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THE DECORAH STEEL WIND-MILL.

MANUF'D BY GOULDS & CALDWELL CO.—SEE DESCRIPTIVE ARTICLE ON ANOTHER PAGE.

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V. B. HOWEY, Box 103, Topeka, Kansas, breeder of Thoroughbred Poland-China and English Berkshire swine. Stock for sale. Also fancy poultry eggs: \$1.25 for 13; \$2 for 26.

ASHLAND STOCK FARM HERD OF THOROUGHbred Poland-China hogs, contains animals of the most noted blood that Ohio, Indiana and Illinois contains. Stock of both sexes for sale sired by Bayard No. 4698 S., assisted by two other boars. Inspection of herd and correspondence solicited. M. C. Vansell, Muscotah, Atchison Co., Kas.

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F. E. COMMONS, breeder and shipper of Thoroughbred recorded Poland-China swine. Am booking orders for spring pigs. Quaker Ridge Farm, Paton, Greene Co., Iowa.

CLEVELAND ELLER, Clay Center, Neb., breeder of Duroc-Jersey, Red and Poland-China hogs of the very best blood. Pigs or sows bred for sale. [Mention this paper.]

Agricultural Matters.

CROSSING VARIETIES OF CORN.

The Botanical Department of the Experimental Station, Kansas State Agricultural college, has been experimenting in the matter of crossing varieties of corn for the past three years, with the object of determining the feasibility of crossing any or all varieties at will, to study the effect, both immediate and ultimate, and to improve existing varieties, by obtaining "crosses" superior to varieties used in crossing. The following description of the plan of effecting the desired results, by Prof. W. A. Kellerman, Ph. D., Botanist of the Agricultural college, will be found interesting and instructive:

Cloth sacks were used to cover the ears in order to prevent fertilization, except between varieties as desired. Similar sacks were used to cover the tassel in order to secure the desired pollen. A few days after the emergence of the silk through the husks the pollen from one particular variety was applied by dusting it directly on the pistils, or silk. This process required that the sack be lifted for a moment only. Care was taken to readjust it over the ear at once, so that no foreign pollen would find lodgment on the silk. This operation of artificially fertilizing was performed, as far as possible, when no wind was blowing, and it would therefore rarely, if ever, happen that the pollen used would be contaminated by the pollen grains from any other variety flying in the air at the time. If any kernels were formed on the ear, they would necessarily represent a cross between the two varieties—the one furnishing the pistils, or silk, being the female parent, and the other furnishing the pollen, being the male parent.

In 1888, the number of crosses made was sixty-six, of which only 59 per cent. were successful. The season was an unfavorable one for corn. The ears obtained were generally very inferior.

In 1889, the number of crosses attempted was 188, of which 175 (or 93 per cent.) were successful. The season was favorable for corn, and good ears were generally obtained.

As to the effect of crossing the current and succeeding years, the following may be said: Of twenty-three crosses in 1888 with dent and flint varieties, no effect in eighteen cases could be detected; the remaining five presented more or less doubtful evidence of crossing. Sixteen of these were planted in 1889, when all showed plainly in the ears the effect of the cross. Thirteen of the latter were planted in 1890; the ears obtained were very inferior, owing to the extremely unfavorable season, but the grains generally resembled those planted. A full and detailed comparison as to stalks and ears, with the varieties originally planted, could not, on account of partial failure of crop, be fairly made, and was therefore not attempted last season.

Three crosses in 1888 were made with soft corn, two of which showed clearly the effects the same year; the other showed no evidence of the cross. Of the ten successful crosses with sweet corn in 1888, six showed plainly the effects of the cross, two were doubtful, and the other two presented no evidence of the cross whatever. All of the above that were planted in 1889 produced ears that showed plainly the effects of the cross. In 1890, many of these were planted, and they produced ears with grains mostly like the grains planted.

In 1889, of the 132 successful crosses of dent with dent varieties, thirty-two (or 24 per cent.) showed evidence of the cross; of three crosses of dent with flint, one showed evidence of cross (in color only); of four crosses of dent with soft, none showed perfect evidence, but

three were doubtful; of nine flints crossed with flints, one showed evidence of cross in character of grains, and one other in color only; of three crosses of soft with soft, no evidence of cross; of eighteen flints crossed with dents, one showed effect of cross in character of grains, and two in color only. Of the above planted the second year, i. e., in 1890, (fifty-seven), three only failed to furnish evidence of the crossing, though nine were more or less doubtful. But many of the varieties were so nearly alike as to preclude certainty in judgment as to evidences of cross. Only four cases were plainly vitiated by a supposed previous cross.

The trials show that some varieties of corn show the effects of crossing the current year. This occurs oftenest in the varieties of sweet corn, and least often with the flint varieties.

Another interesting fact might be mentioned, namely, that in crosses with dent and flint, whether the male or female parent be a flint variety, the cross shows (the second year) a more pronounced flint than dent character.

A few experiments were begun last year with a view of improving a few of the leading varieties, but the extremely unfavorable season induced such unfavorable results generally that no report of significance can yet be made.

"How to Make Farming Pay."

EDITOR KANSAS FARMER:—In your issue of March 25, I notice an article under the above caption, by Wm. L. Black, of Texas, which is so full of inconsistencies that I deem it a duty to my co-laborers on the farm to notice some of Mr. Black's arguments, and show wherein they fall far short of a remedy of the ills we are suffering.

From the general tone and style of Mr. B.'s article, I am inclined to the opinion that he is not a practical farmer, nor in close sympathy with that class, since he invariably says "they" (the farmers) whenever he refers to them, and the sketch reads very much like a large amount of gratuitous information we are receiving weekly from the "subsidized press."

After expressing fears that the alliance of farmers, for the purpose of compelling recognition by the legislative branch of government, in the enactment of wise and conservative laws that shall put the farmers of the nation on equal footing with other classes, and thereby result in benefit to all, will be disastrous to them (the farmers) in the end, he advises us to rather submit to the troubles we now have than fly to those we know not of. So say the army of sharks who have been fleecing us for years and hope to continue the process.

Mr. B. says "they" (the farmers) might just as well undertake to dictate "medical laws, etc.," as to attempt the regulation of the economic interests of our country, when he certainly knows there is no parallel between the two ideas, the former being the result of scientific research, coupled with long experience, while the latter may be fairly well understood by any man of ordinary sense who applies himself in an unbiased manner to the study of our past history, the tendencies of the present and the possibilities of our future.

I heartily accord, in general principle, with Mr. B.'s suggestion of "how to get farmers out of the ruts they are in," by establishing a bureau of information that shall "regulate the supply of products to the demand from consumers," but I do not accord with his detail of the plan of making it a national bureau, whose facts and figures shall be public property. That is just the plan the gamblers and speculators in farm products would like to see in operation. Possessed with absolutely reliable information of farm operations months in advance of the maturity of

the products, and their privileges unchecked by restrictive legislation, how nicely those gentlemen would be prepared to give the farmer, with his new crop, even a more stringent reception than under the present conditions.

Are we not already cursed with public statistics for speculative purposes? Only a few days ago a simple report of the condition of the wheat crop in Kansas was telegraphed to the country and caused a decline of 2 cents on wheat months in advance of any possibilities of the growing crop.

I believe farmers should have a bureau of information regarding prospective farm operations, also demand and supply; but the facts and figures, to be of any benefit to farmers and consumers, should be kept from the classes who use them to the injury of both producer and consumer. That can be successfully done only through such an organization as the F. A. & I. U., and I am certain it will be done in due time; not as a "cure all," but as an auxiliary plan. There are some other things of paramount interest to be settled first.

I also heartily accord with Mr. B.'s plan of establishing national standard grades for farm products; but against allowing that standard to be dictated by the fellows who now "fix the grades," and be changed yearly just prior to the advent of the new crop, to meet the qualities of the products, as indicated by public statistics and reports procured by grain gamblers for the purpose.

It makes me "tired" to see men hang their arguments on agricultural economy by hemp fiber and pose that as an example of farm products in general, when the facts are the hemp product did not languish through lack of statistical information or that other evil, overproduction, but was simply crowded out of use by the introduction of a half dozen other fibers more cheaply and easily worked and which answer the purposes as well.

The upshot of Mr. B.'s argument seems to be that a system of national statistics would so regulate farm products as to induce speculators to handle neglected, or, at present, unremunerative produce, just as they do the staple articles, wheat, corn, cotton, etc., and so regulate the output of those products each year as to make the speculator's grip and control absolute.

These are troublesome times for the farmer, and great is the variety of advice going the rounds as to the best "way out," "how to make farming pay," etc., etc. Some of those who are furnishing advice are paid for their deviltry; others are so biased in their views by reading after subsidized writers that they see only through their spectacles, and, amidst it all, it behooves farmers to analyze carefully before tying their faith and practice to any line of advice, and above all, not to be led by specious arguments into the adoption of, or tame submission to methods which a simple analysis shows to be largely in favor of the oppressor. But let us rather wake up to an understanding of our opportunities and labor to secure improvements all along the line of farm interests and be prepared to meet and defeat the schemes of wolfish advisers. H. M. DRESSLER. Preston, Kas.

[In justice to Mr. Black, we will say that he is well known in this office as a practical farmer.—EDITOR.]

Thinks There Must be Some Mistake.

EDITOR KANSAS FARMER:—I have been a reader of your paper but a short time, and searching it diligently to learn what I could about the culture, the habits, and the value of alfalfa, I have been much pleased with different articles I have seen, until your issue of March 25. I must say I am completely dumfounded with John Hahnenkratt, of Phillips county. I will call attention

to one statement he made that I cannot believe. I think there must be some mistake. He says: "It is also a profitable crop to raise for seed. A sample of my second crop of last year, shown to a man who has been raising alfalfa for a number of years in Colorado, was estimated to yield 800 pounds per acre, and the first crop was equally well seeded. The retail price of seed is \$4 to \$6 per bushel."

How, "in the name of common sense," can we believe that statement? There are 1,600 pounds, or 26½ bushels per acre, at, say \$5 per bushel, equal to \$133.33½ per acre, besides his hay crop. I do not mean to call in question the man's honesty; but is there not a mistake somewhere? I am very anxious to get at the true status of the case, as I am anxious to learn all I can about alfalfa. J. M. CHAPMAN.

Whiting, Kas.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

MAY 13—Inter State Short-horn Breeders, show and sale, at Kansas City.

MAY 14—A. A. Crane & Son, Oso, Ill., Herefords.

MAY 14-15—W. Z. Darr & Son and J. W. Pickett, Kansas City, Mo., Short-horns.

SHEEP HUSBANDRY FOR WESTERN KANSAS.

The KANSAS FARMER has no hesitation in recommending sheep husbandry for western Kansas, in particular, or, for that matter, to the stockmen of the West generally. However, the object of this article is to call special attention to the intimate and natural relations of sheep husbandry for this particular section of country, which has fallen somewhat into bad repute, as being a section of country in which general agricultural pursuits are particularly hazardous, and the raising of crops for profit every year is a failure. While the soil is rich and deep and capable of producing abundant yields of any of the cereals, yet because of the lack of moisture and rainfall during the maturity of the crops, it is an extremely hazardous undertaking most years, unless irrigation is available; and as only a small area of western Kansas is available for, or subject to irrigation, it is useless to depend upon that artificial and expensive method for redeeming the greater portion of western Kansas; although it is hoped that sub-irrigation or artesian wells may demonstrate that the water supply is ample to provide a permanent quantity which will enable every resident in any portion of western Kansas to have at least a small garden, orchard, grove and lawn, and such other necessary evidences of civilization and comfort as are necessary to a home anywhere. It is the belief of the writer that while irrigation is not practical for general crop-raising in Kansas, except in limited areas in certain favored localities, yet it is possible and probable that in time, and that too in the near future, it will be demonstrated that from bored wells a sufficient supply can be secured for the gardens, orchards and homes, as well as a bountiful supply for live stock.

Western Kansas is naturally adapted for live stock raising, owing to its abundant native pastures, pure air and water, and invigorating and healthful climate, and there is no class of live stock that requires so little capital as sheep, so that this branch of the animal industry is within the reach of most of the present residents, and consequently an available business that will give larger returns for the amount of money invested than any other class of live stock. There is no other portion of the country west of the Mississippi that is better adapted in every way for successful sheep husbandry than western Kansas. This is an acknowledged fact, as vouched for by men who have had years of experience in this section as well as other portions of the country, besides the writer has visited nearly every sheep-raising region of the West, and is more than ever convinced of the truthfulness of the foregoing statement.

It requires but little capital to start with sheep. A sheep owner was in this office recently, who disposed of his flocks

when they were at their lowest value and yet realized in five years the net sum of \$8,000 above expenses, with a start of a flock of 278 sheep. This flockmaster reports that his work was easy, tools limited, health of stock extra good, marketing easy and profits sure, notwithstanding the drawback of tariff agitation during the period which he held sheep. The buffalo grass, which is the principal variety of western Kansas, is abundant and wonderfully nutritious and superior for sustaining and fattening sheep.

To those who have not had experience with sheep it is best to start with a small flock of about 300 high-grade Merino ewes, with strong constitution, medium-sized, blocky, and full-fleeced. Cross these with a large-bodied, full-fleeced and good constituted full-blood Merino ram. It may be necessary to make one cross with the coarse or middle-wool bucks, but for the Western range the Merino type is best. So breed that the mature ewes will weigh about one hundred pounds, and shear about ten pounds of fine or fine-medium wool, having good length of staple.

"Care in lambing is all important," said an experienced sheepman recently. "Our time was April 10, and when the lambs began to come we had oats straw, millet and sorghum for feed, which gave a good flow of milk for the ewe. The difficulty encountered at this season is that many ewes fail to own or mother the lamb, and is owing to the fact that the ewe is in poor condition and ill fed. A strong ewe will seldom disown her lamb, provided she has a good flow of milk. The main flock should be herded near the ewes and lambs, but not together."

Every flockmaster should provide good sheds and clean yards for the sheep, with salt and water convenient. Disease among sheep is foreign to this climate and locality, unless it is promoted in some way by foul sheds and filthy corrals or by contact with scabby flocks. Foot-rot and other ailments which are common in the lower and more humid regions are unknown here. While storms are of rare occurrence, it pays to have shelter for the sheep at such times in order to prevent the waste of feed and keep the stock from becoming debilitated by the storm.

Another special advantage for sheep husbandry in western Kansas is the ability to raise every season all the necessary feed for their maintenance during the winter and early spring months. While the growth of grain is not always certain, the raising of highly nutritious fodder and forage plants is excelled in no other portion of the country. Sorghum, millet and rye are certain crops and extra good sheep feed. Oats or rye, cut while green and stacked near the sheds, is valuable for winter use.

The wheat-raiser of western Kansas should also be a sheep owner, and the wheat straw, if properly stacked, would all be eaten by the sheep, and in the fall and spring the growing crop would furnish considerable pasturage, especially for the ewes and lambs. The sheep would constantly enrich the cultivated land and keep down the noxious weeds. The best variety of corn to plant is the ninety-day variety. It makes fodder from the ground up, and in a series of years will average a larger yield of grain than the ordinary field varieties.

In discussing the subject of sheep husbandry for western Kansas, but few points have been briefly mentioned at this time, and the KANSAS FARMER cordially invites the fullest discussion by its readers of every phase of this question, believing that successful sheep husbandry will do more to insure prosperity for western Kansas than any other single industry, because it is unquestionably the best natural sheep country in all respects to be found anywhere.

Live Stock Notes.

There should be a regular hour for feeding, the observance of which will teach the animals to come up to the barn for their meals as well as inducing them to be more patient between meals.

We do not know of a better time than the present for a farmer to improve his herd of hogs, either by purchasing a herd complete or else by buying a first-class male and possibly a sow or two. It is well to remember that the best are none too good.

The lands that are best adapted to sheep are high plateaus or rolling lands. They

are more subject to disease on lower levels, and are not so well adapted to a warm, moist atmosphere as to the rarer and drier air of the upland. Low, marshy, or swampy lands have a tendency to bring on foot-rot and kindred diseases.

A horse requires one ounce a day of salt for the renovation of the digestive fluids which are secreted in large quantities. An ox or cow needs two ounces daily, and a sheep one-quarter of an ounce. Ruminating animals require more salt because of the large consumption of saliva during the process of rumination.

The farmer who judiciously pastures sheep over his land for a number of seasons will have the finest and most productive lands known to agriculture. In this respect a further and more staple source of

profit may be secured than from any other class of stock. Sheep require frequent change of pasturage, and a good range for them is always compensated for by an increase of vigor and growth.

