting the students to enter at any time and to take up whatever work they choose to do. It is fair to say that no educational institution charges as low a rate for high class instruction.

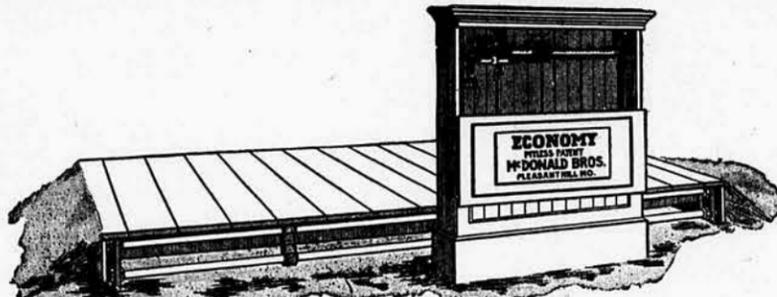
We hope the young people of this community who want an education will write to Prof. D. S. Robbins, Box 3, Stanberry, Mo., for further information concerning this great industrial school.

The dairy industry has developed with great strides in Iowa, Minnesota, Nebraska, and the Dakotas. Present conditions indicate that the limit has not been reached. Many car-loads of cream separators are shipped to farmers in these States every month. The Davis Cream Separator Company of Chicago, made a high water mark in number of machines sold to a single firm, recently. Last week, one of the oldest and largest houses in Council Bluffs, Iowa, the Pioneer Implement Co., contracted for 500 Davis Cream

Separators. That one of the oldest and largest implement houses in the country should have placed so large an order with one firm is evidence that they have perfect confidence in this separator.

Economy Pitless Wagon and Stock Scales.

We present this week an enlarged illustration of the Economy Pitless Metal-frame Wagon and Stock Scales, manufactured by McDonald Brothers at Pleasant Hill, Mo. This scale has been on the market for the past ten years, and has proved itself to be the most durable, economical, reliable, convenient, and practical scale in existence. This scale is guaranteed in every way, and no risk is taken in ordering



of the plant should not be rendered upon the chemical analysis alone, though that should certainly assist the stock-grower in forming an opinion.

As a food for man in the form of "greens" the Russian thistle is said to be occasionally used. The value of greens in general depends quite largely on the mineral salts that they contain, as this is a convenient way to introduce them into the system. There would seem to be no objection to the use of any succulent vegetable which does not actually contain poisonous substances or so much aromatic oil as to be disagreeable to the taste.

See our Atlas offer on page 1.

one; as thirty days free trial is given, and the whole matter is left to the judgment of the purchaser. If he wants to return it there will be no unpleasantness. The scale is guaranteed for a period of five years, against all defects; the workmanship and the material to be the standard of excellence. See their advertisement in another column and write for prices and full particulars, to McDonald Bros., Pleasant Hill, Mo.

We call especial attention to the advertisement of pianos on page 760 by the E. B. Guild Music Co., of Topeka, Kansas. This is probably the best opportunity that we have been able to present our readers, to secure a good piano at a good figure. The firm is old and well established in business in Topeka and will treat their customers in a satisfactory manner. By following the suggestion made in the advertisement you will receive a fine piece of music for the piano free of charge.

PIANOS

The following desirable instruments are placed on sale now at special prices, \$115 to \$175, including fine cover and stool.

- I Weser Bros.
Upright In Ebony Case
- I Keller Bros.
Upright In English Oak Case
- I Mason & Hamlin,
Upright In Fine Ebony Case
- I Royal Upright
In Figured Walnut Case
- I Marshall & Wendell
In Handsome Burl Walnut Case

In writing if you mention No. 50 you will receive a fine piece of music for Piano.

E. B. GUILD
MUSIC CO.,
Topeka, - Kansas.

WEEKLY WEATHER CROP BULLETIN.

Weekly weather crop bulletin for the Kansas Weather Service, for the week ending July 22, 1902, prepared by T. B. Jennings, Station Director.

GENERAL CONDITIONS.

A warm week, yet with the temperatures nearly normal. In the extreme western counties, the maximum temperature was over 100 degrees for two days; it was 102 degrees in Montgomery; in the central counties north of Rice it was less than 96 degrees; in Morris, Dickinson, Geary, Riley, Marshall, and portions of Washington and Pottawatomie, it was 98 degrees, while in the extreme southwestern corner it did not rise above 94 degrees.

RESULTS.

EASTERN DIVISION.

Wheat stacking and threshing from shock continue, the latter showing fair to good yields, ranging in Franklin from 30 to 40 bushels per acre; in Geary from 13 to 30 bushels; in Labette 15 to 25; in Pottawatomie from 20 to 30; and in Wyandotte 21 to 27; while in Wilson it is averaging 16 bushels per acre. Oats threshing continues, developing a yield of from 35 to 65 bushels per acre; in Nemaha much have to be mowed. Corn is in fine condition; roasting ears are abundant in the central counties and are hardening in the southern. Flax is fine, and in Crawford is being cut. Tame hay has progressed rapidly and most of it is in the stack. Prairie hay has begun in several counties and a very large crop is indicated. Potatoes are very fine, and in Wyandotte are ranging from 250 to 300 bushels per acre. The early apples are fair in Pottawatomie; apples are fine in Shawnee and promise a good crop in Morris, but are scarce in Bourbon, short crop in Cherokee, and a short crop and wormy in Woodson. The second crop of alfalfa is being cut in Marshall and is in the stack in Riley. Millet is about ready to cut and cane is making a good growth in Morris.

well, some oats lost by getting too ripe; clean corn looks fine. Shawnee.—Most of corn laid by in fine condition; crops doing well; stacking wheat and oats; tame and prairie hay good; apples and grapes fine. Wilson.—Wheat about all cut and some threshed, average 16 bushels; oats yielding 45 bushels; corn doing well; flax good; pastures and hay grass good; apples wormy and short crop.

Woodson.—Haying in progress, much hay being pressed; cutting flax; good week for corn; plums ripe, large and plenty. Wyandotte.—Wheat and oats harvested, wheat threshing begun, 21 to 27 bushels per acre, yield better than expected; haying well advanced; potatoes 250 to 300 bushels to the acre; oats all cut; crops in creek bottoms badly damaged.

MIDDLE DIVISION.

Corn is tasseling and silking in the northern counties and earing in the central; it has made rapid growth in Cloud, and is in fine condition in most of the counties, though in a few it is needing rain to keep up the growth. Wheat threshing continues, averaging 5 bushels per acre in Barton, 16 in Clay, 10 in Harper and Salina, and in Ellsworth a lighter yield than expected. Oats threshing is progressing, yielding from 40 to 60 bushels in many fields. The second cutting of alfalfa is progressing in several counties and is finished in several, a good crop. Apples are a good crop in Washington, but are falling badly in Jewell. Grapes are a good crop in Washington. Potatoes are good in Washington, but are rotting in low grounds in Smith. Gardens are good in Washington. Grass is very fine, promising the best hay crop in several years. High winds and temperatures have caused some damage to crops in Pratt.

Barton.—Threshing out of shocks, stacks too wet; wheat average 5 bushels per acre; early corn in roasting ear, late somewhat damaged by wind and dry weather; haying about over; too dry for plowing.

Clay.—Threshing wheat and oats; wheat poorer in quality than expected, test 50 to 55 pounds, yield 15 to 17 bushels, sprouted and bleached; oats bleached, 45 to 50 bushels per acre; hay crop fine; second cutting alfalfa good.

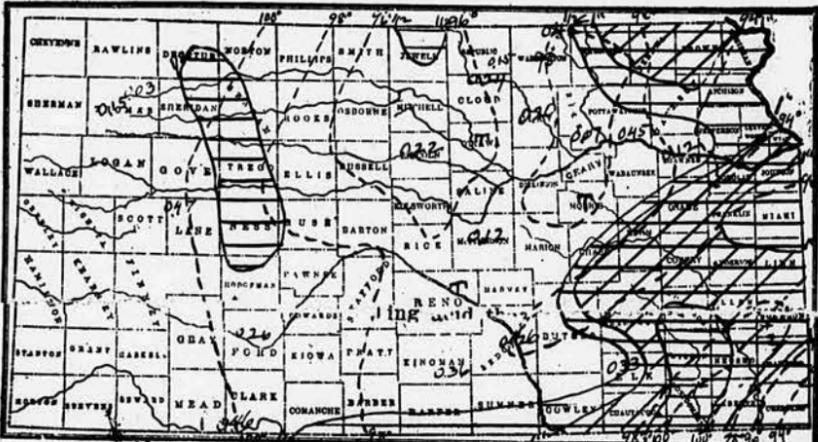
Cloud.—Good growing week; threshing begun with poor yield; corn growing rapidly; second crop alfalfa cut.

Dickinson.—Threshing season well opened; wheat 10 to 15 bushels per acre, oats 50; corn well set; abundant pasturage.

Ellsworth.—Dry, hot week; threshing commenced, yield much lighter than expected; corn and feed doing well.

Harper.—Threshing delayed by showers; fall

For Week Ending July 19.



MAXIMUM TEMPERATURES FOR WEEK SHOWN BY BROKEN LINES.

SCALE IN INCHES.

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

best cattle being marketed; forage crops doing finely; hay crop never better; corn very promising.

Cherokee.—Crops doing well; apples a short crop; peaches about one-fourth crop or less.

Coffey.—Threshing stopped by rain of 18th; corn doing nicely; hay crop very heavy; flax and oats fine, but too much rain.

Crawford.—Threshing retarded by rain; plowing for wheat begun with ground in fine condition; much corn in roasting ear and doing well; good flax crop being harvested; tame hay, clover, and timothy mostly cut; oats in shock wet.

Douglas.—Remarkable growth, except on some flooded bottom lands.

Elk.—Good week for handling flax and hay; rain sufficient.

Franklin.—Much haying and threshing done; oats 50 to 60 bushels per acre; wheat 30 to 40, quality good; meadow grass also yielding exceptionally well; rain fine for corn and pastures; corn in fine condition, some in roasting ear.

Geary.—Oats 35 to 65 bushels per acre, quality good; wheat average about 17 bushels, grains generally shriveled and bleached by rain; corn fine, early in roasting ears.

Jackson.—Much hay stacked first of week; some wheat threshed, mostly poor; much oats had to be mowed, some too badly lodged to save.

