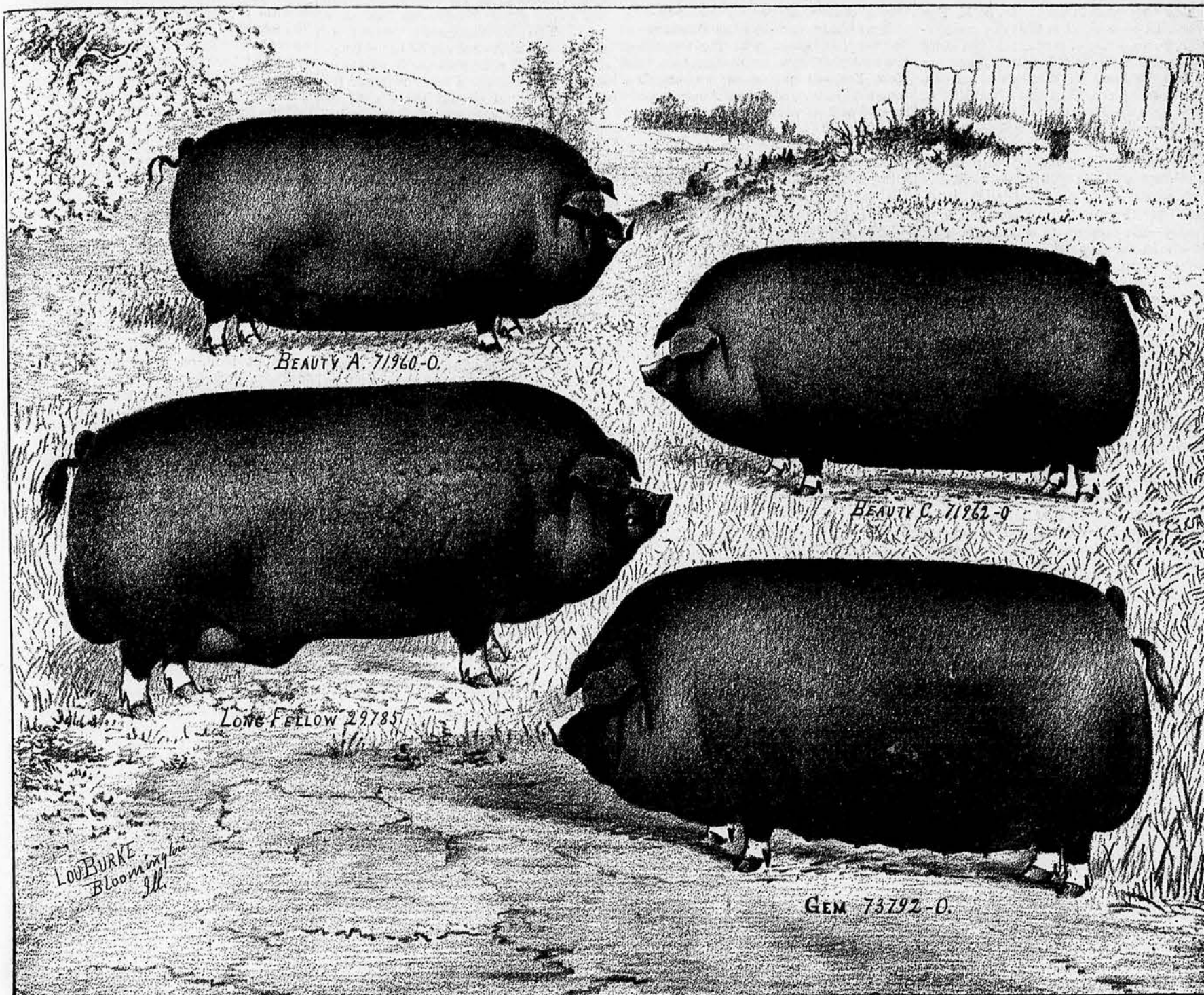


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(Breeders' Directory continued on page 18.)

Agricultural Matters.

FACTS VS. FANCIES—POPULATION AND FOOD SUPPLY.

EDITOR KANSAS FARMER:—In the FARMER of October 30, appears criticisms of the article in which, at your request, I endeavored to state such facts as, in my opinion, rendered the "Lubin" bounty proposition both impracticable and, if ultimately adopted, inoperative. Not one of those who criticize the article adduce a single fact in support of their contentions, but rest their case upon surmise, assumption, and hypothesis, with misconstructions of statement there and elsewhere made by the present writer. While it is probably useless ever to attempt to remove misconceptions or dispel fallacies that people are fond of, yet I desire space in the FARMER to show in part how illogical are the assumptions relied upon to dispose of incontestable facts.

The only contention of Mr. J. M. Foy that will be noticed is that the remarkable world crops of wheat and rye since 1886 are due to *intensive culture* and not to a succession of favorable seasons, and that by reason of the obtaining of this improved system or methods, *the world can be fed for generations to come even if not another acre be added to the areas employed in growing the primary food staples of the temperate zones.*

To those who prefer facts to theories—and Mr. Foy distinctly says his is a theory—the famines to which Mr. Foy points in support of his contention, proves diametrically the opposite, as were intensive methods the potent factor in agricultural production, and did such methods obtain, as he assumes without adducing a fact in support, then famine would have been no more likely in Russia in 1891 than in 1894. That famine, and subsequent ones in Algeria and Tunis, was directly due to unfavorable meteorological conditions (in Russia in 1890 and 1891) and disappeared as did those of Algeria and Tunis, as soon as favorable climatic conditions gave one good harvest in the stricken districts.

Are we to believe that intensive culture produced but 80,000,000 bushels of corn in Iowa in 1894, and yet gave that State some 300,000,000 bushels in 1895? Must we believe that it was intensive culture, and not unfavorable meteorological conditions, that destroyed so much of the hay crop in Illinois, Indiana and Ohio in 1895 and causes hay to sell in those States at more than double the price of a year ago? Shall we, in order that a theory shall have semblance of verity, assume that intensive culture produced forty-seven bushels of wheat from a single acre of the Kansas Agricultural college farm in 1882, not a bushel in either 1885 or 1886, and yet gave thirty bushels in 1888, and thirty-seven bushels in 1889, although, as Prof. Shelton assures us, that particular acre was cultivated in the same manner in each of the years named? Am I to believe that it was intensive culture that enabled me to sow wheat as late as the first week of November, 1877, and harvest forty-five bushels an acre in June, 1878; and yet, eighteen years later, when the wheat was sown early and the land better cultivated, to garner from the same field fewer bushels than were sown? Does any one expect me to believe that it was intensive culture that enabled me to harvest sixty bushels of corn an acre in 1889 from a certain forty-acre tract that was never touched between planting and harvest—because a quicksand subsoil rendered it dangerous when saturated (as it was through all the growing season of 1889) to take a horse upon it—and that, with the most careful culture, gave less than ten bushels an acre in 1890, of miserable chaffy nubbins? Can any one ask the farmers of Kansas to believe that intensive culture in 1892 gave them 70,000,000 bushels of wheat from 3,800,000 acres, and but 13,000,000 bushels in 1895 from the 4,500,000 acres sown for that harvest? Must Kansans believe that increasing intensive culture gave them less than three bushels of wheat an acre from their rich lands in 1895 and the farmers of North Dakota,

on their thin lands, the greatest yield this country has ever known? Is it a fact that intensive culture has so progressed as to give Southern cotton-growers 9,018,000 bales in 1892, and progressed so much farther the next year as to reduce the out-turn from the same fields to barely 6,664,000 bales? Must we assume that intensive culture gave the growing cotton of the whole South a condition rated at 82.7 in October, 1894, and one of no more than 65.1 in October, 1895, while causing the price to advance \$20 a bale since last March? Was it intensive culture that caused the cotton fields of Texas to show a condition of 88 in October, 1894, and one of but 58 in October, 1895?

New Zealand and South Australia were settled at the same time, and by identically the same class of people of the same race, while the soil differs little if any in potential power; yet the wheat fields of New Zealand give yields averaging twenty-six Winchester bushels an acre against those of no more than seven and two-tenths bushels in South Australia. Shall we attribute this wide difference in the out-turn to the varying intensity of the culture in the two provinces, or to the fact that New Zealand possesses an equable, moist climate, and South Australia one as arid and as variable as that of western Kansas?

Why is it that in this year of grace potatoes are in the Dakotas and Minnesota yielding often as much as 200 to 300 bushels an acre, are there unsalable at any price, and that in Sedgwick county, Kansas, the yield is less than forty bushels, and the consumer gladly pays 50 cents for an inferior article? Shall a Kansan ever so far forget what is due the State as to admit that the farmers of the Northwest are more intense than those of the Sunflower State?

So reputable an authority as Mulhall assures us that France is the best cultivated of European countries, and every theorist, from those of the Agricultural Department to the last writer for the press, assures us that our crops are small because we farm less intensively than do those of western Europe; yet an average yield of corn in the United States is twenty-four bushels an acre, and seventeen bushels in France. Does the intensity of French farming, or the climate, reduce the yield by 30 per cent.

If culture rather than climate is the potent factor in agricultural production, why is it that the fields of Denmark give yields of wheat averaging thirty-nine bushels an acre and those of the best cultivated country in Europe yields averaging but seventeen bushels? And why, if culture determines the product, do the arid plains of the Iberian peninsula give yields of but eleven bushels an acre and those of New Zealand twenty-six bushels?

Was it intensive culture or climatic conditions that reduced the Russian rye crop to a bare 500,000,000 bushels in 1891, when 650,000,000 were required for domestic consumption? The Russian peasant must have improved in intensiveness with remarkable rapidity between 1891 and 1894 to enable his fields to produce 821,000,000 bushels of rye in the latter year despite a considerable decrease in the acres sown.

Was it an increase of intensiveness in culture that reduced the yield an acre from English wheat fields fully one-sixth during the year now ending?

If, as Mr. Foy assumes, improved culture has been the one potent factor in production and in causing low prices since 1886, how does it come that the change has been so sudden and has been sometimes reversed? Why has it not been continuous, and why has it not, in its results, been steadily progressive? No longer ago than 1879, the wheat crop of Europe aggregated but 991,000,000 bushels, although in the preceding year it reached an aggregate of 1,313,000,000 bushels.

Evidently there was something other than cultural intensiveness at work in 1879, just as there must have been as recently as 1891, when the wheat crop of Europe aggregated nearly 250,000,000 bushels less than four years earlier, and Europe's rye crop that year was quite 250,000,000 bushels less than in the year immediately preceding. Even

the crop of wheat of Europe in 1895 is quite 150,000,000 bushels less than in 1894, despite this potent intensive culture. A shrinkage of 150,000,000 bushels a year, with requirements increasing at least 25,000,000 bushels, would soon leave those coming generations with a meager allowance.

And those coming generations? If we are to feed the coming generations—generations imply at least two—without adding another acre to the areas employed in growing the primary food staples, how comes it that in 1891 the United States grew 612,000,000 bushels of wheat, in 1892 some 516,000,000 bushels, and no more than 396,000,000 bushels in 1893?

Possibly Mr. Foy's calculation may result as did that of the gentleman from Barton county, who, at a meeting of the State Board of Agriculture, said that he would assure Mr. C. Wood Davis that there was not the slightest possibility of the world ever having a defective supply of wheat, as the southwestern fourth of Kansas alone could and would grow 100,000,000 bushels a year. The southwestern fourth of Kansas has since harvested three crops and garnered nearly as much wheat as was sown. Rather a slim reliance for a hungry world should there ever be one, as I believe there will. This belief is based upon the related facts that cultivated acres producing the bread-making grains do not increase, while population so increases as to require 40,000,000 bushels more of wheat and rye in 1895 than in 1894.

Probably cultivation is more intense in Japan than elsewhere in the world, and yet Japanese fields that are cultivated with a spade, upon which no weed dare show its head, that are most carefully nurtured, and where everything possessing fertilizing qualities is saved with scrupulous care and applied, give yields of wheat that average less than sixteen bushels an acre; and in this year of grace Japan is suffering from a defective rice crop which the Japanese officials are so unenlightened as to attribute—not to a lack of intensiveness in culture, but to an excess of intensiveness in certain climatic conditions.

While Mr. P. C. Branch appears to have a clear appreciation of the fact that production in excess of requirements causes low prices and that half as much corn would bring more money to the growers, yet I have no idea that any arrangement, as he seems to suggest, can be made to lessen the hours of farm labor and thus reduce production, because to be operative such an arrangement must include nearly all our competitors, and this is clearly impracticable. Mr. Branch and those raising broomcorn may not be the victims of the senseless advice given to "diversify crops and become prosperous" so long preached by the Department of Agriculture, but the growers of potatoes who listened to the apostles of diversification appear to be, as will, I think, all those led to believe that there is any crop adapted to our climate of which we grow too little, unless it be sugar, and that can, probably, never be grown here with profit until we shut out the bounty-laden sugars of Europe or give greater bounties.

Mr. Branch is certainly wrong in his fear that I may prove a false prophet, as I have not engaged in that business hitherto, nor am I likely to.

As to the criticisms of Mr. W. E. Hutchison, he is clearly wrong when he states that I "assume upon the Malthusian theory of social economy that the increase of population is greater than the increase of its needful food supply," for the very sufficient reason that Malthus never formulated such a theory, nor have I subscribed to nor do I believe in it, as the facts have, at least thus far, all been in the contrary direction. Food has certainly been over-abundant, and that is just what, in my opinion, is the whole trouble with the agricultural interest and the cause of low prices. I do, however, believe that food will become scarce and prices therefore high within a very few years, and that such conditions are inevitable at no remote day.

I fear that Mr. Hutchison is one of those persons whom Harriet Matineau had in mind when she said that Mal-

thus was the most discussed and least read and understood of any one who ever wrote, and that those who had never seen his "Essay Upon Population" were the most ready to controvert it. I am led to this view by the fact that Mr. Hutchison has long made just as free as now with the Malthusian doctrines, but has probably forgotten that when doing so on one occasion he told me, in response to my inquiry, that he had never read Malthus. The present incorrect rendering of the Malthusian postulate, "that population tends to increase in a geometrical ratio while food tends to increase only in an arithmetical one," inclines me to the belief that Mr. Hutchison has not yet thought it worth his while to secure knowledge of the Malthusian postulates from the original source, but is content to expatiate upon them without. If he has read Malthus as he appears to have read what I have written in relation to prices for farm products, it is no wonder that he attributes to Malthus theories of which he was as innocent as I am of the mythical prediction of "\$2 wheat," which Mr. Hutchison now tells the readers of the FARMER was deducted from my compilations of the statistics he deems so worthless and misleading. In this connection, permit me to say to Mr. Hutchison, and every other propagator of this baseless fable, that I will pay \$100 for each and every copy of an article written by me in which \$2 a bushel, or any other price, either for wheat or any other product of the soil, was either promised, predicted or indicated.

I am far from agreeing with many of the positions taken by Malthus in the "Essay on Population," especially the postulate that "while population tends to increase in a geometrical ratio, food tends to increase only in an arithmetical one." I have shown in other articles that food, on the contrary, shows no tendency whatever to increase, nor does it increase except by man's agency, industry and constant care, and that should man cease his efforts in this direction for one season only, food would show a decided tendency to decrease. Another grave error of Malthus, but one quite excusable in the then state of social data, was that poverty and extreme privation served as an effective check upon the increase of population. The history of the Irish, Russian and Indian peoples—the most poverty-stricken of all the populations that have risen above savagery—negative this postulate. On the other hand, Malthus was doubtless correct in the conclusion that, as population increased and food became scarce and high—as it ultimately and inevitably must—lands of lower and still lower fertility must be brought into use, and that this enforced use of the less productive lands would so lessen the average yield an acre as to more than offset any increase of yield from the acres earlier cultivated, resulting from improved methods of cultivation and fertilization. I fear that neither of the critics have given due weight to this factor, notwithstanding the very obvious object lesson furnished by great areas of low productive power in western Kansas, as well as in adjacent States—great regions that must ever remain areas of low production, despite the small fraction that may, eventually, be fructified by the water flowing from such holes as Mr. Sutton and his associates may bore.

We shall not need, however, to consider this factor for seventy years—the term of two generations—if the present acreage can, by intensive culture, be made to sustain, as we are assured it can, not only as great a bread-eating population as now exists—500,000,000 units—but the 700,000,000 other units that will be added before 1965, if the rate of increase equals that of the last twenty-five years.

Only think of it! Acre yields are, by intensive culture, we are told, in substance, to be increased 140 per cent. the world over, although it is more than doubtful if there was any increase whatever during the twenty years ending with 1886. Such yields certainly did not, in that period, increase at all in the United States, if the reports of the Department of Agriculture are to be relied upon.

To accomplish this Herculean task—

so jauntily undertaken on paper—the Russian moujik, the Indian ryot and the hordes of northern Africa and southwestern Asia must all become the most intense of intensivists. Will they keep well in advance of the baby procession?

I believe that Malthus was wholly right in his geometrical postulate; that Malthus was wholly wrong in his arithmetical postulate, and quite as wrong in his theory that poverty and privation served as effective checks upon an undue increase of population, as is Mr. Hutchison in the statement that I ever outlined any kind of a fiscal system. I have always preferred to leave such work, for which I am as unfitted as disinclined, to an over-abundant crop of statesmen.

C. WOOD DAVIS.
Peotone, Kas., November 4, 1895.

The Stock Interest.

SHOEING HORSES.

By Robert Bonner, read before the "New York Farmers."

An eminent Bishop was once asked by a young clergyman what he considered the proper length of a sermon. The Bishop replied, "Twenty minutes, with a leaning to the side of mercy." I had that remark in mind in preparing the paper which I propose to read, hoping not to weary you.