The first qualification a man should have that grows hogs for breeders should be a complete knowledge of how to grow and feed hogs for market. No hog should be used for a breeder that will not make a good feeder. A breeder of fancy hogs, if

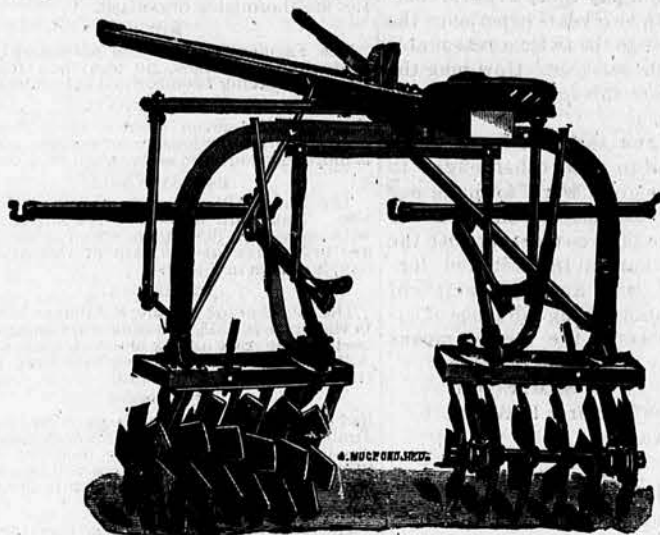
Illustrations on This Page.

The Higganum Manufacturing Corporation, of Higganum, Conn., have added to their line of celebrated Cutaway goods the Clark's Cutaway Corn or Cotton Cultivator and their improved New Dutton Mower Knife Grinder, as shown in our illustrations on this page.

The CCCC Cultivator has two gangs or five disks; three 16-inch and two 14-inch in each gang. The small disks are generally used on the ends to avoid cutting plant roots, but may be changed if desired.

These disks are attached to a gang plank, each disk has a clearer.

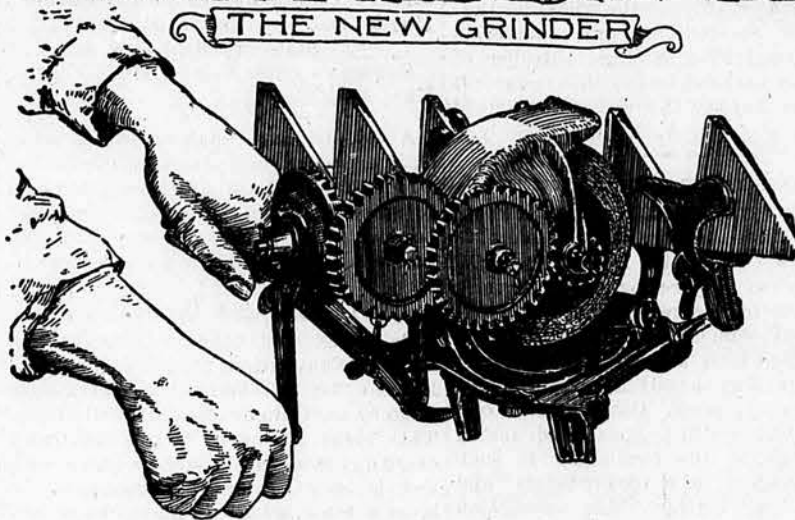
These gangs are used either end out. The two branch beams are made adjustable so that the gangs may be placed in



CLARK'S CUTAWAY CORN CULTIVATOR.

either adjustment, from two to sixteen inches apart.

These beams are attached to the outer ends of the gangs by a ball and socket joint. The inner ends of these gangs are connected to the branch beams by an adjustable stud so that the inner ends of the gangs may be higher or lower as desired, and are also connected with the main braces by arm and foot levers in such a manner that the relative angle of



THE NEW DUTTON MOWER KNIFE GRINDER.

he would succeed, must not send out an animal that will not feed well. To avoid this he must be able to see in the pig the future of the hog, and to know this with but few chances for mistake he must know the parent stock and how to retain their good qualities in their offspring.

Sows should never be bred until they are past eight months old. They will then be fully developed in frame and constitution before farrowing their young. If the sows are bred earlier than this the litters will usually be small, and even those cannot receive sufficient nourishment to promote quick development. A sow that is well grown, of large bone and muscle, and on the coarse order, will be found the most prolific breeder and the best able to suckle her young. She should not be very fat at the time of breeding, but in good condition, healthy and vigorous,

the two gangs can be changed and thus quickly send the machine to the right or left.

The hand lever on top of the pole, by its connecting arms, also affect the angle of the gangs so that they can instantly be made to dig hard or easy.

With these adjustments the gangs can be made to dig deep or shallow near the plants, or to carry the dirt to or from the plants in large or small quantities as desired. It is intended to straddle the row, and when so driven, the space between each row is cut twice over, thereby killing the weeds and thoroughly softening the soil. Its draught is very light, not half that of the common double-shovel cultivators and the wear on the disks not one-tenth as much. All the working parts are made of steel. By dropping the inner end of the gangs and putting a 16-inch disk thereon, it makes an excellent

machine for barring off cotton. By thus using the machine the cotton plants are left upon a diamond-shaped ridge, the top of which can be left from two to four inches or wider, and at the same time all the earth between the rows is thoroughly cut and softened.

It will cultivate either flat or in ridges. It covers potatoes in drills nicely. It is not intended for general harrowing, but can be thus used. It is much used in vineyards.

The well-known reputation of the Higganum Manufacturing Corporation for sending out nothing but first-class work, insures the buyer that this Cultivator will do the work exactly as represented.

The New Dutton Mower Knife Grinder contains all the valuable features of any of the previous machines made by these well-known manufacturers, and has in addition some important improvements peculiar to itself, some of which are the following:

A "Hinge" is substituted in place of the "Slide" used on the U. S. Grinder. The Hinge is simpler, not liable to wear, and in using it, the position of the Crank-Wheel and Crank will not be changed. The Adjustable spring so connects the Knife-Holder with the Hand Lever as to cause uniform pressure from the bottom to the top of the section on the wheel while it is being ground. The space for holding water has been enlarged. The gearing has been changed and will turn with greater ease and smoothness. The above, with other minor improvements not here described, enable us to offer the farmer as near a perfect Mower Knife Grinder as can be made. This new machine has a "Corundum Grinding Wheel" which works perfectly. It wears but little, and it will last, according to the amount of work done, from three to five years and probably longer.

When a mower knife is to be ground, one edge of the surface of the wheel is brought into contact with the bevel of the knife section, at its bottom. The wheel is made to pass along the bevel to the point of the section, being controlled with the left hand. When one side of the section is ground the wheel is swung so that the other edge of its surface is brought in contact with the bevel of the adjoining section, which is ground in the same way.

The Grinder is readily clamped to the wheel of any mowing machine, and with it any kind of a mower knife can be ground, whether the sections are long or short.

The gearing is so arranged that while the operator is grinding a knife he stands facing one side of the grinding wheel and over the knife clamp, instead of at the rear, thus bringing the knife section, when ground, directly under his eye.

The knives can be ground several times a day without delaying the work, as it can be done while the team is resting.

"Keep the knives sharp," is what every manufacturer of mowers directs.

It requires but little skill to use this Grinder; the directions sent with each machine will, if followed, enable any one to work it without trouble.

The New Dutton Mower Knife Grinder is exceptionally the latest improved machine of its kind, superseding all others in utility and practical device, and in this respect the Higganum Manufacturing Corporation, of Higganum, Conn., have added another important and useful invention in their long list of manufactured goods so essential to the farmer throughout the country.

Beware of Ointments for Catarrh that Contain Mercury,

as mercury will surely destroy the sense of smelling and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken internally, and acts directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally, and made in Toledo, Ohio, by F. J. Cheney & Co.

Sold by Druggists, price 75 cents per bottle.

BRECHAM'S PILLS cure Sick Headache.

Alliance Department.

NATIONAL DIRECTORY.

FARMERS ALLIANCE AND INDUSTRIAL UNION.
 President.....L. L. Polk, Washington, D. C.
 Vice President.....B. H. Clover, Cambridge, Kas.
 Secretary.....J. H. Turner, Washington, D. C.
 Lecturer.....J. F. Willis, McLouth, Kas.
FARMERS' MUTUAL BENEFIT ASSOCIATION.
 President.....H. H. Moore, Mt. Erie, Wayne Co., Ill.
 Secretary, John P. Stelle, Mt. Vernon or Dahlgren, Ill.
NATIONAL GRANGE.
 Master.....J. H. Brigham, Delta, Ohio.
 Lecturer.....Mortimer Whitehead, Middlebush, N. J.
 Secretary.....John Trimble, Washington, D. C.
NATIONAL CITIZENS' INDUSTRIAL ALLIANCE.
 President.....Thos. W. Gilruth, Kansas City, Mo.
 Vice President.....Noah Allen, Wichita, Kas.
 Secretary.....W. F. Rightmire, Topeka, Kas.
 Treasurer.....Walter N. Allen, Meriden, Kas.
 Lecturer.....S. H. Snyder, Kingman, Kas.

KANSAS DIRECTORY.

FARMERS' AND LABORERS' ALLIANCE OF KANSAS.
 President.....Frank McGrath, Beloit, Kas.
 Vice President.....Mrs. F. R. Vickery, Emporia, Kas.
 Secretary.....J. B. French, Hutchinson, Kas.
 Treasurer.....S. M. Scott, McPherson, Kas.
 Lecturer.....Van B. Prather, Neutral, Kas.
STATE ASSEMBLY F. M. B. A.
 President.....D. O. Markley, Mound City, Kas.
 Vice President.....W. C. Barrett, Quonoma, Kas.
 Secretary.....J. O. Stewart, Ottawa, Kas.
 Treasurer.....G. W. Moore, Carlsle, Kas.
 Committee on Finance.....J. W. Moneley, of Neosho;
 F. Roth, of Ness; A. E. Stanley, of Franklin.
STATE GRANGE.
 Master.....A. P. Reardon, McLouth, Kas.
 Lecturer.....A. F. Allen, Vinland, Kas.
 Treasurer.....Thomas White, Topeka, Kas.
 Secretary.....Geo. Black, Olathe, Kas.
 Executive Committee.....Wm. Sims, Topeka; D. B. Fairchild, Overbrook; G. A. McAdam, Kincaid.
CITIZENS' ALLIANCE OF KANSAS.
 President.....D. C. Zercher, Olathe, Kas.
 Vice President.....Ira D. Kellogg, Columbus, Kas.
 Secretary.....W. F. Rightmire, Cottonwood Falls, Kas.
 Treasurer.....W. H. Porter, Oswego, Kas.
 Lecturer.....S. H. Snyder, Kingman, Kas.
 Executive Committee.....First district, John Suddard; Second district, R. B. Foy; Third district, G. Hill; Fourth district, C. W. March, Chairman, Topeka; Fifth district, A. Henquonnet; Sixth district, W. M. Taylor; Seventh district, Mrs. M. E. Lease.

Officers or members will favor us and our readers by forwarding reports of proceedings early, before they get old.

SPECIAL.

We want some members of every farmers' organization—Grange, Alliance or F. M. B. A.—to regularly represent the KANSAS FARMER and help extend its fast-growing circulation and usefulness. Please send name and address at once.

Kansas Alliance Exchange Company.

EDITOR KANSAS FARMER:—Having many inquiries from different parts of the State relative to the business of our Kansas Alliance Exchange Co., and as to the facilities at the command of its managers for handling our products and purchasing our supplies, I have taken the time to visit Kansas City, and find the Exchange in a prosperous condition, their business running from \$900 to \$1,500 a day. They have consummated an arrangement whereby they can furnish twine at a very low price. They have made a contract with the largest manufactory of twine in the United States, and the deal cannot fall to be very advantageous to our members. The patronage of our State Exchange in the twine deal this year will assure us the benefits of a direct deal with manufacturers in the future. We desire to call your attention to the fact that the Exchange is yours, and the men running it are simply your employees. Let us therefore stand together, for the success of this Exchange business depends entirely upon each one of us doing our part in its patronage.

In reference to handling grain, I would say they have completed an arrangement with the Higgs Commission Co., which I hope will meet your hearty approval. You can ship your own grain and draw upon this firm for 75 per cent. of the value of the grain at time of shipment, and they will store your grain, or sell it at once and remit balance, less the cost of handling, commission, etc. I asked the firm the following questions: What assurance do you give the people of Kansas in case you receive 500 cars of wheat and advance 75 per cent. on same, that the balance will be paid? Answer—We refer you to our commercial standing and to the Kansas City Board of Trade, and to the fact that we are under bond to the State of Kansas in the office of the Secretary of State. How much storage capacity can you control? Answer—From 1,000,000 to 5,000,000 bushels, or more if necessary. The great advantage of having our grain close to market cannot be overestimated, from the fact that when there is a sudden rise we can wire them to sell at once, thus taking advantage of the advance.

Edwin Snyder will be found at the office of the American Live Stock Commission Co., looking after the interests of the Alliance shippers of stock. I would advise any members having stock to ship to cor-

respond with him upon the matter. He is the agent of the Exchange in the live stock business. The Exchange has identified itself with the American Live Stock Commission Co., which is now handling stock through their salesmen, Peter Bros., who are members of the Live Stock Exchange and against whom there is not the slightest discrimination. Of the attempted boycott of the American, I have only to say it was the most flagrant outrage yet perpetrated upon the hard-worked producers of the land. It simply means that a few commission men have organized the Live Stock Exchange, and, sitting down in the market, say that the producers shall not unite to market their stock through their own agents, but must pass it through the hands of the members of the Exchange and pay them a rate of commission which in two years experience the American proves to be twice a reasonable charge for such services. How long the people will endure this iniquitous business remains to be seen.

Self-interest and satisfaction of being mutually helpful to each other ought to inspire us to zealous work to make our State Exchange as comprehensive as its name implies; to bind us together with the strong bond of financial interest and furnish the world with another example of the beneficent humanizing influence of co-operation. Success to the farmer means business activity in all lines of trade.

S. M. SCOTT,
 Ass't State Lecturer F. A. & I. U.
 McPherson, Kas.

Kiowa County.

At the regular meeting of the Kiowa County F. A. & I. U., held at Greensburg, on April 18, 1891, the following resolutions were unanimously adopted:

WHEREAS, A grain commission firm doing business under the firm name of Higgs & Co. have received wheat and inspected it as soft wheat, and sent inspection receipts for soft wheat, and afterward paid for hard wheat and refused to correct the error; and

WHEREAS, The difference in the price of soft and hard wheat was 4 cents per bushel, and the amount so shipped by Mr. Bartram amounts to \$70 difference in hard and soft wheat; and

WHEREAS, The said Higgs & Co. have repeatedly refused to settle honorably and fairly; therefore be it

Resolved, That we request all members of the F. A. & I. U. not to ship any grain of any kind to said firm, and refuse to sell to parties who consign grain to said firm; and further

Resolved, That these resolutions be published in all the official papers of Kansas and Missouri, and a copy be sent to Higgs & Co.

The following named persons made affidavit that the grain in question was soft wheat: Fred Bertram, grower of wheat; W. L. Fleener, shipped the wheat for Bertram; W. S. Hollibird, grain dealer in Greensburg; Fred Steffen, thresher of wheat. Others can testify that it was soft wheat, as they saw it growing and helped thresh it.

A. EISEL, Sec'y.

National Reform Press Association.

FRATERNAL BROTHERS:—The National Reform Press Association will meet in Cincinnati, Ohio, on the 18th of May, 1891. The object of the meeting will be to unify the efforts of the reform papers in the United States on common lines of reform, and to adopt such measures as will best aid in extending the educational influence of the reform press. Other matters of a business nature will be considered, among which will be the furnishing to such papers as need them "ready prints" and "mail plate" matter. The association now numbers among its members the editors of many of the leading reform papers of the country. A cordial invitation is hereby extended to our fraternal brethren to be present at this meeting and assist in extending the usefulness of the association. The press is the strong right arm of the reform movement. The utility of its effective organization and a concentration of its efforts must be apparent to all. To this end the Cincinnati meeting was called. The indications are that it will be the largest representation of reform papers ever assembled at any time. Reduced rates of fare on all lines of railroad have been secured. Headquarters in Cincinnati will be at the Palace hotel.

C. W. MACUNE, President.
 W. S. MORGAN, Secretary.

The People's Party Manifesto can be secured, in neat pamphlet form, at 25 cents per dozen or \$1.50 per hundred, by addressing THE WESTERN ADVOCATE, Mankato, Kas.

Growth of the Alliance.

While the information contained in the following shows but a fraction of the organization now going on among the farmers of the country, it will give our readers some idea of the activity and magnitude of the great reform movement. Other industrial organizations are equally energetic along the same lines.

OHIO.

In Ohio there are 187 sub-Alliances, with a membership of over 8,000.

NEW YORK.

New York has 241 sub-Alliances, with a membership exceeding 10,000.

CALIFORNIA.

There are already 365 sub-organizations of the Farmers' Alliance in the State and thirty Organizers are in the field.

VIRGINIA.

There are 1,325 sub-organizations of the Farmers' Alliance in the State, and ninety-four counties are thoroughly organized.

