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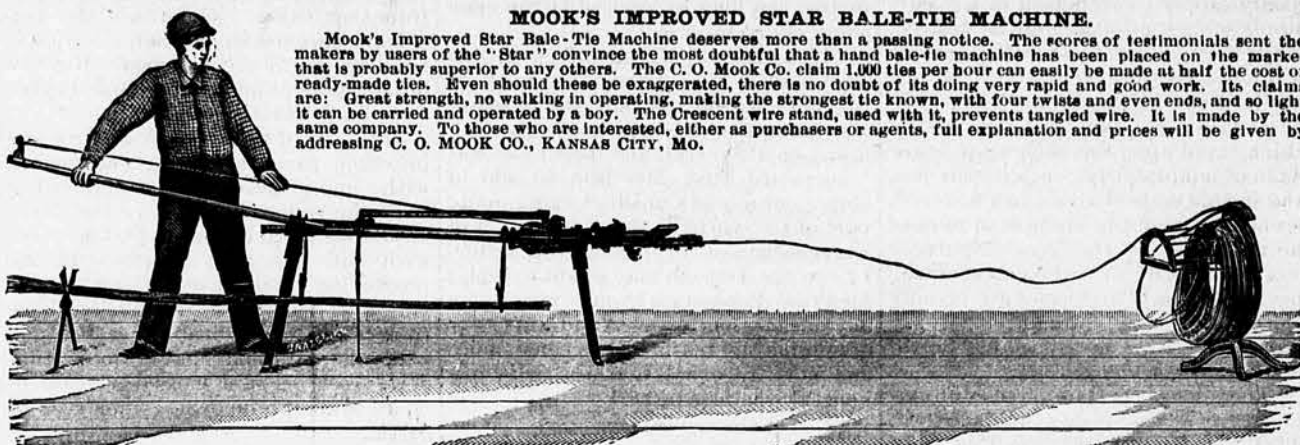
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The Stock Interest.

THE GENERAL-PURPOSE BREEDS OF CATTLE.

In a letter to the *Breeder's Gazette*, Thos. Shaw, of the Ontario Agricultural college, says:

"I am a believer in general-purpose cattle, horses, swine, sheep and poultry, and last, but by no means least, men. The exact definition of what is included under the term 'general purpose' will vary somewhat in the different classes of animals. For instance, the definition of a general-purpose pig will not be the same exactly as the definition of a general-purpose sheep. But in all of these classes of live stock the use of the term implies utility in more than one direction—that is to say, a plasticity of constitution which makes an animal to differ from a machine. By general-purpose cattle I mean cattle which are capable of producing a goodly supply of rich beef or a goodly supply of rich milk as may be desired, and if they possess in addition utility in other directions so much the better. I believe also in special-purpose cattle for certain uses—that is to say, cattle which stand upon the somewhat lower plane of adaptability for but one use. And in this respect there is a wide difference between the breadth of view of the advocates of the general-purpose idea and that of the advocates of the specialist idea. The former are broadly tolerant, while the latter are narrowly intolerant. Now, my specialist brethren, is that not true?"

"The general-purpose breeds of cattle in America to-day include the Short-horn, the Devon, the Red Poll, the Polled Durham and the Brown Swiss. At least this is my view. In the classification made ten months ago I did not include the Brown Swiss; I now admit them. When that classification was made I had not seen Brown Swiss cattle. I find them much stronger in beef-producing tendencies than I had supposed from the descriptions of the books. No doubt I will be charged here with a modification of view; I admit it without being so charged. A man who will not modify his view on the presentation of proper evidence, is not a man at all. It may be that such men can live in the narrower domain of the special-purpose advocates, but not in that of the broad-gauge school of the general-purpose principle. Nay, further, I stated in the article in question that on the presentation of suitable evidence other breeds should be admitted to the general-purpose classification; I even went so far as to mention the grounds of admittance—that is to say, distinguished attainment at the exhibitions at the fair and on the block. All the breeds named have furnished the evidence of such attainment, even the Devons, to which Mr. Duncan makes special reference in his article. Only five or six years ago a Devon cow carried off the highest prize at our Dominion exhibition for milk production in a competition open to all breeds. The representatives of the most renowned herd of Jerseys at that time in the world were apparently unable to wrench this prize from the Devon."

"And now to the main issue. Mr. Duncan takes exception to the view that the general-purpose breeds should be distinctly designated as such in the prize list, and more especially in the prize list of the Columbian Exposition. I favored such designation on the ground that a partisan judge, or partisan judges, would have great opportunity to make unjust awards. Fancy the Jerseys, for instance, or the West Highland cattle carrying away the honors from the World's Fair. Would not even Jersey and Kyloe breeders hold up their hands in amazement? The Jersey has demonstrated that she possesses extraordinary powers as a butter-producing cow, but who that is sane talks about her superiority as a beef-producer? The West Highlander can brave the wrath of the tempest with sullen scorn, but who would think of putting him alongside of the Hereford as a beef-producer under favorable conditions?"

"Moreover, the principle of classification of live stock in prize lists is

proper or improper, it is right or it is wrong. What do you say, Mr. Duncan? You do not mean to say that it would be wrong? In other words you would not affirm that the consensus of opinion among fair managers the world over which has led to classification is a mistake? I know you would not. If we admit the correctness of the principle of classification why should not the general-purpose breeds be classified? And if classified why should other breeds not included in the class be allowed to compete? Just think of the unseemliness of Lincoln or Merino sheep competing in a class for the middle-wool breeds; but would it be more unseemly than to have Kerrys compete in the general-purpose class for cattle? There may be room for a difference of opinion as to whether classification in prize lists should precede a classification which has received some acknowledgment from the public on the basis of the awards given, but I fail to see how classification in this important matter can long be ignored by the managers of our fairs."

"I was not a little surprised to find an Arkansas lasso around my neck at this busy season and that the attempt was being made to draw me into a Gallopway cattle corral, and most of all was I surprised that Mr. Duncan should single out a lone Canadian in a remote part of the world as the chief object of his criticism in this thoughtful letter. I hope Mr. Duncan may see fit to reply, for these discussions should not be by any means fruitless. Amid diversity of opinion the truth will become more and more apparent to those who are honestly seeking light."

A Little Experience With Hogs.

EDITOR KANSAS FARMER:—This spring one of the mills here offered me a lot of what is usually termed chicken feed—the cheat and small and broken grains of wheat. I purchased a ton of it at 50 cents per 100. Having a feed mill of my own, I set the grinders reasonably close together and ground it all. I am feeding it to a lot of growing pigs, using two-thirds of this with one of wheat bran made into a slop with milk and the slops from the kitchen. It is allowed to stand twelve hours, making up a sufficient amount in the morning to feed at night, and at night to feed in the morning. I believe that I am safe in saying that I have never had pigs do any better. Of course they have the run of a good pasture, and all reasonable care is taken to keep healthy and thrifty; but as the cost is always an item to be considered, I think the pigs are doing exceptionally well. I give all that they will drink night and morning. There are plenty of places where this kind of feed can be bought cheap, and with a mill on the farm can be made into an economical, wholesome food.

Another experience I will give that may be of some benefit: This spring I had a sow a little over 2 years old. She farrowed eight nice pigs and for a week seemed to get along nicely. I may say that a week before her time for farrowing I had put her in a place to herself. She was rather too fat than otherwise. I fed more middlings and oats from the time she was put in the house and yard to herself. Kept her up for a week after farrowing and then turned her out in the pasture. The next day after turning her out she seemed to get weak in her hind legs. By the next day she would take a few steps all right and then she would fall forward on her hind knees or joints. She was a valuable sow—too much so to lose, to say nothing of the pigs. I gave her about one and a half table-spoonsful of turpentine, mixing up with milk and middlings. Then I took a rag and thoroughly saturated it with turpentine and rubbed her back over the kidneys. I gave the treatment about every twelve hours. The first day she seemed to get worse—in fact, remained lying down in one place the greater part of the time. I carried her feed to her, making it a point to see that she had all that she could eat, as I could not afford to allow her to run down any more than it was possible to avoid. She then began to get better, and in a week was all right and is now thrifty and hearty. I kept up

the treatment three days after she could walk without dropping down. I feel sure that she was troubled with kidney worms and the turpentine cured her. As she was a sow that would weigh over 300 pounds, I deemed it best to give her large doses; with a smaller sow a less quantity should be given.

N. J. SHEPHERD.

Bloat from Alfalfa and Red Clover.

EDITOR KANSAS FARMER:—Seeing a communication in the KANSAS FARMER of April 26 that alfalfa will cause "bloat," and feeling a great interest in the success of alfalfa as a profitable crop for our dry seasons, and believing that the nature of the plant is something like red clover, wish to give my knowledge of that plant in connection with the bloat in eastern Indiana many years ago. Red clover pasture was considered the reliable food in that region for stock from May until October, with the sure danger of "bloat" in rainy weather, and many cattle died from that cause. Sometimes the veterinary surgeon gave relief, if called in time, by administering soda. But the proper amount and proper time to give were hard to determine.

Thinking of the remedy, and reasoning from cause to effect, one farmer with many acres and much cattle tried the experiment of giving them wood ashes (corn cob ashes just as good) with salt. He gave it about in the proportion of one quart of salt to one gallon of ashes twice each week to from ten to fifteen head of cattle, and while he followed that rule neither dew, frost or rain caused a case of bloat, although he owned hundreds of cattle.

AUNT POLLY.

Food for Fall Pigs.

Ground oats is by no means bad feed for pigs, but it should not be given dry; it is better, as being more digestible, to mix it with skimmed milk, or water if milk cannot be procured. The meal is better when made into a rather thick slop, so that it cannot be swallowed too quickly. Any kind of dry grain fed alone is not so economical as ground feed, the ground meal being more easily digested. The meal may be steeped in the milk or water the day before it is fed, but it should not stand until it is sour. If barley is fed it should be ground. This grain is excellent food for pigs, especially if it is mixed with potatoes boiled in the same proportion, pound for pound. Mixed food is better for all animals, as one helps the digestion of the other. It would certainly be advisable to change from the soaked barley to the ground meal steeped as mentioned. The pen in which young pigs are kept should be dry and clean, and if good bedding is given in a tight pen and the pigs are well fed there is no necessity for artificial warmth. Pigs are good feeders, and if well supplied with good food they will be warm enough in a close, dry pen with plenty of litter, as they will keep themselves warm. It is never advisable to permit pigs to lie in warm manure, as it overheats the pigs, and this is apt to cause disease of the skin.—*Colman's Rural World*.

The *Texas Farm and Ranch* says: "The suggestion that molasses, on account of its cheapness and value for the purpose, be utilized for stock feed, is probably a good one. During the civil war cavalry soldiers in the Louisiana sugar region, not only used sugar as their principal article of diet, but fed it to their horses in large quantities—all they would eat, in fact—and the an-

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imals thrived, and, like their masters, every day grew fonder of it. Sugar has not the laxative properties of molasses, which will prevent the too free use of the latter, and make it especially valuable in cases where a mild laxative ingredient is desired."

Don't permit sows and pigs to sleep on manure piles. Such stuff is better for vegetable than animal beds.

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Brief as it is at the longest, is liable to be materially curtailed by our own indiscretions. The dyspeptic eat what they should not, the billious drink coffee in excess, and the rheumatic, neuralgic and consumptive sit in draughts, get wet feet and remain in damp clothes, and then wonder when ill how they became so. To persons with a tendency to neuralgia, we recommend a daily use of Hostetter's Stomach Bitters, and especially after unavoidable exposure in damp or otherwise inclement weather.

To the World's Fair.

Save time and avoid the crowd in the city by buying tickets over the "Great Rock Island Route" and stop off at Englewood near the World's Fair gate. Electric line from the "Rock Island" depot direct to the gate. Time, ten minutes. Fare, 5 cents. You can check your baggage to Englewood and avoid trouble and save expense, as Englewood is in the great suburban hotel district near the fair, and you can have your baggage sent to your quarters at once.

Remember, the Chicago, Rock Island & Pacific is the World's Fair line for reasons given above. JOHN SEBASTIAN, Gen'l Ticket and Passenger Agent.



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THE CULTIVATION OF FLAX.

By James D. Reid, Commercial Agent of the United States at Dunfermline, Ireland.

To a region like this, in which the leading industry is the weaving of linen, the culture of flax is of the highest importance; yet Great Britain is largely dependent on other countries for the raw material. Even Ireland does not raise flax enough; although 80,000 acres of productive land were given to its cultivation in 1892, it did not supply one-fourth of the demand made by the single city of Belfast. The raising of flax is, indeed, to a great extent a neglected industry. It requires care, diligence and labor. But it has the prospect of a better profit than has agriculture in general as now conducted. Scotland is awakening to a realization of this fact, and the United States may well make it the subject of inquiry. The following details concerning flax-growing may prove of general importance.

WHERE FLAX IS GROWN.

There are many varieties of the flax plant, and one or more of these varieties are cultivated by almost all countries in the world. The common species is indigenous to Europe, Asia and Egypt. Scotland derives her chief supply from Russia, where it is grown more extensively than in any country in the world. In Russia, however, the culture of the plant is conducted with less care and the preparation of the fiber receives less attention than in any other flax-producing country. It is sowed thinly, to give the plant greater strength and spread. This results in a coarse fiber, and also in an inferior yield. Nor does the crop in Russia receive, in the early stages of its development, that care which is essential to a valuable product.

Germany, Austria and France come next to Russia as flax-producing countries. In each of these an average area of over 200,000 acres is devoted to this crop. In Holland flax is raised chiefly for the seed. Its cultivation is regulated with this in view. The quality of the fiber is thus injured; but the seed commands a high price, and for agricultural purposes has secured a world-wide reputation. It is the seed chiefly used in Great Britain wherever flax cultivation is attempted.

In Belgium flax is found in the highest state of cultivation. Nothing is there neglected which can increase the quantity as well as the quality of the crop. Rotation, superior tillage and liberal manuring are all followed with that persistent care which has earned for the Belgians the reputation of being the most successful of all agriculturists. Throughout the country the fields resemble highly cultivated gardens. Here is raised the very finest quality of flax, such as is used in the manufacture of Brussels lace. This care as ample reward, as the product in the market from \$500 to \$1,000 a ton. Indeed, the sale of a single rop of flax will sometimes secure a higher price than would the land on which it was grown. So fine has been the product that a Belgian pound of the raw material has been spun into a bread 4,000 miles long.

Although the soils of England, Scotland and Ireland are supposed to be equally favorable for the raising of flax, yet it has reached its highest development in Ireland. Irish flax, because of superior culture, commands twice the price of the Russian article. A quantity of dressed flax grown last year in the consular district of Fife brought \$450 per ton. No other product of the farmer in these days can show a better return.

A NEW MODE OF PRODUCTION.

To stimulate the cultivation of flax in Scotland an enterprising company has offered to purchase the product delivered at the nearest railway station in the state as taken from the field, without the separation from the fiber. This gives the farmer a quicker sale and avoids the difficulty and the labor of the retting, which requires intelligent and patient care. Small patches aggregating about 100 acres are thus used in Fifeshire for this mode of production.

COST OF PRODUCTION.

The average cost of producing an

acre of flax in Ireland is between \$40 and \$45, which includes the cost of retting and scutching. Of course, in Ireland labor of this kind is cheap, the farmer and his family working the land. The return of an English farmer gives the total expenses connected with growing an acre of flax as \$40, which realized, as taken off the field, \$60. Scotland shows a similar result.

An experiment was made in the north of Scotland on two acres of very stiff clay land with an easterly exposure. This test of the profitable nature of the crop was a severe one, the season being very unfavorable and the land of the poorest. The total cost of production, including rent and twenty loads of manure, was \$63, and the crop was sold green at the nearest railway station for \$100, leaving a profit of \$18.50 per acre.

In 1886, 1887 and 1888 experiments were made by Perth bleachers with an average return of \$30 per acre. Of course, this was for the unprepared crop as hauled from the field. The same crop properly scutched would, of course, command, as in Ireland, a gross income of from \$150 to \$200 per acre.

THE CLIMATE NEEDED.

Of course, an American reading this will at once ask, "Is the United States a country where flax can be grown to advantage?" The answer to this is, that there is scarcely another plant which so readily becomes acclimated under different conditions and in so many countries. Generally speaking, it will thrive in the greatest variety of soils. It is true, of course, that the better the land the better the crop of flax. It thrives best in a good, deep, loamy soil; yet it may be raised to advantage on any land not too sandy or peaty or of a cold, stiff, clay nature.

THE SELECTION OF SEED.

To secure a good result the very best seed must be bought, no matter at what cost. A knowledge of the quality of seeds can be gained, it is true, only by experience; but the germinating power can be proved by an easy and very simple test. Let 100 seeds be planted in a pot, and the power to germinate can be readily demonstrated. It is believed that Dutch or Russian seed, or—what is still better, as is thought—a mixture of both, is the most suitable of imported kinds. Yet, granted a successful crop in any country, it is believed that the seed best adapted for cultivation is the seed of that crop. The Irish Flax Company strongly advocates its own matured seed, and recent tests have shown a maximum germinating power of 100 per cent., which has never yet been reached by any imported kinds. Besides, the careful saving of home seed largely increases the return to the farmer.

WHEN FLAX SHOULD BE SOWN.

The field in which flax is to be sown should, after having been freely manured, be plowed in autumn and allowed to remain in furrow all winter, exposed to the comminuting influences of the frost. In spring it should be plowed, not too deeply, across the furrows, then harrowed and rolled till the soil is fine, flax requiring a firm seed-bed. The best time for sowing is when all danger from frost is past. Very fine crops have resulted from sowing early in May.

GENERAL DIRECTIONS.

Not less than two and a half bushels of seed should be sown per acre, and on poor land this quantity may be increased with advantage. The seed should be scattered with all possible regularity, and lightly harrowed and rolled. When the plants are a few inches high, the crop should be carefully weeded. Children or women are usually employed in Europe in this service, working on hands and knees. This should be done when the ground is damp, as it gives the young plant a better chance to recover itself. If the ground is kept very clean, weeding may be unnecessary, but it is usually beneficial.

HARVEST TIME.

When the straw begins to turn yellow, the foliage to droop, and the seeds to change to a pale brown color, the proper time to pull the flax has arrived. In pulling, the same lengths of straw should be kept as nearly as possible together and tied in small sheaves

five or six inches in diameter. This facilitates the after process. The sheaves should then be set up in the field on their root ends to winnow, after which they are ready for market, unless the grower chooses to scutch and prepare the flax for the spinners' use.

THRASHING AND RIPPLING.

Flax can be thrashed, after being well dried, much in the manner of grain; but much greater care is necessary so as not to break the straw and thus injure the fiber. Sometimes it is put through rollers which, when properly adjusted, pull off the seed bolls. More frequently, however, the seed is removed by a process called rippling, which may be thus described: The small sheaves are repeatedly pulled with a quick motion through an upright iron comb with round teeth about a foot high and an inch apart and with blunt, tapering points. This comb should be firmly fixed to a frame, and on the opposite side to the worker a large box should be placed or a sheet spread on the ground to receive the seed vessels as they fall. The bolls, after being thoroughly dried, can be put through the mill and cleaned.

Experience has shown that the yield of fiber is increased and the seed improved by allowing both to remain in the straw during the winter months and the rippling delayed until the seed is required for the next year's sowing and the retting until the warm weather has set in.

THE RETTING PROCESS.

The process of retting, or rotting off the straw, is by far the most delicate and important process which the crop undergoes. Upon its proper manipulation at this stage depends, to a very considerable extent, the quality of the fiber of the flax. But here is just where the product shows the largest returns. The retting process amply repays all the labor and care expended upon it.

For proper retting soft water is most suitable. Water containing a large proportion of lime or iron is unsuitable. Any water in which soap will not curdle is soft enough for steeping flax. Where slowly running water is conveniently near it may be used to advantage. Retting is often performed in the rivers of Belgium and Holland, where the flax is steeped in crates or perforated boxes. When running water is not attainable, pits should be dug about forty feet long, eight feet wide and four feet deep, this being the size capable of containing the average growth of one acre. These pits should be lined with clay to render them water-tight. The flax is then closely packed, root end downwards. A row of sheaves may be placed flat on the top. Boards should then be placed on top well-weighted with stones, and the whole covered with water to the depth of a few inches above the boards. A week or ten days is sufficient to rot the straw, but, as the time varies with the temperature and nature of the water, great care is necessary.

An easier, but longer, process is to spread the flax thinly on the grass until the fiber parts readily from the woody stem. This latter method prevails in Russia, where the flax industry exceeds that of any other country in the world.

In this district of Scotland it may be stated that, from inquiries among the growers, it appears that three-fourths of the crop has been disposed of in its condition as cut on the field, unretted, and at prices which gave a better result than any other crop on the farm.

My First Fish Pond.

(Continued from last week.)

EDITOR KANSAS FARMER:—About five years ago I exhibited some large carp in Herrington Park, on the Fourth of July, in a large aquarium. I had many questions to answer to the admiring crowd. Several questioners, rather suspicious fellows, these from Missouri, with a load of early eating apples sold out and moved for home that day. Their route was through Wilsey, where I live. I also reached home in good season, as we were to have a grand sight of fireworks, which was kept up till 11 o'clock a. m. The next morning the school children brought the news that my pond's edge was covered with dead fish. I at once drove down and found things only worse than reported. Many that were not dead,

were so stupid that you could grab them with your hand. The eyes of the dead were bright as if alive. "What has happened?" was the question of by-standers. Experts said nothing, only some one has put in a dynamite boom and stupefied the fish, causing them to rise, when they must have picked up the largest with my boat and left during the night. Nearly all the dead were eight to ten inches long; only a few were twenty to twenty-four inch fish. Nor could we get any large ones by seining for several months. This looked rather blue, but I soon found out that unless I sold more carp through advertising, I would have to build more ponds. I did both.