Dr. Johnson is credited by Boswell with saying: "Knowledge is of two kinds. We know a thing ourselves, or we know where we can find information upon it." On the subject of horse shoeing, which you have chosen for discussion this evening, I may be permitted to say that even if I did not know anything about it myself, I do know where we can find information upon it, for I have been for many years a diligent student of the literature relating to it. It has been a fascinating theme to me.

In 1752—forty years before there was a veterinary college in the English-speaking world—Jeremiah Bridges, a well-educated Englishman, who was styled, in the language of those days, a farrier and anatomist, wrote a book entitled, "No Foot, No Horse." That was a very suggestive and instructive title. In his prefatory remarks he states that it was by faithfully following the knife, while dissecting the foot, and looking into its nature with his own eyes, that he was enabled to make discoveries that he had never seen referred to in the works of authors who preceded him. Time will not permit me to give the details of his discoveries. One or two brief extracts, however, from his work may interest you. He says:

"The feet of a horse, like the foundation of a building, are the support of the whole body, and the most noble superstructure, raised on a bad foundation, must fall. The horse with bad feet must necessarily stumble or come down, and be useless or dangerous to his rider. * * * The horse that has a long hoof, with low heels, is scarce fit for anything but the plow. * * * A round hoof with open heels is the best."

That statement must be interesting to all you farmers.

Next to the insidious and destructive effects of bad shoeing, he attributes the troubles of the feet to allowing the horse to stand a long time without having the feet pared, which neglect produces not merely contraction but undue length of toe, and I may add nearly all other diseases of the feet and limbs.

In 1759, seven years after Bridges' work appeared, Dr. William Osmer published "A Treatise on the Diseases and Lameness of Horses," and I am free to say that it contains more valuable information on this subject than I have found in any other work, either ancient or modern, until Mr. Roberge's book on "The Foot of the Horse" recently appeared. Dr. Osmer, in his introductory remarks, says:

"In order to extricate the science of farriery from the hands of the ignorant and illiterate, the author and his brother, who were bred regular surgeons, have undertaken the cure of horses in their various complaints, and of having them shod in the most proper manner." He adds: "When the earth

was in a state of nature, and turnpike roads as yet were not, the horse needed not the assistance of the artist; but in process of time matters were changed; and I am now thoroughly convinced, from observation and experience, that nineteen lame horses of every twenty in this kingdom are lame of the artist, which is owing to the form of the shoe and mal-treatment of the foot. Every kind of foot should be kept as short at the toe as possible, without affecting the quick, for by a long toe the foot becomes thin and weak, the heels low, and the flexor tendons of the leg are strained; the shortness of the toe helps also to widen narrow heels. Whoever will be at the trouble of examining the feet of such horses as are accustomed to cut themselves, will at all times, and in all horses, find the cause to be the same, namely to turning out their toes. From hence also the necessity of boots and bolsters and bandages around the fetlocks of half the horses that are trained at Newmarket. The true cause of it is that the inside of the hoof is lower than the outside, and the horse becomes crooked from the fetlock joint downwards. And to prove this doctrine, as soon as you perceive the toe turning out, pare down the outside of the foot as much as you can; repeat it as often as the foot will allow, and let the inside alone; so will the horse grow straight on his legs and feet. If the crust cannot be lowered enough on the outside the substance of the iron on the inside of the shoe may be made thicker than on the outside in order to level the foot." Then he goes on to say:

"Some men talk of horses being chest-foundered and shaken in the shoulders, when the disorder is in the feet alone, wherefore know all men by these presents that whosoever talks of horses being chest-foundered and shaken in the shoulders is an ignorant pretender to the knowledge of this animal, and is himself shaken in the head." He adds—and I will close my extracts from his most instructive work with this quotation:

"Who now does not see the horrid barbarities of rowelling, blistering, nay, even boring the shoulders with a red-hot iron (under pretense of curing a lameness), committed on this most noble animal by the obstinacy, pride or folly of mankind."

Before the first veterinary college was established in England, besides the treatises of Bridges and Osmer, there were works published by Dr. Bracken, Capt. Burden, William Gibson, Solleysell, Markham and James Clark, farrier to his majesty for Scotland. But I shall not weary you with extracts from them. Since the college was started we have had works of more or less value on the foot from St. Bel, its first professor, from Coleman, who succeeded him, and from Bracy Clark, Freeman, White, Youatt, Goodwin, Percival, Fleming, Col. Fitzwygram of the King's Hussars, James Turner and others too numerous to mention. Of these I consider Fitzwygram's "Notes on Shoeing," and Turner's treatise on "Navicular Joint Lameness," the most valuable. Col. Fitzwygram devotes considerable space to the elementary principles of shoeing, but the leading feature of his book is the part in which he advocates turning up of the toe of the shoe out of the line of wear, giving it the appearance of a shoe that is nearly worn out at the toe, which allows the foot to glide or pass gracefully over the toe as it leaves the ground. This shoe, I believe, will work well on nine horses out of ten, but especially on those with strong cup feet and contracted heels. He sums up the evils of the ordinary straight shoe as follows: A tendency to produce contracted heels and shriveling up of the frog, from the absence of wear at the back part of the foot; stumbling and loss of speed from the resistance of the toe against the ground, and undue strain on the flexor tendons, whose office it is to flex and raise the leg.

Turner was a member of the Royal Veterinary college, and a veterinary surgeon in the British army. He was the first man to use the phrase "navicular disease," to which reference is so often made at the present time—and,

I may add, made by people who do not know anything about it. He directed attention to it in a communication that he sent to the Veterinary college in 1816, regarding the discovery of the precise seat of chronic lameness in the foot of the horse, and also in a paper that he subsequently read before the London Veterinary Medical Society. He introduced what was known as the unilateral or one-sided system of nailing the shoe, after paring down to the quick those commissures or channels between the bars and the frog, which are so morbidly deep in contracted feet. He was recognized as the great authority in his day on the nature, origin and symptoms of navicular joint lameness. His book can be read with profit by every student of the foot. It has been of great benefit to me; but Turner did not know it all. In fact, I have yet to hear of any man who does know it all. The subject is too vast and intricate for that. I certainly do not claim to have mastered it all, although I think from what I have learned from others, and from my own experience and observation, I have made some progress in that direction.

It has been said that modest men are reluctant to speak of their own work; but as I was asked by your worthy President to say something this evening of what I knew about horse shoeing, I do not see how I can well avoid, in complying with his request, referring to some famous horses which I have relieved of their lameness.

In August, 1884, I bought Maud S. from Mr. Vanderbilt. When she was delivered in my stable she was lame in her off hind foot. Before I paid for her I knew she was lame; and Bair, her trainer, said no veterinary surgeon could stop that lameness if she got fast work; but Bair trained her that year, after she was shod under my direction, and she reduced her record to 2:09½ without showing a particle of lameness. The following year he again trained her, and she still further reduced her record to 2:03½—the fastest time that has ever been made to a high-wheel sulky on a regulation track; and still that foot kept perfectly sound. You will probably want to know how she was relieved of her lameness. I will tell you. It is very simple. I hold in my hands two bones—the coffin and the lower pastern. You will notice that the lower pastern bone rests upon the coffin bone. Now if the hoof is left higher on one side than on the other, it necessarily interferes with the perfect articulation of the joint. Maud S.'s hoof was higher on the inside than on the outside, which unbalanced or partly displaced the joint. All that I did was to lower the inside of the hoof, which allowed the pastern bone to rest in its socket, when perfect articulation was restored.

A few weeks after I bought Sunol from Governor Stanford I went to California to see her. I visited Palo Alto twice, and on both occasions saw the mare speeded apparently all right. As I was about leaving San Francisco for home, a gentleman asked me if I knew that Sunol was lame. I told him I was not aware of it. He then informed me that he had seen her work on five or six occasions, and that she came out lame every time, but warmed out of it. Knowing as much as I flattered myself I knew about a horse's foot, I concluded not to leave California without visiting Palo Alto again, with a view of ascertaining from Charles Marvin, her trainer, if there was any truth in what I had heard. Like the honest man that he is, Mr. Marvin very frankly told me that, to use his own words, she had nodded all along; but, he added, when you first came out here you called my attention to her near forward foot being too high at the inside heel. I lowered it the next day, imitating you as nearly as I could. Yesterday morning she scarcely showed anything, and this morning not a bit. A few weeks afterward he wrote to me, saying: "Sunol does not nod any more," and concluded his letter in this quaint and pithy way: "I wish I could be where I could consult you often about the horse's foot. The little I caught from you while here only makes me hungry to learn more."

A Western writer, whom Providence,

SPECIFIC FOR SCROFULA.

"Since childhood, I have been afflicted with scrofulous boils and sores, which caused me terrible suffering. Physicians were unable to help me, and I only grew worse under their care. At length, I began to take



AYER'S

Sarsaparilla, and very soon grew better. After using half a dozen bottles I was completely cured, so that I have not had a boil or pimple on any part of my body for the last twelve years. I can cordially recommend Ayer's Sarsaparilla as the very best blood-purifier in existence."—G. T. REINHART, Myersville, Texas.

AYER'S

THE ONLY WORLD'S FAIR
Sarsaparilla

Ayer's Cherry Pectoral cures Coughs and Colds

for some inscrutable reason, if I may use one of Horace Greeley's phrases, permits to edit a paper, started a report a short time ago that Mr. Marvin and I did not agree about the shoeing of Sunol. Nothing could be further from the truth, as all his letters to me indicate. They are of a similar tenor to the one I have quoted. In fact, he told a reporter of the New York Tribune that Palo Alto, who has the fastest record of any stallion to the high-wheel sulky, never could have made that record if it had not been for points he got from me about shoeing one of his feet when he was lame. That rather corroborates your remark to me about increasing the speed, Mr. President.

I could go on and give some interesting particulars about the shoeing of horses belonging to myself, as well as of those belonging to some of my friends, that have been relieved of their ailments by properly balancing their feet. But I do not wish to detain you with further details in that line.

I have often been asked, "Why is it that trainers and blacksmiths know so little about shoeing?" I answer that question in this way: Because they know nothing, generally speaking, of the anatomy of the foot, and have no disposition to give the requisite time to acquiring a knowledge of it. Besides, they are too old to learn. It is to the rising generation that we must look for improvement in this line. In my experience I have found that, while old trainers and blacksmiths may appreciate two or three new points about the horse's foot, you will make them, with a few exceptions, angry with you and disgusted with themselves by giving them too many valuable points—points which they can neither comprehend nor "digest." The result of this will be that they will not only feel like abandoning the study of the whole subject as being too intricate and complicated, but will become secretly angry with you for demonstrating to them how very ignorant they are on everything about the foot. Besides, they do

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HOG CHOLERA

Mr. JEFF. D. CRENshaw, of Riverton, Ala., in *South-eastern Cultivator*, of Sept. 25, 1895, says in part: "After an experience of nearly a month during which time about every hog on our premises has had cholera, we have lost three out of a forty-odd killing ones—ELECTROZONE has proven to be a specific for which I go on record as saying it will cure hog cholera, and will prove of incalculable benefit to pork producers throughout the land."

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not want the owners of horses to know that they are so ignorant. They feel, to quote a phrase from Scripture, that their "craft is in danger of being set at naught." Such

"Men must be taught as if you taught them not, And things unknown proposed as things forgot."

What makes the subject of horse shoeing so difficult to master is that there are almost as many varieties of feet as there are of the human countenance. It does not follow that a shoe that may suit one horse of a team will suit his mate. When Maud S., for instance, made the fastest mile that was ever made on a regulation track to a high-wheel sulky, she carried nineteen ounces on each forward foot, while Sunol carried only eight ounces when she made the fastest mile that was ever made to such a sulky on a kite-shaped track. One great thing to be remembered, however, is that the shape of the hoof must be made as far as possible to correspond with that of a well-formed coffin bone, and that the shoes must not be allowed to remain on the foot longer than three or, at the outside, four weeks. Gen. Grant understood this very well. I took him over to the Fashion track one day to see Dexter trot. As soon as he looked at the horse, he remarked that his feet were very level, which they were. The General was, in many respects, an accomplished horseman.

Irrigation.

IRRIGATION BY MEANS OF STORM WATER.

By F. H. Newell, of the United States Geological Survey, Washington, D. C., read before the Texas Irrigation Association, at San Antonio, November 12, 1895.

Your Secretary, Edwin Chamberlain, has kindly invited me to prepare a paper to be delivered before your convention, upon the subject of irrigation by means of storm water. Appreciating the compliment, and thanking you for it, I feel that I must show my appreciation by an attempt to comply with the request, although business prevents my personal attendance.

In regard to irrigation by means of storm water, I must confess that after seven years of active service in various matters pertaining to irrigation investigation and the measurement of water resources of the country in all the States and Territories of the West, I am still far from confident as to the present practicability in general of this method of development. As conditions now are, there are so many localities where irrigation can be successfully conducted by cheaper and more reliable means, that it is only in comparatively exceptional cases that irrigation by stored water can be practiced with profit. Some of these exceptional cases are to be found in your own State, where, with favorable topography for delivering and holding storm water at points where dams can be cheaply constructed, it becomes feasible to hold large quantities each year. Each of these cases, however, must be carefully considered upon its own peculiar merits, and no generalization can have much value in determining upon a course of procedure.

In the progress of the systematic topographic mapping of Texas, now being conducted by this survey, and in the examinations made by other parties, many of these reservoir sites are being discovered, and their existence should be made known at the earliest possible date to the public, in order that suitable steps may be taken to ascertain the exact cost and benefit of water-storage at each point, and that the question of ultimate profits may be fully and carefully discussed. During the existence of the irrigation branch of this survey a considerable number of reservoir sites in different parts of the country were carefully surveyed, the cost of dam construction under various conditions ascertained, and the area of land to be benefited estimated from the topographic sheets. A few of these works have been constructed by private parties, but by far the greater number are still considered as matters for the future, when irrigated lands and crops will have a greater local value, follow-

ing upon increase of population. There are, as above stated, too many opportunities for the development of agriculture by irrigation by cheaper means. This is the point upon which I would dwell in this brief paper.

There is one thing which the people of Texas need to keep constantly before their eyes, and that is the possibilities of building up an innumerable variety of small industries, these in the aggregate contributing far more to the permanent prosperity than the great enterprises usually discussed. This is true not only in manufacturing and in ordinary farming, but is especially notable in irrigation. Few people appreciate the great advantages possessed by Texas in this line, through the fact of the relatively wide distribution of small perennial sources of water in the form of springs and creeks, deriving a constant supply from seepage. There is hardly a State in the West in which the water supply, such as it is, is so broadly distributed in bodies each one of which can be easily controlled by a few farmers.

In looking over the statistics of irrigation, one of the most striking facts is that the notable successes and the rapid increases of wealth to a community has come, not through large enterprises in irrigation, but through the construction by the farmers themselves of moderate-size ditches leading from streams whose volume is small and whose fluctuations, especially during the summer time, are within narrow limits. These are the men who have built for themselves comfortable homes, who have reclaimed arid land and given it the highest value to which farming land can attain. They have by concerted effort and the use of relatively insignificant capital, year by year extended the ditch systems and by personal management have kept the expenditures for annual maintenance at the minimum. It is to the predominance of these in the Census Report for 1890 that is due the relatively low average first cost and annual expense of irrigation. Throughout the greater portion of the arid and semi-arid regions the opportunities for such development no longer exist. The choice spots have been picked, and there only remain the larger, less readily controlled sources of water or opportunities for storage.

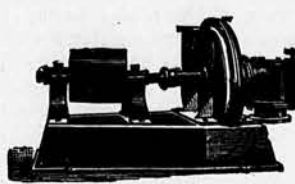
Texas, however, is exceptional. Irrigation development has not proceeded rapidly, except in a few spots in the more arid western part of the State. The opportunities for a great number of small enterprises are still open.

In sharp contrast to the development of irrigation in a small way are the great enterprises, involving heavy capitalization, and as an incident evil, the manipulation of stocks and bonds. Taking the country through, nearly all of the great corporations which have constructed extensive irrigation works are verging upon bankruptcy, if not already in the hands of receivers. In the main the difficulty of settling a desirable class of farmers upon the lands under these great systems, the slowness with which agriculture develops, and the length of time required to acquire experience in the handling of waters, has so retarded the income of these companies that the cost of maintenance and interest charges have eaten up the reserve capital. As a result, the works have often been badly managed, adding further to the discouragement of the settlers under the great canals. These corporations or great companies are necessary to handle comprehensive systems, unless the State or nation will do it, and in the future must probably multiply in number; but in the State of Texas at present it appears that the first and best development, and the one leading to the most good, will be through the utilization of springs and creeks by associations composed wholly of irrigators.

The investigations being conducted by this survey have not proceeded sufficiently far to enable me to discuss with any degree of assurance the volume and fluctuations of the many important, though small, streams of the State. To an engineer who has traveled through the various portions of



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the United States where irrigation is practiced, the striking opportunities of Texas along the beautiful, well-watered valleys, where the marvelous springs, especially in the central part of the State, occur, it becomes evident at a glance that a great increase of population is possible when comprehension is had of the possibilities of employing this water upon the lands usually too dry for the best success.

It must not be supposed that irrigation is alone valuable in the arid or semi-arid portions of the State. Perhaps the greatest benefit will come through the construction of irrigation works, not with the intention of using them at all times, but rather as an insurance against the deleterious effect of occasional droughts. In many parts of the State deemed humid there are soils of great fertility in which during perhaps only a few weeks of the year the supply of moisture becomes reduced a trifle below the needs of the plants, bringing down the average production and value of the crop just enough so that it will not rank as first-class. Water applied, even in small amounts, at the right time in such cases will bring the crop from a condition below the average up to the highest yield, with the difference between bare profits and large returns.

