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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeders' Directory for \$15 per year or \$3 for six months; each additional line \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

HORSES.

PROSPECT FARM—CLYDESDALE STALLIONS, SHORT-HORN CATTLE, POLAND-CHINA HOGS.
Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kas.

CATTLE.

VALLEY GROVE HERD OF SHORT-HORNS.—For sale, choice young bulls and heifers at reasonable prices. Call on or address Thos. P. Babst, Dover, Kas.

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ABELAND STOCK FARM HERD OF THOROUGHbred Poland-China hogs, Short-horn cattle and Plymouth Rock chickens. Bona in service, Admiral Chip No. 7919 and Abbottsford No. 23361, full brother to second-prize yearling at Worlds Fair. Individual merit and gilt-edged pedigree my motto. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

SWINE.

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TEN POLAND-CHINA BOARS—\$10 to \$20 apiece. J. H. Taylor, Pearl, Kas.

W. M. PLUMMER & CO., Osage City, Kas., breeders of Poland-Chinas of the best families. Also fine poultry. Pigs for the season's trade sired by five different boars.

REGISTERED CHESTER WHITE PIGS—Twelve dollars per pair; single pig \$7. Eggs for hatching—P. Rock, W. Rock, 80 cents; other \$1.25. Turkey eggs, \$4; ducks, \$2. **JERSEYS**—Twenty-one bulls for sale, five cows, twenty heifers, all registered. S. H. Null, Toughkenamon, Pa.

PRINCETON HERD OF POLAND-CHINA SWINE contains the most noted strains and popular pedigrees in the U. S. Choice animals for sale. Address H. Davison & Son, Princeton, Franklin Co., Kas.

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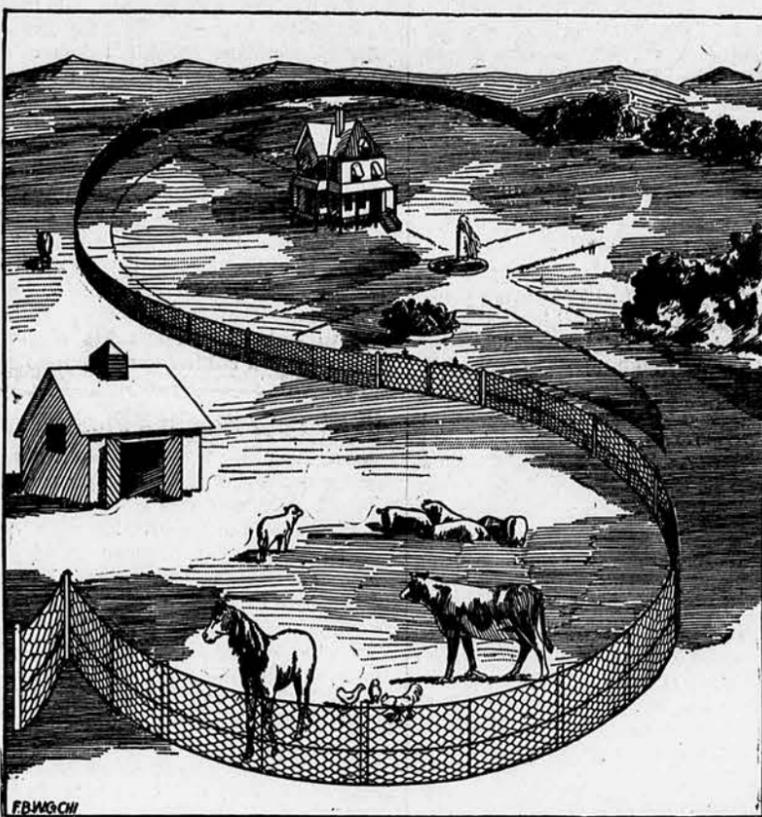
POLAND-CHINAS FOR SALE.—Young Model 1887, King's Royalty 1897. Their get, either sex. Cotswold bucks. The above stock will be sold right if taken soon. Address H. H. Hague & Son, Walton, Kas.

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The cut given above is designed to show the great utility and beauty of the Sedgwick woven wire fence, manufactured by Sedgwick Bros., Richmond, Ind., whose advertisement appears in another column of this paper. The reader will notice that while the picture is so drawn as to show the advantage of the Sedgwick as a stockade fence and a stockyard enclosure, it in no sense mars the beauty of the lawn beyond. In fact, it increases the beauty with its graceful sweeps and curves. We notice so frequently about

our country homes, fences that are anything but beautiful, because they must be built so as to exclude any marauding stock or that from the adjacent pastures. All effort at beauty is lost or sacrificed to strength. But here is a farm fence that is strong, durable and long-lived, and at the same time beautiful. Sedgwick Bros. make many varieties and kinds of fences adapted to all purposes, and to those of our readers who wish to study the fence question, we recommend that they send to this firm for their free illustrated catalogue.

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EUREKA POULTRY YARDS.—L. E. Pixley, Emporia, Kas., breeder of Plymouth Rocks, S. Wyandottes, Buff Cochins, B. and White Leghorns, B. Langshans, M. B. turkeys and Pekin ducks. Chicks at all times. Eggs in season.

EGGS FROM HIGH-SCORING B. P. ROCKS and R. C. Brown Leghorns for sale at \$1.50 per thirteen. Write your wants. P. C. Bowen & Son, Cherrvale, Kas. (Please mention FARMER.)

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Barred Plymouth Rocks.

All the leading strains. Thirty young cockerels and twenty-five pullets for sale. A 93-point bird at head of the hatch. Eggs \$2 per setting of thirteen. S. McCullough, Ottawa, Franklin Co., Kas.

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Thoroughbred Duroc-Jersey Hogs Registered stock. Send for 44-page catalogue, prices and history, containing much other useful information to young breeders. Will be sent on receipt of stamp and address. J. M. STONEBRAKER, Paola, Ill.

W. S. ATTEBURY, Rossville, Kansas, BREEDER OF **Chester Whites** Exclusively. Young stock at all times. Satisfaction guaranteed.

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For ten years winners at leading fairs in competition with the best herds in the world. Visitors say: "Your hogs have such fine heads, good backs and hams, strong bone, and are so large and smooth." If you want a boar or pair of pigs, write. I ship from Topeka. G. W. Berry, Berryton, Shawnee Co., Kas.

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FINE BLOODED Cattle, Sheep, Hogs, Poultry, Sporting Dogs. Send stamps for catalogs. *150 engravings. N. P. BOYER & CO., Coatesville, Pa.

J. T. LAWTON, North Topeka, Kas., breeder of Improved Chester White swine. Choice young sows, bred to order. Light Brahma chickens.

BERKSHIRES.

We offer choice selections from our grand herd, headed by a great imported boar. New blood for Kansas breeders.

WM. B. SUTTON & SON, Russell, Kansas.

BERKSHIRE, Chester White, Jersey Red & Poland China Pigs, Jersey, Guernsey & Holstein Cattle, Thoroughbred Sheep, Fancy Poultry, Hunting and House Dogs. Catalogue. S. W. SMITH, Cochranville, Chester Co., Pa.

BELMONT STOCK FARM

Geo. Topping, Cedar Point, Kansas. Breeder of English Berkshire and Poland-China swine, S. C. Brown Leghorns, B. Plymouth Rocks, Mammoth Bronze turkeys and Imperial Pekin ducks. Write for prices. Farm six miles south of Cedar Point, Chase county, Kansas.

T. A. HUBBARD

Rome, Kansas, Breeder of **POLAND-CHINAS** and **LARGE ENGLISH BERKSHIRES.** Two hundred head. All ages. 25 boars and 45 sows ready for buyers.

Kansas City Herd Poland-Chinas

The future villa of Hadley Jr. 13314 O., the greatest boar of his age. I have pigs for sale now by Hadley out of Tecumseh Mortgage Lifter 32649 S. Order quick and orders will be booked as received. Farm nine miles south of Kansas City, on Ft. Scott & Memphis R. R. Postoffice Lenexa, Kas. W. P. GOODE, Proprietor, Lenexa, Kas.

Quality Herd Poland-Chinas.

For first choice pigs from stock producing winners of seven prizes World's Fair. Darkness Quality 2d and Ideal U. S. by Ideal Black U. S. head the herd. Both first-prize winners Kansas State fair 1894. Come or write your wants. Willis E. Gresham, Hutchinson, Kas. Secretary Kansas Swine Breeders' Association.

Highland Herd of Poland-Chinas.

Herd headed by Breckenridge 12987 S. We have a fine lot of fall boars and sows ready to ship. Spring gilts bred. A fine lot of spring pigs just arrived that are sired by such noted hogs as Seldom 14251 S., Upright Wilkes 13246, a noted son of George Wilkes, and World's Leader 15378 S. Dietrich & Gentry, Richmond, Kas.

E. E. AXLINE, OAK GROVE, MO.

Breeder of B. Plymouth Rocks exclusively of the best strains. Eggs from best matings at \$1 per sitting of fifteen. Also breeds and ships **POLAND-CHINAS** of best families. Will hold Public Sale October 1, 1896. Write for Poland-China catalogue.

ROYAL HERD

POLAND-CHINAS and **B. P. Rock** chicks, Cunningham's Choice 13731 S., second premium State fair, 1895; his grand sire Victor No. 1, first premium State fair, 1895, on Plymouth Rocks. Fifteen eggs for \$2. Ward A. Bailey, 1470 E. 15th St., Wichita, Kas.

VERNON COUNTY HERD

PEDIGREED **POLAND-CHINAS.** Forty-five spring pigs sired by Silver Dick 14150 S. and out of high-class dams. Write or visit herd. J. M. TURLEY, Statesbury, Vernon Co., Mo.

PLEASANT VALLEY HERD

REGISTERED POLAND-CHINA SWINE Westphalia, Anderson Co., Kas.

Breeder of high-class pedigreed Poland-China swine. Herd headed by Tecumseh Grand 9178 S., assisted by Guy Wilkes 3d 12131 C. Tecumseh Grand 9178 S. is now for sale, also fifty choice April pigs. Write. E. A. BRICKER.

R. S. COOK

Wichita, Kas., Breeder of **Poland-Chinas.**

Won seven prizes at World's Fair—more than any single breeder west of Ohio. (Breeders' Directory continued on page 18.)

Agricultural Matters.

"ANY FOOL CAN FARM."

Address of President James H. Canfield, of the Ohio State University, formerly a professor in Kansas State University, read before the Ohio Agricultural Convention, January 16, 1896.

I have suffered a good deal because of the publication of the title of what little I have to say this afternoon. I have been asked whether I propose to present a short autobiography of my past experience; and I have been questioned as to whether I was going to detail here the way we did in Kansas and Nebraska, the two States that I had the honor to represent for nearly twenty years. I have been asked a great many uncomfortable things in regard to this title, and so I feel bound to tell you where I got my text. It is not one hundred years ago nor a thousand miles from this place, that I was passing in the corridor of a hotel which was quite unusually thronged just at that time with "gentlemen of distinction," and I heard in tones of contempt and disgust, and possibly distrust, the sentence which I choose to speak from this afternoon, "Any fool can farm."

Now, that was such an original idea and it was expressed in such a forcible way, that I stopped, and turning, looked at the man to see who it was. I backed away against a column in the rotunda of the hotel and looked at that man for some time. He was a well dressed man, apparently an intelligent man. He had a commanding forehead and a commanding beard, both of which mean a great deal in this world. (Laughter.) He seemed to be a man of the world. He seemed to have been among men and seemed to know the ways of the world. I should have said that he was an experienced man in many directions. Presently a gentleman whom I knew passed me and I said to him quietly, "Do you know who that gentleman is?" "Yes," he said, "that is Mr. So-and-so." I said, "What is he?" "He is an attorney," he said. "He is a candidate for the Legislature from a certain district."

Now, it seemed to me that under the circumstances that was a statement which I might very well take up and present, if not controvert, at this meeting of gentlemen who are engaged in agriculture. First, I want to know what that man had in his mind when he spoke of a fool. There are fools. There is no question about that at all. I do not suppose for a moment that he meant the man whose mind is a blank, whose eye is expressionless, whose face is immobile, who walks with open mouth and hanging tongue, who seems to be the saddest imitation of man upon the earth. I do not suppose that he had in mind at that time what was called Solomon's fool. Solomon talked a great deal about fools. Solomon's fool was a smart fool—a fool who said, "There is no God," and chasing after women went down to hell, and did other smart things equally bright and equally commendable. That was Solomon's fool; what we call in common parlance "a smart aleck." If Solomon lived in this day he would use that expression.

I do not suppose that this gentleman had that conception. What I think he had in mind was this: the unintelligent, the uninformed, the uneducated, the untrained, either special or general. Now the slow-witted, the blundering, the stupid sort of fellow, who cannot go from A to the end of the alphabet without a break in his reasoning or in his memory, and who cannot put two and two together and make four as the result and prove it, I think that is what was in his mind. And I simply feel that it is almost criminal to take your time in asserting that such a man as that cannot farm, at least in Ohio to-day. Such a man is utterly out of place on a farm in this country to-day, and, in fact, such a man has very little place anywhere. I am sorry to say it, because it may seem harsh and as though I am not sympathetic with such men. Such a man has very little place in the economy of this country to-day, in a country with a school house in walking distance of every farm. And that is the most mar-

velous thing that is known in this century. It is a thing that we do not often stop to consider. A country with 80,000,000 to 85,000,000 of people with a school house with an open door, supported by the government, within walking distance of every farm. In a country like that, a country in which the States have a complete State system, from the very lowest grades up to the high schools of the townships and cities, and on to the universities through to graduation—in a country that gathers at its universities the best expert men who are continually furnishing information the latest and best, on topics of interest to you; in a country with the press at your door every morning with the news of the day delivered to you fresh at your tea table; in a country with the electric telegraph and telephone, and the electric and steam car; in such a country, I am sorry to say it, but it is true, a man who by nature or neglect remains slow-witted and careless and untrained is lost in the struggle. It is in the very nature of things necessary that that should be true. We may sympathize with him just as much as we please, and we ought to sympathize with him a great deal, but this world, this part of the world, is moving on too fast to stop and wait for him to keep up with the procession. He might possibly do very well and very fairly and very comfortably in the day of the ox-cart, but he does not do very well in the day of the trolley-car. In that day he might live fairly comfortable and occupy a fairly reputable position, but to-day, gentlemen, with all the advantages that are offered to him, with the richness of the past poured out for him, with the State behind him anxious to serve, with every possibility lying within his power for the mastery of all things—to-day if he fails to master them at the outset he is lost at the beginning of the struggle.

That is true of farmers, because it is peculiarly true that in farming there is a certain kind of individuality and a certain kind of intelligence needed that is hardly found elsewhere except in the mastery of other occupations or other professions. Let me give you a single illustration. I once went into a great steel foundry, and there I saw a certain man whose simple duty it was to watch intently the heated metal and when the refuse came to the surface to skim it quickly off. That was his sole occupation. And so I have been again and again in great machine shops and found men who were called expert workmen assigned to do a single thing; and while it did require a large amount of experience and a large amount of special training in that special direction, there was no demand for general intelligence, and the workman was himself constantly narrowed and shriveled and weakened by the very condition under which he was obliged to labor. He was simply a cog in the vast machinery. That was all. There was hardly a similitude left there, if we regard the free play of the faculties of the mind, of that which makes a human being to-day.

In connection with this work of agriculture, it seems to me, more than anywhere else, is this demand for the free play of all the faculties and powers of the mind and body. I can only mention three or four lines in which what I have said is true. First, if you believe in the mastery of all the conditions of production, see how absolutely essential it is that the man have that large intelligence and very quick mind. There is a certain kind of alertness that would be found absolutely necessary in any other trade or calling—in the learned professions. See how necessary it is that he should be able to understand and read signs and indications, that he should be able to catch quickly all that nature has to tell him. Just stop now for a moment in the midst of your busy lives, finding yourselves face to face with the question of production to-day in all lines and think what it means to each and all of you, the mastery of the conditions of the soil, the wisest and best conditions of fertilization of the ground. Every one of you can multiply it by almost thousands, and certainly by hundreds, and

still find its ramifications and different lines of thought and activity.

How much more is required to-day than was required forty or fifty years ago? What is the market to-day, gentlemen, in which you buy and sell? There may no longer be any question that it is the market of the world. You are not able to limit your buying and selling to your immediate locality, as you were able to do only a few years ago. It was not only possible, but of necessity you were limited to certain localities. It was enough if you knew the market of your nearest town, or at least the largest town in your State. It was enough if you understood the conditions of buying and selling in your vicinity, practically competing with your neighbors and them alone, but to-day the markets of the world are more and more determining just what you shall receive for your products of the farm. If it is not true of the world, it is true of the United States, which in itself is a magnificent empire, one of such diversity of interests, one of such diversity of conditions that it is impossible for the narrow-minded man and slow-moving man to take hold of the great questions and decide them or control them in any way whatever or to fit himself to do so. He cannot do it. He must be quick about it, wide between the eyes; he must have a good memory and be able at all times to take advantage of that which is last and latest. How can a man who does not know how to use the telephone and telegraph and telegrams, how can a man who does not know the value of the daily papers but who receives all his information through the weekly paper, compete with active and aggressive men? The man who stays upon his farm during the entire week, who comes to town on Saturday to market something perhaps, puts himself into the hands of men who are in communication with the world. He puts his weekly paper into his pocket, goes home, does chores on Saturday night; rises the next morning, gets his work off his hands, gets his wife to help him clean his clothes, then sits down behind the kitchen fire, pulls out his weekly paper and gets the news. Why it is as far behind the times, as far as practical value to him is concerned, as it was when on the eastern coast it was six weeks and even longer before we knew what was being done across the water. No man can live to-day in any true sense of the word who touches the world as carelessly as that. How can such a man face all the conditions that are continually confronting him if he is unable to reason clearly and quickly and accurately from premise to conclusion? Think of the thousand and one problems that are the questions of the day for those who like to sit down and talk about them, that are questions in the sense of a day's return for a day's labor, questions that mean what you shall have this month as your return for your labor. Think of these questions of the day which touch you closely and so sharply and so injuriously if let alone, and then think of the fact that so very many of us seem perfectly willing to turn them over for solution to that marvel of marvels in this country, the gentleman who has gone to Congress. Just fancy how unwilling we are, often positively unwilling to exercise our own thinking powers and our own intelligence and how completely willing we are that he should think for us. We are constantly relegating these things to certain places and people as though they did not belong to the whole people of the country.

It is simply impossible that this country can be and remain what it would be if the men who are connected with the soil, who must be the foundation of all prosperity of the country, are to remain, or fancy that they can safely remain, ignorant.

There is only one more direction in which I urge upon you a certain kind of intelligence which we do not all possess. Men in this country of free speech and free instruction should at least make themselves masters of their mother tongue. A man should at least be able to speak upon his feet, should be able to write and should be able to read. I do not mean write his name. I do not mean to sign his name to a

Sick Headache Permanently Cured.

"I was troubled, a long time, with sick headache. It was usually accompanied with severe pains in the temples and sickness at the stomach. I tried a good many remedies recommended for this complaint; but it was not until I began taking



AYER'S

Pills that I received anything like permanent benefit. A single box of these pills did the work for me, and I am now a well man." C. H. HUTCHINGS, East Auburn, Me.

For the rapid cure of Constipation, Dyspepsia, Bilioussness, Nausea, and all disorders of Stomach, Liver, and Bowels, take

AYER'S Cathartic Pills

Medal and Diploma at World's Fair.

Ask your druggist for Ayer's Sarsaparilla.

deed. I do not mean to be able to read as I have seen some gentlemen read, by spelling the words as they go, but I mean that he should be able to take from the printed page the thought of another and hold it. There are very few of us who can do that as we ought to do it. I speak of this mastery of one's mother tongue because it is the way in which great ideas and lasting treasures of the mind and the best results of investigation and the real scientific thought and investigation, are conveyed to us. You can no longer declaim against book learning in a day when book learning means the mastery of the best thoughts of the best men, and the best thoughts of the best men are perpetuated from day to day and year to year and generation to generation by the printed page. And so a man is a weak man to-day, in a pitifully weak condition, who cannot stand up and say what he feels to be true.

I once sat in an audience of technically trained men and one was reading a paper, and he read statement after statement which I felt was not true, but I was not technically trained and could not answer it. And beside me sat a technically trained man who said to me, "That fellow is lying. He has not stated a single word or statement yet that cannot be controverted." And I said, "Get up and say so," and he said, "I can't;" and he lost that which would be of inestimable value to him, and he had that sense of weakness which must have cut him to the very heart. No man in this country ought to be so ill-trained and ignorant that he could not stand in the presence of his fellow men and speak pointedly and directly on any question that is of interest to his fellow citizens and to himself. He should master his mother tongue. I am positive that the "fool" of my friend cannot farm; and I am positive that the welfare of this country hereafter, as in all the past, will depend largely, if not entirely upon the intelligence and quick-wittedness and the strength of purpose and deliberateness and wisdom of counsel from those who touch the soil as you touch it every day.

The verdict of the people is that Dr. Bull's Cough Syrup is the best remedy for coughs, colds, sore throat, asthma, etc.

Seekers for Homes,

Who wish to start over again in some locality where good land is plentiful and climate is favorable, should post themselves relative to the irrigated districts of Kansas, New Mexico and Arizona, the dirt-cheap farms of Oklahoma, and the fruit tracts in southern Texas.

To find out the facts address G. T. Nicholson, G. P. A., Monadnock building, Chicago, or J. E. Frost, Land Commissioner, Topeka, Kas.

And the Santa Fe is the best line to almost every part of the Great Southwest.

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

MAY 6—W. A. Harris & Son, Short-horns, Linwood, Kas.
OCTOBER 1—E. E. Axline, Poland-Chinas, Oak Grove, Jackson Co., Mo.

FLOCKS FOR WOOL AND MUTTON.

Last winter, during the session of the Kansas Improved Stock Breeders' Association, H. M. Kirkpatrick, of Connors, Kas., discussed the sheep industry from the standpoint of farm flocks of sheep for wool and mutton, and, among other things, he stated that he hoped that he was "not addressing any one who is prejudiced against the sheep as a domestic animal. There are men who would go a mile out of their way to kick a sheep. If there is a man of that disposition in this audience he can be excused. I have no use for him, because he would kick his best friend—providing his friend was as innocent and defenseless as the sheep. Such a man would never succeed in raising sheep, or probably any other kind of stock. Love or admiration for the animal is the prerequisite of success with them.

"Several years ago I visited a breeder of pure-bred sheep, with a view of purchasing some breeding stock. His sheep were well fed and splendidly clothed. It was in mid-winter. Their quarters were clean and dry. The sheep presented a picture of contentment. They were accustomed to their master's presence and were not alarmed at his approach. We passed among the beauties. The master would put his hand under the chin of the one he wished to call my attention to, and turning her clean, nut-brown face up, would look into her large brown eyes and say, 'Now ain't she a sweet?' That man has made a success of his business, and in large measure, I thought then, that of all lovers of live stock the flockmaster was nearest the heart of his subjects.