By advertising I soon found that every dollar paid out in that line brought in \$10 in sales. I have now five hatching ponds and two wintering ponds, and good boat, which has given much pleasure and an indispensable help to carry on our fish trade. The ponds are a pleasure resort for many. Skating parties in winter, and in summer duck and geese shooting and bathing, a school boy's delight.

Our ice house is being filled during the coldest days, making a good profit by disposing to customers, besides furnishing our own refrigerator with a temperature that makes the cook smile to hear her guests smack their mouths over the home-made ice cream, cool butter, and best of all, cool strawberries, raspberries and cream, etc. And with the aid of ice, we ship fish in July, alive, safely, by placing ice in our shipping cans.

The querist often comes to me with the remark: "Say, Mr. Riegel, how do you manage in the winter to keep your carp alive? Do you open the ice to give the fish air?" I answer, "No, not necessarily. If you have plenty of water to the amount of fish, there is no danger, so long as your water does not freeze to the bottom." Ask an old soldier why it was that so many perished in Libby prison during our late rebellion, and he will tell you for want of pure air. Just so with the carp in a close ice-bound pond. Whenever the pure oxygen which the water contains is exhausted, why Mr. carp comes to the top, and if no hole is there, he soon perishes. Provision in overstocked ponds can be made by driving a post in the deepest part of the water and piling brush around, until it stands several feet above the highest water mark. This allows the sun to form air-holes. Most any school boy can tell you that in the timbered streams, when skating along, that there is danger in coming too close to a fallen log or tree, as the sun seems to cut the ice loose on the south side next to the tree, keeping open the water most of the winter. But I must say again, I have wintered fish safely under ten inches of solid ice, three months hand running, without a brush-pile or any other provision but plenty of pure water.

Now, dear editor, I have given you, as you requested, a practical experience in fish culture, but it is only a glimpse of what I would like to give to your readers. I can promise you no more for the present, as I am about to be away—how long I cannot tell. To recruit health is my search, in preference to profits and loss in fish-culture, stock-breeding, etc. Of course my boys will supply my customers with what I have to sell. Had I an ax to grind I would put an "ad." in the FARMER.

H. W. R.

Postponement.

The manifold ills of life are never postponed on account of the weather. Whatever the weather may be, the unexpected happens. In our most joyous pleasures and sports evil lurks, and we are sometimes suddenly crippled when we are only conscious of our full health and strength. Nothing is more annoying and more serious than a strain, sprain or ugly bruise. As there is no postponement of pain in such cases, always persistent and severe, there ought to be no postponement in procuring the best cure for it, which St. Jacob's Oil is known to be. The cure is magical.

The "Katy Flyer."

Commencing June 18, the Missouri, Kansas & Texas railway will inaugurate a daily solid through vestibule train service from all principal points on its line in Texas, Indian Territory, Kansas and Missouri, to Chicago. The train will go through from Houston, Texas, to Chicago, making the quickest time and affording the best service that has ever been offered in the Southwest. Those intending to visit the World's Fair will welcome this superior service with delight, and no pains will be spared to make the "Katy Flyer" the most popular train running into Chicago. Rates as low as the lowest, the quickest time and best service.

For further information, sleeping-car accommodations, etc., call on or address

A. FAULKNER, G. P. & T. A.
St. Louis, Mo.

The Farmer's Forum.

This department is devoted to the discussion of economic questions and to the interests of the Alliance, Grange and kindred organizations.

DISPARITY BETWEEN GOLD AND EVERYTHING ELSE.

EDITOR KANSAS FARMER:—A parity between gold and silver just now seems to be the unsurmountable obstacle to bimetalism.

The appreciation of gold, resulting from the legislation of European nations, and imitated by the United States, has so changed the relative bullion value of the two metals that the silver in a dollar that in 1873 was worth a premium of 3 per cent. in gold, is now at a discount of 30 to 36 per cent. But as other products of labor declined relatively to gold in about the same proportion, it is difficult to escape the conclusion that the real change has been an increase of the purchasing value of gold, caused by legislative interference with the normal and proper use of the two metals as money.

It goes without saying that the benefits resulting from this interference have accrued to dealers in money, and the creditor class, and that corresponding losses have fallen upon borrowers and users of money in productive enterprises, and the debtor and money-earning classes.

Selfish interests have consolidated those beneficiaries as mono-metallism, who, while talking about bimetalists as something desirable, are doing their best to make it impossible. The real difficulty is that they are determined not to relinquish the fictitious (flat) value added to gold, which created the disparity between it and silver and everything else. In the case of silver they might consent to a limited coinage adjusted to the present gold standard. But, evidently, they fear to do even so little as that, lest the bullion value of silver might be enhanced and gold be relatively depreciated.

They will not consent to a bimetalism that will restore lost value to labor and its products, and thereby cheapen gold.

They would still oppose free coinage because (they say) our country would be made the dumping ground of the world's silver and gold would be driven out.

They entirely overlook another and immeasurably more injurious cause for deprivation of gold than its displacement by silver. Already the increased and increasing exports of gold show what may be expected.

The national income has shrunk under the operation of the single gold standard until the balance of trade is against us. Low prices of farm and labor products cause a shortage that gold must make good.

The only way to retain and increase our supply of gold is to pay full value for labor and its products, and this means a relinquishment of its increased value; thus restoring a parity not only between gold and silver, but between gold and labor as well. Any parity that does not include labor will bring no relief, and remove no discontent.

The International Monetary Conference fiasco dispels all hope that Europe will lift a finger to relieve the laboring masses of the world.

No matter how insincere our chief magistrate may have been in calling that body into existence, an opportunity for doing a noble work was created. The result shows that labor must take care of itself.

The United States must declare its independence and avoid entangling alliances, financial and others.

Old world financiering fosters aristocracy and creates pauperism. Our government has drifted in the same direction. The creation of multi-millionaires and multitudes of paupers is not statesmanship nor the business of a free government.

Neither is it the nation's business to house and feed the old world's product of paupers. Turn back the foul stream and shut down the gates. We cannot safely imitate the old world. Let us do our own business in our own way.

Sterling, Kas. P. C. BRANCH.

Get up a club for the FARMER.

Genuine Keeley Cure All Right.

EDITOR KANSAS FARMER:—It is related that four blind men approached an elephant, each from a different direction. One felt his trunk, another his tail, another touched his side, another his tusks. Each gave a different description. They had been told that the object of their curiosity was an elephant. They knew no more at the conclusion of their investigations. So with each explorer groping in the dark, seeking to discover the mysteries of Dr. Keeley's remedies, a confusion of ideas and statements is the only result. Each claims the true discovery, and a curious and patient public is still left in doubt of everything but the magnificent results of the remedies.

The latest claimant who poses as a discoverer of the mysteries of the Keeley remedies is Dr. Chapman, of Chicago, who wrote a paper on the subject and read it before the Chicago Pathological Society. Extracts from this paper were copied and commented upon by the *Sanitary Era*, of Chicago. The article having come under the observation of Dr. Roby, who edits the medical column of your journal, I notice that, apparently laboring under the hallucination of having discovered a mare's nest, Dr. Roby jumps onto Dr. Keeley with "both feet," but after considerable groaning the mountain brings forth but a mouse. In the article quoted from by Dr. Roby, Dr. Chapman states that he secured a position in a "gold cure sanitarium," where he obtained full knowledge of the formulas and ingredients of Dr. Keeley's remedies. But mark this: By cunningly-constructed language he seeks to deceive his readers by leaving the inference that the "gold cure sanitarium" meant a Keeley institute; that he was employed at a Keeley institute, which is absolutely false, for we have Dr. Keeley's positive assertion that Chapman never served under him at any of his institutions. This makes it plain where Dr. Chapman got his experience. Dr. Chapman states that strychnine, atropine (belladonna), cocaine, aloin, hydrastis, muriate of ammonia, permanganate of potash and glycerine are the powerful and dangerous drugs which form the terrific broadside administered by Dr. Keeley, including one more ingredient, the gold solution, which is the only one given that is correct. Of this Dr. Chapman says: "This last prescription (the gold solution) is used only for the moral effect, which is produced in the following manner: Five drops of the strychnine solution are drawn into the syringe and then three drops of the gold solution are drawn in and mixed. This produces a yellow, golden color, to which attention is called, and the patient is farther assured as to the reality of the presence of the gold by the stain left on the skin after the hypodermic needle has been removed." To any of the 110,000 graduates of the Keeley cure, or those who have been employed about Keeley institutes, there is a fakir flavor to the above of the most pronounced type. Fake is written all over it. There can be no doubt in the mind of the reader that Dr. Chapman served in the quackiest kind of a fake institute. He convicts himself. Let me say forcibly that no Keeley graduate ever saw the rich golden color or had his attention called to any color in the preparations. Dr. Chapman's conscience seems to be affected with color blindness.

Dr. Roby also quotes in his article from Dr. Evans, of New York, who states that he collected reports of 291 cases, among which were 153 relapses and eighty-eight cases of insanity after treatment. Here the same jugglery appears as in Dr. Chapman's statement, to deceive the reader into the belief that Keeley graduates are meant. Is there any better argument required than Dr. Keeley's absolute denial of the existence of any of the drugs catalogued by Chapman in his remedies except the chloride of gold, where to place the onus of Dr. Evans' 153 relapses and eighty-eight cases of insanity? It lies with the fake institutions which use these powerful and dangerous drugs, and not Dr. Keeley. This is proven by Dr. Chapman, whose adroit manipulation of the king's English and skillful evasions of any direct assertions, to the careful reader, will not disguise his real purpose of vindictively attacking Dr. Keeley.

Had Dr. Roby read between the lines of Chapman's malicious attack in the *Era* with a malicious desire to give Dr. Keeley an impartial hearing, he would have evaded the trap into which he has fallen, instead of making his purpose clear of eagerly grasping the slightest excuse to join the conscienceless band of Dr. Keeley calumniators.

Let us quote from Dr. Roby, who goes on to say, after giving portions of Chapman's article: "So we begin to see that all is not gold that glitters and all is not serene and successful in the Keeley camps." Here we have a positive assertion from the Doctor, with a facetious allusion. He then goes on to say, with an if:

"If Dr. Chapman's statements are true as to the enormous dosage with most deadly drugs, then all conscientious physicians must cry, halt! And if Dr. Evans' state-

ment of the proportion that go back to liquor and to the mad-house is true, then all lovers of their kind must also cry, halt! An assault with drugs may be as murderous as an assault with bullets."

Then follows an ambiguity:

"And when the Keeley men, whose private and pecuniary interest serves to keep their mouths closed as long as possible, begin to break away and reveal to the public the secret workings and final results of Keeleyism, the public may well hesitate about contributing any more money towards the production of relapses and insanity."

There is a mystery implied by the above paragraph that may well arouse the curiosity of the public. Does the Doctor believe that each Keeley graduate is subsidized by Dr. Keeley, who pays them sums so liberal to make it vastly to their pecuniary interest not to "break away"? Does Dr. Roby desire the public to conceive the idea that a terrible oath binds them not to "break away" and reveal the secret workings and final results? Of what use, any way, when the awful consummation can not be kept a secret, for the public will not fail to catch on when a relapse heaves in sight or a wild-eyed Keeley madman runs athwart the public gaze? There is, indeed, food for the saddest kind of reflection in Dr. Roby's forecast of the future of Keeley graduates. What a speculation for the philosopher, the scientist, the every-day observer, say in Topeka, for any day in a walk on Kansas avenue you will meet one or more of the sixty Keeley graduates of the town. How mournful, how tragic, to think, as you gaze into eyes bright with renewed hope, that soon only the maniac's gleam will be seen there; that forms full of life, every movement indicating splendid physical vigor, intelligent faces of happy and prosperous men, are but indications of incipient stages of insanity, their possessors candidates for the insane asylum. No, Doctor, you have got your cart before the horse. You have got insanity at the wrong end of the cure.

Dr. Roby is a homeopathist, therefore why does he disagree so signally with the National Association of Homeopaths, who in a body endorsed the Keeley cure? It would, therefore, be refreshing to know what animus lies back of the Doctor's attack, under the circumstances, for he is simply inferential and proves nothing, and those who are any way informed upon the true merits of the Keeley cure are fully aware how foolishly Dr. Roby has exposed himself to criticism.

J. P. L.,
A Keeley Graduate.

Topeka, Kas., June 24, 1893.

The Dull Wool Market.

EDITOR KANSAS FARMER:—To say that the general tone of the wool market is weak hardly expresses the situation.

It is exceedingly dull; early wools have not met with ready sales as was anticipated earlier in the season. The financial troubles which started in Wall street some time ago, no doubt with a view of effecting legislation, have extended until the whole country is feeling the effects of a tight money market. Confidence in values seems to be for the time destroyed. Many manufacturers have not the money to pay for wool, and those who have will only purchase in a hand to mouth way to supply immediate wants. The result is a slow, draggy, unsatisfactory trade. We learn from last week's trade papers of a sale of a large line of choice medium Ohio unwashed wool, sold in Philadelphia for 20 cents a pound. This is the lowest price such wool has sold for in over twenty years, and would seem to be about down to a free wool level.

Whether this sale will establish the price at which such wool will have to be sold at remains to be seen; but we realize the fact that if wools are forced on the market at this time, with orders to sell, they must for the present go at very low prices. Under existing state of affairs, we should advise owners of wool to hold it back for a time.

Manufacturers seeing wool accumulating, with holders all anxious to sell, will take advantage of the situation and offer a less price every time they come in. What demand has thus far developed is for the brighter wools of the nearby States.

There are some good clips of Western and Texas on the market, but to move such very low prices would have to be accepted.

Nearly all our Western mills have good orders and will require a large amount of wool, but until money matters are easier they will not anticipate their wants.

There are some indications of an easier money market in the near future. If this should occur, confidence, no doubt, would be partially restored, and a better demand would develop; whether prices would improve much remains to be seen. We must be prepared to accept low values, for aside from financial troubles the trade has the fear of free wool hanging over it, and while that could hardly be expected to go into effect before July of 1894, the result would be discounted long before.

We omit quotations, prices being nominal, for in order to effect sales concessions from asking prices would invariably be made.

The best bright medium unwashed wool will not bring over 19 cents, and if a cus-

tomers should offer 18 cents he would no doubt get the wool. A choice fine bright will not bring over 14 to 15 cents, with fine medium at 16 to 18 cents, with dark heavy shrink wools 2 to 4 cents less. This is not a very encouraging description of the wool market, but is the situation of the trade at this writing.

W. A. ALLEN & Co.,
Wool Commission Merchants.
Chicago, Ill., June 21, 1893.

Kansas City Live Stock Review.

White & Rial furnish the following review of the Kansas City live stock market for the week ending June 23:

Cattle receipts for the past week were 23,175 against 25,579 previous week. We had a continuance of the downward tendency in prices of last week, heavy cattle leading in the decline, prices being 50 to 75 cents lower than two weeks ago. Nice light, thick fat, handy steers are from 25 to 50 cents lower, while the medium and half fat grassy kind are anywhere from 50 cents to \$1 per 100 pounds lower than high time. There has been more stockers and feeders on sale during the week than for some time past with but very little demand for them at prices much lower than any time during the season. Good cows and heifers have not been very plentiful and the demand was fully equal to the supply at a shade easier price, but have not declined nearly so much as steers. Medium and common cows and heifers have sold lower than for some time past. Both fat and stock bulls are selling 25 to 50 cents lower than two weeks ago.

Hog receipts 42,564 against 54,474 previous week. We had the worst break in prices of the season, many sales being from 60 to 90 cents lower than last week, but to-day there was a falling off in receipts and prices reacted 15 to 25 cents from yesterday's closing prices.

Sheep receipts 11,222 against 14,357 previous week. The sheep market also fell in line with the hog and cattle market and prices declined 40 to 75 cents.

From the World's Fair to Washington and the East.

Do you contemplate going to the World's Fair? Of course you do—every one does. But you will not end your journey with a visit to the fair. You will want to go back to the old home in New York, Ohio or Pennsylvania. You will, perhaps, want incidentally, to go to Washington, call on the President to inquire after the "plum" crop, in fact make a swing around the whole circle, take in Cincinnati, Pittsburg, Wheeling, Washington, Baltimore and New York. That would make a splendid trip if taken over the Baltimore & Ohio railroad. Over no other route in all the East, can there be found more delightful and varied scenery than over the famous B. & O. It is the only direct route from Chicago to Washington. Leaving Chicago, on the finest and fastest trains in the world, vestibuled from end to end, lighted by the famous Pintsch gas, protected by Pullman's anti-telescoping device, and a perfect block system, you are rapidly whirled over a splendid road-bed and down through the grand old States of Illinois, Indiana, Ohio, Pennsylvania and Virginia, away up among the mountain fastnesses of the Alleghenies, past hundreds of historic battle fields and places of note. You cannot conceive of a grander trip on all the American continent. If you contemplate visiting the old home in the East, you should not fail to travel by way of the Baltimore & Ohio railroad. For information as to rates, time of trains, sleeping car accommodations, etc., apply to L. S. Allen, Assistant General Passenger Agent, "Rookery," Chicago, Ill.

In this "vale of tears" there are many fools of many kinds. One prominent variety permits his hogs to bunk under the crib in the dust and fleas, and then he stands with arms akimbo and wonders, as well as he can, what causes his hogs to cough so much, and to lose flesh and die before their proper time comes.

Piles! Piles! Piles!

Not piles of worthless stuff, but Steketee's Ointment and Pile Remedy combined will cure the worst case of Piles in any form, and have plenty left to cure burns or any sores on man or beast. Was never known to fail to cure sore breast and scratches on horses. All for 35 cents. Do not pay \$1.00 when you can have this for 35 cents. For sale by druggists, or on receipt of 35 cents in U. S. postage G. G. Steketee, Grand Rapids, Mich., will send it. Cut this out and take it to a druggist first; 3 boxes for \$1.00.

Make Your Own Bitters

On receipt of 30 cents, U. S. stamps, I will send to any address one package Steketee's Dry Bitters. One package makes one gallon best tonic known. Cures stomach and kidney diseases. Now is the time to use bitters for the blood and stomach.

WHEATON, Ill., December 7, 1890.
MR. STEKETEE:—Your Dry Bitters has no equal for kidney or liver complaint. Have been troubled for the past ten years. Find your bitters excellent.
FRANK SCHUBERT.

Send G. G. Steketee, of Grand Rapids, Michigan, 30 cents, U. S. stamps, and we guarantee that he will send at once.

The Horse.

The American Derby.

Fifteen horses battled for a \$50,000 stake at Chicago Saturday, and the winner was Boundless, a rank outsider that only a few thought would win. Sixty thousand people saw the American Derby of 1893; it was the biggest crowd ever seen on a race track in this country. It took fully an hour and a half to start the horses, as the jockeys were nearly all from the East, and tried to take every advantage at the post, not caring whether they were ruled off or not. To the surprise of the audience, Don Alonzo, the favorite, was never in the race. He came in a poor twelfth; Foxhall Keene's St. Leonard's was second and won \$7,000 for his owner. R. L. Rose's Clifford was third and got \$3,000. Boundless, the winner, was ridden by Garrison and cantered in easily six lengths ahead of St. Leonard's. The \$50,000 check he won went to J. E. Cushing, of St. Paul, his proud owner. The time made was 2:36 for the mile and a half, breaking the record for the Chicago track. The mile was made in 1:44, which is rather poor time considering that the Suburban mile was made in a little over 1:39, and there wasn't such a big purse to run for, either. The unplaced horses in the race came under the wire in the order named: Aldebaran, Chorister, G. W. Johnston, Ingomar, Tyro, St. Croix, Plutus, Ramapo, Don Alonzo, Look-out, Oporto and Strathrose. Strathrose was the only English candidate.

Horse Market Reviewed.

CHICAGO.

J. S. Cooper, commission salesman of horses, Union stock yards, Chicago, says:

Trade opened dull and lifeless. Toward the end of the week it brightened up perceptibly, drivers and chunks being in especial demand. The week closing showing signs of strength and activity augurs well for the coming week.

Horse Notes.

Concordia will hold a race meeting September 5-8.

Guthrie, Ok., will have a trotting meeting September 19-23.

The owner of Mascot 2:04 will take him to England in the fall.

There have been 153 horses entered in the State fair races this fall.

A green Topeka pacer that hasn't seen a track more than a dozen times is entered for \$25,000.

Lee & Son, of Junction City, have shipped their horses to Sioux City for the races which began there June 27.

In England, as far back as 1542, an act of Parliament made it compulsory for men of wealth to keep trotting stallions for the public good.

The great drivers seem to all be in love with the fast pacers. Doble has secured Attorney Jr., and will campaign him in company with Manager.

The Jewett farm promises another sensational yearling for this season. It is the bay colt Ticonia, by Patchen Wilkes, dam the dam of Liva 2:35½.

Guy 2:10½, black gelding, by Kentucky Prince, is going so well in his work at Detroit as to lead his trainer to believe that he will regain all his old speed.

It is reported that Directum trotted an eighth the other day in California in twelve seconds. Eight times twelve are ninety-six, showing that he has 1:36 speed.

Senator Plumb, Senator Peffer and Jerry Simpson are three Kansas horses. The first two were sired by Senator Updegraff, owned by O. P. Updegraff, of Topeka.

The Jewett farm will this year campaign twenty-eight horses from their Cheney, Kas., stables. The entries are in the grand circuit—Chicago, Buffalo, St. Joe, Nashville and other points.

An exchange says: "One hundred and fifty thousand dollars is the amount for which the Salisbury string, trotters and pacers, will race this season. They are liberally entered throughout the East."

In the \$1,000 race for three-minute trotters at the State fair this fall are entered thirty of the best bred horses probably ever listed in a Kansas race. Here are some of the sires: Simmons, Red Wilkes, Robert McGregor, Chas. Caffrey, Egbert, Onward, Joe Young, Happy Medium, Fergus McGregor, and Invincible.