IOWA.

The Farmers' Alliance is spreading in the State like hot cakes, no less than forty-one branches having been formed in one week.

WEST VIRGINIA.

was organized seven months ago. There are now 433 organizations reported, and the work is more vigorous and active than ever before.

PENNSYLVANIA.

The State Alliance was organized April 14, 1890. There are now over 200 sub-Alliances with more than 10,000 members, and our friends are organizing at the rate of one Alliance a day, Sundays included.

MINNESOTA.

The number of Farmers' Alliance branches in the State is 1,315, and others are being organized at the rate of six or seven a week. The Alliance has 11,000 more members than at the time of the election last fall.

WISCONSIN.

had only seventy-eight sub-organizations last June. There are now 236 Alliances organized. Applications for charters are received by the Secretary every day, and there will be over 300 organizations before the end of this month.

KENTUCKY.

The State Secretary sent charters for sixty new sub-Alliances during the month of March. Eighty-six of the 119 counties in the State are organized. There is a total of 2,400 sub-Alliances in the State with a membership of more than 100,000 farmers.

NEW ENGLAND.

The New England States have been showing a lively interest in the Alliance for some time past. There have been hundreds of applications for Alliance literature. In New Hampshire the interest has culminated in the organization of the Granite State Farmers' Alliance and Industrial Union. They are now calling for Organizers, and think the time is ripe for good work in that section.

Fifth Congressional District.

There will be a meeting of the Fifth Congressional District Alliance held at Clay Center, Kas., on the last Tuesday in June (30). Let there be a full attendance of all the members. H. N. BOYD, Belleville, Kas. Sec'y and Treasurer.

Memorial Day Services.

To the officers and members of the F. A. & I. U. of the State of Kansas:

I respectfully recommend that the sub-organizations do, so far as practicable attend Memorial day services as a society, May 30, 1891. FRANK McGRATH, State President F. A. & I. U.

Executive office F. A. & I. U., Topeka, Kas., April 24, 1891.

A dry, hacking cough keeps the bronchial tubes in a state of constant irritation, which if not speedily removed, may lead to bronchitis. No prompter remedy can be had than Ayer's Cherry Pectoral, which is both an anodyne and expectorant.

The Cincinnati Convention.

Delegates and others attending the Alliance Convention, at Cincinnati, May 19th to 21st, will find to their advantage to go by the Ohio & Mississippi Railway. This great line runs four solid trains every day from St. Louis to Cincinnati, and is fully equipped to transport the large number, who will no doubt attend the meetings. Those who go by the O. & M. will be well taken care of. No other line runs a passenger train through from St. Louis to Cincinnati or even a day coach.

With such advantages the O. & M. undoubtedly will, as it deserves on account of its superior facilities, carry the bulk of the delegations going from the West. A large number having already signified their intention to take that line.

Easy as a Cradle.

Each vestibule sleeper on the Santa Fe Route "Cannonball" train between Denver and Chicago is as easy as a cradle. Chair cars, library cars and day coaches are arranged with conveniences that satisfy the most fastidious traveler. No prettier, swifter or more comfortable train has ever cut a hole in the night.

On receipt of 2-cent stamp to pay postage, the beautiful Wabash calendar will be mailed to you.

H. N. GARLAND, W. P. A.,
 N. W. Cor. Ninth and Delaware streets,
 Kansas City, Mo.

\$45.25 "FOSTER" \$5.25 BUGGIES HARNESS

We send Free to every person on application our illustrated catalogue of the Celebrated "FOSTER" Buggies and Harness. All goods guaranteed. Write quick. We can save you money.

THE FOSTER BUGGY & CART CO. 65 W. 4TH ST. CINCINNATI, O.

IT IS A WISE MAN

Who makes the best of his opportunities. Many so-called cost sales are not opportunities.

IF A MERCHANT'S PROFITS

Are worth saving, our quit business sale is an opportunity not to be lost. Its equal has never been presented to this community.

POSITIVELY WE QUIT BUSIN'SS

Just as soon as the citizens of Topeka awake to the issue and come to our rescue by helping us to move this gigantic

FURNITURE STOCK.

It is a fact that each and every article goes at the cost price. Our stock is too large for a single buyer, so we must resort to this means and give all present purchasers

MANUFACTURERS' PRICES.

This stock must be turned into money, dollar for dollar, at price we paid. Do you realize what this means?

WE CHALLENGE

A comparison of prices. In order to convince yourself, look at other stocks first and then come to us and buy. You will save 25 per cent.

REED & SON,

510 Kansas Avenue, Topeka.

F. F. F. F.

FOUR FLOORS FULL FURNITURE.

GOOD BUTTER WANTED.

Some time since we had an advertisement in this paper. A good many people answered it, and they continue to deal with us; and we think there are many more who would if they were acquainted. Send us your name and address if you make butter, and we will tell you how to send, prices, etc.

GILT EDGE BUTTER CO., Pueblo, Colo.

CALIFORNIA LANDS!

Yield More Profit Than Any Other in the World.

All kinds and descriptions, in all parts of the State, on any terms.

CALIFORNIA COLONIZATION CO.
 Capital \$5,000,000. E. D. HILL,
 Manager Colorado, Kansas & Nebraska.
 Headquarters—Denver, 1643 Champa St., Room 12.

Farm Loans.

Loans on farms in eastern Kansas, at moderate rate of interest, and no commission. Where title is perfect and security satisfactory no person has ever had to wait a day for money. Special low rates on large loans. Purchase money mortgages bought.

T. E. BOWMAN & Co.,
 Jones Building, 116 West Sixth street,
 Topeka, Kas.

Make Your Own Bitters!

On receipt of 30 cents, U. S. Stamps, I will send to any address one package Steketee's Dry Bitters. One package makes ONE GALLON BEST TONIC KNOWN. Cures Stomach and Kidney Diseases. Address GEO. G. STEKETEE, GRAND RAPIDS, MICH.

Gossip About Stock.

The man who possesses the most sheep of any single owner in America is Haggin, the California horse breeder. He has 100,000 sheep, and last year sold \$40,000 worth of spring lambs.

W. W. Waltmire called at the KANSAS FARMER office yesterday, and reported his swine in excellent condition and spring litters arriving in fine shape. He has had more inquiries this spring than ever before.

The Emporia Republican says: "The Kansas Swine Breeders' Association tried to secure the next 'national meeting of expert judges' for Emporia, but did not succeed. The national organization admitted that Emporia was an excellent city, but decided that she was not a big enough hog. So the meeting goes to Lincoln, Neb."

Mr. Charles J. Stuckey, Atlanta, Ill., a well-known breeder of recorded Duroc-Jersey Red hogs, says he will give most reasonable prices for the best-bred hogs and has low shipping rates. Hogs and cattle are on the up turn, and it is now a good time to buy thoroughbred stock, before prices go higher. Parties wanting to buy fine-bred stock should write Mr. Stuckey.

We are pleased to notice the public sale of "prize-winning" Short-horns which is to take place at the farm of W. A. Powell, three miles east of Lee's Summit, Mo., on May 28. W. A. and A. J. Powell, the owners of the cattle to be sold, are noted breeders of Short-horns, and from their farms have come some of the best blood to be found in Missouri and Kansas. Notice their advertisement on 16th page of this issue.

The next issue of the KANSAS FARMER will contain a most excellent paper entitled "Does Poultry Pay the Farmer?" by our old-time friend, M. B. Keagy, of Wellington, and which was read before the late session of the Sumner County Farmers' Institute. Mr. Keagy is well known as the gentlemanly proprietor of the Wellington herd of Large English Berkshires and breeder of the choicest strains of Plymouth Rock poultry.

The feeling among importers and breeders of draft horses is much better than it was a year ago. Our Chicago representative informs us that W. L. Ellwood, DeKalb, Ill., importer of French Coach and Percherons, has sold far beyond his expectations. Galbraith Bros., the noted Clydesdale importers and breeders of Janesville, Wis., are well pleased with the result of their recent public sale; while the day was inclement and the attendance not large, the bidding was spirited and results were generally satisfactory. A number of good sales have been made by them since their auction. At Watertown, Wis., Valerius & Co. report a good spring business and a number of important sales. A. H. Hartwig, of the same place, has taken possession of his new barn near the Northwestern depot, and is feeling encouraged and reports a satisfactory trade. Blair Bros., of Aurora, Ill., state that their sales have exceeded their expectations. George E. Brown, of Aurora, is improving his breeding farm in Texas. His business is progressing entirely satisfactory.

The first annual sale by the Inter-State Short-horn Show and Sale Association is announced to be held at Riverview park, Kansas City stock yards, on May 13, 14 and 15, 1891. The catalogue is out and can be had by addressing P. D. Etue, Secretary, Kansas City, Mo. The terms of sale are cash, or acceptable note, six months time at 8 per cent. The membership in this association consists of twenty-three breeders of Short-horns in Kansas and Missouri, fifteen of them contributing cattle to this sale. The number catalogued is fifty head; twenty-eight are bulls, and the balance heifers and cows. As an incentive to offer none but choice animals at this sale, premiums will be awarded in five classes, and the judgment of buyers be assisted by the awards. The offering consists of some of the finest cattle in Missouri and Kansas, including Bates and Bates-topped, Cruickshank and Cruickshank-topped cattle. Two of what are termed American families will be represented by the Rose of Sharons and Young Marys, some with an infusion of Bates, others with Cruickshank blood; and the sale will offer a very attractive class of cattle throughout, all being the result of careful selection. It is an opportunity which is seldom offered to buyers.

How Can This Be?

EDITOR KANSAS FARMER:—There has been issued, over the signature of Fairbanks, Morse & Co., Kansas City, Mo., a carefully worded circular, which is misleading, wherein they claim first premium and diploma for the best scale at Kansas State Fair, held at Topeka, last September, referring to a certain manufacturing company claiming said premium and diploma. In order that the public may not be deceived, I wish you would publish the enclosed affidavit, also the statement of E. G. Moon, Secretary of Kansas Fair Association. It certainly is a great victory for the Monarch scale, when a company as prominent as Fairbanks, Morse & Co. have to resort to such means to hold their trade against an institution which finds its home in Kansas. The Monarch scale has probably come to the front with greater rapidity than any scale for many years, and is claiming to be the best scale in the world, which is proven with but little trouble. Many are laying aside other scales and adopting the Monarch.

Respectfully, C. J. BLISS.

STATE OF KANSAS, ss.
SHAWNEE COUNTY, ss.
C. J. Bliss, being duly sworn, upon oath deposes and saith that he was present at Kansas State Fair, held in Topeka, Kas., September 12 to 20, 1890, and knows that the first premium and diploma was awarded to the H. N. Strait Manufacturing Co., of Kansas City, Kas., for best hay and cattle scale—Monarch, as can be shown at office of said manufacturing company and from correspondence to said manufacturers over the signature of E. G. Moon, Secretary of Kansas State Fair Association.

Subscribed and sworn to before me, this 4th day of May, 1891.
EUGENE WOLFE,
Notary Public.

Commission expires May 24, 1892.
To whom it may concern:—This is to certify H. N. Strait Manufacturing Co., of Armourdale, Kas., took the first premium on the Monarch hay scales at the State Fair, held at Topeka, September, 1890.
E. G. MOON,
Sec'y Kansas State Fair Assoc'n.

Decorah Steel Wind-Mill.

On our first page we present an illustration of the Decorah Steel Wind-Mill, manufactured by Goulds & Caldwell Co., 22 and 24 North Canal street, Chicago, and the Decorah Wind-Mill Company, Decorah, Ia.

The chief aim in planning and constructing this mill was to secure the greatest working power from the least exposure of surface to the wind, and to reach this end with the lightest weight admissible for positive security and durability.

The vane of this mill is a simple sheet of steel. The wheel is constructed of steel, and so are the arms and other upper parts, giving the mill a light airy appearance, while furnishing the strongest material, applied in the best form for insuring strength and durability.

In addition to this wind-mill, arrangements have also been made for the manufacture of a Steel Tower, which will be substantial and constructed at a reasonable price. When mounted on one of these towers, the mill will present a very attractive appearance.

For further information, prices, etc., the Goulds & Caldwell Company may be addressed.

The Kansas City Star, in commenting upon the Commercial Congress, says there are very many Republicans in all parts of the country who have no sympathy with the idea of high protection, and who are open in their opposition to the McKinley bill. Republicans like Plumb, Pettigrew and Paddock, in the Senate, and Ben. Butterworth, in the House of the last Congress, did not hesitate to notify the party that it was paving the way for its own downfall by insisting upon a policy which increased taxation and multiplied the burdens which are causing such general complaint. Even Mr. Blaine, the idol of the Republicans, has declared that the new tariff law does not open up a market for an additional bushel of wheat or a barrel of pork. Such papers as the Chicago Tribune, the St. Louis Globe-Democrat and the St. Paul Pioneer Press, whose Republicanism has never been doubted, have protested against the radical tariff legislation of the last Congress.

Why the Buggy Broke.

Owing to poor material in construction, and employment of cheap labor. The "Complete Horse Book" tells where to buy the best Buggy made for the money. Sent for 10 cents, silver or stamps. Pioneer Buggy Co., Columbus, O.

Cocunut butter is said to be an established fact in Europe. Large quantities

of it are sold, especially to Germany and Switzerland. It is used in hospitals, state institutions and among the poorer classes who formerly were compelled to use oleomargarine to "butter" their bread with. The cocoanuts are brought from Africa, South America and the South sea islands. One of the mysteries is how it can be made as cheaply as it is. Think of the good old-fashioned cow having a competitor in the shape of a cocconut tree.

A Peoria Pointer.

Mr. J. G. Reuter, prominent Merchant, Peoria, Ill., writes, "The trial box Quinn's Ointment has cured Curb ten weeks standing. Send one bottle your valuable preparation." Splints, Spavins, Windpuffs, Bunches, wonderful results. Trial box 25 cents, silver or stamps. Regular size \$1.50 delivered. Address W. B. Eddy & Co., Whitehall, N. Y.

Ingersoll on California.

In a recent magazine article, Mr. Ernest Ingersoll, the noted writer, says:

"The climate of southern California in winter closely resembles that of Egypt. Its equability is constant, and its dryness is proverbial. The only complaint made is, that it is too nearly perfect. Residents bred in the Eastern States confess now and then that a rousing storm would give them a grateful sensation. But this sentiment meets with no favor from the man who has just fled from a superfluity of wetness and chilling gales. To him perpetual summer seems perpetual paradise, and to the invalid dreading the advance of disease the still and arid atmosphere is as the breath of life."

The most comfortable way to reach the Pacific coast is via the Santa Fe Route. Weekly excursions in Pullman tourist sleepers at low rates. Apply to G. T. Nicholson, G. P. & T. A., Topeka, Kas., for folder.

Cheap Ride to California.

If it costs \$35 to buy a ticket to southern California via Santa Fe Route (quickest and shortest line), and in California you regain lost health or wealth, it's a cheap trip, isn't it?

The mascot in this case is the Santa Fe route.

OTTAWA UNIVERSITY.
OTTAWA, KANSAS.

Admits both Young Ladies and Gentlemen. Fits for teaching, for business and for professional life.
Has new college building, new cottage for young ladies, enlarged faculty, and increased facilities in all directions.
Expenses low.
FALL TERM begins September 2, 1891.
For catalogue or for further information address the President.
FRANKLIN JOHNSON, Ottawa, Kas.

Protect Your Homes

By using the Lightning Hand Fire-Extinguisher. Simple, harmless and effective and can be used by any intelligent twelve-year-old child. They are in use by thousands of families and give perfect satisfaction. Write for circulars. We want a good live Agent in every county. Address
Lightning Hand Fire Extinguisher Co.
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For Ranch, Land or Stock (sheep preferred), paid-up, non-assessable stock in Agricultural Implement Factory in Kansas City, doing paying business.
MARK WILLIAMS,
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Only authorized Grain Agents of Kansas Alliance Association. Liberal advancements made on all consignments. Market reports furnished on appl. Free.
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SHORT-HORN,
Jersey and Aberdeen-Angus
CATTLE FOR SALE.

THE KANSAS STATE AGRICULTURAL COLLEGE

Offers to sell many fine breeding animals of the above named breeds. The Short-horns either have calves by their sides or are in calf to Imported ROYAL PIRATE (56492), one of the finest Cruickshank bulls in America. Among them are five splendid two-year-old heifers, Cruickshank tops.

The Jerseys are in milk.
Two Aberdeen-Angus heifers are offered.
For further information, address
PROF. C. C. GEORGESON,
Manhattan, Kas.

FARMERS!
LOOK HERE.

We are prepared to furnish the celebrated
EXCELSIOR STEEL BINDERS AND
MOWERS

direct to the farmers, cheap. Catalogues furnished. Write for prices.
C. A. TYLER,
503 Beard Building, Kansas City, Mo.

\$5 A DAY SURE. \$2.15 Samples Free.