Utilizing the Underflow in California.

The magnitude of the stores of underground water in western Kansas is such that any accurate conception of the manner in which it gets there or the means by which it is preserved from wasting, or the possibility of applying it to useful purposes, is hindered by the very vastness of the quantities presented for consideration. But there exists a little valley in California which, on a comprehensible scale, represents many of the conditions of our underflow. In California, where people know by experience the value of water, they consider the opportunity to obtain this subterranean water an exceedingly good fortune. In the November number of *Irrigation Age*, G. F. Allardt, C. E., describes the situation in this, the Santa Clara valley. From his paper the following is condensed:

"A great underground reservoir fed by Coyote creek is about to be tapped to supply water for irrigation in the Santa Clara valley, and also for use in San Jose. The rainfall is of sufficient yearly volume to insure the bringing to maturity all varieties of deciduous trees; but they bear so heavily that while there is an average rainfall of fourteen inches this moisture is not enough.

"Various irrigating projects have been made from time to time to cure this one defect. Though it was generally known that some twelve miles south of San Jose there is stored underground a vast quantity of water covering an area of more than 7,000 acres of water-bearing gravel, and lying 250 feet above the level of the sea, no active steps toward its utilization had been taken until recently, when several enterprising capitalists took hold of the matter. They employed experienced engineers to look into the project and report upon the practicability of furnishing water to the Santa Clara valley. They have been at work for over

a year and their researches reveal a condition hard to believe, if it were not backed by indubitable facts and figures. Based upon the reports of such engineers as Col. Geo. H. Mendell, G. F. Allardt and Aug. J. Bowie, a company has been formed styling itself the "Citizens' Water Company of Santa Clara County," which has purchased about 750 acres of land in the Coyote valley, and besides this controls the water rights of 3,500 acres additional, and proposes to furnish water at a moderate cost to all who need it. Colonel Mendell says of this underground reservoir:

"Coyote creek, emerging from the mountains, flows for seven or eight miles in a plain of its own creation, underlaid by permeable material, consisting of bowlders, gravel and sand. The bed of the creek forms the eastern line of the gravel bed and is the highest part of the plain. The slope of the creek is less than the slope of the land. The cross-sections of the gravel bed indicate the same condition of form in the underlying gravel, sloping more rapidly to the west than to the gorge. The voids in this bed of gravel are estimated to provide a storage for water of twenty thousand million gallons, equal to fifty-four million gallons per day, or eighty-three cubic feet per second, for 365 days. This covered reservoir was full in April last. It is nearly full now (August)."

"How is it filled and how and to what extent is it emptied under natural conditions now existing?" was asked.

"Coyote creek runs for the whole length of this plain, along its longest line, in a permeable bed, which connects with and forms a part of the gravel plain," said the Colonel. "At every point of the creek bed the flow is solicited by steeper slopes and empty voids to leave the creek and to flow to the reservoir space waiting to receive it. The gaugings of the flow of the creek in moderate stages show that more than half the flow disappears between the canyon and Coyote station; and at this time the flow, amounting to perhaps ten million gallons per day, entirely disappears within two or three miles after leaving the canyon, the lower creek bed near Coyote station being entirely dry. Whenever the flow of the creek is of sufficient volume this reservoir must be filled. This condition is now doubtless fulfilled, and more than fulfilled, in each average year of rainfall.

"In years of large rainfall the runoff would be two or three times as much as the reservoir capacity, while in a year of say six and one-half inches of rainfall the contribution to the reservoir must be small. With the invisible escape at the gorge prevented, and but for the occurrence of the occasional drought year, there would be in each April 20,000,000,000 gallons of water available for the next year, equal to 54,000,000 gallons of water daily, be-

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IRRIGATION.

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ing three times the amount of water furnished to San Francisco daily. But in order to maintain an even delivery in every year it would be necessary to leave in the reservoir in the spring water enough for thirteen months—namely, from the spring of one year to the autumn of the next year, including two summers. This would limit the yearly draft upon the reservoir to something between 10,000,000,000 and 7,000,000,000 gallons, or an average of 23,000,000 gallons for each of the twenty-four hours."

Gossip About Stock.

J. R. Killough & Sons, breeders of Poland-China swine, Richmond, Kas., report their herd in fine shape. They have a number of yearling boars that they will sell very cheap, also some fine June pigs. These are extra fine. All of these pigs are the get of Upright Wilkes and out of first-class sows. They recently filled an order for a first-class male to go to the Riley county poor farm. Upright Wilkes is proving to be a great sire. His get all show the quality and finish that attract the eye of the buyer. They have two litters, the get of J. H. Sanders Jr., that are showing up well. They topped the sale of Ed. T. Warner, of Princeton, getting a yearling male sired by Riley Medium 12506. They also secured a yearling sow sired by Riley Medium. These two brought the highest prices that were paid. They always get the best, as the best is none too good to go into such a herd.

The great crop of corn which Kansas has raised and the experience of Kansas farmers in the swine industry have combined to make the breeders of pure-bred porkers particularly happy this year. Excellent reports reach us of the widely-known herd of Wm. B. Sutton & Son, at Russell, Kas. Sales brisk; no cholera or other disease. The highest merit is maintained in this herd by constant importations from England, the last and best of which is Lord Comely 34744. Messrs. Sutton & Son are now offering the first of his progeny to the breeders of the West. Among their many sales are the following: Snowflake 26653 to the State Agricultural college of Colorado, at Fort Collins, Col.; Rutger Baron (sire Lord Comely 34744, dam Rutger Eva 81876), to the Kansas State Agricultural college, Manhattan; Rutger Pioneer (sire Lord Comely 34744, dam Rutger Eva IV. 88265), to the New Mexico Agricultural college, Mesilla Park, N. M.; Rutger Ceres (sire Snowflake 26653, dam Rutger Blossom 29258), to the New Mexico Agricultural college; Rutger Messilla (sire Snowflake 26653, dam Rutger Blossom 29258), to the New Mexico Agricultural college.

H. H. Hague & Son, of Walton, Kas., inform us that their herd of Poland-Chinas is in the best of health and their youngsters are growing finely. They have some choice three and one-half to four-months pigs, weighing about 100 pounds each, which they are selling at \$10 each if taken soon. They were sired by Young Model 9857 and King's Royalty 13927 and are out of sows of good breeding and equal merit. The two above noted boars are offered, since they have a number of their get in their herd. Young Model is considered by his owners to be one of the best boned and best hammed boars they know of in the West and he stamps his characteristics on his get. King's Royalty will make a grand show hog. All of his ancestors are from the blue ribbon kind. He is a full cousin to the yearling boar that took the blue ribbon at the Wichita Kansas State fair, in 1895, bred by Dr. P. A. Pearson, of Kinsley. His dam is Tulip 24563, bred by R. S. Cook, of Wichita. Hague & Son are sold out of Shropshire and Merino rams, but have two Cotswold rams and three yearlings, all of which are good for the money asked for them. They have had more inquiry this fall for rams and ewes than usual and think the sheep industry of the country is about to reclimb the paths over which it has backslidden.

How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

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

WEST & TRUAX, Wholesale Druggists, Toledo, O. WARDING, KINNAN & MARVIN, Wholesale Druggists, Toledo, O. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75 cents per bottle. Sold by all Druggists. Testimonials free.

FOR SALE.—Berkshire and Poland-China pure-breeds, from \$10 to \$200.

O. P. UPDEGRAFF, Topeka, Kas.

Ask your neighbor to subscribe for the KANSAS FARMER.

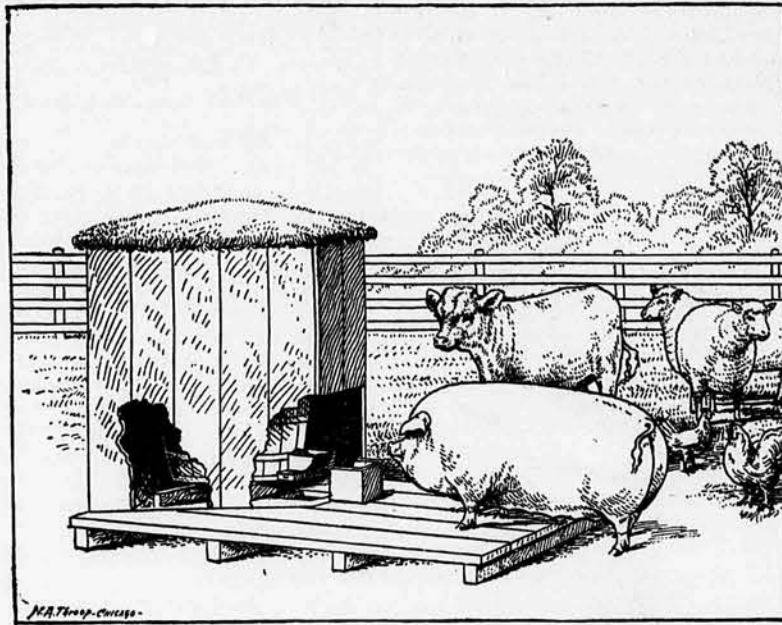
Mains' Swine Sale a Success.

Last week, on Tuesday, the 12th, Mr. James Mains, of Oskaloosa, Kas., held his annual sale of Poland-China swine, on his farm, near Oskaloosa, the county seat of Jefferson county. The attendance was fairly good, considering the present status of the markets, and at noon, after the usual sale's day lunch had been dispatched, Col. Eli Zimmerman, of Hiawatha, mounted the block, made an excellent and appreciative talk on swineology and its objects, after which he opened the sale and realized better prices, all things considered, than was expected. The offerings, while not up in full show yard finish, were just about as they should be. Some few were over twelve months, but the major portion of them were six months and quite a leetling of summer youngsters. Prices realized from \$26.50 down, making an average of about \$16. A careful estimate of the weights, as compared with the price realized, makes a return of about 12 cents per pound, which is, we think, a very good illustration of what may be done by starting right, as Mr. Mains has endeavored to do in breeding the best of Poland-Chinas. The buyers were principally from Leavenworth, Atchison, Brown and Jefferson counties, who took away ninety-six head.

Lake City Automatic Stock Fountain.

Read the following carefully and note how to water pigs in winter without chopping ice from troughs:

The Stock Fountain Co., of Lake City, Iowa, have had remarkable sales during the past season with their fountain for summer use, and now call the attention of our readers to their heating attachment. This is a simple box, ingeniously arranged under drinking cup, burning a chemical combination of ground charcoal and coke,



THE LAKE CITY AUTOMATIC STOCK FOUNTAIN.
Manufactured by Stock Fountain Co., Lake City, Iowa.

which burns during the day, and throws out a heat equal to that from the top of a lamp, and sufficient to keep fountain from freezing, during the coldest weather. The valve is two inches in body of water and cannot freeze; at night the fountain may be shut off and no water get into drinking cup. Pigs drink as much water in winter, and more, for reason they are packed together to keep warm, thereby creating a fever. Further, the gain in fat will increase one-fourth, with less amount feed. The price of fountain, with heating attachment and sufficient coal to try the matter thoroughly for several days, is \$3.50, and the company will send same, express paid, on trial, to any address, money to be remitted when fountain proves satisfactory. This coal will burn all day, and there is no danger whatever, which can be proven after trial. With its use farmers will avoid chopping ice from troughs during the winter each time they water pigs.

The way to prevent hog cholera and other diseases of pigs is to commence giving clean water in the winter and early spring, never permitting them to have dirty running water, such as comes from barnyard, or water in dirty troughs.

The price of coal is about 2 cents each day. Should we have sixty freezing days in the winter, it will cost but a trifle. The coal can be put out at any time, and re-lighted, and will meet every claim made. It was tried thoroughly last winter, but too late to be extensively placed on the market. Trial orders are now pouring in from all parts of the country. Everybody should at least try one. Mention your express station. Order from STOCK FOUNTAIN CO., Lake City, Iowa.

Every breeder in Kansas should have the *Breeder's Gazette* (price \$2 a year) and the *KANSAS FARMER* (\$1 a year). Both journals are furnished by us for the price of one paper, viz., \$3.

Kansas Patents.

The following list of patents is reported through the Kansas City office of Higdon & Higdon, Patent Lawyers and Solicitors, Diamond building, Junction Main and Delaware streets, granted to inventors living in Kansas, the week ending Tuesday, November 12, 1895:

C. E. Evans, Thayer, plow.
F. P. Mercer, Conway Springs, threshing machine.
G. C. Parsons, Topeka, wind engine.
A. B. Perine, Topeka, subsoil plow.
N. B. Rees, Lincoln, bank cashier protector.
Nathan Wetzel, Abilene, pitman connection.
J. C. Merrill and T. Kirkpatrick, Westphalia, design for trousers guard.

Old Mexico.

Modern Mexico is a beautifully illustrated monthly journal, published in the English language, and devoted to the interests of Mexico. Send 10 cents for sample copy. Address Modern Mexico Publishing Co., Topeka, Kas. Mention KANSAS FARMER.

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.

Notice to Farmers.

The farmers of Kansas, by sending their application, plainly written, name and post-office address, to G. V. Bartlett, Commissioner of Forestry, Dodge City, Kas., will

receive by return mail a blank to be filled out by the applicant for a share of seedling forest trees, which will be shipped free of charge, except for freight, which must be guaranteed by the applicant. Delivery will be made in the spring of 1896.

G. V. BARTLETT,
Commissioner of Forestry, Dodge City,
Ford Co., Kas.

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.

"Among the Ozarks,"

the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri scenery, including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks, and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address,

J. E. LOCKWOOD, Kansas City, Mo.

WANTED.—Buyers for blue-blooded breeding hogs. Price from \$10 to \$200.

O. P. UPDEGRAFF, Topeka, Kas.

THE CELEBRATED CARICATURIST, Thomas Nast, has not hitherto been known as an author. He has written an article for the *Youth's Companion*, illustrated by himself, showing "How Caricatures are Made," which will be published in the next volume of the paper.

Better than

any other: Vacuum Leather Oil. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swob, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to VACUUM OIL COMPANY, Rochester, N. Y.

MODELS.

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Iron Beds, varying styles, each a type of graceful strength \$4.35 up. Odd Dressers, in handsome woods or white enamel finish, harmonize happily, or contrive clever contrasts. Descriptive and illustrated catalogue will go to you, post haste, upon request. Montgomery Ward & Co., Chicago.

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Over 50 Styles. The best on Earth. Horse high, Bull strong, Pig and Chicken tight. You can make from 40 to 60 rods per day for from 14 to 22c. a Rod. Illustrated Catalogue Free. KITSelman Bros., Ridgeville, - Indiana.

METAL WHEELS for your WAGONS.

Any size you want, 30 to 56 in. high. Tires 1 to 8 in. wide—hubs to fit any axle. Saves Cost many times in a season to have set of low wheels to fit your wagon for hauling grain, fodder, manure, hogs, &c. No resetting of tires. Cat's free. Address EMPIRE MFG. CO., Quincy, Ill.



I suffered terribly from roaring in my head during an attack of catarrh, and because very deaf, used Ely's Cream Balm, and in three weeks could hear as well as ever.—A. E. Newman, Graling, Mich.



CATARRH

ELY'S OREAM 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.

CORK-FACED COLLARS

are strictly hand-made, hand-stuffed, shaped on scientific principles and are provided with sole leather pressed pads. Light, cool, elastic, and never galls. Perfect home hold. World's Fair Medal awarded over all competitors. Endorsed and in use by the United States Government.

For Sale Everywhere.

Cork-Faced Collar CO., LINCOLN, ILL.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

WHEN I MEET MY YOUTH AGAIN.

Some time—I know not how nor when—
This weary road I journey on
Will lead thro' lands that I have known,
And I shall meet my youth again—
Thro' some old wood my childhood knew,
The road, at length, will bring to view
A cottage in a lowly glen,
When I shall meet my youth again.

Where I shall greet beside the gate
A boy whose unforgotten face
Will glad me with its tender grace
Of artless life and love elate—
My soul will sparkle in its gaze
The while his sunburnt hand I raise
Against my lips, in silence, then,
When I shall meet my youth again.

And yet the lad of whom I dream
May know me not, for I shall be
To him a deepening mystery
Of things that are and things that seem;
From these old scars of time and toil
His heart albeit, may recoil,
As children's often do from men,
When I shall meet my youth again.

But he shall know me, at the last,
And creep into my arms, and weep,
As I shall hush his lids to sleep
With stories of the changes past;
And ere the morning breaks upon
Us twain, our souls shall be as one,
And time shall breathe a soft "amen,"
When I shall meet my youth again.
—Indianapolis Journal.

THE OLD SPINNING-WHEEL.

It used to stand in the kitchen, in a corner
cheery and bright,
Where the burning log in the fireplace shot up
glowing fountains of light,
And the crackling flames played hide-and-seek
with the shadows hid away
In the yawning mouth of the chimney, so aw-
fully huge and gray,
Or leaped out on the red brick hearth and danced
with the shadows there,
While the old wheel kept the best of time in the
firelight's fitful glare.
Singing and spinning,
Spinning and singing,
Now fast and faster it turns,
And the flames leaped high,
And the shadows danced by
When grandmother used to spin.