Belle Vara, that took a race record of 2:08½ last year when she was 5 years old, trotted in 2:38 as a yearling. Her shoes in front, when she took this record of 2:38, weighed thirty-six ounces each. In her two-year-old form she carried eighteen ounces and a four-ounce toe weight. When 3 years old she took a record of 2:22½ and carried eighteen ounces, toe weight and all, and when she took her record of 2:08½ she wore a twelve and a half ounce shoe and

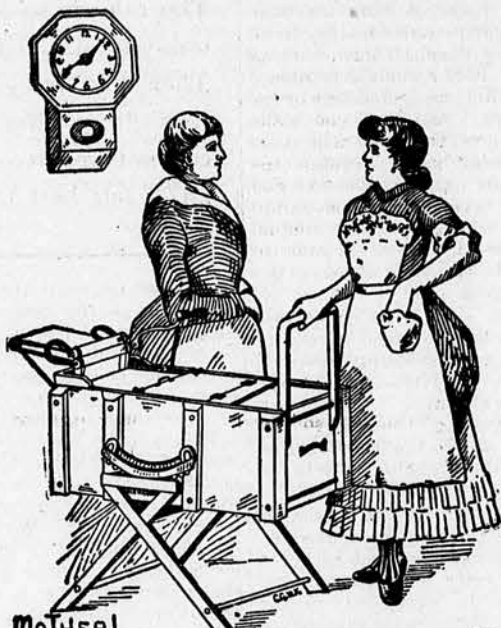
six-ounce toe weight. Mr. Doble has but ten and a half ounces of iron on this fast mare this season.

The sensational trotter, Lord Clinton 2:10½, who began his career as a quarter horse, is in training for the coming season at Connersville, Ind. He is close to campaign form, as he recently made a mile against the watch in 2:11½.

The \$10,000 purse offered for the free-for-all pacers by the Buffalo Driving Park Association has called out the fastest list ever entered in a race. Here they are: Mascot, 2:04; Hal Pointer, 2:04½; Direct, 2:05½; Johnston, 2:06½; Guy, 2:06½; Blue Sign, 2:08½; Manager, 2:09½; Major Wonder, 2:10; Reflector, 2:10½; Grant's Abdallah, 2:10½; and Chronos, 2:12½.

Official statistics as to Russian studs show that in Sula, where horse-breeding is chiefly carried on by the government, there are altogether 103 studs. In fifty-five studs trotters are bred; in twenty-four draft horses and coaches, and in the other twenty-four only riding horses. The first category of studs possesses 182 stallions and 926 mares; the second, sixty-seven stallions and 375 mares. The total number of horses in all the studs is 336,850.

The magnificent entry lists which were secured for the Chicago stakes make it a foregone conclusion that the horsemen of foreign countries who visit the World's Fair will have an opportunity to see harness racing under its most favorable conditions. The foreign market for trotters is just beginning to become a reality, and the glimpse foreigners will be able to get of the fastest of our harness performers on the American tracks should do much to stimulate the demand for them.



MOTHER!
NO MORE STAYING HOME FROM SCHOOL ON WASHDAY,
ONLY FIVE MINUTES PAST EIGHT AND I AM DONE.

ROCKER WASHING MACHINE.

Following is the list of sires who contributed five or more trotters to the 2:30 list in 1892:

Electioneer.....	27	St. Bel.....	7
Onward.....	21	Simmons.....	7
Redwood.....	20	Young Wilkes.....	7
Red Wilkes.....	18	Anteo.....	6
Guy Wilkes.....	16	Charles Caffrey.....	6
Robert McGregor.....	13	Egbert.....	6
Baron Wilkes.....	12	Hambrino.....	6
Gambetta Wilkes.....	12	Landmark.....	6
Happy Medium.....	12	Lumps.....	6
Mambrino King.....	12	Nephew.....	6
Alcantara.....	11	Sidney.....	6
Ben Franklin.....	11	Stamboul.....	6
O. F. Clay.....	11	The King.....	6
Dexter Prince.....	11	Victor von Bismarck.....	6
Egbert.....	11	Altamont.....	5
Ambassador.....	10	Ansel.....	5
Jay Bird.....	9	Bourbon Wilkes.....	5
Pilot Medium.....	9	Chimes.....	5
Wilton.....	9	Director.....	5
Aberdeen.....	8	Earl.....	5
Dictator.....	8	Hamdallah.....	5
Phallas.....	8	Kentucky Prince.....	5
Sable Wilkes.....	8	King Rene.....	5
Wilkes Boy.....	8	Madrid.....	5
Young Jim.....	8	Mambrino Startle.....	5
Alcyone.....	7	Phallamont.....	5
Cyclone.....	7	Santa Claus.....	5
Egmont.....	7	Seneea Patchen.....	5
Elector.....	7	Squire Talmage.....	5
Principes.....	7		

There is not a piece of machinery used which is more humane and in accord with the ideas of advanced civilization than the washing machine, which does away with the wear and grind on womankind. Possibly the reason to be attributed for the absence of washing machines from so many homes is due to the fact that many worthless machines have been put upon the market. Our Chicago manager writes us of his investigation of the Rocker Washer, manufactured by the Rocker Washer Co., Ft. Wayne, Ind. This company is doing a large and prosperous business, and, what is better, its success is based upon merit. A very neat little pamphlet published by the Rocker Washer Co., entitled *The Laundry Journal*, gives full information and illustrates the advantages of their machine and disadvantages of the old and antiquated way of hand-rubbing and worthless machine washing. Our illustration very appropriately suggests the advantages and merits of the Rocker Washer.

The Family Doctor.

Conducted by HENRY W. ROBY, M.D., consulting and operating surgeon, Topeka, Kas., to whom all correspondence relating to this department should be addressed. This department is intended to help its readers acquire a better knowledge of how to live long and well. Correspondents wishing answers and prescriptions by mail will please enclose one dollar when they write.

The Doctor's Saturday Night.

The Family Doctor likes to have a night off now and then, just like other mortals. He does not enjoy being in medical harness 365 days and nights in the year any more than other servants of the people enjoy wearing the business harness all the time. Especially in hot weather, the straps, and collar, and tugs, are liable to chafe if not laid off now and then for a little while to cool off. And while our ideal night off is Saturday night, we sometimes find it necessary or desirable to substitute some other night for getting out of harness. Such an occasion came our way last week. A friend who keeps a music store kindly invited us to a very rare and wonderful musical entertainment Thursday evening. The invitation was couched in about this phrase: "Doctor, come up to the store this evening. We are going to have an unusual entertainment. There is a young lady in the city who does some wonderful things in a musical way. Her father tells me that all she has to do is to sit within four feet of a piano, or organ, or drum, and the instrument sends forth the finest kind of music, and he says that all three of them will be played on at once this evening. It is a private entertainment, but you can bring a friend if you wish."

So, with a profound sense of the marvel-

Raw Flesh

of man or horse or other animal (not malignant) begins to scab in a night with Phenol Sodique.

HANCE BROTHERS & WHITE, Philadelphia.
At druggists. Take no substitute.

arm's length of both key-boards and the drum. The pert old mother then began to call out for the spirit of Adam, who promptly responded by three tinkles on the piano. Then some visitor was requested to think of a piece of music he or she had heard some dead friend play in former years, and was assured that it would be promptly reproduced. Prof. R., the organist and musical composer, called for a tune his tutor had been very fond of in life, and a harsh, discordant jargon was rattled off, and "maw" asked him if he recognized it. He mournfully admitted that he did not. Then the young lady said, "Maw, we never heard that piece before, did we?" and "maw" said, "No, we never did." Then a painful pause ensued, and "maw" said they (the spirits) were waiting for some one to recognize the tune, but nobody present could do so, and "paw" said that if we would come to his house and call for any tune we had ever heard and it was not promptly played in fine style he would give us a hundred dollars. We all thought we would go, and the Coroner started immediately and went out on the street, forgetting to ask the address of "paw" and "maw." We have not seen him since, so we suppose he is still after that hundred dollars or else is running for office somewhere. We were next treated to a duet on piano and organ, both being played at once. But when the "Family Doctor" requested Adam's spirit to play a two-part piece on each instrument the spirit got mad and quit the double instrument act and went back to the piano, without a word of explanation. Then "maw" said, "Now just play nice and loud, just as you do at home—at our house, I mean." And "paw" said, "Yes, just make all the noise you can once and show us how loud you can play, just as you do at home—at our house, I mean." Then a low prelude led off, and then a gradual crescendo, and then the great crash of worlds in miniature rolled out. Pedals creaked, keys crashed, the chair on which the medium sat squeaked and the spectators trembled, while thinking what a wonderful pianist Adam had come to be, who actually died several thousand years before pianos were invented. And just at this great climax in the occult and weird, the fool "Family Doctor" lost his head, and as he arose to flee in terror he came in contact with one of those base modern contrivances, an Edison incandescent lamp full of electricity and the devil, and instantly the whole scene was lighted up, and there sat the spirit clad in female attire (Adam aping Jeff Davis) with both hands and both feet on key-board and pedals, just making the old piano fairly smoke with energy. The spirit was so astounded that it actually turned its head and looked back at us with eyes very like human ones and forgot to make its hands and feet invisible to mortal eyes. But "paw," who is in his way a very smart man (that is when he is all alone), instantly called out, "Stop that! Stop that! It's awfully dangerous. It's an awful wonder she didn't drop dead. They are very liable to kill her when they are interrupted that way!" The "Family Doctor" replied that an electric light never hurt anybody unless there was a thunder bolt behind it, or a Revelation.

Then the seance broke up in a row. "Paw," "maw" and the girls, mad as wet hens, stalked forth like Saul of Tarsus, "breathing imprecations" on that fool doctor who put "Sis" in such peril of her life. But "Sis" had evidently not been trained in the presence of modern methods of quick lighting, and it did not occur to her to fall off the chair dead in the presence of a new-fangled search-light. If she ever poses before an electric lamp again she will probably be all ready to tumble.

Those silly old frauds, "paw" and "maw," when they exhibit their daughter again in the presence of intelligent and scientific people, will see to it that no spectator is seated within gunshot of an Edison lamp.

Farm Loans.

Lowest rates and every accommodation to borrowers on good farm loans in eastern Kansas. Special rates on large loans. Write or see us before making your renewal.
T. E. BOWMAN & Co.,
Jones Building, 116 W. Sixth St., Topeka.

Oscillator Drashers, Horse Powers, Engines.
JOHN S. DAVIS' SONS, Davenport, Iowa.

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.

The Rose is Such a Lady.

The rose is such a lady—
So stately, fresh and sweet;
It joys to hold her image—
The rain pool at her feet.

They look such common lasses,
Those red pinks in a line;
The rose is such a lady—
So dignified and fine.

The winds would wish to kiss her,
And yet they scarcely dare;
The rose is such a lady—
So courteous, pure and fair.

Here's one come from a garden
To die within this book—
See, in the faded features
The old lady-like look!
—Gertrude Hall, in McClure's Magazine.

CASTES IN THE OLD WORLD AND IN THE NEW.

Graduating thesis, by Margaretha E. C. Horn, Kansas State Agricultural College, Commencement, 1893.

Theoretically, or in its primary sense, the term caste was applied to certain fixed divisions of society. By fixed divisions, I mean such divisions of society that if a man once comes within a certain class, neither he nor his posterity is able to pass into another. In short, the son must follow in the footsteps of his father. If the father is a priest, the son will be a priest; if a merchant, he will be a merchant; if the father is a servant, so will be the son.

Practically, and especially in modern times, its meaning has varied with the fancy of the writer or speaker, and the term caste has been applied to almost every artificial division of a people, or even of a town, to a labor union, through all the stages, up to the gentry of England.

History reveals to us that no country, except India, ever adhered to the original meaning of caste. Here, whether by divine inspiration or the scheming forethought of some wise legislator, the caste system has flourished for centuries, and is still flourishing, only in a modified form.

According to the laws of Manu, the people of India were divided into four great classes. All were considered the posterity of the great Brahma, their all-powerful divinity; but their social position, power or lack of power, was determined by the region of the being from which they had their origin. Their condition was hereditary, and depended on acquired position. Those of the highest caste, the priests or law-givers, emanated from the head of the great god; hence their power of invention, their superiority over those that sprang from other parts; their control, not only in this world, but also in the next, over the blessings or the curses of those in the lower castes.

The arms and shoulders of the great Brahma are represented by the military class. The office of this class is considered somewhat sacred, and the dependence of priests and the military class is mutual; one cannot exist without the other, either in the present or the future world.

Next come the men of business, the merchant class, who claim common descent from the breast and thigh of Brahma. Their duty is to buy and sell, to raise cattle and cultivate the soil, to subdue the beasts of the forest and to conquer the waves of the deep.

As the foot is the lowest region of the great Brahma, so are the servants, its offspring, the lowest caste of Indian society. While they are not considered as slaves, yet improvement is impossible. They dare not acquire knowledge or accumulate property. They are servants, servants through eternity.

Although mixture of castes was not absolutely forbidden, yet in every case where there was a mixture, the guilty individual was an offender, was considered an outcast, often tortured for years, and at last compelled to pay a large ransom in order to regain caste. Stealing, manslaughter, or crime of any kind will not cause a man to lose caste, but the poorest Brahman would be forsaken by wife and child, by friend and relative, would consider himself an outcast forever, should he mix with Europeans, or eat, say, with the Emperor of Russia or of Germany, or with any other great potentate.

Caste, though still existing in India, is no longer based on its original foundation. The two intermediate classes have disappeared altogether, and in their place we have eighteen principal and at least a hundred minor classes, according to trade or profession. But the caste barrier still exists—that is, the son must follow the occupation of the father or else become an outcast; but the outcasts have become so numerous that there are now castes of the outcasts.

Never has there been an institution, ex-

cept Christianity, so powerful, so lasting, so unconquerable, as the caste system of India. To the people of India it is no hardship, but rather a matter of conscience. A good Sudra would consider himself just as much degraded should he eat with a Brahman as a Brahman would to eat with a Sudra.

The structure, founded on religious principles, has been found indestructible by the advancement of civilization; has endured all the hammering and cannonading of the intervening ages. Slowly the nineteenth century sees the foundation give way; its walls are beginning to totter, and the institution cannot withstand much longer the hammering process of the missionary, the European philosopher and the nineteenth century philanthropist.

Although no other nations of the old world have, at any time, held rigidly to the caste system, yet there was an approach to it when the society of Europe was bound by the laws of the feudal system. But an institution so artificial, so tyrannical, was soon trodden under foot by the advancing strides of the civilized world. Since then there has always been, and still is, a class distinction more natural, based either on birth, wealth, position, education, trade or profession. But, as a rule, the right of commanding in the old world has descended from generation to generation, except as occasionally there has been a province strong enough to break away from the iron hand of custom, or an individual ambitious enough to override the barrier of class distinction. Although these instances have been few, yet they have been enough to prove to the world that the time when neither ability, wealth, ambition nor influence could be accepted as an adequate title to promotion to the highest rank, is passed.

In a variety of instances, rank was supposed to be the indispensable quality to office, but Disraeli, a despised Jew, without rank and without titled friends to introduce him, declared to the hissing members of the British Parliament, "Although you make me to sit down now, the time will come when you shall hear me." Perhaps the means employed to gain the desired end have not always been strictly honest, but the time did come when the Queen and all the stiff-necked gentry bowed in submission to the will of the then despised but now honored Disraeli.

Even in the old world it is no longer a question of mere rank, of who were your ancestors, who is your grandfather? But it is beginning to be, "Who are you?" "What do you have a year?" "What can you do?" If the reply is, "Nothing," then the condition is fixed and the individual remains with the majority, submissive to the ambitious, to the gentry, to the royalty.

The existence of high and low classes is not necessarily the criterion of a dissatisfied and unhappy lower class, but rather a sign that the majority are satisfied and ready to recognize the superiority of the nobles and royalty. They pride themselves upon the splendors of the royalty and the good manners of the nobles; to be the favored servant of one of them is the ambition of many. As a rule, the classes are happy within themselves. They have each other's society. In time of plenty they have their feasts and merry-makings; in time of scarcity they share each other's surplus.

Equality in the old world is enjoyed only by members of the same class. There is no claim of equality between members of different classes; they stand to each other as inferiors and superiors.

But now let us turn our attention to the society of the new world, the United States, where all labor is honored and all men are created equal; the nation that has for its foundation equality; the nation that in all speeches, periodicals and popular literature upholds equality; the nation that condemns the old world's royalty and nobility; the nation that denounces all titles and distinctions of classes, and proclaims to the world its grandeur, its superiority, in that every man is a ruler with equal voice in the government.

This is the proclamation that comes to the old world. But the royalty and nobility, the ruling classes of the old world, do not appreciate it enough to emigrate. Their loyal and intelligent supporters think for themselves that there surely can not be a nation of kings unless the kings, too, go to work and dig for themselves. But to the remaining ones, the adventurous and ambitious few, the paupers, too lazy to work, the degraded anarchists who find themselves too weak, through lack of support from the industrious and intelligent working class, to overthrow the machinery of the old world's government, to these it is tidings of great joy. To be kings is all they wanted, and now they have the promise, if they will only go to the land beyond the Atlantic. Their only conception of a ruler is a being in gilt-buttoned and gem-set garments, riding at his ease in his coach and four, with a brass-buttoned coachman. Blinded by the show and glitter, they have applauded the royalty while in sight, but out of sight they have threatened the very foundation of the old world's government. Unable to



"You see, Madam, Ivory Soap is really the most economical. The cake is so large that it easily divides into two cakes of the ordinary size. It is twenty cents' worth of soap for ten cents. Then it is very economical in use, for although it lathers quickly, it is always firm and hard, even in hot water. As it floats, you can not lose it or leave it to waste in the bowl. We sell it to all of our best trade for general use."

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usurp the throne in the old world, we soon find them in the new world, disappointed and dissatisfied rulers, crowded into damp basements or dingy garrets. This does not correspond to their conception of a ruler, so they are now in good condition to be easy prey for the demagogue.

This is the result of the egotistical writings of Americans about equality. If equality is the base on which the nation is founded, then the cry of equality is likely to be its final ruin. What is the use of this cry of equality? Is it true America has no lords, barons, counts or dukes; but does that prove that there is no class distinction? No. For class distinction in the new world is carried to a far greater extent than it ever was in the old world, and this is true especially among women. Gladstone once told a great company of workmen that though they were very fond of crying aloud about equality, yet they had a sneaking liking for a lord. This certainly applies to the typical American, the being who shouts equality till his throat is sore, and yet is ever ready to climb above the masses to show them his superiority.

In the old world, women who earn their daily bread enjoy each other's society; not so in the new; here every vocation has its niche in society. The woman of business can not bide the woman of labor; the stenographer or printer will look down with condescending superiority on the shop girl; the shop girl on the sewing girl; the sewing girl on the domestic servant; the servant on the shorewoman; and so on to the being that gets her living at the back door of the hotel, who would feel herself degraded should she have to associate with the being who begs from door to door.

Then what means this cry of equality? Simply this: that every man, whether intelligent or ignorant, whether good, bad or indifferent, has an equal chance to make or to ruin the government of the United States; that every man, if he is smart enough to get there, no matter how, may become the administrator of the people's welfare.

Concerning the cry that "all labor is honored in the United States," I would say, it is honored to this extent, that the sooner you cease to labor with the hand, the sooner you will find that you are honored. If you have plenty of money, and are able to trace your ancestry back to Queen Elizabeth, it is all the better for you, if you want to be honored. No English lord is more proud of his ancestry than the American who can trace his descent to that theoretically despised English nobility.

Unhappiness due to class distinction is greater in the United States than it is in the old world. There the classes are fixed; very few expect to rise above the position of the parent. There, indeed, the father's ambition is to instruct the son in his art, while the mother's prayer is that he may be loyal to his superiors. Not so in America. Here the parent's ambition is that, no

matter at what sacrifice to himself, the child may occupy a more honored position than did the father or mother; and the result, in many cases, is a shameful neglect on the part of the child of the parents in their old age.

Custom, at the sacrifice of personal gain, compels the English landlord to treat his old tenants with respect and consideration. For even an English lord can lose his social position by inconsiderate treatment of his dependents. But in America it is often the rascal that gets to the front. Here every man is so intent on number one and the rights of number one, that there is no time or thought for number two, much less for number three.

If a man comes to sudden prominence in the State, the neighbors don't quite see how he did it, but then he got there, and that is all that is necessary. A man may be a State legislator, and the periodicals will record his large-hearted views, and know nothing about the fact that that man had neither time nor money to bury his mother. While he is making speeches in the interest of the people of the State, the attendants of a State institution are chanting the requiem of that mother that gave her life for the well-being of her son.

The American is ready to condemn the old world's nobility for walling their beautiful premises and robbing the lower classes of a means to give them higher ideals of life, but at the same time will applaud an American who is level-headed enough to get the most possible, in dollars and cents, out of his possessions, often to the detriment of the beauty of the landscape.

When the American ceases his cry of equality, and recognizes that from the very nature of things class distinctions there must be and always will be so long as human nature remains the same and there is a difference of ability and opportunity, when he indeed honors labor as the means of physical, mental and moral improvement to the individual, then will he actually realize that happiness and that equality which he now fancies to exist in America.

We devote considerable space this week in "The Young Folks" and "The Home Circle" departments for the publication of some of the good papers read at the recent college commencement at Manhattan. We have others that ought to find place in the KANSAS FARMER, and they will be published as soon as we can find room for them. All our young folks—in fact all the home circles in the State, ought to be interested in the Kansas State Agricultural college.

That cure of Geo. W. Turner, of Galway, N. Y., of scrofula, by Hood's Sarsaparilla was one of the most remarkable on record.