Jefferson.—Fair week for stacking grain and haying; roasting ears plentiful; much corn destroyed by floods.

Johnson.—Fine week for corn; crop doing nicely.

Labette.—Good week for threshing; wheat yield 15 to 25 bushels per acre, oats 40 to 50; corn promising large yield; some feeding early corn to hogs.

Leavenworth.—Harvest done; threshing; timothy gathered; growing crops fine.

Marshall.—Grain crop slightly injured in north, badly damaged in south part of county by rains, yield in north better than expected; corn fine; alfalfa being cut, good second crop; pastures good; some potatoes rotting; wild hay crop will be large.

Montgomery.—Favorable for finishing wheat and flax harvest and threshing; corn in fine condition, well eared; soil thoroughly soaked.

Morris.—Warm, dry week; corn making good progress, in silk and tassel; some wild hay being cut, extra crop; millet about ready to cut; Kafir and cane making good growth; oats not as good as expected; potatoes very fine; apples promise good crop.

Nemaha.—Fine week for corn, ears good, late ready to tassel; heavy hay crop promised; much oats on ground and must be mowed, mostly shocked and being stacked; wheat being stacked and threshed, much spoiled in shocks.

Osage.—Corn in fine condition; all crops doing well.

Pottawatomie.—Wheat threshes 20 to 30 bushels per acre, quality good; oats 40 to 60 bushels of excellent quality; green corn plenty; potatoes of best quality abundant; prairie hay fine; pastures good; plenty of early apples, fair.

Riley.—Second crop of alfalfa a good yield, spring sowing good; wheat and oats turning out

plowing begun; wheat making about 10 bushels, oats 40 to 60; corn in excellent condition.

Jewell.—Wheat harvest over and oats nearly cut; oats generally fine, but some rusting and falling down; early corn tasseling and silking; good second cutting alfalfa ready to harvest; apples falling badly.

Kingman.—Threshing proceeding, somewhat retarded by rains; wheat not yielding up to expectations of some; oats very good; corn in fine condition, tasseling and silking.

Lincoln.—Wheat almost total failure, that cut very poor quality; heavy second crop alfalfa being cut; corn and all other late crops doing nicely; cattle in fine condition, but flies bad.

McPherson.—Threshing progressing nicely; plowing begun, rain needed to soften ground; corn in good condition.

Ottawa.—Second crop of alfalfa heavy; wheat and oats harvested and threshing begun; quality of wheat poor and yield light, oats a fair crop; corn doing nicely, but will soon need rain.

Pratt.—Hot, windy week, damaging corn and Kafir corn; too dry to plow; threshing in progress.

Republic.—Oats badly lodged and somewhat rusted, and fields mirey, but crop mostly shocked and threshing begun; late corn being cultivated, early tasseling; corn will soon need rain.

Rice.—Corn looks well, but needs rain, forming ears and tassels; threshing begun, wheat poor; second crop alfalfa stacked in good condition.

Russell.—Good week for cultivating; weeds rank and sapping moisture; rain needed.

Saline.—Grain stacked and being threshed; wheat 6 to 15 bushels per acre, except new ground which is better; second crop of alfalfa about all in stack, some to be left for seed; corn doing well.

Sedgwick.—Oats being threshed, but work delayed by rains; corn making fine growth; hay best in years.

Smith.—Good growing week; corn doing well; wheat harvested; good crop of oats ready to cut; second crop alfalfa being cut; pastures good; potatoes on low ground rotting.

Stafford.—Ground becoming dry; corn needs rain.

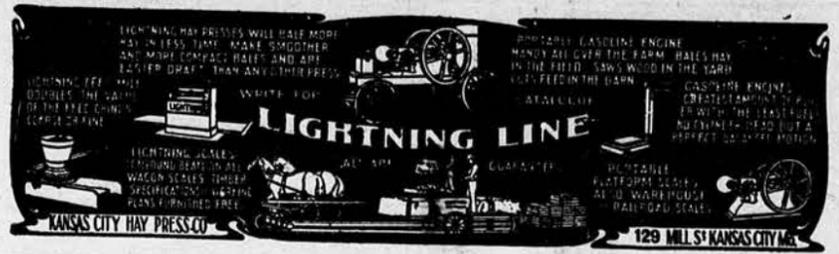
Washington.—Wheat and oats harvested, latter injured by rust; corn in tassel and silking, cultivating about finished; potatoes and garden truck good; grapes and apples good crops.

WESTERN DIVISION.

Corn was damaged some in the central and northern counties by the high temperature the early part of the week, but greatly benefited by the cool weather the latter part. Wheat harvest is about over and threshing begun; the crop is good in Graham, and is yielding from 10 to 40 bushels per acre in Norton. Oats and barley are harvested in Ford. Grass is good in the central and southern counties, but is drying up in Decatur and is dry in Gove. Forage crops are good in general but are "blistered" in Trego. Cattle are in good condition.

Clark.—Good weather for everything.

Decatur.—Harvesting practically completed, threshing in progress; corn somewhat injured by hot weather during week, pastures drying up rapidly.



Ford.—Wheat, oats, and barley harvested; corn and fodder look fine; prairie grass very good, and cattle in fine condition; third crop alfalfa will be ready to cut by first of August.

Gove.—Good rains in eastern part of county; west and central very dry; corn injured; grass dry.

Graham.—Threshing in progress; wheat good; forage crops doing well; crops look well; grass-hoppers bad in places; stock doing nicely.

Lane.—Second crop alfalfa in stack; corn burning slightly; stock doing well.

Ness.—Harvest practically over, but threshing delayed by grain being wet; corn in silk and tassel, doing nicely; forage crops fine; potatoes good, some rotting; alfalfa making good growth and nearly ready for second cutting; flax good; pastures fine and stock doing well.

Norton.—Harvest ended, threshing begun; yield 10 to 40 bushels of mostly No. 2 wheat; second crop alfalfa being cut; rains local and light.

Thomas.—Corn injured by hot winds first but benefited by cool weather last of week; cultivating cane and Kafir, cane showing heads; threshing begun, good berry; plowing begun.

Trego.—Second crop alfalfa almost in, some cutting third crop; feed crops blistered and corn on weedy and hard ground injured by hot winds on the 16th and 17th.

Publisher's Paragraphs.

In these days of keen competition, competent and trained people are in demand and command the best wages. Before entering upon any field of life work the young man or young lady should not fail to properly equip themselves, and in this connection we wish to call special attention to the Kansas Wesleyan Business College of Salina, Kansas, whose announcement appears on page 759. T. W. Roach, the general superintendent of this department of that splendid educational institution will give anyone desiring any information full particulars.

The New Dollar Wall Atlas which is being furnished by the subscription department of the Kansas Farmer, is the most popular inducement ever offered. To new subscribers we send the Kansas Farmer the remainder of 1902, and the Atlas for only 50 cents. To old subscribers who wish to renew and extend their paid subscription one year and send one new subscriber, for one year, also receive a copy of the New Wall Atlas the entire combination costs only \$1.25. This is an unparalleled offer, which gives three dollars of value for only \$1.25 and should induce every reader to circulate the Kansas Farmer.

One of the infant industries of Kansas is the manufacture of gypsum. Great beds of this mineral are known to exist in Riley, Marshall, Harper, Sumner and Barber Counties, which is of the purest quality. From this mineral is manufactured plaster of Paris, land plaster, "staff" for temporary and exposition buildings, as well as wall plaster. It is being adopted by manufacturers for various purposes and has been found superior to lime for wall plaster on account of its hardness and finish. Large manufactories are established in Marshall County where thick veins exist, but the mass of gypsum now in sight in the State will warrant a tremendous increase in the capacity of these factories, provided a suitable market is afforded. With the growth in variety of uses to which this valuable mineral can be put there is every reason to believe that it will yet prove to be one of the most valuable of the underground resources of the State.

One of the leading colleges of the West is Washburn College of Topeka. It has always been a popular and high-class institution and has turned out many students who have become prominent in their respective lines of work. Washburn College to-day is especially well equipped. One of the new features is the \$50,000 astronomical observatory which is nearly completed. The Kansas Medical College has made arrangements to unite its interests and hereafter will be known as the Medical Department of Washburn College. This week the new head of the college, President Flass and family will arrive in Topeka and take up their residence here. We have no hesitation in recommending Washburn College to the bright and ambitious youth of Kansas. Don't fail to see their advertisement on page 760 of this week's Kansas Farmer and write them for particulars. Be sure to mention the Kansas Farmer.

Kansas maintains her reputation for excellence in everything she undertakes. It is a part of her history that she is always at the top. This is especially noticeable in the quality of the pure-bred herds of cattle, hogs, and horses that she raises. It is also noticeable in the ability with which she makes the quality of these pure-bred animals appreciated and in the demand that has been created for them. With the growth of the great live stock breeding industries has grown a corresponding demand for thoroughly trained and well equipped live stock auctioneers to aid in their sale at profitable prices. Among the men who have attained distinction in the breeders' world as one who fills all of the requirements of an up-to-date and thoroughly capable live stock auctioneer, Col. J. N. Harsberger of Lawrence is one of the best known and highly appreciated auctioneers in the State. One of the great advantages which Col. Harsberger pos-

sesses, and which has contributed in a marked degree to his success in his chosen field of action, is the fact that before he became an auctioneer he was himself a breeder of pure-bred stock. The writer has known him since boyhood and has a thorough acquaintance with his integrity and reliability, and with the success which attended him in his former occupation of breeder and feeder of pure-bred live stock, and he doubts if there is any man who entered the field as live stock auctioneer in the West, who was so thoroughly equipped for this business, as was Col. Harsberger when he began it. With the progressive instincts which have characterized him all his life, he has maintained his character as a student of pedigrees, as well as of individual animal excellence through all his years of later experience. He is especially strong in the sale ring where cattle and hogs are to be disposed of and he has the merit of beginning his work for his employer from the moment his services are engaged. He is a splendid advertiser for all sales at which he presides, and loses no opportunity to personally urge buyers to be present. While in the sale ring he has earned the well merited reputation of being able to get the full value of the stock offered. While we have not seen him personally of late, we understand that he has a few open dates which can yet be secured by those who need his services and who will write him promptly.

The Colorado Flyer via Santa Fe.

A Convenient Train for Summer Tourists.

Composite Car, Palace Sleepers, Free Chair Cars, Observation Sleeper, Cafe Car between Colorado Springs and Denver. DAILY, BEGINNING JUNE 1.