The wool on the old brown spindle was as snowy
as the snowdrifts outside,
And seemed—as we watched it whirling 'round
like a snowball taking a ride.
Then winding the yarn in a big round ball, so
firm and soft and white,
We were almost afraid it would really melt in
the heat of the open firelight;
But tossed it about and watched it grow, as the
wheel kept buzzing 'round,
And laughed and romped in the ruddy glow and
thought it the sweetest sound.
Spinning and singing,
Singing and spinning,
Now fast and faster it turns,
And the flames leaped high,
And the shadows danced by
When grandmother used to spin.
—Chicago Record.

ENGAGEMENT DINNERS.

Ante-Nuptial Festivities for Bright Autumn Days.

A Most Welcome Return to Simplicity—
Roses, Pansies, Cupid's Bows and Love
Knots in Order—Gay Ribbons
in Profusion.

Written for This Paper.

With the coming of autumn and the passing away of summer days there comes also a regular annual influx of brides, or a little in advance of them come dinners and luncheons by the score.

Engagements once made and announced, these functions are as certain to follow as the night must the day. Therefore the autumn months may well be said to be given over to Cupid's honor. Some few of our last season's weddings were entirely sumptuous, and for a time there was danger that the infection might spread, and that charming simplicity might disappear from the land. But good sense and good breeding have triumphed, as they are apt to do, and it still remains true that in the eyes of the really select over-ornate display is in poor taste, if not actually vulgar, and the pre-nuptial entertainments already given, as well as those in the near future, will be remembered for their comparative simplicity before all else.

The engagement dinner has become quite an established function. Upon the size of the young couple's circle the number given must depend, as an essential matter of course; but, whether there are only the two which represent the families most concerned, or a dozen tendered by interested friends, the de-

tails and arrangements are much alike. Love's knots, Cupid's bows and similar



WROUGHT BY DAINTY FINGERS.

emblems are in great demand. Hearts and arrows take precedence of all else.

Two which were given recently were as nearly perfect as such things can be and gave unbounded satisfaction to the guests of honor.

The hostess of the former was the bride elect's elder sister. The guests included the future bridesmaids and the ushers, the best man and all those young people who will make up the bridal party, besides a few additional sympathizers and the elders of each family group. The hostess has not herself been long a wife, and the memory of her own engagement was still fresh enough to make her eager in her plans, and delightfully earnest in her wish to make a success.

The flowers chosen for the table were roses and forget-me-nots. In the center was a heart-shaped mound entirely composed of La France buds edged with a fringe of the dainty blue blossoms. At each cover was placed a bow with its arrow ready to fly, and beside it stood the menu card in the form of two



A FITTING MENU CARD.

hearts joined by a dart, which pierced and held them. The conception of each was peculiarly happy, and no doubt a sufficient number of the arrows lodged safely to satisfy even the romantic young matron's ambition. Certainly they made most effective decoration. Each bow was wound with the lovely pink buds. Each string was in reality a bit of silver wire which easily kept its place, and each arrow was a genuine dart, made of silver, to be sure, but set ready to do execution the instant the string should be pulled. The cards which stood beside them were already pierced, and were supposed to be emblematic of the future bride and groom. They were extremely simple, cut from cardboard and painted with the forget-me-nots, which, when cut, made a dainty edge. On each one the menu was written out with care, and in every possible way the suggestion of true love was made to enter into the viands or their names.

The ices were a special course. They were modeled in hearts and served together with biscuit in boxes, the lids of which were covered with crape paper and painted in forget-me-nots. Coffee was served in the drawing-room in tiny heart-shaped cups.

There were no souvenirs. The girls carried off their bows of roses, to be sure, but they were of too little intrinsic worth to be dubbed souvenirs. Their forte lay in decorating the table, and that they did exceedingly well.

By a happy agreement made between hostess and guests all the costumes worn were of that tender pink shown in the La France rose. Luckily, all the women were young or possessed such fresh, well-cared for complexions that the color did not mean that sacrifice of the individual to the fad which one so often sees. Pink has been the color par excellence the season

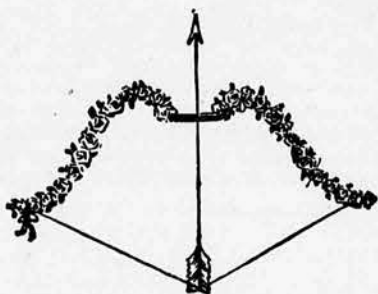
Highest of all in Leavening Power.—Latest U. S. Gov't Report

Royal Baking Powder

ABSOLUTELY PURE

through, but in this case it was supposed to be peculiarly appropriate and emblematic of the rosy future promised the bride and groom to be. As a safe rule the color is to be rejected after the sixteenth birthday, but in this instance the guests stood the test remarkably well. Assuredly, the picture as a whole was a lovely one and the idea it embodied poetic in the extreme.

The second dinner differed somewhat in detail, but in detail only. Given the happy couple as a nucleus, so to speak, all else follows in their train and only in small things can one hope to be original at a function of the sort. Even as the marriage ceremony is the same for all brides, so the engagement dinner savors of monotony, and is only res-



A FLORAL BOW AND ARROW.

cued by the fact that it is new to each in her turn. This especial one was declared a complete success, however. The table was laid with a cloth of pure white satin damask. Round its edge was arranged real gold-colored satin ribbon in a series of lovers' knots that encircled the space for each cover.

The flowers chosen were pansies, the favorites of the young bride to be. Before each guest was a big bunch of the purple beauties and beside it a souvenir bonbonniere painted by the hostess herself. Of these the foundation for each was a box made of water color paper with a band of the blossoms painted, then cut on the edge. Into the top was fitted a bag of silk and on the box proper, below the flowers, in simple outlined letters of gold, was that delightful bit from "Midsummer Night's Dream:"

"A little western flower,
Before milk-white, now purple with Love's
wound,
And the maidens call it love in Idleness."

On this occasion there was no uniformity of costume, but by a happy manipulation of light the whole effect was rendered delightful and harmonious. Tiny lamps set in silver candelabra and surrounded by masses of pansies lighted the table, or at least spread their glow over the whole, through the medium of shades of yellow silk edged with a fall of fine gold fringe. The real illumination, however, came from big lamps set in corners and made apparent by their soft warm rays rather than because of any remarkable decorative effect. Each was

of ample size and supplied with a burner that made light, and each was shaded with delicious yellow silk of that tone which means a warm radiance rather than a pronounced colored light. Under their influence the diners and the decorations alike looked their best and the hostess had the satisfaction of seeing her guests make up a picture perfect in its way.

CLARE BUNCE.

People with hair that is continually falling out, or those that are bald, can stop the falling, and get a good growth of hair by using Hall's Hair Renewer.

A Lady Makes Money.

Mr. EDITOR:—I am always interested in reading of the success of others and will tell of mine. I tried school teaching, clerking and sewing, all hard work for small pay. I met a lady making \$15 a week selling National Dish-Washers—best made. I ordered one-half dozen, washed mother's dinner dishes in two minutes, sold all first afternoon; profit \$12. The next week I made \$37, in a month \$143; I am a good talker, I buy of the World Manufacturing Co., Columbus, Ohio; they are very kind to me; they manufacture aluminum and electric goods, many new, rapid selling articles for agents. Others can do as I have by writing them. CORA MILTON.



GEARHART'S FAMILY KNITTER.
Knits a stocking heel and toe in ten minutes. Knits everything required in the household from homespun or factory, wool or cotton yarns. Most practical knitter on the market. A child can operate it. Strong, Durable, Simple, Rapid. Satisfaction guaranteed. Agents wanted. For particulars and sample work, address
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Bullene, Moore, Emery & Co.
KANSAS CITY, MO.

Indiana Letter.

February 8th, 1895.

The Dr. J. H. McLean Medicine Co.,
St. Louis, Mo.



Gentlemen: I feel it my duty to inform you of the great good I have received from Dr. J. H. McLean's Liver and Kidney Balm. I am sure it saved my life. I suffered for several years with Bright's Disease, aggravated by gravel in the left kidney. About two years ago the trouble got so bad that I could not leave my bed; had night sweats, extreme weakness, chills and my flesh had a blanched look. I did not expect to get well again. Eighteen months ago I began using the Liver and Kidney Balm. I used at first two bottles, which helped me so much I could leave the bed and go about my household duties; so I continued with it. I also began to pass the gravel. In all I passed five stones. I am now feeling entirely cured, but still taking the Balm occasionally to make sure. Doctor, I am unable to express my gratitude to God for my restoration to health, and I owe it, even my present existence, to your Liver and Kidney Balm. It is a grand medicine.

Yours respectfully,

At the request of the writer of the above the name is omitted, but it will be furnished in strict confidence to any who wish to investigate this case.

MRS. H. J. D.,
CANNELLTON, IND.

The Young Folks.

MY FRIEND.

I have a dear little friend,
As cunning as cunning can be.
His cheeks are dimpled and rosy,
His eyes are brimful of glee.
Sometimes I play go to see him,
Sometimes he comes to see me,
And he is the best little boy, I know,
You ever, most ever, did see.

He lets me have all the candy,
And play with the toys as I choose,
And no matter what I might ask for,
He would never, no never, refuse.
He never gets angry and strikes me,
And there is never as much as a frown
On the smooth pretty brow of my friend,
The funniest tot in the town.

If I fall down and bump me he's sorry,
If I'm happy and gay he is glad,
And sometimes when I am naughty he looks like
He feels dreadfully, dreadfully bad.
And mamma sits quietly near us
And says in her dear, gentle voice:
My boys, you mustn't be naughty
And make such a terrible noise.
Herington, Kas. J. F. S.

THE FARM MORTGAGE.

Did you ever see a mortgage big?
A mortgage big?
It eats the farm, the cow and pig,
The cow and pig.
It eats the butter and the cheese,
It eats the hives of honey bees,
It eats the peach and apple trees,
The apple trees.

It eats the handsome two-year-old,
The two-year-old.
The pretty gelding must be sold,
He must be sold.
It eats the wheat, the oats and corn,
The farmer's heart with grief is worn,
His overalls are tattered and torn,
Are tattered and torn.

It eats the duck and it eats the hen,
It eats the hen.
It comes in the dark you know not when,
You know not when.
The farmer's wife is filled with sighs,
It puts the tear drops in her eyes,
It steals her plum and apple pies,
Her apple pies.

It makes her wear an old print dress,
An old print dress.
It fills her soul with great distress,
With great distress.
It hurts and injures every arm,
She knows down in her bosom warm
That's why the boys all leave the farm,
They leave the farm.

Did ever you see a mortgage big?
A mortgage big?
It eats the goose, the colt, the pig,
The colt and pig.
It eats the hay stack and the hen,
It makes a wreck of perch and pen,
And oh! it makes a wreck of men,
A wreck of men!

MACK'S LUNCH STAND.

An Incident of Charles Sumner's Busy Life at Washington.

The senate doorkeeper laughed. The guard who marched up and down the corridors and the lower steps of the capitol laughed, too.

A shrill young voice asked: "Has Mr. Sumner come yet?"

"Well, I call that youngster cheeky," said one man, as Mack, the bootblack, with all the airs of a colonel, asked for Mr. Charles Sumner.

"Why, boy, didn't you know Mr. Sumner was the biggest man in congress? What do you want of him?"

"Course I know it, an' that's the very reason he's so good to poor fellers like us! Guess I know him!"

"Knock-down argument, Mack. Pass on!"

With his old cap tucked behind him and his eager eyes shining, Mack stood in the doorway. He drew a little nearer.

"Mr. Sumner, good day. Good-day—sir—Mr.—Bob—Bob said—Mr.—Well, Bob thought"—and Mack hesitated worse than he ever thought he possibly could. Mack, of the glib tongue and lofty ways among boys.

Mr. Sumner was to the world a very sober man; slow to speak or smile or take notice of people in general; but, like Abraham Lincoln, that rare smile was warming and full of light. It fell generously upon the poor and sorrowful, and most tenderly upon the weak. He lifted his splendid head and handsome face toward the door as Mack's "Bobs" and "Misters" and low bows attracted his attention.

Robert said aside: "My friend who came to the house, Mr. Sumner."

"Ah, yes. Good day, my boy. One of the new firm? Yes, I remember all about the lunch business. Have you made a start yet?"

Mack had stepped quite close to the great man, who smiled so kindly.

All ready, sir—but—the letter, sir—to Mr. Hobbs, about the stand."

"Of course, that must be done. I will write to Mr. Hobbs about the stand, opposite his own. He is a friend of mine and will look after your business a little."

And that was the beginning of "Mack & Co.'s lunch stand." Robert was the



"MAY I SEE MR. SUMNER?"

Co., or as Mr. Sumner put it, "the silent partner."

"You see, Mr. Sumner," explained Robert to his best friend, "Mack's father was killed on the railroad; his mother was sick, they had no money, only Mack's little bootblack's change. His two sisters went to the asylum and Mack was quite broken up. I took him home to supper one night. Why, mother just cried to see him so poor and discouraged. She went away into the bedroom and thought a minute and prayed (mother always does if she's in trouble.) Then she talked it over with us two boys, and I talked it over with you, and you asked Mr. Hobbs to be 'surety' for our stand, and mother makes all the doughnuts, and little pies, and I pay Cousin Jenny, who is quite poor, to help us in fresh rolls and good bread for sandwiches. So we are getting along tiptop."

"How much money did you put in the firm, Robert?"

"Fifteen dollars, sir. I had saved it up for the business college, of evenings, you know, but—but—Mack was so discouraged, and you help me so much with my books, Mr. Sumner, I thought—well, I thought, if we had good luck, we could both go next winter."

The rich, full tones of Charles Sumner's wonderful voice had thrilled crowded halls of great men and women, had stirred the halls of congress as none other could, but never did his voice ring more tenderly, more musically, than when he laid his hand on the little lad's head and said: "Robert, this is not an everyday story of success, nor an everyday philanthropy, but you are a good boy, and the right stuff is within you."

The business prospered. The firm went to the business college for one year. At noon time, when clerks and hungry school children enjoyed home doughnuts and splendid pies, Mack was the cheery, well-to-do salesman, though a handsome, tall boy often sat at the cash drawer, not too proud "to help out in a busy time."

Many years later, when the great Charles Sumner was dead and a whole nation wept and mourned, two young men made a journey to his last home. They reverently kissed his cold, still

hands and tears dropped on the silver plate bearing his name. Flowers have lain on his grave, and friends have grieved, but none have more worshiped the memory of Charles Sumner than the two boys of the "lunch stand" of the long-ago days.—Margaret Spencer, in Chicago Inter Ocean.



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FOR TINNED

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Secretary of Agriculture.
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Frank R. Stockton.
W. Clark Russell.
General Nelson A. Miles.
Thomas Nast.
Hon. Thomas B. Reed.
The Dean of Salisbury.
Bishop Cleveland Coxe.
Bishop W. Crowell Doane.
Sir Edwin Arnold.
Camille Flammarion.
Justin McCarthy.
Admiral Stevens.
Admiral Markham.
Admiral Elliot.
Charles Dickens.
Archibald Forbes.
Frank D. Millet.
Frederic Villiers.
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And

More than 100 Others.

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Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

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

Address all orders—

KANSAS FARMER CO., Topeka, Kas.

To every one who will send us \$1 for a new subscriber and requesting it, we will send free a copy of the jolly little book, "Drummers' Yarns." It is exceedingly comical and furnishes no end of fun.

The *American Wool and Cotton Reporter*, of Boston, Mass., stoutly maintains the cheerful view of the manufacturing situation indicated by its recent showing of new industries put in operation.

Owing to the failure of the engravers to complete the illustrations in time for this week's *KANSAS FARMER* we are obliged to postpone until next week the publication of Prof. Hilton's paper on the root-growth of corn.

Wall street has about come to the conclusion that the South African gold mining companies are not going to everlasting smash, as the financial prophets predicted. Fact is, many of them are making money from the output of their mines.

Whatever may be the aggregate of the present season's wheat crop, there is an immense amount coming forward. The receipts in the Northern markets for the week ending November 9, were never but once before equalled, according to the *Cincinnati Price Current*.

The Topeka Daily *Capital* passes this week to the ownership of John R. and D. A. Mulvane. These are among the wealthiest citizens of Kansas. A strong business administration, backed by ample capital, is assured. No change in the policy of the paper has been announced. Indeed the continuance of its politics and general character is expected.

The representatives of the woolen manufacturers of the northeast corner of the United States are greatly elated over an advance of about 10 cents per yard on a certain grade of clothing fabric. Their only fear is that foreign manufacturers will compel them to go back to old prices. Those who must sell wheat, corn, meat and wool at reduced prices in order to get the money to pay for these goods have no guns ready for said foreign manufacturers.

The preliminary estimate in the *Cincinnati Price Current* on the grain produced in the United States in 1895 place the bushels of the several kinds at the following figures: Wheat, 425,000,000; corn, 2,225,000,000; oats, 825,000,000; rye, 27,000,000; barley, 87,000,000; buckwheat, 14,000,000; total, 3,602,000,000. The three-million mark has been reached but four times, namely, in 1888, 1889, 1891 and the present year. But the total for 1895 is greater than that of any other year. It should be noted, however, that the estimates for the corn crop of the present season are being scaled down as the crop is gathered.

A GAME OF FREEZE-OUT.

When the reports went out that Kansas had growing an immense acreage of corn, and when the boomers got their figuring machines at work on imaginary phenomenal yields, the eyes of the financially-inclined were turned in this direction, and the resolve appeared to be formed to get the profit of that great crop. Cribbs have been built and arrangements have been made to take in the crop at a low figure. It now transpires that the crop is not so large as was expected, that several States are far below the estimates—even below the ordinary crop, and that the aggregate for the entire country is not much above that of former years. The attention of farmers has been directed to cribbs, and not a few have anticipated with some pleasure the fact that a cash market is to be made for corn. But the facts of the crop situation are as well known to the farmers as to the speculators, and a somewhat widespread disposition has sprung up to insist on a fair price for corn.