"Ah, my dainty tidy beauties. Never a foot soiled if there is any road around the mud. The highest, driest and cleanest bed you always select. Love, faith, hope and charity are your attributes—quite as much so as many of your masters. A little clannish, it is true—disposed to stand or fall together; prone to follow the lead of the foremost, whether right or wrong. These characteristics, we think, are due to your defenselessness from the man who would go so far out of his way to kick you, most universal purveyor to the needs of man, most picturesque and pleasing of all domestic animals. Poetry and literature have drawn inspiration from your fleecy coats, and your master, if of good, malleable stuff, impressionable to the example of your kindly disposition, will be honored among men—gentlest of gentlemen.

"But, 'wherewithal shall we be clothed,' and upon what shall we feed? Everybody likes to wear woolen this season of the year, and I think everybody would like mutton if its face was the right color and it had absorbed enough 20-cent corn. You can't fool all the people all the time, and after they have had to stop to pick the wool out of their teeth a few times after eating your mutton, they will begin to discriminate. Yet, considering the vast quantities of poor, half-fattened sheep that have been slaughtered and consumed during the past two years, the people are still being fooled or else they have a growing and insatiable taste for mutton. (You know when a dog once gets a taste of mutton he never forgets it and wants more.) Notwithstanding the large percentage of sheep that are entirely above suspicion as having been intended for human food, that are daily slaughtered, there is a great improvement in the quality of the mutton in general throughout the country through the influence of the mutton breeds of sheep so largely imported from Great Britain during the last decade.

"I will quote from the London *Meat Trades Journal*: 'During the eleven months ending with November, there were received from the United States

250,660 cattle and 410,788 sheep, in both instances more than twice as many as from all other countries combined. From all countries there was a falling off in the number of cattle imported as compared with the previous year, but an increase in the number of sheep for the same time of 543,000. This increase in the consumption of mutton is said to be caused by the better quality and lower price as compared with beef. In our own country the increase has been quite as marked, but cannot be attributed to the lower price of the mutton as compared with beef. In our American markets to-day the same quality of mutton is selling higher than a like quality of beef, and has been so throughout the greater part of the year. The supply of sheep in the United States has decreased during the year 3,500,000, due entirely, I presume, to this greater consumption and export. This has been a year of general liquidation, and the sheep have withstood the ordeal better than any other class of farm stock. Is there not much encouragement in this situation for the flockmaster?

"In the matter of wool the encouragement is not so great. In fact, I can see nothing to build expectations of a much higher plane of values for wool. The proposed re-establishment of a part of the old schedule of tariff, should it become a law, will enhance values, no doubt, to some extent, whether to the full extent of the penalty, remains to be seen. But upon this slender reed we should not lean. Wool will always be a valuable product of the sheep, and its improvement in quantity and quality is one of the steps to be taken in the direction of better results. Great Britain has more than 30,000,000 of sheep, or nearly three-fourths of the number in our vast country, on a territory not as great as is contained in the two States of Kansas and Missouri, while France has 20,000,000 on a smaller territory than is found in one of these States. Here are two advanced European countries, with much higher-priced land than in any of the States, setting us an example that we should not be so slow to follow. More sheep and better sheep, and better care are the lessons they teach—animals that will produce first-class mutton, and do this at an age before they have eaten their heads off, at the same time producing a fleece that will weigh from ten to twelve pounds and command the top price. I said more sheep was part of the lesson, but it is not wholly clear to me how we can increase the number in the face of the present and unmistakable increasing demand for mutton, when this demand reduces our stock of sheep 3,500,000 and the price remains higher than beef. If we improve the quality then we will certainly add to that demand for the meat, say nothing of the natural increase in the population.

"There is no substitute for meat. No chemist has yet been able to compound a substitute. The by-products can and are being substituted. This adds force to our reasoning. Is not the key to the situation plain enough? Mutton that will bring the top price in the market, produced by an animal that will mature early and feed economically, covered with a dense fleece of top quality and quantity. Who can do this as advantageously as the general farmer, in flocks in size adapted to his facilities? The range flockmaster cannot compete for lack of fattening feed stuffs. It is impossible to produce good mutton from grass alone. No animal responds so quickly to a well-balanced grain ration as the sheep. Taken from grass in good condition, six weeks of proper grain feed makes a fine mutton. I maintain that no farm in this State or any other can be made to pay for any lengthened period without stock of some kind in connection, and I ask you what animal has a more promising future than our ideal sheep?

"How can the farmer get this sheep? It is not as difficult as it may seem. We have come to the most interesting part of the subject. It is impossible to go into the market and buy at a reasonable price sheep that will comply with these requirements—I mean at a price that would insure the promised

profit from the start. Although purebred mutton sheep of the best Down breeds were never as cheap as now, and in my judgment the time is a most propitious one for the farmer who will climb right on the wagon now and go along with the procession into the field of better methods pointed out by the experience of our successful neighbors. There is a breed of mutton sheep now in large numbers in this country by importations and native breeding, that stands out most prominently as the foundation upon which the improved sheep may be built. It is the hardest of the Down breeds. The ewes are most prolific, good mothers. They stand bunching in large flocks next to the Merino. The rams at maturity range in weight from 200 to 350 pounds and shear from fifteen to twenty pounds of wool. The ewes weigh from 150 to 225 pounds in breeding condition and shear from ten to fourteen pounds of wool. A ram of this breed, selected with care and judgment, will cross with the common ewe stock of this State and produce in almost every lamb a likeness of himself in modified form, a lamb that at Christmas-time will weigh from 100 to 125 pounds and sell in Kansas City market at from \$4 to \$4.25 to-day. This lamb bred to another ram of this breed will produce a sheep very close to our ideal farmer's sheep, which at maturity should weigh 150 to 170 pounds and shear eight pounds of wool that will sell at within a cent or two of the top price. On the 16th day of December last, in Chicago, twenty-three lambs, the get of one of these rams, crossed on Merino ewes, topped the market at \$4.40. They had been fed ninety days on fodder corn, having neither grass or hay or other feed of any kind.

"The sheep is not only the producer of a dual product, but a four-fold product—mutton, wool, lambs and manure. Did you ever see a farm on which a flock of sheep had been kept for a considerable period that was not in better condition and more productive than the adjoining farm upon which no sheep had been kept? And I might ask, with a good prospect of getting a favorable answer, whether the farmer who had kept this flock was not also in better condition than the neighbor who had not?"

Hog Cholera--Preventive Vaccination.

The disease called hog cholera, which has occasioned so much loss to the farmers, has been the subject of much study by the savants of France. Mr. Pasteur, following out the line of discovery of Jenner in vaccine virus for the smallpox, has brought the science of vaccination to a high degree in other diseases affecting humanity, as well as those affecting animals. He has discovered and applied successfully vaccine for hog cholera. The farmers of France suffered terribly from the ravage of hog cholera, and in the United States 900,000 hogs died from this disease in 1879.

The veterinary surgeons of France experimented to their satisfaction with this vaccine virus of Pasteur. The result of their experiments showed conclusively the great virtue of Pasteur's discovery. The first experiment they vaccinated ten hogs, and put three others not vaccinated in the same pen. They gave to each of these thirteen hogs a teaspoonful of blood taken from hogs which had died from hog cholera; in three to five days the three hogs not vaccinated died, while all the others lived and were healthy. In other numerous experiments of like nature the same gratifying results were obtained, showing that this disease is caused by a microbe. The only way to prevent it is by vaccination in precisely the same manner as people are vaccinated to prevent smallpox, and equally successful.

This disease, as said before, is caused by a microbe (that looks like the figure 8), which has its home in the ground, planted there by hogs sick with cholera, and like a seed (spore) thriving in good ground, so it develops and thrives upon the body of the hog feeding over the same places.

Symptoms.—The disease ordinarily begins with a fever, accompanied with chills. Bristles erect, tail hanging

Pure

Blood means sound health. With pure, rich, healthy blood, the stomach and digestive organs will be vigorous, and there will be no dyspepsia. Rheumatism and neuralgia will be unknown. Scrofula and salt rheum will disappear. Your nerves will be strong, your sleep sound, sweet and refreshing. Hood's Sarsaparilla makes pure blood. That is why it cures so many diseases. That is why thousands take it to cure disease, retain good health. Remember

Hood's Sarsaparilla

Is the One True Blood Purifier. All druggists. \$1.

Hood's Pills cure Liver Ills; easy to take, easy to operate. 25c.

down, the ears and feet sometimes cold and sometimes hot. The action of the heart accelerated. Mucus of the eyes and mouth turns brown. The temperature rises as high as 109°. The hog affected lies down and moves only when stirred or driven, and holds its head down; has no appetite; sometimes vomits; constipation is noticed in the beginning of the disease and looseness of the bowels in the last stages. Weakness in the hind legs resembling paralysis, is noticed frequently when the hog moves. The principal symptoms, however, are the appearance of red and brown spots upon the skin, usually found under the armpits, behind the ears, upon the snout, and upon all different parts of the body. Swelling sometimes appears upon the throat, preventing respiration. When the spots are not apparent the disease generally has taken hold of some vital organ (brain, lungs, intestines) and the patient dies before the blood forms spots.

The duration of the disease varies from a few hours to eight days. When death follows the temperature is 96°. It is not rare that some hogs escape death after having taken this disease, but they are left in a poor condition.

Treatment.—When the veterinary is called he is unable to offer any relief. The blood of the hog contains the microbe and becomes decomposed. As I said before, vaccination or inoculation is the means of prevention. Two vaccinations are made, the last one twelve days after the first one, and it should be made upon the hogs from two to five months old. For a period of seventeen months the animals so vaccinated will not take the disease, and in the case of brood sows another vaccination a year after the first is recommended.

Vaccination will not cure a hog sick with cholera, but a hog vaccinated in good health is able to resist all epidemics. The vaccination of hogs to prevent hog cholera is just as effective as the vaccination of human beings to prevent smallpox, and science has demonstrated that it is the only safe course to follow.—J. Benoit, V. S., in *Ohio Farmer*.

Henry Ward Beecher once informed a man who came to him complaining of gloomy and despondent feelings, that what he most needed was a good cathartic, meaning, of course, such a medicine as Ayer's Cathartic Pills, every dose being effective

Home-Seekers Excursions.

On April 21 and May 5 the Missouri, Kansas & Texas Railway Company will sell tickets at very low rates to points in Missouri, Kansas and Texas. For particulars, address G. A. McNutt, 1044 Union avenue, Kansas City, Mo.

A Look Through South Missouri for Four Cents.

The Kansas City, Fort Scott & Memphis Railroad Company has just issued a magnificent book of sixty or more photo-engraved views of varied scenery in south Missouri. From these views an accurate knowledge can be obtained as to the productions and general topography of that highly-favored section that is now attracting the attention of home-seekers and investors the country over.

The title of the book is "Snap Shots in South Missouri." It will be mailed upon receipt of postage, 4 cents. Address J. E. Lockwood, Kansas City, Mo.

Irrigation.

BENEFIT OF WINTER IRRIGATION.

Read by H. P. Gumaer, at the Finney County Farmers' Institute, 1896.

We will consider the subject from two points: First, benefit of winter irrigation; second, how to get the water for winter irrigation.

To the farmer who has had experience in the use of water in winter, much that can be said will be as bread that has been baked and on sale many days.

Owing to the usual dry autumn seasons which we have in western Kansas, the ground loses all moisture sufficiently near the surface for plowing or other cultivation. The late fall or winter irrigation enables the farmer to put his land in condition for seeding in the early spring. If the land is plowed deep in the fall or winter after being watered, then harrowed down, it forms a reservoir to not only retain the moisture applied artificially, but to also catch all the moisture which may come from the clouds.

In our experience we have discovered that if the land is plowed in the spring, especially if the spring season be dry, all moisture to the depth of the plowing is taken out by our heavy wind storms. But if watered and plowed in the fall, then thoroughly harrowed, it becomes settled and the air and wind cannot so readily evaporate the moisture. This is experience, not book lore, or imagination, or what some one has done, but what we have done.

The writer came to western Kansas in the spring of 1893, and began the development of an irrigation plant, not new, but crude so far as irrigation goes. In the winter of 1893-4 we began the winter irrigation. The year before there had been seeded to wheat, by my predecessor, 3,500 acres, from which we harvested, in 1893, 400 bushels. In the fall of 1893 we seeded to wheat about 700 acres and watered it in the winter of 1893-4. You will remember that the spring of 1894 was very dry; you will also remember that we had no water in the river from about April 15 to June 1, and no rain in the spring from the last days of February to about June 1. The result of winter irrigation was a crop of 9,000 bushels of wheat, almost the only wheat crop raised that year in either Finney or Kearney counties. We also irrigated our alfalfa during the same period, and the result was largely satisfactory. We have continued the winter irrigation and think it one of the greatest means to success in western Kansas farming.

When we say winter irrigation, we mean winter and spring irrigation. There are certain conditions with which we have to deal. I think, perhaps, we sit down and plan how things ought to be, and are not willing to deal with matters as we find them. The conditions with which we have to deal are about as follows: A dry atmosphere, a fine climate, a deep, rich soil, productive of almost anything if water is applied properly and in sufficient quantities. Our water or moisture supply is the underflow and the Arkansas river. To get the underflow to the surface in sufficient quantity to produce general crops has been, and is to the present time, a failure. The other source or supply is the Arkansas river, which is dry from April 15 to June 1 of each year. It must, therefore, be very clear to the mind that to have any sort of success we must use the winter water supply, while the underflow development goes on in the brain of the scientist. Winter irrigation with deep plowing or subsoiling is our hope.

Second, how to acquire the water for winter irrigation. One very good way to do it would be to pay promptly for the water you have used during the season. In other words, pay your water contract note when it becomes due; then your ditch company will feel encouraged to get ready to run water in the winter.

As to our own patrons, we have no fault to find in this respect. During an experience of three years with the Southside canal, at Lakin, we have only one unpaid water note that is of

older date than 1895. The failure of the alfalfa seed crop has caused our people to be very hard run for money to pay their bills, but they are now showing their good intentions by working out their water notes in the way of repairing the canal, and we are proud to say that we do not believe any canal or any community can show a better record in this line than we.

To run water in the canals in winter is far more expensive than in the summer season, from the fact that our changes of weather are so sudden. When the ice gathers in the canal it forces the water around the sides and against the bank, which you understand cuts the embankment, and on the woodwork the freezing is very hard, causing it to spring and give way. The weeds that are moved about by the winds are continually gathering in the canal, all of which make the running of water in the winter expensive and dangerous to the canal and its management.

Those of you who water from your windmills, pumps and ponds, we want to say right here that in our mind there is nothing in western Kansas so misrepresented, so falsified, in other words, lied about, as the windmill and pumps used for irrigating, and we confess that it is somewhat amusing when we read some fine speech our friend Diesem has made, or when we hear of him taking some great man like Congressman Blue out to see his fish-pond and fine orchard, and make people whom he addresses and the great man who visits his farm believe that it is all done by a windmill and pump. You say there is nothing amusing; no, there isn't, but the amusement comes in

alfalfa every year because my ground is dry and I cannot spare the water from my pond to water it. I believe the water is in the river now and we might just as well get our alfalfa ground in good condition in the winter if we can all agree.

Sub-Irrigation.

EDITOR KANSAS FARMER:—I was very much interested in the discussion on sub-irrigation by Messrs. Hudson and Mohler, in your March 19 issue. These gentlemen, however, seem to not understand the Ohio experiments, to which both refer, while both give a good reason for the failure of sub-irrigation at this station.

By reference to Bulletin 61, of the Ohio Experiment Station, it will be seen that their experiments were made in the greenhouse, which may make a great difference in the mode of application and results. The bulletin referred to opens with this statement: "A water-tight bed, or bench bottom, is necessary in sub-irrigation, and there are several methods by which this may be secured." This was brought about by the use of cement to cover the bottom of the bench. Further on the author states: "In all cases there must be a level bottom, or at least the slope must be slight, and all in one direction. Inequalities in the bottom will prevent the proper working of the irrigating tile and result in unequal distribution of the water, hence a perfect grade is essential."

Could we obtain such conditions in the field, then it is quite likely that sub-irrigation would prove better than surface irrigation.

Prof. King, of Wisconsin, gives the

the better system of the two for Kansas. A. A. MILLS. Utah Experiment Station.

A Weather Prophet on Forests.

The St. Joe weather prophet, W. T. Foster, proposes remedies for droughts and floods. While some of his statements will be challenged as to their historic and scientific accuracy, his intense interest in the subject commends his utterances to attention. He says:

"There may not have been a great American desert but there certainly will be unless the practices are reversed. The forests of the Rocky mountains are being destroyed, principally by carelessness in permitting forest fires. When the destruction of these forests is complete the mountain streams will very materially decrease their flow, the streams west of the Missouri will cease to water the great plains, an intermittent will become a perpetual desert preventing the lows, which carry the moisture for the great lakes, upper Mississippi and the Ohio valleys, from receiving their supplies from the Gulf of Mexico and the result must be an increase of aridity from the Rockies to the Alleghenies. Three great countries—Mexico, the United States and Canada—are vitally interested in preserving the forests of the Rockies.

"The hand of man destroyed the forests of Asia, and that cradle of the human race is now little better than a burning desert. These old rich countries, Persia, Afghanistan, northern China, are covered by the Gobi desert because the forests were destroyed. The Euphrates valley, where the great Babylon ruled, is a waste of sands, and all this can be traced to no other cause than the destruction of the forests, because there have been no other changes, and it is well known that when forests covered that country all the lands were fertile and there were located the granaries of the world.

"The Northern pine forests are also being destroyed, and if this is continued the best portion of the United States and Canada must become more and more afflicted with aridity. As sure as Palmyra of old was overwhelmed by the sands after the forests were destroyed, so sure will the Ohio and upper Mississippi valleys succumb to a similar fate if the destructive hand of man is not stayed.

"These forests are being destroyed to satisfy greed, as the seal fisheries of Alaska are being destroyed, and these forest fiends have the means to hire able advocates among our scientific writers who, for pay, assure the public that forests have no influence on rainfall, and thus a free press is converted into a hired oppressor.

"Many places have too much rainfall, and generally this may be remedied. The greatest excesses of rainfall are usually found along the sea coasts and in marshy countries, and if the forests were destroyed and the marshes drained the rainfall would cease to be excessive.

"From New York city southward all around the Atlantic and gulf coasts to the southern line of Mexico are many forests and marshes that not only cause destructive floods on the coasts, but, by depriving the inflowing air of its moisture, decrease the amount of rainfall in the interior of the continent.

"The wet lands and dense forests of the Mississippi valleys, included in a circle drawn from Memphis by way of Shreveport, New Orleans, Mobile, Chattanooga and back to Memphis, are a menace to all the other portions of the United States lying east of the Rockies.

"The conditions of that lower Mississippi country are such that the moisture evaporated on the Gulf of Mexico and the Atlantic with which nature intends to water the interior of the continent is prematurely precipitated, resulting in great and damaging floods where they are not needed and causing aridity where rains would fall were it not for this lower Mississippi country which lies immediately across the inflow of moist atmosphere from the Atlantic.

"If the forests of that lower Mississippi river country were cut out and the bogs, marshes and lakes drained it



PHOTOGRAPH FROM LIFE—No. 1.

Are you raising razor-backs and elm-peelers like these? If you are you have probably never heard of the Topeka Anti-Cholera Pig Trough. See page 5.

when you go to the ditch company's office and find that Brother Diesem, like all other farmers, has made a contract with the ditch company for water, and has used his pump to tide him over the dry river season from April 15 to June 1.

We would not say one word to discourage the putting up of windmills and pumps; in fact, in our opinion, the man who would take a loving wife and family to live on a farm in western Kansas and not provide a windmill and pond is worse than a heathen.

Those of you who water in winter from your pumps and ponds do not have the same trouble as we who water from the canal.

In conclusion, most of us know the conditions under which we are compelled to carry on our farming operations, if we carry them on at all. Our water supply is limited, and we must use it when we can get it, winter or summer. The winter irrigation, accompanied by deep plowing, or subsoiling, does for the farmer in a larger way what the pump does for him in a smaller.

Let us have windmills and ponds; let us have fish in the ponds—these things. Then let us have the ditches operated winter and summer, when it is possible, so we can have water to irrigate with.

DISCUSSION.

E. L. Hall.—If it had not been for my windmill my orchard would all be dead, for I have been unable to get water enough from the ditch.

L. L. Doty.—I have irrigated sixteen acres from my windmill, and that is more than any of the ditches have done on the north side of the river.

Mr. Pearce.—I am interested in winter irrigation. I lose my first crop of

results of experiments in this line at the Wisconsin station. In their twelfth annual report he shows (page 244) that the crop of corn was 23.36 per cent. greater on the ground surface-irrigated than it was on that sub-irrigated. Prof. King says: "This difference of yield, in the writer's judgment, is due to the fact that a large part of the water introduced into the sub-irrigated land percolated below the level of most effective service in the root zone, while at the same time a large part of the surface soil, where the vital processes are most active, was left too dry." Cuts from photographs show the condition of the surface on the sub-irrigated plots. The general condition of the surface of the soil is about the same as we found at this station, and is expressed as follows: "During irrigation the soil immediately over the rock drains, or the plugs in the cement pipes, was over-saturated, while that between the drains or pipes and between the plugs in the pipes was very dry." (Bulletin 39, Utah station, page 49).

If the conditions are found to be nearly those of the Ohio Experiment Station greenhouse, sub-irrigation will quite likely prove very successful, while if conditions similar to those found in Wisconsin and here prevail, the sub-irrigation will prove an entire failure, as compared with surface irrigation. Your conditions in Kansas, as far as a loose, friable surface soil and an almost impervious subsoil are concerned, come the nearest to the greenhouse conditions of any place with which I have had experience. Yet I firmly believe that surface irrigation, followed as soon as possible by cultivation, with all cultivated crops, so as to prevent "baking," will prove

would not only aid in equalizing the rainfall but the country enclosed in that circle could be made to splendidly support a population of fifty millions of people.

"But if we have any statesmen they have not yet been able to gain a hearing. Legislation that has no robber scheme in it seems not to have any charms. The public good seems to be the very last consideration and thus we are drifting onto the rocks in more senses than one.

"The government did move a little in the right direction in its effort at water storage on the sources of the Mississippi. Millions of dollars should be expended along that line on the headwaters of all the great tributaries of the Mississippi.

"Water cannot be successfully stored in the arid parts because of excessive evaporation, but evaporation from artificial lakes will supply the lows with moisture, and therefore is better than to permit the water to run back to the sea through the rivers.

"Twelve inches of rainfall is amply sufficient for crop purposes and if this amount could be retained in the soil through the means suggested no crop failures would occur for want of moisture, and this holding of moisture in the soil would increase the rainfall in the arid regions and more equally distribute the moisture elsewhere.