Horse owners buy 1 to 6. 20 other specialties. Rein Holder Co., Holly, Mich.

OLD COINS WANTED

\$5.75 for 1853 quarters. \$2.00 for 1856 cent. \$1.10 for trade dollars. \$10.50 for 1853 dollar. \$1.00 for 1864 dollar. \$5.60 for 1859 half dollar, and hundreds of other dates wanted for which I pay big prices if in required condition. Send list of all coins you have dated before 1871. Enclose stamp for reply. W. E. SKINNER, Coin Broker, Boston, Mass. Mention this paper.

To Money-Makers!

And investors wanting to purchase shares, at first price, of the treasury stock of the Green Copper Mining Co., of Montana, whose ten copper claims will be, it is claimed by experts, the greatest copper mine in the world. Write for prospectus and particulars to
EVANS, ORCUTT & CO.,
16 Main St., Butte, Montana.

FOR WORMS.

To cleanse your horse from worms, use DR. W. H. GOING'S WORM POWDERS. \$1.00 a package by mail.

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To cure Spasmodic Colic, use DR. W. H. GOING'S COLIC POWDERS. \$1.00 a package by mail. Keep a package in your house.

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If your horse is not doing well and is out of condition, use DR. W. H. GOING'S TONIC POWDER. \$1.00 a package by mail.
DR. W. H. GOING is a member of the Royal College of Veterinary Surgeons, of London, England. He has had fourteen years experience in the U. S. cavalry as chief veterinary surgeon, and is at present State Veterinary Surgeon for the State of Kansas.
Address P. O. Box 48, Junction City, Kas.

DR. CAMP'S

Private Dispensary and Hospital,
16½ E. 12th St., Kansas City, Mo.

For the treatment of all Chronic, Nervous and Special Diseases of Men and Women. We treat EYE, EAR, NOSE, THROAT, etc.

OPIUM HABIT.

We have a sure, speedy and permanent cure for this most loathsome habit, and positively guarantee a cure in every case.

Write and get my Descriptive Circular. First-class rooms for patients that wish to stop at the Hospital, at very reasonable rates.

INFORMATION I WANTED.
Persons suffering with RHEUMATISM in any form, Neuralgia or Lumbago. I will, without charge, direct those afflicted to a sure and permanent cure. I have nothing to sell but give information what to use that cured myself and friends after all other means had failed. Address, F. W. Parkhurst, Fraternity & Fine Art Publisher, Lock Box 1501, Boston, Mass.

TO WEAK MEN Suffering from the effects of youthful errors, early decay, wasting weakness, lost manhood, etc., I will send a valuable treatise (sealed) containing full particulars for home cure, FREE of charge. A splendid medical work; should be read by every man who is nervous and debilitated. Address, Prof. F. C. FOWLER, Moodus, Conn.

TANSY PILLS!
Safe and Sure. Send 4c. for "WOMAN'S SAFE GUARD." Wilcox Specific Co., Phila., Pa.

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.

"I Am Not Dust."

I am the golden corn, my body is the husk;
I am the gleaming star, my body is the dusk.

I am the silvery pearl, my body is the shell;
I am the water bright, my body is the well.

I am the emerald, my body sets it round;
I am the love I the word, my body is the sound.

I am the sympathy, my body is the tear;
I am the loving thought, my body makes it clear.

I am the hearing, sight, my body ear and eye;
I am the will to go, my body wings to fly.

I am the meaning sweet, my body is the rhyme;
I am the tune I the bell, my body is the chime.

I am the subtle scent, my body is the flower;
I am the maiden bride, my body is her dower.

I am the architect, my body is the stone;
I am the crowned king, my body is his throne.

I am the lesson taught, my body doth but teach;
I am the eloquence, my body is the speech.

I am the germ within, my body is the seed;
I am the deep intent, my body is the deed.

I am the charity, the body is the act;
I am the wider truth, my body is the fact.

I am the chrysm of love, my body is the kiss;
I am the finer grace, my body is the bliss.

I am the enemy, my body is the wrong;
I am the praise to God, my body is the song.

I am communion full, my body is the prayer;
I am the living soul, my body I but wear.

Immortal, what need I my body to love much?
When it lies dead, I see, I feel, I touch.

Eternal then and now, to-morrow and for aye!
I shall be I, unchanged—my body scattered clay.

—Found written in an old monk's prayer-book.

Some Kansas Statistics.

A man that is not a resident of Kansas, or has never visited our State, cannot see the good effects of a prohibitory law. I cannot give you many readers a better idea of the working of prohibition than by giving the City Marshal's report of Emporia, a city of 10,000 inhabitants:

Year.	Drunkennes.	Arrests for Disorderly Conduct.	Total.
1883.....	77.....	53.....	130
1884.....	78.....	57.....	135
1885.....	30.....	69.....	99
1886.....	40.....	26.....	66
1887.....	16.....	15.....	31
1888.....	15.....	12.....	27

Is there a licensed city with one-quarter the population that can show such a record? Our last election clearly proved to us that prohibition has come to stay in Kansas. With the resubmission Republicans and Democrats united the vote was so light that they never mention it any more, and one thing peculiar about their speakers' speeches was, that they all went to the State of Maine to get statistics to prove that prohibition did not prohibit. Last fall at the different political gatherings of 10,000 to 20,000 people I failed to see a drunken man. And the short time the original package houses were running they did not have the run they expected. People have become educated against drinking and it is going out of fashion in Kansas. Of course, there is whisky sold through the express companies and on the sly to old drinkers, but one good thing about it is, that there are no new drunkards being made. A boy has to take his first drink before he becomes a drunkard. And he is not apt to send to Kansas City and buy a gallon jug of whisky to take his first drink. I believe I can truthfully say that we have more whole neighborhoods in Kansas where you cannot find a young man that takes a drink of intoxicating liquor than any other State in the Union, and that the law is not any oftener violated than any other in old code of laws; though I want it understood that I am not a third party, St. John prohibitionist.—J. R. Cotton, Emporia, Kas., in Farm, Field and Stockman.

Larger Than Kansas Trees.

The largest tree in the world has been discovered in Fresno county, California. Frank Loomis, an old mountaineer, and party returned to Sanger from a bear-hunting expedition in the Sierras. They wounded a bear, and in pursuing it ran across a big tree in the most rugged portion of the mountains, about two miles north of Kentucky meadows. This monarch of the forest was circumscribed by a radius of a mile or more of almost impenetrable underbrush, so that the hunters

were compelled to use both knife and ax to reach the center. It is certain that no man has ever traversed the same ground. The tree was measured about four feet from the ground, and a rope of 122 feet 5 inches long was necessary to span its circumference.

A Compass in Every Watch.

A few days ago I was standing by an American gentleman, when I expressed a wish to know which point was the north. He at once pulled out his watch, looked at it and pointed to the north. I asked him whether he had a compass attached to his watch. "All watches," he replied, "are compasses." Then he explained to me quite clearly how this was. Point the hour hand to the sun, and the south is just half way between the hour and the figure XII on the watch. For instance, suppose that it is 4 o'clock. Point the hand indicating 4 to the sun and II on the watch is exactly south. Suppose that it is 8 o'clock; point the hand indicating 8 to the sun, and the figure X on the watch is due south. My American friend was quite surprised that I did not know this. Thinking that very possibly I was ignorant of a thing that every one else knew, and happening to meet Mr. Stanley, I asked that eminent traveler whether he was aware of this simple mode of discovering the points of the compass. He said that he had never heard of it. I presume, therefore, that the world is in the same state of ignorance. Amalfi is proud of having been the home of the inventor of the compass. I do not know what town boasts of my friend as a citizen.—Truth.

Bread, Rolls, Etc.

Vienna Bread.—This is claimed to be the best bread made. To make it, take one quart of warm water and milk, one cake of Fleischmann's yeast, half an ounce of salt, and one pound of flour. Make a thin sponge, and allow it to stand one hour, then add about two and one-half pounds of flour. It must now stand three hours, or until it becomes a smooth, elastic dough that will spring back if pressed with the finger. Cut in one-pound loaves, proof for one hour, and bake twenty minutes in a very hot oven. Before putting in the oven, cut three cuts across each loaf with a razor. While baking, wash the tops of the loaves with a sponge dipped in milk to glaze them.

Entire Wheat Bread.—There has been some inquiry about entire wheat bread. I find it very good. For lunch baskets it cannot be excelled, as it does not become dry and tasteless like white bread. This recipe cannot be improved: One quart of warm water, one yeast cake, one tablespoonful of salt, two of sugar, and two and one-half pounds of entire wheat flour. Mix and let stand three hours. Stir it down and pour in pans, allowing room to rise. Proof half an hour, and bake twenty minutes for one-pound loaves.

In baking bread of any kind, have the oven very hot when the bread is put in. This will cause the bread to spring in a few minutes to almost double its former size. If the oven is not hot when the bread is put in it will continue to ferment slowly, and may thus become sour. A good test is to throw a little flour on the bottom of the oven; if it browns at once, the oven is in good order. If bread is proofed too much before it is put in the oven, and while it may not be sour, it will be coarse, and there will be a dark coarse streak near the middle of the loaf. If the bread appears to be too light, mold it over with a little fresh flour, and proof for a short time, then bake. The addition of fresh flour will give the yeast something to do, thereby saving the bread from being sour.

Rolls.—Use one pound of sponge two ounces of lard, one teaspoonful of salt and the same of sugar, and enough flour to make a smooth dough, and let it rise two hours. Form in rolls, proof one hour and a half, and bake quickly.

Rusk.—Use one pound of sponge, four ounces of sugar, one egg, two ounces of lard or butter. Proceed as for rolls.

Cinnamon Buns.—Roll rusk dough until half an inch thick. Wash with molasses and water. Strew cinnamon and currants over the dough. Roll up and cut in one-inch pieces. To glaze rusk and buns, wash with molasses and water while they are hot.—Good Housekeeping.

The itching of the scalp, falling of the hair, resulting in baldness, are often caused by dandruff, which may be cured by using Hall's Hair Renewer.

How to be a Happy Old Maid.

To have so much to do that there is no time for morbid thoughts.

To never think for a moment that you are not attractive, and to make yourself look as charming as possible.

To be so considerate of the happiness of others that it will be reflected back to you as from a looking-glass.

To never permit yourself to grow old, for by cultivating all the graces of heart, brain and body, age will not come upon you.

To believe that a life-work has been mapped out for you, that it is near you, and to do that which your hands find for you.

To remember that the old maid is the one member of a family who, not having any other claims on her, can be God's own sunshine to those in sorrow or in joy.—The Ladies' Home Journal.

Testing Bread.

Bread soaked in an alcoholic solution of logwood will at once turn blue if there is alum present. Another very simple way of testing alum is to thrust a hot knife blade into a loaf that is one day old. If alum is present it will adhere in small particles to the blade. As to the goodness of bread properly made with baking powders possessing the maximum of leavening power, the following experiment will be found interesting, and also very reliable:

Take a good loaf of bread with a suspected one; cut from the two pieces of equal size, put them in saucers containing the same quantity of water; the best bread will invariably absorb the most water. This is more a test for alum than anything, as alum hardens the gluten of wheat and renders it less soluble.

The weekly consumption of bread per inhabitant in the United States is only five and one-half pounds, or about three pounds less than the general average for all countries of Europe. At the rate of only five and one-half pounds of bread weekly per inhabitant in the United States, the annual consumption represents the enormous amount of 17,160,000,000 pounds.—American Market.

Various Uses for Ammonia.

A little ammonia in tepid water will soften and cleanse the skin.

Spirits of ammonia inhaled, will often relieve a severe headache.

Doorplates should be cleaned by rubbing with a cloth wet in ammonia and water.

If the color has been taken out of silks by fruit stains, ammonia will usually restore the color.

To brighten carpets wipe them with warm water in which has been poured a few drops of ammonia.

One or two tablespoonfuls of ammonia added to a pail of water will clean windows better than soap.

A few drops in a cupful of warm water, applied carefully will remove spots from paintings and chromos.

When acid of any kind gets on clothing, spirits of ammonia will kill it. Apply chloroform to restore the color.

Keep nickel, silver ornaments and mounts, bright by rubbing with woolen cloth saturated in spirits of ammonia.

Grease spots may be taken out with weak ammonia in water; lay soft white paper over and iron with a hot iron.

Ammonia applied two or three times on a fresh cold-sore will kill it. It will drive it away if used when the cold-sore is first felt.

A tablespoonful of ammonia in a gallon of warm water will often restore colors in carpets; it will also remove whitewash from them.

Yellow stains, left by sewing-machine oil, on white, may be removed by rubbing the spot with a cloth wet with ammonia, before washing with soap.

Equal parts of ammonia and turpentine will take paint out of clothing, even if it be hard and dry. Saturate the spot as often as necessary, and wash out in soap-suds.

If those who perspire freely, would use a little ammonia in the water they bathe in every day, it would keep their flesh sweet and clean, doing away with any disagreeable odor.

Old brass may be cleaned to look like new by pouring strong ammonia on it, and scrubbing with a scrub-brush, rinse in clear water.

Put a teaspoonful of ammonia in a quart of water, wash your brushes and combs in this and all grease and dirt will disap-

Peculiar

To itself in many important particulars, Hood's Sarsaparilla is different from and superior to any other medicine.

Peculiar in combination, proportion and preparation of ingredients, Hood's Sarsaparilla possesses the full curative value of the best known remedies of the vegetable kingdom.

Peculiar in its medicinal merit, Hood's Sarsaparilla accomplishes cures hitherto unknown.

Peculiar in strength and economy—Hood's Sarsaparilla is the only medicine of which can truly be said, "100 doses one dollar." Medicines in larger and smaller bottles require larger doses, and do not produce as good results as Hood's Sarsaparilla.

Peculiar in its "good name at home"—there is more of Hood's Sarsaparilla sold in Lowell, where it is made, than of all other blood purifiers.

Peculiar in its phenomenal record of sales abroad, no other preparation has ever attained such popularity in so short a time. Do not be induced to take any other preparation. Be sure to get

Hood's Sarsaparilla

Sold by all druggists. \$1; six for \$5. Prepared only by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

100 Doses One Dollar

pear. Rinse, shake and dry in the sun, or by the fire.

Flannels and blankets may be soaked in a pail of water containing one tablespoonful of ammonia and a little suds. Rub as little as possible and they will be white and clean, and will not shrink.

One teaspoonful of ammonia to a tea cupful of water will clean gold or silver jewelry; a few drops of clear aqua ammonia poured on the underside of diamonds, will clean them immediately, making them very brilliant.—Good Housekeeping.

A young lady of Jefferson, West Virginia, declares that she was all run down before taking Ayer's Sarsaparilla; but that now she is gaining strength every day. Ayer's Sarsaparilla is certainly a wonderfully effective tonic for the feeble and delicate.

ST. JACOBS OIL
TRADE MARK
THE GREAT REMEDY FOR PAIN
CURES PROMPTLY AND PERMANENTLY
RHEUMATISM.
Lumbago, Headache, Toothache,
NEURALGIA.
Sore Throat, Swellings, Frost-bites,
SCIATICA.
Sprains, Bruises, Burns, Scalds.
THE CHARLES A. VOGELER CO., Baltimore, Md.

Tutt's Pills

CURE CONSTIPATION.

To enjoy health one should have regular evacuations every twenty-four hours. The evils, both mental and physical, resulting from

HABITUAL CONSTIPATION are many and serious. For the cure of this common trouble, Tutt's Liver Pills have gained a popularity unsurpassed. Elegantly sugar coated.

SOLD EVERYWHERE.

The New Self-Heating WASHER. 4 cents worth of Gasoline. Will do an ordinary size washing. Saves expense of buying boiler, tubs and wash-board every few years. Can swing burner to one side of machine and make starch, heat sad-irons, etc.



Heats its own water and keeps it hot from first to last. Saves lifting the clothes on and off a hot stove to boil them.

Rubs the dirt out same as wash-board. Machine folds down with lid and makes a good table. Every machine is guaranteed, and sold on thirty days trial. It is a complete success and comes as a "Good Samaritan" to the worn and weary housewife. All kinds of wringers handled, from \$1.75 to \$5. Agents wanted everywhere. Send for testimonials.

F. T. RENBOW.
Factory 1804-1808 Hunter Ave., Wichita, Kas.

The Young Folks.

At the Windows of the Morning.

What joy to stand at break of day
Watching the gathering glory
Of sunlight brightening all the way
With bird-note song and story:
When the Queen of Morn comes forth with
pride,
Both heaven and earth adorning;
When the hand of God throws open wide
All the Windows of the Morning.

When low in the eastern sky afar,
Hangs a molten mirror olden,
Where breezes leap from star to star,
Through sun rays growing golden;
When scenes of darkness fade and flee
Away from the hours of dawning;
When the face of the God of Day we see
Through the Windows of the Morning.