Make war on weeds all the time, but especially from the middle of June to September, when most of them are ripening their seeds.

The Young Folks.

Used-to-Be.

Lost laughter and the whistled tunes
Of boyhood's mouth of crescent runes,
That rounded through long afternoons,
To serenading penitents—
When starlight fell so mistily
That, peering up from bended knee,
I dreamed 'twas bridal drapery
Snowed over Used-to-be.

O, land of love and dreamy thought,
And shining fields and shady spots
Of coolest, greenest, grassy plots,
Embossed with wild forget-me-nots—
And all ye blooms that cunningly
Lift your faces up to me
Out of the past, I kiss in thee
The lips of Used-to-be.

And love ye all, and with wet eyes
Turned glimmering on the skies,
My blessings like your perfumes rise,
Till o'er my soul a silence lies
Sweeter than any song to me—
Sweeter than any melody
Or its sweet echo, yes all three—
My dreams of Used-to-be.

—James Whitcomb Riley.

THE TALE OF '93.

Class History, by Miss Maude E. Knickerbocker,
Kansas State Agricultural College, Commence-
ment, 1893.

Nearly four years ago, an earnest body of students, composed of boys and girls from homes scattered all over this State, and a few from others, came to this, the Kansas State Agricultural college. Most of them came here with the determination to succeed in their endeavors to reach the top. As is the rule, a few entered who had no such intentions. They had only a curiosity to "go to college." But these few, probably for some good reason, have since "dropped out," as we express it.

If there was anything wanting in this class in regard to grace, wisdom or beauty, it was made up in numbers. Yes, in this the class of '93 surpassed every preceding class. Three hundred and seven is said to be the number—three hundred and seven boys and girls, both homely and good-looking, tall and short, angular or rounded, as the case might be. Some thought it to be the best-looking class that has ever entered the college, and we—we have never doubted the fact for an instant.

The boys—who ever knows anything about a first-year boy but that he is always the same? He is as apparently inconstant as the bud wrapped in its winter mantle, before it has been fanned by the warm breath of spring. He must have showers of college wisdom, and with these the sunshine of faculty favor before his real character can blossom forth. There are those who never learn to enjoy the benefit of college wisdom or seek the good will of their professors, but such are not the boys of '93.

But the girls—ah! who does not know the first-year girl? Who did not know the first-year girl in '89? She seemed to take special delight in winning admiring glances of the third-year boys. It made the third-year girls indignant. They fumed and fussed, instituted secret clubs, so that they might give vent to their wrath in secret. But all to no avail. The first-year girls continued to win the smiles of the boys of '91, and it is whispered, a few of the girls won more—the boys themselves.

Little did the other girls think that in three years from that time there would come to the college a class which would possess such noble aspect as to win their favor, the present second-year boys, if you please.

How many of the class at the close of the year thought it a wise and advisable plan to seek the home shelter and mother's protecting care from visions of that awful grade book, we could find no record. If there were any such cases they must have been when the flowers blossomed so prettily on the hillsides and in the woods, and excursions to procure the same were agitating the mind of the first-year.

As it was, the fall term of '90 opened with 200 or more prepared to take up the duties devolving upon a second year. Theirs was to endure the mental strain of algebraic and chemical equations, and if they sometimes got confused they were not to blame. The professor would probably not "apprehend" the same to be "exactly" right. But algebraic equations were no sooner solved than the boys must turn their attention to the "Ag" lectures which were to give them so much useful knowledge. While the boys dozed in the agricultural room the girls attentively listened to the valuable instruction given them in household economy—for future use. It is not to be doubted in the least that a few of the girls gave the best of attention. Why? A faint probability of them soon putting it to practice, which has since been realized. Three of that cooking class are now wielding the cooking spoon in the homes of three respective graduates of the K. S. A. C. It is to be doubted, though, whether the boys listened the least bit more willingly after being informed that they would soon have the opportunity to put their knowledge into practice—when the spring term opened. The thought might have proved unbearable had it not been for the anticipation of the

second-year party at the close of this course in agriculture, and a "p. m." banquet to honor the laying down of the spade and the hoe.

The boys declared it to be such fun to see a second-year girl capture a carabidae, scarabæidæ or nepidae, as the case might be, then carefully place the same in her mouth while she nervously removed the stopper from the cyanide bottle.

At the close of this, the spring term of '91, the curtain rings down, to rise three months later on a class of fifty-five full-fledged juniors, in no way daunted by the outlook they had for a year of good, hard study, for they "had a heart for any fate." And it took just such a heart to master all the hardships of general history. It made them wish that the next time a woman undertook to write a history she wouldn't write it, or if she did, to keep it far from the reach of a K. S. A. C. professor.

Every other day came the duty of taking the tripod, chain and rod and migrating to some part of the farm to investigate the matter as to how many of the buildings "set straight with the world," or perhaps to determine the exact distance of "lover's lane." Never, in our estimation, was the farm surveyed so carefully, so accurately, as in the fall term of '91, but the test came all too soon the following term.

Rhetoricals had their share of the third-year's time. Who of them will ever forget the despairing moments spent in analyzing that wonderful speech of Chauncey M. Dewey? How often was his name taken in vain for ever daring to write an address on the American Revolution! Driven to desperation and bent on enlightening the professors that there was other business on hand, a petition was started to relieve the suffering juniors of this burden. With nearly every name of the class neatly inscribed thereon, this petition, which was to cause such a decided reformation, was quietly presented to the professor. The very thought of the act caused a smile of satisfaction to settle on every face. But, oh! comprehend, if you can, their feelings the next morning, when the professor, with a cheering smile of unconcealed pleasure, thanked the kind and thinking third-years for their autographs. He declared his intention of carefully preserving the same as a loving memento from the class, and, as their names were inscribed in their own hand-writing, it would afford him the opportunity of occasionally reviewing the character of each. The work, however, would go on the same as usual. Yes, and it was in this very class that one aspiring junior described the county in which he lived as being bounded by four straight lines with one crooked side.

At the close of the winter term, the class of '93 participated in what has been the last mechanic's party, but not in any way the least. There is sometimes honor in being the last, as well as the first. The path that led to this enjoyment was narrow and paved with difficulties, and it is needless to say that the endeavor to tread it decreased the number of the class.

The spring term following, the class met in the old "Ag" room, and with few preliminaries the class of '93 was considered organized. Officers were then elected, which held their positions until the fall term of the senior year. Not till this latter election was the class really organized. Later a constitution and by-laws were adopted. At the time of their adoption there were thirty-nine seniors enrolled who anticipated finishing this, the final year. Three more were added to the class at different times during the year, but, we regret to say, as many left for other fields; one to find work in Chicago, another to wait till some future time before completing the course, while a third member, sad to relate, yielded to that irresistible, indefinable what called love, and on April 25 was married to a young lady who was formerly a student of the K. S. A. C. He had often been observed with "up-raised eyebrow, downcast eye, suppressing a sigh scarce audible," and well we knew that his thoughts were elsewhere than upon his surroundings. The blessing of the class goes with Edward J. Abell and wife.

So just thirty-nine are left together to take this, an important step, in their lives. Twenty of this number claim the honor, if we may call it that, of being Kansas "Jay-hawkers." Seven other States are represented by the remaining nineteen. The broad Atlantic rolls between one of these and her native home.

As it seems, this class is partial to literature and history, as they are the most favored studies. But one seems to be of a mathematical turn of mind. The others, most probably, had their minds turned by mathematics.

The proposed occupations of the class are somewhat varied. Seven of the young women declare their intentions of finding a means of self-support in some direction. The majority of these intend to teach. Only one of the girls had the courage to announce the fact that she expected to be a housewife. The others are undecided, or intend "to take life easy," as one has expressed it.

Of the young men, six intend to seek admittance at the bar, if possible. The idea

of farming finds favor in the minds of as many. But one of the twenty-four young men has decided to enter the ministry. One expects to be a botanist, another a horticulturist, while another dares to dream of being a member of Congress. He being somewhat of an athlete, we say, acrobat or Congressman, which? One aspirant has evidently set his ideal beyond the clouds, and expects to reach the same by an invention of his own in the shape of an air-ship. One machine is already complete and he will soon commence his proposed business as a "cloud-hopper."

The ages of the class range within a limit of ten years, from 17 to 27. The infant of the class, Miss Ione Dewey, is 17 years 1 month old. The youngest boy is "Bobbie," or Mr. Edwin McMaster Stanton Curtis. The average age of the boys is 23 years and 5 months. Adding the length of all our lives together we have lived nearly 900 years. As to height, there is a variation from five feet three inches to six feet one inch. The possessor of the former height is one of our much respected girls, Miss Susie Noyes, of the latter, Mr. E. C. Abbott. There is one member of the class who weighs 175 pounds, and Miss Laura Day is the only one who can not balance more than 100 pounds. A weighty class, though faulty. On an average, the class of '93 is 22 years 1 month old, five feet six inches tall, and weigh 135 pounds. As for looks, well, we are all handsome, if you will except those that are not. Brown hair predominates, with but few exceptions. These are five with black hair, one possessing a sort of crushed strawberry, another red, while another endures the painful fact that she has a pate of mottled green.

This graduating class took it upon themselves to solve a much thought of question regarding the expense for graduating clothes, and we are now ready to report in regard to our financial expenditure. The girls spent an average amount of \$36, while our brother class-mates escaped with an average expenditure of \$27.50. Altogether our graduating clothes cost \$1,209.

It may be proudly said that the diligence which necessarily accompanies the student who earns his own way through college is not absent in this class. To ten of its members may be given this honor, while several can say "partly supported by self." Of the twenty-four young men in the class only three ever indulge in the use of tobacco in any form, and in one of these cases very mildly.

The boys of '93 won the championship in the baseball field over faculty, seniors, juniors and sophomores in the very beginning of their career, and have preserved it to the end. Yes, dear professors, this is one time we gloried in the little oval goose eggs that you made.

And to this class belongs the distinction of graduating the first Smith from Kansas State Agricultural college. Perhaps it should be a three-fold distinction, as three of our number claim that name.

The majority of the class are Christians, there being only about ten who have never made any such profession to the world.

We do not boast of the largest head, as that, we have been taught by zoology, and observation, too, is apt to sometimes contain considerable water. We do not boast of the largest foot, for that is no honor, nor do we envy a class of larger number, for we have "scrapped" enough as it is.

Taking it altogether, this is but an ordinary class, with an ordinary appearance and ordinary tastes and desires.

"We may tread the same path those before us have trod,

We may run the same course those before us have run.

We may tell the same tale classes before us have told.

Theirs is partly finished, ours just begun.

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Throughout the corn belt of Kansas the crop is in excellent condition and the acreage is very large.

The precautions taken to guard this country against infection from cholera have so commanded the confidence of the people that there is this year little uneasiness as to its spreading.

The Entomological department of Kansas State University has just published a bulletin on the "Horn Fly," a copy of which will be sent free on application. It is well worth a postal card.

Wheat harvest is now well under way in a large part of the State. The quality of the grain is said to be excellent. The highest estimates recently made place the total crop of Kansas at 30,000,000.

India has just closed her mints to the free coinage of silver. It is stated that this was brought about by the official class, whose pay will be increased in purchasing power by the appreciation of the standard of values.

Never before since somewhat complete market records were kept has so large an amount of wheat been held by speculators. They bought it at what seemed to be a low price and have held it while the market has almost constantly declined. This loss is a part of the general misfortune of falling prices which the farmer may congratulate himself on having escaped.

A prominent Chicago house advises its Kansas City correspondent that the situation "means a concentrated long interest in July wheat, which will probably result in keeping local stocks large, unless an extraordinary shipping demand develops; but it also points to a concentrated short interest in September, which will require many millions of new wheat to liquidate." The wheat market has developed some firmness, and prices have scored a slight advance over the low time last week.

The Minneapolis *Daily Market Record* estimates that taking into consideration everything connected with carrying wheat for a year, say from July 1, 1893, to July 1, 1894, it is worth one-third of the crop, or that it is worth the entire value of the crop to carry it three years. The lowest price at which No. 2 wheat was sold in Chicago in July, 1892, was 76 cents per bushel. During the present June this grade of wheat has sold as low as 60 cents. If, therefore, the *Record's* estimate be correct, the speculators who have held wheat since last harvest must figure their losses as follows: Carrying charges, 25¢ cents; fall in price, 16 cents; total loss per bushel, 41¢ cents. Undoubtedly the "bears" have had the best of it during the past year.

WILL CHEMISTRY SUPERSEDE AGRICULTURE?

PART VI.

Time was when many good people objected to the consideration of such questions as this, on the supposition that the inquiry might be irreverent. It is even recorded that at one time serious objection was made to the revelations of the then newly invented telescope, and one Galileo, who had declared that the earth moves, and accounted for the succession of day and night by attributing it to the motion of the earth rather than to the supposed revolution of the sun around our planet, this Galileo, so the records say, was compelled to recant the assertion as "blasphemous." And yet all the world now agrees with Galileo, who, condemned to death by poison, and with the poisonous cup in hand, immediately after the forced recantation declared "and yet it moves." But the world is older and its people are wiser, and it is bigotry now to fear the truth, and the the most devout enter upon the most searching scientific investigations with no fear that the Almighty will ever be dethroned by any discovery of man. Thus the chemist, the physicist, the microscopist, the bacteriologist and the other specialists are diligently prying into the methods by which nature does its work; effects its combinations; brings about its results in both inorganic and organic combination. If, on discovering how nature effects any of these combinations, the investigator shall find it within his power to promote the conditions necessary to the particular result desired, the man need not greatly exalt himself, for, at most, he is only an assistant, a mere attendant, who had nothing to do with bringing into existence either the material elements or the force by virtue of which the elements combine.

It was long ago learned how to arrange the conditions necessary to produce what are known as inorganic compounds by effecting changes in the composition of native inorganic materials of the earth. But while organic compounds contain the same elements as the inorganic, though combined in different proportions, it was believed that some mysterious force capable of setting aside or superseding the ordinary forces, a force which could successfully elude the vigilance of the chemist, a force peculiar to living plants and animals, was necessary to the bringing together of the elements into organic compounds. This theory, which has been reverently held, will have to be laid away with many other once fondly cherished but now embalmed theories of the past.

Let us review a few of the earlier achievements in the so-called artificial production of organic compounds. The first of these was as long ago as 1828, before Faraday had made the small discoveries on which the great electric development is based. The German chemist, Woehner, discovered that the organic base urea might be artificially produced.

Alcohol has its uses. In most States it is used in greater variety and quantity than in Kansas. In some of its forms it has by its slaves been denominated as food, drink and lodgings for man. Well, now, the alcohol on which old Noah got drunk was probably made from grapes. That which in the later days, when the Proverbs were written, caused wine to be denounced as a mocker, was, doubtless, from the same source. The alcohol which in modern times has painted men's noses and spirited away their farms, was made either from fruits or grains. In all notable cases of the burning out of men's brains, the consuming of their proper affections, the stupefying of their moral perceptions by the use of alcoholic drinks, this compound has been derived from some product of agriculture.

Alcohol consists of the same three elements of which sugar, starch and glucose are composed. Indeed these three elements in their various combinations constitute the greater part of all organic substances. In alcohol they are in the proportion of twenty-four parts (by weight) carbon, six parts hydrogen and sixteen parts oxygen.

On the fermentation of grains or fruits under certain conditions, the starch, the sugar, the glucose and some other substances similarly composed are changed, yielding alcohol as one of the products. This alcohol may be separated by distillation. The process of obtaining alcohol by direct combination of the elements, without the use of any product of agriculture, is thus described by the earlier experimenters: First was formed the colorless gas acetylene, which consists of carbon twenty-four parts, hydrogen one. These were caused to unite by the application of electricity. By passing this gas through sub-chloride of copper acetylide of copper was produced. By placing this in contact with hydrogen, which had just been liberated from some other compound, as water, olefiant gas was produced. This consists of one part of hydrogen to twelve parts of carbon, or double the proportion of hydrogen contained in the acetylene. On agitating olefiant gas with sulphuric acid and subsequently distilling, alcohol was obtained, and that without the use of any product of agriculture. From alcohol the chemist is able to produce a large number of other organic compounds, some of which are the acids found in fats.

Glycerine, the base of the fats, is also produced by combining the elements of which it is composed. By combining this glycerine with the fatty acids, several of the fats, ordinarily produced by organic growth, are formed.

A NEW EXPERIMENT STATION.

Colorado has made provision for the establishment of a sub-experiment station in the eastern part of the State, in what irrigation farmers know as the "rain belt." The station is to be located at Cheyenne Wells, which is on the main line of the Union Pacific, which is about fifteen miles from the Kansas boundary. The site has been selected and the work of development commenced.

The benefits to be derived from the investigations conducted at this station will not be monopolized by Colorado agriculture by any means. The conditions of soil, climate and altitude in a large portion of western Kansas are practically the same as at Cheyenne Wells, and results there will be applicable in at least a score of Kansas counties. Much may reasonably be expected of this new station, principally because it has an almost unexplored field in which to work. Very little general experimental work has been done in the semi-arid regions, and practically everything is yet to be discovered. The United States grass station at Garden City has experimented in the line of grasses and forage plants with the most gratifying results. Two or three hitherto almost unknown grasses have been discovered to be of immense value in the drier regions, and the relative merits of dozens of different varieties of non-saccharine sorghums, as well as the best methods of raising them determined. Why is it not reasonable to expect as valuable and satisfactory results from carefully conducted experiments with general farm crops?

It is not at all preposterous to hope that within five years, and as a result of the experiments at Cheyenne Wells, western Kansas farmers will be growing a more certain and profitable variety of wheat than any they now have; that they will be fattening all their cattle, hogs and sheep on grain—probably peas and beans—of their own raising; and that their gardens and orchards will be more thrifty and productive because of the heed paid to the lessons taught at the station. At any rate farmers in the western counties will watch with much interest the progress at the station just over the line.

The Kansas World's Fair Commissioners want of this year's crop bundles of grain, such as wheat, oats, flax, etc. There will also be needed specimens of fruit. We urge everybody who can help in this matter to do so and notify the Kansas Commission. No State is shown to a better advantage now than Kansas when the matter of appropriation is considered. Kansas is making a highly creditable display at Chicago.

A CASE OF REVERSION.

The KANSAS FARMER has had occasion to remark on the toadyism of some American snobs in their efforts to show to their brethren that they were "standing in with" a certain Spanish princess, a young woman who attends bull fights, bets on horse races, smokes cigarettes and drinks lager beer. The entire matter has been rendered even more disgusting by the more recent boasting of New Yorkers as to the amount of money they spent on the princess.

To those of us who are unsophisticated Americans, away out here in the center of the republic, and who have grown up in the doctrine that to be an American citizen is greater than to be a king, it is difficult to account for the tendency of some of our Eastern people to "spill over," as they have done, on any rational theory of sociology.

But those who are accustomed to rearing cattle, or indeed any kind of live stock, know that even though fairly well bred for a few generations there are occasional surprising reversions to the characteristics of some undesirable ancestor. This tendency to reversion may be what ails our toadying fellow citizens. For, it has to be remembered, we are all descended from an ancestry which had for generations been taught to reverence royalty and that any recognition from the throne or any one connected therewith was a matter of importance and great note. This is exemplified in a most unaffected way by the following, which appeared in the oldest and most dignified agricultural paper in England, namely, *Bell's Weekly Messenger and Farmer's Journal*:

The Queen has honoured the capital of Scotland by addressing to it a Royal message in Her Majesty's own handwriting. Through the Marquis of Breadalbane, Lord High Commissioner to the General Assembly of the church of Scotland, the Provost and Corporation of Edinburgh recently sent to Her Majesty an address of loyalty and affection, and yesterday afternoon they were asked to attend Holyrood Palace to hear the Royal reply. The Marquis said: "My Lord Provost, I conveyed to the Queen your assurance of loyalty and attachment to Her Majesty and the Throne, and, having received the Queen's gracious reply, I invited your lordship here that you might hear it read, it being in Her Majesty's own handwriting." His lordship then read the reply as follows: "The Queen thanks Lord Breadalbane for his letter of the 18th, conveying the assurance of loyalty and attachment from the Lord Provost and magistrates of the City of Edinburgh, which she wishes him to acknowledge, on her part, with sincere thanks." The Marquis added: "I venture to say, my Lord Provost, that I think your lordship and the magistrates of the City of Edinburgh have had a very considerable honour conferred on you in having the gracious reply addressed in her Majesty's own handwriting, instead of the usual course being followed of having it sent through one of the Queen's secretaries."

Now Queen Victoria is unquestionably a very estimable old matron who has taken good care of her numerous children and has nominally something to do with the government of the country of which she is an inhabitant. But is it not a bit foolish to call the chief men of a great city together to hear read the veriest common-place note from this woman and to make so much fuss about the fact that it was written in "Her Majesty's own handwriting?" If there had been indeed some important communication to the Provost and corporation of Edinburgh, or if there had been some lofty and soul-stirring sentiment expressed, or if the elderly matron had written some elegant piece of fiction as Dickens or Scott might have written, or if she had written some such poetic production as Arnold's "Light of Asia" and had sent a copy, then indeed there might have been some reason why Breadalbane should summon the "Provost and corporation of Edinburgh" to attend "Holyrood Palace" to hear the "Royal" mission.

Yes, it was a clear case of "reversion" when the snobs of New York, the snobs of Washington and the snobs of Chicago were so silly as to tumble over each other to toady to the young Spanish princess. And when it is remembered that with Breadalbane and the Provost and corporation of Edinburgh royalty is not a novelty, while with our New York, Washington and Chicago fools it was the newness of the thing which caused them to act so, we may excuse them with thankfulness that the cases of "reversion" are not worse.

BE CAREFUL ABOUT SIGNING YOUR NAME.