"Plant trees, let the small brush grow in waste places, use undertow irrigation, preserve the interior forests, cut the coast forests, drain the coast marshes, build reservoirs, increase the artesian wells, increase the irrigation ditches. Give State and national aid

cultivating corn and all such belittling occupations.

That a people depending upon the products of the chase for a livelihood, and therefore more or less nomadic in their habits, should cultivate crops was not to be expected; yet, nevertheless, when game was not plentiful and the conditions for agriculture especially favorable, they did indulge in the pleasures of cultivating certain crops; though, truth to say, the principal part of their vegetable diet was derived from sources requiring no other labor than collecting. And it is with such foods that this article has to deal, mostly.

Pre-eminent among their cultivated crops was Indian corn. This, of all plants known to man, returns the largest yield of food for the least labor, hence was a favorite crop product among the Indians. Corn is believed to have been originally a native of Mexico and Central America, though its origin is necessarily shrouded in obscurity. In the progress and evolution that corn has undergone in course of cultivation during the last 200 years, a few fancy varieties have been sent out by seedsmen; but all the principal varieties of corn known at the present day have been cultivated by the Indians in some part of North America ever since its first settlement by whites.

Whether all known varieties of corn came originally from one is not to be told in this article, nor even hinted at. Dr. E. Lewis Sturtevant, of South Framingham, Mass., has given the subject a great deal of study, and has, in consequence of the great differences

Scott's Emulsion

is for men and women who are weak, when they should be strong; for babies and children who are thin, when they should be fat; for all who get no nourishment from their food. Poor blood is starved blood. Consumption and Scrofula never come without this starvation. And nothing is better for starved blood than cod-liver oil. Scott's Emulsion is cod-liver oil with the fish-fat taste taken out.

50c. and \$1.00 at all druggists.

be raised among the corn, and without any labor more than was necessary to care for the corn. The kidney bean is known to be a native of America, and the many varieties known to cultivation are found to have existed among the Indians.

That the Indians largely cultivated the common potato, which is also a native of South America, does not appear. Perhaps the reason for that is that it required much more labor than the other crops and with the Indians' mode of life removal meant loss of crops and all labor spent on them, which was necessarily the greatest consideration.

Among crops which were not cultivated but their growth encouraged about the villages where the seed happened to fall, were nearly all the rose fruits, such as wild plum (*Prunus americana* and *P. chicasa*), in many varieties, wild red cherry (*Cerasus pennsylvanica*), wild black cherry (*Padus serotina*) and choke cherry (*P. virginiana*), crab apple (*Malus coronaria*), thorn apple (*Crategus tomentosa* and other species), Juneberry or service berry (*Amelanchier canadensis*), blackberries and raspberries (*Rubus*), strawberries (*Fragaria virginiana*) and currants and gooseberries (*Ribes*) of several species. Other fruits collected, entirely without cultivation, were silver berries (*Shepherdia argentea*), a tree of good size on the plains; huckleberries and cranberries (various species of *Gaylussacia* and *Vaccinium*); wintergreen berries (*Gaultheria procumbens*); the berries of the various species of cactus (*Opuntia*, *Mamillaria*, *Echinocactus*, etc.), and other fruits.

Vineless Sweet Potatoes.

We again call our readers' attention to the merits of the "Vineless Gold Coin Profitable Sweet Potato." This is a novelty that is specially worthy of attention and general trial. It is certainly the greatest novelty yet produced among vegetables. The potatoes are similar to the Yellow Jerseys. The quality is fully equal if not superior to that, and when cut open are as yellow as gold.

They are extremely early and great drought-resisters. The plants do not grow to vines, in fact grow more like a bunch bean, and it has been proven by actual test



that they can be grown and harvested with less than one-half the expense and labor of any other variety. It is an excellent keeper, being almost as easily kept over winter as an Irish potato. This is a very strong point in its favor, as heretofore it has been almost impossible to keep sweet potatoes over for bedding or even for winter use.

The plants of the Gold Coin are exceptionally hardy, and it is the only "vineless sweet potato" that has been thoroughly tested, and will necessarily take the place of the old vine sorts on account of its labor-saving advantages.

The stock of the "Vineless Gold Coin" is

owned by the well-known Huntington Seed Co., of Indianapolis, Ind., who are introducing it this year. It costs only a small sum to get a start of this grand new potato, and on account of the many new advantages it has over the old vine sorts and the long-established reputation the Huntington Seed Co. has had for fair dealing, we do not hesitate to say to our readers, give it a trial. The illustration herewith will give an idea of its habit of growth, and for prices see their "ad." in another column. They also offer \$100 for the largest yield, and a book on "Sweet Potato Culture" free with each order.

IT DOESN'T COST YOU ONE CENT TO GET OUR CATALOGUE OF WINDMILLS, Pumps and Gasoline Engines

FAIRBANKS, MORSE & CO., Station "A," KANSAS CITY, MO.

"TELL IT OUT." The Okolo Treatment

Is a cure for all catarrhal diseases of the eyes, ears, nose, throat and lungs. That is why so many are telling about it. Here is what some of them say:

MANHATTAN, KAS.—During my attendance at the World's Fair, in Chicago, I contracted a severe cold, from the effects of which I lost my sense of smell entirely, and I lost my sense of taste so that I could not distinguish one flavor from another. Since beginning the Okolo Treatment, less than a month ago, my sense of smell and taste have both returned. MRS. M. E. ORESS.

KANSAS FARMER, TOPEKA, KAS.—The proprietor of the Okolo Treatment is a well-known and successful practicing physician at Manhattan, whose reliability is unquestionable. His treatment has been in use by members of the family of the editor of KANSAS FARMER and they have no hesitation in recommending it to their friends. KANSAS FARMER.

CINCINNATI, OHIO.—Having been a sufferer from pulmonary trouble for several years, and having tried various remedies and treatments without relief, I was advised to try the Okolo Treatment. I am glad to say it afforded me speedy relief from all coughing and irritation of the throat. Since using it I have been able to sleep without being troubled at any time during the night. CARL SCHIDEL, Carrie street.

DENVER, COLO.—For nearly two years I have been an invalid from lung trouble. During all that time I was bothered with constant tickling in my throat. I had tried various remedies but found no relief. About two months ago I began the Okolo Treatment, and I must say it relieved me. I used No. 3 for the tickling sensation in my throat, and No. 11 for soreness in my chest. I found great relief in both cases. ELLA W. MAYHEW, 450 Gray St.

The following is of unusual importance because of the high standing of Dr. Hinman, who lectures in one of the leading medical colleges of Chicago:

A. W. HINMAN, M. D., CHICAGO, ILL.—I have a high appreciation of your Okolo Treatment as a means of conveying antiseptics to certain diseased tissues. I have lately used it in Ear, Nasal and Throat applications, and find it much more rapid in its work than fluids. I really think so much of the instrument that, at my next lecture, I propose to exhibit it to my class and explain its merits. My purpose to do this has been growing stronger as I have come into possession of more evidence of its value. A. W. HINMAN, M. D., 720 Washington Boulevard.

WE CURE CATARRH

And every sort and condition of trouble arising from Catarrh. The way to get our treatment is to write and tell us just how and where you suffer. Our physician will go over your case carefully and select a three-months' treatment of the exact remedy your case requires. This and the Okolo Mediator and Inhaler, with full directions, will then be sent, postpaid, for \$3.35. When you receive the treatment and examine it, if you are not satisfied, return it and we will promptly return your money. We cannot be more fair than this. Spring is the best time to be cured. Write at once.

OKOLO COMPANY, 523 Poyntz Ave., Manhattan, Kas.

THEOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1894. Calls and correspondence invited.



PHOTOGRAPH FROM LIFE—No. 2.

This man heard of the Anti-Cholera Pig Trough, made by the Topeka Foundry, because he was a wide-awake, intelligent farmer. Cholera has not struck his herd. See page 13.

to these, induce Mexico and Canada to adopt the same practices and policy and the desert sands will be buried under the loam."

Foods of the Indians of the Plains.

By B. B. Smyth, read before the Shawnee County Horticultural Society.

That the Indians of the plains, like all other Indians of North America, lived principally on the products of the chase, goes without saying; and whatever propensity they may have possessed of massacring their enemies, unlike the Chinese vegetarians, was not derived from their vegetable diet, whether much or little.

But it is not the purpose of this occasion to enumerate the various kinds of animal foods upon which the Indians subsisted, but to note the various kinds of plants from which these Indians derived sustenance when game was scarce or when from feebleness or other causes they were unable to successfully wield the bow, the spear or the tomahawk.

That cultivation of crops should be carried on almost solely by the women, the children, and the old or enfeebled men, is to be expected from the nature of things, as it required a superior degree of courage and strength and skill to be successful in the chase, and it was but natural to expect that those who did not excel in these qualifications should make a living by methods not requiring superiority in these directions. Hence it is but natural to expect that the warrior or the brave who did possess these qualifications should consider himself exempt from the menial labor of picking berries,

existing among corns, established six species, instead of the one, *Zea mays*, which we have always known. His species are: *Zea tunicata*, pod corn; *Z. saccharata*, sweet corn; *Z. amylocea*, soft corn; *Z. indentata*, dent corn; *Z. indurata*, flint corn, and *Z. everta*, popcorn. He finds among Indians no less than 168 varieties of these different species cultivated, varying in number from fourteen varieties of soft corn to forty-four of flint corn. Among the plains Indians, from Texas to Athabasca, fourteen or more varieties were cultivated, being principally varieties of soft, dent and flint corns. Coronado, in his search for the seven golden cities, found corn growing under cultivation in Kansas, and he did not have sense enough to know that he then found the foundation of at least one of the golden cities that he sought. Aside from the yellow or gold color of corn, which ought to be adopted as a border of the American flag, the principal variety colors of corn are red, white and blue.

Besides corn the following plants were cultivated by the plains Indians: The common pumpkin (*Cucurbita Pepo*) and the squash (*C. maxima*) have been cultivated by the Indians as far back as Indians have been known. The pumpkin is believed to be a native of South America. Whether the pumpkin and squash were originally from one parent and have become, like the corn, differentiated through thousands of years of cultivation, is not the purpose of this article to consider. The most important crop, next to corn, cultivated by the Indians, was the common kidney bean (*Phaseolus vulgaris*). Much dependence was placed on this crop, which, like the pumpkin, could

The Home Circle.

LIFT UP YOUR HEARTS.

Lift up your hearts, my brothers!
Ye who in solemn tones
Sing of a hopeless sorrow
And teach your muse to moan;
Ye who in paths of plenty
Walk at your lilled ease,
Why should ye lift your lyres
To chant solemnities?

Ye who have walked with scholars
And never knew a care,
Ye who have grace of leisure
And liberty of air;
No more in mournful music
Of dearth and doubt complain—
Lift up your hearts, my fellows,
With gladness for refrain!

I who am bound and fettered
To toll and circumstance,
Barred of the golden freedom
Of cheer and choice and chance;
Regard me how I murmur
No echo of your woe—
O, lute beloved! forever
Through thee alone shall flow

The breath of boundless beauty.
And, lo, upon thy voice
Shall leap the living lyric
To startle and rejoice.
In vain the chains that bind me,
In vain the prison wall,
I half forget the fetters
When wind and weather call.

Lift up your hearts and follow—
For every joyous day
Repays the soul for living
When all within is May.
In every common being
The breath of beauty dwells—
In field and hill and forest,
In earth's and ocean's cells.

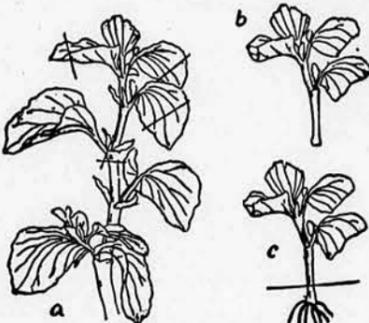
Then face the dawn with courage,
As I who know the road,
For me so rough and weary,
So keen the bitter goad;
But hope, a deathless beacon,
Burns brightly on the hill,
And swift the feet of duty
And strong the cords of will.

Yes, strong and swift and steady
The upward, upward pace,
But, O, the golden glory
That breaks upon the face,
When on the splendid summits
One finds the promise near
That filled the heart with dreaming
And fed the soul with cheer!
—The Bentztown Bard.

HOME FLOWER GARDEN.

Propagation from Slips Fully Explained and Illustrated.

By striking slips of geraniums, double petunias, verbenas, heliotrope and the generality of bedding plants during February and March strong plants can be raised for bedding out in May. Cuttings of begonias, fuschias, ivies, tradescantias and other house plants can now also be propagated, in order to have vigorous young plants for next winter's adornment of the plant stand. Such heat-loving bedding plants as coleus, achryanthes and alternantheras are scarcely in shape to afford good cuttings until a month or six weeks later. But as they grow rapidly in heat, by deferring propagation until about April 1 plants strong enough for summer bedding may still be raised. A good way for amateurs to get in an excellent stock of geraniums and other bedding plants is to purchase



PROPAGATION FROM CUTTINGS.

some thrifty young plants at a greenhouse in February, take a slip or two from each and propagate at once. Then in March set both the purchased plant (now shifted into a larger pot) and the rooted slips (by that time potted) into a hotbed and advance them well there until planting-out time.

In plant propagation the home gardener often loses sight of various conditions which the professional deems essential. By the aid of the accompanying sketch of a begonia I will point out some of these. First, the slip should not be too hard or too soft at its base. If it be too hard, it will root with difficulty and grow slowly; if too soft, the slip is liable to decay or to make a weakly plant. In the case of the begonia shoot illustrated, a point just below the third joint, counting up, was found to possess a condition intermediate between the extremes named. In

preparing the cutting for the sand some pruning is desirable, for now there are no roots to sustain extra leaf surface. To remove the lower leaf entirely and cut away the points of the longer remaining leaves is all that is required, leaving the slip as shown at b.

Clean sand is the best substance in which to root cuttings. The cutting should not be set more than about half an inch deep. The sand should be somewhat compacted against it. The cutting box or pot should occupy a warm, light place, shading the slips if the sunshine be strong. Enough water should be applied to keep the roots from flagging, and frequent sprinkling of the foliage is desirable. As soon as roots half an inch in length have been formed it is desirable to pot the young plant. — Elias A. Long, in American Gardening.

NEAT LAUNDRY BAG.

The One Here Illustrated Is an Ornament If Properly Made.

Such a neat thing as a laundry bag should be in every house. If made prettily it is an ornament. There is nothing so untidy as soiled clothing lying about a room, and where a laundry bag is at hand, such a thing would never be. The one in our illustration is made of very light brown denim. The design, which anyone can draw, is worked in dark brown cotton, in



outline stitch. The bag measures a yard long and three-fourths of a yard wide. A heading finishes the top, and two drawing strings, one running each way, are run through, with which to hang by. —Prairie Farmer.

Do Not Let Tea Stand.

If only one pot of tea can be made for a family taking their luncheon at different hours, every housewife should see to it that the tea does not stand with the teagrounds in it longer than from three to five or seven minutes. After that time pour the tea into another pot and throw the grounds away. If you have only one teapot, infuse the tea in some other vessel, pottery of some kind is best, and pour into the pot. In this way the injurious effects of the tannin which is drawn out of the leaves after a longer infusion is avoided, and you save yourself, your friends and family from becoming tea-maniacs. —N. Y. Evening Post.

A Dishpan Stand.

A correspondent writes that she uses a dishpan stand in her kitchen and has found it exceedingly convenient. It is easily manufactured out of any nice flour barrel. First she fastens two strips of wood, about one and a half inches thick, at the proper distance from the bottom to allow a slop bucket to rest upon and remain just below the dishpan, which is large enough to rest in the top of the barrel. The advantage of this stand is that it can be easily moved. Where there is no water or regular sink in the house to hold the dishpan while washing dishes it would be convenient. Any house where there is no sink and no permanent water supply is a house sadly behind the age. We have passed the pioneer day, and any well-to-do family can easily put a sink in their houses, and a good drain in connection with it. A sink and drain is as necessary to the health and comfort of the family as a chimney. —N. Y. Tribune.

Premature baldness may be prevented and the hair made to grow on heads already bald, by the use of Hall's Vegetable Sicilian Hair Renewer.

Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder

ABSOLUTELY PURE

SOME CAKE RECIPES.

All Had Been Tasted Before They Were Submitted to the Editor.

In making layer cakes grease the jelly tins and dust some flour over them. This prevents sticking.

Apple Fruit Cake.—One cup of sugar, two cups of butter, two eggs, half cup of sweet milk, one and one-half cups of flour, one teaspoon of baking powder, two teaspoons of cinnamon, one teaspoon of cloves, one cup of dried apples, which should soak over night. Chop fine and boil two hours in sugar before using.

White Fruit Cake.—Two cups of sugar, two-thirds cup of butter, one cup of sweet milk, three cups of flour, two teaspoons of baking powder, whites of four eggs, one cup of stoned raisins.

Spice Cake.—One cup of sugar, half soda dissolved in half a cup of sour milk, one and a half cups of flour, one teaspoon and a half cups of flour, one teaspoon each of cinnamon, cloves and nutmeg.

Layer Cake.—For cocoanut, chocolate or jelly, one and a half cups of sugar, one cup of butter, whites of four eggs, one-half cup of milk or water, two teaspoons of baking powder. A nice icing for filling is made of the whites of two eggs and two-thirds of a cup of pulverized sugar, beat well together and flavor with one-half teaspoon of lemon.

Tea Cake.—One-half cup of butter, one cup of sugar, one-half cup of sweet milk, one teaspoon of baking powder, two cups of flour; flavor with peach. To be eaten warm.

Sponge Cake.—Two cups of sugar, two cups of flour, eight eggs, one teaspoon of lemon. Beat well together and bake in dripping pan.

Chocolate Marble Cake.—Two cups of sugar, one cup of butter, one cup of milk, six eggs, three cups of flour, one teaspoon of baking powder, one teaspoon of vanilla. Take one-third of this mixture and add one-half a layer of chocolate grated. Put a thin layer of the white in the pan, then alternate spoonfuls of the light and dark mixture; finish with a layer of white. —M. L. Lyon, in Housekeeper.

No small objection which young folks had to the old-time spring-medicines was their nauseousness. In our day, this objection is removed and Ayer's Sarsaparilla, the most powerful and popular of blood-purifiers, is as pleasant to the palate as a cordial.

My son was afflicted with catarrh. I induced him to try Ely's Cream Balm and the disagreeable catarrhal smell all left him. He appears as well as any one. —J. C. Olmstead, Arcola, Ill.



CATARRH

ELY'S CREAM BALM opens and cleanses the Nasal Passages, Allays Pain and Inflammation, Heals the Sores, Protects the Membrane from colds, Restores the Senses of Taste and Smell. The Balm is quickly absorbed and gives relief at once.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists or by mail. ELY BROTHERS, 56 Warren Street, New York.

Proper Position for Waltzers.

The objectionable method of encircling a young woman's waist while in the act of waltzing has been subjected to adverse criticism. The mode which now prevails is graceful, modest, and entirely consistent with propriety. To acquire the proper position the gentleman's left hand should be placed just below the shoulder of the lady. The body should incline slightly and he should relax a little in order that artistic grace may be observed. He holds his partner's hand in his right, while his proficiency as a dancer and his good taste tell best how to dispose of the clasped hands.

That is the best part of beauty which a picture cannot express.—Bacon.



FREE TO SUFFERING WOMEN.

I suffered for years with uterine troubles, painful periods, leucorrhoea, displacements, and other irregularities, and finally found a simple, safe home treatment, that cured me without the aid of medical attendance. This is no quack doctor's medicine; but nature's own remedy for women. It costs nothing to convince yourself of its merits, for I send it free with full instructions to every suffering woman. Address, MRS. L. HUDNUT, South Bend, Ind.



SECTIONAL CUT OF CORK FACED COLLAR showing exact amount and arrangement of GRANULATED CORK FACING. This collar will not only save your horse's shoulders, but being hand-made and hand-stuffed will last much longer than any machine made collar. Cork-Faced Collar Co. Lincoln, Ills.

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If you pay \$4 to \$6 for shoes, examine the W. L. Douglas Shoe, and see what a good shoe you can buy for \$3.

OVER 100 STYLES AND WIDTHS, CONGRESS, BUTTON, and LACE, made in all kinds of the best selected leather by skilled workmen. We make and sell more \$3 Shoes than any other manufacturer in the world. None genuine unless name and price is stamped on the bottom.



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The Young Folks.

IN THE TWILIGHT GRAY AND DIM.

His little eyes look into mine,
Those brown, brown eyes that softly shine,
His snowy, chubby arms I feel
Around my neck caressing steal;
As dulcet music to my ear
His lisping baby voice I hear;
Upon my breast his head he lays,
Into those eyes I fondly gaze,
I kiss the lips that scarcely talk;
The tiny feet that can just walk;
And, as I sit and fondle him,
There in the twilight gray and dim,

I pray that God may guide aright
His pretty feet of pink and white;
That He may keep his dimpled hands
Free, ever free, from passion's bands;
His rosebud lips keep all secure
From utterance of aught impure;
Forbid his eyes to ever see,
His ears to hear too willingly
In all his years a single thing
That to my cheek the blush would bring;
God grant my boy a liberal mind,
A noble heart, brave, true and kind.

Were it Thy will, I'd doubly bear
Of care and pain, dear Lord, his share—
These eyes of mine should burn and ache,
This heart of mine, yearn, yearn and break,
That his dark eyes might miss the tears,
His gentle heart escape the fears;
These hands of mine would labor know,
These feet of mine all errands go,
That his wee hands be kept from soil,
His tender feet from thorn and toll;
Ah, Christ, you understand, I know—
Your own sweet mother loved you so!
—Kathleen Kavanagh.

SMART BLACKBIRDS.

Gen. Lew Wallace Tells a Good Story of Their Sagacity.

Gen. Lew Wallace related an incident which shows to a remarkable extent the wonderful sagacity and memory of blackbirds.

"At my home over in Crawfordsville," said the general, "we have a large number of tall trees on the lawn, and in the course of time these trees became the roosting place at certain times of the year for hundreds of thousands of blackbirds. They came in great, black clouds, and in spite of all I could do they refused to leave. Of course, they were a great nuisance, and I was in despair as to some means of getting clear of them. I stood for days with my gun fring into them of an evening and killing hundreds of them, but the rest did not seem to be sufficiently struck by fear or grief to want to part company

did? My dividing fence runs between the trees on my property and the trees on the property of my neighbor, which are equally high and suitable for a home for the blackbirds. When the the birds were driven from my lot they flew over across the dividing fence to the trees of my neighbor and settled. There was no bombardment over there, and they stayed there ever since.

"This was a long time ago, but never since the last Roman candle was fired into them has one of those birds settled on one of my trees. They are 'tabooed' as effectually as though they were on fire. The great clouds of birds each morning and evening fly directly over my trees, going and coming, but not a bird settles upon a tree that is on my side of the dividing fence.

