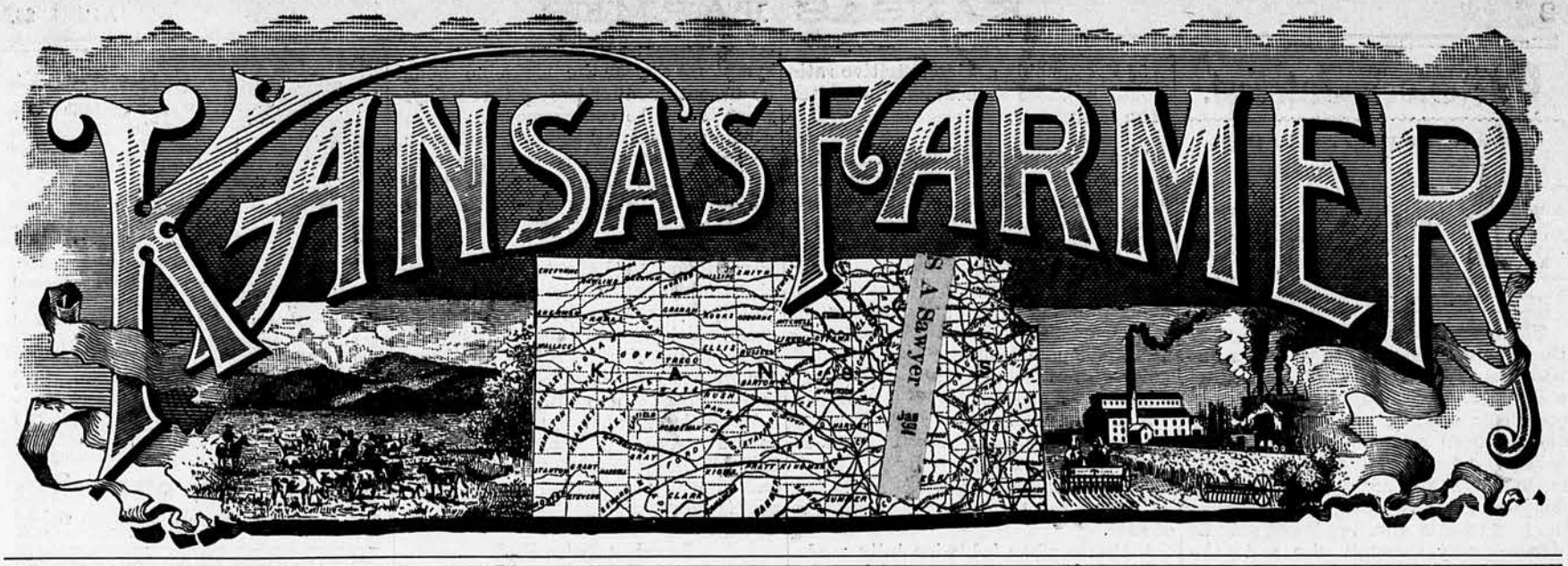

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BREEDERS' DIRECTORY.

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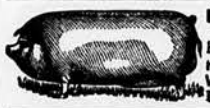

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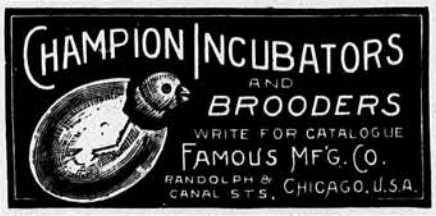

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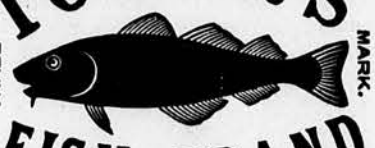

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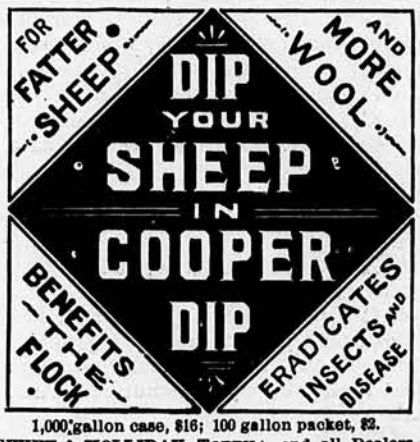

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The Stock Interest.

THOROUGHBRED STOCK SALES.

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

MAY 19—Inter-State Short-horn Show and Sale Association, Short-horns, Kansas City, Mo.
MAY 25.—Isaac Johnson, Short-horns, Lincoln, Neb.
JUNE 16.—L. A. Knapp, Short-horns, Maple Hill, Kas.

EXPERIMENTAL STEER FEEDING.

The long existing contest among cattlemen and farmers as to which is the best breed, and as to what constitutes that impossible thing, a general purpose cow, has, in a large measure, quieted down, and the battle has been declared a draw. Farmers are realizing that it is the special purpose animal that is the paying one, and that the best results with any breed may be obtained only through wise and judicious feeding. From a battle of the breeds the contest has changed to a battle of the feeds. Many stations are doing valuable work along this line, and it is a matter of pride to know that the Kansas station is in the van. The comprehensive and reliable experiments in steer feeding made by Prof. Georgeson one year ago have been fully detailed in his bulletin and noticed in these columns. Another equally valuable series of feeding experiments has been conducted at Manhattan during the past winter, the results of which will shortly be made public. Meantime, it is of great value to the farmer or stockman, who can do so, to visit the station and inspect the steers themselves as well as their methods of feeding.

The "balanced ration" is the keynote to successful results with cattle in the future, whether the object be beef or butter. Farmers have long known that an occasional variety in foods always resulted to the good of the animal; they have also known that good corn was one of the best of foods, whether used for flesh or butter, but they have not yet fully learned the immense advantage to be gained by so combining foods as to form a ration adapted to the particular needs in hand.

***

Proper combinations of the food materials on hand into "rations" can only be made through a knowledge of the food values of these various materials. The basis of this work in this country has long been the so-called German feeding tables, which give the food values of all the common feeding stuffs and directions as to how to combine them.

It has been found by chemists in this country that the food values of our various feeding stuffs differ somewhat from those of Germany, and many stations are now publishing analyses which have a more direct value to the American farmer.

The fifth annual report of the Storrs School Station, at Storrs, Conn., contains the analyses of a large number of grains, grasses and fodders, and the third annual report of the Utah Station, at Logan, is another valuable contribution to this general subject, while bulletin No. 32, of the Kansas station, will be re-read with added interest by the seeker after truth in this line.

***

Prof. Sanborn, of Utah, has applied the idea of a balanced ration to the feed of his work horses. To one lot he fed corn meal and timothy hay, which has a feeding ratio of about 1:14.8, a very wide ratio. To the other lot he fed a ration composed of oats, wheat and clover hay, having a feeding ratio of 1:5.5. The latter ratio is the one nearest that demanded by the German feeding tables for work horses, and Prof. Sanborn concludes as follows:

1. Corn meal and timothy did not sustain work horses as well as oats, wheat and clover hay.

2. Horses did as well when receiving whole grain as when receiving ground grain.

3. A ratio of 1:14.8 was not as effective as one of 1:5.5.

4. It appears that a narrow nutritive ratio, or one rich in protein, was better for working horses during summer heat than the very wide nutritive ratio fed.

5. Presumably a wide nutritive ratio would be more satisfactory in winter than in summer.

***

The food supply provided and the ration fixed, it becomes a question of some importance to determine just how often to feed fattening hogs and cattle.

Quoting from the same source we find the following conclusions announced as the result of experiments along this line at the Utah Station:

1. Shotes, when fed twice daily, required 5.3 pounds of food for a pound of gain, while those fed three times daily required 6.3 pounds for one of gain.

2. The nutritive effect of grain when fed three times daily was as great as when fed twice daily.

3. The superior gain of those fed twice was due to greater consumption of food.

4. Cattle, when fed twice daily, made a greater gain than when fed three times daily.

5. Less food was required for a pound of gain for steers when fed twice daily than when fed three times.

***

As an illustration of the facility with which the American people turn everything to account and now utilize many substances which but recently were but cumbersome waste and by-products of manufacture, the experiments reported in bulletin No. 92, of the New Jersey Station, may be cited.

In this experiment a number of sound work horses belonging to the Street Railway Company were selected and divided, as nearly as possible, into two equal lots of four each. To one lot was fed a ration consisting of the following foods: Hay, six pounds; wheat bran, two pounds; shelled corn, four pounds; oats, eight pounds. To the other lot was fed exactly the same ration with the exception that dried brewers' grains was substituted for oats, the object being to compare the feeding value of the dried brewers' grains with oats.

The results of this experiment indicate—

1. That in both rations the nutrients furnished were sufficient to maintain the weight of the animals under average work; and

2. That on the whole, a pound of dried brewers' grains was quite as useful as a pound of oats in a ration for work horses.

The actual cost, per ton, of the feeds used in the experiment was, hay, $18; wheat bran, $22; corn, $22; oats, $30, and dried brewers' grains, $18. The amount and cost of the feeds consumed by the four horses in each lot, per period of 31 days, are shown below:

OATS RATION.

	Lbs.	Cost.
Hay	744	$6 69
Wheat bran	252	2 77
Corn	505	5 56
Oats	1,010	15 15
		$30 17
Cost per horse per day		24.3 cents.

DRIED BREWERS' GRAINS RATION.

	Lbs.	Cost.
Hay	744	$6 69
Wheat bran	252	2 77
Corn	505	5 56
Oa s	1,010	9 09
		$24 11
Cost per horse per day		19.4 cents.
Saving per day per horse from the use of dried brewers' grains		4.9 cents.

The substitution of dried brewers' grains for oats resulted not only in a maintenance of the weight of the animals under equivalent work, but in a saving of 4.9 cents per day per horse, or 25 per cent. of the cost of the ration. This saving, though appearing small in itself, means considerable in the aggregate; if applied to the forty horses at the car stables, it would represent a saving of $1.96 per day, or over $700 per year, a sum sufficient to pay the interest on a capital of $12,000.

New Treatment for Lumpy-Jaw.

D. E. Salmon, Chief of the Bureau of Animal Industry, Washington, says of the new iodide of potassium treatment for lumpy-jaw:

"The treatment for lumpy-jaw which has been used and recommended by this department, is the internal administration of iodide of potassium in doses of two to three drachms, according to the size of the animal, once a day. In the course of a week there are usually signs of iodism, viz., discharge from the nose, increased secretion of tears by the eyes, and scurfy appearance of the skin. When these symptoms appear the medicine should be discontinued for two or three days, when it may be commenced again and continued for another week, and so on, according to the progress of the case.

"The cattle, numbering 185 head, which have been experimented with by the department, have all been slaughtered, and the result is that 131 were found to have been cured, or about 70 per cent. of the whole number. Nearly all were benefited by the treatment. Taking animals in the early stages of the disease, before the bones are too badly affected, and my opinion is that 85 or 90 per cent. can be cured.

"The department has already received a number of letters from cattle-feeders who have tried the treatment, and in nearly every case they have reported success."

Succulent Swine Feed.

If there is any one thing that Kansas swine-raisers seem to overlook, that is an essential matter, it is the importance of growing and utilization of the succulent ration, such as is within the reach of our farmers, like the clover field, which is especially valuable for the growing pigs and hogs in the summer and fall seasons.

The Indiana *Farmer* says that to prevent danger and to keep them healthy, succulent food along with dry corn feeding is essential. Whenever corn is fed to fattening hogs it should be given in certain proportions of other food, best of all if succulent. Fattening hogs will not eat bran, but they will eat considerable amounts of wheat and fine middlings, especially if mixed with sour milk. They will, if they have too much corn, eat a good deal of charcoal to correct acidity of their stomachs; but better still is the feeding of some kind of roots. Beets, including mangel wurtzel, are eaten by fattening hogs greedily to a limited extent. Give the hogs all they will eat up clean every day. By keeping the digestion good the fat can be laid on without fever in the animal.

Dorset Horn Sheep.

The Dorset Horn Sheep, according to the *New England Homestead*, is one of the breeds introduced into this country from England during the past decade. They have grown rapidly in popularity and promise to be one of the leading breeds of this country in a few years. They are noted for their hardiness, fecundity, early maturity and good mutton and wool qualities. The Dorsets are an English breed and were bred on the southern coast of England for the past century. They were originally a small sheep with dark nose and horns, which often turned upward and backward. Years ago it was the custom to have the ewes lamb three times, viz., at two, three and four years, and generally in December. The following May the four-year-olds and others suitable for pure breeding were drafted out and bred to a Southdown ram. When heavy with lamb they were sold to buyers who made it a business to supply the London market with early fat lambs. At the present day the ewes are sold by auction on the last Thursday in September at the large fair held in Poundbury, near Dorchester, and from 20,000 to 30,000 head are annually brought there for disposal. In this country the sheep are best known in Canada and New York, where the first importations were made, although Massachusetts, Pennsylvania and Iowa have received direct importations. The Dorsets have white legs and faces, fine head, rather long and supplied with horns for both male and female. The shoulders are low but broad at the chest, deep with low brisket. The back is straight and loins unusually broad and strong. They are above the medium in size—mature breeding rams often weighing 175 to 250 pounds and ewes from 100 to 200 pounds. The fleece is finer than that of the Down breeds and from seven to thirteen pounds in weight. They surpass all other breeds in general fecundity—as a rule breeding twice a year and frequently twins and triplets—in fact, large herds will average three lambs per ewe per year. They take on flesh very rapidly and make splendid mutton sheep. For the production of early lambs for market no sheep can rival them.

Mrs. Sutherland.

I Had Goitre

Or swellings in the neck since I was 10 years old; am now 52. I used Hood's Sarsaparilla recently and the swelling has entirely disappeared It has been very troublesome. When I began I was feeling so discouraged with the goitre and rheumatism I felt that I would as soon be dead as alive. Whenever I caught cold I could not walk two blocks without fainting. Now I am free from it all and I can truly recommend Hood's Sarsaparilla. I received a letter from Mrs. Jennie Bigelow, now of Fremont, Mich., asking if my testimonial in behalf of Hood's Sarsaparilla was true; I replied it was, and sent particulars. I have another letter from her thanking me very much for recommending

Hood's Sarsaparilla

and stating that she also has been cured." MRS. ANNA SUTHERLAND, Kalamazoo, Mich.

HOOD'S PILLS are the best after-dinner Pills. They assist digestion and cure headache.

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Vacuum Oil Company, Rochester, N. Y.

More Experience With Lumpy-Jaw.

EDITOR KANSAS FARMER:—In the January 18 number of the KANSAS FARMER Mr. Wampler gave us his experience in curing the lumpy-jaw. Now I will give mine. I had great faith in his cure, and he made it so simple and plain. I have a heifer that had a hard lump come right on the edge of the jaw-bone, and in a short time a small one came on the side just above it. They both broke and run bloody matter and smelled very badly. When I saw Mr. Wampler's cure I got an ounce of iodide potassium and gave it as he directed, in eight doses; then stopped four days; then gave another ounce; then stopped five days; then gave her another ounce, and now after five days rest I am on the fourth ounce, and all the change I see is that it has dried up a little and don't smell of any account. But it has not gone away much, and is hard as ever. There were, or are, none of the symptoms Mr. Wampler speaks of—running at nose and eyes and outside skin and hair coming off. My faith is getting weak.. Can Mr. Wampler or any one else tell me wherein is my failure?

Leesburg, Kas. C. E. RUMFORD.

Harness and Buggy—Free Offer.

A $10 set of harness for only $4.55. A $100 top buggy for only $49.75. You can examine our goods at your place before paying one cent. Send for illustrated catalogue, giving prices to consumers that are less than retail dealers actual cost. Send address and this notice to Alvah Mfg. Co., Dept. C295 Chicago, Ill.

EPILEPSY OR FITS

Can this disease be cured? Most physicians say No—I say Yes; all forms and the worst cases. After years study and experiment I have found the remedy.—Epilepsy is cured by it; *cured*, not subdued by opiates—the old, treacherous, quack treatment. Do not despair. Forget past impositions on your purse, past outrages on your confidence, past failures. Look forward, not backward. My remedy is of *to-day*. Valuable work on the subject, and large bottle of the remedy—sent free for trial. Mention Post-Office and Express address.
Prof. W. H. PEEKE, F. D., 4 Cedar St., New York.

ELY'S CREAM BALM

It is wonderful how quickly Ely's Cream Balm has helped and cured me. For a week at a time I could not see. I suffered from acute inflammation in my nose and head. Mrs. Georgie S. Judson, Hartford, Conn.

A particle is applied into each nostril and is agreeable. Price 50 cents at Druggists; by mail, registered, 60 cents. ELY BROTHERS, 56 Warren St., New York.

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

Agricultural Matters.

FLAX.

The following, condensed from a paper which appeared about two years ago in the *Farm, Field and Stockman*, contains information which cannot fail to interest those who are seeking information as to the cultivation of flax, whether for the fibre or for the seed alone:

"Of late years the vast majority of flax raised has been for the seed alone. Recently some investigations and experiments have been made in this country with a view of raising flax for fibre.

"Fields with a level soil sloping to the west are best for the culture of flax; those sloping to the east dry too rapidly in the morning, and those sloping to the south dry too thoroughly. Steep slopes are not suitable because the soil is generally of very unequal quality, causing a corresponding unequal stand of the plants.

"As a general rule we may say that most of the level soils located in the low lands are suitable for flax, if the climate is also suitable.

"All weeds are very injurious to flax. Great care should be used not to sow seed which contains them. There are some species of omniverous cut-worms said to be very destructive in some portions of Minnesota, though the southwestern part seems to be free from them. The white grub is sometimes injurious, but its ravages are not enough to cause alarm.

"Flax may be cut with a self-rake machine and the gavels, when dry, thrown into double rows with barley forks and loaded direct from there and stacked. Or it may be cut with a binder and the bundles shocked and treated as any grain. In threshing the loose stacked "hangs" badly, so where one has a binder it is much handier to use it.

"The flax plant prefers a mild, soft soil, light and not too heavy, and free of weeds. A mild, loamy soil with a deep layer of humus and a subsoil not too dry, is best adapted for the requirements of this plant. A stiff soil composed of clay, or a dry and sandy one, is unsuitable. A very sandy soil is only good for flax culture if sufficiently moist.

"The most important quality of the soil for the successful culture of flax is great depth, and the careful removal of all standing water or ground water, such as is commonly disposed of by tile draining, as the roots of this plant penetrate very deep. If such conditions can not be had or can not be made, no one can expect to produce fine fibre.

"The best rule to follow in preparing the soil is to make it clean, deep and fine. All weeds existing in the soil have to be removed, and their seeds must be brought to the surface, where the young germinating plants can later be destroyed. As weeds are the greatest enemies for flax, if good and uniform fibre is the desired crop, it is always best to select land free of them; for instance, land upon which corn, potatoes, turnips, or any other well cultivated crops have been grown during the previous season, or freshly burned clover fields are suitable for flax, as being comparatively free of weeds. Deep plowing in fall is always very important for flax, because by doing so the soil is enabled to store much more moisture than would otherwise be the case. By leaving the field very rough or in ridges during the winter, the soil is greatly benefited, because thus more surface is exposed to the decomposing actions of the atmosphere. In most cases it is not necessary to plow again in the spring, but very liberal use should be made of the pulverizer, harrow and roller. The flax plant loves a soil which is thoroughly well settled, another reason to plow during fall.