Leave Topeka 8.35 p. m. Arrive Colorado early next morning. This train is in addition to the Colorado Express leaving Topeka 11.50 a. m., and arriving Colorado following morning, and carrying free Chair Cars, Pullman Sleepers and Observation Car. Reduced rates to Colorado and Utah daily from June 1 to September 15. For particulars and copy "A Colorado Summer," apply to T. L. KING, Agt., Topeka. T. M. JAMES, P. O. Building North Topeka.

Protect your calves against Black Leg with BLACK-LEG=INE PASTEUR VACCINE CO., CHICAGO, NEW YORK, FT. WORTH, SAN FRANCISCO.

Grange Department.

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

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

NATIONAL GRANGE.

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

KANSAS STATE GRANGE.

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

Cooperation.

Following is a condensed history of the Johnson County Cooperative Association and the Patrons' Cooperative Bank together with a few figures showing the reliability of the institutions:

JOHNSON COUNTY COOPERATIVE ASSOCIATION.

The Johnson County Cooperative Association, located at Olathe, Kans., feels proud of its success during the past twenty-six years.

The Johnson County Cooperative Association was practically organized June 20, 1876, and commenced business July 27, 1876, at which time the stockholders numbered eighty-one and the amount of stock subscribed was \$800, issued in shares of \$5 each.

The association was named The Johnson County Cooperative Association, and the secretary was authorized to obtain a charter from the State for ninety-nine years with an authorized capital of \$20,000. A store room was rented and Mr. H. C. Livermore, of Lawrence, then an employee in a Grange cooperative store in that city, was employed as manager, and with the assistance of one clerk, the store, in which the stock was confined to groceries, was opened July 27, 1876.

The rules for the government of this association adopted at that time were taken from the Rochdale system of cooperation and compiled by a committee appointed by the National Grange, and are practically the same to-day with the exception of the rule in relation to capital stock, which, by action of the Kansas legislature, enabled this association to increase its capital stock from \$20,000 as named in the charter to \$100,000. This special legislation does not apply alone to the Johnson County Cooperative Association, but to all cooperative associations in Kansas.

The business of this association, opened with groceries alone, soon increased beyond the expectations of the most sanguine, when a dry goods department was added, as the demands of the business increased, a clothing department with gents' furnishing goods was added, and then hardware and farm implements.

In the spring of 1884, by an action of this association, a printing department was established, which publishes "The Kansas Patron, a weekly newspaper devoted to the interests of the Order of Patrons of Husbandry. It was selected as the organ of the Kansas State Grange, and while advocating the best interests of agriculture and the Grange in Johnson County and the State of Kansas, is the champion of Johnson County's Cooperative enterprises.

At the semi-annual meeting of the stockholders of this association held January 12, 1886, an action was taken, setting apart one-half of the net profits of the business of the association to a surplus fund. This action was continued in force until the surplus fund reached \$28,000, when the action was repealed. The establishing of this fund is one of the strongest features of this co-operative enterprise and placed the business on a solid foundation. The British Cooperator recommends that in the establishing of a cooperative association of this kind, that at least a small per cent of the net profits, be always placed to a surplus fund.

Long before the first ten years of the existence of this association had passed, it had out-grown its old quarters and the question of a new building was agitated. The agitation resulted in the erection of a new building on the east side of the public square, 118 by 120 feet on the ground, three stories high. The entire ground floor is used by the association in business—being divided into four departments.

In the summer of 1901, the portion of the building originally intended for an opera house, was completed. The opera house is modern in every way, handsomely decorated, and one of the finest in the state of Kansas. It has a seating capacity of 900.

In addition to the central store located at Olathe, the county seat of Johnson County, there are four branch stores located in the county at Stanley, Gardner, Edgerton, and Prairie Center. At each of these branches the stock of goods will average about \$8,000. It also owns its store building at each of the places.

In conducting this great business it has thirty employees, under the immediate supervision of the business manager.

This cooperative association for the distribution of supplies is not an experiment any longer, its twenty-six years of success has made it permanent, and the confidence of the people perpetuates it. Its authorized capital of \$100,000 is all paid up, and its surplus fund of \$28,000 is a guarantee of its solidity. Its stockholders' meetings are held semi-annually, at which time the officers are elected. The inventory, audits, and settlements are made quarterly. The average increase of sales has been \$10,000 per annum. Its system of business is thoroughly established. It is not dependent on any individual, or an aggregation of persons for its present and future.

Mr. Livermore, the efficient business manager, assumed his duties when the association was started, and will probably be continued until he resigns or dies. Mr. Jessie Nichols, who has been elected annually to the position of treasurer for nineteen years, will probably be continued as long as he will accept the place. Other employees have grown up with the business of the association. The annual business of the association amounts to over \$260,000.

As this write up appears a little early we can not give the regular semi-annual statement for the present term which closes July 31, 1902.

Therefore we produce the last statement, which is as follows:

One-hundred and First and One-hundred and Second Quarterly Report of the Johnson County Co-operative Association.

AUG. 1, 1901, TO FEB. 1, 1902.

Capital stock.....	\$100,000.00
Surplus fund.....	28,000.00
Total.....	\$128,000.00

Av. Daily Sales.		Monthly Sales.	
August.....	\$1,259.87	August.....	\$34,016.36
September.....	875.48	September.....	21,887.02
October.....	888.57	October.....	23,991.46
November.....	883.13	November.....	23,311.18
December.....	807.29	December.....	20,300.26
January.....	675.25	January.....	17,322.54
Total.....	\$140,328.92	Total.....	\$140,328.92

PROFITS.

Profits on sales, 101st quarter.....	\$ 8,653.82
Profits on sales, 102d quarter.....	8,868.78
Total.....	\$17,522.60

Interest on money invested.....	\$4,000.00
Clerk hire etc., 101st quarter.....	4,682.54
Clerk hire, insurance, taxes etc., 102d quarter.....	5,255.71
Total expenses and interest.....	\$13,938.25
Net dividends.....	\$3,584.35

DIVIDENDS.

Per cent rebate to stockholders, 101st quarter.....	.07
Per cent rebate to Patrons, 101st quarter.....	.035
Per cent rebate to stockholders 102d quarter.....	.06
Per cent rebate to Patrons 102d quarter.....	.03

E. Clark,
G. L. Collins,
Auditors.
W. H. Zimmerman,
J. W. Robinson,
C. Page,
I. D. Hibner,
J. F. Hastings,
Geo. Black,
Invoicers.

THE PATRONS' FIRE AND TORNADO ASSOCIATION.

Gardner, Kans., July 1, 1902.

SECRETARY'S STATEMENT.

Total risk Jan. 1, 1902.....	\$1,857,000.00
Total risk July 1, 1902.....	2,014,250.00
Net gain during the six months.....	157,240.00
Cash in treasury Jan. 1, 1902.....	3,128.95
Collected from premiums during the six months.....	1,705.28
Paid on losses during the six months.....	1,333.52
Paid on all other expenses during the six months.....	401.35
Total expenditures during the six months.....	1,734.87
Balance in treasury July 1, 1902.....	3,099.36
Average risk carried during the six months.....	193,560.00
Cost on each \$1,000 during the six months.....	.90
This would be a 5-year rate on \$1,000 of.....	9.00
Old Lines' lowest rates on \$1,000 are for 5 years.....	17.50
We therefore have saved to our company in six months.....	1,644.75
No. of losses during the six mo.:	9
Fire loss.....	\$724.85
Tornado.....	549.00
Lightning.....	59.67
Total.....	1,333.52

We have now been doing business for twelve years and six months, have collected in premiums and assessments from our members, \$27,987.93 and have paid out in expenses and losses, \$24,888.57, leaving a balance in our treasury of \$3,099.36. During this time we have paid 147 losses, and yet have made but four assessments. Eighty-three per

A CROSS WOMAN

is a disagreeable creature to live with; the trouble is in the stomach and bowels. She needs

Prickly Ash Bitters

THE SYSTEM REGULATOR.

This great remedy removes at once the bilious impurities in the system, cures constipation and strengthens digestion. A few doses make a wonderful change; the tired, pale, nervous, despondent woman becomes strong and happy, with rosy cheeks and cheerful spirits.

PRICE, \$1.00 PER BOTTLE.

AT DRUG STORES.

cent of all monies received have been paid on losses, leaving but 17 per cent for running expenses, making a record for economy heretofore unknown in the history of insurance. Our success has largely been due to our economy, our promptness and fairness in adjusting losses, and our careful business methods.

We have saved to our members no less than \$8,000 as can be easily demonstrated by a comparison of rates, for our cost has averaged just \$10.35 on each \$1,000 for every five years, while old line rates during the same period has varied from \$15 to \$22.50 or an average of \$18.75 on like property. This has been a saving of \$8.40 on the \$1,000 for every five years, and since our average risks has been \$1,032,000 it means a saving to our members of \$8,668. After nearly thirteen years of business history we come before the farmers, not with theories but with demonstrated facts, and ask them if it does not pay to join the Grange, even if there were no other advantages to be gained therefrom save economy in their insurance.

I. D. HIBNER, Secretary.

TREASURER'S STATEMENT.

RECEIPTS.

Balance in treasury Jan. 1, 1902.....	\$3,128.95
Jan. 31, received from secretary.....	222.73
Feb. 28, received from secretary.....	133.02
March 31, received from secretary.....	228.07
April 30, received from secretary.....	369.44
May 31, received from secretary.....	397.11
June 30, received from secretary.....	354.91
Total.....	\$4,834.23

DISBURSEMENTS.

Paid on orders during January.....	\$ 704.80
Paid on orders during February.....	34.79
Paid on orders during March.....	34.01
Paid on orders during April.....	32.00
Paid on orders during May.....	370.45
Paid on orders during June.....	558.82
Total.....	\$1,734.87

Balance in treasury June 30, 1902..... \$3,099.36
SAMUEL McPHERSON, Treasurer.

THE PATRONS' COOPERATIVE BANK.

In the year 1883 the farmers of Johnson County, after losing heavily by the failure of the Harris Bank, conceived the idea of organizing a bank among themselves; not so much with a view of making large profits as for the purpose of affording them a safe and reliable place to deposit their money and to do their business and with this end in view they confined its management to a board of directors composed of leading farmers of the county. They started with a paid-up capital of \$5,000 and with Mr. W. H. Betts as cashier which position he still holds. G. T. Goode was selected as assistant cashier in 1892 and is still with the bank.