"Another strange thing is that if anyone of an evening stands in my lawn and makes a slight noise, as slapping his hands, there will be the wildest commotion among the birds in the neighboring trees. They become restless and almost panic-stricken. If, however, the same person crosses the fence and stands directly under them and makes twice as much noise, they pay no attention whatever to him. He can even shoot up into them without driving them from their perches.

"I have wondered several times just what impression those birds have of me and my property that they have so decidedly given me the cold shoulder. They know every tree that is on the other side of the fence within a few feet of the dividing line. Of course, I have not bothered them over there, as they were not my guests."

DOT'S ADVENTURE.

In One Way It Was Not a Howling Success, in Another It Was.

Uncle Ned was really to blame for it, though he had not the least thought of such a thing when he said to Dot, as she came up with her round music box under her arm:

"Hello, little Dago! Where's your monkey?"

Now, Dot lives in the city winters, and knows all about the organ men and their queer little beasts. She comes with mamma in summer to the biggest country town in which mamma herself was a little girl. She had always thought it would be a fine thing to have an organ and go about the streets gathering pennies. As Uncle Ned sauntered off she grew very thoughtful. Then her face brightened. She ran down the garden calling excitedly to her little sister:

"Mab! Mab! I want you! Aunt Sarah said yesterday you were one perfect monkey."

Dot was just turned five, and Mab three, but the two were almost of a size, since Dot was a mere mite, and Mab deliciously chubby. When lunch time came without bringing them, Grandmother Allen began to fidget, and wonder what had become of those precious little dears. At first Dot's mamma only laughed, saying:

"They will be here in a little while, bright as a new penny."

But when three o'clock saw them still away, she too, grew uneasy, and went to search for them.

So did Uncle Ned, but he chose another way. Somehow, he remembered Dot's face as he saw it last. "It would be just like her; she is the most original little morsel!" he muttered, as he took his way along the shady streets to a big hotel much frequented by summer visitors.

About the same time Dot was saying a little tearfully: "It's your fault, Mab; you're too big. Nobody won't believe you're my monkey when I tell them 'so. And you don't hold your cap out right; you drop it as soon as they don't put things in it. You ought to keep holding it till they were sorry and gave you something."

"My arm gets tired. I'm hungry. I want to go home. We have got the five cents Cousin Anna gave us when she met us as we started," Mab whined disconsolately, tugging at the string that bound her to Dot's arm.

"Bah! old cry face!" Dot said, with dignity. "I want to get enough pennies, so we can have ice cream soda and some pep'mints. Come! we'll try this place. It looks nice and big, with heaps of people on the porch."

"I want mamma," Mab said, discon-

solately, but followed Dot up the piazza steps obediently, holding out her red fez, while Dot turned the crank of her music box so vigorously that no sound of any sort came from it. People began to stare at them. One young woman bent and kissed Mab's hot cheek, saying: "You poor little angel! Have you got nobody belonging to you?"

Mab did not answer; her eyes were fast on some one coming up the steps.



MAB "PLAYING MONKEY."

With one bound she broke from Dot's hold, and flung herself tempestuously into Uncle Ned's arms, crying out:

"Uncle Ned! I want to go home. I won't ever be Dot's monkey any more."

"No, you shall be mine," Uncle Ned said, swinging her upon his shoulder and walking away in triumph.—Out-look.

How Marbles Are Made.

Most of the stone marbles used by boys are made in Germany. Only the refuse of the marble quarries is employed, and this is treated in such a way that there is practically no waste. Men are employed to break the stone into small cubes, which are then thrown into a mill consisting of a grooved bedstone and revolving runner. Water is fed to the mill and the runner is quickly revolved, while the friction does the rest. In half an hour the mill is stopped, and a bushel or so of perfectly rounded marbles is taken out.

Precept and Practice.

"I heard the professor remark," chuckled Fred,
As a little tack hammer he whirled,
"Twas our duty as life's rugged path we tread,
To help a man rise in the world."
Then he doctored a pin and adjusted the same
With the little point heavenward curled,
And when the prof. into the lecture room came,
He got a good rise in the world.
—N. Y. Mercury.

I find Salvation Oil the best cure for rheumatism I have ever known.—Joshua Zimmerman, Wetheredville, Md.

Washburn College, Topeka, Kansas.

For catalogue, address the Registrar, Washburn Academy. For information, address the Principal.

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Class in History—

Stand Up!

QUESTION—Who invented the first successful Reaper?
ANSWER—Cyrus Hall McCormick, in the year 1831.

Q.—Who builds the best grain and grass-cutting machinery at the present time?
A.—The McCormick Harvesting Machine Co.

Q.—Were their machines operated in the World's Fair field tests?
A.—They were.

Q.—Were the machines of their competitors so operated?
A.—They were not.

Q.—Why?
A.—Because they were afraid of the McCormick.

Q.—What proportion of the world's annual supply of harvesting machines is made by McCormick?
A.—About one-third.

Q.—Why did the farmers of the world buy 60,000 McCormick Mowers in 1895?
A.—Because the McCormick No. 4 Steel Mower is the best grass cutter ever built—that's why.

The new McCormick Light-Running Open Elevator Harvester and Binder, the McCormick No. 4 Steel Mower, and the McCormick Corn Harvester are unequalled for capacity, light-draft, efficiency of service and long life. Built, sold and guaranteed by the McCormick Harvesting Machine Co., Chicago.

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Write for catalogue giving particulars and prices. It is Free. THE SEDGWICK BROS. CO., RICHMOND, IND.

ADAMS

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24 to 58 inches high; Steel Web Picket Lawn Fence; Poultry, Garden and Rabbit Fence; Steel Gates, Steel Posts and Steel Rails; Tree, Flower and Tomato Guards; Steel Wire Fence Board, etc. Catalogue free.

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THE SURRENDER OF BUFFALO.

There are fifty eight head in Austin Corbin's great park in New Hampshire. The old bulls have always objected to separation, but as usual "the Page" won and now divides them into four herds. Result: Order for 4 1/2 miles, 9 ft. fence, close enough to hold foxes.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.



A FEW SHOTS PUT THEM TO FLIGHT.

with me and my hospitality. I then devised a new scheme.

"Procuring a number of Roman candles one evening I lighted them one by one after dark, when the boughs of the trees were bent low with the weight of the croaking birds, and I poured the candles into the tops of the trees at a great rate. The sudden innovation startled the birds as nothing had ever done before, and they became panic-stricken. That night I was free of them.

"The next evening, however, the habit of returning there to roost was stronger than fear, and they began coming in by thousands as soon as the evening approached. After dark I began with another volley of candles, and the birds began to realize that there was a determined bombardment in progress. They fled precipitately, and the third evening only a few returned. A few last shots put them to flight, and I was troubled no more.

"But what do you think those birds

KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Thursday by the

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The officers of the Missouri Pacific railroad have given notice of the restoration of the old car-load rates on stock shipments, pending the full determination of the matter by Railroad Commissioners.

We have recently received envelopes with money in them, post-marked Olathe, Rose Hill, Larned, Pawnee Rock. No letters or names indicated who the senders were. The proper parties will please send us postal card claiming credit and describing money sent.

The March estimates by the United States Department of Agriculture, of the wheat crop of the world is summarized as follows: In 1891, 2,432,322,000 bushels; in 1892, 2,481,805,000 bushels; in 1893, 2,562,913,000 bushels; in 1894, 2,672,341,000 bushels; in 1895, 2,552,677,000 bushels.

Those of our friends who are about to renew their subscriptions will do well to note the following clubbing list—KANSAS FARMER one year and any of the following at prices named: The Weekly *Inter Ocean*, \$1.35; New York *Tribune*, \$1.25; Topeka *Capital*, \$1.50; Topeka *State Journal*, \$1.50; Topeka *Advocate*, \$1.50; Kansas City *Journal*, \$1.30; Kansas City *Star*, \$1.25. Our columns have been so crowded for the last few weeks that it has not been possible to run advertisements of our premium offers. But by referring back a few weeks you will find them. Our subscription list is doing remarkably well, but we can always stand a little more of this kind of prosperity.

It is not easily seen how a politician's honesty should differ from the common, every-day article so highly esteemed in the ordinary transactions of life. But it sometimes happens that on acquiring a political position the elation is so great that a man imagines himself to be sole heir in his own right to the unfinished or unpublished work of his predecessor. There appears to be such a case in the United States Department of Agriculture. Prof. H. E. Van Deman, a formerly-of-Kansas man, was for a long time pomologist of that department. He was appointed to the position by Hon. Norman J. Colman, who, though a Democrat, selected Prof. Van Deman, a Republican, on account of his qualifications for the work. Uncle Jerry Rusk found his work so good that he made no change. But when the present "small potatoes" from Nebraska got in he ousted Van Deman. Before the change was made, however, Prof. Van Deman had prepared for publication a most excellent bulletin on nut culture, which has since been published by his successor without giving further credit than to say that his predecessor, Van Deman, had sent out the circulars calling for the information. Due credit is given to some of Van Deman's clerks for the work they did in the preparation of the bulletin, but it looks like an attempt to deprive the real author of the bulletin of well-earned credit.

GRIEVANCE OF LIVE STOCK SHIPPERS.

Last week there was an outpouring of stockmen and shippers of live stock from all parts of Kansas, to the number of several hundred, who came to Topeka to testify before the Board of Railroad Commissioners as to the excessive charges and hardships of the new system of freight rates for shipments of live stock, by the hundred pounds instead of the old car-load rates.

During the past few weeks stockmen have held meetings in the various counties of the State to protest against the enforcement of the new pound rates adopted by all Kansas railroads, which have been in force since January 1, 1896. The stockmen were very much worked up over the results of such a substantial increase in rates, and therefore submitted their grievances and evidence to the Board of Railroad Commissioners, in order to be relieved of these hardships and if possible to secure the restoration of the old car-load rates.

Scores of witnesses gave evidence that, by comparison of the old with the new rates, the new were unreasonable and excessive. They were all agreed that the old rate was high enough, but that the new rates were an actual increase of from 20 to 30 per cent. over the old. The testimony was uniform and covered every part of Kansas and every railroad in the State. The following is a sample out of the mass of testimony submitted to the Board:

Jas. C. Tuttle, Salina, stated that he was a buyer and shipper of stock since 1870. Every shipper in his locality considered the new rate exorbitant as compared with the old. He had also considerable complaint on account of overcharge.

Hon. P. P. Elder, of Franklin county, was present as the representative of the stockmen of that county, who recently held a convention to consider their grievances, and in every shipment a substantial increase of rates was shown, varying from \$2 to \$5 per car. The universal testimony of Franklin county shippers was that the rate was entirely too high.

J. W. Robinson, of El Dorado, testified that, as a farmer and shipper of many years experience, he found the new rate was entirely too high. The minimum car rate now was as great as the largest car under the old rates, and at present the minimum rate holds whether the car is filled to that capacity or not. The old rate was reasonable as compared with the new. Under the new rate the individual shipments from his own farm alone would cost him from \$800 to \$1,000 excess over the old rates. The system of weights by the railroads at Kansas City, which have the weighing done by the Western Weighing Association, has no merit and frequently this weight on which the freight was based was very different from that of the Stock Yard Company scales.

J. F. True, of Newman, Jefferson county, testified that of twenty-five cars of stock shipped under the old rate to Kansas City, a distance of fifty-three miles, the freight was \$471.19. The same shipments under the new rates would cost \$563, an actual increase of 19 per cent.

Mr. Koster, of Miltonvale, Cloud county, a farmer and shipper, testified that the excess of cost under new rates to ship fifty-three cars would average \$5.16 per car. It does not pay to load cattle as light as the minimum weight under the new rates.

John C. McCoy, commission merchant, of Kansas City, testified to discrepancies of weights between the Western Weighing Association and the stock yards, and also to delays in weighing under the new system.

P. H. Landergin, of Eureka, a shipper of fifteen years' experience, had never lost an animal from over-crowding in the car; has usually shipped 26,000 to 30,000 pounds in each car. Taking thirty-nine cars as a basis, he showed that there was a difference of \$500.58 between the old and the new rates, or an increase of \$12.85 per car.

The best testimony submitted by the railroads was that of J. C. Lincoln, Assistant General Freight Agent of

the Missouri Pacific. The following report of his testimony is from the *Daily State Journal*:

Mr. Lincoln said the reason for establishing a minimum rate of 19,000 pounds for a standard car and 22,000 pounds for a thirty-six foot car was to accommodate the small shipper in order that he might have the benefit of light loading and thus avoid excessive freight rates.

Witness also testified that though there had been a decrease in majority of the cars over his road, there had been an average increase of 64 cents per car on the total number of cars shipped.

Mr. Lincoln said that the figures of the weighing association were as a rule as nearly correct as those of the stock yards, but in case of dispute as to the weights, the railway companies generally settled upon a basis of the stock yard weights.

With reference to the reason for the change from the old car-load rate to the present hundred-pound system of shipping, Mr. Lincoln said it was because of discrimination between shippers; that it gave the large shipper in a thirty-six foot car an advantage over the small shipper and worked the latter an injury.

Regarding the rate of increase witness had a tabulated statement for February, 1896, of business done, showing for that month under the new rate \$29,689.01. Under the old rate this would have been \$30,925.49, thereby showing, as witness termed it, "a slight rate of increase."

On cross-examination Attorney Waters asked:

"Is it the New York company, the humane society, the shipper or the weighing association that fixes the rate?"

"The New York companies."

"The shippers have nothing to do with it?"

"No, they do not."

"Am I right when I say a rate upon a car-load means that the car is to be loaded as heavily as the shippers choose?"

"It means a fair, average load. One of the first rulings of the Missouri Board of Railroad Commissioners was that a car-load as intended by statute meant 20,000 pounds, and this was made as a unit."

"When you establish a rate of \$30 for a thirty-six-foot car, what do you understand as an average load, taking into comparison the size of the car?"

"About 24,000 pounds is the average loading for a thirty-six-foot car."

"When you put your new tariff into effect you expected the shippers to load fat cattle just as they had been doing in the past?"

"Yes."

"Then you expected your revenue to increase in proportion to the weight over the minimum rate?"

"No, we did not expect that."

"Do you know about how many pounds of wheat can be put in a car?"

"Sixty thousand of wheat can be put in a 60,000 pound car; you could not put that many pounds of feathers in such a car."

"Then you know the average capacity of a car for wheat and feathers, but you don't know anything of the cattle-carrying capacity?"

"Not quite so well posted, perhaps; I said 24,000 pounds of cattle was an average capacity."

Attorney Benefield drew from the witness some good points for the cattlemen regarding the increase under the new rate from Coffeyville to Kansas City. This increase was admitted to be something like \$1.60 per car.

The rebuttal testimony of the railroads was, on the whole, evasive and a manifest disposition to avoid giving out any essential facts so far as the evidence went as given by the freight agents who testified.

The railroads were represented by a splendid array of their best legal talent, yet with all their skill they could not break down the formidable testimony of the stockmen and shippers who came well prepared with a mass of evidence and facts which were practically unanswerable.

Joseph G. Waters, of Topeka, was chief counsel and attorney for the shippers, and in his conduct of the case against the able opposition did himself great credit.

The railroads, through their attorneys, claimed that the new rates were the only equitable system of doing business, and several of the roads claimed that their freight departments had received very little, if any, complaint except as shown by the evidence submitted at this time.

The shippers did not care to take issue on the question of the pound rates so long as it did not materially increase the cost of ordinary shipments.

The railroads, through their attorneys, submitted an immense amount of tabulated data for January, February and March, 1896, showing the results of total shipments, but did not compare it with previous periods as to whether an increased revenue obtained.

The case before the Board of Railroad Commissioners was ended on Thursday by both sides submitting the matter of evidence without further argument. The board at once decided that by hundred-weight was equitable,

leaving the one question of whether the new rate was extortionate to be decided after the mass of testimony was in shape to be read by them. Meantime the board ordered the restoration of the old car rate to take effect April 20, 1896. It is more than likely that the railroad companies will acquiesce in the matter, although that remains to be seen. At present writing it looks like a substantial victory for the live stock shippers.

HOW FARMERS MAY INFLUENCE THE GOVERNMENT.

The *American Agriculturist* suggests that if the national conventions of all political parties, which are to meet during the next three months, knew just what the farmers of the United States wanted, they would be pretty sure to heed the farmers' demands. This fact has led that famous old agricultural magazine to call upon the farmers to express their views. Rather liking the idea, the KANSAS FARMER asks the opinion of its readers on the following questions:

1. Who should be the Republican candidate for President and Vice President this year? (Give two names, the first being understood to be for President, the second for Vice President).
2. Who should be the People's party candidates for President and Vice President? (Two names).
3. Who should be the Democratic candidates for President and Vice President? (Two names).
4. Should the protection policy of the McKinley bill be endorsed? (Answer yes or no).
5. Should the revenue tariff policy of the Wilson bill be continued? (Answer yes or no).
6. Should reciprocity be restored? (Answer yes or no).
7. Do you favor a federal bounty on agricultural exports? (Answer yes or no).
8. Should the people vote for (a) the single gold standard, or (b) for international bimetalism, or (c) for a continuance of the present currency system, or (d) for the free and unlimited coinage of American silver in American mints, or (e) for free and unlimited coinage of silver and giving it equal standing with gold at 16 to 1? (Answer yes or no to a, b, c, d, e, separately).

INSTRUCTIONS.—Address your reply to KANSAS FARMER, Topeka, Kas., and sign your full name and address. Answer Nos. 1, 2 and 3 with two names each, the other questions simply yes or no. As many names of legal voters may be signed to one set of answers as agree to such answers, provided the postoffice address of each signer is given. Only legal voters, owning, renting, working upon or living upon farms may vote. The quicker ballots are received, the better. The returns will be tabulated and published.

OBSERVATIONS ON CORN STALK DISEASE.

EDITOR KANSAS FARMER:—As much as has been said in the columns of the FARMER, it would seem the whys and wherefores of the so-called "corn stalk disease" of cattle should be about all in, but considerable reading and observation have convinced me that several different causes of death in cattle, because occurring in cattle pastured on stalks, have been ascribed to the mysterious "corn stalk disease." Within my observation, while I have lost no cattle myself in stalks, I have known cattle die, as I believe, by over-eating of corn when not accustomed to it—foundered when first turned into stalks. I am also convinced that many die from eating large quantities of dry fodders, which induce dry murrain or impaction of the stomach, and in two instances in this neighborhood men have lost cattle by keeping them up on little or no feed through a storm, then turning them into the corn stalks when covered with ice, and, being ravenously hungry, they have swallowed so much of the icy fodder as to produce death, either from the chilling of the ice or succeeding fever and inflammation. As to whether there is a specific poison found on corn stalks which kills cattle or not, I am not prepared to say, but am fully convinced that far more cattle

die from the causes above named than from this poison, in all which cases preventive treatment, which has so well been pointed out by several correspondents of the FARMER, is the principal remedy, and may be summarized as follows: At first, after supplying abundance of salt and water within easy reach of the stock, and if possible preparing them for stalk-feeding by bringing them to nearly full feed before turning into the stalks, allow them but a very short time in the field the first day, increasing each day till in a week they will become so accustomed to it that few will be injured by staying the whole of the time. This will prevent loss from the first two causes. For the third one named the inference is plain that cattle well fed in the corral, not only will not gorge themselves with icy fodder as will those which are half starved by keeping up without feed, but are in better condition to resist the chill caused by the ice. I, however, believe it never safe to pasture stalks covered with ice.

CLARKSON HODGIN.
Dwight, Morris Co., Kas.

It will be remembered that in the KANSAS FARMER of July 3, 1895, a review of a bulletin then just published by the veterinarian of Kansas State Agricultural college, it appeared that at least three cases of extensive losses of cattle from poisoning by nitrate of potash in corn stalks were well authenticated as having occurred in as many widely-separated places in Kansas. Nitrate of potash is a most valuable element of fertility in soils. It promotes a vigorous growth and gives the dark green color to vegetation, which is rightly regarded as an indication of the healthy condition of the crop. When present in excess in the soil it has little if any effect on the composition of the grain grown upon the land, but corn stalks take it up in large quantities and it has been known to constitute as much as 25 per cent. of the entire weight of dried stalks. Such stalks crackle like a fuse when burned. They are poisonous. Even a much smaller percentage of the poison may be deleterious. It is well worth while to investigate the question as to whether much of the corn stalk diseases may not, after all, be varying developments of poisoning by potassium nitrate derived from an over-rich soil.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending April 13, 1896, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

Warm showers have prevailed during the week and the eastern half of the State has been well watered, the heaviest rains occurring in Miami. Beginning in Russell and extending eastward, the rainfall is over an inch, reaching three inches in Miami. In the west traces of rain occurred in the southern counties, with better rains in the northern, and on Sunday good rains in the central. Some high winds have prevailed, but the presence of moisture largely prevented injury.

RESULTS.

EASTERN DIVISION.

The warm showers this week have brought vegetation rapidly forward and greatly benefited the wheat, which is in good condition and looks. Oats are generally up and a good stand. Flax-sowing nearly completed. Corn-planting about completed in the southern and begun in the northern counties. Peaches, pears and plums are in full bloom, with good promise for all kinds of fruits. Cattle on pasture in the southern counties.

Allen county.—All foliage out; pastures good grazing; all prospects are good except raspberries, which are winter-killed.

Atchison.—Peaches and plums in full bloom, and the showers have given vegetation a good start.

Brown.—Wheat looking fine; oats coming up very even; pastures turning green; peaches in bloom.

Chautauqua.—Wheat looks well and is doing fine; corn-planting progressing and nearly completed; grass nearly sufficient for cattle; a good growing week; early garden truck in market.

Cherokee.—A fine growing week;

ground in good condition; peaches in full bloom.

Elk.—Corn-planting well along; grass starting and will support stock in another week if weather continues favorable.

Franklin.—Favorable weather for crop growth; some corn planted; oats coming up nicely; considerable flax sown.

Greenwood.—Showers of 8th started prairie grass; first peach bloom on 6th, plum on 7th and pear on 8th.

Johnson.—A fine week for all kinds of vegetation and everything looking fine.

Labette.—Wheat needs more rain; chinch bugs plenty; apple trees in bloom.

Marshall.—The week has been dry and hot, with heavy winds each day; ground was getting very dry but will be greatly benefited by the fine rain of 11th.

Miami.—Ground too wet this week for most farming operations; oats and flax look well; much of the corn ground plowed; prospects for all kinds of fruits fine.

Neosho.—A good week; crops already planted are looking fine; corn and oats are being planted rapidly; considerable flax being sown.

Osage.—The rains this week have retarded plowing and planting; fruit all right, with good prospects.

Pottawatomie.—Abundance of rain; wheat looking well; oats up and look fine; peaches, pears and plums in full bloom; alfalfa looking splendid.