"Where it is desired to use the fibre, it is a good plan to make the surface of the field quite flat, or to divide it into broad flat plats, since by this means we can produce plants of equal length, as plants growing in the furrows or near them are usually very unequal in length.

"It is always necessary to recollect two things: That the soil must be rich in food for flax, and that this plant can not successfully resist weeds. Fields which during the previous season have been hoed by hand or cultivated, are, therefore, considered best for the purpose of the flax grower, as they are also fairly free from weeds. It is peculiar, however, that flax will not succeed very well after turnips or beets. As a general rule, flax will succeed well after any crop which has been well manured, and also after clover. Oats, sown in a broken clover field, is followed with excellent results by flax; the same may be stated of wheat in a heavy soil. Potatoes grown in broken meadows or low clover fields usually assure a good crop of flax if followed by that plant.

"Experience has shown that flax will not succeed well after flax, and that we have to wait from seven to twelve years before another crop upon the same field may reasonably be expected. The causes for this peculiarity are not clearly understood.

"Stable manure should not be used, at least not when fresh. It contains too many seeds of weeds, produces a poor fibre, and has other disadvantages. But if we have to use it we must apply it to the deeply plowed field in the fall, so that all the soluble substances will be extracted in good time. The remaining insoluble parts can be worked in the soil with the spring manipulations. No matter how stable manure is applied, the result is always a more or less uneven stand of the plants. Farmers should transform the stable manure into compost. In doing so the seeds of nearly all weeds will be destroyed, the compost will mix more uniformly with the soil, and thus produce a very uniform stand of plants.

"The purest seed possible should be used. The flax plant does not tiller or stock out like wheat, and consequently we have to use more seed upon rich soil than upon that of a poorer quality. The amount of the seed is also dependent upon the character of the crop desired, whether fibre or seed, upon the age and condition of the seed, time of the year, etc.

1. If we intend to produce common fibre we need forty-eight quarts of good seed per acre. A close stand of the plants prevents, to some extent, the growth of weeds, shades the ground, prevents branching, and thus produces longer and finer fibre.

2. If we intend to produce very fine fibre, by means of the practice called "Laudern," about sixty quarts should be used.

3. If a crop of fibre and seed is desired thirty-two quarts is sufficient, and if we intend to produce only seed twenty quarts is enough.

4. Above quantities of seed are intended for best flax soil; upon medium soil deduct one-sixth, and upon still poorer soil one-fourth.

5. Of Russian seed, if not injured during the transportation to this country, one-third less should be used, as the seed is so much stronger.

6. Larger quantities of seed sown early, or of weak seed, should be used than if sown later, or if the seed is stronger.

7. To produce a crop of seed, flax seed of the previous season is preferable.

"The use of a drill is not advisable for producing good fibre; for a crop of seed, however, it is excellent."

Forage Crops, Sorghum, Etc.

If you will give me a small space in your valuable paper, I will tell what I know about forage crops. I have just read an article copied in your paper from *Home and Farm*, by F. Hudson, on raising sorghum. I have been raising these forage crops for twenty years, and I cannot see how a farmer can succeed without them. I prepare my land as I would for cotton. I plant about the same time I do cotton. I plant half acre about the time I plant corn in early Amber cane, on good land. The seed of this cane will be ripe by the first of July. Then I commence feeding it to my horses, cows and hogs. I cut it up in a good straw-cutter for my cows and horses, and throw it to my hogs, stalk and all, and it will make a pig curl his tail quicker than anything you can feed him.

I fed last summer three horses, eight milch cows and five hogs on half an acre from July to October. Those hogs were fat enough to kill by the 10th of October. At this date I threw them the first ear of corn. I killed them the last of November. They averaged 200 pounds net—they were young hogs.

As you cut this cane off it puts up again, and makes a second crop, and if the seasons are good it will make a third.

I plant an acre in milo maize for winter hay. I plant half an acre in the same to soil. I commence cutting it by the time it is a foot high; take it by rows, and when you get over, go back where you first started, and it will be waist high by this time. You can cut it five or six times. Feed to horses, cows and hogs. Then I plant an acre in Orange cane for winter hay. The Orange and Amber cane, chop through with a hoe; leave two or three stalks the width of hoe. The milo maize ought to have about twenty inches, as it has tillers like barley. I have seen as many as twenty stalks from one seed. After chopping with the hoe you will have to run your sweeps through about twice; then it will take care of itself.

Mr. Hudson is right about feeding it green.. When the seed ripens, cut the heads off for seed or to feed your stock or chickens on. After you cut the heads off, then it will commence suckering. On good land it will put out from every joint. Let this cane stand until just before frost. Cut it down with a good grass blade; lay it straight in piles; take your wagon, put on your frame with standards for hauling wood, and haul right up green. If you have a high fence near your barn, rick it on this fence. Mr. Hudson says on poles three feet high. My cane will average twelve feet high, so you see his poles would be too low for my cane. Let it stand until the fodder cures, then lay it perfectly straight in your barn and the stalks will keep green all winter and without one particle of mould. I had one of our best farmers out to see my forage a few days since, and he said that it was the best he ever saw. I cut it up, and the stock will eat the last inch of it and keep fat on it.

I can make more on one acre of milo maize or Orange cane than you can make on twenty acres of fodder from corn.—*R. L. Foreman, in Southern Cultivator.*

Fall Wheat Sown in Spring.

EDITOR KANSAS FARMER:—In many instances I have known winter wheat sown late in December, and in several cases in January, which came on, and at harvest time was a good crop. This caused me to want to know if wheat sown in March, I mean winter varieties, would come to maturity? Consequently I have sown trial patches at several times in March. The result in every case has been that the wheat at harvest time was about shoe-top high and died without a single head. Such experiments have this spring caused my mind to question concerning the present growing crop of wheat throughout western Kansas.

We all know that there are some kinds of wheat that will bring a crop if sown either in spring or fall. Such wheat is not what I call proper fall wheat. Neither do I call it the proper spring wheat. What is known to me as Odessa, or grass wheat, is one of the varieties that will produce a crop if sown either spring or fall. Now, if the wheat crop of Kansas sown last fall was of this variety, I think that we may, perhaps, have an average crop in this locality. But the wheat sown here is mainly what some term Russian or Turkey wheat, a proper fall wheat, which, if sown in March, will grow readily and perhaps be shoe-top high at harvest time, produce no heads and die. Much of it was sown last fall; the ground was dry; it did not grow last fall, except that in small patches a few spears came up. On March 20 I went to a field and scratched out some grains. I found some grains sprouted and the sprouts dead. I picked out the sprouted grains and what I had left in my hand looked as nice and bright as my other wheat that had laid all winter in the bin. I could distinguish no difference, after discarding the sprouted grains, between that taken from field and bin on same date. If it has kept as nice and bright all winter in the ground as it did in the bin I think the winter has had no more action on that in the ground than that in the bin, and if the winter has not had its proper action on the grain then the crop will be the same as that taken from bin March 20 and sown. Result, shoe-top high at harvest time, minus heads. We can but wait and wonder.

DAVID DORAN.

Agenda, Republic Co., Kas.

Increased Appetite
is one of the first good effects felt by users of Scott's Emulsion of cod-liver oil with Hypophosphites. Good appetite begets good health.

Scott's Emulsion
is a fat food that provides its own tonic. Instead of a tax upon appetite and digestion it is a wonderful help to both.

Scott's Emulsion arrests the progress of Consumption, Bronchitis, Scrofula, and other wasting diseases by raising a barrier of healthy flesh, strength and nerve.

Prepared by Scott & Bowne, N. Y. All druggists.

When you feel all tired out and broken up generally, you need a good tonic. Hood's Sarsaparilla is the best. Try it.

Bureau of Information.

"The Burlington" has recently established in a convenient quarter of its elegant and commodious passenger station at Chicago, an office designed to afford travelers information on the thousand and one things they need to know, with regard to routes, rates, connections and accommodations. It has been placed in the hands of an experienced man, supplied with all railway guides, maps and time-tables, and is known as the "Bureau of Information."

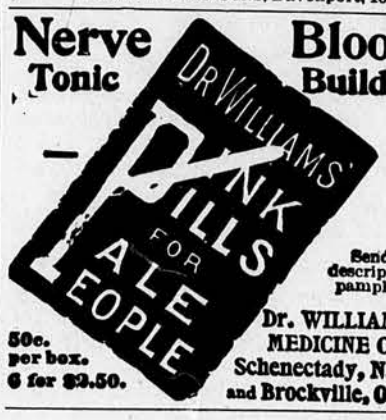
It is a place to which all travelers may apply for information and receive a full and correct answer. This is the only office of the kind west of the sea-board cities; and it cannot but prove a help and convenience to the traveling public. All trains of the "Burlington" enter and depart from this station, and the intelligent and valuable service of the bureau may be enjoyed by all patrons of this line.

A special pamphlet will be issued by the "Burlington" in the near future, giving accurate information as to "How to get to the World's Fair Grounds;" "How to secure rooms and board at the various hotels, boarding and lodging houses."

Trustworthy agents will be at the C. B. & Q. depot in Chicago to impart all information to visitors. Arrangements will probably be made by which some trains will be run direct to the World's Fair grounds without change or delay.

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

Nerve Tonic **Blood Builder**



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Blood and skin diseases cured by mail. $5.00 per month. When you write give full description of your trouble. We are endorsed by the KANSAS FARMER Agents wanted. Address,

DROK SANITARIUM,
241 Wabash Ave., Chicago, Ill

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.

South Carolina Socialism.

Under the above heading, that able and outspoken journal, the St. Louis *Republic*, makes the following pointed allusions to some present conditions and their causes:

"The fact that the Governor of South Carolina is now laying in a stock of wines and liquors for the saloon business will seem surprising to those who have not kept up with the growth of Socialism in the State, that cannot be adequately described except as the Kansas of the South. It ought to be well known, however, and no doubt it is to all who have not forgotten it, that South Carolina has been under the control of Socialists for two years. There is no room for surprise, therefore, that the State has gone into the saloon business.

"The Legislature at its last session passed an act prohibiting the sale of liquor on private account and establishing State saloons under the local option plan. These State saloons are called "dispensaries," and the plan on which they are conducted is modeled on the system for some time in use in Norway.

"Without doubt this is the most radical departure in the direction of State Socialism ever made in America. In fact it is State Socialism, pure and simple, and the same policy that justifies it in the case of the saloons would justify State ownership of all productive machinery.

"To bring about Government ownership of railroads, of telegraphs and of all machinery engaged in production in the United States is the great aim of the American Socialists, whose numbers are daily increasing as the capitalists of the country grow more domineering.

"When it is objected that such plans are visionary and impractical because it will never be possible to reimburse the present owners of the immense properties the Socialists propose to transfer to the State, it is answered that they have no intention of reimbursing anyone. They do not intend to buy these properties, but merely to take them.

"Those who think this impossible will do well to study this South Carolina case. Here is business in which hundreds of thousands were invested, taken out of private hands by a mere act of the Legislature. It was a lawful business, and this action is outrageously unjust to the men who, on the faith of the State, had invested money in it. But no one thinks it strange that this business is wiped out, and no court will decide that the law which gives the State of South Carolina a monopoly of the business of selling liquor inside its boundaries is unconstitutional or void. The saloon property rights of South Carolina have gone where "vested rights" in slaves went before, and where a great many other vested rights will go also if the millionaires of America do not learn to show greater respect for individual rights, in upholding which, and in no other way, can a successful stand be made against the Socialism of the oppressed, which is the answer their radicalism makes to the radicalism of the commune of capital."

Senator Ingalls Criticised.

The *Farmer's Voice* takes exception in a vigorous manner to ex-Senator Ingalls' position on some of the pressing economic questions of the time. Speaking of Mr. Ingalls' opinion that people entertain a prejudice against the Standard Oil Company, the *Voice* says:

"The opinion is contained in a magazine article, which is written with the usual snap and brilliancy which characterizes Mr. Ingalls' writing. But brilliancy is not always indicative of sound views or good judgment. Since Mr. Ingalls left the Senate, he has been sort of a whirligig in expression. First he denounced politicians as a sort of Botany Bay crowd, without principle, honesty or decency. Then he gave his own party a thrust for not getting closer to the people, and after delivering himself of various heterodox opinions—viewed from a partisan standpoint—he got in line again with his old political associates, and has since trotted along like a colt after its mother. Being a statesman out of a job the ex-Senator still wags his tongue and shoves his pen upon the slightest provocation, sometimes talking and writing sense, and at other times giving utterance to the worst possible nonsense. In his recent magazine article he defends that monstrous corporative iniquity, the Standard Oil Company, claiming, among other things in its behalf, that it has greatly reduced the price of oil. It has done nothing of the kind. It has kept the price of oil at an exorbitant figure, all things considered. Since the organization of this conspiracy against common honesty and common decency, the oil wells have produced much more oil than it was possible to consume, and the production of oil might still be greatly increased, and while the price is much less than it was before the Standard Oil Company came into existence, it would be 75 per cent. lower to-day if that big, conscienceless, corporate hog had permitted competition. But it has crushed all opposition and has not hesitated to adopt any course, honorable or dishonorable, legal or criminal, to do it. To this powerful combination of capital has been traced the crime of arson, bribery and even murder. It has combined with railroads in violation of law and justice, and it has been shown before legislative committies that no one could ship oil over the roads at the same rates as were charged for doing the same service for this monopoly. The people are acquainted with these facts, and still Mr. Ingalls affirms that it is because, and only because the Rockafellers are rich that the public is prejudiced against this company. It is fair to presume that the Rockafellers are never thought of by the average man or woman who feels indignant at the fact that an organized gang of brigands is permitted to plunder every oil-consuming home, in the name of business and under the great seal of one of our States. The murderous combination of Italians at New Orleans and the Irish Clan-na-gael aroused a tornado of denunciation which swept the entire country. This people will never show patience with bands of free-booters and assasins, whether they are organized by the criminal poor or the criminal rich. The American people do not like the Standard Oil Company because it is a chartered crime against life and property and individual rights. It is a monopolistic robbery, a menace to right and a disgrace to our civilization."

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.

Answers to Correspondents.

FAMILY DOCTOR.—Our year old child has been troubled for a few weeks with an oozing of pus from the left ear. It is slight but very offensive, especially in the mornings. She does not seem to have a cold, and it does not seem to hurt her. I sometimes find her with her finger to it, as though it itched. I keep it syringed out with warm water, in which I put a few drops of carbolic acid, but it does not seem to improve. Will you kindly advise me through the KANSAS FARMER.

Coldwater, Kas. MRS. HENRY WHITE.

Your child has chronic inflammation of the middle ear, which is often very obstinate. It is a kind of catarrh and is found in far too many children. Many of them are suffered to go on from week to month and from month to year without proper treatment, and then the parents wonder afterwards why the child is hard of hearing. Your practice of syringing is well while the discharge is offensive or copious, but the water should be as nearly hot as the child will tolerate.

For internal use there is probably no remedy so serviceable as what is known as Hepar sulphur (calcium sulphide), in very small doses. What homœpathists call the third potency, one part of the drug to a thousand parts of sugar, a dose three times a day.

☞ Get up a club for the FARMER.

Stock Gossip.

Every stallion-keeper will have enough mares that fail to "catch" to warrant writing the Specialty Manufacturing Co. for points. Read their "ad" in this issue.

Some breeders of swine write the FARMER that they think that the classification of swine should omit boar 2 years and over, because there will not be any shown of that age from Kansas.

Kansas breeders and owners of pure-bred stock are responding promptly to the call in last week's FARMER, and those who have not done so should not delay the matter, as it is important for all concerned.

Hon. T. A. Hubbard, Rome, Kas., reports that he has had splendid sales of both horses and hogs during the past winter, and still has on hand some extra good young sows in pig, both in Poland-Chinas and Berkshires.

A new sheep corporation in this country, which began business this year, is the American Suffolk Flock Registry Association. The Secretary is Geo. W. Franklin, Atlantic, Iowa, who will give those interested detailed information.

The sale of Short-horns by J. D. Waters, at Springfield, Ill., on April 19, resulted very well, considering the very stormy day, and ten bulls brought $725, an average of $72.50. Twenty-one cows and heifers brought $1,732.50, an average of $82.50.

D. Trott, Abilene, Kas., writes: "Spring pigs are coming on in fine shape. Nice, large litters and fine fellows. Prospects are good for a big demand again the coming season. Last year's pigs all sold. I am receiving orders now for this spring's pigs."

The Inter-State Short-horn Show and Sale Association will hold its third annual exhibit and sale at Kansas City on Friday, May 19, 1893. The offerings comprise a few choice animals from the Kansas and Missouri herds of Short-horn breeders. Send for catalogue to P. D. Etue, Secretary, Westport, Mo.

Our advertiser, N. G. Alexander, Delavan, Ill., writes that he has on hand 130 head of young Chester Whites farrowed during March and April and expects to raise 200 in all, which number is necessary to meet the demand on him. He has already a large number of orders booked for early delivery, some of which go to Texas, Washington and Canada.

G. J. Maelzer, of Neuchatel, Nemaha county, and one of the successful Holstein breeders of the State, made us a pleasant call last Friday. He had just completed a swing around among his fellow Holstein breeders throughout the eastern part of Kansas in quest of a bull to cross in on his herd, and found just what he wanted at the farm of H. W. Cheney, of North Topeka, whose herd, he said, was in his judgment, the best he had seen during his trip. He reports the outlook for fruit very good in his section, and further stated that the wheat promised but little better than a good half crop.

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 April 24, 1893; T. B. Jennings, observer:

The precipitation has covered a greater area this week than for some time. In the west it extened from Kearney northward through portions of Wichita and Scott, through Logan, Gove, Thomas, Sheridan and Decatur, and was mostly in the form of snow. Light rains in the central counties, increasing eastward; good rains generally through the eastern division, heavy south of the Kaw and east of Lyon, Butler and Elk.

A hail storm on the 18th passed from Cowley to Wyandotte, leaving stones measuring nine inches in circumference at Grenola, "chunks of ice" at Quenemo, and stones seven inches in circumference at Pomona. Frequent frosts during the week.

The temperature has been decidedly below the normal, though an average amount of sunshine has generally prevailed.

The rain of the 18th was very beneficial and encouraged farmers and crops, while the rain of the 19th was injurious, being a cold rain and driven by the strong north wind with such force that it cut tender vegetation considerably.

The low temperature has been rather beneficial to vegetation in the rainless districts by retarding it; it has been injurious to all vegetation in the eastern counties, unless it be wheat, which appears to grow right along. Corn in some localities has rotted in the ground and will have to be replanted. Early fruits of all kinds are reported more or less injured by the high winds, frosts, ice and cold weather.