The business prospered and the capital stock was gradually increased to \$50,000 and to afford still greater security to its depositors, they in addition, created a surplus fund of \$20,000 which they intend to still enlarge. As a safe-guard its by-laws require the directors to meet once every month to count the cash, check up the notes, etc., which we hardly think is done as often and as regularly by another bank in the State. The stock is held by the leading farmers of the county, who in case of failure, are responsible to its depositors in double the amount of their stock, then adding that additional security to those doing business with them. A good portion of its loans are secured by mortgages on the choice lands of Johnson County, than which no better security can be offered. At the last meeting of the directors on July 3, they declared a dividend of 5 per cent for the last six months and added \$3,000 to surplus fund. Their books now show deposits of \$276,436.55; loans of \$217,049.70; with cash and

sight exchange \$123,150.46; with bonds, real estate, furniture, fixtures \$10,127.69. It is under supervision of the State bank examiner and stands in financial circles among the leading banks of the State.—Kansas Patron.

National Grange Statement.

Following is a statement of new granges organized and granges reorganized from October 1, 1901, to June 30, 1902, both inclusive:

California.....	5	N. Hampshire.....	6
Colorado.....	1	New Jersey.....	1
Illinois.....	1	New York.....	19
Indiana.....	8	Ohio.....	21
Iowa.....	2	Oregon.....	16
Kansas.....	3	Pennsylvania.....	11
Maine.....	1	South Carolina.....	3
Maryland.....	1	Texas.....	1
Massachusetts.....	1	Vermont.....	7
Michigan.....	2	Washington.....	10
Minnesota.....	8	Total.....	226

Granges organized from October 1, 1900, to June 30, 1901.....163

Granges reorganized from October 1, 1901, to June 30, 1902:

Delaware.....	3	Missouri.....	1
Illinois.....	1	New Jersey.....	2
Indiana.....	2	Ohio.....	5
Kansas.....	4	Oregon.....	4
Kentucky.....	5	Pennsylvania.....	3
Maine.....	10	South Carolina.....	2
Massachusetts.....	3	Texas.....	2
Michigan.....	11	West Virginia.....	8
Minnesota.....	1	Wisconsin.....	1

Total..... 68
Granges reorganized from October 1, 1900, to June 1, 1901.....58

Faithfully yours,
JOHN TRIMBLE,
Secretary National Grange.

They Got the Shell.

A story from which might draw several morals was recently printed in the New York "Times." It may suggest, at least, the wisdom of thinking twice before consulting a lawyer when there is a little at stake.

The two men were ushered into the private office the other day, and stood in silence before the lawyer.

"Well?" said he.

"You ask him," urged one of the men, in a hoarse whisper.

"Wait a minute," counseled the other. "Maybe he'll guess it."

"Come, come, gentlemen, my time is valuable," interrupted the lawyer.

"We are twin brothers," chorused the two, "and we thought you'd have guessed it."

"Is that all?" asked the lawyer, severely.

"No," continued one of the strange pair. "We want to ask you a question. A relative died a short time ago. We were his only heirs. He left a paper, saying that his oldest surviving relative was to have all his property; but neither of us is the oldest. So what are we going to do?"

"How much did he leave?" asked the lawyer.

"Seven dollars?" cried both in concert.

"Divide it," said the lawyer.

"What is your fee?" asked one.

"Seven dollars."

The two men paid the fee between them, and departed, relieved of a great mental burden.

"De man dat gits along," said Uncle Eben, "is de man dat ten's to business, 'stid o' showin' off his knowledge. Ef Noah had sot aroun' de grocery st' talkin' 'bout de drouth, he woulnd' of had no ahk ready when de freshet come."

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In the Dairy.

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

Plan for Fall Pasture.

After the recent rains we little think there is any danger of shortage in pastures, but very few summers go by when there is not a dry spell sufficient to cause considerable shrinkage in the pasture crop. For the greatest profits in dairying we want to keep our cows on pasture as late in the season as possible, and get them on as early as possible the following spring. Now is the time to think about wheat or rye pastures. Both of these crops are highly recommended by dairymen who have tried them. The best wheat pasture is made from seeding soft wheat. Wheat does best on firm soil; therefore plow as early as possible, preferably in July. Although in many places we have had much more water than we needed the last few weeks, we have no assurance that we will have plenty the latter part of the summer and early fall, and it behooves us to save all we can store in the soil. Maintaining the soil mulch (which incidentally kills the weeds) on the land intended for wheat or rye will do much to insure bountiful pastures next fall.

To-day would be a good time to reflect a little, consider what part of the farm can best be reserved for fall pasture, where the soft wheat or rye can be procured and where stored ready for the seeder the first day conditions are right for seeding. For fall pasture and where there is not too much danger from the Hessian fly it is generally recommended that the seeding be done from the middle to the last of August. A little exercising of the brain at this season of the year will more likely mean a fuller pocketbook next fall.

D. H. O.

Clean Out the Lice.

G. C. WHEELER.

Our domestic animals are all more or less liable to be infested with lice, several species being peculiar to each kind of animal. It is difficult to say exactly how much harm is done by these parasites, but one can easily notice the unthrifty appearance of such as are badly infested with them. It is especially noticeable in chickens and young calves and the young of all animals. We never find sleek and growing calves furnishing a living for any considerable number of lice and it is for our best interest to make the condition for rapid, vigorous and healthy growth as favorable as possible. We should by all means see that our calves are not harboring hordes of these blood-sucking vermin.

The writer finding the young calves under experiment by the Dairy Department at the Kansas College very lousy decided to try Zenoleum to destroy them. It was used in proportion of one part Zenoleum to thirty parts water and applied with a sponge thoroughly wetting the skin. It was found that the lice had all been killed and no bad effects upon hair and skin were noticed. The nits or eggs which are usually deposited around the ears or horns or neck were not destroyed however and a second application is necessary about ten days later in order to catch the lice produced from them.

At the same time the Zenoleum was used we cleaned out the mangers and swept all the dust and cob webs from the sheds occupied by the calves and gave them a thorough white washing inside. We are very well pleased with the results from the Zenoleum application and would not hesitate to recommend its use. If very large numbers are to be treated it would pay to have a dipping tank. The calves fed at the

college the past winter were freed from lice by bowing tobacco dust into the hair with a bellows, it being undesirable to have the calves wet during cold weather.

Whatever means is used, however, it will certainly pay to clean out the lice from all animals.

What We Mean by the Souring of Milk.

J. W. FIELDS.

Milk naturally undergoes a change known as souring, if allowed to stand for several days at ordinary temperature. This is due to the formation of lactic acid, which is produced by the decomposition of the milk sugar, an exact division of one molecule of sugar into two molecules of lactic acid. The milk sugar is converted into the dextrose from which the lactic acid is produced. While the change is well nigh universal, it does not occur without a preexisting cause, and that is the presence of certain bacterial forms. These organisms develop in milk with great rapidity, and the decomposition changes that are noted in souring are due to the by-products of their development.

The milk sugar undergoes fermentation, the chief product being lactic acid, although various other by-products, as other organic acids, (lactic, formic and succinic), different alcohols and gaseous products as carbon dioxide, hydrogen, nitrogen and methane are produced in small amounts.

In this fermentation, the acidity begins to be evident to the taste when it reaches about 3 per cent, calculated as lactic acid. As the formation of acid goes on the casein is precipitated and incipient curdling of the milk occurs. This begins to be apparent when the acidity is about 4 per cent, but the curd becomes more solid with increasing acidity. The action of the bacteria is continued until about .8 to 1 per cent acid is formed, although the actual amounts fluctuates considerably with different organisms. Further formation then ceases, by reason of the inability of the lactic acid germs to continue their development in such acid solution. There is always left in the milk a considerable amount of unfermented milk sugar which can be further acted upon by the continued growth of the bacteria if a carbonate is added to the milk to neutralize the developing acid that inhabits their growth.

Providing Feed for Winter.

H. V. NEEDHAM AT TONGANOXIE FARMER'S INSTITUTE.

You all know what the old man told his boy about getting money and I would say to every dairyman, "Get clover and alfalfa, by all means get plenty, and secondly get more clover and alfalfa." Not every man can get a silo at once, but get one as soon as possible; run your old wagon a while longer and get a silo.

Cut your hay and corn fodder earlier and sow plenty of rye and wheat for pasture, no matter if you have to plow it all under in the spring for other crops. Do these things and your check will never grow less. If you want to know more about the profits of rye and wheat pasture, ask my neighbors who have tried it. The bran bill has not given these men the nightmare and they have each made more money from their cows than ever before.

My own experience as to the bran bill was very satisfactory as long as my clover lasted. With one feed of silage, one of Kafir-corn or sorghum and one of clover, my cows averaged from five dollars to six dollars per month, each. One month I fed less than \$7 worth of bran. I have milked from seventeen to twenty cows the most of the time eighteen, and my milk yield has averaged nearly 9,600 pounds per month for the last five months, and is now running at the rate of 10,200 pounds besides feeding one calf, but

since the clover is out, the bran has increased to about 5 pounds per cow per day.

Selecting the Foundation Stock.

C. H. CLARK.

If we look about us we will see that the greater part of our dairy products are from common and grade cows and that the pure-blooded animals are too few and too high priced to be largely used as milk producers. So we conclude that the best use to which they can be put is the grading up of the common stock.

Among the common milch cows, of no particular breed or grade, there is a vast difference as to the quantity and quality of milk and the duration of the period of lactation. The first step, then, in building up a dairy herd is to select such of these as will, at least, pay for their feed and care, pay a fair rate of interest on this first cost and leave a net profit large enough to pay off the principal by the time they are past usefulness. This foundation stock will necessarily be chosen from such indications of merit as can be found upon a somewhat hasty examination. A thorough knowledge of dairy form and temperament will be of advantage here as well as in the selection to be made later.

Results from a Little Money Invested in a Pure-bred Dairy Sire.