Under these conditions there need be no surprise if the agents of these Eastern buyers draw up with great dignity and inform the inquirer that the price of corn is too high, that the farmers have got to sell, and that they are prepared to wait until the price declines. No reasonable man believes there is any real ground for a decline, and lower prices can only result from a yielding of the situation by the farmers.

A firm stand for prices at least as good as now prevail must succeed. The buyers will fill their cribs at these prices rather than allow them to stand unused.

MAJOR HUDSON RETIRES FROM THE DAILY CAPITAL.

With last Sunday morning's issue of the Topeka Daily *Capital*, Major J. K. Hudson, its founder and until then its editor, stepped down and out. In 1879, Major Hudson, then editor and publisher of the *KANSAS FARMER*, began the publication of a small daily paper—the *Capital*—from the office of the *FARMER*. The State paper at that time was the *Commonwealth*. Later, the *Capital* obtained telegraphic franchises, was enlarged, made a morning paper, and issued from an office of its own, Major Hudson having sold the *KANSAS FARMER*. Later still, in 1889, the *Capital* and *Commonwealth* were consolidated, or rather the *Capital* absorbed the *Commonwealth*. This piled up a heavy indebtedness for Major Hudson, and the ensuing depression has made it impossible for him to meet his obligations. Interest and mortgages came due with entire disregard of the reduced income of the paper. Major Hudson had also become involved on the anti-boom side of real estate values, and the results of this also embarrassed him. Major Hudson has made the *Capital* a Republican paper of the most pronounced type. It has generally ran ahead of the party in this State and advocated the Republicanism of the Eastern leaders, anticipating that the party in Kansas would follow.

The average sentiment and demands of the editorial pages of the *KANSAS FARMER* under Major Hudson's editorship were in harmony with the Grange, which at that time was a reform power in Kansas. Indeed, in 1874, while editor of the *FARMER*, Major Hudson ran on a reform platform for Congress against the Republican nominee. He was defeated. The exceedingly bitter course of the *Capital* under his management, towards every form of politics which in the least savored of the demands on which the reform campaign of 1874 was conducted, greatly surprised those who followed the kaleidoscopic change.

In the battle for prohibition, Major Hudson did yeoman service at the cost both of patronage and personal safety. It is, indeed, doubtful whether, without the help of the *Capital* and without Major Hudson's bold stand personally, the prohibitory amendment to our constitution could have been carried or whether the good effects could have

been realized after the adoption of the principle.

Personally, Major Hudson is a genial friend, a man of pluck and energy, not afraid to take chances, and, since he has failed in business, he will be written down by financial sages as lacking conservatism and business judgment. He is still State Printer, although his title to the office is in dispute and the matter is now before the Supreme court.

Should Major Hudson do no more to affect the destiny of Kansas, certain it is that no history of the State can ever be written in which his name does not appear many times and prominently. But that a man of his activity and energies, his ability and aggressiveness, in the prime of mature manhood, should end his career with the loss of his property is not to be supposed for a moment.

COUNTY HORTICULTURAL MEETINGS

Hon. William H. Barnes, acting Secretary of Kansas Horticultural Society, attended several meetings of county societies during last few days, and makes the following cheerful reports:

DOUGLAS COUNTY.

The society met at Lawrence, on Saturday, November 16. Called to order by President, in Y. M. C. A. hall. A fine attendance (I was there). Discussions were had on various horticultural topics, but the main business was to prepare for the annual meeting of the State Horticultural Society, which meets in Lawrence, on December 10, 11 and 12. Strong, active, stirring committees were appointed on reception, entertainment, music, exhibits, advertising, decoration and finance. As the State society will be the guest of the local society on the evening of the 12th, therefore a committee on entertainment was appointed and will make up a fine program. The coming meeting of the Kansas State Horticultural Society will undoubtedly be the largest, happiest, most important and successful that has ever been held. Every one interested in horticulture—and that means any one who likes "big red apples" or, luscious watermelons or celery—is free to come. The railroads have reduced the fares, and the nine sessions will be free to all. The hall and all its appointments are elegant and convenient. Special hotel rates have been secured. Irrigation, cold storage, evaporation, packing, transportation, will each have a "full inning." Programs may be had at the rooms of the State Horticultural Society, south room, ground floor, State house, from William H. Barnes, acting Secretary.

SALINE COUNTY.

The society met at the pleasant home of Capt. and Mrs. B. F. Pealer, on West Iron street. A splendid company was present. Discussion was had on "Does Horticulture Pay?" The general decision was that horticulture paid, but that apple-growing did not pay. Peaches and grapes paid well year by year, but apples were a disappointment. Mr. Walker introduced a seedling peach that he plants extensively and is getting rich by it. The peculiarity in his system is planting the seed right where he wants the tree. He prepares his ground perfectly, lays it off in ten-foot squares, and at each intersection drops three peach stones of this variety. If all grow, he removes two and the third one brings peaches the second year, and he readily gets \$1 and up per bushel for them. When asked how we could do the same, he very kindly said, "Come out to my place next year and pick up all the peaches you want and plant where you wish to pick." The growing of seedling peaches—by seedlings in this connection I mean only those seedlings that produce fruit like itself—is coming to the front. The trees are more reliable than the budded fruit, and generally more prolific. At Burlington I found two new ones, and at Iola two new ones, all of which were very fine, and one of which was so exceedingly valuable, that after eating one of the luscious fruits, I slyly slipped the stone in my vest pocket. Soon after I gave it to a gentleman in the company, whom I found had done the same thing. Thus he had two,

and I presume they are planted. The Salina meeting having advertised my visit, I was called for and addressed the society at length, more particularly showing the benefit derived from a close connection with the State society and through it with other county and State societies. Many of the vital subjects, such as irrigation, cold storage, evaporation, etc., were touched upon, and all seemed deeply interested. I forgot to mention the banquet. You know that horticulturists are neither dyspeptics nor gourmands. I never heard of one having the gout. But they dearly love good living, and their "women folks" cannot be beaten in kitchen or diningroom. They know the uses and value of fresh eggs, cream and butter, and in cakes, meats, salads and other made dishes, they are up to the times. Mr. Editor, if you want something to remember, you find out when the Saline County Horticultural Society meets again, and just brush up your bangs and bloomers and get a ticket for a front seat. Salina, I am happy to say, will be "in it" at the annual meeting in December.

RILEY COUNTY.

After the meeting of the Saline county society, I looked forward to meeting the Manhattan society, as the dates followed one another, so leaving Salina at 2:55 a. m., 14th inst., I arrived to early breakfast at the beautiful city of Manhattan. After breakfast I walked out to the Agricultural college. At the office I met the genial President, Geo. T. Fairchild, and was introduced to several of the faculty, three of whom are on the program of our annual meeting. Amidst exhilarating music the students were gathering for chapel services, and, accompanied by President Fairchild, I passed down the aisle, amidst the welcome hand-clapping of 600 happy, healthy, enthusiastic students. If you go there, don't think for a moment that the hand-clapping is partial or that the students think you an immortal. It is only their way of informing President Fairchild that they are "onto his racket" and wish him to know they don't want to be "bored" long. You can't fool them by coming the turkey gobble act. They are too bright, and there are future Presidents, Governors and Congressmen among them. I tell you it is a healthy sight to look at them. As a father of eight, I know what I am talking about. I was shown over the college and grounds, spending much time with Prof. Popenoe and his bugs. In the afternoon the county society convened in Horticultural hall, at the college. Prof. Mason, Prof. Walters and Prof. Georgeson were present. A pleasant and instructive session was had, and after talking on cold storage, rabbit traps, etc., I bid them adieu. They will send a strong delegation to our annual meeting. We have several life members at Manhattan.

With painful persistence the prices of wheat, hogs and cattle continue to decline.

Shawnee County Horticultural Society will hold its November meeting at Oak Grange hall, six miles west of Topeka, on Thursday of this week.

The Vegetarian Eating Club of the University of Chicago has published the menu of its Thanksgiving dinner. The boast is that to provide this beautiful, ample and bloodless spread it was all unnecessary to make the day of annual gratitude an occasion for special inhumanity and slaughter. Probably the persons who partake of this dinner will feel just as satisfied and as patriotic and thankful as if filled with turkey, chicken, etc.

The new *KANSAS FARMER* binder is made expressly for the convenience of those subscribers who desire to keep their *KANSAS FARMERS* for reference. It takes but a few seconds to put the paper in it when received. The binder holds fifty-two numbers, and keeps the papers in as nice shape as if they were a book. The price is 25 cents, postpaid, or \$1.10 for the binder and the *FARMER* one year. Send your own renewal for one year and a new yearly subscriber, with \$2 for both, and we will send two binders, one for yourself and one for the new subscriber.

CURING MEAT—PICKLES FOR MARKET.

EDITOR KANSAS FARMER:—Please give recipes for curing mutton and for putting up pickles for market. D. C. LUCKY. Golden, Kas.

The value of meats for use is so greatly affected by the method of curing, that we give below several recipes from "Dr. Chase's Recipe Book." The late Senator Plumb, whose ideas on business matters were universally sought and always sound, expressed the hope of seeing "a smoke-house on every farm in Kansas." It is not expected that our correspondent or any one else will use all of the methods here given, but it is hoped that some of these methods may be found helpful:

MEATS, TO PRESERVE.

1. *Beef—To Pickle for Long Keeping.*—First, thoroughly rub salt into it and let it remain in bulk for twenty-four hours, to draw off the blood. Second, take it up, letting it drain, and pack as desired. Third, have ready a pickle prepared as follows: For every 100 pounds of beef, use 7 pounds of salt; saltpetre and cayenne pepper, of each, 1 ounce; molasses, 1 quart, and soft water, 8 gallons; boil and skim well; and when cool, pour it over the beef.

This amount will cover 100 pounds, if it has been properly packed. I have found persons who use nothing but salt with the water, and putting on hot, scalding again at the end of three weeks, and putting on hot again. The only object claimed for putting the brine on the meat while hot, is, that it hardens the surface, which retains the juices, instead of drawing them off.

2. *The Michigan Farmer's Method.*—Is: "For each 100 pounds of beef, use salt, 5 pounds; saltpetre, ½ ounce; brown sugar, 1 pound—dissolve in sufficient water to cover the meat—two weeks after, take up, drain—throw away the brine—make more the same as first—it will keep the season through. When to be boiled for eating, put into boiling water—for soups, into cold water."

I claim a preference for the first plan, of drawing off the blood before pickling, as saving labor; and that the cayenne and saltpetre improve the flavor and help preserve; and that boiling and skimming cleanse the brine very much. Of late years I pursue the following:

3. *Beef to Pickle for Winter or Present Use, and for Drying.*—Cut your beef into sizable pieces, sprinkle a little salt upon the bottom of the barrel only, then pack your beef without salt amongst it, and when packed pour over it a brine made by dissolving 6 pounds of salt for each 100 pounds of beef, in just sufficient cold water to handsomely cover it.

You will find that you can cut and fry as nice as fresh, for a long time; just right for boiling, also; and when it gets a little too salt for frying, you can freshen it nearly as nicely as pork, for frying purposes, or you can boil it, then make a stew for breakfast, very nice indeed. By the other plan it soon becomes too salt for eating, and the juices are drawn off by the salt. In three weeks, perhaps a little less, such pieces as are designed for drying will be ready to hang up, by soaking over night to remove the salt from the outside. Do not be afraid of this way, for it is very nice for winter and drying purposes; but if any is left until warm weather, throw away this brine, put salt amongst what is left, and cover with the first brine, and all is right for long keeping.

4. *Mutton Hams—To Pickle for Drying.*—First take weak brine and put the hams into it for two days, then pour off and apply the following, and let it remain on from two to three weeks, according to size: For each 100 pounds, take salt, 6 pounds; saltpetre, 1 ounce; saleratus 2 ounces; molasses, 1 pint; water, 6 gallons, will cover these if closely packed.

The saleratus keeps the mutton from becoming too hard.

5. *Curing, Smoking, and Keeping Hams.*—Rose Cottage, Muncie, Ind., November 26, 1895.—I noticed an article in the *Gazette*, of yesterday, headed as above, from the pen of Mr. Alexander Brooks, taken from the *Rural New Yorker*, and as I have some useful experience in that line, I desire to suggest my plan for curing and keeping:

To a cask of hams, say twenty-five to thirty, after having packed them closely and sprinkled them slightly with salt, I let them lie thus for three days; then make a brine sufficient to cover them, by putting salt into clear water, making it strong enough to bear up a sound egg or potato. I then add ½ pound of saltpetre, and a gallon of molasses; let them lie in the brine for six weeks—they are then exactly right. I then take them up and let them drain; then while damp, rub the flesh side and the end of the leg with finely pulverized black, red, or cayenne pepper; let it be as fine as dust, and dust every part of the flesh side, then hang them up and smoke. You may leave them hanging in the smoke-house or other cool place where the rats cannot reach them, as they are perfectly safe from all

insects, and will be a dish fit for a prince, or an American citizen, which is better.

Respectfully yours,

THOS. J. SAMPLE.

I find that Mr. Sample uses twice as much saltpetre and double the time, for my eating, but perhaps not for general market.

If grocers will take this plan for preparing their hams and shoulders, there will be no need of sacking; and such as they buy in during the summer should receive a coat of pepper immediately, to prevent annoyance from flies.

6. *T. E. Hamilton's Maryland Method.*—The hams of Maryland and Virginia have long enjoyed a wide celebrity. At one of the exhibitions of the Maryland State Agricultural Society, four premiums were awarded for hams. The one which took the first premium, was cured by Mr. T. E. Hamilton, from the following recipe:

"To every 100 pounds, take best coarse salt, 8 pounds; saltpetre, 2 ounces; brown sugar, 2 pounds; potash, 1½ ounces, and water, 4 gallons. Mix the above and pour the brine over the meat, after it has lain in the tub for some two days. Let the hams remain six weeks in the brine, and then dry several days before smoking. I have generally had the meat rubbed with fine salt, when it was packed down."

The meat should be perfectly cool before packing. The potash keeps it from drying up and becoming hard.

7. *Pork—To Have Fresh From Winter Killing, for Summer Frying.*—Take pork when killed in the early part of the winter, and let it lie in pickle about a week or ten days, or until just sufficiently salted to be palatable; then slice it up and fry it about half or two-thirds as much as you would for present eating; now lay it away in its own grease, in jars properly covered, in a cool place, as you would lard.

When desired, in spring or summer, to have fresh pork, take out what you wish and re-fry suitable for eating, and you have it as nice as can be imagined. Try a jar of it, and know that some things can be done as well as others. It is equally applicable to hams and shoulders, and I have no doubt it will work as well upon beef, using lard sufficient to cover it. So well satisfied am I of it that I have put in beefsteak, this spring, with my fresh ham, in frying for summer use. It works upon the principle of canning fruits to exclude the air. I put in no bone.

8. *Salt Pork for Frying—Nearly Equal to Fresh.*—For the benefit of those who are obliged to use considerable salt pork, the following method improves it for frying:

Cut as many slices as may be needed; if for breakfast, the night previous, and soak till morning in a quart or two of milk and water, about one-half milk—skimmed-milk, sour milk, or buttermilk—rinse till the water is clear, and then fry. It is nearly or quite as nice as fresh pork—both the fat and lean parts.

Occasionally I like to have this rolled in corn meal before frying, as it makes such a nice imitation of fresh fish.

9. *Fresh Meat—To Keep a Week or Two in Summer.*—Farmers or others living at a distance from butchers, can keep fresh meat very nicely, for a week or two, by putting it into sour milk, or buttermilk, placing in a cool cellar. The bones or fat need not be removed. Rinse well when used.

10. *Smoked Meat—To Preserve for Years, or for Sea Voyages.*—How often are we disappointed in our hopes of having sweet hams during the summer? After carefully curing and smoking, and sewing them up in bags, and whitewashing them; we often find that either the fly has commenced a family in our hams, or that the choice parts around the bone are tainted, and the whole spoiled.

Now this can be easily avoided, by packing them in pulverized charcoal. No matter how hot the weather or how thick the flies; hams will keep as sweet as when packed, for years. The preservative quality of charcoal will keep them till charcoal decays; or sufficiently long to have accompanied Cook three times around the world.

11. *The Rural New Yorker's Method.*—It says: "In the spring, cut the smoked ham in slices, fry till partly done, pack in a stone jar alternate layers of ham and gravy. If the ham should be very lean use lard for gravy. Be sure and fry the ham in the lard, so that it will be well seasoned. When wanted for use, take up, finish frying, and it is ready for the table."

"The only trouble is, that we can't keep it half long enough, it is so good and handy."

12. *The New England Farmer's "Saving His Bacon."*—About a couple of years ago, we were entertained, at the house of a friend, with a dinner of eggs and bacon. We complimented our host on the superior quality of his bacon; and were curious to inquire the way to like success in the preparation of a dainty article of diet, though one that is better fitted for the palate of an epicure, than for the stomach of a dyspeptic. To our surprise we were informed that that portion of our meal was cooked eight months before.

Upon asking for an explanation, he stated it was his practice to slice and fry his bacon immediately on it being cured, and then

pack it in its own fat. When occasion came for using it, the slices, slightly re-fried, have all the freshness and flavor of new bacon just prepared. By this precaution, our friend always succeeded in "Saving his bacon," fresh and sweet through the hottest weather.—*New England Farmer.*

I have no doubt but what it will do as well to pack meats unfried in this way, in tubs and barrels as in jars; but I rather prefer covered jars, putting a couple of thicknesses of cloth over the jar before putting on the cover; place in a cool cellar.