Wilson.—Good showers this week have started everything to growing; corn-planting well along; flax mostly sown; wheat on bottoms is good color and looks fine; pears in bloom; forest trees changing to green; blue grass fine; gardens showing well.

Woodson.—Good week for farmers; flax and oats mostly up, looking fine;

corn being planted; fruit prospect good.

Pawnee.—A dry, windy week, hindering farm work and blowing considerable small grain; peaches and plums in full bloom; chinch bugs and grasshoppers ever present; the week ends in a rain.

Phillips.—Dry and windy, with fair rains last of week.

Pratt.—High wind on four days, damaging wheat and oats in localities; corn-planting progressing slowly; all vegetation growing slowly.

Rush.—A windy week, with little rain; wheat growing well but needing rain; oats about sown; potatoes and gardens being planted; peaches in full blossom.

Russell.—Best spring prospects for many years; everything in fine shape except low water in wells, and the week ends in rain.

Saline.—A week of encouragement to the farmer, and one of great activity; wheat not blown out is making a fine growth; ground moist and mostly ready for corn-planting; potato and garden planting being pushed; light frost on 9th.

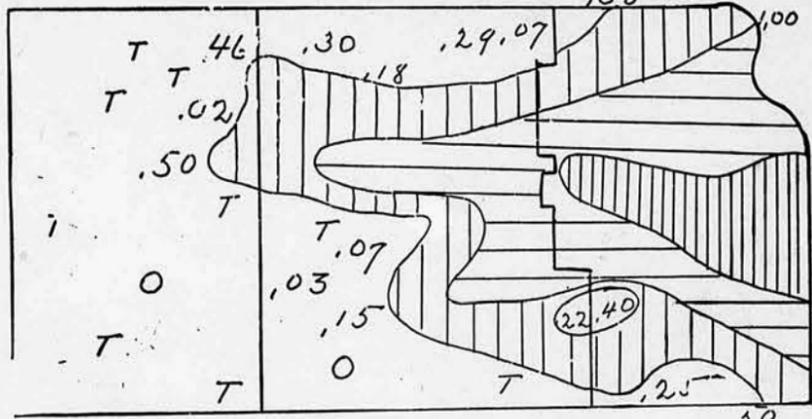
Stafford.—A windy and destructive week; crops on sandy soils damaged badly; oat-sowing finished; corn-planting half done; oats and barley coming up nicely.

Sumner.—Very dry; high winds from the south, with dust, injuring the wheat, but the week ends in a rain; grass short.

Washington.—Oats just coming up; wheat looks well; surface of ground dry, needing rain.

WESTERN DIVISION.

Warm, dry and windy. Wheat in good condition except where injured by high winds and dust; reported as dying out in spots in Trego. Oats and barley coming up in good shape. Al-



Scale of shades in inches less than 1/2, 1/2 to 1, 1 to 2, over 2, Trace. ACTUAL RAINFALL FOR WEEK ENDING APRIL 11, 1896.

corn largely planted; fruits of all kinds promise well.

MIDDLE DIVISION.

Wheat is generally in good condition and looks well, though it has been damaged in spots to a small extent, especially in loose soils, by the high winds blowing it out of some fields and covering it up in others. Oats and barley are coming up in good condition. Corn-planting has begun. The fruits give good promise, and peaches, cherries and plums are blossoming. The conditions in the central counties are the best for years. The week ends with rain.

Barton.—A dry, windy week, hard on wheat but a good soaking rain would help it out all right; corn-planting begun.

Butler.—Wheat and oats look well; corn-planting begun, yet the high winds have filled up many of the listed furrows; fruit in good shape; not much flax sown.

Cloud.—Very favorable week; pastures starting nicely; wheat fine; oats just coming up; good prospect for fruit.

Harvey.—Wheat and oats have made rapid growth this week; corn-planting in progress; peaches, cherries and plums now in bloom; apples just commencing; fruit prospect fine; prospect for wheat and oats never more encouraging.

Kingman.—Dry and windy, with no rain yet this month; wheat and oats looking well; corn-planting in progress; grass coming slowly, of some benefit to horses, not much to cattle yet.

Marion.—Wheat good, and conditions favorable; corn-planting generally begun; grass starting; fruit fine; land too wet to work.

Mitchell.—Wheat generally looking well and does not show much effect from the high winds; oats about all sown, some up and looking well; some

alfalfa gives fine promise in the south. Peaches and plums are in blossom. The week ends with a good rain in the central western counties.

Decatur.—Warm and windy, week ending in rain.

Finney.—Dry, with high winds; alfalfa making a fine growth; gardening work progressing nicely.

Gove.—Dry and very windy, with dust, yet wheat is looking well; getting dry for all kinds of spring farming.

Grant.—Small grain slightly damaged by high winds, but mostly safe; not much being done yet, too dry.

Greeley.—Hot, dry and windy all week; no damage to wheat yet; prairie grass starting; the week ends with a good rain.

Norton.—Ground in excellent shape; grain and grass coming on nicely.

Rawlins.—Heavy wind and dust storms drying up ground very fast.

Sheridan.—Winter wheat growing nicely, also spring wheat; a large acreage of oats and barley sown, what is up is looking fine; corn-planting commenced; grass starting; season backward; high winds.

Thomas.—Rain needed badly for small grain, otherwise ground is in fine shape for spring work; the high winds of the 9th, 10th and 11th dried out the ground considerably and the air was full of electricity; peaches and plums are in bloom.

Trego.—Growing weather; would be better if more moisture in the ground; wheat reported dying out in spots; oats and barley struggling up; a rain passed east on afternoon of 10th.

Half Fare to Cleveland and Return.

On occasion of the general conference of the M. E. church, May 1 to 31, inclusive, the Nickel Plate road will sell tickets at one fare for the round trip, on sale April 29 and 30 and May 1 and 12. For further information address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 78

A SPRING MEDICINE.

A Sure Restorative for Blood and Nerve—Dr. Hartman's Private Prescription.

Of course you will have to take something for your blood this spring. It is a foolish risk to do otherwise. Maybe you are subject to chronic catarrh during the winter, which has run you down. Perhaps you have had la grippe, from which you have never fully recovered. Your blood may be out of order, or possibly you are bilious or constipated, nervous or dull, sleepless or languid, restless or tired. At any rate, whatever may be your condition, you ought to, and probably will, take some spring medicine; something to invigorate; something to cleanse, something to strengthen.

Miss Lena L. Stoll, Adrian, Mich., writes as follows: "It affords me much pleasure to testify to the merits of your Pe-ru-na. I can speak in the highest terms of it, having used it for five years as a spring medicine, with great benefit to myself; and I recommend it to my friends with like results."

Any who wish may get a spring book free of charge by writing to The Pe-ru-na Drug Manufacturing Company, Columbus, Ohio; also a book on chronic catarrh and catarrhal diseases.

Publishers' Paragraphs.

Those of our readers interested in the welfare of the people of this country, as all should be, will profit by the reading of an article in the *American Law Review*, issue March and April, 1896. The paper is by Governor Penoyer, of Oregon, and entitled the "Case of Marbury vs. Madison," which was before the United States Supreme court at the February term in the year 1803. Any one interested in the history of the usurpation of corporate power and the gradual sapping of the life of productive industry, more especially that of agriculture, will get, on perusing the paper referred to, an inkling of the assumption of the Tory idea as practiced for centuries in Great Britain, and since transplanted on American soil. This number of the *Review* contains other very valuable papers. The book may be had of the Review Publishing Company, 215 Pine street, St. Louis, Mo.

One of the most important features of a well-improved farm is the fencing. It is, therefore, an important matter to farmers and one demanding serious consideration. The old rail fence and the barbed wire fence are all back numbers and are superseded by a woven wire fence that supplies the purpose of a fence by preventing the stock from within from getting out, as well as the stock on the outside from getting in, is not unsightly, is more durable and is not destructive to stock, as was the case with barbed wire. Among these improved fences the "Keystone" holds high rank as one of the best fences on the market. The farmer who supplies himself with "Keystone" finds himself an agent, in spite of himself, for this popular fence, for he is invariably pried with queries as to what make it is, where he bought it, price, etc. Whenever introduced it at once jumps into popular favor, and everybody must have a full supply. This is why the new works of the Keystone Company are obliged to run night and day to supply the demand. For full information, catalogue, etc., write Keystone Woven Wire Fence Co., Peoria, Ill.

John Wisweller, of Columbus, Kas., in writing about matters pertaining to his advertisement of tree wash and insect destroyer, gives us the following information: "There are a great many matters of interest, in connection with the tree wash. My sales this spring, so far, are much in excess of my expectations. You will remember that I began the manufacture of the wash, for the public, only last July, and being so late in the season, we did not have an opportunity to get it into the market, to much extent, until fall season. The Huber Milling Co., of Seneca, Mo., were the first large fruit-growers to buy, after I began the manufacture of it. They purchased 100 gallons last year. Last month I received an order from them, entirely unsolicited, for 300 gallons. We have made a great many other large sales this spring, selling 100 gallons and upwards to other fruit-growers. All who bought last year are buying again this year. The agents report that all persons who bought it and applied it last fall, for protection against rabbits, are highly pleased. I am opening out an office at Cleveland, Ohio, and my brother is taking charge of it there. I would like to have you add to the advertisement, Cleveland, Ohio, so that persons may address us at either place." Send for his circular, giving full particulars how to apply the wash.

Send for new program, including list of trotting purses offered, for inaugural meeting of the El Paso County Horse and Bicycle Association, May 30, June 1, 2 and 3, 1896, to J. W. Miller, Secretary, Room 2, Bank Building, Colorado Springs, Colo.

Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

Horticulture.

STRAWBERRY CULTURE.

From Bulletin No. 53, Kansas Experiment Station, by Profs. S. C. Mason and F. C. Sears.

The strawberry, of all fruits of the temperate region, should be grown nearest the consumer. While it is a fact that large quantities of berries are shipped considerable distances, even several hundred miles, these shipments are mostly confined to a few varieties of firmest texture and not always of the finest flavor. Even fruit of this quality does not reach the distant consumer in anything like the fine condition it does the one who can buy it fresh from the vines, while there are many of the choicest varieties of strawberries which it is useless to attempt to ship. These may be made to yield large quantities of the very finest fruit for the consumption of the home grower or his immediate customers.

The object of this bulletin is to encourage the more general raising of strawberries; first for home use by the farmer and owner of a village lot; and, second, for market in the vicinity of the smaller towns and villages. The larger markets and the shipping trade are pretty well provided for and need little encouragement.

The importance of farmers and village residents raising a home supply of this most wholesome and delicious fruit cannot be too strongly stated. Those who buy a liberal supply in the market find at the end of the season that the bill has amounted to a snug little sum, which, in many cases, might have been saved by raising the berries at home. Too often, from lack of means or on account of distance from town, the farmer's family taste but few strawberries during the year.

The arguments in favor of raising berries for market may appear to be weakened somewhat by the advice to raise them more generally for home use, but there will always be a large class who can more conveniently buy than raise their berries, and they will invariably buy home-grown berries when offered side by side with imported ones. While the demand may not be an unlimited one, yet there are few towns in the State where, if the strawberries shipped in could have been produced at home, they would not have given a comfortable income to at least one grower and his family, and often to several. While it may not be laid down as a safe rule that all the imported berries might have been replaced by home-grown, yet, wherever we have given us the three factors of a good soil, sufficient supply of water, either in the form of rain or available for irrigation, and a careful and energetic man or woman to push the business, strawberries can be grown and sold at a profit near home. Strawberry culture is as simple as that of any other field or garden crop, and the value of the product possible from an acre of ground is equal to that of anything the gardener can plant.

A small piece of ground and few varieties should be the rule till one becomes familiar with the details of the work, and has gained the deftness and experience necessary to successfully handle a large crop.

SITUATION AND SOIL.

Strawberries should be given a situation sheltered from hot, sweeping winds, though they should never be much shaded. Very rolling ground, liable to strong washing and filling, should be avoided, and a level piece at the foot of a steep slope is sometimes open to the same objection; for a fine berry patch after a heavy rain, buried beneath several inches of mud and silt, is a sight to discourage the most enthusiastic.

The best soil is one just sandy enough to work nicely and drain well, and about the worst is a stiff, waxy, or gumbo land which tends to hold water after a good rain. Strawberries will do little in a sour, undrained soil. While strawberries will repay the generous treatment, yet it is an easy matter to get the land too rich in the elements furnished by stable manure; and one should especially avoid the use of too much raw or unrotted manure just

previous to setting a bed. The crop of white grubs that takes possession of land freshly manured often destroys a large portion of the young plants.

Manuring land well the year previous, and cropping with something that will insure clean and thorough cultivation, is the best preparation that can be given.

It is better that the land should be plowed shortly before the time for setting. No trash should be plowed under, and the work should be done when the soil is neither too wet, so as to pack, nor too dry, so as to turn over hard and lumpy. Plow well and harrow thoroughly, and if lumps appear work them out with roller or clod-crusher.

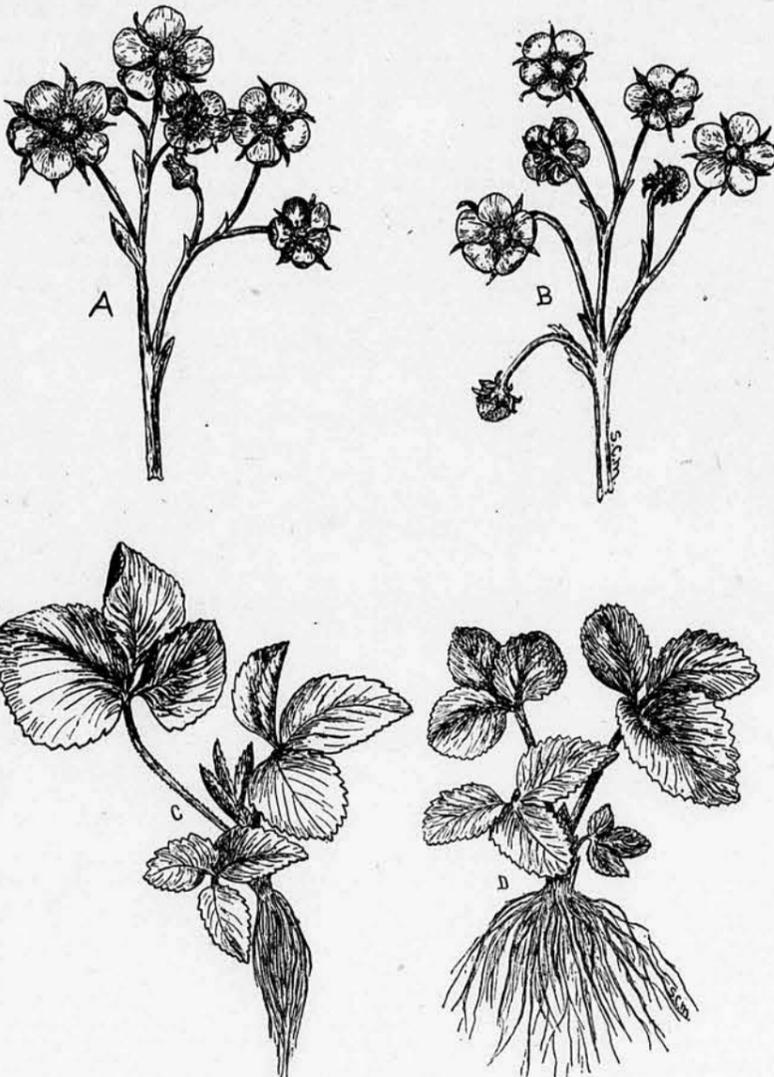
METHOD OF CULTURE.

The plan of culture most successful in Kansas is by matted rows. For this method the rows should be set four feet apart and the plants twelve to eighteen inches apart in the rows. Some have recommended setting as far apart as two feet, but the chances of an uneven stand at this distance are much too great. In providing plants for setting, with the distance of twelve inches,

One of the results of cultivation has been the production of many varieties of the strawberry in which the stamens are wholly wanting, or are so much reduced in size as to produce no pollen. Some of our most productive varieties, as Crescent, Bubach and Warfield, are of this character. In many catalogues and strawberry books, the term "staminate" is applied to the perfect form of flowers, and "pistillate" to the imperfect form, or flowers having pistils only; but the terms "perfect" and "imperfect" used by some writers are much to be preferred, as they convey the correct ideas in regard to the character of the flowers.

Figure A, in Plate IV., shows a stem of perfect flowers, about two-thirds natural size. The stamens are shown radiating from the central cone of pistils. In figure B, a stem of imperfect flowers is shown, the circle of stamens wholly wanting.

If a bed of imperfect-flowered plants is set, no fruit may be looked for. Even when three are perfect-flowered plants in the same yard, several rods away, much of the fruit is found to be



A—Perfect flowers. B—Imperfect flowers. C—Roots bunched; wrong way to set. D—Roots spread; right way to set.

10,890 plants will be needed for an acre; at eighteen inches apart, two-thirds of this number, or 7,260. For varieties which make runners freely, like Warfield and Martha, this will be an abundance. A good stand of the Parker Earle would be better insured by the closer setting. It is well to allow a few extra plants, so as to be able to reject any weak or poorly-rooted ones. When plants are received from a distance always unpack them at once, open out the bundles, puddle the roots, and heel them in in a cool, shady place where they will be kept moist till set out. Look carefully at your labels and check off on your invoice or order sheet. Write plain and conspicuous labels if they are needed.

CHARACTER OF BLOSSOMS.

In a wild state, strawberry blossoms are said to be perfect, that is, having both pistils and stamens present in the same flower.

The pollen produced by the stamens is not blown about by the wind to any extent, as in the case of corn or wheat, but insects visiting the flowers for nectar, carry the pollen from flower to flower, and the fertilization is thus accomplished.

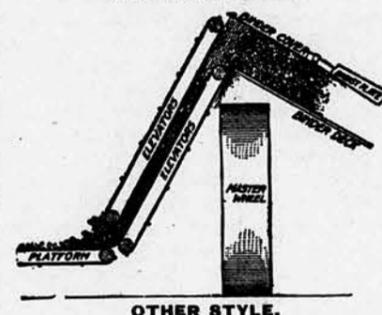
knotty and inferior in quality from imperfect fertilization.

Berry-growers differ in opinion as to the proportion of "fertilizers," or perfect-flowered plants, that should be set, some favoring every other row, while others think that one row in five is sufficient. Our practice in the station grounds has been to set one row in three of perfect-flowered plants. To illustrate, a combination which is often used is Captain Jack with Crescent, setting two rows of Crescent, imperfect-flowered, then one of Captain Jack, which has perfect flowers.

PROPAGATION.

New plants of a given variety of strawberry are obtained from runners, which are sent out from the old plants about the middle of June, or at the end of the fruiting season. A slender, thread-like stem, growing out from the old plant, takes root at the tip, if it can find moist, mellow soil, sends up leaves, and in a few weeks a vigorous young plant is grown. This in its turn may send out one or more runners which repeat the story, and with favorable conditions as to moisture this may continue till frost stops their growth.

SUPPOSE you had heavy loads to haul to town, and one road had a long, steep hill, another a short, easy slope hill. Which road would you take? The elevator on the New CHAMPION Binder is short, the slope is easy and the canvases are wide apart; the grain is handled with less friction and more gently than on any other Binder, and the upper canvas, by its peculiar construction, feeds the grain regularly and gently to the packers.



The elevators on other Binders are high and steep, and the canvases must be run close together.

Suppose you had a 300 pound stone to move from your field, would you strain your back trying to lift it by main force,



or would you use a long lever and pry it out? On the New CHAMPION Binder the eccentric binder wheel gives long leverage when heavy work is to be done.

•These are the new things on Binders. The New CHAMPION has all the good features found on any other Binder, and has these new features that are not found on any other machine. We would like you to see one of these machines before you buy. Agents in every considerable town.

The Warder, Bushnell & Glessner Co. Makers, Springfield, O., and Chicago, Ills.

\$3.10 FOR THE BEST
BRASS BUCKET SPRAY PUMP on the market. It is fully described in our SPRAY PUMP CATALOGUE. Another valuable work is our handsome ILLUSTRATED BOOK ON CIDER PRESSES AND FRUIT MACHINERY. Both will be sent FREE. DAVIS-JOHNSON CO. 41 W. Randolph St. CHICAGO, ILL.

VINELESS SWEET POTATO
Our "GOLD COIN" PROLIFIC is the Greatest Sweet Potato on earth. No one can offer it this year but ourselves. It's a fortune to any one. PAYS 20 times its cost in increased yield and cheapness of production. Quality the very best. Leading horticulturists say nothing equals it. Every farmer and gardener should grow it. No vines to bother. It's marvelous. Nothing before ever equaled it. Order immediately before stock is exhausted. We offer \$100 for the largest yields. Our book, 40 years experience in growing Sweet Potatoes, Free. Price prepaid 1 lb. \$1.00; 2 lbs. \$1.50; 3 lbs. \$2.00; 50 plants \$1.00; 100, \$1.50; 500, \$5.00; 1000, \$9.00. Send club orders. HUNTINGTON SEED CO., Indianapolis, Ind.

The earlier-formed plants will, of course, be the stronger and better.

A method of securing extra strong plants is by means of "potted runners." As the young plant is getting nicely rooted, a three-inch flower pot full of mellow soil is slipped under it, nearly buried in the earth, and the young plant, still attached to the parent by the runner, is transplanted into this. The presence of the pot seems to greatly stimulate root growth, and the plants of extra size obtained are sold at a corresponding price.

(To be continued.)

Potatoes by Mulching.

EDITOR KANSAS FARMER:—I have been much interested in the articles on subsoiling, raising potatoes, etc., being subjects of practical interest to every farmer within the State, and feel like adding my mite towards the potato question.

Having about one year ago given my method of raising potatoes by mulching, I will now announce the result. I planted, about June 1, sixteen rods of ground, in little swale of stony soil, from which I had removed the surface stone, near one bushel of Boyle's Northern Spy potatoes, cut to two

In the Dairy.

Conducted by A. E. JONES, of Oakland Dairy Farm. Address all communications Topeka, Kas.

Which Shall It Be, Oleo or Butter?

EDITOR KANSAS FARMER:—If it is to be average "store butter," give me oleo, every time.

I do not mean the above to be construed to mean that I am favorable to the fraud practiced by manufacturers and dealers in oleo butter, but that oleo is preferred when it comes to eating to average store butter. No one is more opposed to the manufacture and sale of oleo as butter than the writer, nor more sure that oleo lives and thrives on account of the enormous amount of poor farm butter on the market, and I have no fight with oleo, only as it is sold for what it is not.

We are engaged in the dairy business—have been for years—not in making ordinary 10-cent farm butter, but making as good as can be made with a thorough knowledge of the business, using improved modern methods in our work, and I am quite sure that poor farm butter has done more to cast suspicion on all butter and drag

this case, one just as essential as the other: First, that oleo shall be sold, uncolored, for what it is. Second, that no one shall buy or expose for sale or have in his possession butter not up to a certain standard, making the fine in both cases the same. Third, we need a more thorough dissemination of dairy knowledge through our farm journals, farmers' institutes, and all avenues through which farmers can be reached.