Friends who have been reading the FARMER for some time will remember, doubtless, that our son Robert keeps a dairy on our place now. He started with common cows, that is, such as he could pick up at a low price in the fall. No extra money was put into the business, except to purchase a pure-bred sire. He now has a fine registered Holstein. He has raised some calves every year from the best cows. A record has been kept of what each cow gave, so as to know which were the best, no guess work about it. As the half blood came into the milk the original cows were sold off, from time to time, the poorest first. He has only black and whites now. The oldest cow of his raising is now five years old and probably at her best. He has but one of that age. The others are younger and not up to their best yet. This five-year-old gave 7,427 pounds of milk the first year, as a two-year-old. She was only dry seventeen days before she started in fresh as a three-year-old and gave 8,163 pounds the second year, and over 9,000 pounds the third year as a four-year-old. This season, a five-year-old, she started out better than ever, decidedly, actually giving 59 1/2 pounds of milk in twenty-four hours and 56 8-10 pounds average per day for a week, twenty-one days from calving. It is amusing to think that Robert sold the calf that grew up into this cow for \$2.50. When he came for her she was not doing well and he made a change, paying \$3 for another one, a little older. Why, she would have been cheap at \$50. She is worth \$150 to-day, if she is worth one cent. Good friends who keep common stock and think you can not afford to improve them, I want to say to you that the whole cost of this improvement in money has come back in this one cow, and all the other choice animals have cost nothing. There may not be any others that will quite come up to this one, but there are several probably that at five years old will give fifty pounds of milk in a day or more. Any one of them at two years old, gave, or will give, about twice as much as ordinary dairies of full grown cows average, taking all there is in a county. Does this not pay? What a chance for the young men who read this, who are now getting perhaps no more than 3,000 or 4,000 pounds of milk from a cow in a season. But it will take something more than merely buying a pure-bred sire. Yes, he must be a good individual, as well as have a

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good pedigree. The calves must be raised without at any time being fattened. They must be fed food that will make them grow steadily, but not such as will cause them to take on fat. They must be properly fed when giving milk, and warmly sheltered and kindly treated. You must use your brains a little more, not going along in the old easy, rather thoughtless way. But, my, think of the difference in the income, when you get about three times as much milk with very little, if any more, feed used. O what a chance there is for the boys now, along such improved lines of dairying.—T. B. Terry, in Practical Farmer.

An Alfalfa Chat.

The following is clipped from a report of the Western Guernsey Breeders' Association meeting at Fort Atkinson, Wis.:

"Mr. Hoard said that last winter for a while his ration was ten pounds alfalfa hay, four pounds grain and thirty-five pounds corn silage, and that then he changed to clover hay in place of the alfalfa and it took eight pounds of grain to keep them up to their milk.

"Mr. Hoard estimates that ten pounds of alfalfa hay, and four pounds of grain were the equal of fifteen pounds of clover hay and eight pounds of grain.

"Professor Voorhees, of the New Jersey Station, says that eleven pounds of good alfalfa hay are equal to eight pounds of grain.

"Mr. Hoard said that from three-fifths of an acre, or three city lots in Fort Atkinson, he cut the following weights of hay in four cuttings in 1901, 3,400 pounds, 3,100 pounds, 2,800 pounds, 2,100 pounds, or a total of 11,500 pounds weight when drawn from the field, and worth last year \$55.

If you are satisfied that a cow is a good one never permit a few dollars to prevent you from buying her. A good cow pays you doubly, makes you money and makes you happy. If, however, you have bought a cow and she fails to be a good one sell her to the butcher and try again.
 G. W. HUNT.

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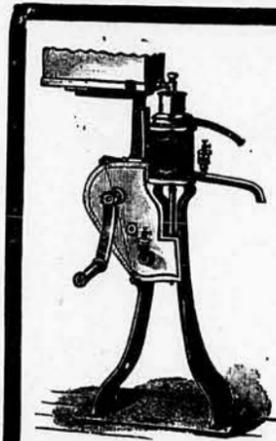
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Brain Markets.

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

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

Cooperative Elevators.

Under the above head the grain trust mouthpiece makes an attack on the line elevators and railroads. As the Grain Dealers' Association is an off-spring and pal of the line elevator system, we reproduce a portion of the article as inside evidence and let our readers judge for themselves. We have no use for the line elevator system and consider that system very detrimental to the grain-growing industry in this or other States.

And, by the way, we have no use for the Grain Dealers' Association for the same reason. Do not imagine for a moment that the grain trust will make continued war on the railroads—far from it, they will hush up like clams. It is their business to prey off of the unorganized farmers. We quote from the article as follows:

"The editor of this paper not only believes, but knows, that competitive grain-buying is entirely eliminated by the elevators of the Northwest; prices being made daily in Minneapolis and other market centers to which all country elevator managers must conform. In many localities of the Northwest the grain-grower has protested against such an unjust system, which entirely eliminates the small grain-buyer and forces the grain business into the hands of the line elevators backed by the railroads in which railroad officials are often interested.

"The building of cooperative elevators in Kansas began when Kansas railroads attempted to force the Northwestern system of line elevators upon the State. The first one was organized and built at Solomon, Kansas, on the line of the Union Pacific railroad, where the Peavy company bought an elevator. The contagion spread over the wheat territory, and elevators were projected and built in many places, where the farmers never had complained and where they had always been treated justly, fairly, and honestly by the local grain-dealers.

"The farmers did not stop to consider if they were justified in their investment; they simply followed the advice of agitators without thinking, which action many of them have since had cause to regret. The line elevator companies not only obtain better railroad facilities and better rates, but frequently jump on the little fellows who compete with them and force them to give up a part of their business which perhaps has taken them a life time to build up.

"These are not secrets, they are matters of public information and facts that were developed before an investigation of the Inter-state Commerce Commission which is in session at Kansas City. No wonder these big concerns could do business and crowd out the little fellows with the railroads backing them up. But the farmers commenced at the wrong end. If Butler had directed his guns against those line elevator companies whose managers were brought before the Inter-state Commerce Commission, with the railroad officials, and there testified to their wrongful acts in violation of law, he (Butler) would have helped the farmers as well as all other industries. We have not a word of fault to find against the legitimate dealer and citizen of Kansas to run just as many stations as he sees fit, but we draw the line on those that have special railroad rates and by means of their pull, force legitimate dealers and farmers to the wall."—The Southwestern Grain Journal.

Elevator Sites.

The following clipping from the American Elevator and Grain Trade will no doubt interest our readers. It backs up our position regarding lease privileges on the right of way of railroads:

"The question which is still an open one in some States, whether the railroads are bound to furnish elevator sites on their right of way on application, has been answered by the railroad commissioner of Texas in a quite unexpected way. In reply to a request for a ruling on the lawfulness of a proposed lease of land on the right of way to a grain-dealer for an elevator site, the commissioner said that a railroad is created for the sole purpose of transportation; it can hold real estate for no other purpose, and when its holding of real estate ceases to be used for that pur-

pose it is subject to forfeiture by the State. The commission holds then, that lands 'can not be held and operated for other purposes under the guise of right of way and depot grounds,' while the leasing of a site to one person, even if allowable, with a refusal to lease similar tracts to others in the same line of business, would give to the one dealer an unlawful and 'unreasonable advantage over the other dealers.' The lease was ordered cancelled."

"The virtue lies in the struggle not in the prize."—Milner.

We would like to know upon what authority the Grain Trust journal assumes to represent the members of our association.

The business of our association is increasing rapidly. This seems to annoy the hired Hessians who push a pencil for the trust.

"There is no royal road to anything. One thing at a time, and all things in succession. That which grows slowly endures."—J. G. Holand.

If Butler's "lambasting" articles are an injury to him and the cooperative movement why is it that no other State is making the rapid progress in cooperative shipping that is made in Kansas?

"I hold a doctrine, to which I owe not much, indeed, but all the little I ever had, namely, that with ordinary talent and extraordinary perseverance, all things are attainable."—T. F. Buxton.

Why is it that the Grain Trust members are so anxious to have the public believe the farmers cooperative associations are failures. If the farmers have not been benefited it seems it would be an easy matter to find one to testify to suit the trust.

Branch organizations of the Farmers' Cooperative Grain & Live Stock Association were effected at Alden and Harper, Kansas, last week. Elevators will be bought or built at each place in the near future. On with the good work at other stations.

If you desire to help the Grain Trust just do nothing for yourself, haul your grain to their members, leave your money on deposit with them for sixty or ninety days, and in this way you supply them with plenty of funds to do business and with which to fight farmers' cooperative shipping associations.

The amount used by our association for propaganda work and effecting organizations is a mere bagetel compared to the benefits received from our organization by the farmers from the work done. No one is kicking except the tools of the trust or men engaged in the grain business who want to buy farmers' grain at a 5-cent margin.

Bucklin, Kansas, July 14, 1902.
James Butler, Topeka, Kansas.

Dear Sir:—I have been reading with interest all that is in your page in the KANSAS FARMER. Your page in the KANSAS FARMER is the first one that I turn to. I trust you will keep right on with your bombardment until the gigantic grain trust is laying at our feet.
F. A. GRESHAM.

July 16, 1902.
James Butler, Topeka, Kansas.

Dear Sir:—I was out among the farmers yesterday and organized a grain-growers' association. Enclosed you will find a draft for \$110 for stock in the central association. The people are just beginning to wake up and it is a good time to organize.

SOLON GRAY.
If more farmers would act as Solon Gray has done, the State of Kansas would soon have cooperative shipping associations at all shipping points in Kansas. The officers of the Farmers' Cooperative Association at Alden, are Geo. W. Fair, president, Andrew Hoover, treasurer, and M. W. Whitt, secretary.

"The elevator built by the farmers of Haven, Reno County, Kansas, has been leased to Mr. Howitt, a regular grain-dealer. The farmers who put their money into the enterprise have learned a lesson that cost them good hard cash. They found they could handle their own grain only at a loss. So they temporarily solved the problem by leasing their white elephant. They want to sell him for good, meanwhile they are swearing at Butler between drinks."—The Southwestern Grain Journal.

Farmers at Haven have gotten from 1 to 2 cents more per bushel for their grain than has been paid at neighbor-

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References—Inter-State National Bank and Cattlemen Generally.

ing stations. This has amounted to many thousands of dollars to them and has been accomplished by the organization at Haven. The farmers' elevator at Haven is not for sale; the farmers at that point are not fools, and no one in this State is swearing at Butler except the trust members and their hired Hessians and lick spittles.

"According to Butler, the millers and grain-dealers are to have a joint meeting to make war upon the farmers, but we find that the friends of Butler, viz., Vrooman, Hoffman, Briedenthal and others have arranged to consolidate the millers and farmers; at least so says the Topeka Capital. What will become of Butler when Hoffman takes charge of the Farmers' Trust after unloading his mill on the farmers?"—The Southwestern Grain Journal.