When nature smiles and weeps, in turn,
But not with tears of sadness;
When morning mists, from a flowing urn,
Pour life, and joy, and gladness;
When Sol, in golden chariot rides
Forth proudly, without scolding;
When in the heavens His glory bides
Near the Windows of the Morning.

Inspiring thought, that when our time
Of life on earth is ended,
There's promise of a new sublime
Where earth and heaven are blended;
Where day and night will be once more
Joined in a new life dawning;
When mirrored on a shining shore,
Ope the Windows of the Morning.

—Good Housekeeping.

BRIDGES.

The man who is so lucky as to get a fat contract for building a township bridge may rejoice in the prospect of "turning an honest penny" (or otherwise) for himself, but rarely does he have curiosity enough to study the subject of bridges generally to know what kinds were used in the long ages of the past, and to learn the construction of the magnificent structures which furnish viaducts in this the magnificent age of the world.

With the dawn of the historic period we find man a bridge-builder in every sense of the word. He no longer depended on the uncertainties of the floating tree bridges, but by the aid of more perfect tools and with his rafts and canoes, boldly set about standing up log piers and covering them with a network of trees and brush in a manner to insure him a bridge though "the waters made war with the thunders on high." To the man of the stone age, or even the bronze age, turbid, rushing streams of any width worth mentioning were insurmountable obstacles which must be avoided even on pain of going a hundred miles out of the way. How changed is everything in this, the iron age, or, as the dreamer loves to call it, "the evening of the iron and the dawn of the aluminum age." In this rushing, heedless, headstrong era, man has thrown structures, mere cobwebs in appearance, but strong as the eternal hills, across the widest streams called rivers; has spanned miles of firths, estuaries and lakes, and is even now evolving embryo ideas for bridging the sea!

The first of the historic bridges of note was thrown across the river Tiber, at Rome, in the year 500 B. C., and the next of any magnitude across the Rhine. The latter structure was built by Julius Caesar for the passage of his army.

The first historic account of employing the arch in bridge construction we find in the records of the building of the Pontode Rotto, or Senators' Bridge, at Rome, in 127 B. C.

In the latter part of the first century A. D., or the early part of the second, the Roman Emperor, Trajan, constructed the famous Danube bridge, at that time one of the most colossal structures of its kind in the world. It was fashioned with stone piers, thirty in number, and each 150 feet high, and provided with a roadway of timber, and was 4,770 feet long. The Chinese built suspension bridges as early as the first century of our era. The remains of one built in the year 65 A. D., and suspended on chains, was examined and described by Kircher, who says that it must have been almost an exact counterpart of the modern suspension bridge, considered by everybody to be a nineteenth century innovation.

OLD LONDON BRIDGE.

During the reign of King John, in the year 1200, thirty-three years having elapsed since Peter of Colechurch laid the first stone of the first pier in position, the London bridge was thrown open to the public providing said public paid the toll. For massiveness this effort of the early Brethren of the Bridge surpassed anything of the kind known either before or since. The total length of the entire structure was but 940 feet, notwithstanding it was provided with 20 piers varying from 25 to 40 feet in thickness. Competent bridge-builders have estimated that the piers of Peter's bridge contained enough of solid masonry to construct four such bridges on modern plans. In fact, it is said that the number and massiveness of the piers seriously hindered the natural flow of the water.

NEW LONDON BRIDGE.

Old London bridge, after a constant use of over 600 years, fell into disrepute in 1822, and plans were submitted for the building of a new one. John Rennie was

the successful competitor, and the first pile was driven March 15, 1824. The location selected was about 200 feet west of the old stone bridge, begun by Peter in the twelfth century. The first stone on the new London bridge was laid June 15, 1825, just fifteen months after preliminary work was begun. It was opened for traffic by King William IV, August 1, 1831. In point of spans and piers it has only one-fourth the number of the old London bridge. It is built wholly of granite, and cost the city about \$12,000,000.

THE BRIDGE AT BROOKLYN.

When Eads' St. Louis work was in the height of its progress, in 1870, in the month of January, preliminary work was begun by the Roeblings on the great Brooklyn suspension bridge, the marvel of the nineteenth century. Want of space forbids anything like a historical resume of the work, so a condensed statement of facts will be given that will answer any of the many questions which may arise concerning this, the eighth wonder of the world.

Construction commenced January 3, 1870. Length of river span, 1,595 feet 6 inches. Length of one land span, 930 feet; length of other, 1,860 feet.

Length of Brooklyn approach, 971 feet. Length of New York approach, 1,562 feet 6 inches.

Total length of bridge, 5,985 feet.

Width of bridge, 85 feet.

Number of cables, 4.

Diameter of cables, each 15 1/4 inches.

Length of wire in cables, 14,361 miles.

Weight of cables, exclusive of wrapping wire, 3,538 1/2 tons.

Each cable contains 5,296 galvanized wires, lying side by side, untwisted.

Height of towers above high water, 278 feet.

Height of bridge at center of span, 134 feet.

Total weight of steel in bridge, 14,680 tons.

Weight of paint alone, 10,000 pounds.

Bridge opened to public May 24, 1883.

Total cost, \$15,000,000.

Designers and builders, John A. and Washington A. Roebling, father and son.

PROPOSED BRIDGE ACROSS BEHRING STRAITS.

The renown of "Old London," "New London," "Brooklyn" and the hundreds of other mammoth bridges is about to be overshadowed by the one proposed for the connection of Asia and America. Twenty miles of sea, it is proposed, shall be covered with iron and steel which shall permit a train of cars to roll over the waves in perfect safety. Then a train-load of freight or passengers may start from New York city and "without change" (except such as the free coinage of silver and other blessings will permit) arrive at St. Petersburg, Russia, via Alaska, Behring Straits, Kamtchatka, Verkhnekolimsk, Verkholansk, Tschalkawich, and other pleasant summer resorts of Siberia.

But, of course, this mammoth bridge will not be erected until some "grasping monopoly" will take hold of the matter; and then, after they have diverted travel and commerce over this new route and have made a fortune or two, we will all turn in and compel them to give up their ill-gotten gains and show them that it was built by the people and for the people.

"August Flower"

The Hon. J. W. Fennimore is the Sheriff of Kent Co., Del., and lives at Dover, the County Seat and Capital of the State. The sheriff is a gentleman fifty-nine years of age, and this is what he says: "I have used your August Flower for several years in my family and for my own use, and found it does me more good than any other remedy. I have been troubled with what I call Sick Headache. A pain comes in the back part of my head first, and then soon a general headache until I become sick and vomit. At times, too, I have a fullness after eating, a pressure after eating at the pit of the stomach, and sourness, when food seemed to rise up in my throat and mouth. When I feel this coming on if I take a little August Flower it relieves me, and is the best remedy I have ever taken for it. For this reason I take it and recommend it to others as a great remedy for Dyspepsia, &c."

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AND I AM VIGOROUS ENOUGH TO TAKE ANYTHING I CAN LAY MY HANDS ON; getting fat too, FOR SCOTT'S Emulsion of Pure Cod Liver Oil and Hypophosphites of Lime and Soda NOT ONLY CURED MY Incipient Consumption BUT BUILT ME UP, AND IS NOW PUTTING

FLESH ON MY BONES

AT THE RATE OF A POUND A DAY. I TAKE IT JUST AS EASILY AS I DO MILK. SUCH TESTIMONY IS NOTHING NEW. SCOTT'S EMULSION IS DOING WONDERS DAILY. TAKE NO OTHER.



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Ex-Congressman Perkins, who was succeeded by Hon. Ben Clover, has opened a claim agent office in Washington for the prosecution of Indian depredation claims.

The Texas State Horticultural Society will hold its next session at Lampasas, beginning July 1, 1891. Judging from signs, this will be the most successful meeting of the fruit-growers ever held in that State.

One of our subscribers desires to learn through the columns of the *KANSAS FARMER* how to get rid of prairie dogs and red ants. Will some one of our readers who has had experience give the desired information?

The Federal grand jury of Chicago has indicted five portrait firms for using the mails for the purpose of defrauding. The alleged portrait company would send out a letter offering to make a life-size crayon free of charge on receipt of victim's photograph, and then would only charge for the frame about four prices. Beware of these frauds.

A subscriber desires to learn whether or not he would be justified in attempting to irrigate a few acres of bottom land by horse-power where water has only to be raised six feet, provided he is at no other expense than the cost of a pump. Let us hear from those of our readers who have had experience in such a system of irrigation. However, the *KANSAS FARMER* is of the opinion that such would prove a valuable investment, especially in a dry season.Even a newspaper man's time and talent are sometimes worth big money. Good authority states that Mr. Dana's salary, as editor of the *New York Sun*, has been increased from \$25,000 to \$50,000 a year; that of his son Paul, from \$150 a week to \$15,000 yearly; and a similar increase from a like sum was made for Chester Lord, the managing editor. Business Manager Laffan's stipend was increased to \$25,000 a year. The *Sun* is said to have made more money last year than in any other year of its existence.The *Minneapolis Market Record* says that if 4 per cent. of the land area of the sixteen leading wheat States was cultivated to wheat, the acreages would equal the entire wheat acreage of this country. So it does not seem that people figuring on the increase of population exceeding the increase of wheat area, have any real cause to fear that there will be any want of bread, when prices are high enough to encourage the extension of wheat fields, by bread-raisers. If 30 per cent. of the dry lands in the sixteen States referred to were given to wheat cultivation a crop of twelve bushels an acre would exceed the entire wheat production of the world. This generation may at least settle down to the conviction that there is wheat land enough, if cultivated, to feed all when properly distributed.

HOW SHALL WE DETERMINE A JUST RATE OF INTEREST?

It is understood by all men who have thought upon this subject that wealth, in whatever form it may exist, is the result of labor. The man who toils not, but lives upon the substance of others, does not produce anything, no matter what he may be engaged in. His work, if he do work at all, amounts to nothing except as a matter of personal convenience, or in the superintending of others who perform the labor. The farmers, the mechanics, the tradesmen and artisans, with the day laborers, have produced all the wealth that now exists in any form. In our own country less than three hundred years ago a few men of the classes named began the building of a new nation here. They planted a different civilization from that existing in any other part of the earth. The first thing they did was to clear away the timber and open farms. They began to build houses for themselves and their children; they planted orchards and vineyards; they opened highways; and in time they builded railroads, they bridged rivers, they tunneled mountains, they opened up the coal fields, they delved into the rocks and brought forth the precious metals; they grew stronger and greater until now by reason of their labors we have a nation of people standing at the fore front of the best civilization upon earth. We lead all the world in agriculture and in manufactures, in railroading and in every other department of active, productive industry. All this is the result of labor. It so happens, however, that with all of our wealth, with all of what appears to be an extravagance of comfort, if the expression is allowable, with all the evidences of thrift and affluence about us, a very few persons comparatively to-day practically own fully one-half of the wealth that our toiling people have produced. Why is this? What reason can be assigned for this wonderful flow of wealth from the people who produced it into the possession of persons who had no part in its production? The question is one of great importance. It involves considerations which are vital to the people, and one little word embodies the whole great discussion; that word is *usury*. We are not in the habit of talking much about usury in this country because we have grown so big, and the power which controls our legislation and which has managed to take possession of the business of the common people, has made it customary, if not lawful, to exact from the toilers a rate of interest for the use of money and of capital which is far beyond the average rate of increase in the value of labor's products. If the reader will take trouble to examine into this matter he will find that about 3 per cent. annual average increase is the rate at which the working people of this and other nations have produced property and wealth. Take any average State of the American Union before our great war, at a time when our progress was generally normal, and before the period of speculation which ruined us came into active play, and it will be found that 3 per cent. to 4 per cent. is the utmost that any of our great communities advanced in their yearly movement forward. If that is true, then any rate of interest beyond 3 or 4 per cent. was usurious morally, whether it was so legally or not. It was that much more than the labor of the country could afford to pay for the use of capital and maintain itself at the same time. The worker is entitled to a living, and to a comfortable living. He is entitled to an abundance of good food to supply himself and his family. He is entitled to good comfortable shelter and clothing, and to all the necessary comforts and conveniences of life, and this grows with the advance of our general condition. The more conveniences we have, the more comforts we are taught to enjoy, the more help we receive from what are called labor-saving machines, the more are our wants multiplied, and properly so. As these things accumulate, so do our necessities accumulate with them. Hence it is that any rate of interest for the use of money or capital beyond the average rate of increase in the production of wealth by the working people is just that much more than they can afford to pay, and if the difference is very great, the time for the absorption of their property by a few persons will be short. If the difference is small, the time for despoiling the worker will be shorter. Let it be assumed then, (and with this position Mr. Atkinson, an American statistician of note, agrees) that

3 per cent. is the average increase. He puts the average increase of wealth at about 3 per cent. We all understand that the average rate of interest throughout the country is about 8 per cent. at this time; it has been much higher, but say 8 per cent. now. That makes a difference against the farmer and the wage-worker of 5 per cent. over and above that which he produces. At 5 per cent., interest annually compounded, any sum of money will double itself in about thirteen years, and at that rate long continued the wealth of the country will be absorbed by the owners of money and real estate which they rent to the people about twice in every generation. It is because of this usurious rate of interest that the country is now going into general bankruptcy. That is what has caused the 9,000,000 mortgages which Mr. Porter tells us are upon the homes of the people of this country. That is what ails us in Kansas, and in Nebraska, and in all the other States of the Union. That is what depopulates New England. That is what ails the farmers of New York, and of Ohio and of other States. It is a cancerous sore—this usury business, upon the body politic. It is eating the life and the substance of the people.

What, then, is a reasonable rate of interest, and how shall it be determined? If labor's increase be 3 per cent., let the rate of interest on money be 3 per cent. If that be 2 per cent., let the rate of interest on money be 2 per cent. If it be 1 per cent., let the rate of interest correspond to it. If that principle had governed in the beginning, to-day the people's homes would be unencumbered. We would not only be the richest and most powerful nation in the world, but the homes of the people would belong to them in their own right.

VILLAINOUS FORGERY AND LIBEL.

"Whom the Gods would destroy they first make mad," has been most forcibly illustrated by the present raving lunacy of the Republican press. Indeed, we are pained to say, they seem lost to all claims of manhood, honor or decency. Nowhere in the history of politics can be found a more prostituted press than the papers guilty of libeling the Reform Press Association, by persistently publishing the following malicious forgery:

Resolved, That we condemn the organization known as the Grand Army of the Republic, organized for the purpose of preying upon the United States Treasury and thereby filching from the people in the form of pensions, money not their due. We also condemn the membership of said organization for pressing upon and demanding of the people the right to hold office and be recognized as an active factor in the politics of the country. The right to vote we do not question, but their right to dictate or suggest political action and a political policy we denounce, and we, the representatives of the reform (Alliance) press do hereby pledge ourselves to resist such usurpation on the part generally of the ex-union of soldiers, but especially of the Grand Army of the Republic.

The object of the forgery proves to be as stated by us in the beginning, to again play the "old soldier racket," by so working upon their prejudices as to cause them at their late encampment to most bitterly denounce and condemn the actions of the Reform Press Association, and thus manufacture political capital for 1892. No greater insult was ever offered to the intelligence of our soldier comrades; and how humiliating it must have been to these disreputable, scheming politicians to have our "brave boys in blue" so completely discover the true inwardness and hideousness of their crime, as to promptly table the malicious matter by an overwhelming majority. In fact, the Committee on Resolutions, after investigating the subject, found nothing but a mess of unsupported statements, and discovered the whole thing to be a dastardly piece of fraud and trickery, and rightfully resented the insult.

In order that our readers may be properly informed and equipped to rebuke the infamous libel whenever and wherever the occasion demands, we publish the following from among a large number of affidavits upon the subject:

STATE OF KANSAS, ss.

COUNTY OF RENO, ss.

S. McLallin, of lawful age, being produced and sworn, upon his oath says: That he was present and participated in the Kansas Reform Press Association which met at Hutchinson, Kas., on Tuesday, February 24, 1891, and that the following is a full, complete and perfect copy of the resolution offered by Jesse Williams, and which was adopted by said association:

Resolved, That we pledge ourselves to the support of every measure that shall tend to render justice to the old soldiers by way of service pensions and making the money in which they were paid while in the service equal to that which was paid to the bond-

holder, independent of any party affiliation, as we fully believe legislation relating to soldiers should be effected independently of politics, and we condemn any and all movements of old soldiers as a political organization."

That the same was the only resolution of any kind whatever that was offered at said association in any manner whatever, referring to the Grand Army of the Republic, and that said resolution was put in print in my office from the original manuscript of the author.

S. McLALLIN.

Sworn and subscribed to before me this 28th day of April, 1891.

R. J. CANNELL,

Notary Public.

Commission expires October 14, 1894.

STATE OF KANSAS, ss.

COUNTY OF RENO, ss.