The dairy industry should be second to none in this State. In fact, with our cheap feed, it should be one of the leading industries. Car-load after car-load of the grain products of our farms are shipped east to feed dairy cows. They can and should all be fed at home. If Eastern dairymen can pay freight on products shipped from 1,000 to 1,500 miles and still make money—and they do—why can't we, if we feed it at home.

Elm City, Kas. M. E. KING.

Making Fine Butter.

Mrs. Ella E. Rockwood, a successful dairy woman, in a paper read before a Michigan farmers' club, said, among other things: "There are some things necessary in order to make fine butter, as every one knows. Nearly every farmer's wife has her cabinet creamery nowadays. Pans have gone, along with the grain cradle and the scythe. They are too slow for these modern times. The creamery is neat, commodious and cleanly. There are no flies on it; neither are there any in the cream.

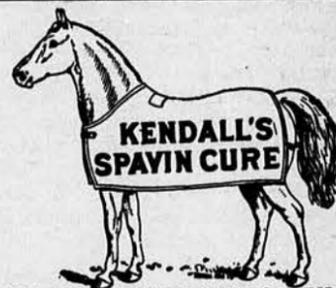
"The separator is, perhaps, a step better than this, even; but for the average farmer, with a few cows, the creamery is advisable as being cheaper, easier to handle, and if plenty of ice is used, the skimming is as perfect as with the more expensive machine.

"The woman who sets out to make 25-cent butter will need to be very careful and particular at each stage of the operation. She must caution the men at the barn in regard to the milking. They should brush the cows' udders well before beginning and must milk with dry hands. The cows must be kept well bedded and clean. The milk

must be very carefully strained as soon as possible after it is drawn, first through a fine wire strainer, then through at least four thicknesses of bleached butter cloth.

"At no stage in the operation is more care needed than in ripening the cream. Great care is necessary to get it just right. It must not be so thick as to be cheesy, or wheyed off, and it must not be too thin. When it is in a state where it will pour about like sirup or molasses, I think it is about right. There will be a peculiar satiny sheen to the top of the cream when it is right, and it should then be churned. Never add sweet cream to the rest less than twenty-four hours previous to churning time, or a loss will result, as that added last will not be as ripe as the other, and consequently will not come at the same time."

FOR COUGHS, ASTHMA AND THROAT DISORDERS, use "Brown's Bronchial Troches." Sold only in boxes. Avoid imitations.



THE MOST SUCCESSFUL REMEDY FOR MAN OR BEAST. Certain in its effects and never bilsters. Read proofs below.

KENDALL'S SPAVIN CURE

BLUEPOINT, L. I., N. Y., Jan. 15, 1894. Dr. B. J. KENDALL Co.—I bought a splendid bay horse some time ago with a spavin. I got him for \$30. I used Kendall's Spavin Cure. The spavin is gone now and I have been offered \$150 for the same horse. I only had him nine weeks, so I got \$120 for using \$2 worth of Kendall's Spavin Cure. W. S. MARSDEN.

KENDALL'S SPAVIN CURE

SHELBY, Mich., Dec. 16, 1893. Dr. B. J. KENDALL Co.—I have used your Kendall's Spavin Cure with good success for Curb on two horses and it is the best liniment I have ever used. AUGUST FREDERICK. Price \$1 per Bottle. For sale by all Druggists, or address DR. B. J. KENDALL COMPANY, ENOSBURGH FALLS, VT.



FIG 2

FIG. 1.

The accompanying cut will give a very good idea of the advantage of growing evergreens by the method employed by the Dundee Nursery, of which our advertising patron, D. Hill, the evergreen specialist, is the proprietor and manager. Figure 2 shows a Norway spruce as grown under ordinary conditions and without the proper transplanting and cultivation. Figure 1 shows a tree of same variety and same age, but one which has had the advantage of the special knowledge and treatment of Mr. Hill. Every man who has had any experience knows that the prime essential in the selection of young

plants or trees is a strong, healthy root growth, such as is shown in figure 1. The reader will notice, also, that the top growth is better and that there is a greater spread of branch. If the true color were shown, we feel that quite a difference would be noticeable in favor of figure 1. A good deep green and healthy color in evergreens, that which is so much prized by growers, can only be imparted by an understanding and intelligent course of treatment. To those of our readers who wish to buy anything in this line, we recommend that you correspond with the Dundee Nursery, Dundee, Ill.

eyes, planting with the stirring-plow run as shallow as possible to turn, planting about eighteen inches apart in every second furrow, and put on the mulch of about two ordinary loads of weeds, old hay and old straw, just covering deep enough to smother weeds, and left them till digging time to care for themselves, when I dug them with a fork, and had nineteen and a half bushels of large potatoes, one of which weighed two and a half pounds when dug, and forty of which filled a bushel measure heaping full, which I am saving for this spring's planting.

CLARKSON HODGIN.

Dwight, Morris Co., Kas.

IMPOVERISHED BLOOD causes that tired feeling. Hood's Sarsaparilla purifies, enriches and vitalizes the blood, giving new life and increased vigor and vitality.

HOOD'S PILLS are easy to take, easy to operate. Cure indigestion, biliousness, headache.

Homes for the Homeless.

The opening of two Indian reservations in northeastern Utah to settlers opens up over three and one-half million acres of fine agricultural and stock-raising land for home-seekers.

The Uintah and Uncompahgre reservations are reached by the only direct route, the Union Pacific system, via Echo and Park City. E. L. LOMAX, G. P. & T. A., U. P. system, Omaha, Neb.

down the prices of good butter than oleo, even in its deceptive form.

I believe that oleo should be sold for what it is. I believe the manufacturers should be restrained by law from coloring it like butter, or selling it for cow butter. Then I would get after the other fellow, the fellow who palms off for butter a mixture of sour cream, buttermilk and water, with a little butter, as butter.

Nine-tenths of the farm butter made in this State, by the time it reaches the consumer is not fit to go into the stomach of a human being, and compared with good, sweet butter is just as great a fraud as oleo dare be, and the manufacturer of oleo has as good right to sell oleo as the maker of such butter has to sell it for human food. I know it is an easy thing to shove responsibilities off on to other shoulders, and quite natural for man to do so, but this never rights a wrong.

Go with me into a store, anywhere in this State, where farmers dispose of their surplus butter, and I will prove that what I say is true. There you will find butter of all colors, shades and strength, from the weak, ill-smelling to the rancid, sloppy mass, strong enough to walk, from the aroma emitted—stuff that would cause the hardened village cow to blush with shame.

There are three things we need in

SPRAY WITH THE EMPIRE KING

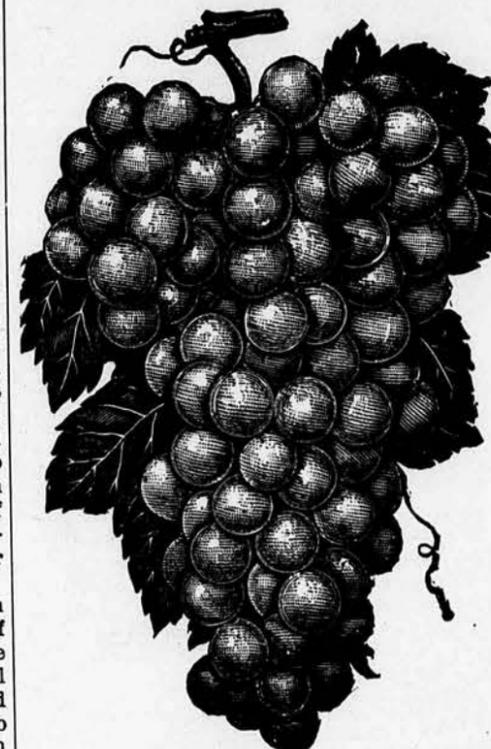
Our catalogue will tell you why it is the best. Send 2c. for postage and the catalogue is free. FIELD PUMP CO., 75 Market St., LOCKPORT, N. Y.



"UP-TO-DATE" SPRAY Pumps

Delivered Express or Freight—Free. Latest improved, all-brass pumps—warranted for three years. Over 75,000 in use. Endorsed by leading Entomologists. Your money back if pump doesn't give absolute satisfaction. Prices to fit the times. Illustrated Catalogue, Spray Calendar, and Treatise on Spraying—all mailed free. Agents wanted. P. C. LEWIS MANUFACTURING CO., Box 76 Catskill, N. Y.

Plant Trees and Orchards in 1896.



The old reliable Hart Pioneer Nurseries, of Fort Scott, Kas., have large supplies of choice stock for sale at special prices. 600 acres in nursery, 240 acres in orchard. Extensive growers for the wholesale trade. Write and obtain prices before placing your orders elsewhere. No transfer or exposure of stock. We take up, pack and ship from the same grounds. Send for our

Illustrated Planter's Catalogue and Price List.

We solicit your correspondence and invite inspection of our stock.

Reliable Agents Wanted.

Address

HART PIONEER NURSERIES,

FORT SCOTT, KANSAS.

Early Ohio Grape, Six Weeks Earlier Than Concord.

The Apiary.

Conducted by A. H. Duff, Larned, Kas., to whom inquiries relating to this department should be addressed.

Movable Frame Hives.

The first and most important step in bee-keeping is the selection of a good movable-frame hive. It also requires some knowledge of the manner of manipulating such a hive to insure success. No frame hive is capable of taking care of itself, and often inexperienced persons will purchase a frame hive that is highly recommended and put their bees in it, thinking the work is all done and nothing remains but to await success. But disappointment generally follows all such cases, and success is only attained by proper management. There is scarcely any excuse at the present time for any one to make a mistake in selecting a bee-hive. Almost all apiarists have settled down to a uniform hive at present, that hive being the Langstroth. It is known by several different names. It is called the "L. hive," the "simplicity hive," the "dove-tailed hive," etc. While there is some little difference in the make-up of the outside or bodies of those hives, the frame, the most important part, is one and the same thing. The size of the Langstroth frame is seventeen and five-eighths inches long and nine and one-eighth inches deep outside measurement, eight of these

bottom is made from a board, fourteen inches wide and twenty-three inches long. Strips three-eighths of an inch thick are nailed on top, and flush with the sides and one end for the hive to rest on; one end being open, answers for the entrance for the bees. The bottom should be well cleated at each end.

Artificial Queen Rearing.

By artificial queens, I mean queens that are produced from worker brood, by the bees, as an actual necessity, for their own existence. Natural queens, which the other kind are termed, are produced by the swarming fever, or an over-production of prosperity. The one kind is reared from brood hatched as worker brood, but the change is made by the different kind of food prepared and fed them, and the removing of several worker cells, and the construction of a queen cell in their stead. The first preparation made for the natural queen is the construction of queen cell cups, which resemble somewhat the cap of an acorn. These cups can be found in almost every colony of bees, and at any time during the year. They seem to carry these cups over from one swarming time to another, and always have them on hand. As soon as the colony becomes abundantly prosperous, in both honey and bees, they proceed to prepare for swarming, and the queen will deposit an egg in each of these little cups for the production of queens. Artificial queens, or those produced from worker eggs, may be reared in any

Strength of Colonies.

Strong colonies is the key to large honey crops, and at no time are weak colonies desirable. But a rapid increase of strength preceding the honey flow is necessary to obtain the best results in honey, and at this time we cannot swell their strength too greatly, as by the strongest colonies we receive the largest quantities of honey. To prepare in this direction requires very early spring management in the way of stimulative feeding. This should be commenced as early as the weather will permit, and may be commenced as soon as the bees can fly frequently. It matters not how much honey a colony has in the hive, a little feeding will start them to breeding more rapidly, and the increase of eggs deposited by the queen on this account will reach in the hundreds every day; and in this manner we get colonies very populous much earlier than otherwise. To accomplish this a colony should get each day about one gill of sirup, and if the hive should lack in stores they should be fed more liberally.

Teosinte.

The following letter was addressed to Secretary Coburn, but because of shortage of the appropriation could not be properly illustrated for his March report. In order that it might not be lost to the public, Mr. Coburn handed it to the editor of the KANSAS FARMER, who takes pleasure in presenting it to its readers:

Hon. F. D. Coburn, Secretary State Board of Agriculture:

I mail with this a picture of teosinte, of three stages of growth. It was planted the middle of April, cut in September. The left of the picture shows full height of nine feet. The man shown is six feet one inch tall. The shortest growth is of five weeks after cutting, and the single bunch at the right is of nine weeks' growth. The acre produced twenty-five stacks, each ten hills square. A single bunch, which I meant to have photographed, but which was too badly whipped by a sudden wind, had eighty-six stalks from the solid root, and cut off just at the root, weighed, green, forty pounds. That would give fifty tons of green fodder to the acre. We have about forty tons.

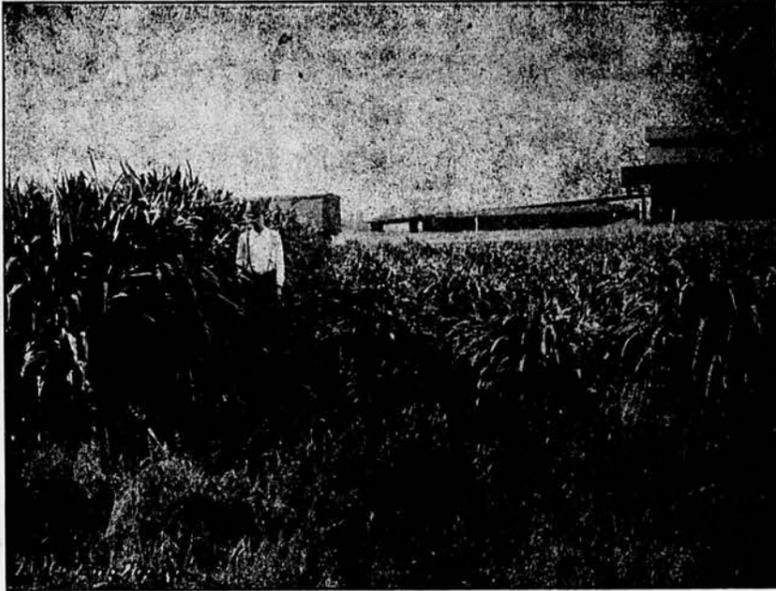
It is tenderer and juicier than corn, and slightly salt to the taste. Is eaten with avidity by the cattle.

One pound of seed, costing \$1.50, seeded the acre, planting two or three seeds at the intersections (four and one-half feet each way) of the furrows. The ground was prairie until last March; was subsoiled and irrigated.

On less than an acre, under same conditions, I raised between thirty and forty tons of sugar beets—shown in the right upper corner of picture.

Pardon my seeming impertinence in suggesting the embodiment of above in your report. My real desire is not notoriety, but that this phenomenal growth of fodder may reach the general farmer, and benefit him and his stock. Besides the mass of food raised, the field was a sight of tropical beauty.

MRS. DELIA K. GRANT.
Ellinwood, Kas.



TEOSINTE—GROWN BY MRS. DELIA K. GRANT, ELLINWOOD, KAS.

frames being the requisite number for each hive, but in some cases ten are used. I prefer frames seven-eighths of an inch wide; that is, they are cut from a board planed down to that thickness, and when properly spaced in the hive, one and one-half inches from center to center, gives ample room between each frame to let the points of the fingers down between the frames for convenient handling of the same. I have thoroughly experimented with the late "self-spacing" or Hoffman frames, but do not like them, having changed back to the former. The top bar of the frame should be at least three-fourths of an inch thick, and one-fourth will answer for the ends and bottom. The body of hive consists of a plain box made of seven-eighths inch pine lumber, planed on both sides, thirteen and seven-eighths inches wide and twenty inches long, outside measure, and nine and one-half inches deep. The top inside edge of the ends are rabbeted three-eighths by three-fourths of an inch deep, to receive the ends of the frames, which is to rest on a strip of folded tin, tacked on the rabbet, raising the top bar of frame to within one-fourth of an inch of the top of hive. The ends of hive should be rabbeted to receive the sides of the same, as I think this better than dove-tailing. The best lid is made from one solid piece of board, fifteen inches wide and twenty-one and one-fourth inches long, one-half inch rabbeted out all round the lower edge, and thoroughly cleated all round with cleats three-eighths by one inch. This makes a lid that can be depended upon and one that will not leak. The

colony, whether it may be weak or strong, by simply removing the old queen. Natural queens can only be produced in strong colonies, and under the swarming impulse, and during the swarming season; but artificial queens can be produced any time during warm weather.

When to Handle Bees.

To handle bees with the best satisfaction, select the warm, bright days, when the bees are flying freely. The fact is, the warmer the day, the less danger of stings. Avoid as much as possible working with them on cool, cloudy days, as they will be found more irritable. During the honey season bees can be handled without protection as safely as a brood of chickens. They should not be disturbed very early or very late in the evening, perhaps from 9 o'clock a. m. to 4 p. m., are the best hours to manipulate bees, and the nearer 12 o'clock m. the better. Bees should not be molested at night, for at no other time will they be found so irritable.

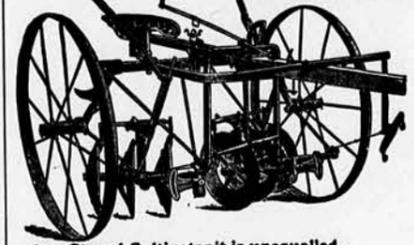
For the General Conference

of the M. E. church, at Cleveland, O., May 1 to 31, inclusive, the Nickel Plate road will sell tickets at one fare for the round trip, on sale April 29 and 30 and May 1 and 12. Three excellent through trains leave Chicago—at 8:05 a. m., 1:30 and 9:20 p. m. Further particulars cheerfully given on application to J. Y. Calahan, 111 Adams street, Chicago, Ill.

Send \$1.35 to KANSAS FARMER office for one year's subscription to KANSAS FARMER and Chicago Weekly Inter-Ocean.

IF the best is WANTED Investigate

the merits of the **ROCK ISLAND** Combined Shovel and Disc Cultivator. **TWO in ONE.**



As a Shovel Cultivator it is unequalled. With Discs it is the best. Handles so easy a boy may successfully use it. Send for book of Cultivators.

Rock Island Implement Co., Kansas City, Mo.

DOGS.

HIGHLAND KENNELS, TOPEKA, KAS.—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

VETERINARY SURGEON.

D. R. U. B. McCURDY, Veterinary Surgeon. Graduate Ontario Veterinary college, Toronto, Canada. Can be consulted on all diseases of domestic animals at office or by mail. Office: 114 West Fifth Street, Topeka, Kas.

1,000 Peach Trees with freight prepaid to any station east of the Mississippi river, 2 to 3 feet, for \$25. Other sizes in proportion. List of varieties or samples sent on request.
R. S. JOHNSTON, Box 17, Stockley, Del.

100-DAY CORN

Does not grow so much to stalk, shoots better, and matures its ear before hot winds or early drought kill it. Twenty-six best kinds. Catalogue and one sample free.
J. C. SUFFERN,
Seed Grower, Voorhies, Ill.

KANSAS HOME NURSERY

Grows the best New and Standard Fruits and Ornamentals. Own the largest and oldest experiment grounds in the West. Offer new Apricots, Raspberry, Strawberry and Apple. Catalogue free.
A. H. GRIESA, Box J., Lawrence, Kas.

A Full Supply of All Kinds of Nursery Stock in

Pear, Peach, Apricot

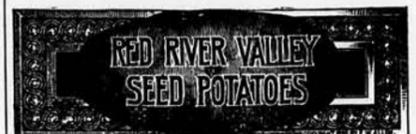
Apple, Cherry, Plum, Grape Vines, Small Fruits, Evergreens, Roses, Shrubs, etc.
Send for descriptive list and prices. Address
J. F. CECIL, Nurseryman, North Topeka, Kas.

Trees, Shrubs, Plants, Bulbs!

Apple trees, large stock, \$30 per 1,000; special rates on large orders. Cherry, Pear and Plum, \$15 per 100. Strawberry, \$2.50 per 1,000. Blackberry, \$6 per 1,000. Concord Grape, \$1.25 per 100. Thirty Greenhouse Plants, \$1—mail or express.
Price list free.
BONNER SPRINGS NURSERIES,
Bonner Springs, Kansas.

Litson & Nursery.

Fruit trees, Berry plants, Evergreens and Ornamental shrubbery at wholesale to the planter. Write for free price list.
W. H. LITSON, JR., Nevada, Mo.



Choice Standard and New Varieties grown and stored in the Cold Northwest. Send for handsome Illustrated Catalogue, containing article describing method of raising and handling. Small shipments at car-load freight rates. Samples free. E. W. Allen, Wolverton, Wilkin Co., Minn.

FOR SALE!

Choice Varieties of Best Early SEED POTATOES.

Early Six Weeks.....60c. per bushel
Early Kansas.....50c. per bushel
Early Ohio.....30c. per bushel
Early Rose.....30c. per bushel
Burpee's Early Superior 30c. per bushel
Early Sunrise.....30c. per bushel
Snowflake, medium late. 30c. per bushel
Burbanks, late varieties 30c. per bushel
Blue Victor, medium late 30c. per bushel

All the above varieties good size and sound, in sacks or barrels, delivered to any railroad depot here.
Address **TOPEKA PRODUCE CO.**
304 Kansas Ave., TOPEKA, KAS.

MEN of all AGES



Quickly, Thoroughly, Forever Cured.
Four out of five who suffer nervousness, mental worry, attacks of "the blues," are but paying the penalty of early excesses. Victims, reclaim your manhood, regain your vigor. Don't despair. Send for book with explanation and proofs. Mailed (sealed) free.

ERIE MEDICAL CO., Buffalo, N. Y.

SIDE COMBS

These side combs are over two inches long by one inch wide, triple silvered, now very fashionable. Sample pair by mail **TWO CENTS.** ADDRESS **LYNN & CO., 48 BOND ST., NEW YORK.**

ARTICHOKES! ARTICHOKES! ARTICHOKES!

The coming cheap, necessary hog food. Hog cholera preventive. Drought-resister. Proof against chinch bugs or any other insect. **THE WHITE EUREKA ARTICHOKE.** "We have found it"—the Artichoke that will not spread; easily eradicated; immense yielder (500 to 800 bu. to acre), \$1.50 per bu. White French and White Jerusalem Artichokes, \$1 per bu., sacked f.o.b. cars. Large stocks Iowa Yellow Eureka and Lansing 90-Day Corn, Imp. Golden Beauty, Ch. W. Pearl, Imp. White and Red Kafir Corn, Amber and Orange Cane Seed, 30c., 40c. and 55c. per bu. sacked f. o. b. Red Clover, Timothy, Alfalfa, Kentucky Blue Grass, Meadow Fescue. Send for free "Article on Artichokes and Other Money-Making Crops."
KANSAS CITY GRAIN & SEED CO., KANSAS CITY, MO.