In the west the belief is general that should a rain come within ten days a fair crop of wheat will be realized this season.

In some of the west central counties a few have begun planting corn in their wheat fields. The hail did much temporary damage to oats, young corn and fruit trees.

The Grain-Yielding Lands OF KANSAS and NEBRASKA

are a splendid investment. We own 200 Improved Farms, in the Corn and Wheat Belt of Northern Kansas and Southern Nebraska, and will dispose of same in 80-acre tracts, or larger, at $5. to $10. Per Acre on Ten Years Time.

Cash Payments $100. upwards as purchaser desires.

Send for book giving description, terms and prices of each tract.

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402 Chamber of Commerce Bldg.
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REFERENCES: ANY CHICAGO BANK.

Thoroughbred Dogs.

A finely bred litter of Scotch Shepherd puppies for sale at half value, $6 each. Also Newfoundlands and St. Bernards of best breeding. JOHN W. WINNE,
Manhattan Kennels, Manhattan, Kas.

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.

Bloat From Alfalfa.

EDITOR KANSAS FARMER:—In reply to your Lyons, Kas., correspondent, in the FARMER of the 19th, in regard to allowing cattle to run in alfalfa, I know that it is important to warn him promptly that it is a dangerous practice. If allowed to remain on such pasture any considerable length of time, cattle will gorge themselves and "bloat," and death follows very suddenly.

For several years I have watched the good as well as the bad results of this wonderful forage plant, and while I would urge farmers to grow alfalfa, it will not do to keep cattle in such pasture more than a few hours at a time, especially if it is wet or when the dew is on. F. R. FRENCH.

Lakin, Kas.

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

Royal Baking Powder

ABSOLUTELY PURE

The Horse.

Horse Notes.

Washington may have a successful meeting after all. Quite a few stables will take part in it. There is plenty of room both for it and Elizabeth.

The killing of the anti-pool selling bill in Illinois was no surprise other than that by so doing the politicians kept faith. The price of the killing of the bill was the election of Carter Harrison.

At John S. Lackey's sale at Indianapolis, last week, fifty-two horses aggregated $7,290, an average of $140. Dick Hunt, by American Boy, brought the top price, going to Isaac Tyson, of Philadelphia, at $565.

It is stated upon good authority that last year 102 well-defined cases of lockjaw were reported to the Royal Society for the Prevention of Cruelty to Animals, England, with a certificate in each case from the attending veterinarian that the malady resulted from docking, and one single veterinarian stated that out of thirty-one cases of tetanus which he had been called to attend within a year, twenty-seven of them resulted from this same brutal custom.—*American Horse Breeder.*

Cushing & Orth, the Minnesota turfmen, bought at Memphis, the 22d inst., of the Gambrinus stable, the four-year-old bay colt Wightman, by Bramble, dam Planchette, by Brown Dick, for $2,500. Last spring the Gambrinus people gave Tom Kiley $10,000 for Wightman, but the great colt went wrong and that stable, even counting his sale to-day, never got even on the son of Bramble. The doubt about his standing training caused him to go for the price he sold for to-day, he still being unsound.

Lucky Baldwin's horses arrived at the St. Louis fair grounds Friday night in charge of Trainer Emanuel Harding. There are thirteen in the stable, which includes Santiago, Amigo, 6; Esperanza, 5; San Francisco, San Benito, San Blas and Alona, 3; St. Lucas, Tuscarara, Cactus, Floreana, Leola and San Luis Rey, 2 years old. San Luis Rey is the Spanish for King of St. Louis. The colt is a bay by the Emperor of Norfolk, out of Mollie McCarthy's Last. This is royal breeding, and if his trainer's expectations are realized the colt will be a corker. His size does not impress one, but he has a long, rangy barrel, splendid quarters and powerful stifles; in short, he resembles his mother as much as one piece of horse-flesh can resemble another.

Horse Market Reviewed.

CHICAGO.

J. S. Cooper, Union stock yards, Chicago, says:

The week opened with liberal receipts and a fairly good number of buyers. The prices are stronger than the closing quotations of the previous week, but without much life, and neither the activity nor strength of a few weeks ago. Good smooth chunks, draft horses and drivers sold freely and at firm prices, but common horses, of which the supply was large, were dull and hard sellers at unsatisfactory prices.

The ease here is due to the glutted condition of all the Eastern markets, which latest advices say show signs of improvement. Drivers, saddlers, chunks and express horses will be in good demand from now on.

The following are quotations for week:

Streeters	$ 90@105
1,250-lb chunks	110@125
1,350-lb chunks	130@145
1,450-lb chunks	145@175
1,550-lb draft horses	175@200
1,650-lb draft horses	200@250
Express horses	160@200
Saddlers	150@350
Drivers	125@250
Coach teams	500@800

KANSAS CITY.

There was a fairly active market during the past week. Notwithstanding the heavy storms throughout Kansas and Missouri the offerings were quite large and all of very good quality.

Prices were about the same as the preceding week, except on plain streeters, which sold from $2.50@5.00 off.

The majority of the buyers were from the East. They all want quality and flesh, and whenever a top of any kind comes into the ring he sells for as much as at any time during the past two years. Drafters sold as high as $350 a pair. The only trouble is that there is not enough of this kind shipped to market. There is considerable inquiry for drivers with a little speed, either pacers or trotters. The demand was quite strong for cheap, pluggy stuff to go to the Oklahoma country, but prices were low, as usual. There was considerable inquiry for toppy actors and coach horses, and shippers who get this class cannot but help make money.

There were more buyers on the market for branded horses than at any time during the past two years, and the offerings of this class were rather light. There could be 1,000 head of good Western geldings sold on this market for good prices during the next ten days, as there are a number of buyers on the market at present wanting from one to ten loads, and they want them bad. Branded horses sell at auction as high as $210 a pair.

The demand for 1,000 to 1,100 breedy geldings to go to the Indian country, was quite strong, and they sell almost as high cavalry horses, but this trade is about over.

The buyers of native horses show a decided preference for straight and smooth stock, and while we look for a continuation of the present basis of prices, still country shippers must be very cautious to secure nothing but the best of any class.

Prospects for the coming week are very encouraging, as there are a number of buyers on the market waiting to fill out. The buyers on the market during the past week were from New York, Buffalo, Pennsylvania, New Jersey, Atlanta, New Orleans, Memphis, Little Rock, San Antonio, Oklahoma, Indian Territory, New Mexico and the wheat countries.

Receipts of mules were fair. Market was fairly active on all grades. Considerable inquiry for cheap, pluggy mules to go to the Oklahoma districts. No change in quotations.

Publishers' Paragraphs.

RED ELEPHANT TWINE.—Every farmer who will use binder twine should first correspond with the Empire Cordage Co., St. Louis, as they manufacture pure American hemp and sell to consumers direct at same prices which they would to dealers. This firm deserves a cordial patronage because they have done more to reduce the price of binder twine than any one in the country.

We call the attention of our readers to the advertisement headed "Incubators and Brooders." in another column. Mr. Singer, who advertises, is one of the largest manufacturers of these machines in this country, and the demand for his machines has been so great that he has been obliged to double the capacity of his works to keep up with orders. This large business is entirely due to the fact that his machines, being built on a new principle, are easy to operate and satisfactory in their results, and in the hands of those who have had no previous experience, give good hatches.

KANSAS MUTUAL LIFE.—We are pleased to call attention to the card of the Kansas Mutual Life, of Topeka, which appears in this issue. We are personally acquainted with the gentlemen who compose the management of this company, being a policyholder and having had business relations with them during the last seven years, and we unhesitatingly recommend their company to all those desiring life insurance. The Kansas Mutual Life is well established and financially strong, and is managed in accordance with the best business methods. Being a home enterprise, in every respect worthy, and the peer of the best life company in the United States, Western people generally, and especially Kansans, will find it to their interests to buy their life insurance of the Kansas Mutual, thus retaining at home their money and at the same time securing the best insurance in the market. Those who buy their life insurance of Eastern companies help to increase the wealth of the East at the expense of the West, and at the same time place their money where the least returns can be had, because there the lowest rates of interest are realized.

The near approach of the World's Fair awakens increased interest in Chicago and her wonderful history. To-day Chicago is probably the finest city in the world, architecturally, and all practically built within twenty years. The most thrilling and wonderful chapter in the city's history is the one telling of the great fire and the subsequent rebuilding. It reads like a tale from fairy land. The new and magnificent cyclorama of the Chicago fire, just opened in that city, shows in a most surprising manner the city during the great fire, with its thousands of acres of red-hot ruins, thousands more of a surging sea of flame, and countless thousands of panic-stricken people fleeing for their lives, is the most grand, awe-inspiring and realistic scene ever produced by man. The whole effect is greatly intensified by the introduction of novel mechanical and electrical devices, making the whole situation seem like reality. This remarkable exhibition is located upon Michigan avenue, near Madison street, and will remain as a prominent attraction during the World's Fair. Our readers should make a note of this great work and not fail to visit it.

Wanted.

In every county in Kansas, a first-class man as agent to represent the Kansas Mutual Life. Address

J. P. DAVIS, President,
Topeka, Kansas.

Blossom House.

Kansas City, Missouri, is convenient to all parts of the city. The Blossom House is the tallest building just across the street from the Union depot, and a splendid meeting place for the farmers and stockmen from all parts of the country, who are usually found there. It seems to be the headquarters and general place of meeting for all Kansas men when attending conventions or bringing stock to that market. It certainly deserves the business from Kansas that it is receiving.

TIRED HUMANITY.

Extract From a Lecture Delivered at the Surgical Hotel, Columbus, Ohio.

The physician who fails to recognize the wonderful influence that springtime has upon disease and health will fail, to a large extent, in the practice of medicine. The most pronounced type of disease is modified by it, and the most robust health is disturbed by it. During April and May the peculiar electrical condition of the atmosphere is such that the sick and well, weak and strong, feel its effect. The one word which describes this feeling better than any other in the English language is "Tired." The strength may not be much impaired, the appetite may remain fairly good, yet the same complaint is heard morning, noon and night, "How tired I feel!" Sleep does not seem to refresh nor food give strength. Tired, tired, tired! One hears it on every hand. The book-keeper wearily foots up his column of figures with tired brain and tired nerves. The faithful housewife drags herself through the daily routine of her duties, tired at the beginning, still more tired at the end. Everything seems to tire everybody. Nothing seems to rest anybody. The patient forgets to complain of his aches and pains, and takes up the universal complaint of "How tired I am!"

The robust man, in the prime of vigor and health, finds himself unable to entirely shake off "that tired feeling." This complaint increases in severity and universality as civilization increases. It has become so prevalent North, South, East and West that it would be difficult to imagine what the masses of the people would do without Pe-ru-na. It seems as if the discovery and introduction of this medicine was the most timely and fortunate coincidence that ever occurred in the annals of medicine. Surely no greater one ever existed than the want of some reliable spring medicine with sufficient invigorating and cleansing power to remove "that tired feeling."

It is just as certain that Pe-ru-na has met this want completely, and never fails to produce the desired effect. Those who are the victims of chronic catarrh or are suffering from the effects of la grippe will find this remedy especially suited to their need.

For a complete lecture on this subject send for a copy of The Family Physician No. 3, which will be sent free to any address, on application, by The Pe-ru-na Drug Manufacturing Company, Columbus, Ohio.

Well cleaned flaxseed for sowing. Topeka Linseed Oil Works.

Five dollars will now buy the Perfect Impregnator. See their advertisement.

All genuine Spooner Horse Collars have this trade-mark. Be not deceived by imitations.

Thoroughbred Dogs.

A finely bred litter of Scotch Shepherd puppies for sale at half value, $6 each. Also Newfoundlands and St. Bernards of best breeding. JOHN H. WINNE,
Manhattan Kennels, Manhattan, Kas.

We Sell Live Stock.

Our cash sales for 1892 were $1,842,177.72, total business exceeded two and one-half million dollars. Established since 1880. Market reports free and consignments solicited from stockmen, by OFFUT, ELMORE & COOPER, Room 203 and 204 Exchange Building, Kansas City Stock Yards.

$1,500 Horse Cured of Spavin.

MABEL, Minn., Jan 26, 1892.

The Lawrence-Williams Co., Cleveland, O.:

GENTS:—Please find enclosed $3 for two bottles of Gombault's Caustic Balsam. I always like some on hand. It needs no recommend, but it would look more sensible for me to give one. I cured a $1,500 horse three years ago that was so bad he could only step with a groan. The spavin was of three months standing, and no judge could tell he ever had one; also one on an eleven-year-o'd mare that sold last year for $275

W. ROBINSON.

COMPLETE MANHOOD
AND HOW TO ATTAIN IT.

At last a medical work that tells the causes, describes the effects, points the remedy. This is scientifically the most valuable, artistically the most beautiful, medical book that has appeared for years; 96 pages, every page bearing a half-tone illustration in tints. Some of the subjects treated are Nervous Debility, Impotency, Sterility, Development, Varicocele, The Husband, Those Intending Marriage, etc.

Every Man who would know the Grand Truths, the Plain Facts, the Old Secrets and New Discoveries of Medical Science as applied to Married Life, who would atone for past follies and avoid future pitfalls, should write for this WONDERFUL LITTLE BOOK.

It will be sent free, under seal, while the edition lasts. If convenient enclose ten cents to pay postage alone. Address the publishers,

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The advantages Albemarle Co., Va., offers to homeseekers? Mild, healthful climate; no blizzards nor extremes of heat or cold. Churches of all kinds. Educational center of the South. We have bargains in beautiful homes in town and fertile, well-watered farms. Unexcelled for fruit and stock. Good markets. We cannot tell it all here, so write us. We'll answer promptly.
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EVERY FARMER can now DO HIS OWN THRESHING, with less help and power than ever before. Send for free Illus. Catalogue.
We make a full line of Horse Powers.
BELLE CITY MFG. CO., Racine, Wis.

ALL STEEL LIGHTNING FULL CIRCLE

K.C. HAY PRESS CO. KANSAS CITY, MO.

If Cattle Stray Off
100 miles with Dana's Ear Labels on their ears, the owner's address stamped on the Label shows where they belong. Value of one steer pays for 500 Labels. I furnish them stamped, quick and cheap. Agents wanted. Samples free. Name this paper.
C. H. DANA, West Lebanon, N. H.

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"RED ELEPHANT" TWINE is sold to farmers direct, saving the middlemen's profits.
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DO NOT BE DECEIVED BY IMITATIONS—Look For a "RED ELEPHANT" on the Tag on Every Ball.

TYPOGRAPHICAL UNION LABEL TOPEKA, KAN.

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.

Written for the KANSAS FARMER.

Here, and There.

BY B. S.

Here, are storms and tempests;
There, eternal calm.
Here, the sound of weeping;
There, triumphant psalm.

Here, are mists and shadows;
There, the perfect light.
Here, are wrongs and troubles;
There, all things are right.

Here, are fleeting pleasures;
There, is lasting peace.
Here, is toil and conflict;
There, is sweet release.

Here, the pale-faced horseman
Entereth the door.
There, the King hath conquered,
And death can come no more.

Here, we must get ready,
If we would enter there,
Through the pearly gateway,
To the city, fair.

Topeka, Kas., April 15, 1893.

PERPETUAL MOTION.

The construction of a machine which shall run by itself without the aid of any outside force, has always been a favorite project among those unacquainted with the fundamental laws of force and energy. Even at present, when the impossibility of such a machine has been proved time and again, the perpetual motion crank keeps patiently at work, and the columns of the Wayback *Gazette*, or some other shining light of journalism, contains, at more or less regular intervals, accounts of a curious machine "whittled out" by one of its subscribers, which, when once started, will run till it wears itself out. It is needless to say that these machines never materialize in any tangible form; but a multitude of similar schemes for burning water, utilizing the force of "etheric vibrations," or in some other way making power out of nothing, are being constantly brought forward, and too often succeed in filling the pockets of the shrewed inventors, at the expense of their unscientific dupes.

The fundamental fallacy of all theories of perpetual motion is that force or energy can be created. We can no more create a unit of energy than we can a molecule of matter. As far as we know, the total amount of both matter and energy in the universe has always been exactly the same, and all the various phenomena which we observe are due to changes in the form of these two great principles. This fact is independent of any metaphysical theories as to the nature and relations of matter and energy; whatever they may be, it is certain that we can neither create nor destroy the smallest amount of either. The universe consists to-day of exactly as many atoms of matter and units of energy as at the moment when it came into existence, and by no possible method can the absolute or relative quantity of either be altered. We can not transform matter into energy, or energy into matter, but we can transform one form of energy into another with the greatest ease; and of the sixty or more simple forms of matter now known, we can make an infinite number of compound forms, but this is all that can be done; and all the force which we can make use of to run our machinery of every kind must be obtained by transforming the energy which has been stored up in the universe since the beginning.

Since a machine can create no energy, a self-moving machine or a theoretical perpetual motion is an absolute impossibility. Practically all our force is drawn from the sun, as from a great central reservoir, and the supply from this source is so abundant that it may be considered as inexhaustible. A small machine that would derive its motion from the heat of the sun could be easily constructed, and, with proper provision for storing up power for use at night and in cloudy weather, would continue to move indefinitely, like a water-wheel placed under a never-failing stream. This would practically be a perpetual motion, but not absolutely, for the sun is constantly dissipating its stored-up energy, and in the course of ages will become cold and dark, like the earth or moon. Whether this dissipated energy will ever be gathered up again into centers of radiation, and the cycle of astronomical changes now in progress be repeated, is beyond the limits of our knowledge. We can only say that, while it is not impossible, the phenomena of nature, as at present revealed us, give little or no indication of any such revivification of the universe. Perhaps this may be made clear to us in some future state of existence, but hardly in the present one.

The direct transformation of the heat of the sun into power and motion is one of the most important scientific problems of the day. At present nine-tenths of all the power used is derived from the solar energy stored up in past ages in the coal beds. In time—and not a very long time, either—these will be exhausted, and the question of supply of power will become of the most extreme importance. A supply of energy far in excess of all possible requirements is daily given off by the sun, but it is all wasted, as we are unable to utilize it. It is by no means impossible that before the coal beds of the world are exhausted we may be able to run our engines by this waste heat, and become entirely independent of any other source of power; and in this way, and this way only, will the problem of perpetual motion be solved—for to construct a machine which would itself produce the energy which moves it, would imply the possession of creative power on the part of the constructor.—*Popular Science News.*

Pompadour Hair--How One Man Acquired it Without the Aid of a Barber.

George F. Leidig, the proprietor of Grant's Springs hotel, Mariposa county, California, says that game of all kinds is very plentiful in his vicinity and a few miles away in the high mountains.

The bears are as numerous as has been known for some years, while grouse, pheasants and quail swarm everywhere. Mr. Leidig has been in the hotel business for more than twenty years in California, and tens of thousands of people have met him.