J. L. Brady, of lawful age, being duly sworn, upon his oath says: That he was present at the meeting of the Kansas Reform Press Association, in the city of Hutchinson, on February 24, 1891, as reporter for the *Hutchinson News*, being in the regular employ of the publishers of that paper, and that the resolution as published in the *Advocate* of March 4, 1891, and embodied in the affidavit of S. McLallin hereunto attached is, to the best of his knowledge and belief, the resolution that was adopted relating to the old soldiers. He further says that he heard no other resolution at that meeting expressing any sentiment in any way concerning the old soldiers.

J. L. BRADY.

Subscribed in my presence and sworn to before me this 28th day of April, 1891.

R. J. CANNELL,

Notary Public.

Commission expires October 14, 1894.

STATE OF KANSAS, ss.

COUNTY OF RENO, ss.

J. D. Weiner, of lawful age, being duly sworn, upon his oath says: That he is a merchant in the city of Hutchinson, that he was present at the meeting of the Kansas Reform Press Association on February 24, 1891, and that the affidavits of S. McLallin and J. L. Brady hereunto attached are a correct representation of the facts to the best of his knowledge and belief. He especially declares that no such resolution as that published by Fletcher Merideth in the *Interior Herald* and republished in the *Western Veteran* was either adopted or introduced at that meeting.

J. D. WEINER.

Subscribed in my presence and sworn to before me this 28th day of April, 1891.

R. J. CANNELL,

Notary Public.

Commission expires October 14, 1894.

STATE OF KANSAS, ss.

COUNTY OF WILSON, ss.

Jesse Williams, of lawful age, being duly sworn, says that he is the editor of the *Alliance Herald*, printed and published at Fredonia, Kas., that the above and foregoing is a true, full and complete copy of the resolution offered by him and unanimously adopted by the Reform Editorial Association held at the city of Hutchinson, Kas., February 24, 1891, and that there was no other resolution concerning soldiers offered at said association.

JESSE WILLIAMS.

Subscribed and sworn to before me this 27th day of April, 1891.

WM. STIVERS,

Notary Public.

Commission expires January 7, 1893.

STATEMENT OF SENATOR PEPPER.

WASHINGTON, D. C., April 21, 1891.

Pattee & Honeywell, Salina, Kas.:

GENTLEMEN:—Your letter of 13th inst., addressed to me at Topeka, is received. The clipping to which you refer is not enclosed, but I know what you refer to. There was no such resolution passed at the editorial association meeting in Hutchinson. It is false from beginning to end in stating that such a resolution was passed, or that such a sentiment was endorsed by any considerable number of the editors present. I was not present at the meeting until a short time before the adjournment. I delivered an address before the body, and was there during the delivery of the address and a few minutes afterwards, but no longer; but I heard the resolutions read, and know that there was nothing of the kind to which you refer in them. Furthermore, the Secretary of the meeting, Dr. McLallin, of Topeka, has published a statement contradicting the story.

Yours truly,

W. A. PEPPER.

SHIFTLESS FARMING.

Secretary Mohler, of the State Board of Agriculture, and Chancellor Snow, of the State University, after making a thorough investigation of the reported damage done to the wheat fields by a new pest, say that all fields in which the seed wheat was drilled in last fall after proper preparation of the soil by plowing or by previous thorough cultivation of corn in 1890, were found to be in prime condition. No bugs of any kind are present in these fields and there is no indication of weakening of the wheat plant in any way. But fields in which the wheat was put in upon stubble ground or upon poorly cultivated corn land of 1890, are in a damaged condition. Unfortunately, more than half of the fields visited in a drive of ten miles south of Russell are of this character. The wheat plants do not well cover the ground and are in many places turning yellow. In some of these damaged fields the plants are infested by a small green bug. This insect is not the "grain aphid" nor the "oat louse," as has been reported in some of the newspapers, but a true hemipterous bug, rather smaller than the chinch bug, and not previously known as attacking wheat.

It appears, after all, that the primary cause is entirely due to improper preparation of the soil, and therefore not very complimentary to our fellow farmers. We trust our readers throughout the State will keep us posted upon this important subject.

E. H. Snow, State Printer-elect, has purchased an interest in the well-known Hamilton Printing Co., and the State printing will on and after July 1 be done by this new firm.

THE ALLIANCE A NON-PARTISAN ORGANIZATION.

Truly there are times when "patience ceases to be a virtue," and we have almost reached that point by the persistent, false, misleading statement that the Farmers' Alliance and Industrial Union is a partisan organization, when the nature of its formation and spirit of purposes makes such a thing utterly impossible. While it is not a party organization, it is largely political. It cannot be otherwise, as most of the relief sought must come through legislation. Upon a few vital, fundamental propositions all members are agreed; and along these lines of principle the organization is intensely educational. Herein lies the secret of its great power and success—the pure fountain of its glorious victories. This education has solved the problem and proves conclusively that coming together and studying the great economic questions, from an unpartisan standpoint, destroys prejudice and creates independent thinkers and voters, and leads them from the old political parties into the great industrial independent movement. By zealously guarding all these educational organizations, such as the Alliance, Grange, Farmers' Mutual Benefit Association, Knights of Labor, etc., and seeing that they are not contaminated with partisan politics, the vast multitudes from all political faiths will continue to flock into these educational departments, where, after the glorious rays of truth have penetrated the clouded mind and dissolved the mists of prejudices, they are born again—recreated more in harmony with the image of their Maker, and with the new song of "Equal rights to all and special privileges to none" in their hearts, they cease to be party slaves and become free, fearless, independent thinkers and voters.

In view of all this, with each and every political party "standing on its own bottom," and placed on and judged from its own record, what, in the name of all reason, has the party standing nearest to the hearts of the great plain, industrial people to fear? Certainly a party founded upon the great solid rock of "Equal rights to all and special privileges to none" has nothing to complain of from the results of these industrial schools of investigation. In fact any political party that cannot stand the test of the most critical examination from these students of political economy deserves to die. Therefore we must acknowledge our impatience with such weak perception and discernment as to lead some of our friends, and even a few of the reform papers to continually confound these various organizations with the People's party. They are distinct organizations and must remain so. The very moment they stray from their legitimate educational channel, they will begin to diminish in usefulness just in the proportion of their partisanship. And this is just what our enemies want; this is just what politicians, who cannot stand the light, are scheming and working for.

We would suggest that these educational organizations be permitted, if you please, to keep right on with their glorious work, and that the People's party so conduct itself that the thousands of "graduates" will naturally fall into its ranks. Realizing the force of one of the partisan leaders, who once stood foremost in the United States Senate, they, with few exceptions, will have no other place to go. Mr. Conkling said:

We have two parties in this country, and what are they? They have been going down, down until they have almost reached the lowest depths. What a commentary upon the politics of a great country! They represent two colossal organic appetites thirsting for spoils. The two parties are like wild beasts trying to devour each other. The American citizens are intelligent and far above the average citizen of the old world. They are the prop and stay of the republic, and have the spirit of freedom in them handed down from father to son. They are honest, intelligent and energetic. The men who make the laws for them on Capital Hill do not appreciate them.

Absurd and Ridiculous.

The official organ of the National Farmers' Alliance and Industrial Union, the *National Economist*, says:

The effort being made by a number of Northern and Western papers to create the impression that the Farmers' Alliance is really in favor of repudiating a mortgage debt is both absurd and ridiculous. The Farmers' Alliance was primarily organized to assist civil officers in performing their duty. It is nothing if not a law-abiding organization, and whenever the farmers of this country are found willing to repudiate their debts it will be at a time when all other classes have done likewise. Both sides of the question are found willing to be considered. It should be remembered that a debt has been made by the farmer borrowing money for a term of years. As soon as he became a borrower the people who loaned the money have by collusion introduced a system

of executing the laws that has reduced the volume of money, and thereby increased its purchasing power and changed the conditions, until it takes three times the products of labor to pay the debt that it did at the time it was contracted. In the place of this, they are seeking to modify the original contract in their renewals by making it payable in gold when they have all the gold and have it locked up. It is not repudiation for the farmer to demand the conditions that prevailed at the time the contract was made.

WAR ON THE CHINCH BUG.

Chancellor Snow, of the State University, is in great demand just now among the farmers, who are almost overwhelming him with applications for his chinch bug infection. On Thursday last he had forty-five letters from various portions of the State. A large number of inquiries come from other States, particularly from Texas, where the chinch bug is doing much damage to the new corn.

Prof. Snow is more confident than ever that the chinch bug can be successfully annihilated. He has numerous letters from different sections where the experiment has been tried and has proved successful. Just now he is trying the infection on chinch bugs found in the wheat fields. It is too early yet to hear much as to the result, but a few reports already received show that it is working all right. The demand is so great that the Professor will have some trouble in supplying all who make application. He can give each one only three or four of the diseased bugs. With these he sends instructions to have them placed in a jar with 200 or 300 fresh bugs, where they are to remain forty-eight hours. All the bugs thus become affected and are turned out on the wheat field. In a few days all the bugs in the field sicken and die.

A large number of letters from counties in southern and southwestern Kansas to Mr. Snow indicate that the pest is doing some damage in that section—only in patches, however. No complaints come from northern or northeastern Kansas; in fact the whole of the eastern part of the State is in pretty fair shape.

Chancellor Snow says that he is satisfied the recent complaint from Russell county regarding the wheat pest which has alarmed many of the farmers of that section grows altogether out of shiftless farming. He said he found many fields which had turned yellow and which were infested by the strange green bug, but in every case these fields had been poorly cultivated.

EXCELLENT CROP OUTLOOK.

According to the report of the weather-crop bulletin, issued by the Signal Service, the week ending May 2 was warm in the Northern States east of the Rocky mountains, except in northern New England, while about the normal temperature prevailed throughout the Southern States and on the Pacific coast.

The temperature for the season from January 1 to May 1 continues in excess throughout the Northern States, and this excess is apparently on the increase in the principal grain-growing States. The week was dry generally throughout the agricultural districts, the only sections reporting an excess of rainfall being Washington, and northwest Oregon, portions of Idaho and Montana and eastern Florida.

The rainfall for the season continues in excess over the greater portion of the principal agricultural regions, notwithstanding the total absence of rain in many sections during the week. There has been a large excess of moisture generally throughout the States west of the Mississippi, and generally from the east Gulf States northeastward to the St. Lawrence valley.

The weather during the week was specially favorable for all growing crops throughout the grain regions of the Northwest and the central valleys. Excessive sunshine and warm weather favored farm work, and early-sown wheat in Minnesota and Dakota is in excellent condition. In the winter wheat region all crops are reported in excellent condition, wheat and grass growing nicely and much corn planted. In the cotton region cool nights have retarded growth and crops are generally in need of rain.

E. A. Bigelow & Co.'s "Market Letter" of May 2, says: "Clearances for foreign ports may be expected to be very considerably larger during the month of May than they were in April. Indications point to large shipments from Chicago and Duluth, and it only needs positive evi-

dence of exhausted supplies back of Minneapolis to develop a strong bullish market. There is reason to believe that this proof will be forthcoming in the near future, as there is and has been every incentive possible for rushing forward the grain in store in country elevators. The bears have not succeeded in gaining permanent advantage from raids recently, and the situation looks decidedly healthy."

Taxing Notes and Mortgages.

EDITOR KANSAS FARMER:—Taxing notes and mortgages, the writer believes, is unwise, as it falls in its design, because the tax levied upon them falls back upon the debtor. Supposing 7 per cent. net to be a fair rate of interest for the use of money; then every intelligent creditor will add the estimated rate per cent. of taxes upon the amount of note or mortgage to the rate of interest; or an equivalent amount will be added to the principal of the debt. The debtor cannot escape the payment of that tax.

Conceding the correctness of the foregoing proposition, let us see how the debtor's burdens are increased by the operation. Suppose an individual's property is valued at \$2,000. His farm is mortgaged to secure the payment of \$1,000. At the rate of 2½ per cent. (the total tax levy in my township for 1890) he would pay a direct tax of \$50, to which is added an indirect tax of \$25, supposed to be paid by the mortgagee—a supposition not verified by facts. In other words, the debtor is taxed on what he owes, in addition to what he has in possession.

The popular demand for the taxing of evidences of indebtedness is based upon ignorance of the natural and inevitable operation of financial principles that cannot be set aside. Every effort to set those principles aside recoils with destructive force upon the debtor class. The wise man has said, "The borrower is servant to the lender." No human enactment has ever been able to overrule that decision, because it is condensed statement of a natural law of finance. P. C. BRANCH, Sterling, Kas.

The bureau of promotion appointed at the World's Fair convention have permanently organized by electing H. C. Speer, of Topeka, President; A. B. Montgomery, of Sherman county, Vice President; Major William Sims, Secretary; and Samuel T. Howe, Treasurer. For the purpose of erecting the main building for Kansas, the bureau propose that the school children in the State raise the \$20,000 which the building will cost and have cut in the stone, "Raised by the School Children of Kansas." There are 12,000 school districts in the State, and a day will be set apart at which World's Fair exercises will be held in each district. The State Superintendent will prepare a programme, part of which will be historical, telling why the display will be made and reviewing the progress of the nation since the discovery by Columbus. The children will be allowed to either charge an admission fee or raise the amount by small subscriptions. The average amount for each school district is a trifle more than \$1.50. The building will be of material found in Kansas. The amount which it is proposed to raise from the school children is a distinct fund, making, in all, \$120,000 for the Kansas display.

Hagey Bros., of St. Louis, in their wool circular of April 28, state that the wool market continues lively, and competition between speculators and manufacturers for all receipts keeps prices here higher than in any other American market. The London sales now in progress show slightly advanced prices, and heavy purchases of Australian wools being made for American account. The Australian being of long, fine fiber, and mixed with the Western short staple of American growth, has brought Territory and Western wools into greater prominence than ever before. If American growers will increase their flocks and breed up to the Australian standard, then there will be no occasion to import, and the trouble and expense of breeding up and increasing will be more than doubly paid by the increased price of better quality of wool. With a protective duty sufficient to guarantee the American grower remunerative prices, there is great encouragement for increasing flocks, and the careful preparation of wool for market. The consumption of wool in the United States in 1890 was 418,151,483 pounds,

while the entire product was only 309,470,856 pounds—showing we were compelled to rely on foreign countries for 108,680,627 pounds to supply the deficit.

Weather-Crop Bulletin

of the Kansas Weather Service, in cooperation with the United States Signal Service, for week ending May 1, 1891:

But little rain has fallen this week. A light rain in Greeley; light rains from Ellis, Rush, Stafford and Sumner, north-eastward to Nebraska and the Missouri river.

A week of sunshine and high temperature, excepting the last day; the warmest day of the season occurring on Wednesday, when the thermometer went up into the nineties.

This has been a week of uninterrupted growth throughout the larger part of the State, while in some counties it has been phenomenal. At the beginning of April all vegetation was decidedly backward, and throughout the larger part of the State not a plow had started; May 1, nearly everything is but little behind the season except corn, oats and gardens. The favorable conditions continue with but few exceptions. Wheat is in fine condition except in spots; Clark reports it suffering in parts of the county; Rush reports it damaged by fly in places; Cloud reports yellow spots; while Stafford and Cowley report some chinch bugs in the wheat.

Corn planting is in progress in all parts of the State. Oats, rye, wheat and grass have made a fine growth, the latter now furnishing good pasturage for all stock. Fruit and forest trees have made a considerable advance on the previous week, and the wealth of fruit blossoms indicates a large yield. Peaches give no indication of injury, and in Wilson promise, with the apples, to be the heaviest for years.

T. B. JENNINGS,
Signal Corps, Asst Director.

TOPEKA WEATHER REPORT

For week ending Saturday, May 2, 1891. Furnished by the United States Signal Service. T. B. Jennings, Observer.

Date.	Max.	Min.	Rainfall.
April 26.....	83.5	51.6
" 27.....	72.8	43.4
" 28.....	77.5	40.0
" 29.....	89.2	54.0
" 30.....	73.8	62.8
May 1.....	65.0	41.5
" 2.....	65.6	51.2

Publishers' Paragraphs.

The Commercial club, of Kansas City, Mo., has endorsed the Monarch scale as the scale of the age. The city of Kansas City, Mo., has adopted and is using the Monarch as its public scale. Packing houses, numerous mills, elevators, coal and feed men, hundreds of farmers, stock and ranch men throughout the country will use no other.

HARVEY WIND MOTOR.—We desire to call attention to a new advertisement in KANSAS FARMER this week, viz., Harvey Wind Motor and Automatic Mowing Machine. The President of the company which manufactures these machines is T. W. Harvey, a long time friend and subscriber of the KANSAS FARMER. He is a practical farmer and stock breeder, as well as an excellent business man. We have no doubt that the machines which bear his name are strong and reliable, as we know Mr. Harvey to be.