There is no end to the swindling schemes devised by people who seek to acquire wealth without earning it. The latest is reported from Ohio, and is, of course, worked on the fairly well-to-do farmer whose note will sell. A clerical-looking gentleman drives up to the house and asks to be entertained over night. He talks fluently of church work, and impresses the victim in regard to his piety. Soon after he is comfortably provided for a man and a woman drive up in haste, inquiring for a minister to perform a marriage ceremony for them. The pious-looking imp volunteers his services, and the ceremony is performed. A certificate of marriage is produced, and the farmer is asked to place his name on the margin of it as a witness to the marriage. Within a short time the paper turns up at a convenient bank for collection in the shape of a note for several hundred dollars.

LESS HURT THAN HIS NEIGHBORS.

While all classes of people are affected and suffering inconvenience if not loss from the money stringency, it is doubtless true that farmers are less affected than any other, except those who have fixed incomes from unflinching sources. Indeed, the depression of the last few years, which for a time bore with especial severity upon farmers, has had the effect of causing them to take advantage of the first favorable turn, and as a result they are now, as a rule, better prepared than other producers for the stringency.

Further, when people under the pinchings of financial stringency find it necessary to curtail purchases wherever possible, they find it impossible to stop buying the staple food products of the farm, so that even though the products of some other industries may not be salable at any price there is always a demand at some price for what the farmer has to sell. The farmer may, therefore, congratulate himself on being less disastrously affected than his fellows by the financial disturbance.

CHINCH BUG REMEDY.

The reports of damage to crops by chinch bugs should be displaced by reports of diligence in the application of Prof. Snow's remedy. After the ripening of the wheat they may be expected to migrate in vast armies to the corn and corn fields. Don't wait until they have damaged the crop to the extent of 25 per cent. of its value, but proceed at once to gather a blacking-box or some other small box half full of bugs, put on the lid, wrap it neatly with paper, put your name and address on the paper, direct to Prof. Snow, Lawrence, Kas., put on a stamp and take it to the postoffice. Write a letter to Prof. Snow, telling, in your own language, what the chinch bugs are doing and ask him to send you some diseased bugs, with directions for destroying the last bug on your farm.

When you get his reply—which will come promptly, whether your letter was written in classic English or not—read the directions carefully and follow them minutely and promptly.

Enough experience has now been had with this remedy to warrant the expectation that it will succeed when the directions are followed.

Remember that the State pays Prof. Snow and his assistants for their work, so that your only expense is that of gathering and mailing the bugs from your own field, which you are expected to exchange for those sick with the contagious and fatal chinch bug disease. Let no farmer suffer damage to his crops without diligently using the means which science has placed at his disposal for the destruction of the enemy.

Furnishing Hogs to Fatten on Shares.

A few days ago the KANSAS FARMER received the following inquiry:

"I have thought for some time that I would like to invest a small amount of money in hogs and get some one to fat them on shares. Can you tell me what profit the party gets that furnishes the money, and if it is a paying business?"

The inquiry was referred to Mr.

Thos. M. Potter, of Peabody, whose experience in handling stock renders his opinion on such subjects valuable. Mr. Potter's reply is brief and to the point. He writes:

"I think it would prove a failure in nine cases out of ten."

WASHBURN COLLEGE COMMENCEMENT.

The twenty-eighth anniversary of this institution, located at Topeka, occurred on the 14th inst. Five musical recitals, a theses prize contest and oratorical and declamation contests had preceded the commencement proper and had prepared the way for it.

Long before the hour fixed for convening, the people from city and country, in farm wagons, carriages and electric cars were wending their way to the new, spacious and beautiful chapel building on the college grounds, filling the audience room to its fullest capacity. Seven graduated from the collegiate course, two from the department of music and twenty-three from the academy course.

The college was founded in 1865, and with its fine grounds, spacious and substantial buildings, growing library, museum of natural history and efficient instructors, has already become one of the leading institutions of learning in the West. Harvard, Yale, Cornell and Johns Hopkins universities admit graduates of the college on certificates from the college to regular university courses without examination. One special and valuable feature of the courses of study in this college is, that on their completion, the student is prepared to enter upon any line of professional or industrial calling, and that, too, at an age when he is most competent to elect the vocation which he prefers and to which he is best adapted.

Weekly Weather-Crop Bulletin.

Issued by the United States Department of Agriculture, in co-operation with the Kansas State Board of Agriculture, for the week ending June 20, 1893; T. B. Jennings, observer:

The rainfall this week has been confined to the eastern division and the northeastern counties of the middle division.

While the rainfall generally was moderate, it was quite heavy in a strip extending through Clay eastward to the Missouri river, and ample in Montgomery, Labette and Cherokee. Severe hail in Cloud, Clay, Riley and Pottawatomie.

The temperature and sunshine have been excessive this week, though a sudden fall in temperature on the 21st nearly amounted to a cold wave, but of short duration.

In the eastern division this has proved another very good growing week and all crops have responded accordingly. In the eastern part of the middle division the week has been fair for growing crops but good for harvest, while the western part of the middle division and throughout the western division it has been severe on all crops.

Wheat harvest has begun in the counties along the Kaw. In Sumner and Cowley the wheat is being stacked.

Corn has made a very rapid growth during the week. In the eastern division upland corn is beginning to need rain, in the eastern counties of the middle division corn is needing rain, while in the western counties of this division it is suffering for rain; in the western division there is but little corn, and it is badly in need of rain.

The oat crop is in fine condition in the eastern division, but is feeling the effects of dry weather in the middle division.

Grass is very good in the eastern half of the State generally. In Woodson and Wilson haying has commenced and is being baled for the market.

In the western part of the middle division pastures and meadows are generally short. In the western division grass is in bad shape except in river bottoms.

Chinch bugs are numerous and doing damage in the grain fields west to Ford and north to McPherson, Miami and Osage.

Hot winds prevailed in the western half of the State on the 23d, Ford, Rush

and Barton reporting them as severest ever known. Touches of hot winds in Cowley, Lyon and Coffey on 24th.

Likes the "Fool-Killer."

EDITOR KANSAS FARMER:—Thanks for "The Fool-Killer" in last week's FARMER. A frequent application of the same is what such people need. Another set who need sharp rebuke are the fellows who farm with their mouths, and attribute the crop failures caused by excessive drouths, such as we have contended with all spring, to "lack of careful cultivation, preparation of soil," etc., thus giving the notion to Eastern people that Kansas farmers are a miserably thriftless, careless set, when as a fact they know more how to combat such obstacles than any Eastern man ever needs to know experimentally.

Our drouth in this (Harper) and adjoining counties continues unbroken, and threatens to be a serious affair. No rain to call a rain since the first week in March. Less than a half crop of wheat, no oats, and the corn small and poor stand with ability to hold out only a very little while. Extremely hot winds yesterday and a sand storm from north in evening. Wells going dry and stock water hard to get. A trip last week west through Barber into southern Kiowa and northeastern Comanche is only a continuation of the same. Only one-half inch rain in all, by my measurement, has fallen since the first week of March at my place.

M. CHADLE.

Enon, Kas., June 22, 1893.

United States Yearly Population and Increase.

On the basis of the average increase, exclusive of yearly immigration, suggested by the census report for 1890, the population of July 1 of each year of the decade is approximately shown in the following compilation by the Cincinnati Price Current. The yearly rate of gain is 1.3 per cent., exclusive of yearly immigration, while for the previous decade the rate was 2 per cent. yearly:

	Increase, 12 months.	Immigration.	Total gain.	Population.
1880..	555,025	668,431	1,223,456	50,155,733
1881..	625,025	668,431	1,293,456	51,477,239
1882..	669,204	788,992	1,458,196	52,935,435
1883..	803,322	688,160	1,491,482	54,226,817
1884..	704,950	518,592	1,223,542	55,450,359
1885..	720,855	385,346	1,106,201	56,556,560
1886..	735,366	354,273	1,089,599	57,646,159
1887..	749,271	490,109	1,239,380	58,885,539
1888..	765,883	540,859	1,312,742	60,198,281
1889..	782,443	444,427	1,226,870	61,414,751
1890..	752,197	455,302	1,207,499	62,622,250
1891..	814,100	560,300	1,374,400	63,996,650
1892..	840,900	623,100	1,464,000	65,460,650

Had the rate of increase, exclusive of yearly immigration, been as great the past decade as shown for the preceding period, the population for 1890 would have been 66,937,000, or 4,315,000 more than reported, a difference of 6.89 per cent. On the basis of 450,000 as immigration for the current year, the indicated population for July 1, 1893, would be about 66,760,000.

Acreage and Production of Wheat.

Applying the June data of the Department of Agriculture to previous reports, the Chicago Trade Bulletin reaches the following approximations for 1893, compared with the returns of wheat production in 1892:

STATES.	1893.	1892.
Winter.	Est acre	Est y'd bu.
Ohio.....	2,684,000	38,650,000
Michigan.....	1,509,000	17,354,000
Indiana.....	2,561,000	30,377,000
Illinois.....	1,349,000	14,053,000
Missouri.....	1,669,000	18,029,000
Kansas.....	2,483,000	21,180,000
Kentucky.....	987,000	10,120,000
Tennessee.....	809,000	8,068,000
New York.....	493,000	7,395,000
New Jersey.....	125,000	1,737,000
Pennsylvania.....	1,311,000	16,912,000
Delaware.....	99,000	1,168,000
Maryland.....	498,000	6,723,000
Virginia.....	799,000	6,991,000
North Carolina.....	721,000	5,950,000
South Carolina.....	146,000	1,080,000
Georgia.....	241,000	1,615,000
Alabama.....	49,000	318,000
Mississippi.....	3,500	31,000
Texas.....	445,000	3,783,000
Arkansas.....	178,000	1,762,000
West Virginia.....	398,000	3,781,000
California.....	2,600,000	28,290,000
Oregon.....	635,000	10,747,000
Total.....	22,792,000	254,770,000

STATES.	1893.	1892.
Spring.	Est acre	Est y'd bu.
Minnesota.....	3,197,000	39,323,000
Wisconsin.....	700,000	9,100,000
Iowa.....	593,000	7,472,000
Nebraska.....	1,254,000	11,286,000
North Dakota.....	2,764,000	35,527,000
South Dakota.....	2,414,000	29,934,000
Colorado.....	125,000	2,500,000
Washington.....	497,000	7,446,000
Nevada.....	5,800	100,000
Idaho.....	78,000	1,404,000
Montana.....	45,000	832,000
Wyoming.....	5,000	90,000
New Mexico.....	40,000	596,000
Utah.....	102,000	1,856,000
Arizona.....	10,800	194,000
Maine.....	4,500	71,000
New Hampshire.....	2,850	38,000
Vermont.....	8,200	143,000
Total.....	11,835,450	147,019,000
Grand total.....	34,627,450	401,789,000

Publishers' Paragraphs.

E. J. Garrison, of Junction City, Kas., who took cheese-making instructions of C. E. Kittinger last year, reports complete success. Notice Mr. Kittinger's advertisement elsewhere in this issue.

"The Book of the Fair" is an elegantly illustrated showing of all of the World's Fairs ever held. The historical sketches are highly entertaining. By comparing the successive efforts in this direction it appears that the creation of these immense expositions has gone from great to greater, and that the present fair at Chicago is equal to the sum of its predecessors. The book is published by the Bancroft Company, Chicago.

On July 1 the initial number of *The Commoner*, a new liberal political review, will be issued from Minneapolis, Minn. The magazine will be a forty-eight page monthly, and the subscription price \$1 per year, or 10 cents a copy. Mr. E. L. Wirt, well known over the Northwest as an able writer upon the great questions of the day, will be the editor, and will be assisted by an able corps of contributors. *The Commoner* will be the only review of its kind to be had for \$1 per year. Sample copies sent free on application.

IN SATAN'S POWER.—"In Satan's Power," the story of a morphine slave, is what the pen of Ernest Whitton produces for the June number of *Home and Country Magazine*. It tells of the struggles of a strong man against the subtle power of this terrible narcotic. It is a graphic story, showing to what extent even a man of intelligence may become an abject slave to a habit whose continuance he knows must mean certain death. And after breaking resolution after resolution, he is finally about to give up the battle and resign himself to the inevitable fate, when something occurs which gives him the strength for which he has prayed so long. It is the sickness of his wife and child, which brings them to death's door, and forces science to its utmost skill before it can snatch the loved ones from death's grip and land them safe and sound in health and happiness, which shows that it sometimes requires one misfortune to eradicate another.

A TRUE STORY.—A gentleman well known in literary and social circles of New York entered an elevated car the other day, and took his seat beside a lady who chanced to be an acquaintance. After a few minutes' conversation, he said: "You remember when I met you on an L. car about a dozen days ago you were reading *The Youth's Companion*; I told you I had never happened to read it, and you insisted on my taking yours." "Yes, I remember." "Well I must tell you an amusing story. I took the paper home and read it. That evening an English political question was discussed at my club. I had just read a mighty clear editorial on that very question in *The Companion*, and I straightened things out for the crowd. A few days later I was with some professional gentlemen, and a certain scientific topic came up about which they were a little at sea. I suddenly remembered I had also read an article by some specialist in that same *Companion* which covered the point, and I astonished them by my familiarity with such an authority. Then last night at a dinner party, I carried off the honors by telling a couple of capital anecdotes I read in that same paper." This story has special point in view of the brilliant programme *The Companion* announces for the entertainment of its more than half million readers during 1893. The sum of \$6,500 was awarded for seven prize stories which will appear. Besides, among its contributors are nearly all the leading story-writers in America, together with a striking array of statesmen, generals, historians, scientists and travelers of world-wide fame. It comes every week in the year and costs only \$1.75 for the fifty-two weeks. Address *The Youth's Companion*, Boston, Mass.

Wonderful Jerusalem.

Jerusalem! What a world of thought is awakened by a single word spoken. Jerusalem—the loved, the hated, the idolized, the despised; destroyed and rebuilt again and again; the scene of the Savior's triumph and tragic death. The cradle of the Christian faith; the inspiration of humanity. How wonderful is thy history! What a theme for the poet and the painter. Every hill and valley so rich in tender associations, the very nerve center of religious history. Fortunately the ancient city and all the surrounding country has been reproduced by the painter's art in a great Cyclorama, showing the city in its glory under Herod, and at the time of the crucifixion of the Savior. The view upon Calvary is a triumph of religious conception and artistic painting. The whole scene is bathed in a weird twilight atmosphere that adds greatly to the intense realism of the whole. In connection with this great Cyclorama is the famous painting, Christ's Triumphant Entry into Jerusalem. These two superb historic works are on exhibition at the corner of Wabash avenue and Hubbard Court, Chicago, just two blocks south of the Auditorium. No advance of price, we are informed, will be made during the World's Fair, and one ticket admits to both exhibitions. Intending visitors to Chicago should make a note of them.

Horticulture.

FRUIT FARMING.

By I. N. Witt, read before Shawnee County Horticultural Society.

After looking around this room and seeing so many intelligent faces, which I am sure have forgotten more than I ever knew on the subject of fruits, I feel somewhat like the "ground hog," going back into my hole and staying there.

But, fellow horticulturists, I am not here to paint big red apples or blackberries on paper for you, for I don't think much of this way of farming, or sitting by a good warm stove and raising strawberries on a piece of foolscap. I am here to tell you as a brother farmer my experience and practice, and in return to gather what information I can of the best modes of cultivating small fruits. Now, fellow farmers, the practicability of fruit-growing in Kansas has ceased to be a problem, and the rapid growth of this industry into very large proportions is only a matter of short time. But the success attained will depend upon the practical knowledge of the grower. He must have some knowledge of what he is going to plant, so that he may select a good variety, suitable and adapted to the kind of soil on which he wishes to plant; and, on the other hand, he must understand and practice the proper modes of cultivation, and also of gathering and marketing the fruit.

I find that the majority of failures in fruit-growing are made by farmers who have too much other farming to attend to. They will get highly enthused in the business by listening to the cunning talk and looking at the highly painted catalogues of the tree agent. He buys a bill of trees from the agent, sets them out improperly, and the first year a good many of them die, and to finish the job, when winter comes on, he turns his cattle in to pick his corn stalks, and as a rule they stay in there until they eat and destroy all the trees also, and then the nurseryman is cursed because the trees died.

The time and attention that should be given fruit is put upon other farm crops and fruit fails for the want of care. Not one farmer in fifty knows how to grow and market fruit so as to get the most money out of it. I find to be successful in fruit-growing that it requires a great deal of practical knowledge, as well as more skill in workmanship in the use of a knife or saw. I find that it is folly to expect success when we go blundering along in darkness, not knowing why we do this or that.

A small fruit orchard should comprise but few varieties, and they should be those that are known to be hardy, productive and adapted to the soil and climate of the grower. The fruit should be of good size and handsome appearance, as well as of a good flavor. All small fruits should be picked and handled very carefully. Strawberries, blackberries and raspberries should not be more than one quart put in one box together, as they are very easily crushed and made unfit for market or use.

In this article I will confine my thoughts more particularly to the smallest fruits and vines. I will first take up the strawberries, the first of the season—that little delicious red fruit that is king of small fruits. Now, in selecting of soil, I would select a moderately level piece of ground with good soil, with gravelly subsoil. I find by experience that it is very essential to have clean ground that has not become foul with weeds. You should plow in fall if possible, then top-dress in winter with well rotted manure, and then spring cultivate this dressing into the surface and harrow well to get the ground and manure well pulverized together. Now you are ready for planting. Lay off the rows with small shovel-plow, five or six feet apart; plant eighteen inches or two feet in the row, making about 5,500 plants to the acre. Cultivate lightly with cultivator and hoe. The first two or three runners that start out, draw on a line in opposite directions in space between the rows, and let them set a plant near the parent plant. This will give you

about 18,000 plants to the acre, and then you will have about two and one-half feet between the rows. Now you have your plants established; keep off all runners and don't let any more plants form. By this mode you will form large hills or crowns, and will not form so many weak and worthless plants as in the matted system. If planting pistillate varieties, every third row should be planted to some perfect blossoming variety as a fertilizer. Keep up clean cultivation until fall, and when the first freeze comes, cover over with clean straw or prairie hay that is clean from weed seeds. In the spring rake off the straw; let it remain between the hills and rows, having a very thin covering over the hills to keep the fruit from getting dirty during rains. Now you have nothing more to do until the latter part of May, when you can get your boxes made and be ready for the first picking, and it will not come amiss to have your Jersey cow in good time, for you will likely want a good supply of cream.

Now comes the raspberry. No kind of small fruit is so easily grown as the raspberry or blackberry. Select the location and prepare as for strawberries. Lay off your rows eight feet apart and set your plants three feet apart in the row, making about 1,800 plants to the acre. Cultivate well and mulch hill with coarse manure or straw in winter. Trim off side shoots to five inches and keep up good cultivation. The better care you give the raspberries the better are the returns.

Blackberries I give about the same treatment as raspberries, excepting I let them hedge up thicker in the rows, and when the young shoots get about two or three feet high I pinch off the top and then the stalks throw out branches and make a bushy top. This is very essential to be done at the right time if you want a good crop of berries. After the crop is off the old wood dies, and the following spring this must be removed from the new shoots. I have tried many varieties and I prefer the Kittatiny as a good bearer and for hardiness above all others.

The Missouri Valley Horticultural Society.

The Missouri Valley Horticultural Society held its regular monthly meeting on the tree-shaded lawn in front of the beautiful residence of Maj. F. Holsinger, Rosedale, Kas. As usual, on these occasions, a large gathering of those engaged in fruit-growing were present. A dinner under the trees preceded the business part of the meeting.

The display of fruit, though not extensive, was the best made so far this season.

At 2 o'clock p. m. the society was called to order by the Vice President, Edwin Taylor, of Edwardsville, Kas.

The previous minutes were read and approved.

Under reports of special committees, Mr. A. Chandler, of Argentine, Kas., read an interesting report of the Missouri State meeting held in Columbia, Mo., June 6, 7 and 8.

He was followed by Maj. F. Holsinger, who gave an amusing account of the reorganization of the Missouri State Society some ten or eleven years ago. At that time but eight members were present, and five of them were from the Missouri Valley Horticultural Society. Since that time the Missouri society has grown in numbers and influence, and now ranks as one of the foremost societies in the United States.

Maj. H. White, of Kansas City, Mo., spoke of the scope and purpose of a society of this nature.

REPORTS OF STANDING COMMITTEES.

Orchards.—M. L. Goodman, of Westport, gave a discouraging report of the apple and peach crop for this year. He stated that now is the time for the true horticulturist to plant and cultivate for the future. Orchards should be well cultivated and when a good fruit year does come the thrifty orchardist will receive the benefit.

Major Holsinger thought the demand for wholesome fruit greater now than ever before. People are learning more and more to eat fruit.

Grapes.—Mr. Espenlaub, of Rosedale, reported grapes in the very best condi-

tion. He uses on his vineyard the Bordeaux mixture, which he claims is a sure preventive for rot and mildew. M. L. Goodman, of Westport, Mo., also stated that this mixture is a great help to grapes.

Mr. A. Key, of South Park, Kas., stated that he had been using Bordeaux mixture for three years and has had perfect grapes each year, while before he lost three-fourths of his grapes every year by the black rot. The cost of spraying he reported to be but a trifle, and a man can spray with satchel-sprayer three or four acres of vineyard per day. The mixture used consists of lime and copper, six pounds each, mixed in from forty to sixty gallons of water.

Small Fruit.—Raspberries and blackberries promise a bounteous harvest.

Under general exercises, little Eula Jenkins, of Kansas City, Kas., gave a prettily learned recitation. Maj. H. White, of Kansas City, Mo., read an original poem on the "Apple Tree and the Storm."

The committee appointed to pass on the fruit on exhibit were F. Holsinger, M. L. Thompson, A. Chandler.

Premiums were awarded to the amount of \$5.50, after which the fruit was sold to the highest bidder.