"I have known of some curious things in reference to the varied wild game of Mariposa," he said, "but I never knew of a stranger thing than happened to my son George and Stage Driver Joe Ridgeway, of the Yosomite line, some time since. George, you know, is engineer on the Central Pacific railroad, on the division between Wells and Carlin.

"Well, he and Ridgeway thought they would go up above Glacier Point one day and have a look around. You know that to get to Glacier Point you must climb about 3,500 feet, and do it all in but little more than a couple of miles. It's a hard task, and when you get up there you look sheer down, as it were from a balloon, upon the world. Before you is spread the waterfalls of the Merced river, the snow-capped cones of the Sierras, and everything to make up a garden of wonders. Probably in the world there does not exist a grander sight.

"It is within the confines of the celebrated Mariposa grant, to which the dauntless explorer, Col. John C. Fremont, once had a title, but which he finally lost after much litigation. This was for many years known as the home of large numbers of grizzlies, the most formidable to be found anywhere. Since there were so many of them, not all the hunters that have gone into that region have succeeded in wiping them out.

"When George and Joe had finally succeeded in getting to the top, and they had gazed upon the panorama before them, they started to the south on a shoulder of the mountain. They had not proceeded far when there were indications of bears. Their great tracks were visible in some places along the trail, and they kept a sharp eye out for them. They thought, without noticing much, that they were the tracks of black bears. There were some birds, and altogether the boys were enjoying themselves.

"Just as they began to descend a winding knoll on the ridge they heard a thrashing in the bushes, as of some one whaling them with a club. The two had become separated. Ridgeway was where he could get the best view, and he suddenly caught sight of a big, grayish-black object lying on a log. He knew at once that it was a grizzly, and he let fly at him.

"Whether he hit him or not was never found out, but immediately there was more thrashing and a shriek from the bear that made the tall pines ring. Then there began a journey of that bear toward George. It was rapid, for a grizzly can run like a wild buffalo, unwieldy as he looks. Ridgeway could see that he had sniffed George or caught a glimpse of him through the bushes, and he yelled to him to look out, as the grizzly was after him. Then he took to his heels himself. George had scarcely got the warning when the bear was almost upon him. He turned and flew down the mountain.

"It was a terrible race. Now it would look as though George would evade the bear, and then it would appear that there was no escaping his paws. George zig-zagged over stumps, fallen trees and through bushes, the bear still after him, and finally fell down a rocky declivity, where for a time he lay half dead. The great brute had finally given up the chase—luckily for the young man he was after—and at length Ridgeway got to George and helped him to stand up.

"Now, here a strange discovery was made, to which I wish to call your attention. You have heard of people's hair turning white in a night, as though a man had lived a lifetime in a few hours?

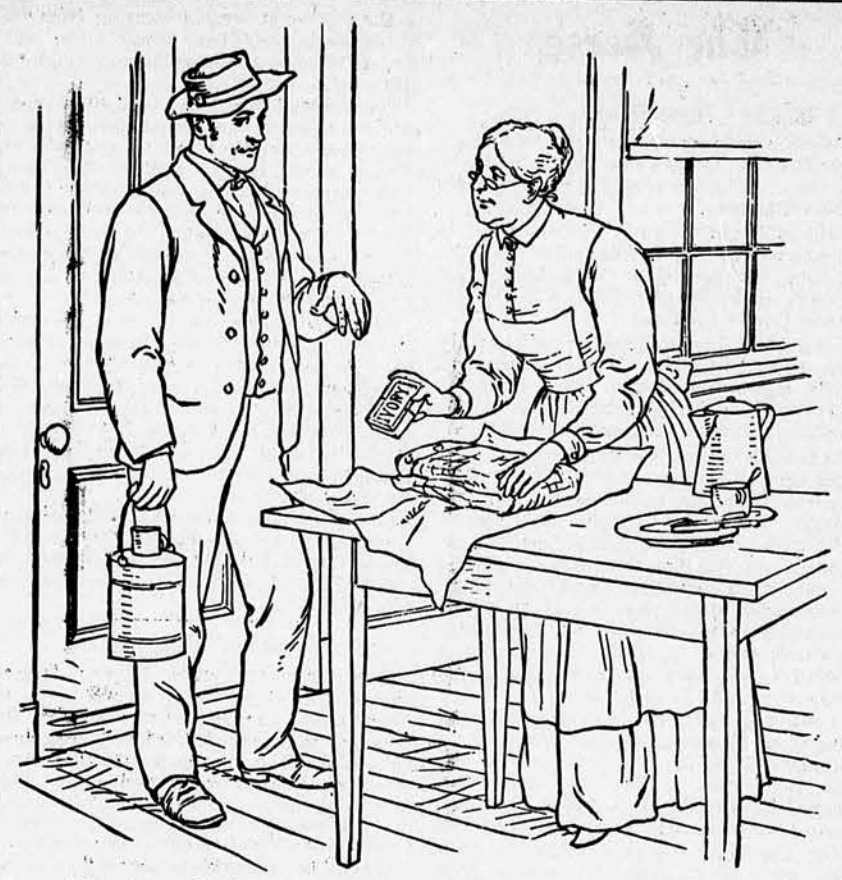
"When George got down to my place his hair, which had since his birth lain flat on his head, stood up like stubble, as though it was waxed and combed up. More than that, it stayed so for two weeks before he could get it down to where it was formerly.

"The terrible race he had with the bear had caused it. We all took notice of it, and talked about it during the whole two weeks. I suppose this may seem impossible to some, and they may not believe it, but it is entirely true. Nothing any of us could do during the fortnight would make the hair stay down.

"George is as brave as anybody, but he couldn't help knowing the terrible danger he was in, and when his hair rose up the the consciousness of the danger was so great, and remained so long with him, that it took this length of time for it to get down again. Since then he is having no use for bears, especially grizzlies, and those familiar with the dangerous race he had do not at all wonder at it."—*San Francisco Examiner.*

The short stories in *Worthington's Illustrated Magazine* are well worth reading, being the best work of experienced and popular authors, and as varied in their subjects as they are choice and charming in diction. The poetry of the May number is noticeably good, partaking of the brightness and sweetness of advancing spring. It is worthy of note in this connection that the poetry in *Worthington's Magazine* is always of a higher order of excellence than that of any of its contemporaries.

All the gold in the world (not counting that still in a virgin state) would not make a block of more than 613 cubic yards. A cube of the above dimensions could be put in a room twenty-four feet each way.



"My son, I am proud of your industry, but it is not necessary for you to carry a sign of your trade in begrimed hands. I would as soon expect an undertaker to wear a crape necktie as for you to wear ten little half rings of iron dust and oil under your nails."

"But, mother, the soap at the shop roughens and cracks my hands."

"Then I will put a cake of Ivory Soap into the package with your overalls; wash with it as often as necessary. Your hands will be softer and easier to keep clean after you have used it awhile."

G. 12. COPYRIGHT 1893, BY THE PROCTER & GAMBLE CO.

A Free Lunch.

It is the custom of many of the trust companies and large banking houses in this city to provide a noon meal for all of their employes, on their own premises. This is done for two reasons—to save time and to prevent leakages of office secrets. One of the most important trust companies down town has a thoroughly equipped restaurant on the top floor of its building, where about 150 men, women and boys are fed between the hours of 12 m. and 2 p. m. For luncheon purposes the clerks are divided into sections, and each section is allowed a certain amount of time. A liberal bill of fare is provided, and the men are not restricted in the extent of their orders, so long as they keep their gastronomic desires within reasonable bounds. The heads of the departments have separate tables. No person, unless he or she is an employe of the company, is allowed to eat in this restaurant. Nobody is permitted to invite even a friend from out of town to take luncheon with him. The head of a prosperous private banking house in Broad street says that for several years he has followed the practice of keeping his clerks within office limits during business hours, and he believes that it pays well. He feeds them all at noon at his own expense, and is by no means niggardly. The number of his employes is steadily increasing, consequently this item of expense is constantly growing larger. His firm paid out about $5,000 for employes' luncheons last year.—*New York Times.*

A bell that could be heard at a distance of 45,000 feet in water could be heard at a distance of only 656 feet in the open air. Dogs barking on the earth can be heard by balloonists sailing at a height of four miles.

Looking Backward.

In the good old days of childhood what splendid hot flaky biscuit and delicious pastry our mothers gave us. You may enjoy as good now. The secret is in using

Dr. Price's Cream Baking Powder.

It has remained the standard for purity, excellence and wholesomeness for more than forty years, and retained its supremacy among the practical cooks, in the great hotels, clubs, restaurants and in the homes of millions.

The Young Folks.

Written for the KANSAS FARMER.

Do We?

BY JOSEPHINE RAPLEY-HAGUE.

"I knew Bessie Brooks was worsting herself
When she held her head so high,
And married for love, as she called it then—
I wouldn't have married Nick Nye."

The spinster tossed her sparse curls to infer
Bessie's trials *her* lot did enhance.
My ten-year-old boy, who sat whittling, said,
"Did Nick ever give you a chance?"

The maiden, evading the query, flushed red,
Discomfited, hastened away,
Turning my thoughts to the verdict we pass
On our neighbors every day.

If in their place would we better the deeds
That to us seem uselessly wrong?
Do we ever censure the time of the tune
When we cannot ourselves sing the song?

THE FIRST RECORDED DEED.

It has been customary for civilized people to treasure ancient articles and exhibit them to admiring friends as specimens of what their great grandfather used to have, and if one could show a land title deed a hundred years old or so, he would consider himself just a trifle better than his neighbor who never knew whether *his* grandfather ever had even a ten-acre stump lot among the "abandoned farms" of Vermont or Massachusetts.

If a title deed 100 years old can be of interest, what *would* we say, to express our admiration, if we could see one that was 3,754 years old?

No doubt the readers of "Home Circle" will say: "Well, let's see it!" But right here is presented a difficulty in the fact that evidently the deed has been lost—at any rate it is not available just now. But it can be told about and a sort of translation of a copy given. It was written by Abraham, and a gentleman by the name of Ephron was "party of the first part."

Before the copy is produced it would be well to notice the circumstances under which it was given. By turning to Genesis xxiii. we may read a short account of it, but in certain other writings of Hebrew origin we may find the rest.

While Abraham had gone on his errand to offer up Isaac, according to the command of the Lord, as he understood that command, it had been told to Sarah, Isaac's mother, by the same meddler who bothered Mr. and Mrs. Adam so severely, that her husband had gone to sacrifice her only son. She mourned "with a very grevious mourning," so we are told by the Hebrew writer, and while she was reconciled to the obedience her husband showed to God's command, yet in her grief she could not remain still at home, but went "with her maid servants and men servants to Kireath Arba, which is Hebron," to meet her husband on his sorrowful return. She had given up all hope of ever seeing her son again. Some one in advance of her husband's coming told her that Isaac still lived and was coming with his father. She had borne the sorrow, but now, "when she heard the word her joy was so exceedingly violent on account of her son that her soul went out through joy. She died and was gathered to her people," and this was why Abraham came to Hebron "to mourn for Sarah, and weep for her," and it explains why Sarah died at Hebron and not at their home in Beer-Sheba. Care should be taken not to confound this last name with Kansas City or Milwaukee.

Abraham thus was placed among strangers in a critical time. He had to find a place to bury his wife and did not wish to rely on a simple cemetery permit. Where he should place the body of his beloved wife he wished to have made sure to him forever. He made his selection of a location and then set about negotiating for the purchase. From a simple reading of the account in Genesis we might form the conclusion that Mr. Ephron was desirous of presenting to Abraham the quarter section desired, and that Abraham, on the other hand, was bound to force the benevolent gentleman to take a whole lot of money for it. But a careful study of the surroundings will convince anybody that they were each looking out for "No. 1," and only took this method of "feeling" of each other to see how good a bargain each one could make with the other. All of the relatives of the "party of the second part" have ever since followed the same safe method in financial transactions.

The bargain was concluded after Abraham had induced Ephron to name the smallest figure at which he would make the sale, and then came the ceremonial part of making the transfer of the title. They did not go before a notary public and have Mr. and Mrs. Ephron sign the deed and acknowledge their signatures to the officer "for the purposes therein mentioned." All the elders of the city, and no doubt the small boys were around the corner trying to see what was going on, went to the gate of the city and there Ephron took off his shoe, or sandal, and gave it to Abraham, and then Abraham counted out 400 shekels and had the witnesses count it, and delivered it to Ephron. Then Abraham produced some parchment and wrote a history of the transaction, which Ephron siged, and then the witnesses signed their names, or made their marks, after which the transaction was considered complete. Any one having a curiosity to know how land sales and other rights were transferred among the Hebrews can be enlightened by reading Ruth iv. 7, and Jeremiah xxxii. 7-13.

But, as to the deed itself, this is what Abraham wrote:

YAHVEH, HIS NAME BE PRAISED.

Ephron, son of Zochar, Prince in Hebron and Ruler of the children of Heth, being seized in fee simple of all the lands, with the tenements, hereditaments and appurtenances thereunto belonging, lying adjacent to the city of Hebron, has this day, for and in consideration of the sum of 400 shekels of silver, lawful and current money with the merchant, in hand paid, the receipt whereof is hereby acknowledged, sold unto Abraham, the son of Terah, the son of Nahor, the son of Serug, the son of Reu, the son of Peleg, the son of Eber, the son of Salah, the son of Arphaxad, the son of Shem, the son of Noah, late of the country of Ur of the Chaldees but now resident in Beer-Sheba, all that tract and parcel of land lying south of the city of Hebron and which contains the cave of Machpelah, even to the mountains and river which bound it on either side.

And the said Ephron, the son of Zochar, Prince of Hebron and Ruler of the children of Heth, doto hereby convey unto the said Abraham and to his heirs and assigns forever all of said demesne, together with all the trees that be thereon, to be a perpetual possession unto him, the said Abraham, and to his seed forever. In witness whereof the said Ephron, son of Zochar, has this day plucked off his shoe and has given it unto the said Abraham as a token and has placed hereon his seal as a perpetual testimony between the parties hereto, all of which has been done in the presence of the children of Heth at the gate of the city of Hebron in the four hundred and eighty-ninth year since the subsiding of the great water.

Signed,

EPHRON, the son of Zochar. (Seal.)

Witnesses:

Amigal, son of Abishna, the Hittite;
Adichorom, son of Ashunach, the Hivite;
Abdon, son of Achiram, the Gomerite;
Bikdil, son of Abudish, the Zidonite.

N.

If I Were You, My Boy.

I wouldn't be ashamed to do right anywhere.

I would not do anything that I would not be willing for everybody to know.

I wouldn't conclude that I knew more than my father before I had been fifty miles away from home.

I wouldn't go in the company of boys who use bad language.

I wouldn't get in the sulks and pout whenever I couldn't have my own way about everything.

I wouldn't let any other boy get ahead of me in my studies.

I wouldn't abuse little boys who had no big brother for me to be afraid of.

I would learn to be polite to everybody.

I wouldn't cry for anything when mamma or papa told me it was not good for me.

I would try to see if I couldn't get people to like me, by being civil to everybody.

I would never make fun of children because they were not dressed nicely.

I would try to learn something useful every day, and whenever I saw men making anything I would watch to see how they did.

I would keep my hands and face clean and my hair brushed, without being told to.

I would be respectful to old people and behave so that my parents would not be ashamed of me.

I would be in earnest about everything. When I had to work I would to it with all my might; I would study with all my might, and I would play with all my might.

I would read books and papers which would make me want to know something and do something which would benefit other people.

I would have as good a time as I could in this world, but I wouldn't tell lies, nor steal, nor be mean to anybody.

I would pray every day, and I would ask Jesus to make me a good boy, and show me how to go to heaven.—*Ram's Horn.*

"Scenes From Every Land."

A collection of over 500 fine photographic views, size 11½x14½ inches, designed to take the place of an extended tour of the globe, and embracing the most beautiful, interesting and striking scenes that divert the traveler abroad, the whole forming a photographic panorama of the world. With an introduction by Gen. Lew Wallace, and descriptions of the different scenes by Edward Everett Hale, D. D.; Washington Gladden, D. D.; Russell Conwell, D. D.; Hamilton W. Mabie, LL. B., Lit. D.; S. F. Scovel, D. D., LL. D.; C. H. Payne, D. D., LL. D.; Hon. Wm. C. P. Breckinridge, Hon. Henry Watterson, J. H. W. Stuckenburg, D. D., of Berlin, Germany, and other talented writers; edited by Thomas Lowell Knox. Springfield, Ohio: Mast, Crowell & Kirkpatrick.

A magnificent portfolio volume, printed on extra heavy enameled paper, handsomely bound, and containing a rare collection of large engravings made from photographs, illustrating the most interesting and the most noted objects everywhere. This great work will probably take a foremost place among the publications of to-day. It deserves, and will doubtless receive, a cordial reception at the hand of educated people everywhere. It is an educational work, occupies a field of its own, and in families where it finds a place the children will, in a few months, acquire a more accurate knowledge of the world at large than their parents have gathered in a lifetime. It is one of those rare books that educate while they amuse, instruct and entertain. Giving, as it does, the most celebrated scenes in every country on the globe, it in a measure takes the place of an extended tour, which would consume years and cost thousands of dollars. At the same time it is of great value to those who have been abroad, because it recalls to mind the places they have seen and admired in the course of their travels; and it is of still more value to the stay-at-home, enabling him to become so familiar with the cities, buildings, scenery, and the manners and customs of the people of other lands, that he can pass in society as a finished traveler. It not only shows the choicest scenes from every country, but presents the impressions made by them on the minds of the most learned travelers and thinkers of the day. It is like having the whole world in your own home, with the greatest travelers and lecturers there to talk to you about it.

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Gen. Wallace's introduction gives a foretaste of the good things that follow, and Hon. Henry Watterson's article on "London and Paris" is written in his most vigorous style, and deals with matters that render it exceedingly interesting. Hon. Wm. C. P. Breckinridge has an article on "American Progres" that is also well worth reading. The typography and press-work are excellent, and the character of the views selected shows careful, painstaking work and nice discrimination. Evidently the world has been ransacked for the beautiful in nature and art, and as one turns the pages of this book, he becomes lost in the contemplation of famous castles, hoary cathedrals, historic ruins, charming mountain, lake and river views, and a thousand and one other strange, fascinating and instructive objects that give variety to terrestrial scenery.

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KANSAS FARMER CO., Topeka, Kas.

The strike of the Union Pacific shop men came to an end at the same time as that of the Santa Fe, and the men resumed their places on Tuesday morning. The terms of the Union Pacific settlement have not been made known.

Subscribers who have paid to 1894 dates may be surprised on noticing the labels on their papers to find that the "4" looks very much like a "1." This is the fault of the type. There are no "'91" dates on our list, and all of those which look like "'91" are to be read "'94."

It is claimed by the management that the World's Fair will be opened promptly on May 1, and that, notwithstanding the many reports to the contrary, everything except, possibly, a few minor details, will be completed and in readiness for inspection by the public.