I also find it necessary to put in lard occasionally as you are frying, as there is not generally enough brought out by frying to fill the crevices between the slices, which must be filled.

"There is no reason why the money this country sends abroad for pickles should not be earned and received right here in Kansas," said Hon. Geo. M. Munger, of Eureka, when looking at a beautiful jar of cucumber pickles at the Garden City fair. "Women who want to begin in a small way can make some money at it if they only put them up so as to be and look nice. Now, there is only one thing the matter with that bottle of pickles, and that is the lack of uniformity of size."

"Dr. Chase's Recipe Book" gives the following directions for pickling cucumbers:

Pickling Cucumbers.—Pick each morning; stand in weak brine three or four days, putting in mustard pods and horseradish leaves to keep them green. Then take out and drain, covering with vinegar for a week; at which time take out and drain again, putting into new vinegar, adding mustard seed, ginger root, cloves, pepper and red pepper pods, of each about 1 or two ounces; or to suit different tastes for each barrel.

The pickles will be nice and brittle, and pass muster at any man's table, or market. And if it was generally known that the greenness of pickles was caused by the action of the vinegar on the copper kettle, producing a poison (verdigris), in which they are directed to be scalded, I think no one would wish to have a nice looking pickle at the expense of health; if they do, they can continue the bad practice of scalding; if not, just put your vinegar on cold, and add your red peppers, or cayennes, cloves, and other spices, as desired; but the vinegar must be changed once, as the large amount of water in the cucumber reduces the vinegar so much that this change is absolutely necessary; and if they should seem to lose their sharp taste again, just add a little molasses, or spirit, and all will be right.

A Cheerful View as to the Hog Market.

In a circular letter to shippers, just issued, the Larimer-Bridgford Commission Co., of Kansas City, takes a hopeful view of the prospects for a better hog market. The letter says:

"The hog packing season is now under full steam and we have been studying carefully the situation that we might give our friends the benefit of our investigations. Noting the liberal purchases on the part of packers and their willingness to take all that come at present prices, we are led to believe that packers consider purchases at these prices a good, safe investment. Careful investigation, on our part, of supplies in the different States, lead us to believe that the winter crop will not be as heavy as generally considered and that prices are low enough. We think purchases on present basis, for either shipment or the feed lot, will be remunerative. With hogs around 3 cents in the country and corn at 20 cents, we see no likelihood of a loss, but believe there will be a good, liberal profit in the investment. If you are inclined to buy and ship on the market, this looks like a safe time to begin operations on a liberal scale, as we are of the opinion that buyers and shippers will have a gradually rising market to ship on, and this is just the kind on which to make money. Prices are so low that big breaks or rapid declines are impossible, hence the risk of loss is correspondingly light. Kansas City shippers who live in competitive territory also have a decided advantage over those shipping to other markets, as we are now only 5 cents below Chicago and 20 cents higher than Omaha."

SINGERS AND ARTISTS GENERALLY are users of "Brown's Bronchial Troches" for Coughs, Colds, Hoarseness and Throat Irritations. They afford instant relief. Avoid imitations.

If you want one of the finest magazines published, send us \$2.25 for KANSAS FARMER and *Cosmopolitan*.

CATARRH DESTROYS

Any Organ of the Human Body—Head, Throat, Lungs, Kidneys, Stomach.

Catarrh attacks any part of the human system. Not only are the head and throat liable to catarrh, but all other parts of the organism may be affected by it. There is catarrh of the stomach, kidneys, liver, etc. Pe-ru-na is an internal systemic remedy and cures catarrh wherever located, as the following shows:

Martin Schott, of Breckenridge, Minn., had catarrh of the head six years and Pe-ru-na promptly relieved him; Mrs. T. V. Rodgers, Flushing, Mich., was completely cured by Pe-ru-na of acute catarrh of the lungs (pneumonia), following la grippe, after she was given up by two physicians; W. H. Wilson, Comanche, Texas, catarrh of the kidneys, cured by Pe-ru-na; Mrs. James Freeman, Temple, Texas, cured of catarrh of female organs by Pe-ru-na; C. C. Bastian, Wayne, Neb., catarrh of liver, cured by Pe-ru-na; Joseph Bower, Medina, Ohio, catarrhal deafness, Jerry Harrington, Eau Claire, Wis., catarrhal dyspepsia, both of whom were cured by Pe-ru-na. So the list might be lengthened indefinitely.

Ask your druggist for a Pe-ru-na almanac. Published by the Pe-ru-na Drug Manufacturing Co., Columbus, O.

Publishers' Paragraphs.

In the year 1894 the De Kalb Fence Co., of De Kalb, Ill., doubled their capacity for producing their lines over 1893 which gave them an output of twenty miles per day. The demand for their goods has been so great the past season, that in order to be able to supply their trade, they have been compelled, this year, to double the capacity of 1894, which now gives them an output of forty miles per day.

MEN-FOLK IN WOMAN'S DOMAIN.—*Good Housekeeping* is a woman's journal, both in birth and being, born of, baptised by, and bred for women of the most intelligent and useful classes of their sex. But home interests, including housekeeping, good or bad, touch the party of the other part with equal force, at once as vital, as sensitive, and as far-reaching, in the grand summing up of earthly happiness or misery, as with the gentler sex. * * * For these reasons, arrangements have been made to spread our table for January, the initial issue of 1896, with viands prepared entirely by the Men-folk, giving the men an opportunity to have their say as to what the elements, make-up and outcome of good housekeeping should be, and what poor or indifferent housekeeping should not be. The pens of men, distinguished in the various walks of life, into which they have been respectively drawn, have been secured to open the ball. The discussion will be continued throughout the year, according to the time-honored custom of giving "the women the last word," and it may be safely predicted that spicy and well-seasoned viands will be furnished by both sexes in the course of later discussions on the subjects treated of in the January issue, and it cannot be otherwise than that much good will follow in the homes of the world.

Important Railroad Decision Affecting Farmers, Gardeners and Truckers.

For years it has been the practice of railroad companies to put all wheat, corn, oats, rye and barley shipped for seed purposes in a higher class of freight than ordinary grain of the respective varieties, the difference in cost of transportation being as two to one against the seed grain.

J. A. Everitt, seedsman, of Indianapolis, Ind., being a large shipper of seed grain, has been trying for years to have this unjust discrimination removed, and has just now been successful, as indicated by the following letter from the office of the Official Classification committee, 143 Liberty street, New York, November 4, 1895:

Mr. J. A. Everitt, Seedsman, Indianapolis, Ind.:

DEAR SIR:—Your application for reduction in the rating of seed wheat, rye, oats, corn and barley, under the official classification, was considered at a recent meeting of the Official Classification committee, and a recommendation to change the present classification of the property was adopted, which if approved by the railroad companies in interest will become effective in official classification No. 15, about January 1, 1896.

Yours truly,

C. E. GILL, Chairman.

From an advance copy of changes in classifications, we see the classification of seed wheat, rye, oats, corn and barley is omitted—which allows these articles to take the regular grain classifications and rates, thus saving to purchasers of improved varieties of seed grain one-half the old transportation charges.

Regarding the "approval of the railroad companies in interest," as expressed in the letter, a recommendation by the official committee practically settles the matter and the railroads carry out the provisions.

FOR SALE.—Berkshire and Poland-China pure-breds, from \$10 to \$200.

O. P. UPDEGRAFF, Topeka, Kas.

Horticulture.

Best Potatoes for Kansas—Some New Ones.

EDITOR KANSAS FARMER:—In the course of my correspondence, I learn that there are many readers of the FARMER that are deeply interested in potatoes and their culture, and, as one man expressed it, "now is a good time to select the best."

Whenever one meets a potato-grower, he meets one who is constantly hungering after something new that may possibly be of advantage to him. Seedsmen's catalogues and the various papers are scanned and many new varieties sent for and tried. Some are good, others found wanting, but he never gets discouraged, but is constantly experimenting, trusting that out of the many varieties tried, there may possibly be found one that is better adapted to his soil and climate than any one previously tried. I am no exception, and am constantly experimenting, not only with new varieties, but propagating new ones also. Last fall I incidentally mentioned the Irish Daisy, and many wrote me for an opinion, and I declined it until I had given it another trial. In 1894, I practiced deep cultivation, and I wanted to try them in 1895 with level cultivation.

This year I made a trial between the Early Morn, Early Ohio, Polaris, Freeman, Carman No. 1, Rural New Yorker No. 2, Irish Daisy, Red Peachblow and Early Kansas. The Early Morn is listed by L. L. May & Co., and is said to be the earliest of all varieties. It proved to be thirty days later than the Early Ohio or the Ohio Jr., and a friend writes me, from northern Wisconsin, that it proved to be late with him. From this, I would advise all to steer clear of the Early Morn, if an extra early variety is wanted. The Early Ohio is still vigorous and among the earliest, while the Ohio Jr. is simply the Early Ohio renewed from new blood. The Polaris and Freeman are late varieties here and very poor croppers. Carman No. 1 is the best new variety I have ever tried and the only one that ever came near approaching the Early Kansas as a cropper. The vine and tubers resemble the Early Kansas very much and will stand forcing just as well. It is a new seedling and named in honor of Mr. Carman, editor-in-chief of the *Rural New Yorker*. From what I have seen of this potato, I think it worthy a trial in Kansas. Rural New Yorker No. 2 does quite well here, but not so well as claimed in the East. The Irish Daisy dies before the Polaris and Freeman; grows in all shapes not wanted; is coarse and watery and an extremely poor table potato; the tubers are all strung together on coarse roots and often are found thirty inches from the hill. They yielded 271 bushels per acre, as compared with 90 for Polaris, 80 for Freeman, 140 for Bliss Triumph, 150 for Early Ohio, 160 for Early Morn, 310 for Carman No. 1 and 320 for Early Kansas—the latter being dug when in bloom and not near grown.

I have dropped all but the Early Kansas, Early Ohio, Early Morn, Carman No. 1, Rural New Yorker No. 2, Maggie Murphy and three new seedlings that have especial merit. Two of these I have asked permission to name the "Coburn No. 1" and "No. 2," in honor of Secretary F. D. Coburn. The other I shall call the Kansas Rose. While saving these three, many others are dropped for having no special merit to back them. The Coburn No. 1 is an extra early sort, fourteen days earlier than the Ohio, and much more productive and gave me at the rate of 409 bushels per acre. It is from the seed of the White Elephant, has excellent shape and all alike, eyes not prominent, oblong, flattened, and the vines die July 1. Coburn No. 2 is of Early Rose blood, larger tops than the Ohio, not so early as the Ohio, but more productive, table qualities the best, color of Early Rose, unusually white flesh. Vines die July 20. It boils up floury without breaking to pieces. It yielded at the rate of 443.66 bushels per acre. The Kansas Rose for general crop is very superior, yielding 355½ bushels per acre. Shape is

the very best, perfect oval, slightly flattened, all merchantable, extra fine potato flavor that is very pleasant to the taste; of Early Rose color and blood and often weigh one and one-half pounds each.

I do not want any one to write me for seed, as not a single tuber of these new varieties will be sent out until another year, and then only through the advertising columns of the KANSAS FARMER.

CLARENCE J. NORTON.
Morantown, Kas.

Cold Storage for Fruit.

Paper read before the Missouri Valley Horticultural Society, October 16, by Maj. Frank Holsinger.

My experience has been entirely too meager to write intelligently on the matter of cold storage for preserving our surplus fruits. I, however, have had some experience along this line and will give observations gathered from what experience I have had, which has been confined to small fruit, peaches, pears and apples. As to peaches and small fruit, it is impossible to keep them in cold storage with any degree of satisfaction. Every such effort has ended disastrously. I have seen some pears kept nicely, and believe many of them could be held back for months or until a market could be found for them. As to the apple, it affords us the greatest of opportunities in preserving the fruit firm and sound until you are ready to put them upon the market.

To succeed properly, only the best apples should be hand-picked and barreled in tight two and three-fourths bushel barrels or in one bushel boxes. Every apple should be perfectly sound, free from worms and bruises and barreled immediately, as they are picked, not being allowed to touch the ground. Barrels should be well filled, being shaken several times to settle closely, and with a screw well pressed to prevent shaking in barrels. Now place immediately in cold storage, at about 33°, and keep them at as near this point as it is possible, and you can reasonably hope to see your fruit come out after Christmas as firm and sound as it was on entering. I believe our fall apples could be kept back if picked early and thus treated. Not all, possibly, but many, such as Jonathan, Rome Beauty, Smith's Cider, Fameuse and other red varieties. I had some of each of those enumerated, but other fall varieties, notably Rambo, burst badly and were comparatively worthless at Christmas time.

As to the expense, it will cost you 50 cents per barrel to hold through the season. Cold storage is a great convenience, as the company takes in your apples and you are not bothered with their care. The cold storage people are in touch with the markets of the country, and if authorized they will sell your goods at possibly better prices than you could yourself, charging a very moderate commission.

My experience with the cold storage people thus far is quite satisfactory, but I am pained to learn that the cold storage is circumscribed, and that it will be impossible to secure room for our surplus apples this fall, as every available foot of space has long since been spoken for. I question very much whether there will be a margin of profits the coming year from apples so kept, owing to the large crop of apples everywhere in sight. Just how or where the immense volume of apples can find a market is an enigma. I hope, however, the foreign demand will be considerable and that much may be shipped abroad and thus relieve the market of what seems to be an immense surplus.

As to the value of cold storage for vegetables, i. e., potatoes, celery, cabbage, etc., it is so well known that it requires little at my hands. I have eaten celery perfectly good that had been thus stored during the whole winter, being crisp and juicy.

Cold storage, to my mind, is a great factor in the keeping of our fruits and in enabling us to hold until such time as the markets may improve and a demand created for what otherwise would be a surplus, and thus wasted.

Get up a club for the FARMER.

Don't Tobacco
Spit and Smoke
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makes the nerves strong, and brings back the feelings of youth to the prematurely old man. It restores lost vigor. You may gain ten pounds in ten days.

GUARANTEED TOBACCO HABIT CURE.

Go buy and try a box to-day. It costs only \$1. Your own druggist will guarantee a cure or money refunded. Booklet, written guarantee of cure and sample free. Address nearest office.

THE STERLING REMEDY CO.,
CHICAGO. MONTREAL, CAN. NEW YORK.

CASCARETS candy cathartic cure constipation. Purely vegetable, smooth and easy, sold by druggists everywhere, guaranteed to cure. Only 10c.

Preparation for Garden and Small Fruits.

EDITOR KANSAS FARMER:—The fall is the time, in this semi-arid region, at least, to prepare the ground for garden and small fruit planting.

Choose a piece of good ground, not likely to be washed in heavy rains. If not fairly rich, apply a good coat of well-rotted manure. Raw, strawy manure, plowed under, is harmful, as our winters are so dry it seldom rots.

Plow deep. If done late in the fall, many cut-worms and other insects, disturbed in the snug quarters they have prepared, will die from winter exposure. No matter how rough the ground is left by the plow. The frost will dissolve all lumps before spring.

If you have a stiff subsoil, an excellent thing to use is a subsoil plow. With an open subsoil it is said to do harm. If there is no subsoil plow to be had, a very good substitute is made by taking the mold-board off from a common plow and clamping a wooden beam alongside, so you can rig it to follow in the furrow after an ordinary plow. Keep the lay sharp, and, with a good team, you can loosen the soil in the bottom of the furrow a number of inches. Without the extra beam, I make great use of this tool, to loosen the ground in spring in orchard, vineyard and berry patches, and for various other purposes. One horse draws it, easily; it leaves no ridges or dead furrows, and it is not readily clogged by trash.

After the ground freezes, spread on a good mulch of straw or strawy manure. In the spring, as you want to plant, rake off the mulch and you will find the soil beautifully moist and soft, even if there has been little rain or snow. This is very important, as early planting of small fruits is much more successful than late, and the ground, without this preparation, is often too dry until late in the spring.

Salina, Kas. F. E. HALE.

To Keep Rabbits From Barking Apple Trees.

EDITOR KANSAS FARMER:—Buy a roll of tarred paper—tarred on one side—and a ball of binding twine. Cut off paper enough to go around the tree. Set in the ground an inch or two, tarred side out. Wrap twine around and around, draw tight and tie. This also keeps winter sun from bursting the bark on the southwest side of tree, which is as bad or worse than rabbits. Let paper extend to the first limbs. Leave paper on through summer to protect south and east side. This will enable the sap to flow more freely on the south side, and will keep trees from dwarfing so badly on the south side.

Another remedy is as follows: One gallon soft soap, three gallons coal tar; mix thoroughly, apply with swab or brush. For small trees in nursery, make double mitten of heavy duck or

tent canvas for right hand. Put on the mitten; stick in the mixture; rub up and down. Fine for young forest trees. No damage to trees.

Some years ago Senator Pepper wrote a pamphlet entitled "The Way Out." Now, I never wrote an article for publication, but I feel much tempted to write one with that heading. It would, in all probability, be short, but I would try to make it sweet to the fellow that wants out, and that means most of us.

J. J. JOHNSON, SR.

UR invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Raspberries, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

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In the Dairy.

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

How a Wild Jersey Heifer was Tamed--A Woman's Way.

She was 2 years old, a wee bit of a thing, and had been raised in a large pasture where no person had touched her. She had dropped a calf about a week before we bought her. When they brought her to us a man was walking on each side of her with a rope fastened to her head, while another followed with a big whip. They tied her in the stable and I went to see her. She looked at me with her great dark eyes as if she thought I was going to kill her on the spot, then sprang into the manger. My husband was obliged to tie her so she could scarcely move, in order to milk her. The following morning I went to the stable and offered her an ear of corn, holding it in my hand. At first she tried to break away, but finding herself fast, she turned her great eyes on me and uttered a plaintive moan. Actually, I could scarcely keep from crying for the poor little thing. Presently, however, she smelled of the corn and then took it.