Why is it that the representative of the Grain Trust takes so much interest in warning the farmers against Hoffman, Briedenthal, Vrooman and Butler? Is it for the benefit of farmers or is it an attempt to protect and benefit the trust? Why should the trust seek to prevent farmers from investing in their own association? The answer is very plain. It is because such investment will aid in defeating trust extortion, trust combination of dealers against farmers. The trust mouthpiece seeks to prevent farmers from investing in

their own cooperative association because they know it takes money to make any business a success, and the success of the farmers' cooperative movement means the destruction of the Grain Trust. The trust seeks to prevent farmers from investing in our association because it injures the trust. If you want to aid in pushing our movement you know how to do it. If you want to help the trust do nothing. That is all they ask of you. They will do the rest.

THE MARKETS.

Frazier's Market Review.

The long-expected wheat movement has begun and although somewhat late, it is beginning to make up in volume what it lost in time. Receipts in the Southwest are increasing rapidly, and for the last few days have been equal to those of last year. Farmers are racing with one another to get their wheat to market and as the rains have made softer, and especially have the lower grades declined in price. Stocks in the visible supply increased 600,000 bushels last week. The visible is now a little over 20,000,000 bushels. Exports have fallen off a little recently and were less than 4,000,000 bushels last week. The better grades of milling wheat have not declined with low grades and option, because mills have done some lively bidding for it. Under the circumstances, with receipts growing larger, we can see no immediate chance for any material advance in price, especially as there seems to be no speculation in wheat by outsiders. Of course in

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comparison with the coarse grains, wheat is very low in price. The comparison in prices for No. 3 grain in Chicago to-day is as follows:

No. 3 hard wheat, 72c; No. 3 mixed corn, 65c; No. 3 mixed oats, 45c. Under normal conditions of former years the comparative price would average about as follows with wheat at 72c: No. 3 hard wheat, 72c; No. 3 corn, 39c; No. 3 oats, 28c. One thing is apparent, either wheat is much too low, or corn and oats are much too high. Sooner or later this condition will adjust itself. Of course it would not be fair to make comparison on No. 2 coarse grain at present in which speculation is rampant. Markets closed weak as follows: Chicago.—No. 2 red wheat, 77c; No. 2 hard wheat, 73½c; No. 2 mixed corn, 66c; No. 2 oats, 50c; September wheat, 71½c. Kansas City.—No. 2 red winter wheat, 68c; No. 3 red winter wheat, 66½c; No. 2 hard wheat, 69½c; No. 3 hard wheat, 67½c; No. 4 hard wheat, 63¾c; No. 2 corn, 61c; September wheat, 65¾c.

Kansas City Live Stock Market.

Last week's cattle market was but a vindication of the long-affirmed statements of traders that good stock will sell well until the new corn crop begins to affect prices. Receipts of toppy beefs were comparatively light and they sold generally steady. Topp brought \$8.10. On Wednesday, Casey & Towers, of Landis, Mo., marketed a string of Missouri-fed Colorados at that figure. Medium beefs and grassers generally sold weaker during the past seven days than during the preceding week. Another liberal run of quarantine cattle afforded the buyers all the grass stock they needed, so they were not anxious to hold up prices on any natives except the best. Receipts of Southern grass cattle were a little in excess of 17,000, not including 4,100 calves. Total cattle receipts both at Kansas City and the five chief markets were the largest of the year. The arrivals at this point amounted to 41,900 head. A liberal run of stockers and feeders was had and the biggest business of the season in this branch of stock was done. For the first half of the week the market held up well, but liberal receipts finally forced a break of 25¢@50¢. At the decline a clearance was not made. Prices are still high, even taking into consideration the recent losses. Western feeders are arriving in large numbers, but are selling \$1 to \$1.50 better than a year ago. The outlook for feeding steers is good. The bears had their way in the hog yards a greater part of the week. Receipts showed further reductions from the previous week, the total supply amounting to only 24,100 head. Nearly one-third of this number consisted of hogs brought hither from other markets. The country tributary to Kansas City must have been thoroughly drained of swine during the drouth last fall, for the receipts now are far below normal. This week a year ago, four times as many hogs came in as arrived during the past six days. Eastern markets also had reduced supplies, but buyers got out and pounded prices down below the \$8 mark in spite of the smaller receipts. Topp sold here at \$8.95 on Monday and close for the week at \$7.90. The outlook is for prices to hold steady until the new pig crop begins to move, which will be some weeks yet. Mutton receipts continue light, while native lambs arrive pretty freely. Total sheep receipts for the week amounted to 17,500 head. Good clean markets were had each day, and the week closed with values 25 to 40c higher on muttons than in our last report and 15c higher on lambs. Native ewes are now selling at \$3.75 for the prime kinds, and wethers at \$4.20. Lambs bring \$6.40 for the best. The outlook is for lower lambs and steady muttons for the next few weeks. The excellent demand for feeding sheep is expected to keep packing house buyers in line on muttons, while the big movement of western lambs will probably break prices.

Horses and mules were dull. A little trade has developed in big mules on the levee order to go South. So far the inquiry for cotton mules has been light. The season will soon open up, however, Good quality thin mules, 15 hands and thereabouts will command \$75 to \$90 as feeders. More horses could be handled than are arriving, but only at prices \$15 to \$20 lower than in the spring time. Poultry is arriving in light supply and prices are firm. Springs are bringing 12½@13½c; hens 9c; old roosters 50c each; turkey hens 10c; gobblers 8c; young ducks 8c. Butter and eggs are ready sellers at steady prices. Best creamery 19c, packing 15c. Eggs are worth 14c, cases returned. Heavy runs of potatoes have forced the market down. New stock is quoted at 20 to 25c per bushel.

POWELL.

The Disc Drill.

For years the drill makers were trying to invent some attachment for hoe drills, or to adjust hoe drills by means of a zig-zag or shifting attachment that would make the machine work better in fowl ground. These things did not lessen the labor on the part of the men to any extent. Finally the disc drill was perfected and not only proved a success in fowl ground, but demonstrated the fact that it planted the seed at a more uniform depth than the hoe drill. The fact that the work of seeding was so greatly reduced brought the disc drill into great popularity. In the western countries, especially in western Kansas where it is the custom to plow the ground but once in every two or three years, and where the trash accumulates to such an extent that it renders seeding a very difficult task and the results exceedingly unsatisfactory with the hoe drill, the disc drill was welcomed on every hand, because by its use one man could do more work in one day and do it easier and with more assurance of a successful crop than could possibly be done with the hoe drill in three days and with three men. The experimental stage is past and the demand for disc drills is growing greater each year. It is predicted by many that the day is not far distant when the disc drill will entirely replace the hoe drill. However this may be, the disc drill has made possible the seeding of a much greater acreage. This is especially true of Kansas and the western countries where wheat is sown in unplowed stubble fields. The discs cut into the hard ground and do not choke in trash where the hoe drill would not work at all. The first successful disc drill was introduced

by the Superior Drill Co., of Springfield, Ohio. It has been on the market for eight years, and after several years of litigation the Superior patents were sustained by the highest courts.

The Poultry Yard.

The Cure of Gapes—Lice and Mites.

Gapes in chickens is caused by worms that grow in the windpipe and make the chicks gasp for breath. Some relief may come if garlic or assafoetida is fed to them. Separate all the sick or affected chicks from the well ones, clean up the coops and all about them, sprinkle slacked lime upon the ground about the coops. After a few hours spade it under if possible. If not, sweep it all up clean, take a wing, flight or tail feather, strip it of all the feather part, leaving only about an inch at the point, dip this in coal-oil and gently run it into the trachea (windpipe) turn it about and try to remove the worms. If they can be dislodged, relief soon follows; if allowed to stay with the well chicks, the ailment will go from one to another.

Green garlic cut fine or powdered assafoetida, a teaspoonful to a dozen chicks, mixed with their food is the best for internal treatment. Garlic or onion tops cut fine for green food for all young stock at this time may help to keep away disease, as well as to benefit both the well and the ailing. Gape worms, like potato-bugs stay in the ground all winter, and come to the surface in warm weather to look for their victims. Thorough cleanliness is the best preventive.

According to the Poultry Advocate, experiments conducted at the Kentucky station show that keeping chicks for several weeks after they hatch on a plank floor will prevent gapes. It is thought that the same result would be obtained by simply elevating an earthen floor above the surrounding level, so that it would not retain moisture. It must be remembered, though, that after the disease is established in a brood, it will be conveyed from one to another through the medium of food and drink, and in such case a plank floor alone would not save them. The board floor will keep away the gapes because the insect that causes the trouble cannot get to the chick. The same might be the case if cooped upon elevated earth, but young chicks that are kept constantly for several weeks on board floors get troubles in their feet and legs, such as rheumatism, which are about as bad as gapes.

In treating birds individually for lice, the best remedy we know of is a mixture of two parts insect powder and one part powdered sulphur, rubbed well into the plumage. The heads should be touched with carbolized oil, or oil with a little kerosene in it, which can also be lightly applied under the wings. Nest material should be frequently changed, and wild fern or bracken, if it can be obtained, will be found much less infested by them than straw. If one's houses are infested by mites, perches should be taken out weekly in summer and the ends and sockets and all cracks painted with kerosene. Beside the regular lime wash, the inside of the house should be sprayed or the cracks painted over with dilute carbolic acid.—Country Gentleman.

A New Poultry Disease.

EDITOR KANSAS FARMER:—We would like information through your paper in regard to a new poultry disease—at least one that is new to us. The symptoms are as follows: At first they seem stupid. Then they will sleepily open and shut their eyes, continuing to grow weaker until they seem not to have strength to open their eyes. Then they keep raising and lowering their heads and finally the necks hang over the roost-pole limply.

When taken off the roost they lie with their heads tucked under them. The chickens continue limp, the feathers become loose and easily fall out. They live from twenty-four to thirty hours, for some length of time before death appearing almost lifeless.

We killed two of them in the last stages of the disease and made an examination. They were neither poor nor overly fat. We thought the gall a little large. But the most noticeable feature of this disease was the condition of the heart, which was flabby and very soft in appearance. None but hens have died so far. Out of about 140, nine have died in the last three days and this morning we found eight affected. None have recovered.

They have the run of the farm, and pure water to drink. They have been laying well all spring and summer.

Their combs are nice and red, continuing so during their sickness. They are of the Leghorn breed.