It is claimed that $100,000,000 is a conservative estimate of the money expended annually by American tourists in Europe. This year most of this will be expended in seeing the World's Fair and this will be supplemented by a large amount expended by foreigners in this country.

It is stated by the Cincinnati *Price Current*, that if this country had sold its surplus of cotton and wheat at such slight concession of price as would probably have enabled Europe to absorb them, the reduction of the balance of trade against us would have amounted to about $57,500,000.

Some apparently good suggestions signed "Sambo" are not published for the reason that the real name of the writer is unknown to the editor. Names of correspondents need not be published, but no communication should be sent to the KANSAS FARMER unless accompanied by the real name of the writer.

The work bestowed upon the preparation of the land for corn has much to do with the ability to withstand drouth or hot winds, the labor of keeping free of weeds and grass, and finally with the yield. Deep stirring and thorough harrowing will be well repaid. Where the lister is used careful work is as important as with the old method.

The recent great labor disturbances in Belgium have resulted in the enactment, unwillingly, of a provision granting "universal" suffrage. The term universal does not in this case include women. Neither is the right to vote extended equally to all. But the poor man who has never been convicted of crime and is twenty-five years old may have one vote, while his more fortunate neighbors may have two or even three votes apiece.

EXPERIMENTS IN DEVELOPMENTS OF SUGAR IN SORGHUM CANE.

One of the most important bulletins ever published by the United States Department of Agriculture is that numbered 37, which gives a record of experiments with sorghum under the direction of the chemical division of the department. Much adverse criticism has been indulged in by the press as to the conduct by this department of experiments in manufacturing sugar. While these critics have usually made their own ignorance of the subject more conspicuous than the errors of the experimentors, the best friends of the department have freely admitted that its success in the field of practical manufacturing is less to be dwelt upon than the merit of the more strictly scientific work it has undertaken.

The greatest value of the work of 1892 consists in the addition made by that year's work to the improvement wrought in the quality of the cane by the work of the preceding four years. Readers of the KANSAS FARMER know that this improvement has been brought about by judicious seed selection and by crossing. The initial work in this line was done by Mr. A. A. Denton, at Sterling, and consisted in securing seed of every known variety of sorghum in the world. Discarding those which on trial proved of least value and carefully cultivating those of superior excellence or promise and selecting the seeds from the best individuals of these has not resulted in eliminating some of the old familiar favorites from the preferred list, but has placed some new and strange names beside them, and better still, has produced vast improvements in the best of both the new and the old varieties. Crossing has developed some new varieties of superior excellence and great promise. This is illustrated in the following table, showing the relative value and position of varieties as based on the analysis of average samples with maximum sucrose per cent. in juice.

Grade.	*Name.*	*Sucrose.*
		Per cent.
1	Collier	18.50
2	India and Orange	18.10
3	Orange	17.49
4	McLean	17.24
5	Cross 7 X	17.30
6	Plant r	17.02
7	Colman	16.98
8	Imphee	16.90
9	Cross 592 X	16.88
10	Variety 161	16.84
11	Cross 14 X	16.84
12	African	16.72
13	Uoehlana	16 70
14	Cross 341 X	16.60
15	Cross 292 X	16.50
16	Cross 42 X	16.46
17	Cross 8 X	16.45
18	Cross 110 X	16.40
19	Cross 15 X	16.30
20	Variety 208	16.29
21	Variety 112	16.11
22	Cross 107 X	16.00
23	Cross 401 X	16.00
24	Link	15.99
25	Cross 5 X	15 97
26	Variety 491	15 80
27	Variety 227	15.80
28	Cross 23 X	15.77
29	Seedless	15.75
30	Cross 6 X	15.70
31	Kansas Orange	15.60
32	Cross 142 X	15.60
33	Folger	15.57
34	Variety 289	15.56
35	Cross 48 X	15.40
36	Cross 180 X	15.27
37	Cross 165 X	14.92
38	Hottinger	14.85
39	Cross 426 X	14.80
40	Cross 206 X	14.70
41	Amber	14.50
42	Cross 424 X	14.30
43	Cross 168 X	14 10
44	Cross 43 X	13.60
45	Koombana	13.30
46	Cross 67 X	12.70
47	Brown	12.60
48	Cross 27 X	12.10
49	Cross 232 X	11 60
50	Cross 187 X	10.90

It it interesting to note how some of these varieties have improved in quality under the skillful treatment of Mr. Denton. It is to be observed that the value of cane for the purpose of making sugar depends chiefly on its richness in sugar (sucrose) and the purity of its juice, *i. e.*, freedom of the juice from other substances besides sugar and water. The following statement shows these qualities as disclosed by the average analysis of the different varieties of cane named from the time they were first grown by the Department of Agriculture up to the present. The great increase in the sugar content and the purity for the year 1892 must be regarded as due largely to climatic conditions, and it is not probable that this high character of the cane will be preserved without occasional reversions to less favorable composition:

Variety.	1888. *Mean percentage sucrose.*	1888. *Mean purity.*	1889. *Mean percentage sucrose.*	1889. *Mean purity.*	1890. *Mean percentage sucrose.*	1890. *Mean purity.*	1891. *Mean percentage sucrose.*	1891. *Mean purity.*	1892. *Mean percentage sucrose.*	1892. *Mean purity.*
Collier	12.31	71.69	14.91	76.95	15.95	74.77	14.80	73.80	18.50	78.19
Colman	.....	.....	14.58	75.55	14.88	76.38	15.60	76.30	16.88	77.96
Folger	.....	.....	14.08	76.54	14.12	74.91	14.60	73.30	15.57	74.75
McLean	.....	.....	.....	.....	15.22	76 00	16.40	77.40	17.24	76.85

The above data, while they show variations and occasional reversions and retrogradations, yet indicate most clearly a gradual, and in some cases rapid, improvement in the character of the variety. There is a tendency to the production of a larger quantity of sucrose, and a higher purity. This is due to the principle of selection, by means of which an attempt is made to propagate only such individual samples of any given variety as have in a high degree the characteristics necessary for successful sugar-growing, and to observing the requisites of cultivation most likely to develop the characteristics desired.

The possibilities for further improvement are indicated by the merits of the canes of maximum excellence. The varieties which produced single canes of notable richness may be arranged according to their rank of maximum richness in sugar as follows:

Grade.	*Variety.*	*Maximum sucrose per cent.*	*Maximum purity per cent.*
1	Collier	21	85
2	Golden Orange	20	74
3	Colman	20	90
4	Planter	20	above 80
5	Orange	19	above 80
6	Cross 14 X	19	80
7	No. 208	19	above 80
8	McLean	19	83
9	Link	19	above 80
10	No. 592	18	79
11	Cross 42 X	18	80
12	Cross 5 X	18	above 80
13	Cross 292 X	18	79
14	Seedless	18	80
15	No. 289	18	above 80
16	Cross 8 X	18	above 80
17	Amber	18	above 80
18	No. 161	17	above 80
19	Folger	17	86
20	Imphee	16	74
21	Kansas Orange	16	78
22	Cross 15 X	16	75

It thus appears that three varieties, the names of which are new to the majority of sorghum-growers, are each capable of yielding cane, the juice of which is one-fifth sugar, and in which juice the sugar constitutes over four-fifths of the matters in solution.

The most interesting of all varieties is the Colman, which has produced canes containing 20 per cent. of sugar in the juice, which was 90 per cent. pure. This is one of the varieties originated at Sterling and is a cross between the two well known varieties, Amber and Orange.

When it is remembered that the production of sugar at Ft. Scott in 1887, which revived the interest of the country in the sugar industry, was from cane, the juice of which averaged less than 10 per cent. sugar and had a purity of less than 60, the improvement made by the Department of Agriculture under the care of Mr. Denton may be realized. This work should be continued until by breeding only from the best, not only samples of maximum excellence shall possess these qualities, but until 20 per cent. juice 80 per cent. pure shall be the rule rather than the exception. But with canes possessing the merits of the average samples shown above, the problem of the profitable production of sugar is solved, and by pursuing the lines of improvement which have wrought such changes in five years, it need not be long before, instead of importing $100,000,000 to $150,000,000 worth of sugar per year, this country will be able to enumerate sugar among its most important articles of export.

It is a remarkable fact that under Mr. Denton's cultivation and seed selection almost every variety of cane, whatever its excellence when first received, is rapidly improved in all desirable qualities.

With seeds produced at Sterling the Department of Agriculture conducted also extensive experiments at Medicine Lodge, where the cultivation was intrusted to Mr. Eli Benedict. The results obtained reinforce those at Sterling and present other points of interest which cannot be fully presented at this time.

Another series of experiments were conducted at Calumet plantation in Louisiana by Mr. Thompson, the proprietor. The difference in latitude, soil, climate, etc., of these stations makes a comparative study of the results most interesting. It is, however, satisfactory to be able to state that the indication of all these experiments is that invaluable varieties of cane suited to the wants of each locality are in process of rapid development.

A DISGRACEFUL LYNCHING AT SALINA.

Some ten days ago a dastardly outrage was committed at Salina by an unknown man. A suspected negro was arrested, but while positively identified by the victim of the outrage as the perpetrator, was finally discharged on preponderating evidence of an *alibi* and on circumstantial evidence which made it certain that he was not the criminal. He narrowly escaped hanging, however, having fallen into the hands of the mob. His escape was due to the efforts of cool-headed men at Salina. But the thirst for blood seems to have been aroused, and last week a negro who had viciously cut a white man at Salina was lynched and hung and his clothing was torn off in bits and carried away for souvenirs. The disgrace of the case is greater because the negro had been tried and on his statement sentenced to the penitentiary and was taken away from the officers who had him in charge and were taking the train for the pen.

It is a crime to take human life in any save the methods prescribed by law and after conviction of a capital offense. Such crimes have too often disgraced Kansas and are too often condoned by the press. Every person who joins in such a mob should be tried and upon conviction punished for his crime. The safety of our institutions depends upon our proceeding in all cases according to law and seeing to it that our laws are enforced.

BI-SULPHIDE OF CARBON FOR MOLES, GOPHERS, ETC.

EDITOR KANSAS FARMER:—There was published in the FARMER some time since a remedy for killing prairie dogs by a gas created by soaking cotton in a certain drug and putting it in their holes. I cannot remember the name nor find the FARMER. I was thinking it would be a good dose for gophers. They are bad in my garden. I enclose stamp. PETER HANSON.

Concordia, Kas.

The remedy mentioned is bi-sulphide of carbon. It is said to be effective for all burrowing animals and to be excellent for the prevention of insect ravages on wheat in the bin. It is very volatile, has an offensive odor, and is highly inflamable, and must therefore be handled with care as to fire. It can be had at any drug store. For burrowing animals saturate balls of cotton with the liquid, insert in their burrows and cover lightly. For preserving wheat get the liquid down to the bottom of the grain through tubes or otherwise. The gas will come to the top and permeate all grain near it. By reason of its volatility all bad smell will disappear on handling the grain.

An English writer says that the average hen will lay 100 eggs each year, but well selected hens will lay 150 and some 200 per annum.

RAILROAD PASSES.

On being asked by the writer what proportion of the travel coming under his official notice was on free passes, a Santa Fe conductor answered: "About one-fiftieth." He then proceeded to explain that on some special occasions, as the holding of nominating conventions, the convening of the Legislature, etc., the proportion was much larger. In the one-fiftieth he included editorial as well as complimentary passes, but not transportation of railroad employes. This conductor had served many years on an Eastern road before coming to the Santa Fe, and he estimated that the proportion of free passes to paid tickets was about the same there as here. No doubt the records of the railroad general offices would give interesting and valuable information on this point, but such has not been reported to our Railroad Commissioners and is therefore not available to the public.

To carry free two passengers of every 100 may not be considered burdensome to the railroads, and yet when it is observed that when the passenger revenue of the Santa Fe system in Kansas for the year ending, June 30, 1892, was nearly $5,000,000, it is easily figured out that if the conductor's estimate was correct the passes furnished by this system alone in this State were used to the value of about $100,000 in the one year. If it be estimated that half of this amount is chargable to advertising accounts on accountof newspaper passes, there is still left the sum of $50,000 as the estimated value of transportation furnished free to the various classes of persons who make no direct return for the same. A like calculation extended to the other systems in Kansas would show that a very large amount of free transportation is furnished, either willingly or from necessity, to certain of the people of the State.

It is sometimes argued that this is a matter of private business with which the public has no concern. In estimating the reduction of fares that could be made were these "dead heads" compelled to pay regular rates it is found to be surprisingly small. If, as above assumed, one-half of the passes are chargable to advertising, there is left an estimated passenger to the hundred who rides free. The maximum fare in Kansas is 3 cents per mile, and, if the one man in a hundred who rides free were compelled to pay, the reduction which might be made on this account would be 3-100 of a cent, or $0.0003 per mile, and would leave the fare $0.0297. The saving would be 3 cents on a ride of 100 miles. This is so small as to make it little worth while for the man who does the average amount of traveling to concern himself about it.

But, while the arithmetic of the case figures out the above ridiculously small average, personal disadvantage to the traveler who pays fare, the serious side of the question is reached when is considered the charge that legislators, executive officers and the judges of our courts are influenced in their views of right and wrong by the possession of these favors from the great corporations. So serious is the impression on the public mind that this influence is considerable, and is adverse to the people, that the free pass question comes up for discussion in almost every campaign. That the desire for the free pass amounts to a perpetual epidemic is readily believed by all who have been in the vicinity of the office dispensing these favors. This is especially true upon the occasion of a great party convention, or a session of the Legislature. That the dispensation of these favors has a vast influence upon the action of average politicians is illustrated by the instance of a delegate to a State convention, who was also chosen through the influence of the prohibition element in his party, but who went home from the convention rejoicing at the nomination for a State office of a man of directly opposite views and notorious practice on this question. This delegate explained that the nominee in question was a railroad man, and "by standing in with him we can get passes whenever there are any important political doings at Topeka."

This question will be considered further next week.

Kansas stock interests are to receive proper recognition at the World's Fair. We publish this week the list of premiums offered by the Board of Managers. These premiums are not large, but they should, and doubtless will, be accepted as the best that the Board can do with the means at command, and will bring out a worthy showing from the fine herds of this State.

A correspondent asks the KANSAS FARMER to give the names and descriptions of the most common of our Kansas wild flowers, so that they may be recognized. To comply with this request intelligently would require more space than this paper can spare for this purpose. The work has been thoroughly covered by standard works on botany, so that any one who will take the trouble the learn the elements of this science may, by the aid of a "manual," determine the name of any plant he meets.

A. F. Percey, of Carneiro, Kas., asks for information about acquiring lands in the Cherokee strip. We believe the method to be pursued has not been fully determined upon, or at least has not yet been made public. The Secretary of the Interior has declared his desire to so regulate the matter "that a poor cripple will have as good a chance as the owner of a race horse to secure the most desirable quarter section." It is not unlikely that a system of "drawing" will be used. Each settler will be entitled to 160 acres.

END OF THE SANTA FE STRIKE.

The strike of the Santa Fe shop men came to an end on Tuesday morning, after a continuance of sixteen days. The strike came suddenly and without warning, and was continued quietly and without violence or any show of disorder. There was no drunkenness and no disposition to molest the company's property. The stipulations under which the strike ended are the following:

First—All the striking men are to be reinstated.

Second—The agreement of August 1, 1892, is to continue in force.

Third—When any grievance arises the aggrieved shall have the right to appeal from the decision of the superintendent of machinery to the general manager.

Fourth—The committe agrees to do all in its power to get the men to return to work promptly.

The third stipulation is the only modification made in the former agreement. This agreement was a recognition of the labor organizations, and it is here reaffirmed. Both the company and the men are pleased at the termination of this strike. The men all went back to their work, and the new men brought on to take their places are also retained, since the company has plenty of work for all at present.

A SPANISH FEVER SCARE.

A good deal of excitement has prevailed at Emporia during the last few days on account of the arrival, at that place, of nineteen cars of Texas cattle, which were to have been unloaded and driven to a pasture some miles south of the city. Last year a similar consignment of cattle, for the same pasture, brought in the contagious Spanish fever, from which over $50,000 worth of native cattle died. The agent in care of the cattle, learning that the Sheriff would oppose all efforts to unload, wired his superiors for instructions, and was told to unload in spite of the Sheriff. The officer had, however, no difficulty in obtaining all the deputies he needed, for the farmers of the entire region were ready to take a hand in protecting their herds.

Later, a member of the Live Stock Board arrived, and, on investigation, found that the cattle had a "clean bill of health." This did not allay the excitement, for the cattle which brought the disease last year also had a "clean bill."

The cattle were unloaded at the stock yards and watered and fed, and finally, under the direction of the State Board of Sanitary Commissioners, who found that they were not from below the quarantine lines, they were reloaded into the cars and shipped to Bazaar, from whence they were driven about eight miles to the pasture, where about 800 head of Texas cattle were already.

All necessary precautions will be taken to prevent the possibility of the spread of Spanish fever in the contingency of any of the disease germs having been brought in.

TO CROP REPORTERS AND OTHER READERS.

The KANSAS FARMER requests each of its crop reporters, and as many other readers as are willing to contribute information as to the present condition of crops, to write and send us a postal card report on April 28. These reports should give estimates in percentages on the following points:

1. Area of winter wheat as compared with last year.
2. Condition of winter wheat as compared with same date last year.
3. Area of spring wheat as compared with last year.
4. Condition of spring wheat as compared with same date last year.
5. Area of oats as compared with last year.
6. Condition of oats as compared with same date last year.
7. Area planted and to be planted to corn as compared with last year.
8. Condition of ground and progress of corn planting.
9. Prospects for apples, peaches and small fruits.
10. Amount of grain and stock feed left on hand.
11. Condition of work animals and other live stock.

It is desired to publish these reports in the KANSAS FARMER of May 3, so that it will be necessary that they be mailed promptly on April 28.

UNCERTAIN BASIS FOR CROP ESTIMATES.

Foreign statistical writers complain of the grievous inaccuracy of American official crop estimates, and have concluded to rely upon them as only crude approximations. Several elements are to be considered as causes of the frequent wide divergence of the actual crops harvested and sold from the official estimates previously published. Not the least of these is the extensive experimentation going on, especially in the newer portions of the country, with the average result of obtaining better crops. Such changes, as well as the adaptation of methods to the conditions of new and untried, or but recently tried regions, are scarcely known in England and the old settled countries of Europe.

But perhaps the source of the majority of the inaccuracies complained of is the method of estimating. Our statisticians ask their correspondents to report the crop prospects by comparison with the indefinite and unknown basis, "a full average crop." There are a few writers in the United States who can state what the average yield per acre of wheat for the entire country is, but not one in twenty of the correspondents who make the primary estimates on the crop of the thousands of localities can tell how many bushels per acre constitutes "a full average crop" for his county or district. He is asked, however, to express in percentages what per cent. of a full average crop there is in prospect this season. On the average of estimates on such indefinite basis the official estimates are compiled, and it is gravely stated to the world that the prospect is for so many hundredths of "a full average crop."