In the afternoon I brought down a light rocker and some sewing and sat in an adjoining stall a couple of hours. I then fed her, and she allowed me to rub her neck. Three days afterward I could go into the stall with her, brush her down and milk her, and in two weeks she was following me about the yard like a pet lamb. She is still a little afraid of strangers, and moves away when they attempt to approach her, but this timidity is wholly due, I am satisfied, to the wild, rough manner in which she was raised, for her calves are as gentle and tame as one could wish. In fact, they are a little too tame and familiar. We have been obliged to keep every one of them tied or yarded to keep them out of the house, and to prevent them from annoying visitors. Handling makes the disposition. A properly handled Jersey cow is the gentlest animal in the world.—*Exchange.*

How Some Great Milch Cows Were Bred.

In reply to the question as to how I bred up my herd to its present degree of excellence as butter-makers, what blood was used, I would say I commenced with a mixed herd, mostly animals bought of farmers in my vicinity. I have always used registered bulls. For a few years before the introduction of the Babcock test I used Holstein-Friesian bulls, but as soon as the Babcock test was introduced I commenced to use Jersey bulls. My present herd is made up largely of this cross, i. e., a Jersey bull and grade Holstein-Friesian cows. When I commenced to test with the Babcock I put my standard at 200 pounds of butter. This standard was raised every year until I have now reached 250 pounds for mature cows. This is the minimum. The mature cows now on my farm made last year from 250 to 508 pounds of butter, the average being 329½ pounds. This does not include the two and three-year-olds. I put my standard for two-year-olds last spring at 200 pounds, and I had a small percentage to dispose of.

I feel that this work of testing individual cows is one of the most profitable lines a dairy farmer can engage in. We are not exercising good business sense when we do not improve this opportunity to help ourselves. Any manufacturer or business man who allowed such opportunities to slip would soon be compelled to quit business, as he could not compete with men in his line who were looking after all the leaks.

The first move for a dairy farmer who has not tested his cows should be to have them tested and become acquainted with them individually. Weed out all the unprofitable ones. Then select a bull from some dairy breed. Great care should be exercised in this selection. Study the ancestry of a bull well before buying him, and do not let a few dollars prevent your securing the best. Raise the heifer calves from the profitable cows. This line followed

persistently will secure a profitable dairy in a few years. This work requires perseverance. Any dairyman can do the work if he tries. A Babcock testing machine does not cost very much, and there is some one in every family that can learn to operate it. Why do guess-work when we have an opportunity to weigh and measure?—*H. B. Gurler, in Breeder's Gazette.*

Figures on Butter and Oleo.

A man must have a very poor "business head" if he cannot understand the force of the following pithy statement and comparisons from the *American Agriculturist*:

"Compared to the dairy industry, oleo business has no claims to special consideration. Against twenty-two oleo factories, place 17,000,000 cows, producing milk and cream equivalent to 125 pounds of butter a year. Against 62,000,000 pounds of oleo, place 2,125,000,000 pounds of butter, or its equivalent in milk and cream. Against oleo, costing less than 7½ cents per pound to produce, place butter, costing over 12 cents. Against an annual cost of the oleo product of \$5,000,000, place \$320,000,000 which it costs to produce honest dairy products. Is there any reason whatever why oleo should be fraudulently sold to depress the prices of a product sixty times more costly?"

The Kansas cow is a pretty good institution. She produced last year half a million dollars worth of milk, \$40,000 worth of cheese, and butter to the value of \$4,400,000.

The annual meeting of the Nebraska Dairyman's Association will be held at Lincoln, December 17, 18 and 19, 1895. It is desired to make this meeting of practical benefit to the dairy industry of the State—the private dairyman as well as the creameryman.

The farmers near Big Springs, Kas., wanted a creamery. They got it, and now a great many persons have quit sending milk to the creamery. Some people seem to think that if they do not get about five times as much profit out of milk sent to the creamery as they would making and selling their own butter, that the creamery and all persons having anything to do with it, or even seen or heard of, are frauds and thieves. A very expensive luxury. They apparently cannot realize that by selling their milk they rid their wives and daughters of an immense amount of hard work. But they don't care anything about this part of the proceedings. They just want to pull teats and growl.—*Exchange.*

According to the report of the Minnesota Dairy Commissioner, eighty creameries and twenty cheese factories have been established within the past year. The large percentage of creameries as compared with cheese factories is explained by the fact that the butter factory makes about as much money out of a given quantity of milk as the cheese factory and returns the skim-milk besides, making the creamery the more profitable plant of the two by about the value of the skim-milk; and as a large number of dairy farmers have added the growing of pigs as a sort of "running mate" to the dairy business, the value of skim-milk is found to be quite considerable when thus used. This is one explanation, but it is not the only one. Everybody eats butter at about the rate of a pound a week, whereas comparatively few people eat cheese, and then only moderately as a relish and not as a food. Cheese might be made so good that the demand for it would double every two or three years, but in this country it is not so made as a rule. To create such a demand, several things are necessary. One is a considerable improvement in methods; another the abolition of skim-milk and filled cheese, and a third, better and more perfect curing. These will probably come in time, but they are not here yet.

Do you know a good farm and fruit paper when you see it? Let us send you the *Rural New-Yorker* this week. Send your address; no money.

The Rural New-Yorker,
409 Pearl street, New York.

Abscesses on Horses.

EDITOR KANSAS FARMER:—Some time ago, I saw an inquiry in the *FARMER* from a subscriber, asking for information regarding bunches, or abscesses, which appeared, usually, upon horses' breasts.

There has appeared in several portions of the State, this summer, a peculiar disease among horses, characterized by the appearance of large abscesses, usually located in the muscles of the breast, though not confined to this region. In one herd of brood mares, yearling and two-year-old colts, which I have examined, five had the abscesses upon the breast, one on the side of the neck, one on the belly, one in the flank and one upon the rump. All of these were adult horses except one, a two-year-old colt. Yearling and suckling colts were not attacked by the disease.

The abscesses were large and well defined, varying in size from as large as one's fist to eight or ten inches in diameter. These abscesses gather, break, discharge pus, and heal quite readily, though some sloughed out rather freely. I have heard of one or two cases that terminated fatally.

This disease is not distemper. There were no systemic symptoms such as fever, loss of appetite, discharge from the nose, etc., and colts were apparently free from the disease. The disease appears to be an infectious abscess.

I am investigating this disease to determine, if possible, the cause and more about its history. I should be very glad to hear from any of your readers who have had experience with this disease, even though it differs from what I have observed. I am especially anxious to hear from any who are having the disease among their horses now. I should be glad if they would notify me at once. I hope to have something further to say about this interesting disease soon.

N. S. MAYO, D. V. S.

Veterinary Department State Agricultural College, Manhattan, Kas.

The demand for Ayer's Hair Vigor in such widely-separated regions as South America, Spain, Australia and India has kept pace with the home consumption, which goes to show that these people know a good thing when they try it.

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Co., Hammerless Cal. 12,
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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. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, Dr. S. C. ORR, Manhattan, Kas.

LUMPS ON STEERS.—What shall I do for these steers? One has a lump on his lower jaw, about as large as a man's fist. It broke but does not run. The other has a large lower jaw; also a lump under his eye. Both lumps are hard and have been growing for some time. Another steer in the feed lot has not eaten anything for seven days. He lies down most of the time. He runs at the nose and eyes and has no feeling in his tail. I have been told he had "wolf in the tail." J. W. Gradan, Kas.

Answer.—The lumps on the steers are quite probably the external manifestations of lumpy-jaw (*actinomycosis*), which can only be determined by an examination. The treatment recommended by the Bureau of Animal Industry is to give a daily dose of iodide of potassium, equal to fifteen grains for every 100 pounds weight of the animal, the treatment to continue until iodism is produced. Full instructions have been published repeatedly in the KANSAS FARMER. Your third steer will be either better or dead by the time you read this. He probably suffered from indigestion, or perhaps from tuberculosis. There is no such disease as "wolf in the tail."

NOTES FOR BEEKEEPERS.

Select the best stock in the apiary for queen raising.

A cell properly developed and of full size is sure to produce a well developed queen.

The life of the bee depends upon the work it does. When it labors its life is shortest.

Drone laying queens are worthless in every respect, for the drones they produce are deficient.

A young queen that has defective wings so that she cannot fly should be destroyed. She will be a drone layer.

Bees will destroy an old worn-out queen, but never except when the conditions are favorable for raising a new queen.

To place honey upon the market in the best possible shape it should be taken from the hives before it is spoiled by the bees.

A strong colony is always proof against robbers. See that all have good laying queens and young broods in the hives. Care in this respect in good season will avoid much loss.

A moderate flow of honey during the fall months put the bees in good condition to withstand the winter; brood rearing is kept up and a good supply of bees is produced which will be more apt to go through the winter successfully.

To avoid cracks in cakes of wax do not allow the outside to cool rapidly. Put a cloth and board over the dish while cooling, or let it stand in a stove oven while the fires dies out over night. Care in this respect will add to the appearance of the wax at least.—St. Louis Republic.

Dirty Eggs Will Not Keep.

In laying down eggs for winter use care should be taken to see that they are perfectly clean. The shell is porous and the odors of filth attached to it quickly penetrates to the interior and begins the process of decomposition. It is impossible to keep eggs many months and have them exactly like fresh eggs. The evaporation from the egg robs it of moisture, though this is largely prevented by immersing the egg in lime water. But all water, except that which has been just boiled, contains some air. Packing eggs in salt will keep them for a short time, and is the easiest and cheapest way for keeping for home use.—Farmers' Review.

Flat Nests Are the Best.

Many a hen has been unjustly censured for breaking eggs in the nest while setting. Often the nests are

made so deep and with sides so steep that the eggs roll to the center, and the hen cannot spread out as she should for incubation. The eggs are easily broken under such circumstances, and the hen is blamed for the shortsightedness of her keeper.

Keeping Bees on the Farm.

Bee keeping in connection with farming is one of its most paying branches. It involves no direct cost, as they will pay for themselves in one season, so that money invested is returned by one hundred per cent. the first year, and you have stock for another, and have a most excellent article for the table. There is always a ready market for honey, so what can the farmer of to-day do better than to keep a few swarms of bees? With the modern conveniences, such as bee veils and smokers, there is no danger of being stung.—Farm News.

A Cure for Spavin.

Read the following letter and you will learn of one:

"Dr. S. A. Tuttle:—Dear Sir: I have used your Elixir on one of the worst spavins that I ever saw on a horse, and it entirely cured the lameness. I also used it for rheumatism in my family with just as good a result, and will cheerfully recommend it to any one in want of a liniment. O. B. Gove, Waits River, Vt."

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9.	"E Dunno Where 'E Are. Comic.....F. Eplett.	35
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11.	Rocked in the Cradle of the Deep.....J. P. Knight.	30
12.	Lullaby, Do You Think of Me Now?.....H. M. Estabrooke.	35
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MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, Nov. 18.—Cattle—Receipts since Saturday, 6,063; calves, 1,57; shipped Saturday, 1,111 cattle, 1 calf. The market was strong. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.

No.	Ave. Price.	No.	Ave. Price.
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29.....	1.407 3.77½	10.....	1.254 3.75
23.....	1.251 3.60	23.....	1.189 3.52½
49.....	1.054 3.35	2.....	1.130 3.25
4.....	1.007 3.25	61.....	1.079 3.13

TEXAS AND INDIAN STEERS.

97.....	989 \$2.95	90.....	980 \$2.95
106.....	888 2.85	1.....	1,400 2.85
49.....	925 2.75	52.....	905 2.71
131.....	926 2.70	30.....	930 2.70

ARIZONA STEERS.

110.....	870 \$2.90		
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COLORADO STEERS.

40.....	1,407 \$3.90	24.....	1,208 \$3.40
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NEW MEXICO COWS.

26.....	768 \$2.05		
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TEXAS AND INDIAN COWS.

28.....	782 \$2.45	3.....	890 \$2.25
63.....	611 2.15	1.....	800 2.00

COWS AND HEIFERS.

6.....	900 \$3.25	29.....	1,042 \$2.90
6.....	1,128 2.90	8.....	775 2.85
24.....	916 2.75	3.....	1,010 2.75
24.....	933 2.55	1.....	1,350 2.50
7.....	648 2.45	1.....	1,020 2.40
4.....	927 2.25	1.....	1,310 2.20
1.....	1,180 2.20	8.....	987 2.15
1.....	1,130 2.10	1.....	810 2.10
1.....	1,060 2.00	3.....	423 2.00
4.....	1,032 1.95	3.....	946 1.85

STOCKERS AND FEEDERS.

20.....	1,200 \$3.45	114.....	961 \$3.25
14.....	664 3.25	31.....	914 3.20
10.....	553 3.15	18.....	1,090 3.10
1.....	1,130 3.00	2.....	720 2.75

Hogs—Receipts since Saturday, 4,043; shipped Saturday, 567. The market was weak to 5c lower. The following are representative sales:

74.....	288 \$3.60	63.....	310 \$3.57½	46.....	375 \$3.55
62.....	304 3.5	63.....	310 3.55	47.....	283 3.55
52.....	291 3.52½	37.....	318 3.52½	10.....	258 3.52½
45.....	317 3.52½	67.....	288 3.52½	51.....	232 3.51
38.....	270 3.50	24.....	300 3.51	43.....	252 3.50
30.....	281 3.50	5.....	190 3.50	68.....	278 3.50
72.....	280 3.50	9.....	292 3.51	62.....	259 3.51
86.....	231 3.50	79.....	233 3.47½	80.....	252 3.47½
90.....	222 3.47½	70.....	222 3.47½	66.....	274 3.47½
81.....	219 3.45	129.....	214 3.45	10.....	3 9 3.45
5.....	212 3.45	2.....	295 3.41	62.....	233 3.41
57.....	222 3.45	49.....	212 3.45	61.....	190 3.45
21.....	87 3.45	70.....	201 3.42½	91.....	176 3.42½
98.....	174 3.42½	4.....	312 3.40	107.....	217 3.40
63.....	178 3.40	38.....	160 3.41	36.....	207 3.37½
1.....	410 3.35	2.....	365 3.31	26.....	110 3.32½
6.....	94 3.30	1.....	17 3.27½	1.....	280 3.20
10.....	154 3.25	4.....	107 3.25	1.....	220 3.00

Sheep—Receipts since Saturday, 2,484; shipped Saturday, 499. The market was slow but steady. The following are representative sales:

111.....	108 \$2.90	476.....	94 \$2.80
137.....	87 2.65	9.....	96 2.25

Horses—Receipts, 347; since Saturday, 133. There was not much doing to-day. A good many buyers are looking around and will be on the market to-morrow. The supply is fair. The receipts to-day were quite heavy. Prices are nominally steady.

Chicago Live Stock.

CHICAGO, Nov. 18.—Cattle—Receipts, 15,500; market steady to higher. Fair to best beefs \$3.25@4.35; stockers and feeders, \$2.2@3.75; mixed cows and bulls, \$1.25 3.40; Texas, \$2.75 @3.25; western, \$2.90 3.75.

Hogs—Receipts, 52,000; market generally 5c lower; light, \$3.40@3.50; rough packing, \$3.35@3.30; mixed and butchers, \$3.40@3.75; heavy packing and shipping, \$3.5@3.72½; pigs, \$2.10 3.65.

Sheep—Receipts, 15,000; market strong; native, \$1.75@3.30; Texas, \$1.60@2.70; lambs, \$3.00 @4.50.

St. Louis Live Stock.

ST. LOUIS, Nov. 18.—Cattle—Receipts, 2,570; market strong; native steers, \$3.30 @4.75; Texas steers, \$2.40@3.70.

Hogs—Receipts, 3,500; market 5 cents lower; heavy, \$3.30@3.70; mixed, \$3.00@3.60; light, \$3.2 @3.60.

Sheep—Receipts, 1,200; market strong.

Chicago Grain and Provisions.

Nov. 18.	Opened	High'st	Low'st	Closing
Wht—Nov....	56½	56½	56½	56½
Dec....	57½	57½	57½	57½
May....	61½	62½	61½	61½

Corn—Nov....	28	28	28	28
Dec....	27½	27½	27½	27½
May....	29½	29½	29½	29½

Oats—Nov....	17½	17½	17½	17½
Dec....	18½	18½	18½	18½
May....	20½	20½	20½	20½

Pork—Dec....	7 97½	7 97½	7 97½	7 97½
Jan....	9 02½	9 02½	8 97½	8 97½
May....	9 40	9 40	9 35	9 35

Lard—Nov....	5 45	5 45	5 45	5 45
Jan....	5 57½	5 60	5 55	5 55
May....	5 80	5 80	5 77½	5 77½

Ribs—Nov....	4 35	4 35	4 35	4 35
Jan....	4 55	4 55	4 52½	4 52½
May....	4 80	4 80	4 77½	4 77½

Kansas City Grain.

KANSAS CITY, Nov. 18.—Offerings of wheat were rather light here, and there was a good demand, with a higher tendency, though no general advance in prices was quotable. Prices were rather irregular.

Receipts of wheat to-day, 67 cars; a year ago, 84 cars.