The Veterinarian.

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

LUMPY-JAW.—I have a steer with a lump under the jaw. Have you a remedy for it?

Answer.—I have not. See reply to J. S. H.

SCANTY MANE.—I have a colt that has scarcely any mane or tail. What will help it?

Answer.—Mix sulphur and castor oil to a thin paste and rub into the roots twice a week.

SWELLINGS—NASAL DISCHARGE.—A number of three-year-old colts in this vicinity have swellings just below their eyes but their teeth seem all right.

Answer.—The swellings are from the teeth and should be let alone unless they cause trouble. The nasal discharge is a case for the State authorities to look after.

LUMPY-JAW.—Is lumpy-jaw contagious from one steer to another? What is the cause? What is the best thing to do?

Answer.—Lumpy-jaw is caused by a parasite and if this enters the circulation of another steer through the mouth or through an abrasion of the skin it is liable to produce the disease.

PREMATURE BIRTH.—Will green rye cause young cows to lose their calves? My heifers run on green rye and have matured cane with seed on at night.

Answer.—Green rye will sometimes cause premature birth if fed in such quantities as to scour. Cane seed will do the same. If the womb is replaced and the cow grows strong she will breed all right again.

FITS IN DOG.—I have a valuable Shepherd dog that has fits about once a week. He will appear to be perfectly well then suddenly stagger and fall.

Answer.—Your dog has attacks of epilepsy, which is due to various causes, the most common of which is worms.

Deafness Cannot be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies.

We will give One Hundred Dollars for any case of deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure.

If You Intend to Attend

the general conference of the M. E. church, at Cleveland, May 1 to 31, inclusive, why not use the Nickel Plate road?

HOME-SEEKERS' EXCURSIONS.

Santa Fe Route—One Fare (Plus \$2) for the Round Trip.

These tickets will be sold to various points in Oklahoma, Texas, Arkansas, Missouri, Arizona and Indian Territory.

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.

MARKET REPORTS.

Kansas City Live Stock. KANSAS CITY, April 13.—Cattle—Receipts since Saturday, 4,829; calves, 161; shipped Saturday, 1,118 cattle, no calves.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Texas and Indian Steers, Western Steers, Colorado Steers, Texas and Indian Cows, Cows and Heifers.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Stockers and Feeders, Hogs—Receipts since Saturday, 7,937; shipped Saturday, 433.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Sheep—Receipts since Saturday, 5,376; shipped Saturday, 2,510.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Horses—Receipts since Saturday, 53; shipped Saturday, 22.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Chicago Live Stock, Chicago Grain and Provisions.

Table with columns: April 13, Opened, High's, Lowest, Closing. Rows include Wh't-April, May, July, Corn-April, May, Sept., Oats-April, May, July, Pork-April, May, July, Lard-April, May, July, Ribs-April, May, July.

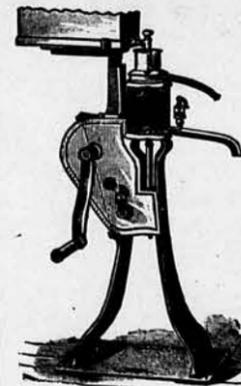
Table with columns: No., Ave. Price, No., Ave. Price. Rows include St. Louis Live Stock, St. Louis Grain.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Kansas City Produce, Kansas City Stock Yards.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Kansas City Produce, Kansas City Stock Yards.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include Kansas City Produce, Kansas City Stock Yards.

The Improved United States Separator EXCELS ALL.



The usual outcome where the U. S. is in competition.

After a trial of three other machines, I purchased the IMPROVED UNITED STATES SEPARATOR, preferring it for ease of cleaning, setting up, and thorough drainage.

THE IMPROVED UNITED STATES SEPARATOR STANDS ON ITS OWN BOTTOM.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



This small cast-iron trough, made of one piece, costing \$1.50, is the cause of the difference in the farm scenes represented on page 4 and 5.

soft wheat was offered at 67 to 77c. Only one car of it sold.

Receipts of wheat here to-day were 12 cars; a year ago, 11 cars.

Sales were as follows on track: Hard, No. 2, 1 car fancy 61-lb. 64c, 1 car 62 3/4c, 1 car 62 1/2c; No. 3, 1 car 55c, 1 car 50c; No. 4, 1 car 45c, 1 car 43c; rejected, nominally 35@40c; no grade, nominally 30@35c.

Mixed corn was a little higher than on Saturday, but there was not much demand. It was difficult to get any premium for spot white corn.

Receipts of corn here to-day, 19 cars; a year ago, 8 cars.

Sales on track by sample: No. 2 mixed, 7 cars 24c; No. 3 mixed, 1 car 23 1/4c; No. 4 mixed, nominally 23@23 1/2c; white, No. 2, 2 cars 24 1/4c; No. 3, 1 car 23 1/4c.

Oats sold rather slowly and showed a lower tendency.

Receipts of oats to-day, 11 cars; a year ago, 3 cars.

Sales by sample on track: No. 2 mixed, 17@18c; No. 3, nominally 16@17c; No. 4, nominally 14 1/2@15c; no grade, nominally 13@14c; No. 2 white, 1 car 21c, 4 cars 20 1/2c; No. 3 white, 1 car 20c, 3 cars 19c.

Hay—Receipts, 39 cars; the market shows a higher tendency for timothy; timothy, choice, \$11.00@11.50; No. 1, \$10.00@11.00; No. 2, \$8.00@9.50; No. 3, \$5.50@7.50; choice prairie, \$6.50@8.00; No. 1, \$6.00@6.50; No. 2, \$5.00@5.50; No. 3, \$4.00@4.50; No. 4, \$3.00@3.50; straw, \$3.50@4.00.

St. Louis Grain. ST. LOUIS, April 13.—Receipts, wheat, 18,714 bu.; last year, 2,976 bu.; corn, 58,417 bu.; last year, 38,930 bu.; oats, 31,900 bu.; last year, 38,330 bu.; shipments, wheat, 2,650 bu.; corn, 3,189 bu.; oats, 15,295 bu.

Kansas City Produce. KANSAS CITY, April 13.—Butter—Creamery, extra fancy separator, 16 1/2c; firsts, 15 1/2c; dairy, fancy, 15c; fair, 11c; store packed, fresh, 10c; packing stock, 7c; country roll, fancy, 13c; choice, 10@11c.

Eggs—Strictly fresh, 8 1/2c per doz., 9 1/4c in new No. 2 cases.

Poultry—Hens, 6 1/2c; springs, 10c; broilers, 2 to 2 1/2 lbs., from \$3.00@3.50 per doz.; roosters, 15c; young, 17 1/2c; turkeys, hens, 11c; gobblers, 10c; old, 8c; ducks, 9@9 1/4c; geese, fat, 5 1/2c; pigeons, 90c@1.00 per doz.

Fruits—Apples, fancy, \$5.00@5.50 per bbl.; fair to good, \$3.50@3.75.

ROBT. C. WHITE, Pres. W. R. MUNGER, Sec.-Treas. Live Stock Commission Company KANSAS CITY STOCK YARDS.

Money loaned to responsible parties for feeding purposes. Market reports free upon application. Consignments and correspondence solicited. Stockers and feeders bought on order.

DROVERS COMMISSION COMPANY, Kansas City, Mo., Stock Yards.

G. W. CLAWSON, LOANS. MONEY LOANED. A. T. MUSTON, CATTLE SALESMAN. J. P. McMURRAY, SALESMAN. SAM M. WEST, HOG SALESMAN. J. W. T. GRAY, OFFICE.

John Moffett, Manager. L. B. Andrews, Office. T. S. Moffett, W. C. Lorimer, Cattle Salesmen. H. M. Baker, Hog and Sheep Salesman. W. A. Morton, Solicitor.

MOFFETT BROS. & ANDREWS Live Stock Commission Merchants.

Feeders and stockers purchased on orders. Personal attention given to all consignments. Correspondence invited. Market reports furnished.

KANSAS CITY FRUIT & PRODUCE COMPANY, Produce and Commission Merchants.

Will receive all Farm Produce and sell to best advantage. Butter, Eggs, Poultry, Fruit and Potatoes. Prompt cash returns made.

GROWERS OF AND DEALERS IN Cattle, Hogs and Sheep

MAKE YOUR CONSIGNMENTS TO Ben. L. Welch & Co. COMMISSION MERCHANTS, STOCK YARDS, KANSAS CITY, MO. AND EAST ST. LOUIS, ILL.

THE STRAY LIST.

FOR WEEK ENDING APRIL 2, 1896 Barber county—B. D. Gaddie, clerk.

FOR WEEK ENDING APRIL 9, 1896 Johnson county—J. W. Thomas, clerk.

FOR WEEK ENDING APRIL 16, 1896 Chase county—M. C. Newton, clerk.

STEER—Taken up by L. W. Byram, in Cottonwood tp. (P. O. Cedar Point), March 15, 1896, one steer, 1 year old, right horn off.

Hodgeman county—S. S. Kiehl, clerk. MARE—Taken up by J. B. Mitchell, of Jetmore, March 19, 1896, one brown mare, fourteen and a half hands high, no brands; valued at \$10.

MARE—By same, one bay mare, fifteen hands high, white in forehead, right hind foot white, left fore foot wire-cut; valued at \$2.

Labette county—J. F. Thompson, clerk. HORSE—Taken up by E. S. Billington, in Elm Grove tp., March 28, 1896, one sorrel horse, sixteen hands high, white face, weight 900 pounds, 7 or 8 years old, short rope around neck; valued at \$15.

HENRY W. ROBY, M. D., SURGEON.

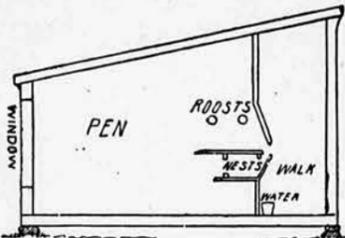
Office 118 Sixth Ave. West, TOPEKA, KAS.

The Poultry Yard

CHEAP BUT PRACTICAL.

One of the Best Economical Poultry Houses That Can Be Built.

The diagram herewith shows one of the best cheap poultry houses that can be constructed, the inside arrangement being especially excellent because of its labor-saving character. The sketch shows a cross section, from which it will be seen that, contrary to the usual plan, the higher side has the walk, the pens being under the lower part of the roof. If one can stand erect at the center of the pen, this is sufficient height for all purposes, as most of the work of caring for the fowls is done from the walk. The roosts are at the front, with a platform below that projects out into



the walk for several inches. Raising the hinged door, one can thus scrape off all the droppings from the walk into a box or basket. The nests below the platform are also reached from the walk, while below the nests is an opening in the partition, through which the fowls drink from a dish in the walk, no water being spilled or made filthy by this plan. The windows are on the lower side of the house, a great sufficiency of light being secured in this way. This construction permits a much lower, and consequently warmer, house than is the case where the walk is on the lower side. Such a house may be built of rough boards and covered with heavy roofing papers, then battened, when it should be warm and last for years. When the covering does begin to give out, shingle or clapboard right over the tarred felt or paper.—Orange Judd Farmer.

POULTRY TREADMILL.

Keeps Hens on the Move Until They Give Up an Egg.

From England comes the news of a new and ingenious way to make hens lay. The plan has only just been put into operation, but already it has been attended with some measure of success. Its inventor is a young man named Herbert Bernards, of South Tottenham, one of the districts of London, who was driven to hatch this device out of his fruitful mind because of the worryment his hens caused him. Day after day they would not lay, and they flouted and they scouted him by walking around and taking things very easily, much to his financial loss. So he put his wits together and made these domestic bipeds "walk the treadmill" until they laid.

His machinery, an elaborate bit of carpentering, consisted of what is called in England a "hen run," which was a sort of Midway Plaisance for poultry. It was a beautifully working miniature treadmill. A hen who had done her full duty was allowed the full privileges of the "run;" a hen who had not, and from whom Mr. Bernards considered an egg to be due, was placed, in spite of all her fluttering, upon the treadmill, and made to walk it until she evened up her score and delivered an egg. The weight of the "new laid" would act upon a spring and the hen would then be liberated to the enjoyment of the "run."

Not quite all the details have come to hand as yet, but this much is known, that the poultry treadmill was a great success, and a sure shot to get eggs on demand. The only thing a hen could do, once placed within, was to go up and up until she got over her sulks and was ready to deliver the egg.

Had it not been for a most unpleasant misadventure on Mr. Bernards' part, he might be celebrated among poultry inventors to-day. Instead of that he is now doing "a month's hard" in the local workhouse, where most of his time is taken up in walking the treadmill himself. For, lacking the lumber

to build his "hen run," and his exchequer being slightly low in consequence of the ingratitude of his poultry, he appropriated his building materials from a stock of wood that had been stored in the immediate vicinity to be used as flooring for some new houses. The theft was not discovered until after the "poultry run" was completed, but when it was found out the owners of the lumber were exceedingly wroth, and, refusing to recognize budding genius, they put the case in a magistrate's hands at once.

So the treadmill for feathered bipeds has now been torn up, and the hens are pursuing their life of ease in the ordinary manner. Mr. Bernards will soon be out of jail, however, and will then construct a "run" on even a larger scale than before, taking care this time to secure his lumber legitimately.—N. Y. Journal.

Hints About Marketing Honey.

There are a few points well worth knowing in the marketing of honey. The first thing necessary is to see that the honey is carefully assorted. Then it should be thoroughly cleaned and put into neat, white crates. Another very important thing is, the crates should be the same thing all through; that is, the honey should be just what it appears to be on the face of it. There is a great deal of talk nowadays about low prices and slow sales, but the man who has an honest, clean, first-class article of any kind need not go begging for customers, even in these hard times.—Farm and Home.

WENT TO THE RIGHT PLACE

And Incidentally Illustrated Both the Popularity of Roller Bearings and the Alertness of the Postal Authorities.

Some time ago a Georgia farmer addressed a letter to "The Ball Bearing Pony Binder Co., Chicago," and without an hour's delay it was delivered to the Deering Harvester Co. So great was the fame of the Deering roller and ball bearings that even the Chicago postal clerks, who don't know a binder from a buzz saw, knew that the Deering Company was the only one that made machines with these "rolling" bearings.

This roller bearing feature, by the way, has given a tremendous boom to the Deering business; their shops in Chicago have had to be enlarged and their working force increased. This expansion in the last three years, since they have advertised roller bearing binders and mowers generally, has made itself felt in every department. Even letter carriers have been affected, the force of wagons and men to carry mail to and from the Deering office having more than doubled in the last two years.

The growth of this firm has been phenomenal. In the early days before they gave to the world the twine binder, they were the leaders in the manufacture and sale of the Marsh harvester which was a long step in advance of reapers then in use. Later they pioneered the manufacture of wire binders. Then in 1879 they gave to the world the Deering twine binder. This improvement was bitterly fought by the reaper concerns for years, but it triumphed and the reaper people were compelled to swallow all they had said and secure shop rights on the twine binders. From 1880 to the present year the Deering Company has forged ahead by leaps and bounds, until to-day it is without doubt the largest single manufacturer of both harvesting machines and binder twine in the world. At the present rate of progress, stimulated by the impetus of roller bearings, it will be only a few years till the Deering Company makes and sells as many machines and pounds of twine as all its competitors combined. A most interesting description of the uses of roller and ball bearings is being published by this Company. It is called "Roller and Ball Bearings on the Farm" and we are promised that any of our readers who send to the Deering Harvester Co., Chicago, and mention this paper will receive a copy free of charge.

- ARMSTRONG & McKEELVY Pittsburgh.
- BEYMER-BAUMAN Pittsburgh.
- DAVIS-CHAMBERS Pittsburgh.
- FAHNESTOCK Pittsburgh.
- ANCHOR } Cincinnati.
- ECKSTEIN }
- ATLANTIC } New York.
- BRADLEY }
- BROOKLYN }
- JEWETT }
- ULSTER }
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- SOUTHERN } Chicago.
- SHIPMAN }
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- MISSOURI } St. Louis.
- RED SEAL }
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NO MISREPRESENTATION on the part of our agents tolerated or of dealers or painters necessary. You know just what you are getting when you have painting done with

Pure White Lead

(see list of brands, which are genuine) and Pure Linseed Oil. Don't be misled by trying something else said to be "just as good." Any desired shade or color may be easily produced by using NATIONAL LEAD CO.'s Pure White Lead Tinting Colors.

Pamphlet giving valuable information and card showing samples of colors free; also cards showing pictures of twelve houses of different designs painted in various styles or combinations of shades forwarded upon application to those intending to paint.

NATIONAL LEAD CO., 1 Broadway, New York.

BEATS THEM ALL!

Eggs turned without opening the machine. Send for circular of the best INCUBATOR, also book of plans to make the same. Price of book \$1. JACOB YOST, Arkansas City, Kas.

HATCH Chickens BY STEAM—
With the **MODEL EXCELSIOR Incubator**
Simple, Perfect, Self-Regulating. Thousands in successful operation. Lowest priced first-class hatcher made. GEO. E. STAHL, 114 to 122 S. 6th St., Quincy, Ill.

SUCCESSFUL INCUBATOR
Our magnificent new catalogue giving full information regarding artificial hatching & brooding and treating on poultry raising sent for 4c stamps. Circular free. Write now. Des Moines Incubator Co., Box 33 Des Moines, Ia.

THE IMPROVED VICTOR INCUBATOR
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class hatcher in the market. Circulars free. Catalogue 1 cent. GEO. ETEL & CO., Quincy, Ill.

INCUBATORS, BROODERS, VEGETABLE and CLOVER CUTTERS. BONE and GRAIN MILLS.
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HAY CARRIERS
Hay Slings, Hay Forks, etc. Our tools and prices will please you. Special prices if you mention this paper. For catalogue address OBOEN BROS., Box L. Marion, O.

Garnahan's Tree Wash and Insect Destroyer
Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas.

Just received, a car-load of **BEE-HIVES, SECTIONS, COMB FOUNDATION,** And everything needed in the Apisary. Write at once for my Beautifully Illustrated Catalogue. HENRY L. MILLER, 355 Shawnee Ave., Topeka, Kas.

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KILLS AND PREVENTS TICKS, LICE AND SCAB. MAKES WOOL GROW. Dipping pamphlet free from COOPER & NEPHEWS, Galveston, Tex. \$2 packet makes 100 gallons; 50c. packet, 25 gallons. If druglist cannot supply, send \$1.75 for \$2 packet to Evans-Gallagher Co., Kansas City, or J. W. Allen & Co., Atchison, Kas.

LIVE STOCK AUCTIONEERS.

Live Stock Auctioneer, JAS. W. SPARKS, Marshall, Mo. Sales made everywhere. Refer to the best breeders in the West, for whom I sell. Satisfaction guaranteed. Terms reasonable. Write before claiming dates. Mention KANSAS FARMER.

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G. A. R. A. R. R.
Beloit, Kas., April 21-24, 1896. The UNION PACIFIC will sell tickets from points on its lines in Kansas at rate of one fare for the round trip, tickets on sale April 20 and 21. See that your tickets read via "The Overland Route." F. A. LEWIS, City Ticket Agent Union Pacific System, 525 Kansas Ave., Topeka, Kas.

HOME-SEEKERS' EXCURSION!

—VIA— Missouri Pacific Ry.

FROM: All Stations In Kansas
TO: All Stations in Arkansas, Indian Territory, Texas and Southern Missouri.
RATE: One fare plus \$2 for the round trip. Minimum rate \$7.
DATE: April 7.
OF: April 21.
SALE: May 5.

For further information call on nearest Missouri Pacific ticket agent or write H. C. TOWNSEND, G. P. & T. A., St. Louis, Mo. F. E. NIPPS, Agent, Topeka, Kas.

WARNER LISTER CULTIVATOR



Made to cultivate two and three rows at once and is self-adjusting to unevenness of rows. The knives cut all trash and clean furrow perfectly.

It is Easily Operated, Substantially Built and Warranted to do the Work.

No castings, all wrought-iron and steel. Ask your dealer for one or address the factory.

WESTERN MANUFACTURING CO., Seventh and Wyandotte Sts., Kansas City, Mo.

FREE A GENUINE 14 K. GOLD-FILLED WATCH and chain to every reader of this paper. Cut this out and send it to us with your address and we will send you FREE for examination the Best and Only Genuine American watch ever offered at this price. It is 14K. Solid Gold filled, with Genuine American Movement, 20 Years' Guarantee, and looks like a Solid Gold Watch sold at \$40. Examine at express office and if you think it a bargain, pay \$7.50 and express charges, otherwise pay nothing. A Handsome Gold Plated Chain, sold in certain stores for \$3 goes free with each watch. **OUR GRAND OFFER.** One of these \$7.50 watches and a chain, if you buy or sell SIX watches to-day, as this price holds good for 60 days only. ROYAL WATCH CO., 601 Unity Bldg., Chicago, Ill.

Poor soil

and exhausted fields which were once productive can again be made profitably fertile by a proper rotation of crops and by the intelligent use of fertilizers containing high percentages of

Potash.

Strikingly profitable results have been obtained by following this plan.

Our pamphlets are not advertising circulars boomer special fertilizers, but are practical works, containing latest researches on the subject of fertilization, and are really helpful to farmers. They are sent free for the asking.

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OUR WELL DRILLS

awarded Highest Medal at the World's Fair. All latest improvements. Catalogue free.
F. C. AUSTIN MFG. CO., CHICAGO, ILL.

"JONES HE PAYS THE FREIGHT."

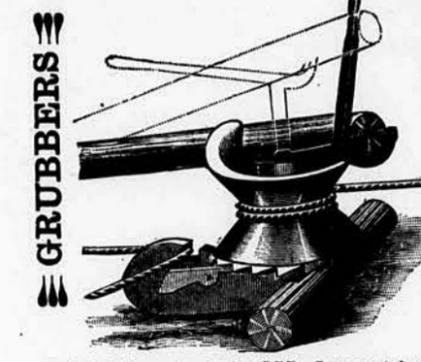
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AS TO ENGINES

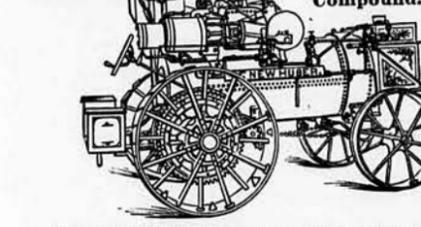
We have a line of unsurpassed excellence. They are TRACTION, PORTABLE, SEMI-PORTABLE. They are both SIMPLE and COMPOUND. We have TRESSERS, STACKERS, HORSE POWERS and SAW MILLS. But you had better write for our 1896 Catalogue—it will be mailed to you FREE.
M. RUMELY CO. - La Porte, Ind.

Genuine **Smith Grubber and Stump Puller**
Standard
Warranted not to break and to give satisfaction.