Now, the student of statistics, the farmer who desires to form an intelligent opinion as to whether he had better sell or hold his reserve grain, the miller who desires criteria on which to base his operations, the legitimate grain buyer who may be willing to purchase grain with in a small margin of what he can probably realize for it—all are at a loss as to the correct interpretation of the figures for, while they appear exact enough, experience has shown that the foundation of the estimates—"a full average crop"—is an unknown and indefinite quantity. The inquirer who has the time to look up the statistics, or has a sufficiently good memory, may know that last year's report stated the April condition of wheat to be 81.2, and that the crop in the United States turned out about 515,000,000 bushels. The April estimate for this year is 77.4, and if the acreage may be assumed to be the same as last year the April condition possibly indicates that this year's crop will be 774-812ths of 515,000,000, or about 491,000,000 bushels.

Aside from the inherent and unavoidable uncertainties about all such estimates, such as the fallibility of men's judgment as to what they see, changes in condition which will take place on account of variable conditions of the season, etc., there is the uncertainty as to the basis of the estimates, "the average crop" or a "full average crop."

This unit, if inferred from last year's figures, is about 634¼ million bushels. But the final estimates of last year's crop placed it at "86" per cent., while the final estimate for 1891 placed the crop of that year at "97." Our foreign friends are at a loss to know how, with crops of '91-2 at the figures here given, this country has fed a far larger population than ever before and furnished a surplus for export of 430,000,000 bushels, compared with 220,000,000 in the previous year.

Doubtless a more rational system of crop reporting and one more easily and certainly applied is the one based on the last year's crop as the unit of comparison.

World's Fair Premiums for Kansas Stock.

The Kansas Board World's Fair managers offer the following special premiums in the breeding classes on animals owned and kept in Kansas by residents of Kansas and exhibited by them at the World's Columbian Exposition:

CATTLE.

SHORT-HORN.

		Special Premium.
Short-horn bull taking the World's Columbian sweepstakes premium		$100.00
1st in class.	*1st prem.*	*2d prem.*
Bull, 3 years or over	$25.00	$20.00
Bull, 2 years and under 3	20.00	15.00
Bull, over 1 year and under 2	15.00	10.00
Bull, under 1 year	10.00	5.00

HEREFORD.

Bull taking World's Columbian sweepstakes premium,		$100.00
1st in class.	*1st prem.*	*2d prem.*
Bull, 3 years old or over	$25.00	$20.00
Bull, 2 years and under 3	20.00	15.00
Bull, over 1 year and under 2	15.00	10.00
Bull, under 1 year	10.00	5.00

ABERDEEN-ANGUS.

Bull taking World's Columbian sweepstakes premium,		$100.00
1st in class.	*1st prem.*	*2d prem.*
Bull, 3 years old or over	$25.00	$20.00
Bull, 2 years old and under 3	20.00	15.00
Bull, over 1 year and under 2	15.00	10.00
Bull, under 1 year	10.00	5.00

GALLOWAY.

Bull taking World's Columbian sweepstakes premium,		$100.00
1st in class	*1st prem.*	*2d prem.*
Bull, 3 years old or over	$25.00	$20.00
Bull, 2 years old and under 3	20.00	15 00
Bull, over 1 year and under 2	15.00	10.00
Bull, under 1 year	10.00	5 00

JERSEY.

Cow, any age, taking World's Columbian 1st premium dairy test	$100.00
Cow, any age, taking World's Columbian 2d premium dairy test	50.00
Cow, any age, taking World's Columbian 3d premium dairy test	25.00

HOLSTEIN.

Cow, any age, taking World's Columbian 1st premium dairy test	$100.00
Cow, any age, taking World's Columbian 2d premium dairy test	50 00
Cow, any age, taking World's Columbian 3d premium dairy test	25.00

HORSES.

STANDARD TROTTERS [STALLIONS.]

	1st prem.	*2d prem.*
5 years old	$50.00	$40 00
4 years old and under 5	30.00	20.00
3 years old and under 4	20.00	10.00

PERCHERON STALLIONS.

	1st prem.	*2d prem.*
5 years old	$50.00	$40 00
4 years old and under five	30.00	20 00
3 years old and under 4	20.00	10.00

CLYDESDALE STALLIONS.

	1st prem.	*2d prem.*
5 years old	$50.00	$40.00
4 years old and under 5	30.00	20.00
3 years old and under 4	20.00	10.00

SHEEP.

SHROPSHIRE.

	1st prem.	*2d prem.*
Ram, 3 years or over	$25.00	$20.00
Ram, 2 years and less than 3	20.00	15.00
Ram, 1 year and under 2	15.00	10.00

MERINO.

Ram, 3 years or over	$25 00	$20.00
Ram, 2 years and less than 3	20 00	15.00
Ram, 1 year and under 2	15.00	10.00

SWINE.

BERKSHIRE.

	1st prem.	*2d prem.*
Boar, 2 years or over	$25.00	$20.00
Boar, 1 year and under 2	20.00	15.00
Boar, under 1 year	15.00	10.00

POLAND-CHINA.

	1st prem.	*2d prem.*
Boar, 2 years or over	$25.00	$20.00
Boar, 1 year and under 2	20.00	15.00
Boar, under 1 year	15.00	10.00

By order of the Board of Managers.
M. W. COBUN, President.

Horticulture.

Spraying With Insecticides.

Paper read by Dr. Albert Newman, of Lawrence, before the State Horticultural Society.

The thought of meeting and overcoming the depredations of insects upon our fruits by spraying our trees with arsenites is of quite recent origin. It is hardly more than five years since it was first suggested and put into operation. Within this short period the practice of spraying fruit trees and grape vines has spread with remarkable rapidity. The breadth and extent of its adoption, I think, demonstrates two things, first, the great extent and damage of insect depredations on fruit, and second, the efficacy of spraying with insecticides as a means of prevention. It is interesting to see how, in every department of human activity, the presence of a great need leads to the discovery of the proper remedy. It seems as though nature held in store a remedy for every ill, a supply for every need, and that it is only when our need presses hard upon us that we delve with sufficient energy to develop the remedy. So that, however great the difficulties which beset our pathway and threaten our success, we ought not to be discouraged, but ought rather to apply ourselves with energy and courage to finding a way out of our difficulties.

The intelligent application of spraying requires an accurate and intimate knowledge of the habits of our insect enemies. Without this knowledge we can at best apply our remedies only in an empiricle way. We cannot too clearly recognize our obligation to those who, by patient and well directed observation, have placed such knowledge within our reach. This knowledge enables us to apply our remedies scientifically and rationally. We know what we may expect to accomplish by them and what we may not.

It is not every insect enemy of the norticulturist that spraying will defeat. While it furnishes an excellent and reliable protection against the ravages of many which have been injuring our fruit to a serious and yearly increasing extent, it is not adapted and cannot in the nature of things be expected to prevent the ravages of others equally damaging, but whose habits exclude them from its proper application. As an example of the last named class I will name the apple maggot (*Trypeta pomonella*), which has done considerable damage in my orchard for the last three years. Not attacking the fruit until it has attained considerable size, spraying, as a remedy, is impracticable. As a general rule, we may, I think, count on spraying with arsenites as an effective preventive of damage from insects which feed upon the foliage and buds of fruit trees or upon the fruit itself in its nascent state. And this, it seems to me, must be the limit of rational expectancy.

In respect to methods and results I am sorry that I can not speak from a larger personal experience than I can. I sprayed my orchard first in the spring of 1891, using London purple, one pound to 100 gallons of water. I sprayed but once, and that soon after the blossom leaves dropped. My fruit that year was damaged less by insects than it had been the year before. But a new enemy appeared. The apple scab appeared upon several varieties of apples, but damaged most by Missouri Pippins and Winesaps, so that last spring I determined to spray for that also. For this purpose I sprayed before the blossoms opened with carbonate of copper, using carbonate of ammonia as a solvent, and using three ounces of carbonate of copper to fifty gallons of water. Again, after the blossom leaves dropped, I sprayed with the same, adding to each 100 gallons one pound of London purple. My orchard blossomed very full with the exception of one variety, the Northern Spy, and I anticipated a full crop of apples. On visiting my orchard a few days after the spraying I found the leaves presenting a brown and blighted appearance. My first impression was that the spraying had scorched the leaves. I soon found, however, that some trees which had not been sprayed at all were quite as badly affected as any, and I was forced to look for another cause. Further observation convinced me that the affection of the foliage was due to the apple-scab fungus. My Missouri Pippins and Winesaps were most affected, and on these varieties, although they blossomed freely, no fruit set. My Ben Davis trees dropped most of their fruit early. My Hubbardston's Nonesuch, Fall Orange, Snow, Red Astrachan and Early Harvest bore a medium crop. It seemed to me that there was a close relation between the affection of the foliage and the future of the fruit to develop.

I intended to spray again, but the slight prospect for fruit discouraged me. My crop this year was too light to furnish data upon which to estimate the results, but I believe that our estimate of the value and importance of spraying will every year grow larger. In estimating results we should consider that in many cases the apparatus used for applying the spray has been quite imperfect, and but illy adapted to secure the best results. We may, I think, reasonably look for such improvement in our apparatus for spraying as will largely increase its efficiency. The inventive genius of Americans may be depended upon to bring these to approximate perfection.

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, and 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, if small, in a quill; if larger, 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 Flat-headed Borer in Box Elder.

It has generally been supposed by the people here that the box elder tree had no enemies that need be feared, but I find just now that some fine young trees of that variety, growing on my premises here, have been almost ruined by a borer. It is, when full size, about one and one-fourth inches long—a flattened, almost square body, about one-eighth inch wide, with a large, flat head, color, a pale yellow, semi-transparent. It attacks the trunk of the tree, confining its attention almost wholly to the southwest exposure, and doing most damage where the trunk divides into branches, and where large limbs have been cut off—wherever the bark is most roughened and split. This may account, also, for its partiality for the southwest aspect of the tree, as sun-cracks are more frequent on that part of the trunk. It burrows beneath the bark and eats away the new growth of wood, depositing its excreta in a compact mass in the space eaten out, a single borer thus eating out the sapwood over an average space of some three square inches in the course of the season, and then burrows in the tree to a depth of from one-half inch to an inch. Unless the tree be examined closely, there is nothing to indicate the ravages of the borer until so wide a space has been eaten out that the bark begins to split longitudinally from drying out. Trees four inches in diameter, which I supposed yesterday to be perfectly sound and thrifty, I find, upon examination this morning, to be "deadened" over nearly half the surface of the trunk, and the damage extends part way up the larger branches.

Probing in the holes made in the wood, I find most of them apparently unoccupied, but in some the grub has just approached the surface ready to begin operations, a few being already at work under the bark. In a few others I found what I suppose to be the pupal form of the creature—a lance-shaped body, about one-fourth inch wide and one-half inch long, pale yellow, with brownish marks upon the head, and with three pairs of legs and a pair of wings folded upon the abdomen.

If this is a familiar species of parasite, will you please tell me what it is and the best means of checking its ravages? J. W. G.

Garden City, Kas.

Answer.—The careful description of our corrospondent leaves no doubt that the insect under consideration is the flat-headed borer (*Chrysobothris femorata*), a beetle not at all discriminating in its choice of a food-plant, and attacking various deciduous trees alike in the orchard, the shelter belt and the timber plantation. As a rule, the insect prefers to attack trees that are in an unhealthy state, though this is not always the case. Wherever a tree is suffering from careless handling, as in transplanting and severe pruning, or from exposure of the trunk to the southwest sun, or where the bark has been broken by the whiffletree in cultivating, this beetle is likely to find the tree or the wound. The adult appears in spring and early summer, and deposits eggs in crevices in the bark or under the scales on the trunk or branches, and the larva works its way into the inner layer of bark and the outer layer of wood, where its course is as described in the letter above. The beetle is readily recognized when once found, and may be described as a flattened, oblong, metallic-black insect about one-half inch in length, the wing covers with a few broad depressed spaces more coppery in color, the back under the wing covers of a bright metallic green. During the egg-laying period, the beetles will be found basking in the sun on exposed parts of the trees attacked, and when approached their habit is to run quickly around to the opposite side of the trunk or branch and fly off, so that one must be quick to catch them.

As to protection of trees from attack, the important points are to keep the tree healthy, to shade the trunk of exposed or choice specimens, and to destroy the insects in all stages and whenever found. In the case above described the first proceeding should be to "worm" the trees, removing the larvæ with a knife blade, or probing the burrows with a sharp wire to insure the destruction of the occupant.

It has been shown, moreover, that alkaline washes are in a considerable degree repellent to the adult, and that the tree so washed is less likely to be the place of egg deposit. A thick soap suds made strong with a coarse, alkaline soap, is the most available wash, and the application of this to the trunk and larger branches should begin now and be repeated often enough through spring and summer to keep the odor of the alkali continually about the tree. The first "worming" of the trees should be done now, and a second should follow toward autumn to destroy the larvæ from the eggs of the summer.

Every stallion-keeper will have enough mares that fail to "catch" to warrant writing the Specialty Manufacturing Co. for points. Read their "ad" in this issue.

BLUE VITRIOL FOR SPRAYING FRUIT TREES, VINES AND PLANTS.

Nurserymen and farmers, write or call for prices in quantities. J. K. JONES, Wholesale and Retail Druggist, Topeka, Kas.

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In the Dairy.

Tainted Milk.

The causes of tainted milk have been classified by Dr. Gerber as follows:

1. Poor fodder.
2. Poor, dirty water, used not only for watering the cows, but also for washing the cans.
3. Poor, stinking air where the cows are.
4. Uncleanliness in milking.
5. Keeping the milk too long in too warm and poorly ventilated places.
6. Neglecting to cool the milk quickly after milking.
7. Lack of cleanliness in care of the milk.
8. Poor transportation.
9. Sick cows.
10. The cows being in heat.

Once the Law Forbade the Killing of Cows in this Country.

The *Holstein-Friesian Register* remarks that: "The first cattle that were brought into the American colonies were landed at the James river plantation, in Virginia, in the year 1607. They came from the West Indies and were the descendants of the cattle taken to those islands by Columbus on his second voyage, in the year 1493. In 1610, several cows were landed, and in 1611 about 100 head more were brought to the plantation. This, therefore, was the genesis of the cattle business in America.

"In order to encourage the industry to the fullest possible extent an order was passed forbidding the slaughter of any animal of the bovine kind under penalty of death. Under this restriction the number of cattle increased to 30,000 in Virginia alone before the end of the year 1619.

"The first cattle brought into New England colonies arrived at Plymouth in 1624, and were imported from England by Governor Winslow. Three heifers and a bull made up the cargo. 'In color,' the old record says, 'they were black, black and white and brindle.' In 1626 twelve cows were sent to Cape Ann, and in 1629 thirty more. In 1630 about 100 were imported 'for the exclusive use of the colony at Massachusetts bay.' During the same year 108 were sent from Holland to New York, so that by the year 1839 there were a good many head of 'horned cattle' in the different colonies.

"The reader naturally thinks of these animals as superb specimens of the bovine tribe, but they were not. History—that is the curious and interesting part of history—tells us that the average weight of fat cattle in the Liverpool markets as late as 1710 was only 370 pounds. What an evolution in 182 years!"

Sweet Corn.

A question of dollars and cents with dairymen is how to most cheaply and effectively keep the cows from drying up during the short pasture months. When dog days come with hot, drying winds, burning sun and pestering flies, the usually kept milk cow invariably slackens her flow of wilk down one-half and often to a yield of only one quart per day, unless a good soiling crop is grown and bountifully fed; probably none are better than successively planted sweet corn.

Some years since the writer gave this a trial. Although but one experiment in this line may not be conclusive, still its results were so satisfactory we think the plan can be greatly enlarged upon and generally adopted with much profit.

At the time mentioned I was milking nine cows, pasturing them on wild grass pasture that gave good feed up to, say August 1. I had learned by experience that they would give but little milk in fall and winter unless kept to their flow with soiling crop, so on May 5 I planted two acres of a large variety of sweet corn in rows forty-four inches apart, grains eight inches apart in the row, on good, rich corn ground, planting successively same acreage and kind of seed May 25 and June 5, cultivating all as ordinary corn.

When pasture shortened I cut this grown corn and hauled the cattle a load night and morning, increasing the size of the loads as the drouth and flies grew worse; the fodder was eaten up clean, and although there was some shrinkage in the flow of milk the cream then sold tested well and I realized nearly same money per week as from same cows when on full fresh pasture, saving me, say $2.50 to $4 per cow over and above what they would have given from the dry pasture, besides holding them to a good flow of milk, the great essential in profitable dairying, as farmers know by costly experience that when a cow is about "dried up" she can not possibly be brought back to a full milk flow until calving time. They also know that if a cow has to be boarded nine months of the year for a three month's milking there will be little left for the "boss" after paying the hired man.

Farmers, if so good results come from so light expense, all who milk cows, even if you have tame pasture, can gain a good profit by planting a few acres of sweet corn as a soiling crop; buy the seed at once and thoroughly test it before planting time that you are sure it will grow; cultivate it well, liberally feed out the fodder and rest assured there is good money in the crop.—*E. L. Beard, in Northeastern Iowa Dairy Journal.*

The Poultry Yard.

Profits in Poultry.

EDITOR KANSAS FARMER:—In speaking of the profits in poultry-raising, I mean on the farm in general, not the fancy poultry man. It may look foolish to some of our farmers to be writing so much about poultry, but it is the only way to get the majority of them interested in the subject. No one will ever make a success of any business until he becomes so enthusiastic on the subject that he will go at it with a determination to make it win. Let any business man or woman, I do not care what occupation he or she follows, if they get the idea in their heads that there is no profit in the business they at once lose the business energy.

I will admit that chickens is one of my hobbies, but I make a living out of our poultry yard, and there is not a quarter section of land in Kansas but there could be a good living made from the poultry yard, let the family be large or small. By this I mean they could pay all the grocery bills and could clothe the family if they were not too extravagant. This is saying a good deal, but it is a fact, for "what man has done man can do." Some one is asking how are you going to do it from a little thing—only a chicken? I tell you, my dear reader; not by going around (as many farmers do) preaching that our hens eat their heads off every day. It was only a short time ago that I heard a man talking that way, and, more than that, scolding about his wife wanting to keep three dozen hens over winter to roost on his wagon or buggy. Nor is it by letting them roost on the trees, fences, etc., the year around, having no comfortable quarters for them, even when the mercury is below zero or when a deep snow has fallen, so they must stay up in the trees all day for fear of freezing their feet, not even coming down to get something to eat, let alone laying an egg. Neither can you make a living from your poultry by letting them get their living by picking up a few grains of corn from the pen or an ear of corn which may have dropped by accident from the farmer's basket, unnoticed by him, or if they ever get a drink of water it is when a big rain comes and fills some hole in the barn yard, and as long as that lasts biddy gets a drink.