TO CANE AND FRUIT GROWERS.—The attention of our readers is called to the two advertisements of the Blymyer Iron Works Co., of Cincinnati, Ohio, which appear in this issue. Their Victor and Niles Mills and Cook Evaporators for Sugar Cane and Sorghum, have for many years been looked upon as standard machinery, in all sections of the world where cane is grown. The "Zimmerman" Evaporators for Fruits and Vegetables have the same world-wide reputation. Parties in want of cane or fruit machinery will do well to send for catalogue and prices.

"The Progress of the World," the attractive editorial department of the *Review of Reviews*, contains in the May number a map of Australia showing the newly federated provinces; several maps showing the course of the new Nicaragua canal; and various portraits, among them being a full-page portrait of the late Herr Windthorst, a very striking full-length engraving of the late Prince Jerome Bonaparte, excellent likeness of President Warner Miller and Engineer Menocal of the Nicaragua canal, and a full-page group showing the London School Board at work.

Horticulture.

WELLHOUSE SPRAYING MACHINE.

A Description of Its Construction, and How to Use It.

A, tank, 3½ feet wide, 4 feet 2 inches long, 15 inches deep. The sides are constructed of pine lumber 1½ inches thick, 15 inches wide. A sheet of steel, No. 16, 3½ feet wide, 10 feet long, covers the ends, bottom and top, excepting a space of about 11 inches at the rear end, which is covered with a pine board 1½ inches thick, 14 inches wide, and extending across from side to side. This forms a base for the pump, I, to rest on, and the driver's stand. The sheet steel is punched to receive 4-penny wire nails, as follows: One row of holes, ½ inch apart, near the outer edge, another ½ inch inside the first, the holes alternating with those in the first row.

In putting this sheet onto the side pieces, begin at their end and at their tops, allowing it to project above 1½ inches; then bend it down the end, under the bottom, up the front end, and over the top as far as it will extend, and nail it on smoothly and finally, to prevent any leakage. Then close up the space on top left at the rear end with the board above described, as the base for the pump and driver's stand, fastening it onto the side-pieces with 2½-inch screws, and then nail to its rear edge the 1½-inch projecting portion of the sheet steel left at beginning.

In this board an opening is cut, as seen at H, about 6 inches wide and 15 inches long, through which the liquid is poured into the tank. A cover, hung at one end with strap hinges, closes this opening. A strainer is suspended in the opening when filling the tank, to prevent any filth from entering, and in this strainer is placed the London purple or Paris green, and the water poured on it.

The tank is suspended at its center on each side to a hind axle of any farm wagon by a loop made thus, of ½-inch iron, passing over the axle near to the wheel hub, and is flattened after leaving the axle to ¼-inch thickness. The arms of this loop pass down the sides of the tank, and extend under the bottom about 6 inches, and are fastened down with 1½-inch screws, No. 16, along the sides, and at the bottom to a board 1½ inches thick, 12 inches wide, extending across the tank, and fastened at its ends to the side-pieces.

On top of the axle and tank is constructed a frame-work of two side-pieces, B, of pine, 4x4 inches, 3 feet 4 inches long. These form two plates, one on each side of the tank. The ends of these are supported by a block of same dimensions, and about 6 inches long, resting on the tank. Across the front end of these is fitted a cross-plate for a tie, and a base for the coupling of a double-tree. At the front and rear ends of the side-plates are suspension straps, E, made of ½-inch iron, and 1½ inches wide. These loop over the plates, B, pass down the sides of and under the bottom of the tank, and are fastened down with 1½-inch screws to the plates, sides and bottom of the tank, and serve to support the tank against tipping on the axle support.

The cross-plate front is fastened on with bolts extending through the side-plates and the blocking on the tank.

At the right-hand front corner of this frame-work is constructed a small toolbox, F, for the carrying of wrench, nozzles, pliers, etc., needed in field work.

PUMP.

One constructed on the rotary principle is preferable, as it affords a continuous stream, starts and stops promptly with the motion of the machine, and is least liable to get out of repair.

The one represented in figure 1, at I, is a No. 2, iron in all its parts; but one made of brass parts inside of the drum is the best, as the liquid will not rust it as with the other. In either case, at the close of the spraying season, or when the machine may be set aside for any length of time, it should be taken apart, thoroughly cleansed and oiled.

As shown in figure 1, the pump rests on the platform at the rear end of the tank, and is bolted fast to the board. It is worked by a sprocket-wheel attachment. The large wheel, K, is 30 inches in diameter, and fastened to the right-hand wagon wheel by iron clips around the spokes. The small one, L, is 6 inches in diameter, attached to the shaft of the pump. A chain, M, connects the two wheels. The

power is thrown on or off by a lever, N, and clutches in the usual way, the same as found on grass-seeders. The hose, J, is an inch in diameter, 4-ply make, 6 feet long, and may be attached to the top or nose of the pump by means of a round nut inserted in the lower end, and fastened firmly with wire clamps. G is an upright post fastened to the axle, A, with bolts, and forms a support for the driver. A common wagon tongue with straight hounds is attached to the axle.

NOZZLES.

The form of the nozzle in all its parts is shown in figure 2, and is a No. 7. A is the base; B a rubber washer; C the nozzle; D the cap; E shows the slot. In putting it together, place the washer, B, inside the upper opening of the base, A, and upon it the nozzle, C, and screw on the cap, D, and it will then appear as in figure 3.

By this arrangement the nozzle can be quickly removed at any time, to give place for another and of a different size for

owner, and under contract perform the work of a neighborhood.

The following is a statement by Messrs. Wellhouse & Son as to using the machine, and the results for 1890, published in the KANSAS FARMER, and revised for this publication by them:

"Heretofore our spraying machinery was so imperfect that we only sprayed in localities where insects were so bad that they threatened the destruction of the fruit or tree; but last year their depredations were so universal, and our losses so heavy, that we determined to try and perfect our machines so that we could spray all our trees, and do it rapidly, and get over them at the proper time to destroy the insects we were after.

"Our machine, as now constructed, throws about 110 gallons of water while traveling one mile, and this is about the right amount to spray the trees as the team passes along. We pass up one side of the tree rows and down the other, thus

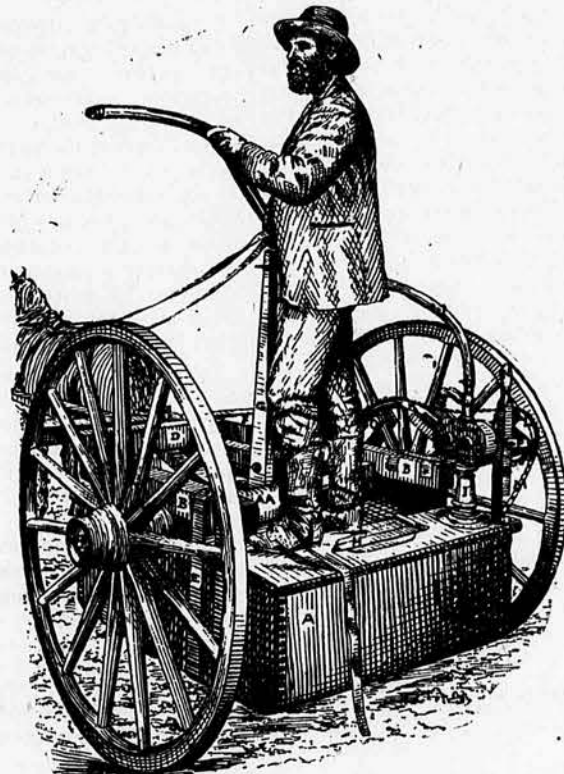


FIGURE 1.—THE WELLHOUSE SPRAYING MACHINE.

smaller trees, when desired. Insert this into the upper end of the hose up to the shoulder, and fasten tightly with two wire clamps, one at the point, A, of the base, and the other near the lower end, to hold it in place and prevent any leakage.

This nozzle is the most simple and efficient for all uses in the spraying of orchards. Its cost, compared with many other kinds, is very trifling. It does not need repairing at any time, and never clogs up if due caution is given to prevent filth entering the tank. By holding the nozzle to bear upon the center of a twelve to twenty-year-old apple tree, and the slot in a perpendicular attitude, it will throw a sheet of spray of sufficient breadth to cover the entire top without changing its

spraying from each side. One man drives the team and guides the spray easily. The supply of water is taken from ponds or dams made at convenient places in the orchard.

"We have had considerable trouble to get a nozzle that would break up the water into a fine spray and get it into the tree, but we finally succeeded in making a slot nozzle that does the work fairly well. [See figure 2, slot nozzle.] Our idea of a perfect nozzle is one that will throw a fan-shaped spray wide enough to cover the tree from top to bottom and wet the foliage of the entire tree as the team passes by, and at the same time have the spray broken up so fine that there will be no dripping from the tree. When the liquor

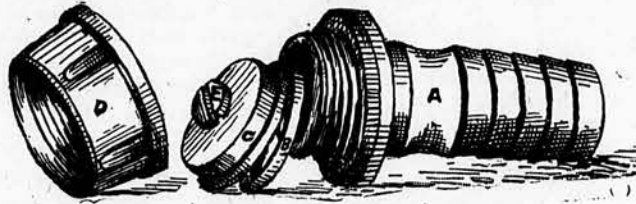


FIGURE 2.

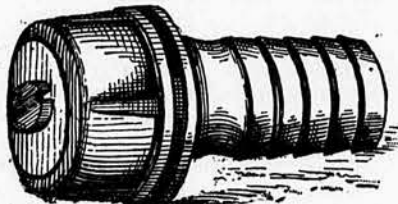


FIGURE 3.

position, and with a fast-walking team will force it entirely through the tree.

There is no patent right controlling the manufacture of this machine, or any part of it.

The cost of one of the size here illustrated is about \$75. But the size may be reduced and the cost will be materially reduced also. It is best, however, for several persons in a neighborhood to unite in its ownership, which would make the cost to each lighter in proportion to the number interested; or one man could be sole

ing; so that the expense stands thus: Forty-six days with team, at \$2.50 per day, \$115; 600 pounds London purple, at 10 cents per pound, \$60; total, \$175; or a little over 15 cents per acre, and about 1½ mills per tree for each spraying. We think we can reduce this expense another year at least one-fourth, and possibly one-third, by fixing our ponds of water more conveniently, and a few other changes.

"Results.—The canker worms were getting quite thick in one block of trees, and we have entirely destroyed them. The tent caterpillar were numerous in places, and but few of them were left alive. The tarnish plant were bug thick, and did us serious damage last year, but this year, after we had sprayed the second time, we could not find any of them alive.

"Codlin Moth.—Fully 50 per cent. were destroyed—some observers say 75 per cent.—and leaf-rollers were annihilated.

"I can see but little difference between the trees sprayed the second and third time, except that in the third there was an occasional leaf injured, but not enough to do any harm. Our trees were set out in 1876, 1878 and 1879, and are fourteen, twelve and eleven years old. We used one pound of London purple to 100 gallons of water, and that is the maximum amount of purple that can be used with safety.

"We are satisfied that spraying our orchards has been a very valuable treatment, and expect hereafter to spray regularly two or three times each year."

Is Spraying With Insecticides Injurious to Stock?

EDITOR KANSAS FARMER:—As the question of injury to stock from grazing in orchards that had been sprayed with insecticides has been raised in several localities, I addressed a letter of inquiry upon the subject to Prof. C. V. Riley, and have the inclosed answer, which I wish to be given to the public through the FARMER.

G. C. BRACKETT,
Sec'y Kansas State Horticultural Society.
U. S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C., April 20, 1891.

FRIEND BRACKETT:—Yours of the 13th inst. has come to hand. In reply to your question I may say that, in the first place, it is not necessary to spray trees so heavily that much of the solution will fall upon the grass beneath, and in the second place, that if the mixture is well agitated at the proportion ordinarily used there is little or no danger of poisoning stock which may subsequently feed upon the grass under the trees. Professor Cook has tried some interesting experiments in this direction, which you will find in the proceedings of the tenth annual meeting of the Society for the Promotion of Agricultural Science, page 31. His conclusions are that when the trees are properly sprayed there is no danger at all to stock which may pasture in the orchard. For instance, he sprayed a large tree over some bright, tender grass and clover. He then cut the grass and clover close to the ground and fed it all to his horse. It was all eaten in an hour or two and the horse showed no signs of injury.

Yours truly,
C. V. RILEY, Entomologist.

On Tenter Hooks.

Nervous people are always on tenter hooks. A slight noise smites the drums of their ears like the clash of cymbals. The most trivial, unexpected sound drives them to the verge of distraction. But invigorated and built up with Hostetter's Stomach Bitters, their supersensitiveness speedily disappears. Dyspepsia, malaria, kidney troubles, biliousness and rheumatism are cured by the Bitters.

Excursion to Maryland.

OPPORTUNITY TO VISIT THE GROWING SOUTH.

Excursion tickets to Hagerstown, Md., and return, will be sold May 20th to 28th inclusive, from all B. & O. points west of the Ohio river and connections at one fare for the round trip. Tickets good until June 30th, with stop-over privileges at one intermediate point east and west of the Ohio river.

At Hagerstown low rate excursion tickets will be sold at B. & O. R. R. points in the Shenandoah valley, Virginia, West Virginia and Maryland. Apply to nearest B. & O. Agent for rates.

Information about low-priced lands, investments, thriving towns, etc., will be supplied by M. V. RICHARDS, Land and Immigration Agent, B. & O. R. R., BALTIMORE, MD.

In the Dairy.

Kansas Dairy at the World's Fair.

EDITOR KANSAS FARMER:—The coming World's Fair at Chicago will afford to Kansas the greatest opportunity she will have during the present century of demonstrating to the United States and the world at large her very superior possibilities as a dairy State.

Associated dairying in Kansas as "an institution" has had its "ups and downs," and it is not the writer's purpose in this brief letter to refer to any of the numerous reasons why they have been in many instances so aggravating and provoking. Suffice it to know that she has passed through the ordeal and is coming out victorious. I was in Dickinson county a short time ago, and there found not only men who knew how to run one creamery successfully, but also men who had gained sufficient experience to enable them to successfully operate a combination of creameries, from three to five in number. Notably, I may mention the Abilene combination, under the management of Mr. J. E. Nissley, the present Secretary of the State Dairy Association. The farmers supplying milk to the creameries under this management received on an average during the past year a price for the whole of their milk equal to 19½ cents a pound for butter. This average was on the total milk supplied, and not on the months, as some people strike an average, nor is this an isolated exception, but it is the beginning of an era of prosperity in the dairy enterprise of our State, which may be easily duplicated, and even surpassed, as often as you can find the same conditions complied with, in any ordinary district of eastern or central Kansas.

Having carefully watched the growth of some of our dairy resources in the State, I wish to urge upon all that are interested in the present or future development of this great industry, the necessity there is for each and all to make the supreme effort of their existence to demonstrate to those assembled at the World's Fair that Kansas possesses all the prerequisites of a great and leading dairy center. I would therefore respectfully suggest to all cheese factory and creamery managers that they at once organize, under the auspices of the State Dairy Association, for the purpose of making a joint subscription to the State exhibit at the World's Fair. For instance, every \$100 that the dairymen subscribe or guarantee by the 10th of June will entitle the subscribers to one vote on each of the commissioners or managers that will have charge of the entire exhibit; and likewise if we could guarantee \$2,000 and deposit with the Bureau of Promotion, 10 per cent., or \$200, by the time specified, we should be entitled to twenty votes, and by this wise and judicious direction and expenditure of our means we could materially influence the election of such managers from each district as would be willing to give to our dairy exhibit the prominence that it deserves and demands. I suggest this course for the consideration of all interested, and shall be glad to see the matter taken up in the columns of the KANSAS FARMER, which has been the medium of our public communications since the time when the idea of an association first dawned upon the minds of its promoters.

R. L. WRIGHT.

Confidence Begot of Success.

So successful has Dr. Pierce's Golden Medical Discovery proved in curing chronic nasal catarrh, bronchial and throat diseases, that its manufacturers now sell it through druggists under a positive guarantee of its benefitting or curing in every case, if given a fair trial, or money paid for it will be refunded. Consumption (which is scrofula of the lungs) if taken in time, is also cured by this wonderful medicine.

For Constipation or Sick Headache, use Dr. Pierce's Pellets; Purely Vegetable. One a dose.

Good feet are among the absolute essentials to good horses, yet many are very careless concerning this important point, knowing little about it and apparently caring less. The feet of foals very seldom receive the care and the frequent inspection that are so necessary to their future perfection of form and soundness. From the want of this horse's feet often become imperfectly formed, defective and unhealthy. Farmers are especially careless



POULTRY HOUSES, BARNs, ETC.

BUILT DURABLE AND AT LOW COST,

—BY USING—

"Neponset" Water Proof Fabrics.

Absolutely Waterproof and Air-Tight. Highest Non-Conductor of Heat. Vermin Proof.

A Water-Tight, Permanent Roof insured at less than One-third the Cost of Shingles.

F. W. BIRD & SON, East Walpole, Mass.

Write at once for samples and descriptive circulars.

All will be sent FREE to your address.