T. F. BRADBURY.

Conway, McPherson County. This inquiry was sent to the agricultural college for information. The reply is given below.

I am unable to identify the disease with certainty. From the symptoms given, I judge, however, that it is an infectious disease, and if the gentleman will ship one of the infected birds to Mr. A. T. Kinsley or myself, a careful study of the disease will be made with an attempt to identify it and to recommend some treatment.

V. M. SHOESMITH.

Assistant in Field and Feeding Experiments, Kansas State Agricultural College.

State of Ohio, City of Toledo, Lucas Co. ss. Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the city of Toledo, county and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that can not be cured by the use of Hall's Catarrh Cure.

FRANK J. CHENEY. Sworn to before me and subscribed in my presence, this 6th day of December A. D., 1888. A. W. GLEASON, Notary Public. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials free. F. J. CHENEY & CO., Toledo, Ohio.

Sold by Druggists, 75c. Hall's Family Pills are the best.

POULTRY BREEDERS' DIRECTORY.

EGGS FOR HATCHING—From pure Barred Plymouth Rocks. 15 eggs 50 cents. E. J. Evans, box 21 Fort Sott, Kans.

WHITE WYANDOTTES—Exclusively. Eggs for hatching, 50 cents per 15. Mrs. E. F. Ney, Bonner Springs, Kans.

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

The Stray List.

Week Ending July 17.

Wilson County—C. W. Isham, Clerk. HEIFER—Taken up by David Woodson, Coyville. Verdigris, tp. One red and white heifer, branded K on left hip, white horns, valued at \$18. Lyon County—H. E. Peach, Clerk. HORSE—Taken up by Aaron Hammer one mile southwest of Emporia, one dark bay horse, about 9 years old, white strip in face, the right hind foot white, about 15 hands high. Sedgwick County—J. M. Chain, Clerk. HORSE—Taken up by Jacob Schaulf of Garden Plain, Alton tp., Sedgwick County. One bay mare, blind in right eye, weight about 1000 pounds.

For Week Ending July 24.

Cherokee County—S. W. Swinney, Clerk. HORSE—Taken up by J. F. Degraff, in Shawnee tp. (F. O. Messer), June 25, 1902, one sorrel yearling mare, blaze face; valued at \$25. MULE—Taken up by same, one dark bay mule, 4 feet high; valued at \$25. Crawford County—John Vleits, Clerk. HORSE—Taken up by James Wyle, six miles southwest of Girard, May 11, 1902, one gray horse, 8 or 9 years old, weight about 900 pounds. Allen County—C. A. Fronk, Clerk. HORSE—Taken up by R. O. Furmeaux, in Marmaton tp., July 9, 1902, one sorrel gelding, about 7 years old, with brand on left hip, white strip on face; valued at \$10.

FARM FOR RENT.

Fine upland farm of 324 acres in Dickenson county, Kansas, three miles from Navarre, a Santa Fe station. 160 acres plow land, 110 acres fine prairie grass pasture, 30 acres hay land, 17 acres alfalfa, all land level and free from stone. Good springs in pasture, two wells, one windmill, nine room frame dwelling, new frame barn 64 by 37 feet, farm all under wire fence. A fine dairy farm 2½ miles from skimming station. Terms, \$1.40 per acre. Rent payable semi-annually and must be secured. Address for further particulars, G. W. Borman, Navarre, Kansas.

HARNESS USERS WANTED

Every one using harness of any description is requested to send to us for our descriptive price list with discounts. We sell to consumers at wholesale prices and guarantee satisfaction. You can not do better elsewhere. Address M. KOBER & SON, Wholesale Manufacturers, Brownstown, Ind.

SUMMER MEDICINE FOR BABIES. Keeps stomach and bowels in order. Booklet on the baby with each bottle. By mail, 50 doses, 35 cents. Australian Remedy Co., 1545 Madison Ave., N. Y. City.

Special Want Column.

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

CATTLE.

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

FOR SALE—Two red registered Shorthorn bulls, 13 and 17 months old. NeCutcheon, Marquette, Kans.

FOR SALE OR EXCHANGE—For other cattle or land, 25 young registered Hereford bulls. W. L. Bass, Eldorado, Kans.

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

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

RED POLLED BULL—A fine well bred yearling for sale. W. J. Burtis, Fredonia, Kans.

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

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

SWINE.

REGISTERED SHROPSHIRE—A choice lot of ewes, lambs, and rams for sale. Also Scotch Collie puppies. Olin Templin, Lawrence, Kans.

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

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

HORSES AND MULES.

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

FARMS AND RANCHES.

FARM HOUSES for sale; fine ones; can sell yours. Buckeye Agency, Agricola, Kans.

FREE 200 printed farm and ranch descriptions in 5 counties, 55 m. from E. C. Prices, maps, statistical book. Write G. Winder, Ottawa, Kans.

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

FOR SALE—480 acres of farm and pasture land, good location, plenty of stock water. For particulars address James A. Carpenter, Carbondale, Kans.

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

ALFALFA FARM.

600 acres, Chase County, Kansas, 3 miles from Elm-dale, 75 acres in alfalfa, 50 acres corn, and balance in tame and wild grass; 800 acres bottom land, balance upland; 10-room house, big barn, fine water, \$30 per acre gets crop and possession of farm. Fine for grain or stock. Ask about this quick. This is one of 500. Get map of Missouri or Kansas and list of either state for 10 cents in stamps. Lot, the Land Man, 112 West Eighth St., Kansas City, Mo.

SEEDS AND PLANTS.

SIBERIAN MILLET—Best for late sowing, bushel, \$1; German, \$1.15; cane, \$1; Kafir-corn, 80 cts.; Dwarf Essex rape, 8 cts. pound; turnip, 35 cts. Trumbull & Co., Kansas City, Mo.

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

PATENTS.

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

MISCELLANEOUS.

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

CREAMERY FOR SALE—At Neodesha, Kans., new four years ago, run two years and in good condition. Will sell or trade all or part. Ten horse power engine. Plant complete cost \$3,500; will sell for less than half first cost. F. P. Graham, Neodesha, Kans.

WANTED—Volumes of the American Hereford Record. W. L. Bass, Eldorado, Kans.

CLOVER LEAF FAMILY SCALES—We have on hand a limited consignment of the celebrated Clover Leaf Family Scales which we are closing out at cost to make room for farm scales. First callers will get the bargains of P. W. Griggs & Co., 208 West sixth St., Topeka, Kans.

WANTED—To take on shares, ten head of good dairy cows, for a term of three years; will breed to registered Shorthorn bulls. John G. Howard, Morgan, Chase Co., Kans.

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

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

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

J. Pierpont Morgan on Draw Poker.

While idling upon the deck of an ocean steamship recently the attention of a group of voyagers, including several prominent Americans and two English baronets, was directed to the fact that less than a dozen passengers were engrossed in books relating to bridge whist. Whereupon the merits of that fascinating game were discussed and differing answers made to questions as to whether it would retain, by virtue of inherent worth, its present extraordinary popularity. The most interesting point, however, was reached when Sir Edward Colebrook wondered whether it was quite patriotic for Americans to dislodge their famous national game. "Meaning draw poker!" ejaculated Mr. Morgan. "That is not a game characteristic of the American people. It never was. It never will be. It is a bad game. It is based upon a lie. The man who has the greatest capacity for deceit wins. To become a strong player he studies to develop the most ignoble and un-American faculty. The effect upon boys is to make them think deceit and bluff are 'smart' and essential to success in work as well as in play. It is an iniquitous game and ought to be abolished. Nothing could be more foreign to American ideas. The man who labeled it our typical national game ought to be shot. I never heard it referred to by that term without wanting to shoot him." This ended the argument.

Just Like a Count.

She was young and romantic. He was a foreign nobleman, and he wore a uniform, and over it a long blue cape that hooked in front with the aid of two gold eagles.

They had walked out to the very end of the pier, and the full moon and murmuring waves were full of suggestion.

She leaned over, and looked down into the rippling darkness below.

"If I threw myself in there," she said, in a voice that was almost a whisper, "what would you do?"

He leaned over, and looked down, then straightened back and smiled sweetly.

"I should r-r-regret it," he answered, suavely.

"Poor man!" sighed the lady reformer as she peered through the bars at the miserable convict. "Poor man! It must be hard to be deprived of light and flowers and birds and human companionship."

"It is, lady, it is," moaned the prisoner.

"I believe," mused the lady, "that I shall marry you to reform you."

Here the convict laughed heartily for some moments.

"Pardon me, madam," he said, as soon as he found his voice. "Pardon this impolite nilarity, but I am in here for bigamy."—Judge.

Leading Exhibitions for 1902.

- Missouri State Fair—Sedalia, Aug. 18-23.
Iowa State Fair—Des Moines, Aug. 22-30.
Ohio State Fair—Columbus, Sept. 1-5.
Nebraska State Fair—Lincoln, Sept. 1-5.
Minnesota State Fair—Hamline, Sept. 1-6.
Wisconsin State Fair—Milwaukee, Sept. 8-13.
Indiana State Fair—Indianapolis, Sept. 15-19.
Kentucky State Fair—Louisville, Sept. 22-27.
Michigan State Fair—Pontiac, Sept. 22-26.
Illinois State Fair—Springfield, Sept. 29-Oct. 4.
Texas State Fair—Dallas, Sept. 27-Oct. 12.
St. Louis Fair, Oct. 6-11.
American Royal Hereford, Shorthorn, Galloway, Aberdeen-Angus, Berkshire, and Poland-China—Kansas City, Oct. 20-25.
International Live Stock Exposition, Dec. 1-6.

Kansas Fairs in 1902.