If you see a farmer driving fine, sleek, fat horses, the year around, it goes to show that he has looked after the horses. So it is with his cattle and his hogs. The farmer that makes money from his poultry is the one that looks after their wants and sees that they are well housed in a good, warm and large hennery, for they must have plenty of room, as well as warmth. What would you think of a farmer who would put two horses in a stall where there was room for only one? It is the same way with fowls. They never will fill the egg basket as quick should one hundred be compelled to occupy a room where there is only room for ten.

Look after the cleanliness of the hennery by cleaning it out once a week, keeping it free from lice, and making it have that shining appearance that the model housekeeper's house has. Then comes the feeding. A hen is a machine, which, to be profitable, must be fed with the proper food of egg material. Have them well supplied with oyster shells, grit, water and milk. I might go on and name the material of different varieties of food they should have, but I must come to the point—how many should be kept on the farm to pay for what we have to buy that comes into the house? As every reader knows what his household expenses are, I will just give him or her the figures and then they can keep the number to pay the bill. How many eggs will a hen lay in a year? Fanny Field puts it at 125 eggs, and I think that is a good average number for the different breeds, though the Black Minorcas will beat it nearly twice. The farmer who does not get an average of 125 eggs per hen should change his breed and then study how to feed them. As the circulation of this paper is large, I can not give the average price of eggs for the year. Every farmer knows and can do his own figuring. Then comes the number of young chicks to raise each year to sell. Five hundred, young and old, is not a large number, and can be sold every year from a farm. The feed that the chickens eat can be raised on the farm, so all the cash your poultry costs is for oyster shells, etc. Oyster shells can be bought in Boston at 60 cents per 100 pounds, or $9 per ton, and the freight is small. It will not cost over $1.10 per 100 pounds in any part of the West. I find it more profitable to keep one breed of chickens than it does to mix different breeds. Take a dozen chickens to market, all one colorr, and your groceryman will pay you more for them than if they are different colors. Experience taught me this. Let farmers get the breed that suits them and give the poultry a fair trial, and do not talk about the supply getting ahead of the demand when we import 16,000,000 dozen eggs every year and our population still growing larger. The poultry business alone is larger than the wheat or cotton business in the United States.

There are five points in successful poultry-raising, as follows: (1.) Well housed and cared for. (2.) Feed. (3.) Pure water. (4.) Oyster shells and grit. (5.) The number and breed kept.

Stark, Kas. J. R. COTTON.

Make the hens work or they will become fat and be of no use for laying.

Clean fresh water, clean wholesome food, will seldom be followed by disease.

Going to Buy a Watch?

If so, buy one that cannot be stolen. The only thief-proof Watches are those with

Non-pull-out

BOWS.

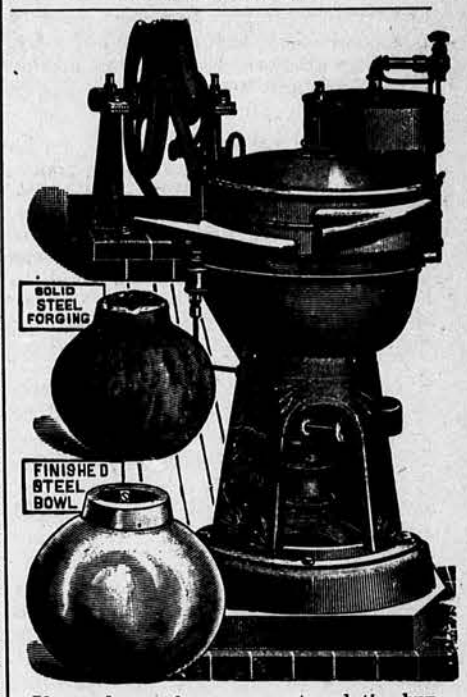
Here's the Idea:

The bow has a groove on each end. A collar runs down inside the pendent (stem) and fits into the grooves, firmly locking the bow to the pendent, so that it cannot be pulled or twisted off.

To be sure of getting a Non-pull-out, see that the case is stamped with this trade mark. It cannot be had with any other kind.

Ask your jeweler for pamphlet, or send for one to the famous Boss Filled Case makers.

Keystone Watch Case Co., PHILADELPHIA.



If you know of any one contemplating buying Creamery or Cheese Factory Machinery, refer them to Davis & Rankin Bldg. and Mfg. Co, Chicago, Ill., largest manufacturers of these goods in the world. Low prices and fair dealing is their motto. Alexandra Improved Cream Separator a specialty. See cut above. Capacity 2,500 to 4,000 lbs. per hour. Two horse power will run it They also manufacture Fairlamb Cheese Color, Fairlamb Cheese Dressing, Fairlamb Rennet Extract, Fairlamb Butter Color and the Babcock Milk Tester and everything in the line of machinery and supplies for butter and cheese factories. If you wish to buy from the manufacturers direct, write for quotations and discounts. All goods guaranteed first-class or can be returned at our expense.

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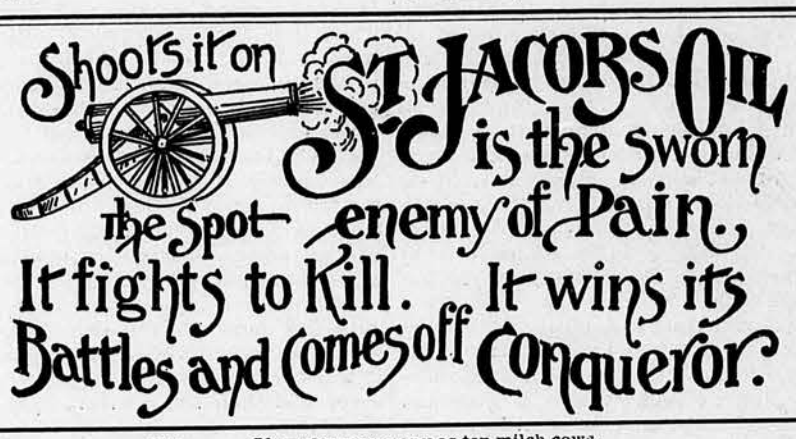
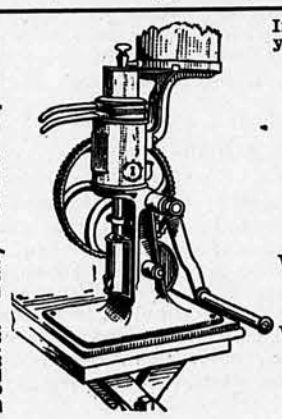
240 to 252 West Lake Street, CHICAGO, - - ILLINOIS.





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"Baby" Separators, Babcock Milk Testers, Dog Powers, Feed Cookers, Engines and Boilers from 2 to 60 horse power.

We keep on hand the largest stock of everything pertaining to BUTTER AND CHEESE-MAKING in the west.

Write for our large Creamery Supply catalogue.

Creamery Package M'fg. Co., 1408-1410 W. 11th St., Kansas City, Mo.

The Veterinarian.

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

SORES ON PIGS.—My pigs are in good flesh, but they are covered with rough places on the lower part of the body, and their legs are broken out in sores which seem to itch and terrify them. I feed them corn and oats chopped together, with a little oil meal. What shall I do for them? S.

Answer.—Rub the affected parts all over with soft soap; let it remain on for ten minutes, then wash off with warm water and rub the following ointment in well with the hand: Melt a pound and a half of lard, and add half a pint of turpentine, then stir well into it one pound of flowers of sulphur. This can be repeated at intervals of three days till the sores are healed. Omit the corn from the feed and remove the pigs to a new yard or pen, and keep them clean and dry. Clean up all the old litter from around the old pen and burn it. Always sign your name in full.

SWELLING ON COW.—I have a cow that has a soft, movable swelling underneath and between her jaw-bones. She has a good appetite, but eats with some difficulty, and slobbers while chewing her cud as if her tongue was sore or thick. She will be fresh in about three weeks. Is there any danger in using her milk? What can I do for her? S. G. P.

Arkansas City, Kas.

Answer.—If you have a reliable veterinarian within reach, it would be well enough to have your cow examined, as the trouble may be due either to tuberculosis or actinomycosis, either of which will require a personal examination to determine. If you cannot have her examined, look in her mouth under her tongue to see if it is sore, or if the tongue is thickened and hard. Apply a fly blister to the lump once a day till it becomes sore. Repeat this again in ten days. If, upon examination, it should prove to be either of the above named diseases, the milk will not be fit for use.

SYMPTOMS WANTED.—Will you give symptoms of hydrophobia in cattle? I lost a cow from a disease I never noticed before, and I suspicion she was bitten by a mad dog. There was loss of appetite and straining to make manure. The manure was thin, with whole grains of corn in it. She would not eat, but drank some water; she was very quiet, looked well out of her eyes and did not slobber. O. R. M.

Answer.—From the few symptoms given, we think, probably, the cow suffered from indigestion, followed by inflammation of the third and fourth stomachs, with, probably, slight impaction of the third. A good dose of oil or epsom salts administered in the early stages of the disease might have saved the cow. The symptoms of hydrophobia vary somewhat in different animals of the bovine species. Some of the old authors even claimed that the disease assumed two forms—the "tranquil" and the "furious." In the so-called tranquil form the animal does not attack men or attempt to bite. In the early stages the head is carried high; the eyes have an unusual glitter; the pupils are dilated; the victim grows restless, often starting with fright at some imaginary object. There is weakness of the hind quarters, and the animal reels in walking. Swallowing becomes very difficult, and the flow of saliva is profuse. As the disease advances, the animal becomes delirious, pushes its head against any object with which it comes in contact; falls backward paralyzed, and death soon puts an end to its sufferings. In the "furious" form the symptoms are more violent. In addition to those of the "tranquil" form, there is a disposition to attack objects, both real and imaginary, and the animal rushes about, bellowing furiously most of the time, until it sinks to the ground from exhaustion, and dies in great agony. We do not agree, however, with this division of the disease into two forms, but rather think the different degrees of violence due to the difference in the nervous temperament of the different individuals.

SWELLING—SIDEBONES.—(1) I have a five-year-old mare that has a swelling on her left fore leg on the tendon, just above the ankle joint. It came on in November, but we did not do anything for it till two months ago, when we used a liniment, which seemed to help it for a while, and then we went to working her and she got worse. She is quite lame when she first starts out, but gets better after traveling. (2) We also have a mare, 14 years old, that has a small, bony enlargement on the ankle of each fore foot. She goes lame on hard ground, but not on soft. The veterinarian here said they were sidebones, but he did not give any treatment. Would her colts be liable to inherit the defect? E. W.

Tehama, Kas.

Answer.—(1) If the lameness is in the tendon, as you think, a blister made of one drachm of powdered cantharides and one ounce of lard, mixed hot, and, when cold again, rubbed in for ten minutes, would probably remove the lameness; but if the mare travels better after warming up, we think it more likely the lameness is in her feet. Apply a warm poultice of linseed meal to her feet for three days, then dress out the soles carefully and examine for corns; after the feet have been softened, apply the blister around the coronet for two inches above the hoof, and turn the mare out to pasture where the ground is soft. (2) Sidebones come at the side of the heel just above the hoof. If that is where the enlargement is, apply the blister, rubbing it in well with the hand once a day till sore, then turn the mare out. Repeat the blister again in one month. If this does not affect a cure, the next resort will be the firing iron in the hands of a veterinarian.

LAME MARE.—I have had such good success from your information in the KANSAS FARMER that I come to you again. I have a mare that went lame in her right hind leg two months ago. She was in the lot with other horses and came in dragging her leg as if it was a wooden one. I could find no swelling or soreness at the time, but some time afterward found it swollen in front of the hock joint, and I could spring it back and forth as though it was broken. It is not so bad now as at first, but does not seem to get any better lately. The mare is valuable and due to foal now. I want to breed her on the ninth day, but I am eighteen miles from the horse. Do you think it will be safe to take her so far?

Willard Kas. F. S. W.

Answer.—Your description of the case, though ample, is hardly enough to the point to enable me to make an accurate diagnosis. Is not the swelling just a little above the hock joint, and does not the leg swing backward when the foot is raised from the ground, causing the muscle on the back part of the leg above the hock, commonly called the "hamstring," to relax and wrinkle up? Does she stand all right on the leg when it is brought forward with the hand, but drag the toe and drops down in that quarter when moving because of failure to bring the leg forward? If these are the symptoms, then the injury is in the muscle (*flexor metatarsis*) leading from the stifle to the hock on the front part of the leg. Make a liniment of equal parts of olive oil, turpentine and aqua ammonia, and apply to the front part of the leg from stifle to hock twice a day, rubbing it in well with the hand till the skin becomes sore; stop a few days, then repeat it. It will take the mare a long time to recover, and then the recovery may not be complete. She will do best running in the field. It will not be safe to travel her so far to breed her. She may not be able to bear the horse if brought to her.

It is a Horrid Nuisance

To be nervous. Starting at the slightest sound, uneasiness by day and fitful slumber by night, unreasonable apprehensions, odd sensations, constant restlessness—these are among its diabolical symptoms. Dyspepsia is the fountain head. Remove this with Hostetter's Stomach Bitters and the food is assimilated, the body nourished, the sleep grows tranquil, nervousness vamoses. The Bitters subdue malaria, constipation, liver complaint and kidney affections.

STEKETEE'S

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PIN WORMS IN HORSES

A Sure Remedy for Worms in Horses, Hogs, Dogs, Cats, and a Splendid Remedy for Sick Fowls.

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Price 50 cents; by mail 60 cents for 1 lb.; 3 lbs. $1.50, express paid; 6 lbs. $2 and pay your own express. U. S. Stamps taken in payment.

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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 circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland O.

MARKET REPORTS.

GRAIN AND PRODUCE MARKETS.

Kansas City.

April 24, 1893.

In store: Wheat, 999,940 bushels; corn, 268,155 bushels; oats, 23,479 bushels, and rye, 10,507 bushels.

WHEAT—Receipts for forty-eight hours, 26,500 bushels. The market was bullish and active. Not much on sale, and outside news favored holders, elevator men and shippers, both buying. By sample on track on the basis of the Mississippi river (local 6c per bushel less): No. 2 hard, early 15 cars 60 to 62 pounds at 66c, later 5 cars 60 to 61 pounds at 66½; July 10,000 bushels at 60⅝, and 5,000 bushels at 60¾. No. 3 hard, 6 cars early 57 to 57½ pounds at 64½c, later, 5 cars 58 pounds at 65c. 2 cars choice 60 pounds at 65½c, 2 cars spring at 62c. No. 4 hard, 62@64c, 1 car at 63c, 1 car choice at 64c, 1 car spring at 62, 1 car white spring at 58c, rejected, 1 car at 57c and one car at 59c; No 2 red, 1 car 59½ pounds at 70c, 1 car at 70½c; No 3 red 67@69c No. 4 red, 2 cars 55½ pounds at 65c, 1 car, weevily, at 63c.

CORN—Receipts for forty-eight hours, 18,000 bushels.

Demand good and market firm in sympathy with wheat. By sample on track, local: No. 2 mixed, 34¼@34½c; No. 3 mixed, 33¾@34c; No. 2 white, 36@36½c; No. 4 white, 35½@35c Sales: No. 2 mixed, 1 car local at 34⅝c, 3 cars at 34½, 3 cars at river at 38½c; No. 3 mixed, 2 cars Memphis at 40½c; No. 2 white, 3 cars Memphis at 43c

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

Active and firm By samples on track, local: No. 2 mixed, 28¾@29c. No. 3 mixed, 28@28½c; No. 4 mixed, 27@27½c; No. 2 white, 31@32c. No. 3 white, 30@31c; No. 4 white, 28@29c.

RYE—Receipts for forty-eight hours, 1,000 bushels.

Market firm and demand fair. By samples on track on the basis of the Mississippi river: No. 51@54½c, and No. 3, 52@53c.

MILLET—Market very dull. We quote: German, 40@50c per bushel, and common 30@40c per bushel.

CASTOR BEANS—None coming in. Prices nominal at $1 43 per bushel in car lots; small lots, 10c less

FLAXSEED—Firm and in fair demand. We quote at $1 02½ per bushel upon the basis of pure.

HAY—Receipts for forty-eight hours, 200 tons, and shipments, 50 tons. Selling very well at old prices New prairie, fancy, per ton, $8 50; good to choice, $7 00@7 50; prime, $5 50@6 50; common, $4 50@5 00; timothy, fancy, $9 50, and choice, $8 50@9 00.

BUTTER—Receipts continue light and the market is firm for all good table goods. Creamery, highest grade separator, 29c; finest gathered cream, 27c; fine fresh, good flavor, 25c; fair to good, 23c. Dairies—Fancy farm, 19@22c; fair to good lines, 16@17c. Country store packed—Fancy, 19@20c; fresh and sweet packing, 16@17c. Roll—Fancy, 19@22c; choice, 18c; fair to good, 16c; poor and rancid, 12@13c.

EGGS—Market steady; not many coming in. Fresh candled, 12½c per dozen

LIVE POULTRY—Receipts next to nothing. Values are very firm, especially on chickens. Turkeys scarce and wanted, while very few ducks or geese are coming in. Chicks, broilers, 11c per pound; chickens, light, 9c; heavy, 9c; roosters, old and young, 20c each; turkey hens, small, 12c; large, 11c; gobblers, 10c; ducks, old, 8c; spring, 8½c; geese, full feathered, 6½c. Pigeons, 75@$1 per dozen.

POTATOES—Market steady, demand fair. Table stock: Northern table, 75@90c per bushel; Colorados, $1 00. Seed higher.

St. Louis.

April 24, 1893.

WHEAT—Receipts, 5,000 bushels; shipments, 49,000 bushels. Market closed ⅛c lower than Saturday. Cash, No. 2 red, 65⅝; May, 65⅝c, closing at 65¾c; July, 69¾@71⅛, closing at 69⅞@70c; August, 71¼.

CORN—Receipts, 161,000 bushels; shipments, 201,000 bushels No. 2 mixed, cash, 37¼c; May, 37⅜@38c, closing at 37⅜; July, 39½@40⅝, closing at 39⅞.

OATS—Receipts, 7,000 bushels; shipments, 16,000 bushels. No trading. No. 2 cash, 29⅝; May, 30⅛.

WOOL—Receipts, 59,700; shipments, 5,500. Market dull and weak. Medium—Missouri and Illinois, 22; Kansas and Nebraska, 18@21½; Texas, Arkansas and Indian Territory, 8 to 10 months, 20@22½; Montana, Wyoming and Dakota, 19@21c; Colorado, New Mexico and Arizona, 17@20c Coarse grades—Missouri and Illinois, 18@21c; Kansas and Nebraska, 14@16c; Montana, Wyoming and Dakota, 16@17c; Colorado, New Mexico and Arizona, 14@16c; Texas, Indian Territory and Arkansas, 16@17c. Tub washed, choice, 33@34c; coarse, 28@29.

Chicago.

April 24, 1893.

Cash quotations were as follows:

WHEAT—Receipts, 232,000 bushels; shipments, 562,000 bushels. No. 2 spring, at 71¾; No. 3 spring, f. o. b., 62@71c: No. 2 red, 71¾c.