Sales of car lots by sample on track, Kansas City: No. 2 hard, 4 cars 58c, 3 cars 57½c, 3 cars 57c, 1 car 56½c; No. 3, 1 car 55c, 5 cars 54c, 1 car 53½c, 4 cars 53c, 3 cars 52c, 2 cars 51c; No. 4 hard, 1 car 48½c, 2 cars 48c, 4 cars 46c, 4 cars 45c, 2 cars 44c, 1 car 43c, 1 car 42c; rejected, 1 car 35c; no grade, nominally 30@35c. Soft, No. 2 red, nominally 63@65c; No. 3 red, 3 cars 61c; No. 4 red, 1 car 57c, 2 cars 56c, 1 car 55c, 1 car 54c; rejected, nominally 42@48c; no grade, nominally 30@35c. Spring, No. 2, 1 car 56½c, 1 car 56c, 1 car 55½c, 2 cars 55½c; No. 3, 2 cars 55c, 1 car 54½c, 2 cars 54c, 1 car 53c; rejected, nominally 40@47c; white, No. 2, 1 car 53c; No. 3, 1 car 51c.

Corn sold rather slowly at about yesterday's prices. Buyers wanted good southern billing and discriminated against all other kinds. Offerings were small.

Receipts of corn to-day, 62 cars; a year ago, 85 cars.

Sales by sample on track, Kansas City: No. 2 mixed, 2 cars 23c, 10 cars 22½c, 5 cars 22½c; No. 3 mixed, 3 cars 22c, 2 cars 22½c; No. 4 mixed, nominally 21c; no grade, nominally 20c; No. 2 white, 4 cars 23c, 9 cars 22½c, 2 cars 22½c; No. 3 white, nominally 22@22½c.

Oats were firmly held, but buyers were not disposed to pay any advance, and the trade therefore was slow.

Receipts of oats to-day, 12 cars; a year ago, 11 cars.

Sales by sample on track, Kansas City: No. 2 mixed, nominally 17 17½c; No. 3, nominally 17½@18c; No. 4, nominally 14@15c; no grade, nominally 13@14c; No. 2 white, 4 cars 18½c, 3 cars 18c; No. 3 white, 3 cars 18c, 1 car 18½c.

Hay—Receipts, 9 cars; market steady; timothy, choice, \$10.00 @11.00; No. 1, \$8.50 @9.50; No. 2, \$8.50 @9.50; fancy prairie, \$7.00 @7.50; choice, \$6.00 @6.50; No. 1, \$5.25 @5.75; No. 2, \$4.50 @5.00; packing hay, \$3.00 @4.00.

St. Louis Grain.

ST. LOUIS, Nov. 18.—Receipts, wheat, 45,667 bu.; last year, 45,758 bu.; corn, 50,400 bu.; last year, 53,000 bu.; oats, 46,300 bu.; last year, 34,500 bu.; shipments, wheat 17,210 bu.; corn, 22,840 bu.; oats, 4,000. Closing prices: Wheat—Cash, 63½c; November 57½c; December 58@58½c; May, 62½c. Corn—Cash, 25c bid; November, 25c; December, 24½c; May, 26½c. Oats—Cash, 18c bid; November, 18c; December, 18½c; May, 20½c.

Kansas City Produce.

KANSAS CITY, Nov. 18.—Butter—Creamery, separator, 20c; firsts, 17@18c; dairy, fancy, 14@15c; store packed, fresh, 10 12c; off grades, 8c; country roll, fancy, 13@15c; choice, 10 @12c.

Eggs—Strictly fresh candled stock, 17½c per doz.; cold storage, 14½c.

Poultry—Spring roosters, 15c; young, 20c. Turkeys, 6½c. Ducks, 7½c. Geese, young, fat, 7c; old, 6c. Pigeons 60c per doz.

Fruits—Apples—Fancy, \$2.25 2.50 per bbl.; choice, \$1.75@2.00; common to good, \$1.00 @1.50 per bbl. Grapes—Pennsylvania, New York and Ohio Concord, fancy, 21@22c; poor stock, 10@15c. Cranberries—7.50 @8.00 per bbl.

Kansas City Sheep Market.

(Special report, furnished by KNOLLIN & BOOTH, Kansas City stock yards.) Receipts to-day were liberal, but only about 750 good muttons offered; no lambs; quite a number of Colorado feeders in good flesh. Demand was good for fat stuff at steady values. Best muttons are quoted at \$3@3.35; best lambs, \$4 25@4.35. Below are representative sales:

111 fed Southwestern muttons.....	108.....	\$2.90
476 fed New Mexico muttons.....	94.....	2.80
13 fed New Mexico mixed.....	87.....	2.65
20 ewes.....	98.....	2.60
9 Southwestern culls.....	96.....	2.25

Chicago Horse Market.

Quotations for horses, Union stock yards market, Chicago. Expressors and heavy drafters.....\$70@175 Chunks, 1,100 to 1,400 pounds.....55@100 Sireters.....50@65 Cows and 'ast road horses.....90@275 Chunks, 900 to 1,100 pounds.....35@55 Ordinary drivers, \$30 and upwards.

The e prices are for sound horses, 5 to 8 years old, well broken and in good flesh.

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BROOMCORN ESTABLISH'D 1873

ON CONSIGNMENT OR SOLD DIRECT.
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J. P. GROSS & CO., 249-251 Kinzie St., Chicago, Ill.

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Commission Merchants and dealers in Broom Corn and all kinds of Broom Materials & Machinery.

CASH ADVANCES MADE ON ALL CONSIGNMENTS.
REFER TO ANY CINCINNATI BANK.
WRITE FOR FULL PARTICULARS.

KNOLLIN & BOOTH,

Sheep Commission Merchants.
Rooms 304-305 Exchange Bldg., KANSAS CITY, MO.
Direct all mail to Station A. Market reports furnished free to all sheep feeders or breeders on application. Correspondence solicited and prompt reply guaranteed.

THE STRAY LIST.

FOR WEEK ENDING NOVEMBER 6, 1895.
Linn county—J. J. Hawkins, clerk.
STEER—Taken up by John Polley, in Liberty tp. (P. O. Parker), October 28, 1895, one red and white two-year-old steer, hole in left ear, dehorned; valued at \$25.
COW—By same, one red cow, 5 years old, branded horseshoe brand on left hip, dehorned; valued at \$20.

FOR WEEK ENDING NOV. 13, 1895.
Rush county—W. J. Hayes, clerk.
MULE—Taken up by F. U. Mills, in Brookdale tp., October 26, 1895, one brown mare mule, about 2½ years old, fourteen and a half hands high, no marks or brands; valued at \$25.

Pratt county.
HORSE—Taken up by W. S. Harrouff, in Elm tp. (P. O. Sawyer), October 13, 1895, one roan horse, 5 years old, weight 700 pounds, white in face, both right feet white; valued at \$10.

Osage county—E. C. Murphy, clerk.
FOUR HORSES—Taken up by L. B. Hogle, in Burlingame tp., October 21, 1895, four bay geldings; valued at \$12.50 each.
MARE—By same, one bay mare; valued at \$8.
MARE—By same, one gray mare, wire cut scar on left fore foot; valued at \$8.
MARE—By same, one gray mare; valued at \$8.
COLT—Taken up by James Wray, in Burlingame tp., October 26, 1895, one bay horse colt, white star in forehead; valued at \$8.
COLT—By same, one bay horse colt, white star in forehead and left fore foot white; valued at \$12.

Cherokee county—P. M. Humphrey, clerk.
MARE—Taken up by Tylor Hicks, in Pleasant

How to Make Money.
Agents make money fast selling PERFECTION DISH-WASHERS. Washes and dries in two minutes. Sells at sight! For particulars write Perfection Manufacturing Co., Drawer A-3, Englewood P. O., Chicago, Ill.

German Hair Restorer

N. H. F.—NEVER HAS FAILED—to cure Baldness, Dandruff and Falling Out of Hair.
Write for testimonials and prices.
W. F. RIGHTMIRE, Secretary,
GERMAN MEDICAL CO., Topeka, Kas.

GOTHLAND--

Texas' greatest settlement, is located near the Gulf of Mexico, only a short distance from Texas' biggest cities—Houston, Galveston and Velasco. Climate healthy. Lies high and is on three sides surrounded by navigable water. Do you know of any settlement with such a location? It will pay you to join our half-free excursions and see for yourself. Write for maps, pamphlets, and further information, free. Texas Colonization Co., Omaha, Neb.

GO BUY A "STAY ON" BURLINGTON

STABLE BLANKET.
Your horse is always clean, it keeps the hair smooth and glossy. No surcingle required. No tight girth. No sore backs. No chafing of mane. No rubbing of tail. No horse can wear it under his feet. No Come Off to Them! Your Harness Dealer Keeps Them. If not, write us for Free Catalogue and prices. The "STAY ON" Burlington is patented. We protect our patents. BURLINGTON BLANKET CO. Burlington, Wis.

The Kansas City Stock Yards

The Poultry Yard

The "Score" of Poultry.

EDITOR KANSAS FARMER:—For the benefit of myself and other subscribers, can you not, in your Poultry columns, name the points upon which Barred Plymouth Rocks are scored, and describe the points, so we can make the application or comparison ourselves? X.

Pratt, Kas.

The American Poultry Association publish "The Standard of Perfection," giving a standard by which all the varieties of poultry are judged. It can be obtained at the KANSAS FARMER office for \$1. But we are violating no copyright law in saying that a Barred Plymouth Rock should have only barred plumage—black and white; yellow beak and legs; no white in ear lobe; comb should be low, with five or six even serrations, straight and upright; eyes should be bay, and cocks should weigh nine pounds, cockerels eight, pullets six and one-half and hens seven and one-half. Special mating—that is, different breeding pens for raising pullets and cockerels—are used by the majority of Barred Rock breeders, for the Barred Plymouth Rock is, or was, made by mingling the American Dominique and Black Java, and as the female was black in the beginning, of course nature tries to reproduce itself, and we have, in the ordinary mating, a tendency to grow darker in the females and lighter in the males; but the standard calls for both male and female of medium color, and consequently this special mating is indulged in by fanciers.

While I have my feet wet, let me say a word in general for pure-bred poultry. I won't say the average farmer, but a great many farmers say: "Well, my common chickens lay just as well as fancy chickens." How does he know? Let me ask him: Why is a Short-horn or a Jersey better than a scrub? Why is a Poland-China or Berkshire better than a razor-back? Doesn't it take as much care and feed to raise them? Why doesn't he raise crab apples—so many more on a tree, you know—instead of raising Winesap or Ben Davis? The same logic will apply to poultry.

The Armour Packing Co., of Kansas City, make a standing offer of 1 cent per pound over and above Kansas City current prices for young pure-bred poultry in the American or Asiatic breeds, and they are not dressing chickens for their health. They pay that 1 cent more for good, plump, even stock for the profit there is in it. Take, for example, my own stock—White Plymouth Rocks. April-hatched chicks weigh from six to eight pounds each. Chickens were quoted in Kansas City, last Saturday, at 6½ cents. Add that 1 cent, and you see that, to use a slang phrase, your scrub "would not be in it." Your scrub would bring, at a good figure, 20 cents, while the full-bloods would bring 45 to 60 cents each. As Fred Grundy's lady friend said, when he expressed astonishment at her paying \$25 for a rooster: "Mister, chickens is only 10 cents a pound but breed costs money." So don't be afraid to buy a little breed, and when you buy the breed, don't mix it up with every kind you run across. If you need new blood, get it of the same kind and be sure you get it pure. F. G. TOMPKINS.

North Topeka, Kas.

One of the great shows of the season will be the Kansas City Poultry and Pet Stock exhibition, at Priests of Pallas Den, in Kansas City, November 27 to December 2. Every device and construction used in connection with the poultry business, as well as every variety of the feathered tribe, will be there. It will be a good place to get pointers.

You may eat cheap food and not be seriously hurt by it; but you cannot take cheap medicines without positive injury. If you use any substitute for Ayer's Sarsaparilla, you do so at the peril of your health, perhaps of your life. Insist on having Ayer's, and no other.

If you want KANSAS FARMER and Semi-Weekly Capital, send us \$1.50. Or, KANSAS FARMER and Topeka Advocate, send \$1.50.

How to Kill Chickens.

A novel method of killing chickens is being introduced abroad. Instead of sticking, bleeding, cutting the head off, etc., one takes the fowl in the left hand by the legs, catching the points of the wings to prevent the fowl from flapping. He lifts the fowl up, the head hanging downward. With the right hand he takes the head, catching the neck between the first and third fingers, the thumb being on the face. The fingers must not crush the head, but must feel the bone at the back of the head firmly. Death is caused by lifting the left hand and pulling down the right with a quick jerk, thereby dislocating the neck at the very point where it joins the head.

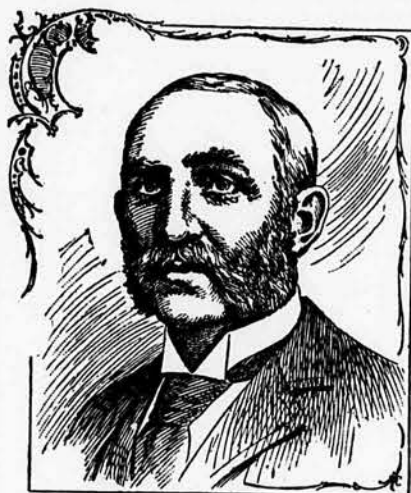
Death is instantaneous if done properly, which can be told by feeling the neck, which ought to be quite soft and entirely detached from the head, so that there is nothing but flesh and skin between the thumb and finger. By this method there is no flow of blood, but the blood is allowed to run into the head, which is carefully kept hanging down until after the bird is plucked.

The best work that can be done for the fowls in the fall is to lay in a supply of leaves and dry dirt under shelter. It is scratching in the winter that keeps the hens in best laying condition, and when the snow is on the ground a pile of dirt and leaves in the poultry house will afford an opportunity for exercise, and greatly tend to make the hens more contented in confinement. Too many leaves cannot be put away. They will be found very useful, and will also assist in retaining warmth in the poultry house by preventing cold drafts of air along the floor.—Farm and Fireside.

Heart Disease Kills

Suddenly; but never without warning symptoms, such as Faint, Weak or Hungry Spells, Irregular or Intermittent Pulse, Fluttering or Palpitation of the Heart, Choking Sensations, Shortness of Breath, Swelling of Feet and Ankles, etc.

Dr. Miles' Heart Cure, Cures Heart Disease.



Mr. Geo. L. Smith, of the Geo. L. Smith Mantel Co., Louisville, Ky., writes Feb. 26, 1894: "For about a year I was a terrible sufferer from heart trouble, which got so bad I was obliged to sit up in bed to get my breath. I had to abandon business and could hardly crawl around. My friend, Mr. Julius C. Voght, one of our leading pharmacists, asked me to try Dr. Miles' Heart Cure. I had used little more than a bottle when the pain ceased and palpitations entirely disappeared. I have not had the slightest trouble since, and today I am attending to business as regularly as ever."

Sold by druggists everywhere. Book on Heart and Nerves sent free. Address Dr. Miles Medical Co., Elkhart, Ind.

Dr. Miles' Remedies Restore Health.

WE PROVE WHAT WE PREACH



Incubators are the most successful hatchers made. Our new, 112 page Poultry Guide and Catalogue for 1895 explains the chance you are looking for. Reliable Incubator & Brooder Co., Quincy, Ill.

DISSTON'S



It will pay you to buy a Saw with "DISSTON" on it. It will hold the set longer, and do more work without filing than other saws, thereby saving in labor and cost of files. They are made of the best quality crucible cast steel, and are

FULLY WARRANTED.

For Sale by all Dealers.

Send for Pamphlet or Saw Book, mailed free. HENRY DISSTON & SONS, Philadelphia, Pa.



Lameness Cured

By a few applications. If your horse is lame and you cannot locate it, apply the Elixir, which locates lameness by remaining moist on the part affected, the rest drying out. A few more applications will effect a cure. Never scars or changes the hair.

TUTTLE'S ELIXIR

Is the standard remedy for Colic, Curbs, Splints, Contracted and Knotted Cords, Shoe Bolls, Callosities of all kinds, etc. Will relieve all Spavins, Ring Bone, Cockle Joints, etc. It is warranted to give satisfaction. Highly endorsed by prominent horsemen. Tuttle's Family Elixir cures Rheumatism, La Grippe, Pneumonia, Lameness, all Joint Affections, etc. Sample of either Elixir sent free for three 2-cent stamps to pay postage. Price of either Elixir is only 50 cents, and they can be bought of any druggist, or will be sent, charges paid, on receipt of price.

DR. S. A. TUTTLE, Sole Proprietor, 27 Beverly St., Boston, Mass.

OUR NEW CORN CRIB. CHEAP, DURABLE AND CONVENIENT.

COSTS ONLY ONE CENT PER BUSHEL TO CRIB YOUR CORN. WESTERN MANUFACTURING COMPANY, Seventh and Wyandotte Sts., Kansas City, Mo.

HORSE BLANKETS
ARE THE STRONGEST.
Awarded highest prize at World's Fair.
Made in 250 styles.
Square Blankets for the road.
Surrounding Blankets for Stable.
All shapes, sizes and qualities.
The Best 5/4 is the
5/4 BAKER BLANKET.
Many Have Worn 16 Years.
Thousands of Testimonials.
Sold by all dealers.
Write us for 5/4 Book.
WM. AYRES & SONS, Philadelphia.

THE PAGE FENCE A MASCOT.
With more miles of it in use than any other railroad, the Lake Shore and Michigan Southern now beats the world's record for long distance speed.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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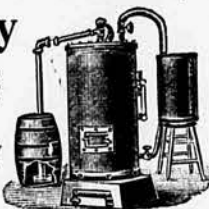
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