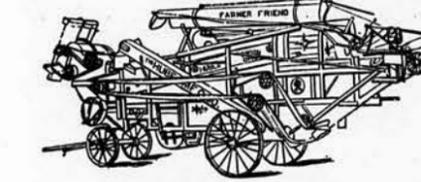
Weight 300 pounds. Price \$55. Large catalogue free. SMITH GRUBBER CO., Sedalia, Mo.

NEW HUBER Compound.



Simple and Compound Engine, winner of each of the World's Fair contests.

- TESTS: 1. Economy of Fuel. 2. Speed with Light Load. 3. Speed with Heavy Load. 4. Trial Run Through Deep Sand.



FURNISHED WITH Huber's Farmers' Friend Wind Stackers, Huber Swinging Stacker, Huber Self-Feeders, Perfection or Telescope Grain Weighers and Wagon Loaders.

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IRRIGATE or IMMIGRATE!!



THE IDEAL IRRIGATOR WIND MILL
makes it possible to stay where you are and live in peace and plenty—the Ideal Irrigator is the only mill on the market made especially for irrigation work, all others offer you their regular farm style, entirely too light and cannot stand continuous heavy duty—the best is the cheapest for this kind of pumping. Ask your dealer for the **IDEAL IRRIGATOR** and take no other. If he does not have it, send for our catalogue and prices.

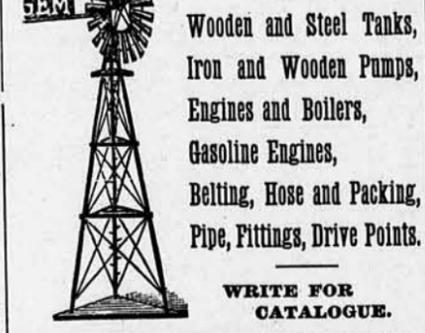
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We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them. **CURRIE WINDMILL CO.,** AGENTS WANTED. Manhattan, Kas.

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Established 1867. Covered by patents. Machines drill any depth both by steam and horse power. We challenge competition. Send for free illustrated catalogue. Address, **KELLY & TANEYHILL,** WATERLOO, IOWA.



Winger's Steel WIND MILL

Mechanically constructed and simple. Awarded World's Fair Diploma and Medal. Galvanized Steel Tanks, Regulators and Grinders. **E. B. WINGER,** 632 Kenwood Terrace, Chicago.

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In the very worst storms, these wind mills of ours, that is because they are constructed of the very best of steel and because our four cornered steel tower is braced in every direction. All galvanized after it is put together. Tanks, Shellers, Pumps, Cutters, &c. Write, **Challenge Wind Mill & Feed Mill Co.,** No. 47 River Street, Batavia, Illinois.

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Who can think of some simple thing to patent? Protect your ideas; they may bring you wealth. Write **John Wedderburn & Co.** Patent Attorneys, Washington, D. C. for their \$1,800 prize offer and list of 200 inventions wanted.

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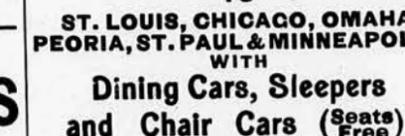
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At factory prices. Our record for the past eight years is the best guarantee that we turn out the finest, strongest and lowest priced vehicles in the world, for the money. All work guaranteed. Send for our beautifully illustrated Catalog for 1896. Prices in plain figures. Offices, sales-rooms, factories: Court St. **Alliance Carriage Co. Cincinnati, O.**

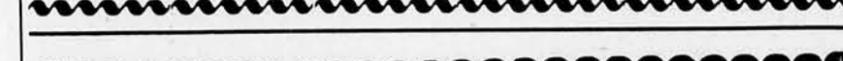
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SUITABLE FOR IRRIGATION AND MINING PURPOSES. This pump has stood the most severe tests and the comments in its praise are most gratifying. Manufact'd by **NATIONAL PUMP CO.,** 306 West Eighth St. © KANSAS CITY, MO.



As a Blood Purifier and nerve tonic Dr. Kay's Renovator has no equal.

Mrs. G. Hammond, 2509 Farnam St., Omaha writes: Feb. 27th. '96. "I have been terribly afflicted with blood poisoning. I had BOILS and CARBUNCLES often for several years and was very wakeful nights. For about nine months I had a SORE IN MY NOSE which would not heal in spite of all I could do and I feared it was a cancer. I took Dr. Kay's Renovator and it has purified my blood so the sore has healed up entirely, the boils and carbuncles have disappeared and I now sleep better and feel better than I have for a long time." It is an excellent tonic for the nerves, stomach, bowels, liver, etc.

Dr. Kay's Renovator

Is also a certain cure for dyspepsia, constipation, liver and kidney diseases and all nervous and blood diseases, headache, biliousness, spring fever, boils, blotches, etc. Sold by druggists or sent by mail from western office on receipt of price 25 cts. or \$1.

At This Time of Year it is invaluable as it renovates and invigorates the whole system and purifies and enriches the blood giving new life and vigor to the whole body. It is concentrated, in tablet form, very pleasant and easy to take and always agrees with the stomach. **150 DOSES \$1.** Send for booklet it has many valuable receipts, gives symptoms and treatment for nearly all diseases and many say it is worth \$5.00 if they could not get another. Sent free from our Western office. DR. B. J. KAY MEDICAL CO., 620 So. 16th St., Omaha Neb.

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The Kansas City Stock Yards

are the most complete and commodious in the West, and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895.....	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City.....	922,167	2,170,827	667,015		
Sold to feeders.....	302,262	1,876	111,445		
Sold to shippers.....	218,905	273,999	69,784		
Total Sold in Kansas City, 1895.....	1,533,334	2,346,202	748,244	41,588	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel. NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

C. F. MORSE, V. Pres. and Gen. Manager. **E. E. RICHARDSON,** Secretary and Treasurer. **H. P. CHILD,** Assistant Gen. Manager. **EUGENE RUST,** Gen. Superintendent.

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!

DISEASES OF YOUNG AND OLD MEN—Private and skin diseases a specialty. Wm. H. Richter, Ph. G. M. D., 508 Kansas Ave., Topeka, Kas. Correspondence solicited.

A. B. DILLE & SON—Edgerton, Kas., will sell a choice Barred Plymouth Rock eggs for hatching at \$1 per thirteen; M. B. Turkey eggs at \$2 per eleven. Satisfaction guaranteed.

FOR SALE—Eighty acres of farming land, mostly under cultivation, eight miles from Arkansas City. Address Box 137, Arkansas City, Kas.

FOR SALE—Three hundred and twenty acre farm, unimproved; very suitable for a ranch; frame house, stables, fences, well, windmill, chicken-coops, etc. Price \$500. Address H. Sorge, Conductor, Grant Co., Kas.

MANUFACTURER—Wants agents to sell the combination lock pin clevis direct to farmers (the only combination clevis and pin ever patented); self-locking; always secure; sells at slight 150 per cent. profit; no competition; exclusive territory. Cormany Mfg. Co., 225 Dearborn St., Chicago, Ill.

S. C. B. LEGHORN EGGS—For hatching. Ninety. One point cock at head of flock. \$1 per fifteen. Clarkson Hodgkin, Dwight, Morris Co., Kas.

PASTURE TO RENT—Four hundred head of cattle wanted in northern part of Lyon county, Kansas. Ranch is divided into six lots of 250 to 600 acres each, fenced with five wires. Water in each pasture. Water and grass guaranteed in abundance. Five acres to each steer. Bunches of fifty to 100 placed by themselves. Price \$2 for two or under; \$2.25 for three or older. Ranch located between Bushong and Comiskey. Shipping facilities one mile distant. J. W. Troutman, Comiskey, Kas.

I HAVE SOME NICE POLAND-CHINA SOWS—Of Wilkes strain, bred, eligible to registry, with good pedigrees. F. P. Maguire, Haven, Kas.

FARMERS, SETTLERS, HEALTH-SEEKERS IN Florida. Write us for information and low prices on homes, orange groves, grape vine, pineapple, fruit, vegetable and farming lands. State requirements. Staplyton & Co., Leesburg, Lake Co., Florida.

HEADQUARTERS FOR THE CRANDALL CURRANT (genuine stock), also the great Egyptian pink lily roots, for tubs, ponds, etc. A general nursery stock at lowest prices. Address R. W. Crandall, Newton, Kas.

JERSEYS FOR SALE—Three bulls, nearly 1 year old, good individuals and finely bred, at \$25 each. J. W. Babbit, Hiawatha, Kas.

EGGS FROM PRIZE-WINNERS—Langshan, Leghorn, Plymouth Rock, Minorca, Wyandotte and Hamburg fowls, bred in the purple. A few more pedigreed Yorkshire boars for sale. James Burton, Jamestown, Kas.

PASTURE—For 200 horses and cattle. Good feed, plenty pure water and shade. Frank Dickinson, Valencia, Shawnee Co., Kas.

FOR SALE—Six yearling Short-horn bulls, sired by Amos Cruickshank, pure Cruickshank bull, out of Cruickshank-topped cows. Write for prices and description. Address Charles Lothholz, Eudora, Kas.

AT TORONTO POULTRY YARDS—Eggs from high-scoring prize-winning White and Barred Plymouth Rocks, Buff Cochins, White, Brown and Buff Leghorns, Langshans, Light Brahmas, Wyandottes and S. S. Hamburgs. Eggs \$1 per fifteen. Mrs. E. A. & A. Williams, Toronto, Kas.

HEDGE! HEDGE!—We still have for sale a large amount of extra No. 1 one and two-year hedge, 90 cents per 1,000, boxed. 60,000 White Columbian asparagus, two-year-old, \$3 per 1,000, packed. No. 1 two-year apple trees—assortment largely Ben Davis—\$4 per 100, packed. Small fruits in abundance. Everything away down in price. Douglas County Nursery, Lawrence, Kas. Wm. Plasket & Son.

DETECTIVE.—We want a man in every locality to act as private Detective under instructions. Experience unnecessary. Particulars free. Universal Detective Agency, Piel Bldg., Indianapolis, Ind.

FARM LOANS.—I have just received sixty thousand dollars to loan upon improved eastern Kansas farms, upon the most favorable terms ever before offered. Interest seven per cent. per annum, payable annually, giving the borrower the privilege of selecting his time in the year when his interest will fall due. Farmers will appreciate the convenience and benefit of this arrangement. Also giving privilege of making payments on principal before maturity of mortgage. Geo. L. Epps, Room 20, Columbian Building, Topeka, Kas.

FARMERS!—Improve your poultry. The Black Langshan is the best winter egg-producing large fowl. Eggs for sale at \$1.50 for thirteen or \$2.50 for twenty-six. T. V. Codrington, 1701 Huntoon street, Topeka, Kas.

PASTURE—For 200 horses and cattle. Good feed, plenty pure water and shade. Frank Dickinson, Valencia, Shawnee Co., Kas.

ALFALFA—Crop of 1895. Pure seed for sale. Address W. P. Haywood & Co., Lakin, Kas.

SPECIAL WANT COLUMN--CONTINUED.

MEADOW BROOK HERD OF SHORT-HORNS.—Registered bulls at reasonable prices. F. C. Kingsley, Dover, Kas.

FOR SALE—Dwarf broomcorn seed, German millet and Red and White Kaffir corn seed. Evans Bros., Sterling, Kas.

LIGHT BRAHMA EGGS FOR SALE—From fine stock, \$1.50 per fifteen. Bert Killough, Richmond, Kas.

EGGS FROM HIGH-SCORING B. P. ROCKS.—I bought my birds direct from Mrs. Walters, of Emporia. They score from 92 1/4 to 93 points. Eggs from this pen \$2.50 per fifteen. From any other pen \$1.50 per fifteen. Buff Leghorns the same. Mrs. E. E. Bernard, Dunlap, Kas.

STRAWBERRY PLANTS—Best varieties, \$1.50 per 1,000. J. C. Banta, Lawrence, Kas.

ASBESTINE COLD WATER PAINT—For whitening walls and ceilings, houses, stables, cellars, etc. In powder form, ready for instant use, simply by mixing with cold water. Is a beautiful white and will not rub or scale off. Send for sample board, to Camp's Supply Co., Whitney Building, Kansas City, Mo.

PLANTS BY MAIL—Fuchsias, Coleus, Geraniums, Roses, Begonias, Carnations, etc., assorted, strong, well-rooted. Will send as samples, fifteen for 50 cents (2-cent stamps); for clubs of five, these (separate) for \$2. Satisfaction and safe arrival guaranteed. Try them. Trya Montgomery, Box 185, Larned, Pawnee Co., Kas.

AUBURN POULTRY YARD.—Eggs for sale from prize-winning B. Langshans and S. S. Hamburgs. B. Langshan pen headed by first premium cock at the State poultry show at Topeka, 1896; first on Hamburg breeding pen. A few cockerels left for sale. Write for prices. Address W. E. McCarter & Son, Auburn, Kas.

EGGS! EGGS!—S. C. White Leghorn, \$1 per fifteen, from prize-winning stock, Knapp strain, scoring 93 to 95 1/4. No inbreeding; free range. Mention FARMER. Elwood Rush, Shaw, Kas.

WANTED—Buyers for Large English Berkshire gilts, bred or ready to breed to son of imported boar "Bargains!" O. F. Updegraff, North Topeka, Kas.

EGGS.—Barred Plymouth Rocks, \$1 per fifteen. Mammoth Bronze turkey, \$1.50 per nine. Selected stock. D. Trott, Abilene, Kas.

MILLET SEED, CANE SEED, RED AND WHITE Kaffir corn, bought and sold in any quantity. If for sale send samples; state quantity. Kansas City Grain & Seed Co., Station A, Kansas City, Mo.

STRAWBERRY PLANTS—Capt. Jack, Crescent, Windsor Chief, Miner, Jessie, Charles Downing, Lovett's Early and Robison, \$1.50 per 1,000; 25 cents per 100. Parker Earle and Eubach, \$3.50 per 1,000; 50 cents per 100, packed. By mail, add 10 cents to the 100. Catalpa, 24 to 36 inches, \$1.50 per 1,000. Maple, 24 to 36 inches, \$1.50 per 1,000. Douglas County Nursery, Lawrence, Kas. Wm. Plasket & Son.

EGGS—From first-prize stock from this on at \$1 per sitting from Buff and Partridge Cochins, Black and White Langshans, B. P. Rock and S. C. B. Leghorns. Adam Rankin, Box 442, Olathe, Kas.

SOME PRICES!—Steel-beam plows, 12-inch, \$8; 14-inch, \$10. Walking cultivators, \$12; riding, \$22. End-gate seeders, \$8; sulky plows, \$25; steel-frame disc harrows, \$20; sweep mills, \$20; all-steel planter, check-rower and drill, \$35; World Beater potato planter, \$35. Satisfaction guaranteed. Send for price list. Maclean Supply Co., Twelfth and Liberty Sts., Kansas City, Mo.

EGGS—From choice S. L. Wyandottes, Light Brahmas and Black Langshans, \$1 per thirteen, \$1.75 per thirty. Wm. Plummer, Osage City, Kas.

A BUSINESS OPPORTUNITY.—A wholesale distributing house, long established, and doing business exclusively wholesale with retail country lumber and hardware dealers throughout Missouri, Iowa, Kansas, Nebraska, Colorado, Oklahoma and Texas, requires additional capital, owing to increase in business the past year. The concern is making from 25 to 35 per cent. net profits on business per annum, and volume of business can be doubled in one year with an additional capital of \$1,500 to \$3,000. Will sell quarter interest for \$1,500 or a half interest for \$3,000, to right party, and guarantee him 20 per cent. per annum on investment (or purchase interest back after one year), payable quarterly, semi-annually or annually, as preferred. Money so invested to go into the business and books open to inspection of investor at all times. Highest reference given and absolute safety guaranteed. Address (or call at) "Wholesaler," 311-313 Whitney Building, Kansas City, Mo.

WANTED—Buyers for Large English Berkshires and improved types of Poland-Chinas, from prize-winners, at farmers' prices. Riverside Stock Farm, North Topeka, Kas.

FOR SALE—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$2 per acre. J. B. McAfee, Topeka, Kas.

THE BLOOD IS THE LIFE.—For \$1 will send roots and herbs to make one quart Blood Purifier and one pint of Cough Syrup. Directions sent. C. E. Coburn, Box 178, Lynn, Mass.

SORGHUM SEED FOR SALE.—For prices, write J. E. Foose, Fort Scott, Kas.

WRITE—To Alex. Richter, Hollyrood, Kas., for information concerning sub-irrigation. Enclose 2-cent stamp for reply. Manufacturer of galvanised sub-irrigation pipe.

SEED SWEET POTATOES FOR SALE—All leading varieties. Plants in their season. Correspondence solicited. Address B. F. Jacobs, Box 122, Wamego, Kas.

J. G. Peppard MILLET CANE SEEDS CLOVERS TIMOTHY GRASS SEEDS. 1400-2 Union Avenue, KANSAS CITY, MO.

500 BERRY GROWERS WANTED to buy TWO MILLIONS STRAWBERRY PLANTS. Twenty-eight page illustrated catalogue tells about prices and how to grow all kinds of small fruits. Please mention this paper when writing. B. F. SMITH, Box 6, Lawrence, Kas.

SEEDS ALFALFA SEED A SPECIALTY. Cane and Millet Seeds, Kaffir, Jerusalem and Milo Maize Corn, Success and Hulless Barley, Seed Oats. All crop of 1895. Write for our "How to Sow Alfalfa," and prices on seeds. McBETH & KINISON, Garden City, Kansas.

30 Pedigreed Poland-China Yearling Sows and Gilts, all bred and for sale. The brood sows in my herd belong to the leading families, such as Chief Tecumseh 2d 9115, Orient 8181, Good Quality 4700, Iowa's Champion 2d 6379, Longfellow 29785 O., J. H. Sanders Jr. 18514 S. Herd bred to Hadley Yot, a son of Hadley Jr. 18314 S., the great prize-winner, whose picture appeared in the Breeder's Gazette's last Christmas number. Write and describe what you want, or better, come and select what you wish out of the best bred and finished lot ever raised on the farm. For sale, a No. 1 jack, fifteen and one-half hands high. Warranted a breeder. W. H. WREN, Marion, Marion Co., Kas.

LINWOOD HERD SHORT-HORN CATTLE AT AUCTION. On Wednesday, May 6th, 1896. This entire herd of Scotch-bred cattle, including sixty-three head of richly-bred Cruickshank Victoria, Lavenders, Secrets, Butterlys, Straw with Buds, etc., the Linwood Golden Drops, and other valuable breeding stock, will be sold at public sale at the home farm, adjoining Linwood Station, Kas., on the U. P. R. R., twenty-seven miles west of Kansas City, Mo. Catalogues now ready and sent to any address on application. W. A. HARRIS & SON, Linwood, Leavenworth Co., Kas. COL. F. M. WOODS, Auctioneer.

SPECIAL WANT COLUMN--CONTINUED.

WANTED—Sale bills, horse bills, catalogues and other printing. A specialty at the Mail job printing rooms, 900 North Kansas Ave., North Topeka.

2,000 BUSHELS SEED SWEET POTATOES! for sale. Ten best kinds. Also plants in their season at bed-rock prices. Inquire of N. H. Fixley, Wamego, Kas.

EGGS FOR HATCHING.—See advertisement elsewhere. Belmont Stock Farm.

KAFFIR CORN AND CANE SEED—My own raising, 35 cents per bushel. New sacks 15 cents. S. F. Glass, Marion, Kas.

SHORT-HORN BULLS—Cruickshank-topped, for sale. Choice animals of splendid breeding. Address Peter Sim, Wakarusa, Shawnee Co., Kas.

WE MAKE A GOOD FARMER'S SPRING WAGON, two lazy backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

WANTED—Readers of the KANSAS FARMER to try our "Special Want Column." It is full of bargains and does the business. For less than one dollar, 2-cent postage stamps are acceptable.

Salesmen Wanted! \$100 to \$125 per month and expenses. Staple line; position permanent, pleasant and desirable. Address, with stamp, King Mfg. Co., P. 29, Chicago, Ill.

Short-horns for Sale! I have for sale four Short-horn bulls—three coming 1 year and one coming 2 years old—all eligible to record. One yearling Poland-China bull, Sunset-bred, a good one. Also Light Brahma and G. L. Wyandotte eggs \$1 per fifteen. Write. J. A. WORLEY, Sabetha, Kas.

COTTER, IOWA, Oct. 3, 1895. The Onstad Chemical Co., Sioux Falls, S. D.: GENTLEMEN:—Those Lumpy-Jaw Capsules were received and proved satisfactory. I will order another box. Do you sell them in \$5 packages? Yours truly, GEORGE STOPP.

ONSTAD'S LUMPY-JAW CAPSULES cure with one application. There is sufficient in each box to cure four ordinary cases. Price \$2 a box; capsule inserter 25 cents. Sent by mail. Sold by druggists. THE ONSTAD CHEMICAL CO., Box 1800, Sioux Falls, S. D.

In writing to our advertisers please say you saw their advertisement in the KANSAS FARMER.

BREEDERS' DIRECTORY.

ELM BEACH STOCK FARM IRWIN & DUNCAN, Wichita, - Kansas, Sedgwick Co. Breed and have for sale Bates and Bates-topped Short-horns—Waterloo, Kirklevington and other fashionable families. Also bred and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

1,309 POLAND-CHINAS Shipped by express to eighteen States and Canada. Original Wilkes, Corwin, Tecumseh and World's Fair blood. Write for one to W. S. HANNA, Box 218, Ottawa, Kansas.

WHINERY'S CHESTERS IMPROVED Are very Growthy, Prolific, Easy feeders. Go to every State, Canada and Mexico, 800 sold in 1895, over 1000 for 1896. Catalogue free. "Whinery's Swine Advocate" A 16 page monthly 25c per year. Willis Whinery, Salem, Ohio.

When you write mention Kansas Farmer.

SUNNY SLOPE FARM C. S. CROSS, Emporia, Kas. We have one of the largest herds of registered HEREFORD CATTLE In the United States. Write for anything you want.

SHANNON HILL STOCK FARM G. W. GLICK, ATCHISON, KAS. Breeds and has for sale Bates and Bates-topped SHORT-HORNS, Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Winsome Duke 11th 115137 and Grand Duke of North Oaks 11th 115736 at head of the herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

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Sunny Slope Farm is one of the largest breeding establishments with Wild Tom 51592 at the head of the herd. Climax, Vol. V., the sire of more sweepstakes bulls and heifers than any great son of Cherry Boy, and Beau Real's Last, comprise our which combine the blood of Anxiety, Lord Wilton, Breeders are invited to inspect our herd. H. L. LEIBFRIED, Manager.



ments in the United States. Three sweepstakes bulls in service, XV, Archibald VI., Vol. XV, and the great bull, Archibald bull in the United States for his age, and Lomond, Vol. XV, the breeding bulls. Forty head of bulls now ready for sale, Grove 3d and Archibald. Visitors are always welcome. C. S. CROSS, Proprietor Sunny Slope Farm.