CORN—Receipts, 135,000 bushels; shipments, 372,000 bushels. No. 2, 41⅝c; No. 3, 40¼.

OATS—Receipts, 244,000 bushels; shipments, 333,000 bushels. No. 2, 28½c; No. 2 white, f. o. b., 36c; No. 3 white, 32½@33c.

WOOL—Kansas and Nebraska wools are quiet, as the lofts are barren of these wools. Prices continue unchanged and range from 14@16c for the fine (heavy), 16@19c for light fine; half-blood and medium 2c and 4c per pound, respectively, higher than the fine, with the quarter and coarse selling at the same prices as the fine medium and fine.

LIVE STOCK MARKETS.

Kansas City.

April 24, 1893.

CATTLE—Receipts, 4,514 cattle; 33 calves.

DRESSED BEEF AND SHIPPING STEERS.

No.	Wt.	Pr.	No.	Wt.	Pr.
62	1,428	5 20	62	1,402	5 10
20	1,497	5 00	22	1,394	4 95
19	1,296	4 85	83	1,234	4 80
19	1,272	4 75	48	1,080	4 65
21	990	4 60	45	1,079	4 55
23	1,105	4 50	19	1,162	4 45
18	1,093	4 40	25	928	4 35
21	961	4 30	13	1,063	4 25
13	735	4 10	26	742	4 00
12	707	4 00	9	907	3 95
CORN-FED N. M.					
21	961	4 30	10	847	3 85
22	1,226	4 35			
FED TEXAS.					
48	1,108	4 35	140	937	4 20
45	1,078	4 25	100	936	4 10
54	1,094	4 60	66	1,101	4 60
C.-F. INDIAN.					
50	981	4 00	64	1,043	4 35
52	880	3 95	62	966	4 20
49	924	4 05	47	961	4 00
TEXAS STEERS.					
52	913	3 95	22	910	3 50
28	700	3 00	95	838	3 60
49	837	3 65	262 grass	1,075	3 25
COWS.					
1	1,000	1 50	6	865	1 70
7	1,018	2 00	16	953	2 50
8	743	2 75	8	1,001	3 00
5	990	3 10	42	770	3 30
28	693	3 35	7	750	3 40
24	875	3 55	11	1,031	3 65
16	815	3 75	1	1,550	4 20
1	1,200	3 95	3	1,326	3 80
35	1,140	3 50	24	1,088	3 25
HEIFERS.					
2	500	3 00	32 spd	1,110	4 35
31	773	3 65	27	817	3 85
10	690	3 80	22	1,103	4 15
20	802	3 65	2	470	2 25
13	492	2 75	10	504	3 40
10	759	3 70	50	641	3 65
CALVES.					
3	8 17		1	320	3 50
2	5 00		1	140	3 50
1	8 00		1		6 00
STOCKERS AND FEEDERS.					
21	565	3 45	27	764	3 55
11	913	3 85	5	582	3 60
2	650	3 50	2	920	3 65
4	1,020	4 40	4	1,185	4 40
5	1,096	3 75			

HOGS—Receipts, 6,450. The heaviest Monday's receipts since March, 1892. The general trade of the day averaged about 15c below Saturday's business The top sales were $7.25 against $7.45 Saturday. The market closed rather better than the average of the day.

PIGS AND LIGHTS.

No.	Dock.	Av.	Pr.	No.	Dock.	Av.	Pr.
92	80	135	5 95	70	80	119	6 30
120	80	128	6 85	91	40	132	6 35
76	120	167	6 75	98	200	166	6 77½
90	40	143	6 90	105		168	7 10

REPRESENTATIVE SALES.

2	80	310	6 50	8	80	363	6 75
3		330	6 50	82	40	200	7 00
8	160	262	7 02½	82	160	228	7 05
69	160	265	7 07½	154	80	210	7 10
61	40	205	7 10	60	40	241	7 10
55		234	7 10	78	280	200	7 10
188	80	203	7 12½	86	40	212	7 15
60	80	306	7 20	60		279	7 25

SHEEP—Receipts, 2,655. Good grades sold readily.

241		83	5 50	146 N Mlms.		57	5 30
CLIPPED.							
213		106	5 00	120		100	4 90
110		99	4 90	112 mixed		75	4 35
127 ewes		75	4 35	269		106	4 85

Chicago.

April 24, 1893.

CATTLE—Receipts, 16,000. Light stronger; heavy 5@10c lower; cows strong. Beef steers, $3 50@5 75; stockers and feeders, $2 70@4 10; bulls, $1 60@3 65; cows, $2 00@4 00.

HOGS—Receipts, 22,000 Market stronger. Mixed, $7 00@7 70; heavy, $7 10@7 75; light weights, $7 15@7 70.

SHEEP—Receipts, 13,000. Market 10c higher. Natives, $3 75@5 80; lambs per cwt., $4 80@7 00.

St. Louis.

April 24, 1893.

CATTLE—Receipts, 1,500. No natives. Native steers, common to best, $3 50@4 25; Texans, $2 65@4 30.

HOGS—Receipts, 3,800. Market strong Sales were at $6 40@7 65.

SHEEP—Receipts, 4,900. Mostly through Texans. Natives, $3 50@5 25.

Now is the time to build the Hog Sanitarium. No mud! No waste! No filth! No work! Healthy hogs. Think of it. Send for circulars to E. M. Crummer, Belleville, Kansas.

Thoroughbred Dogs.

A finely bred litter of Scotch Shepherd puppies for sale at half value, $6 each. Also Newfoundlands and St. Bernards of best breeding. JOHN H. WINNE,

Manhattan Kennels, Manhattan, Kas.

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DR. EGBERT, Specialist in Diseases of the Eye, Ear, Nose, Throat and Chest, Mental and Nervous Diseases. Medical Expert on Insanity.

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All the Latest Scientific Treatments.
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Each doctor is a regular graduate, has fitted himself by years of study and practice for his specialties, to which he devotes his entire time.

Write for **free** printed pamphlet and Symptom Blank No. 1 for Men, No. 2. for Women, No. 3 for Skin Diseases, No. 4 for Rectal Diseases.

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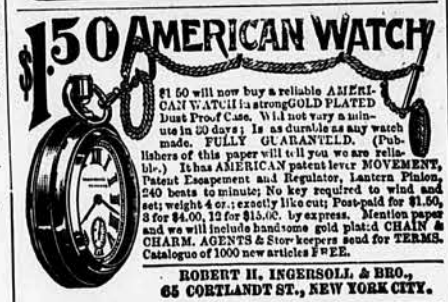

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Are the most complete and commodious in the West and the second largest in the world. Higher prices are realized here than further east. This is due to the fact that stock marketed here is in better condition and has less shrinkage, having been shipped a shorter distance; and also, to there being located at these yards eight packing houses, with an aggregate daily capacity of 9,000 cattle, 40,000 hogs and 4,000 sheep. There are in regular attendance sharp, competitive buyers for the packing houses of Chicago, Omaha, St. Louis, Indianapolis, Cincinnati, New York and Boston. All of the eighteen railroads running into Kansas City have direct connection with the yards.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules	Cars.
Official Receipts, 1892	1,571,155	2,397,477	438,268	32,505	97,463
Slaughtered in Kansas City	727,981	1,805,114	218,909		
Sold to feeders	213,923	4,260	29,078		
Sold to shippers	446,501	586,563	48,259		
Total sold in Kansas City	1,388,405	2,395,937	296,246	15,974	

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

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SHERIFF'S SALE.

In the District Court, Third Judicial District, Shawnee county, Kansas.

Clayton M. Parke, *Plaintiff.*
vs.
J. A. Ramsouer, Sibella Ramsouer, Everett L. Shelton, C. D. Savage, Stella M. Savage, and, Frankie B. Savage, Charles S. Savage, George B. Savage and Lillie C. Savage, minor children of Stella M. Savage, *Defendants.* } Case No. 14,260.

By virtue of an order of sale issued out of the District Court, in the above entitled case, to me directed and delivered, I will, on Monday, the 8th day of May, 1893, at a sale to begin at 10 o'clock a. m., of said day, at the front door of the Court House, in the city of Topeka, in Shawnee county, State of Kansas, offer for sale at public auction and sell to the highest bidder for cash in hand, the following described real estate and appurtenances thereto to-wit: Lot numbered 629. in block numbered 5 on Lincoln street, in Martin and Dennis' subdivision in the city of Topeka, in Shawnee county, Kansas Said real estate is taken as the property of said defendants, and will be sold to satisfy said order of sale. The purchaser will be required to pay cash for said property at the time of sale.

Given under my hand, at my office in the city of Topeka, Shawnee county, Kansas, this 5th da, of April, 1893. J. M. WILKERSON, Sheriff.

D. C. NELLIS, Attorney for Plaintiff.

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

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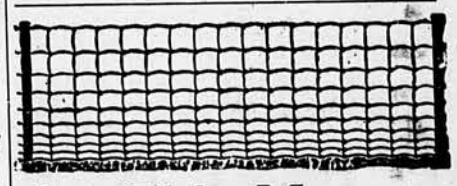

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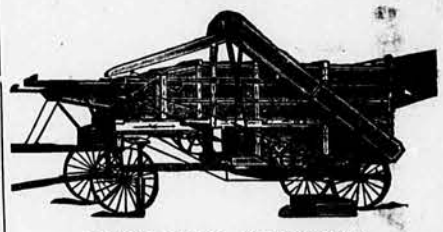

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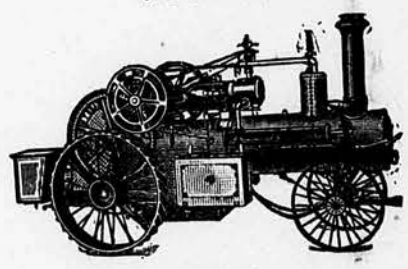

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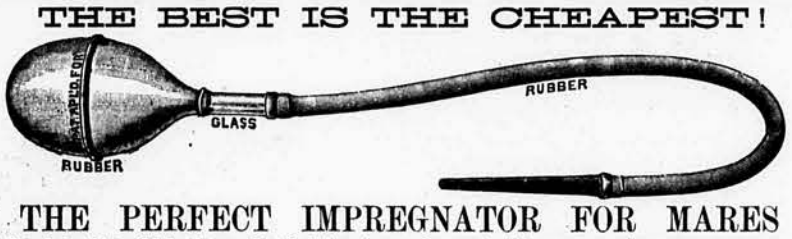

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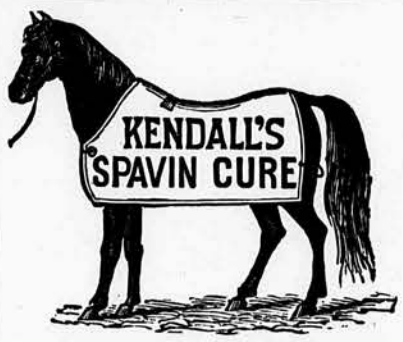

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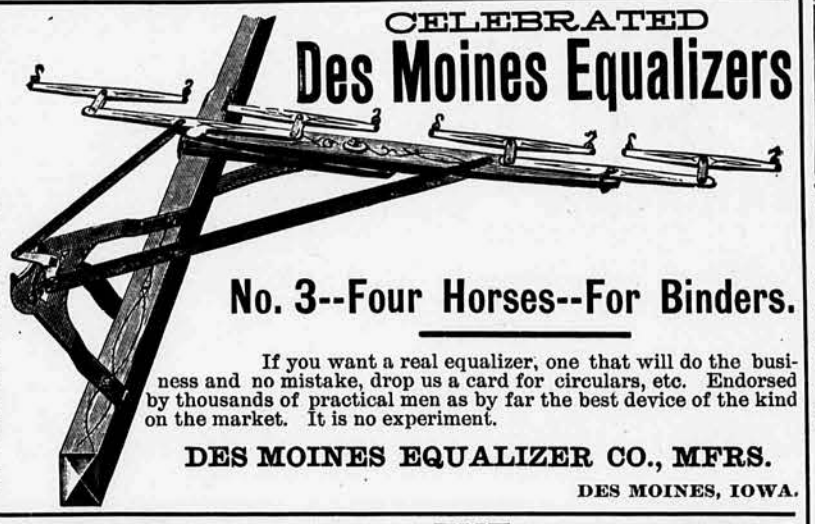

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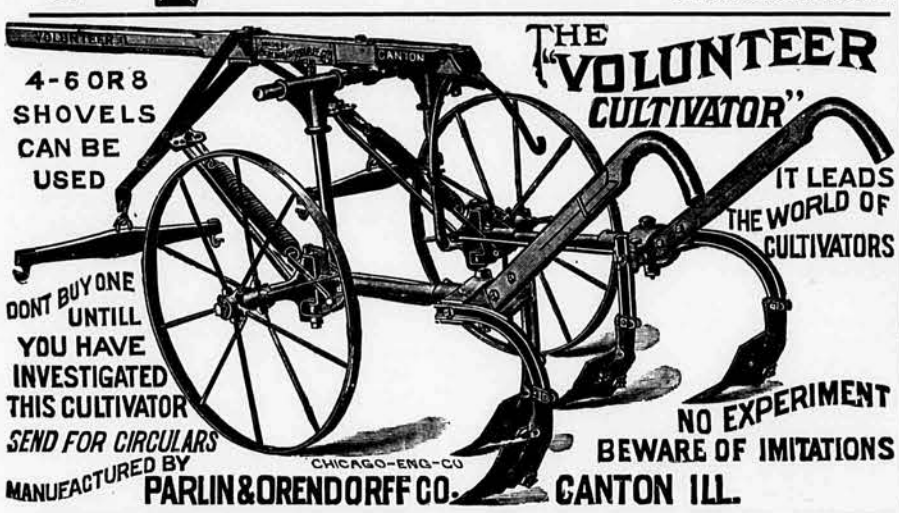

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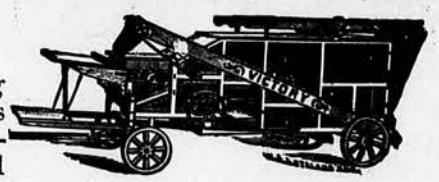

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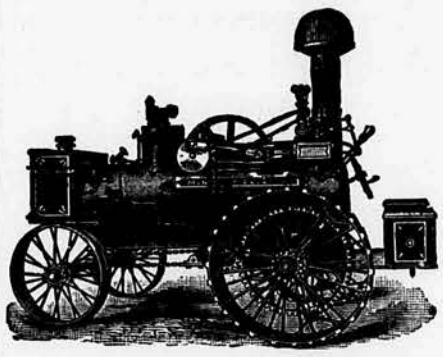

will draw a heavier load, steam easier; use less fuel, than any other engine in America. Sizes 10-12-14-16-18 horse power, Wood and Coal or Strawburners, as desired. Also Victory Self-feeders, Reliance Horse Powers, Weighers, Bagger Attachments, etc., etc.

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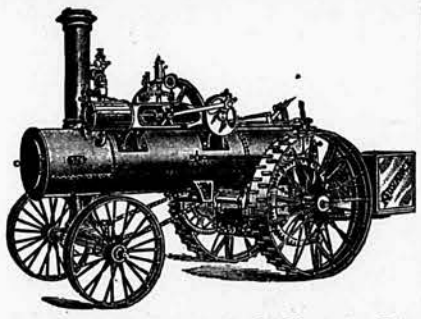

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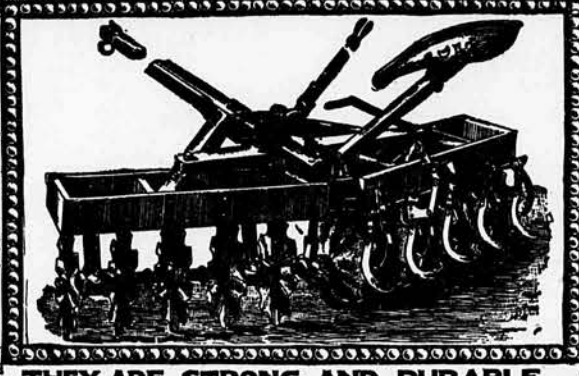

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THEY ARE STRONG AND DURABLE.

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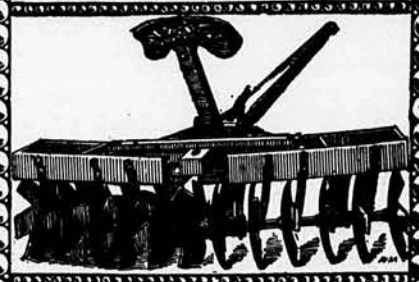

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STRAYED—From the subscriber, on April 9th, one sorrel and one black horse. A suitable reward will be paid for the return of the horses to the Mosier Ice Co., Cor. 2d and Polk streets, Topeka.

FOR EXCHANGE—A fine Lefever hammerless shot gun, with two sets barrels, for land in western Kansas. For photograph and description address "Gid," care KANSAS FARMER.

STOCK RANCHES WANTED—Choice Kansas City and Topeka property to trade for large stock ranches. John G. Howard, 423 Kansas Ave., Topeka, Kas.

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Mention KANSAS FARMER when answering.

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DOGS of every description, Newfoundlands, Mastiffs, St. Bernards, Greyhounds, Bull, Fox, Skye and Scotch Terriers, Collies, Pugs, Spaniels Beagles, Foxhounds, Setters and Pointers; also Ferrets, Maltese Cats, pet animals, fancy pigeons, poultry, send stamp for price list. Live Foxes wanted. Herman Roesch, 215 Market St., St. Louis.

MODELS—For patents and experimental machinery. Also brass castings. Joseph Gerdom & Sons, 1012 Kansas Ave., Topeka, Kas.

THE STRAY LIST.

FOR WEEK ENDING APRIL 19, 1893.

Norton county—Jesse S. Wright, clerk.

MARE—Taken up by Richard Douthit, P. O. Almena, March 18, 1893, one gray mare, about 4 years old, fifteen hands high, weight about 700 lbs., blind in left eye; valued at $40.

MARE—By same, one dark iron gray mare, with foal, 14 hands high, weight about 750 lbs; branded J on left shoulder and S on left hip; valued at $40.

HORSE—Taken up by J. W. Campbell, P. O Oronoque, June 22, 1892, one roan horse, 4 to 6 years old, weight about 700 lbs., branded P on left shoulder; valued at $25.

FOR WEEK ENDING APRIL 26, 1893.

Lyon county—C. W. Wilhite, clerk.

STEER—Taken up by R. M. Jones, in Emporia tp., Nov. 1, 1892, one dark roan, 2-year-old steer, marked with a swallow fork in left ear; valued at $20.00.

Barber county—F. A. Lewis, clerk.

STEER—Taken up by J. F. Betty, in Hazelton tp., P. O. Hazelton, April 10, 1893, one dark red, 3-year-old steer, branded HL on left side; cash value, $18.

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will take place at
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Cash prizes will be awarded at 9 a. m., and the sale begins promptly at 1 p. m.
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