On motion, the society adjourned to meet on the third Saturday of August, at the home of Ambrose Key, near South Park, Kas. GEO. E. ROSE, Secretary.

Semi-Annual Meeting of Missouri State Horticultural Society.

Report read before the Missouri Valley Horticultural Society by her delegate, A. Chandler.

Arriving at Columbia, we were met at depot and taken to various homes thrown open to delegates. In the evening we repaired to Music hall and found a fine audience present. The hall was well decorated with roses, fuchsias and other plants. Dr. Pope Yeaman gave the society a most cordial welcome. He paid the society a high tribute for what it had done, and praised the business of horticulture and floriculture as both elevating and profitable. Dr. George D. Purinton read a valuable paper on botany as a study and teacher. Two ladies of Columbia read good papers on the mission and culture of flowers. The evening was also enlivened by good music and recitations given by local talent.

Wednesday, June 7, was a good meeting for beginners. Mr. Robinett, a prominent orchardist, wanted more thorough instruction in that line of work. N. F. Murry, a most thorough-going horticulturist, said it cost \$75 per acre to plant and care for an orchard five years; it was then worth \$200 per acre. Mr. Murry has had much experience both East and West. Mr. Conrad Hartsell made a most creditable showing of apples kept two years by a process known to but few.

We had the opportunity of examining several hundred seedling strawberries at the Agricultural farm, sixty of which we think could be profitably cultivated, or rather they invite further attention.

Wednesday noon lunch was served by Prof. Keefer, of the State farm, after which we inspected the strawberry farm, the ripe ones being the object of our special attention. The afternoon was spent in driving over Columbia; also visited Mr. Robinett's large orchard—6,000 apple and 2,000 pear trees. Evening spent at Music hall, enlivened by good music. Prof. Schwertzer gave a valuable talk on soils, their chemical composition, fertilizers and their value, also their cost. We hope to see the day when the Professor's knowledge can be utilized on our farms and orchards.

The society finished its work on Thursday morning, mostly executive work. Mr. G. B. Lamm, of Sedalia, informed the society that he was compiling a text-book on horticulture. It will be brief and concise. It is hoped that it will contain just what the horticulturist wants to know, and just what some of us need so much to know.

On the whole we had a good meeting; not many were present, good weather keeping many members at home.

Beecham's Pills cure indigestion and constipation.

Entomology.

Conducted by Prof. E. A. Popenoe, State Agricultural college, Manhattan, Kas., to whom queries about insects and specimens for determination may be sent, with request for reply in this paper. Answers will be published as soon as possible, unless of immediate importance no other reply will be made. Always send several specimens, where possible, with statement of habits observed and, with the plant-feeders, parts of the plant attacked, where its name is not certainly known. Specimens may be packed in a tight tin or other box, strong enough to prevent crushing in transit, and never loose in a letter. The package, addressed and marked with the name of the sender, without other writing, is mailable at the rate of 1 cent per ounce, prepaid.

The Cedar Bag-Worm Again.

There is a queer-looking insect here that is destroying our evergreen trees. The trees are covered with these small insects now. They strip the trees of their foliage and make bag-like pouches upon the trees to lay eggs in. I undertook to gather the eggs last spring but found it a big task, as we have quite a grove of them, so gave up the job. Do you know anything that will destroy these insects by spraying? If so, it would be quite a favor to me if you will let me know if you have had any experience with them, and what success. Grenola, Kas. R. E. W.

Answer.—Experiment with a spray of Paris green in water at the rate of one ounce of the poison to fifteen gallons of water, applied without an excess, yet sufficient to cover all the affected parts with a film of the poison. Rather than run the risk of scalding the foliage with too heavy an application, you should spray twice or thrice with a weak one. We do not know as yet how much of the poison the foliage of the cedar will stand without scalding, and any observations our correspondent may make in the course of his experiment will be of use to the public, which may be reached through this column of the FARMER.

"August Flower"

What is It For?

This is the query perpetually on your little boy's lips. And he is no worse than the bigger, older, balder-headed boys. Life is an interrogation point. "What is it for?" we continually cry from the cradle to the grave. So with this little introductory sermon we turn and ask: "What is AUGUST FLOWER FOR?" As easily answered as asked: It is for Dyspepsia. It is a special remedy for the Stomach and Liver. Nothing more than this; but this brimful. We believe August Flower cures Dyspepsia. We know it will. We have reasons for knowing it. Twenty years ago it started in a small country town. To-day it has an honored place in every city and country store, possesses one of the largest manufacturing plants in the country and sells everywhere. Why is this? The reason is as simple as a child's thought. It is honest, does one thing, and does it right along—it cures Dyspepsia.

G. G. GREEN, Sole Man'fr, Woodbury, N.J.

Strawberries -- Wanted: To let berry-growers know that our new Robinson strawberry is the ideal for market purposes. Is large, strong, staminate, firm as Captain Jack. 700,777 plants of other well-known varieties for sale. Send for price list. B. F. SMITH, Box 6, Lawrence, Kas.

The Royal Fruit Picker.

Price \$1.75 Address W. H. RAUCH, WICHITA, KANS.

FAT PEOPLE. Reduced by new process, safe, sure and lasting. No drugs. No cure, no pay. Advice free. Perrine & Co. Boston, Mass.

CLUB FOOT. Dr. Hartman's treatment for Club Foot. Book free to no afflicted. Address SURGICAL HOTEL, Columbus, O.

CANCER. Can be cured by Drok Method. No knife, no pain. Book free. Address PINGREE & TREAKLE, 241 Wabash Ave., Chicago.

In the Dairy.

BUTTER-MAKING ON THE FARM.

Extract of paper read at the Waupaca Institute by E. P. Goodrich and discussion thereon as given by *Farmers' Review*.

Now, I don't want to say anything that will discourage any man from patronizing the creameries. They have been a great blessing. But there are some farmers who, by reason of living far away from a factory, will have to make their butter at home. The judging of butter is by 100 points, divided as follows: Forty-five points for flavor, thirty for grain, fifteen for color and ten for salting. Now, you will see that the flavor is reckoned the highest. Now, where does this flavor come from? It comes from the food, modified in some small degree by the faculty of the cow. For winter food the best feed to give a good flavor consists of good clover hay, good corn fodder, good bran, good oats and good corn. No damaged food of any kind should be fed. Damaged silage makes bad butter; bad corn fodder will make bad butter. Then there is a condition of the cow that will have to be taken into consideration. Cows well along in gestation will often give a bad flavor to butter. We must have good food, good water and the cows must be kept in a well-ventilated stable, and be milked by dry hands into a clean pail. Now, I will show you what a big change a little thing will make. A few years ago my wife said to me one day that the butter was not just right. She examined the vessels and all other things about the dairy house to see if there was anything in the surroundings that would cause it. She could find nothing. So I said that there must be something wrong with the cows. There were two cows that had been giving milk ten and one-half months and she said that there was the trouble. We stopped using the milk from those cows and the milk was all right again. A short time after I stopped at Chicago at my commission men's place and they said to me, "What is the matter with your butter?" I tried it and found by the taste that it was not all right. I found out that it was the same trouble that had existed before, so I sent right back and said: "Stop milking Jane and Mollie." They did so and again the butter was all right. Since then the butter has been all right until here a few weeks ago, when I got a letter from my commission men saying that the butter was inferior again. My wife said that she had noticed that it was not just right, but she did not find it out till the butter had been sent to Chicago. I couldn't find the trouble till I asked my boys what kind of feed they had been giving to the cows. They said that the cows were all right, but by further inquiry I found out that the milk of one of the cows had been gargety. There had not been four pounds of milk that had garget in it, but it was enough to taint 1,000 pounds of milk. So you see that eternal vigilance is the price of good, pure milk. Now that we have got the milk, and some good milk, the question is, how to manufacture it. There has been for some years two ways of setting—deep setting and shallow setting. There is now another way—that is, to use the hand separator for extracting the cream, to be churned on the farm. I think that this is the coming way for the dairyman that has thirty or forty cows. That it is practical to turn it by hand I do not believe, for it is a difficult thing to do. I had a letter recently from my boy in Minnesota, who said that he had bought one of these machines, and had tried the hand power, but had been compelled to resort to the tread power. He says that he separates the cream from the milk as fast as three men can milk it. Before buying the machine he was getting thirty-three pounds of butter per day from forty cows; now he is getting thirty-eight pounds per day from the same cows. He is thus saving five pounds of butter per day, and at that rate he will pay for the separator in one year and have \$80 left.

Question—What will this hand separator cost?

Answer—From \$100 to \$150.

Now the deep setting of milk is on this principle, that a falling tempera-

ture will make the cream separate from the milk. For instance, if the milk is at 90° and is cooled to 40° you will get nearly all the cream there is in it. I have tried it and found it a good way to put in hot water at the first and raise the temperature to 100° and then let it fall. It will separate better. I set milk at present this way—this is by shallow setting. I set mine in broad, shallow pans. My pans are five feet long, two and one-half feet wide and six inches deep. There are four pans. I can regulate the flow of water around the pans so as to keep the milk at 60° the year round. I skim the milk when it begins to sour; we get more cream by letting it turn. When we churn the temperature is raised to 65° in the summer and 62° in the winter. If the wind blows we churn by wind power.

Q.—Do you think there is any great amount of cream left in your milk?

A.—No, sir, it don't seem so, when I get five and one-half pounds of butter from 100 pounds of milk.

Q.—How long do you churn this cream?

A.—Till the butter comes.

Q.—In how large grains do you leave your butter when you finish churning?

A.—It is churned until the granules are about the size of grains of millet; then the butter milk is poured off and water put in. Then it is drained and the same process repeated the third time. Now, you will see that this is not orthodox plan.

Q.—What kind of churn do you use?

A.—A square box creamer.

Q.—How hot is the water that you use in the milk?

A.—As hot as I can get it. Now, I want to talk a little about that. You know that the way people do is to stop the churn when the butter granules are about as large as mustard seed. Now, I know what the commission men would say if we should do that. They would say, "Your butter lacks flavor." Well, then, something has been taken out that should be left in. The butter is then worked, and one ounce of salt is put in for every pound of butter.

Q.—How do you put up your butter?

A.—In eight-pound butter pails that hold seven and one-half pounds of butter. I use parchment paper; this keeps the butter from the wood and keeps the brine from the hoops.

Q.—How do you market that butter to get such a good price?

A.—It is one thing to make good butter, and it is another thing to get a good price for it. It will depend upon luck and the market. At first I tried men in Boston, New York and Chicago, and never knew what to do. Then I wrote to a commission man in Chicago that I would send him my butter as long as I lived, and that he should send me two stencil plates. I told him I would use one for my best butter, and the other for any butter that did not come up to the point. I do not have to use the second stencil very often.

Q.—What are you getting for your butter now?

A.—I was getting 22 cents till recently, when on account of the advance in the butter market my butter is bringing 27 cents at present.

Q.—How much did you net last year per pound?

A.—Twenty-four cents per pound. There is another thing that I want to say, and that is, if you want to keep a market you must be honest.

Q.—Do you ship your butter every week?

A.—Yes, sir; I have shipped my butter every week for eight years.

Q.—How do you ripen your cream?

A.—It ripens itself.

Q.—What makes cream foam?

A.—I have not had any cream foam for many years. I think that when it did foam it was because it had been frozen.

Q.—Did you ever try brine-salting?

A.—Yes, sir; but it is not so good as the old way of salting.

Q.—What makes mottled butter?

A.—The salt has not been distributed evenly.

Q.—Do you pack right from the churn?

A.—If you pack right from the churn there will be too much water in the butter. The caseine and milk sugar

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

Royal Baking Powder

ABSOLUTELY PURE

are taken out by letting it stand before salting.

Q.—With the milk from common cows can you make as good butter as from the cows that you have?

A.—My cows are grade Jerseys. I don't believe that there is any man living that can tell from the flavor of the butter from what breed the milk was taken that made it.

Q.—What is the cost of those boxes in which you pack your butter?

A.—They cost \$1 per dozen.

The Kicking Cow.

EDITOR KANSAS FARMER:—I see that several of your readers in the dairy line have trouble with kicking cows. I will give them my plan. Of course, kindness goes a good ways. But the first thing I do when I have a young cow that never was milked or one that seems to think she is boss, is to get a halter, tie her gently to a secure place, get a strap, place it over her back behind the hips, bring it around just in front of the udder, buckle it quite snug, get your stool and milk pail, sit down, draw with both hands all the milk you want and ask no questions if dame cow likes it or not, for she will not be able to lift a leg to tell you what her sentiments are. In a few days you can leave off applying the strap.

H. W. RIEGEL.

The Poultry Yard.

White Plymouth Rocks.

The White Plymouth Rocks are not receiving the notice in the agricultural press that their merits deserve. Were their good qualities known breeders could not fill half the orders for them. The barred variety is a noble fowl, and has improved the general stock of the country more than any other fowl has ever done. But the White has one or two points in its favor not to be overlooked. Being pure white they are much easier to breed than the barred; instead of a majority being culled, they are very scarce. We have tested them thoroughly, and for a general-purpose fowl they have no successful rival. They are large, strong and vigorous; legs, beak and skin are a rich yellow. They mature quickly, which makes them very desirable as broilers. We find them very great layers and small feeders, which is a point in their favor not to be overlooked, and we think they will push the barred variety hard for first place as a general-purpose fowl.

The Care of Young Chicks.

Do not disturb the hen when hatching more than is necessary, only removing the shells so they will not interfere with the chicks in the nest. When all are hatched remove the hen, apply a little grease under the wings and upon top of head of each chick and the old hen, and place in a good coop. There is nothing better to raise a brood of chicks in than the A-shaped coop, made from weather-boarding, closed at back and slats over the front. It is a good plan to have several floors made just small enough that the coops will go over them; then if a wet spell comes

the chicks can be kept up off the wet ground. At other times they need not be used. We do not give too many chicks to a hen; fifteen to twenty is plenty. They need no water for several days, and they are apt to get wet and chilled. Some persons feed at once, others wait twenty-four to thirty-six hours. It does not matter, they eat but little at a time but they want to be fed often. The best feed is corn bread. Of course, a variety, such as boiled or baked potatoes, meat scraps, rice, cabbage, chopped fine, together with what they can pick up about the yard, all go toward making them grow; but the main stand-by is corn bread. We have tried hard-boiled eggs, boiled millet, sloppy mixed corn meal, and various other things, but it will not do; you will lose chickens by it. Then, again, you do not want your chicks upon damp ground; they must not become chilled; they must be well looked after. They need a variety of well-cooked foods, warmth, exercise and attention, and they will grow rapidly and be healthy. There is but little attention given to chickens upon the farm; they are allowed to rustle for themselves, and if they do not shell out the eggs or mature quickly into broilers they are condemned and pronounced of no account. They do not require any great amount of attention, but they do need to be looked after regularly as any other farm stock.—John C. Snyder, in *Prairie Farmer*.

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Advantages peculiar to the Vandalia and Pennsylvania lines make them the desirable thoroughfares from St. Louis to Bedford Springs, Altoona, Edensburg, or any of the delightful summer havens in the cool Allegheny mountains. By no other route can Cresson, the ideal retreat on the crest of that romantic mountain range, be reached, as the Pennsylvania is the only direct line to it, and the only one leading past the Pack Saddle and the Allegripus, around the famous Horse Shoe Curve, and along the Blue Juanita, the richest of America's scenic gems. For reaching Atlantic City, Cape May, Asbury Park, Long Branch, Ocean Grove, Sea Girt, Elberon, Ocean Beach, Berkeley, Newport, Narragansett Pier, Martha's Vineyard, Nantucket, or any of the numerous watering places that dot the Atlantic seaboard, these lines are particularly desirable. For a trip to the Adirondacks, the Catskills and resorts in northeastern New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine, exceptional facilities for a delightful journey are offered via this direct route, over which three fast through trains run daily to the East from St. Louis as follows: 8:10 a. m., 8:40 a. m., 9:00 p. m. The service includes Pullman vestibule sleeping and dining cars.

For details address Chas. E. Owen, Traveling Passenger Agent, Kansas City, Mo.

Making Cheese at Home.

Send \$1.00 to C. E. KITTINGER, POWELL, SOUTH DAKOTA, for ten rennets, with complete instruction, by mail, for making cheese at home without any costly apparatus or previous experience. Any woman can make cheese while attending household duties. Milk that will make one dollar's worth of butter will make two dollars' worth of cheese. Simplest process of all. Endorsed by the Manhattan Experiment Station and hundreds of farmers in all parts.

Give the Hen a Show,

and feed PREPARED CRUSHED OYSTER SHELLS. One pound will make shells for seven dozen eggs. 50 per cent lime in egg shells. 92 per cent lime in oyster shells. *Natural result*—more eggs, thicker shells, healthy chickens, longer period of laying. Ask any doctor, chemist or poultry fancier. They will endorse it. One hundred pound sack, \$3.50; fifty-pound box, \$1.75. H. C. NICOL, 515 Walnut St., Kansas City, Mo.

PILES, FISTULA,

And all other Diseases of the Rectum cured by Drs. Thornton & Minor, Kansas City, Mo., without knife, ligature or caustics—no money to be paid until patient is cured. We also make a specialty of Diseases of Women and Diseases of the Skin. Beware of all doctors who want any part of their fee in advance, even a note. In the end you will find them expensive luxuries. Send for circular giving names of hundreds who have been cured by us, and how to avoid sharpers and quacks. Office, No. 100 West Ninth Street. Rooms 30-31-32 Bunker Building.

The Apiary.

Edited by REV. E. T. ABBOTT, St. Joseph, Mo., to whom all communications relating to this department should be addressed. Inclose a stamp if you desire a reply by letter. We invite questions and communications from any of the readers of KANSAS FARMER who may be interested in bee culture.

A Good Way to Introduce Italian Queens.

A correspondent writes: "I think I can take brood comb and bees enough from my new swarms to build up some fine colonies by fall. Is it safe to turn a strange queen among the bees I take from another hive, at once, without first letting them get acquainted with her? If I take brood frames and bees out of different hives and put them together with queen, will they be likely to fight?"

These questions are of general interest, as they suggest a method of Italianizing colonies with comparative safety. Many would, no doubt, introduce Italian blood in their apiary if they were able to do so without danger of losing valuable queens. I will try, therefore, to answer these questions in such a way as will enable any one, who will follow my instructions carefully, to divide their colonies, and at the same time introduce Italian queens to the new artificial swarms.

I will assume that you have Italian queens in cages with a few attendant bees, as they are sent through the mails by all queen breeders. These cages are generally covered with wire cloth, and over this cloth is tacked a thin board. Remove the board entirely, and leave the candy which is placed in one end of the cage exposed so bees from the outside can get at it when the cage is placed in the hive. Now go to a strong colony and take out a frame of sealed brood, some of which is "hatching." Shake off all of the old bees and then place this frame of brood and young bees in one side of a hive which contains frames filled with foundation or empty combs. It will be well to use what bee-keepers call a "division-board" to contract the space in the hive, taking out a frame and putting a board in its place. This, however, is not absolutely necessary, if the weather is warm and the hives filled with empty combs or frames filled with foundation. Put a frame filled with foundation or empty comb in the hive from which you have taken the comb of brood and bees. Now, put the cage containing the queen and bees on top of the frame of brood, so that the few bees in the hive can get at the candy, eat it out and thus release the queen. Close the entrance of the hive and cover the frame so that no bee can get out or in. Let them alone for a day or two, and on examination you will find the queen on the comb with a cluster of bees about her. Of course it will be necessary to see that there is honey enough in the frame of brood for the bees to live on. If not, put in a frame of honey also. With a little care, one can turn the queen loose on the frame of brood and young bees at once, but there is danger of her getting out and flying away. So I think it best to let the bees release her, as suggested above.

You now have a start for a colony of Italian bees. After a few days you can take another frame of hatching brood from any hive in the yard, shaking off the old bees as before, and give them. There will be no danger of the queen being injured, as the bees on the first frame will protect her should those on the new one show any disposition to mistreat her. It is a matter of great interest to note the solicitude of the bees for the life of their queen after they have once accepted her. I was introducing an Italian queen, with a few attendant bees, to a black colony a short time ago, and was very much interested to see the Italian bees gather around their queen to protect her from the blacks, which showed a disposition to mistreat her. They stood around her like a lot of faithful warriors protecting their chief in the heat of battle. As they were very yellow and the other bees very black, their faithfulness was more noticeable, as they could be easily distinguished from the other bees in the hive.

In forming this "nucleus" colony, as it is called, be sure you do not take the

old queen when you are removing combs of brood. To make sure of this, it is well to find the comb she is on and set it to one side until the other comb is removed. Let the first comb taken out contain as little unsealed brood as possible, as there will not be bees enough in the new hive to care for it. It will be well to feed the "nucleus" colonies for a time, even though there is plenty of honey in the flowers, as the bees are all young and cannot gather much. Feeding will also stimulate the queen to lay and they will build up very rapidly. Of course, their strength at first will depend on the number of combs of hatching brood you are able to give them.

The above is the safest and best way for those who have had but little experience with bees to Italianize their colonies, as it requires a good deal of skill to introduce a queen to a strong colony of old bees without danger of loss. Young bees and weak colonies take a new queen without any trouble when they are once rendered queenless.

The entrance to all these new colonies should be left quite small until they contain sufficient bees to protect themselves against robbers.

THE SECRET OF HEALTH.

Told in a Few Words--A Book Given Away.

There are three things that every one should look out for during the heated season:

First--To keep up a good appetite and digestion.

Second--To have regular and refreshing sleep.

Third--To keep the system cleansed of all impurities.