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

- Allen County Agricultural Society—C. H. Wheaton, Secretary, Iola; September 2-5.
Barton County Fair Association—James W. Clarke, Secretary, Great Bend; September 2-5.
Brown County Fair Association—Grant W. Harrington, Secretary, Hiawatha; August 27-29.
Butler County Fair Association—H. M. Balch, Secretary, Eldorado; September 29-October 3.
Chautauqua County—Hewins Park and Fair Association—P. N. Whitney, Secretary, Cedar Vale.
Clay County Fair Association—E. E. Hoopes, Secretary, Clay Center; September 9-12.
Coffey County Agricultural Fair Association—J. E. Woodford, Secretary, Burlington; September 9-12.
Finney County Agricultural Society—Fred Mims, Secretary, Garden City; August 27-29.
Franklin County Agricultural Society—Carey M. Porter, Secretary, Ottawa; September 16-19.
Greeley County Fair Association—G. P. Hawkins, Secretary, Tribune.
Harvey County Agricultural Society—John C. Nicholson, Secretary, Newton; September 23-26.
Jackson County Agricultural and Fair

- Association—S. B. McGrew, Secretary, Holton; September 23-26.
Jefferson County Agricultural and Mechanical Association—Geo. A. Patterson, Secretary, Oskaloosa; September 2-5.
Marshall County—Frankfort Fair Association—J. D. Gregg, Secretary, Frankfort; September 23-26.
Miami County Agricultural, Mechanical and Fair Association—W. H. Bradbury, Secretary, Paola; September 9-12.
Morris County Exposition Company—M. F. Amrine, Secretary, Council Grove; September 24-26.
Nemaha County Fair Association—A. R. Spaulding, Secretary, Seneca; September 3-5.
Neosho County Fair Association—H. Lodge, Secretary, Erie; September 30-October 3.
Neosho County—Chanute Agricultural, Fair, Park, and Driving Association—A. E. Timpane, Secretary, Chanute; August 26-29.
Ness County Agricultural Association—H. C. Taylor, Secretary, Ness City; September 24-26.
Norton County Agricultural Association—J. L. Miller, Secretary, Norton; September 2-5.
Osage County Fair Association—E. T. Price, Secretary, Burlingame; September 2-5.
Reno County—Central Kansas Agricultural Fair and Live-stock Association—Ed. M. Moore, Secretary, Hutchinson; September 15-19.
Rice County Agricultural Association—C. Hawkins, Secretary, Sterling; September 8-12.
Riley County Agricultural Society—A. B. Lee, Secretary, Riley; September 2-5.
Rooks County Fair Association—Olmer Adams, Secretary, Stockton; September 9-12.
Saline County Agricultural, Horticultural and Mechanical Association—H. B. Wallace, Secretary, Salina; September 2-5.
Sedgwick County—The Wichita and Southwestern Exposition and Fair Association—L. L. Resing, Secretary, Wichita; September 22-27.
Stafford County Fair Association—Frank C. Swartz, Secretary, St. John; August 20-22.
Wilson County—Fredonia Agricultural Association—J. T. Cooper, Secretary, Fredonia, August 19-22.
Cowley County—Eastern Cowley Fair Association—J. M. Henderson, Secretary, Burden.

PILES Fistula, Fissure, all Rectal Diseases radically cured in a few weeks without the knife, cutting, ligature, or caustics, and without pain or detention from business. Particulars of our treatment and sample mailed free. Mr. M. McCoy, Gogonac, Kans., Captain Company, Fifteenth Indiana Infantry, writes: "Hermit Remedy Company, Dear Sirs:—I have doctored for piles since the Civil War—thirty-six years—and am now glad to report that after using your treatment for a few weeks I am completely cured. I believe you can cure any one, for a man could not be in a much worse condition than I was and live, and I am duly grateful to you. Respectfully, M. McCoy."

We have hundreds of similar testimonials of cures in desperate cases from grateful patients who have tried many cure-alls, doctors' treatment, and different methods of operation without relief. Ninety per cent of the people we treat come to us from one telling the other. You can have a trial sample mailed free by writing us full particulars of your case. Address, HERMIT REMEDY COMPANY, Suite 736, Adams Express Building, Chicago, Ill.

BELLE CITY THRESHER
A small thresher of Great Capacity. Will thresh all kinds of grain. Requires few men to operate. Full line of Sweep and Tread Powers.
Send for Free Catalogue.
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Bale Press
your own hay, millet, sorghum, pea-vine, etc., with a Little Giant
the only perfected HIGH CAPACITY hand power Press on the market. Feeds in charges, finishes a perfectly smooth and compact bale; standard size; either light or heavy.
Write for descriptive circulars.
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The Gem Full-Circle Baler, lightest, strongest, cheapest baler. Made of wrought steel. Operated by 1 or 2 horses. Bales 10 to 15 tons a day. Sold on 5 days' trial. Catalogue free. Address GEO. ERTEL CO., Quincy, Ill.

PIANO Do You Want a Genuine Bargain
Hundreds of Upright Pianos returned from renting to be disposed of at once. They include Steinways, Knabes, Fischers, Sterlings and other well known makes. Many cannot be distinguished from new at a great discount. Uprights as low as \$100. Also beautiful New Uprights at \$125, \$135, \$150 and \$165. A fine instrument at \$200, fully equal to many \$400 pianos. Monthly payments accepted. Freight only about \$5. Write for list and particulars. You make a great saving. Pianos warranted as represented. Illustrated Piano Book Free.
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100 Adams St., CHICAGO.
World's largest music house; sells Everything known in Music.

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(PILL FORM)
absolutely guaranteed to protect your cattle from Blackleg. Each pill of Vaccine is an exact dose; and vaccination with them is safe, sure and certain.
My injector puts the pill under the skin easily and quickly. By ordering direct of me, you get fresh vaccine immediately by return mail. Sent fully prepaid on receipt of price.
SPECIAL OFFER: For a short time only I will mail one of my dollar nickel plated injectors free with every order for 10 doses or more of Blackleg Vaccine. Not sold by druggists or dealers. No agents. Prepared and sold only by
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By buying direct from the manufacturer, the jobber and retailer are cut out and you get their profits.
We will sell you Carriages, Buggies and Harness at actual cost of making with reasonable profit added. Buying direct insures a large saving and satisfaction. Your money returned if not satisfied. For catalogue and prices address
ST. JOSEPH BUGGY CO., St. Joseph, Mo.

WHY BUY A CORN-BINDER
When You Can Purchase a Sled-Cutter for One-tenth the Price.
Runs easy, and cuts and gathers corn, cane, Kafir-corn, or anything which is planted in rows.
Ask your implement dealer for it, or send \$12.00 to Green Corn Cutter Company, Topeka, - Kansas.

Will Plow Anything Anywhere
The Hapgood-Hancock Disc Sulky and Gang Plows
as great an improvement over the Mold-Board Plow as that plow was over the Crooked Stick. We dare not tell you half the facts. You would not believe us. We want you to see it in the field. Sent on trial, not one cent in advance. We guarantee to plow anything you can plow with a Mold-Board Plow, and do more and better work with three horses on a 24-inch Gang, four horses on a 36-inch Triple Gang, or 48-inch Quadruple Gang plowing 5 to 10 inches deep, than any Mold-Board or Disc Plow on Earth will do with four horses on only 24-inch Gang. Will plow hard dry ground when no other plow will work. We want your help to introduce this plow and will pay you good money for same. Write now. The Only Plow Factory in the World selling direct to the farmer. Exclusive manufacturers for two-thirds of the U. S. of the Genuine Hancock Plow, the only plow branded or advertised as HANCOCK. Beware of cheap imitations that look like our plow, but which lack the essential elements (covered by our patents) that make the Hancock Plow a Wonder and the Only successful Disc Plow on Earth.—HAPGOOD PLOW CO., Exclusive Mfrs., Box 556, Alton, Ill.

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Olds Engine Oil. Elevator Supplies.
Shafting, Pulleys and Hangers.
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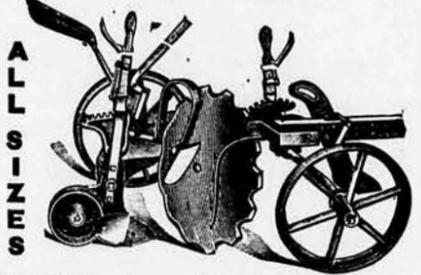
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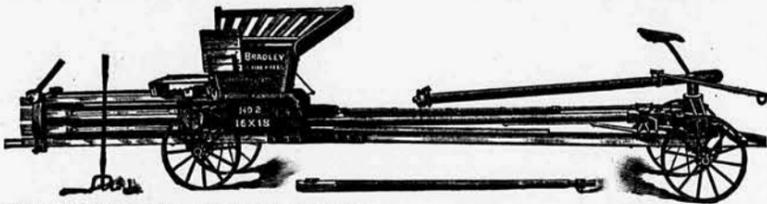
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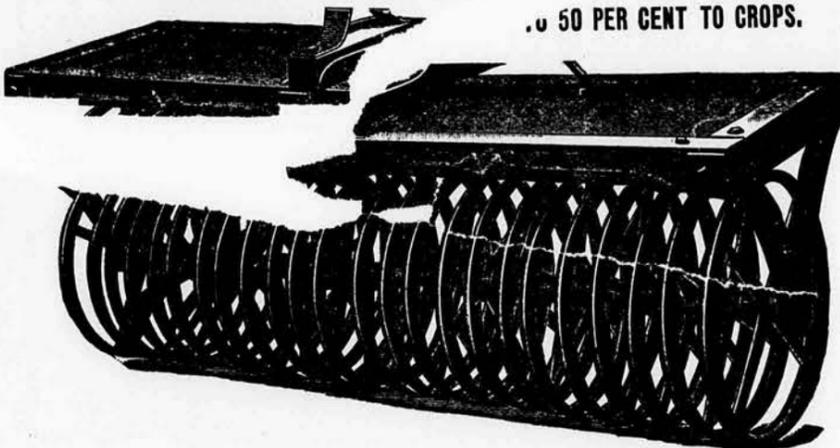


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The names and residences of the Directors are as follows:

Chas. J. Devlin, Topeka, Kans.; Samuel T. Howe, Topeka, Kans.; Alpheus K. Rodgers, Topeka, Kans.; Joab Mulvane, Topeka, Kans.; P. I. Bonebrake, Topeka, Kans.

The place of business is Topeka, Kans.

CHAS. J. DEVLIN,

SAMUEL T. HOWE,

ALPHEUS K. RODGERS,

JOAB MULVANE,

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Topeka, Kansas, July 9, 1902.

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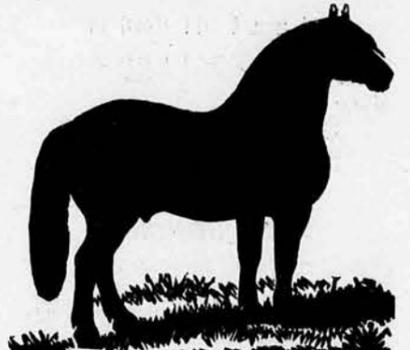
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