There is but one medicine that is able to meet all these requirements. This medicine is known as Pe-ru-na, an old and tried prescription of an eminent practitioner of medicine. Pe-ru-na never fails to produce a good appetite and regular sleep, nor does it fail to expel all impurities from the system. A dose should be taken before each meal and at bed time. It is of great and lasting benefit to all people suffering from low spirits, nervous prostration, sleeplessness, over-work, exposure to the hot sun, or those recuperating from acute disease or any other condition of the system in which the blood is poor and the nerves weak. No case of consumption or Bright's disease can afford to neglect to take Pe-ru-na. It has wrought wonders in these diseases.

An excellent treatise on medicine, describing the causes and cures of the various ailments to which humanity is subject, is being sent free to any address by the Pe-ru-na Drug Manufacturing Company, Columbus, Ohio.

Gossip About Stock.

Any of our readers wanting Berkshires will find a rare opportunity by addressing Wm. B. Sutton & Son, Russell, Kansas. Owing to the light crops in that section they are compelled to sell their stock down to the minimum. They have first-class stock and will make prices right.

There is yet time for you to send your best Range fleece to Chicago for competition for the \$100 Cooper Dip sterling silver cup. Due allowance will be made for the conditions under which the fleece is grown, so that all will stand an equal chance. Wyoming, Texas and Utah sheepmen have already sent fleeces and the competition bids fair to be quite extensive. Address the fleece, with name of grower, class of sheep and growth of wool in days, to W. I. Buchanan, Esq., Chief Department of Agriculture, World's Columbian Exposition, Chicago.

J. F. Bishop & Sons, of Lincoln, Neb., whose card will hereafter be seen in the KANSAS FARMER "Breeders' Directory," are now generally known to be among the most successful and most extensive breeders of Poland-China swine in the whole country. Last fall they put up one of the best public sales of Poland-Chinas of the season. From sixty to seventy-five boars were sent out from this herd to head good herds, both inside the State and out. This season they have had farrowed a splendid lot of pigs from good strong sows of the best of breeding. They have saved nearly every pig farrowed and now have about 250 for the trade. In this herd have been used this year seven of the best boars known to the breed. Van Wert, by Seldom Seen, heads the herd. He is an excellent sire, and as an individual is second to none. Tecumseh B. 7173 S. is one of the prepotent sires of the day. Old Royalty 1666 S. is now owned by Bishop & Sons. About eighty of the pigs are sired by him. Electioneer 26947 O., by Tom Corwin 3d, Young Seldom 26329 O., by Seldom Seen, Bishop's Corwin 9226 S., by Seldom Seen 3d, and Tecumseh Eli 7285 S., by Tecumseh Chip, the \$500 hog, are the other sires. The Bishops are now at home to the trade and will book your orders for pigs or will furnish information to those who write.

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For sale by all first-class druggists, or sent by mail on receipt of \$1.00. Ask for HILL'S Tablets, and take no others. Particulars free. THE OHIO CHEMICAL CO., 51, 53, and 55 Opera Block, LIMA, O.

HILL'S CHLORIDE OF GOLD Tablets will completely destroy the desire for Tobacco in any form in from 3 to 5 days. Perfectly harmless, cause no sickness, and may be given in a cup of tea or coffee, without the knowledge of the patient, who will voluntarily stop Smoking or Chewing in a few days.

EASILY CURED

HEMP BINDING TWINE!

7³/₄ Cents Per Pound.

The Kansas Alliance Exchange Company is now furnishing a superior article of HEMP TWINE, on board cars at Kansas City, at 7 3-4 cents per pound. On the 20th of June we secured a large supply for the present harvest. This twine is all new, smooth and strong and guaranteed to be of the best quality. Terms cash with order. Address

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Has won for itself the reputation of being the lightest, easiest handled, and most perfectly balanced Harvester and Binder manufactured. Its single lever reel, raising and lowering device, and carrying spring has no equal. Never before has a Harvester and Binder met with such grand success. It has an end drive sickle, one lever self-balanced reel. A spring carries the entire weight of the machine. It has no side-draft, and weighs only 1250 pounds.

MILWAUKEE CHAIN POWER MOWER.

Its perfection is guaranteed. It is the strongest and lightest running Mower manufactured. No side-draft. No weight on horse's neck. Cutter bar can be raised by either hand or foot lever. Has a spring to float the bar.

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WHITE CITY OF TENTS

\$10 per week hires double or fly roof floor, that will accommodate a family of from 4 to 6 persons easily or 8 if they are all good natured. Several hundred of these tents located in a beautiful Grove all fenced in, making a beautiful white city of tents. The Elevated Railroad has a station within 2 minutes walk, and but 10 minutes ride to the World's Fair. A large Cafe on the grounds where exceptionally fine meals are served at the low cost of 50 cents each. 10 per cent reduction on meal tickets if bought in advance. Everything including Grove, Tents, Restaurant and sanitary conditions are planned and arranged for the comfort and convenience of guests.

At Once

Engage a tent before they are all spoken for, or you may have to pay several times the price for much poorer accommodations.

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Send thirty cents in one cent stamps for accurate, reliable, "Handy Guide" to Chicago and the World's Fair, with numerous illustrations and maps; Worth five times that amount if you expect to visit the fair. A cheaper Guide for 12 cents.

Send one dollar when you engage the tent, one-half the balance when you set your date for coming and the balance when you take possession. Each tent will be supplied with wash basin, slop pail and water bucket free. Additional furniture may be brought from home, or will be supplied by the week as follows: Woven wire beds comfortable for two, \$1.00; mattress, 60c; single mattress, 30c; single cots, 50c; double-deck cots, \$1.00; camp-chairs, each, 15c; pillows, each, 15c; sheets, each, 10c; pillow-slips, each, 10c; comforts, each, 25c; blankets, each, 35c; mirrors, 15c; towels, 1 each day, 50c. A woven wire cot for single individual with all necessary bedding one full week for \$3.50. Payable one dollar now and the balance when you take possession.

WRITE TO THE

World's Fair Temperance Encampment Ass'n., Cor. Indiana Avenue and 57th St., CHICAGO, ILL.

WE WANT RIGHT AWAY Reliable men in every section of America to represent us, advertise and keep our show cards tacked up in towns, on trees and fences along public roads. Steady work in your own county. \$75 A MONTH. SALARY AND EXPENSES PAID EVERY TWO WEEKS WHEN STARTED. J. H. SCHAFF & CO., CINCINNATI, O.

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.

SORE EAR.—We have a horse that had his ear bitten by another horse and then frozen last January. It swelled at the end and soon began to discharge. In April we had the ear amputated about half way down, but this did not stop it. It discharges now at two places and sacks run down nearly to the head and discharge a thick, yellowish matter. What should we do?
Oneida, Kas. G. T. P.

Answer.—The sacks should be split open to the bottom with a sharp knife, if it can be done; but if they cannot be opened then inject to the bottom. In either case use the following lotion to slough out any diseased tissues: Chloride of zinc, 1 drachm; water, 1 ounce; mix and inject to the bottom of the sore twice a day for three days, then inject once every other day with the following: Chloride of zinc, 4 drachms; water, 1 pint; mix.

DIFFICULT PARTURITION.—What can be done to assist a young sow that cannot deliver her pigs? I have one that has been sick for four days and is now about to die. I can touch the pigs with my finger and the head appears to be coming first, but I cannot extract them. Please answer through the KANSAS FARMER.
Blaine, Kas. M. O. K.

Answer.—The proper instrument to use in such cases is a pair of pig-forceps, which can be purchased through any dealer in surgical instruments. Where the pigs can be touched with the finger they can sometimes be extracted by inserting a stout wire with a hook on the end. We are engaged now upon a simple device, which, when completed, we think will do the work effectually and also be at a reasonable price.

CHRONIC COUGH.—I have a mare that began to run at the nose and cough about two months ago. I supposed it was distemper and gave her some powders. She stopped running at the nose, but coughs worse, and has a wheezy, rattling noise in her throat and has trouble with her breathing, at times. What is the matter and what shall I do?
Topeka, Kas. G. G. C.

Answer.—Your mare has some chronic disease of the respiratory organs; probably the result of distemper, or it may be an attack of heaves from injudicious feeding. Give her a tablespoonful of the following powder in her feed three times a day: Powdered Jamaica ginger, powdered licorice root, powdered blood root, nitrate of potash and foengreek seed, of each 4 ounces mixed. Slake one pound of lime in ten gallons of water and moisten all hay and grain with it as it is fed.

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

DEAFNESS AND HEAD NOISES CURED
by Peck's Invisible Ear Cautions. Whispers heard. Successful when all remedies fail. Sold by F. H. Hoxox, 523 B'way, N.Y. Write for book of proofs FREE

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

June 26, 1893.

CATTLE—Receipts, 5,723 cattle; 987 calves. The last week has been one of falling prices. Top sales to-day were at about 25 cents lower than a week ago, while common to good stock, as is usually the case on falling market, suffered even more.

DRESSED BEEF AND SHIPPING STEERS.

No.	Wt.	Pr.	No.	Wt.	Pr.
21.....	1,177	4 50	39 coarse.....	1,151	3 75
49.....	1,208	4 45	37.....	1,251	4 30
21.....	1,140	4 40	22.....	1,143	4 00
22.....	1,289	4 35	24.....	1,131	3 75
20.....	1,210	4 10	61.....	1,146	3 75
31.....	1,151	4 10	24.....	1,029	3 50
34.....	1,083	3 90	49.....	1,042	3 65
4.....	1,120	3 60			

C.-F. COOL STEERS.

105.....	1,237	3 60	88.....	1,203	3 75
47.....	1,046	3 90			

TEXAS STEERS.

44.....	1,075	3 80	157.....	907	3 65
56.....	985	3 10	50.....	893	3 00
22.....	1,099	2 75	46.....	974	3 00
28.....	892	3 15	27.....	820	2 85
54.....	830	2 45	55.....	801	2 55

TEXAS COWS.

131.....	667	2 00	115.....	675	2 12 1/2
156.....	645	2 80	60.....	690	2 10
96.....	704	2 20	30.....	752	2 15
85.....	783	1 80	33.....	696	1 90
28.....	665	2 25	90.....	727	2 30
26.....	804	2 35			

TEXAS CALVES.

63.....	5 50	82.....	5 75
103.....	6 50	278.....	6 00
64.....	6 25	28.....	7 00
5.....	3 00	8.....	6 25

INDIAN STEERS.

107.....	781	2 85	59.....	997	3 65
24.....	1,106	3 35	78.....	1,007	3 30
25.....	1,009	3 15	79.....	877	3 00
26.....	1,010	3 10	7.....	877	2 50
28.....	798	2 70	15.....	938	2 75

COWS.

26.....	757	1 40	23.....	746	1 80
8.....	727	2 15	11.....	797	2 30
7.....	954	2 25	2.....	800	2 00
4.....	955	2 50	18.....	918	2 30
23.....	815	2 75	5.....	1,128	3 00
1.....	1,040	2 95	3.....	883	3 10
6.....	976	3 10	1.....	1,180	3 60
1.....	1,020	3 50	7.....	1,105	3 95
1.....	1,290	3 75	4.....	1,160	3 25

CALVES.

2.....	5 50	2.....	7 00
61.....	6 50	2.....	1 75
2.....	6 00		

STOCKERS AND FEEDERS.

7.....	880	2 90	6.....	611	2 00
6.....	546	2 70	2.....	527	2 25
3.....	750	3 00	4.....	390	2 50
17.....	645	2 80	10.....	880	2 65

HOGS—Receipts, 4,497. As with cattle, the prices were far below those which have recently prevailed and sharply lower than a week ago, or even last Saturday. The bulk of sales were at about \$5.60.

PIGS AND LIGHTS.

No.	Dock.	Av.	Pr.	No.	Dock.	Av.	Pr.
61.....	162	5	35	83....	120	163	5 40
63....	40	177	5 70	78....	40	170	5 75

REPRESENTATIVE SALES.

65.....	80	238	5 52 1/2	58.....	40	224	5 25
68.....	200	239	5 60	31.....	120	249	5 50
56.....	40	212	5 60	84.....	40	184	5 77 1/2
82.....	40	228	5 60	64.....	40	228	5 62 1/2
185.....	160	242	5 65	76.....	200	200	5 72 1/2
57.....	40	180	5 75				

SHEEP—The supply was liberal. About half were good and remainder common quality. Trade was dull.

234 Tex.....	76	3 75	25 Tex.....	70	2 75
107.....	106	4 35	399 Tex.....	79	3 85

Chicago.

June 26, 1893.

CATTLE—Receipts, 11,000. Market 10@15c higher, 3,000 Texans strong. Beef steers, \$3 85@2 40; stockers and feeders, \$3 00@4 15; bulls, \$2 50@3 70; cows, \$1 50@3 80; Texas cows, \$2 00@2 35; Texas steers, \$3 85@3 85.

HOGS—Receipts, 39,000. Market opened 25c lower, closed 10@15c better. Mixed, \$5 85@6 10; heavy, \$5 75@6 20; light weights, \$6 00@6 25.

SHEEP—Receipts, 13,000. Market dull. Natives, \$3 25@4 45; lambs, per cwt., \$4 15@5 50.

St. Louis.

June 26, 1893.

CATTLE—Receipts, 5,000. Texans steady to strong. Native steers, common to best, \$3 50@4 10; Texans, \$2 55@3 70.

HOGS—Receipts, 2,000. Market 25c lower. Top, \$6 15. Bulk, \$5 75@5 90.

SHEEP—Receipts, 4,900. Mostly through Texans. Market steady. Natives, \$3 00@4 00.

GRAIN AND PRODUCE MARKETS.

Kansas City.

June 26, 1893.

In store: Wheat, 752,611 bushels; corn, 120,193 bushels; oats, 48,632 bushels, and rye, 6,763 bushels.

WHEAT—Receipts for forty-eight hours, 30,000 bushels.

The tone of the market was better than for some days. July opened and closed at 54 1/2c; September opened at 53 1/2c and sold up 1c, closing firm at 54 1/2c; sample lots sold more quickly than for some days. No. 2 hard bringing 62 1/2c and closed firm. By sample on track, on the basis of the Mississippi river (local 6c per bushel less): No. 2 hard, 10 cars 60 to 61 pounds at 62c, 1 car 60 pounds at 62 1/2c, 4 cars choice 60 to 61 pounds at 62 1/2c; 15,000 bushels elevator wheat for export at 61 1/2c; No. 3 hard, 1 car at 60 1/2c; 3 cars 57 to 57 1/2 pounds at 61c, 2 cars choice 58 1/2 to 60 pounds at 61 1/2c. No. 4 hard, 1 car 59c, 1 car at 60c; rejected 1 car at 56 1/2c; No. 2 red, nominal at 62c; No. 3 red, nominal at 60 1/2c, sale of 1

car at 60c, and 1 car at 61c; No. 4 red, nominal at 58 1/2c.

CORN—Receipts for forty-eight hours, 19,000 bushels.

Demand better and market firmer, both for white and mixed; the East and South both buying and some 1c demand. By sample on track, local: No. 2 mixed, 34 1/2@34 1/4c, as to billing; No. 3 mixed, 33 1/2@34c; No. 2 white, 33 1/2@34c; No. 3 white, 33 1/2@34c. Sales: No. 2 mixed, 1 car local at 34c, 1 car local at 34 1/2c, 1 car at 34 1/2c, 8 cars at the river at 33 1/2c; No. 3 mixed, 1 car at 33 1/2c and 1 car at 34c; No. 2 white, 2 cars local at 34 1/2c, 5 cars Memphis at 41 1/2c.

OATS—Receipts for forty-eight hours, 14,000 bushels.

More coming in and market dull. By sample on track, local: No. 2 mixed, 25 1/2@26 1/2c; No. 3 mixed, 24 1/2@25c; No. 2 white, 23 1/2@24c; No. 3 white, 23 1/2@24c. Sales: No. 2 mixed, 2 cars at 25 1/2c, 1 car choice at 27c; No. 3 mixed, 5 cars at 25c.

FLAXSEED—Steady and in good demand at 96c per bushel upon the basis of pure.

BRAN—Dull. We quote bulk at 45c and sacked at 52c per cwt. in car lots.

HAY—Receipts for forty-eight hours, 140 tons, and shipments, 60 tons. Market dull and weak. Old prairie hay, fancy, per ton, \$8 00; good to choice, \$6 50@7 50; prime, \$5 00@6 00; common, \$4 50@5 50; timothy, fancy, \$10 00, and choice, \$8 50@9 00; new prairie, good to choice, \$6 00@7 50.

St. Louis.

June 26, 1893.

WHEAT—Receipts, 18,001 bushels; shipments, 4,000 bushels. Market closed 1 1/2@1 3/4c higher than Saturday. Cash, No. 2 red, 61 1/2c; June, 62 1/2c; July, 61 1/2c@62c, closing at 62c; August, 63 1/2c@65c, closing at 65 1/2c; September, 66 1/2c@67c, closing at 67 1/2c.

CORN—Receipts, 69,000 bushels; shipments, 45,000 bushels. The market closed 1/4@1/2c up. No. 2 mixed, cash, 38 1/2c; June, 38 1/2c; July, 38 1/2c@39c, closing at 39c; September, 39 1/2c@39 3/4c, closing at 39 1/2c.

OATS—Receipts, 14,000 bushels; shipments, 14,000 bushels. Market higher. No. 2, cash, 29c; July, 27 1/2c; August, 24 1/2c; September, 25 1/2c.

WHEAT—Receipts, 17,000 pounds; shipments, 63,100. Market firm, slow. Medium—Missouri and Illinois, 17 1/2c; Kansas and Nebraska, 15@16c; Texas, Arkansas and Indian Territory, 8 to 12 months, 16@17c; Montana, Wyoming and Dakota, 15@16c; Colorado, New Mexico and Arizona, 17@18c. Coarse—Missouri and Illinois, 15@17c; Kansas and Nebraska, 13@15c; Texas, Arkansas and Indian Territory, 14@16c; Montana, Wyoming and Dakota, 11@13c; Colorado, New Mexico and Arizona, 12@14c. Tub-washed, choice, 26 1/2c.

Chicago.

June 26, 1893.

Cash quotations were as follows: **WHEAT**—Receipts, 64,000 bushels; shipments, 260,000 bushels. No. 2 spring, 65 1/2c; No. 3 spring, f. o. b., 55 1/2@57c; No. 2 red, 65 1/2c.

CORN—Receipts, 478,000 bushels; shipments, 410,000 bushels. No. 2, 40 1/2@41c. No. 3, 38c.

OATS—Receipts, 405,000 bushels; shipments, 345,000 bushels. No. 2, 29 1/2@29 3/4c; No. 2 white, f. o. b., 32 1/2@33c; No. 3 white, 30 1/2@32c.

Liverpool, Eng.

June 26, 1893.

WHEAT—Market was steady demand fair; holders offer moderately. No. 1 California, 5s 10 1/2d@6s per cental [\$0.85 to \$0.87 per bushel]; red western spring, 5s 1 1/2d per cental [\$0.85 per bushel]; No. 1 red western spring, 6s 4 1/2d@6s 5 1/2d per cental [\$0.92 to \$0.94 per bushel]; No. 2 red winter, 5s 7 1/2d@5s 8 1/2d per cental [\$0.82 to \$0.84 per bushel].

CORN—Market firm and demand moderate. Mixed western, 4s 4 1/2d per cental [\$0.59 per bushel].

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Each bid must be accompanied by a certified check for a sum not less than 5 per cent. of the amount of the proposal, made payable to S. M. Scott, President of the Board of Public Works, State of Kansas, which sum, it is agreed, shall be retained and kept by the State of Kansas in liquidation and judgment for damages that may be sustained by the State through the successful bidders if they fail to enter into a contract and give the required bond on or before July 10, 1893.

The right is reserved by the board to reject all bids if it is deemed in the interest of the State so to do.

No proposals will be received after the time above designated.

Each proposal will be enclosed in an envelope, sealed and marked, "Proposals for work and materials required for the completion of an assembly room addition at the institution for the deaf and dumb at Olathe, Kas.," and addressed to Wm. Wykes, Secretary Board of Public Works, State of Kansas.

Companies or firms bidding will give their individual names, as well as the firm name, with their addresses.

The attention of all bidders is called to chapter 114 of the session laws of 1891, which they are expected to comply with in all State contracts.

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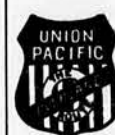
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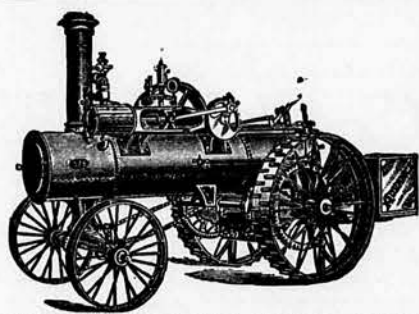
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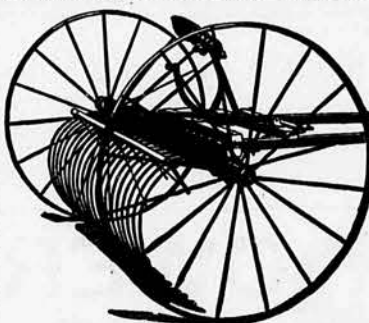
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If so, and if you are con-
tinuing its use, you are still losing money.

Better throw it away; (don't give
it to any one for that would be doing
them an injury,) and buy one made
by us. Our rakes have the very best

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made to last. We guarantee them to do good work when
properly handled. We have been making Rakes, Plows and other agricul-
tural implements for over half a century and our guarantee means something.

Ask your Dealer for descriptive circular. If he has none send to us for it.

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WELL MACH'Y All Kinds, Water, Gas, Oil,
Mining, Ditching, Pumping,
Wind and Steam Heating Boilers, &c. Will
pay you to send 25c. for Encyclopedia, of
1500 Engravings. The American Well Works, Aurora, Ill.
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Sheet Iron Building Material
Siding, Ceilings, Roofings, Shutters, Imitation
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St. Louis. • • Cincinnati.

Double Action Rubbing and
Washing Machine.

Washes as clean as the
old hand wash board; will
wash 14 shirts in 7 min-
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quicker and easier than
any other made. Has
great lever purchase.
Agents wanted. Write
W. J. POTTER,
Manufacturer, Tama, Ia.



The Most Successful Remedy ever discov-
ered, as it is certain in its effects and does not
blister. Read proof below:

KENDALL'S SPAVIN CURE.

MALTA, OHIO, July 4th, 1892.
DR. B. J. KENDALL CO.:
Gents:—I am using your "KENDALL'S SPAVIN
CURE" on a valuable driving horse, with won-
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I have cured this horse of a Thoroughpin,
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with "KENDALL'S SPAVIN CURE." You are at lib-
erty to use my name, if desired, in asserting to
these facts.
Yours truly,
MILES N. WOODWARD,
Owner, Breeder and Dealer in Fine Horses.
Price \$1.00 per bottle.

DR. B. J. KENDALL CO.,
Essexburgh Falls, Vermont.

SOLD BY ALL DRUGGISTS.

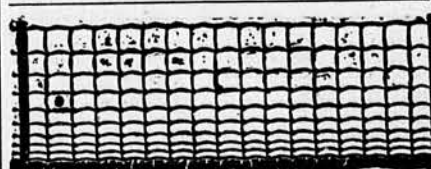
SAVE AGENTS PROFITS.
\$8.75 Buys a \$30 Sewing Machine,
If you want the latest, lightest running,
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durable; easiest to
operate Sewing Machine in the world,
send for catalogue, J. K. Kool & Co.,
Dept. A 1 216 S. Main St., CHICAGO, ILL.

ZINC Collar Pads
WILL CURE YOUR SORE NECK HORSE.
Ask Your Harness Maker for Them.

Whoa! Stop!! Read!!!

Increase your Income by saving on your purchases.
We can save you 33 1/2 per cent. on all horse goods.
Never before has such bar-
gains been offered direct to
the consumer. We manu-
facture all kinds and styles
of horse goods, both single
and double Harness, and
all styles and grades of
Vehicles for horse or pony,
dog or goat. Call at our
office when attending the World's Fair and get ac-
quainted with us, and see for yourself what we are
"saving" for consumers. Be sure and see our two
fine Exhibits at the World's Fair. Our leaders, \$5.50
Harness, \$55 Buggy, \$10 Road cart, etc., may be
seen there. Send at once for our new Handsome
Illustrated Catalogue.

FRANK B. BARKLEY MFG. CO.,
GARDEN CITY BLOCK, CHICAGO, ILL.
Mention KANSAS FARMER when answering.

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THE HUNDRED FEET.

Height—Five feet, the standard.
Spaced—Close at the bottom where the obtru-
sive pig. Wide at top where sweeps the
unobstructed view.
Strength—To stop the mad career
Of running steeds
Though wild with fear.

Every foot of every panel, a perfect self-regulator.
This is the ready-made fence built by the
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

Earn Money
—BY—
Saving Money

MANY AN OLD BOOT
or shoe would last a little longer if it had a little
patching done to it, and yet it is thrown away be-
cause of the inconvenience and expense of taking
it to the shoemaker.

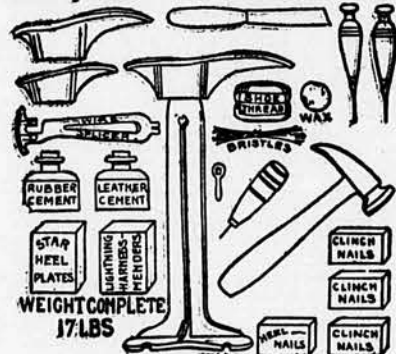
MANY A RUBBER BOOT
has been rendered useless by reason of a nail-hole
in the sole, and you never could think to take it
to the shop for repair.

MANY A RUBBER COAT
is made uncomfortable by a leak in the seam and
nothing at hand to stop it.

MANY AN ACCIDENT
has occurred by having a defective strap in the
harness because the means were not at hand for
repairing it.

MANY DISCOMFORTS
inconveniences and losses such as the above can
be avoided by purchasing a Handy Cobbler, a
complete outfit for repairing boots, shoes, rubber
boots, rubber coats, harness and a hundred odd
jobs around home. It is a money-saving outfit,
and you should have one at once. See the tools it
contains.

HANDY COBBLER



THE BOX CONTAINS

One set iron lasts, three sizes; one iron standard;
one shoe hammer; one shoe knife; one sewing awl;
one harness awl; one pegging awl; one box light-
ning harness menders; four packages shoe nails,
assorted; six pairs heel-plates; one bottle liquid
rubber cement; one bottle liquid leather cement;
one ball shoe thread; one ball shoemaker's wax;
one dozen bristles.

The most economical and convenient set of tools
for home repairing ever offered.

THE PRICE of this box of tools at retail is
\$2.50. We have made a contract with the manu-
facturers whereby we can offer it to KANSAS FARMER
patrons at a bargain, viz.: KANSAS FARMER one
year and this box of tools free on board cars at
Moline, Ill., for \$2.35. Or for six subscriptions
and \$6.00 we will have it delivered to you free.
Freight charges to be paid by receiver on receipt of
box. Address

KANSAS FARMER CO., Topeka, Kas.

3.50 HUNTING CASE FREE.



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to every reader of this paper.
Cut this out and send it to us
with your full name and ad-
dress, and we will send you
one of these elegant richly
jeweled gold finished watches
by express for examination,
and if you think it is equal in
appearance to any \$25.00 gold
watch, pay our sample price,
\$3.50, and it is yours. We send
with the watch our guarantee
that you can return it at any
time within one year if not
satisfactory, and if you sell
or cause the sale of six we
will give you One Free. Write
at once as we shall send out
samples for sixty days only.
THE NATIONAL MFG
& IMPORTING CO.,
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If your local dealer does not keep
Paddock's Angler's Outfits
send stamp for catalogue to PADDOCK
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MILLET A SPECIALTY.
Red, White, Alfalfa and Alsike Clovers,
Timothy, Blue Grass, Orchard Grass, Red
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KANSAS CITY, MO.

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You will have
the Best Crop
if you buy

Our Novelties: Glass Radish, Jerusalem and Kansas
King Corn, Denver Lettuce and Kansas Stock Melon.
Our Specialties: Onion Seed and Sets, Alfalfa, Esper-
sette, Kafir Corn, Cane, Millet, Seed Corn, Tree Seeds for
timber claims and nurseries. Everything in the seed line
Catalogues mailed Free on application.
KANSAS SEED HOUSE, F. Barteldes & Co., Lawrence, Kan.

TWO-CENT COLUMN.

"For Sale," "Wanted," "For Exchange," and small
advertisements for short time, will be charged two cents
per word for each insertion. Initials or a number
counted as one word. Cash with the order.
Special:—All orders received for this column from
subscribers, for a limited time, will be accepted at one-
half the above rates, cash with order. It will pay. Try it!

I WILL SELL.—A one-third part in an irrigated
company. Stone dam complete, five miles of
ditches cut; water sufficient to irrigate 500 acres of
land at any time; located where vegetables and feed
bring the best prices. My crop for one hand will be
worth \$1,500. Sixty acres on place can be irrigated,
thirty in cultivation. Reason for selling, business
back East; can't run both. Will take \$3,000. Will
double in value in two years. For further particu-
lars address E. B. Mitchell, Grand Valley, Okl.

GOOD HOME AT A BARGAIN.—Two hundred
acres, with good orchard, fair buildings, water,
timber and bottom land. Unimproved. Near mar-
ket. For particulars, address soon, C. Hodgkin,
Dwight, Morris Co., Kas.

MUST SELL.—My Mammoth Kentucky Jack. War-
ranted. Horses to trade. W. T. Dawson, Neo-
sho Rapids, Kas.

RECEIPT.—For making "The Pearl Laundry Soap"
to readers of this paper, only 25 cents. Send at
once to R. Q. Hankins, Ashton, Kas.

480 ACRE FARM FOR SALE.—In Marshall
county, Kansas. Well improved. Watered
by springs. For particulars, address N. Carter, Blue
Rapids, Kas.

YOUNG JERSEY BULL CALF FOR SALE.—Of the
best breeding and very cheap. D. D. Terry, Pen-
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SEND 15 CENTS.—Silver or stamps, for a receipt
for making leather water-proof. The first per-
son from each State answering this advertisement
will receive a World's Fair souvenir coin. Refer-
ence, postmaster. W. G. Young, Latrobe, Pa.

WE ARE BUYERS.—Of Meadow fescue or En-
glish bluegrass, clover and timothy seed. Mail
samples and correspond with us. F. Barteldes & Co.,
Lawrence, Kas.

FOR SALE.—Thirty English Berkshire pigs, both
sexes, ready to deliver in thirty days. Send in
your orders. Breeding, Longfellow and Model Duke,
Gentry's strain. Also some choice Jersey bull calves
from tested cows. The LaVeta Jersey Cattle Co.,
Topeka, Kas.

FOR SALE CHEAP.—Good 160 acre farm near Em-
poria. Part bottom; fenced; 110 acres culti-
vated; orchard, meadow, pasture, water; fair house
and outbuildings. Must sell or trade. Only \$16 an
acre. "Opportunity," Lock Box 1093, Emporia, Kas.

LANGSHIANS AND LEGHORNS.—Handsome
and hardiest on earth. Eggs from prize-winners
\$1. James Burton, Jamestown, Kas.

FOR SALE OR TRADE.—For real estate, stock or
merchandise, imported black Percheron stallion,
French Coach and black jack. Must sell at some
price. Box 105, Spring Hill, Johnson Co., Kas.

GALLOWAY BULLS FOR SALE.—I have some
fine young Galloway Bulls for sale cheap; also
Scott Collie Pups. Come and see them, or address,
F. R. Huntton, Snokomo, Wabunsee Co., Kas.

THOROUGHbred STOCK FOR SALE.—The
Farm Department of the Kansas State Agricul-
tural College offers to sell several fine recorded
Short-horn bulls and heifers; also an Aberdeen-
Angus heifer and a young Hereford cow. Address
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PLYMOUTH ROCK AND M. B. TURKEY EGGS.—
Send for circular. John C. Snyder, Constant,
Kansas.

BARRED PLYMOUTH ROCKS exclusively. Eggs
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PRESERVE YOUR EGGS.—How to keep eggs fresh
the year round. Formula mailed for 50 cents.
John B. Campbell, Lock Box 305, Topeka, Kas.

200 good canners wanted at once to sell nur-
serv stock for the Seneca Nurseries. Steady
employment all the year. Outfit free. Write at
once. S. J. Baldwin, Seneca, Kas.

FOR SALE.—Leslie's poplar octagon 1 quart berry
boxes, per 1,000, \$2.25; crates for same, per 100,
\$8.00. F. Barteldes & Co., Lawrence, Kas.

FOR SALE OR TRADE.—Farm fifty miles north-
west of Chicago. Address Alex. Gardner, Rich-
land, Shawnee Co., Kas.

LIMITED OFFER.—By special arrangement for a
short time we are enabled to supply our readers
with the KANSAS FARMER and the Weekly Capital,
both one year for only \$1.25. Make remittances to
KANSAS FARMER CO., Topeka.

RED POLL BULLS.—For sale, three Red Poll bulls,
one imported 6 years old, one 2 and one 1 year
old, from imported stock. Will sell cheap or will
exchange one for same kind of animal. Corres-
pondence or inspection solicited. D. S. Fraser, Res-
body, Kas.

FOR SALE CHEAP.—Mounted 10 ft. Dingee-Wood-
bury power. Has been used less than two weeks
and guaranteed all complete (with equalizers) and
in good condition. Will be delivered at any station
desired. For further particulars address Power,
care this paper.

FOR SALE.—Scotch Colley pups, cheap. Farmers,
now is your chance to get a good dog. E. B.
Davis, Columbus, Kas.

WANTED.—Large stock ranches. Horses and
cattle in exchange for land, Kansas City or
Topeka property. John G. Howard, 423 Kansas
Ave., Topeka, Kas.

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LATEST!
CHEAPEST! BEST!

We keep all kinds of bee supplies. Send for free
circular. Satisfaction guaranteed. ST. JOSEPH
APIARY CO., St. Joe, Mo. L. Box 146.
E. T. ABBOTT, Manager.

300 EGG INCUBATOR, ONLY \$12.50
F. M. CURYEA, Greenwood, Neb.

MISCELLANEOUS.

F. M. WOODS,
Live Stock Auctioneer, Lincoln, Neb.
Refer to the best breeders in the West, for whom I
do business. Prices reasonable and correspondence
solicited.

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DENTIST.—Graduate Ontario Veterinary Col-
lege, Canada. Veterinary Editor KANSAS FARMER.
All diseases of domestic animals treated. Ridding
castration and cattle spraying done by best approved
methods. Will attend calls to any distance. Office:
Manhattan, Kas.

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Manhattan, Riley Co., Kas. Have thirteen dif-
ferent sets of stud books and herd books of cattle
and hogs. Complete catalogues. Retained by the
City Stock Yards, Denver, Colo., to make all their
large combination sales of horses and cattle. Have
sold for nearly every importer and noted breeder of
cattle in America. Auction sales of fine horses a
specialty. Large acquaintance in California, New
Mexico, Texas and Wyoming Territory, where I
have made numerous public sales.

MODELS.—For patents and experimental ma-
chinery. Also brass castings. Joseph Gerdum
& Sons, 1012 Kansas Ave., Topeka, Kas.

MILLET AND CANE SEED

Wanted. Send samples and will make bids.
J. G. PEPPARD, 1400-1402 Union Ave.,
Kansas City, Mo.

THE STRAY LIST.

FOR WEEK ENDING JUNE 14, 1893.

Marion county—W. H. Evans, clerk.

HORSE—Taken up by Adam Fox, in Liberty tp.,
P. O. Creswell, May 28, 1893, one dark bay horse,
four white feet, bald face; valued at \$40.

Chase county—M. K. Harman, clerk.

MARE—Taken up by Eugene Pottier, in Cotton-
wood tp., P. O. Cedar Point, June 5, 1893, one iron-
gray mare, left front foot cut with barb wire (scar),
white strip in face; valued at \$45.

Cherokee county—P. M. Humphrey, clerk.

MARE—Taken up by C. D. Ward, in Lyon tp., one
light bay mare, fourteen hands high, brand on left
shoulder, star in forehead, shod all around.

Bourbon county—G. H. Requa, clerk.

HORSE—Taken up by Patrick Gorman, in Free-
dom tp., June 10, 1893, one roan horse, supposed to
be 8 or 10 years old, fifteen hands high, black mane
and tail, saddle marks on back; valued at \$20.

FOR WEEK ENDING JUNE 21, 1893.

Sherman county—E. J. Scott, clerk.

PONY—Taken up by J. C. Denny, in Sherman tp.,
P. O. LaBanche, June 7, 1893, one bay horse pony,
branded XX, PT. T. O.

Chautauqua county—G. W. Arnold, clerk.

HORSE—Taken up by B. H. Veal, in Harrison tp.,
P. O. Hewins, one light bay horse, 10 years old, six-
teen hands high.

HORSE—By same, one light bay horse, 10 years
old, fifteen hands high, no marks or brands.

HORSE—By same, one light bay horse, branded
"R" on left shoulder.

FOR WEEK ENDING JUNE 28, 1893.

Barton county—R. P. Tyler, clerk.

MULE—Taken up by Joseph Hagler, in Cheyenne
tp., May —, 1893, one bay mare mule; valued at \$30.

Douglas county—W. A. Churchill, clerk.

COW—Taken up by John H. Byrd, in Wakarusa
tp., June 17, 1893, one red and white dehorned cow,
left ear cropped.

Rush county—W. J. Hayes, clerk.

MARE—Taken up by G. C. Mohr, in Pioneer tp.,
June 3, 1893, one bay mare 4 or 5 years old, white
star in forehead, white spot on nose, right front foot
white, black mane and tail, fourteen hands high,
weighs about 800 pounds, brand 8 on right hip.

PONY—Taken up by Byron Lynde, in Hampton
tp., P. O. McCracken, May 28, 1893, one dark brown
mare pony, with three white feet, white spot in fore-
head and white spot on nose, brand on left shoulder.

Riley county—Chas. G. Wood, clerk.

PONY—Taken up by Charles E. Gridley, in Center
tp., June 24, 1893, one dark bay mare pony, thirteen
hands high, no marks or brands; valued at \$25.

Franklin county—O. M. Wilber, clerk.

STEER—Taken up by J. M. Crawford, in Peoria
tp., June 23, 1893, one spotted red and white steer, 1
year old, no marks or brands; valued at \$12.

SPECIAL ANNOUNCEMENT.

We have made arrangements with Dr. B.
J. Kendall Co., publishers of "A Treatise
on the Horse and his Diseases," which
will enable all our subscribers to obtain a copy
of that valuable work free by sending their
address (enclosing a two-cent stamp for
mailing same) to Dr. B. J. KENDALL
CO., ENOSBURGH FALLS, VT. This book
is now recognized as standard authority
upon all diseases of the horse, as its
phenomenal sale attests, over four million
copies having been sold in the past ten
years, a sale never before reached by any
publication in the same period of time.
We feel confident that our patrons will
appreciate the work, and be glad to avail
themselves of this opportunity of obtaining
a valuable book.

It is necessary that you mention this
paper in sending for the "Treatise." This
offer will remain open for only a short time.

CHICKEN-HATCHING BY STEAM

IMPROVED VICTOR
INCUBATOR
Simple, easy of operation, self-regu-
lating, reliable, fully guaranteed.
Send 4c. for full catalogue. Geo.
Bartel & Co., Mrs. Quincy, Ill. U.S.A.

H. P. DILLON, President.

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TOPEKA, KANSAS. A strong Western Company. Insures against fire, lightning, wind storms
cyclones and tornadoes. Losses paid, over \$105,000. Agents wanted everywhere in Kansas.

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And add \$1 in value to your Cockerels. Invented by me, after practical experience of many years at
caponizing. They do the work right. Cause no deaths. A boy can do the work with them. Are simple,
plain, durable, practical and cheap. Will last a lifetime. Explicit instructions sent with each set.
Price, \$2.50 postpaid. Dow's "Caponizing" a book that tells you all about the work. The
advantages, tools required, how to do it, age, time, how to feed and dress a Capon. Everything. By
mail, paper, 25 cents; cloth, 50 cents.
Address **GEORGE Q. DOW, North Epping, N. H. CHICKENS.**

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Lately Established at 18th and Liberty Sts.,

Is in the interest of the producer and shipper. Exact weights are assured, honest practices compelled,
and convenience given shippers, commission men and buyers. Two-thirds of the hay firms in Kansas
City are doing business through the Exchange. See that your hay is billed to your commission man, care
THE HAY EXCHANGE, and thus given honest weights and honest sales. All hay so billed is insured
without extra cost. Mention this paper.

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LIVE STOCK COMMISSION MERCHANTS.

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The well-known firm **PETERS BROTHERS**, have consolidated with us

And respectfully ask a continuance of their former patronage. Your business solicited.
Money advanced to Feeders. Market Reports sent Free on application.

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J. P. DAVIS, President. JOHN E. MOON, Secretary.

Issues all the most attractive policies of Renewable Term, Ordinary Life, Limited Payment Life
and Endowment Insurance. All, except the Renewable Term policies, have large guaranteed cash sur-
render values at the end of each year after the second from date of issue, and participate in annual divi-
dends.

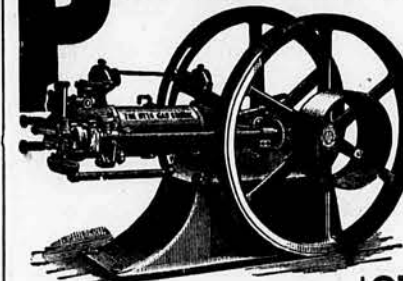
\$100,000 Deposited with the State Treasurer of Kansas.

Assets, January 1st, 1893, \$191,829.27.
Death claims paid to April 15th, 1893, 410,000.00.

For policy or agency, address,

J. P. DAVIS, President.

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DIRECT FROM THE TANK
CHEAPER THAN STEAM.

No Boiler. No Steam. No Engineer.
BEST POWER for Corn and Feed Mills, Baling
Hay, Running Separators, Creameries, &c.

OTTO GASOLINE ENGINES

Stationary or Portable.
1 to 50 H. P. 8 to 20 H. P.

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ONLY CONCERN IN THE WEST DEALING EXCLUSIVELY WITH
THE CONSUMER and giving him the benefit of manufacturers' prices.
Goods are first-class in every particular; fully warranted for 2 yrs.
A home institution entirely distinct from any Eastern concern.
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BUY ADAM'S PORTABLE GRANARY

The only practical ready-made granary manufactured.

SEND FOR PRICES, ETC.

W. J. ADAM, - Joliet, Illinois.

FREE CHEROKEE FARMS STRIP.

Write to G. T. NICHOLSON, G. P. & T. A., A. T. &
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ed folder describing

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and the Tonkawa, Pawnee and Kickapoo Reservations,
soon to be opened for settlement by U. S.
Government. Millions of acres in the finest agri-
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by the husbandman's plowshare. This is almost
the last chance to obtain one of Uncle Sam's free
farms.

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DELAWARE, ILL.
Proprietor Illinois Central
Herd of Recorded Chester
Whites 100 Pigs for sale.
Illustrated catalogue free.

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Accommodations in substantial Stone and
Brick buildings, both in the WORLD'S
FAIR DISTRICT and just outside. We
can suit ALL tastes and pocketbooks. 65
cents a day up; meals, 30 to 50 cents. Har-
vey Hotel receipts for \$3 or less, received
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THE ZIMMERMAN
The Standard Machine
Different sizes and prices. Illustrated Catalogue free.
THE BLYMER IRON WORKS CO., Cincinnati, O.