S. E. BARRETT MANUFACTURING CO., WHOLESALE AGENTS, CHICAGO, ILL.

In the matter of shoeing, and of taking off shoes, trusting the work often to a smith who knows no more about it than they do. Farm horses should not wear shoes unless necessary, and they should never remain on longer than from four to six weeks at a time. Then when a shoe is to be taken off it should be done carefully, and not violently wrenched, at the risk of splitting off a large piece of hoof with it.

The Poultry Yard.

The General-Purpose Fowl.

EDITOR KANSAS FARMER:—What is meant by a general-purpose fowl? Was there ever a fowl that earned this title? What breed comes nearest to it? and dozens of other questions similar to this are almost daily asked of papers and fanciers. A general-purpose fowl, as I understand it, is a fowl adapted to all classes and to all conditions; fowls good for the table, for eggs, and for everybody and in every climate; a fowl good for the fancier, farmer, breeder, broiler man, city man and professional poultry-raiser; and until the above is reached there can be no "general-purpose fowl." Americans, as a rule, have a weakness for general-purpose fowls, and have been, and are still striving to breed a fowl that will fill the bill, and those coming nearest to it belong to the American class. The Dominique, Plymouth Rock, Wyandotte, Java and Jersey Blue are not bred to any particular purpose, but to meet the requirements of a true general-purpose fowl. Of the above named the one that comes the nearest to perfection is the Plymouth Rock. They, without a doubt, come the nearest to perfection, with the Wyandotte pushing a close second. Occasionally we read long articles written by admirers of Leghorns, Asiatics and other breeds, praising up their respective fancy as general-purpose fowls. The Leghorns, as we all know, are the greatest of all egg-producers, but when that is said all is said. The flesh is nothing compared with the Plymouth Rock. The flesh of all the Asiatics is of a grainy nature, and, although they have a very fair egg-producing record, they can never be classed with general-purpose fowls. The Plymouth Rock, although very hard to breed absolutely true to color, has, by persistent breeding, been kept in the general-purpose line for years, and, to my mind, will continue to hold its place in spite of all new-comers. The Plymouth Rocks are especially adapted to the farmer, as they are hardy and easily handled and need little care, as they take care of themselves if given half a chance. But this article was not intended to praise the Plymouth Rock, but to treat on the general-purpose fowl.

As a rule, all of the so-called general-purpose fowls have a common failing, that of being unable to stand any climate; and, to my mind, this will be a difficult point to overcome, as a bird raised in a warm climate will naturally fare worse in a colder climate than at home, and vice versa. Still another fault is, that it is a very difficult matter to breed them to perfection as far as color is concerned. A Plymouth Rock, for example, is seldom seen with a perfect color. The same applies to the Wyandotte. This, however, lends an additional charm to the fancier, as he is a great fellow to overcome difficulties, and it is very seldom that he doesn't succeed. I think it is simply a question of time before we have a true general-purpose fowl that will fill the bill to a dot; and then the minor breeds will be at a discount with the farmer and poultry-raiser.

Won't some other breeder give us his or her views on the general-purpose fowl, and, as the "Farmer Boy" says, "make it interesting?"

FRED VESPER, JR.,
Topeka, Kas.

Shipping Horses.

Always have something to put on wounds. Phenol Sodique arrests inflammation immediately. Natural healing follows. Equally good for all flesh.

If not at your druggist's, send for circular.

HANCE BROTHERS & WHITE, Pharmaceutical Chemists, Philadelphia.

Look out for counterfeits. There is but one genuine. Better cut the advertisement out and have it to refer to.

STEKETEE'S



IMPROVED HOG CHOLERA CURE

Greatest Discovery Known for the cure of

HOG CHOLERA

PIN-WORMS IN HORSES!

HUNDREDS OF THEM.

BOSWELL, IND., October 13, 1890.

Mr. G. G. Steketee:—Your Hog Cholera Cure, of which I fed two boxes to a yearling colt, brought hundreds of pin-worms and smaller red ones from her. She is doing splendidly. We believe it to be a good medicine.

WILLIS ROBISON.

Never was known to fail; the only sure remedy for worms in Hogs, Horses, Sheep, Dogs or Poultry. Every package warranted if used as per directions. Price, 50c. per package, 60c. by mail, 8 packages \$1.50 by express, prepaid. If your druggist has not got it send direct to the proprietor, GEO. G. STEKETEE, Grand Rapids, Mich.

I Challenge all Other Hog Cholera Remedies. Always mention KANSAS FARMER.

BEECHAM'S PILLS

Cure SICK HEADACHE.

25 Cents a Box.

OF ALL DRUGGISTS.



FAT FOLKS

Reduced 15 to 25 pounds per month. Carrie L. Faulkner says: "I have lost 35 lbs., pain and palpitation gone, and feel splendid in every way. There is no bad or disagreeable effect. I can recommend your treatment."

PATIENTS TREATED BY MAIL. No starving, no inconvenience, harmless and no bad effects. Strictly confidential. For circulars and testimonials address with 6c. in stamps, Dr. O. W. F. SNYDER, McVicker's Theatre, Chicago, Ill.

The Mormon Elders' Book on Sexual Strength, mailed free to married men, address F. B. Crouder, 208 Grand St., New York.



EVERGREEN Head-quarters in the U. S. for hardy Nursery Grown Evergreens, Ever-Larch and Forest Trees. Largest stock. Best variety. All sizes for all purposes. Prices the lowest. We pack and ship with safety everywhere. Price-list free, send for it before ordering elsewhere. D. HILL, Evergreen Specialist, DUNDEE, ILL.

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FRUIT AND FOREST TREES



50,000,000 trees for spring trade. No agents employed. All trees sold direct from the Nurseries. Send for our catalogue, mention this paper, and you will receive by return mail a valuable work, (How to Grow Evergreens), and a coupon good for 50 cents worth of Trees FREE.

Our Evergreen and Forest Trees are all grown from seed on our own grounds. Prices lower than the lowest. We send them by Mail and Express, prepaid. Address THE E. H. RICKER CO. Elgin, Nurseries, Elgin, Ill.

LANGSHAN GROVE POULTRY & FRUIT FARM Topeka, Kas. 50,000 strawberry plants now ready. Ten best varieties. Prices low. DeWitt Q. Diven.

Dr. Cookerly.

Special Medical and Surgical Practice.

Having for the past nine years had the most phenomenal and continued success in my practice, I feel it my duty to make the same known, as there are numerous patients who have failed to get relief from their medical advisers, that can be cured with the proper Medical and Surgical remedies.

The following are some of the troubles especially treated: Convulsions and the long-standing Diseases and Injuries of Children, Female Diseases, Ovariotomy or the removal of the Ovaries and Ovarian Tumors, Leucorrhoea, Subinvolution of the womb—that is where the womb does not regain its normal size after childbirth, and the many evils attending it. Impotence and the barriers to marriage, Sciatic Rheumatism, Inflammation and Rheumatoid Arthritis, Private Diseases and the ill consequences upon them, as diseased bone, old sores, swelling, strictures, gleet, incontinence of urine, Dropsy—Laparotomy for the radical cure of dropsy and the diseases and wounds of the Abdominal organs, Chills, Winter Cough. Lock-jaw absolutely cured by surgical aid when due to disease or wounds of the feet. Chronic constipation, indigestion, rectile disease, and the nervous troubles generally. Consultation free. See or send for circular. Inclose 2-cent stamp for answer. DR. COOKERLY, 1010 & 1012 Wyandotte St., Kansas City, Mo.

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I have a positive remedy for the above disease; by its use thousands of cases of the worst kind and of long standing have been cured. Indeed so strong is my faith in its efficacy, that I will send TWO BOTTLES FREE, with a VALUABLE TREATISE on this disease to any sufferer who will send me their Express and P.O. address. T. A. Slocum, M. C., 181 Pearl St., N. Y.

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A POSITIVE CURE For LOST or FAILING MANHOOD; General and NERVOUS DEBILITY; Weakness of Body and Mind; Effects of Errors or Excesses in Old or Young. Robust, Noble MANHOOD Fully Restored. How to enlarge and strengthen WEAK UNDEVELOPED ORGANS PART of BODY Absolutely failing HOME TREATMENT—Benefits in a day. Men Testify from 47 States, Territories and Foreign Countries. You can write them. Book, full explanation, and proof-mailed (sealed) free. Address ERIC MEDICAL CO., BUFFALO, N. Y.



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Fat People, Enuresis (Bed Wetting), Male and Female Weaknesses (Nervous Strain), Rheumatism, (Excesses) Cured. Send 4c. with particulars of complaint. BELTS low as \$3.00. FEET WARMERS, \$1.00. Monthly Treatments by mail. Special Terms to afflicted persons as Agents. HOME TREATMENT ELECTRIC CO., 191 Wabash Ave., CHICAGO U.S.A.

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WRITE FOR OUR WEEKLY REPORTS.

ST. LOUIS, MO.

HAVE YOUR BANKER INVESTIGATE
OUR STANDING.

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.

NASAL HEMORRHAGE.—A four-year-old gelding running in the pasture and in good condition has been bleeding from the right nostril. He will bleed freely and then stop of its own accord, then in five or six days it will bleed again. I have not attempted any treatment. This morning he is swollen about the glands and on the nose three or four inches above the nostrils. Please give name of disease and cause of bleeding, through the KANSAS FARMER. G. P. H.

Argonia, Kas.
Answer.—The bleeding from the nostrils may be caused by some abnormal growth or by an abscess, but it is also very suspicious of glanders, and we advise you to have him examined by a qualified veterinarian before attempting any treatment.

LUMPS ON STIFLE.—A three-year-old mare, in foal, has a small lump on the back part of one of her hind legs just opposite the stifle. It is about the size of a hickory nut. Since there has one come on the inside of the leg. They are hard but not sore, and the mare is in good condition. What is the matter, and what can I do for her? A. J. N.

Geneseo, Kas.
Answer.—The lumps are probably subcutaneous warts, and as long as they do not cause the mare any inconvenience we advise you to let them alone, at any rate until after she delivers her colt; and then, if you think it necessary to treat them, have some qualified man to dissect them out, and then heal up the part as a simple wound.

ENLARGED HOCK.—I have a two-year-old three-quarter blood Clydesdale filly that had the distemper early in the winter. About the time she got well I noticed an enlargement of the right hock. There is no mark or sign of kick or other injury. The leg is swollen some below the hock joint. She seems a little stiff when going out of the stable in the morning. Please advise me through the KANSAS FARMER. Lyons, Kas. T. H. B. A.

Answer.—We do not think the enlargement of the hock in any way resulted from the distemper. The mare must have received an injury in some way. Turn her out to grass, and bathe the part once a day for two weeks with a mixture of spirits of camphor 1 part, tincture of arnica 1 part, and soft water 6 parts. When all inflammation is gone, then if the hock is still enlarged apply a blister of cerate of cantharides. Rub it in well, then tie her head up for twenty-four hours, after which rub on a little lard every third day for two weeks, making the first application before letting her head down.

TYMPANITES.—I turned twelve head of yearlings into a five-acre lot of red clover and alfalfa. They were turned in in the evening and next morning three of them were dead and burst open. What killed them, the red clover or alfalfa? What would be a preventive, and what would be a cure? They had been running on alfalfa alone for ten days before without injury. Please answer through the KANSAS FARMER. Alma, Kas. S. W.

Answer.—Your cattle died of Tympanites—hoven-blown, or bloat, caused by the accumulation of gases in the rumen, or first stomach. As the animals had been grazing upon alfalfa for ten days before without any loss, it is pretty good evidence that in this case the trouble was brought on by eating the red clover. This is a very common occurrence in certain localities in the East, where pastures consist largely of red clover. It generally happens when the animals are turned in early in the morning while the dew is yet on the grass. Preventive measures consist in turning in only when the grass is dry and in not making too sudden changes from old to new pastures. Treatment, in severe cases, must be energetic. Three ounces of turpentine in a pint of raw linseed oil, given as a drench, will sometimes give relief; but when the bloating is very great there is danger of suffocation, and it is necessary to puncture the rumen with a trocar, or if no trocar is at hand, a small knife blade will do. Insert it at the point of greatest distension on the left side about equal distant from the point of the hip,

the last rib and the transverse process of the spine. Follow with a drench of one pound of Epsom salt dissolved in half a gallon of warm water.

Every tissue of the body, every bone, muscle and organ, is made stronger and more healthful by the use of Hood's Sarsaparilla.

MARKET REPORTS.

LIVE STOCK MARKETS.

Kansas City.

May 4, 1891.
CATTLE—A light run; firm and fairly active. Shipping steers, \$5 10a5 55; cows, \$2 50a4 50; bulls, \$2 65a4 00; heifers, \$2 50a4 85; stockers and feeders, \$4 20a4 50.
HOGS—Light run, mostly made up of common and medium; market slow. Range of packers' hogs, \$4 30a4 87½; bulk of sales, \$4 60a 4 75.
SHEEP—Fair receipts; went mostly direct to packers. Clipped muttons, \$4 75.

Chicago.

May 4, 1891.
CATTLE—Receipts 12,000. Market steady. Prime to fancy steers, \$6 00a6 30; common to good steers, \$4 75a5 80; heifers, \$3 75a5 60; cows, \$2 50a3 75.
HOGS—Receipts 25,000. Market steady. Rough and common, \$4 50a4 70; packers and mixed, \$4 80a4 90; prime heavy and butchers' weights, \$4 95a5 10; light, \$4 90a5 00.
SHEEP—Receipts 7,000. Market strong. Natives, \$7 00a7 25; Westerns, \$5 40a6 50; lambs, \$8 25.

St. Louis.

May 4, 1891.
CATTLE—Receipts 3,000. Market strong. Good to fancy native steers, \$5 00a5 90; fair to good natives, \$4 10a5 20; Texas and Indian steers, \$3 75a5 00.
HOGS—Receipts 4,400. Market lower. Fair to choice heavy, \$4 80a5 05; mixed grades, \$4 30a4 90; light, fair to best, \$4 60a4 80.
SHEEP—Receipts 900. Market strong. Good to choice, \$4 50a5 80.

GRAIN AND PRODUCE MARKETS.

Kansas City.

May 4, 1891.
WHEAT—Receipts for 48 hours 28,000 bushels. No 2 hard, 95c; No 3 hard, 92c; No 2 red, 98c, and No 3 red, 95c.
CORN—Receipts for 48 hours 87,500 bushels. The market continues to slip downward. No 3 mixed, spot, 59½c; No 2 white mixed, spot, 64½c; No 3 white mixed, spot, 60c.
OATS—Receipts for 48 hours 18,000 bushels. No 2 mixed, 50½c; No 3 mixed, 50c; No 2 red, 50½c; No 2 white mixed, 51c.
RYE—Receipts for past 48 hours, 3,000 bushels. Market dull and lower in sympathy with wheat. No 2, 78c, and No 3, 73c.
FLAXSEED—Market quiet but steady. We quote crushing at \$1 13a1 14 per bushel upon the basis of pure; sowing at \$1 56 per bushel; sacks, 10a20c.
CASTOR BEANS—Steady but dull; prices nominal. We quote crushing, in car lots, at \$1 30 per bushel upon the basis of pure, and small lots 10c per bushel less; sowing, \$2 00 per bushel.
HAY—Receipts for the past 48 hours 310 tons. We quote: Prairie fancy, \$16 00; good to choice, \$14 50a15 00; prime, \$12 00a12 50; common, \$9 50a 10 50. Timothy, good to choice, \$18 00.

Chicago.

May 4, 1891.
WHEAT—Receipts 29,000 bushels. No 2 spring, \$1 01½a1 01¾; No 3 spring, 97a98c; No 2 red, \$1 01½a1 02½.
CORN—Receipts 409,000 bushels. No 2, 66c.
OATS—Receipts 229,000 bushels. No 2, 51½c; No 2 white, 50a51½c; No 3 white, 50a55c.
RYE—Receipts 3,000 bushels. No 2, 84c.
BARLEY—Receipts 6,900 bushels. No 2, nominal; No 3, 73a75c; No 4, 73c.

St. Louis.

May 4, 1891.
WHEAT—Receipts 18,000 bushels. No 2 red, cash, \$1 03a1 03½.
CORN—Receipts 307,000 bushels. No 2 cash, 61½a62½c.
OATS—Receipts 63,000 bushels. No 2 cash, 53a55c.
RYE—Receipts 2,000 bushels. No 2, 81c.
HAY—Choice to fancy prairie, \$14 00; choice to fancy timothy, \$14 00a15 00.
FLAXSEED—Firm. Western, \$1 10; North-western, \$1 23.
WOOL—Quiet. Unwashed—Bright medium, 19a24c; coarse braid, 14a22c; low sandy, 11a17c; fine light, 18a21½c; fine heavy, 11a18c. Tub-washed—Choice, 35c; inferior, 29a33c. Receipts 92,700 pounds.

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Highest market price obtained for consignments of

WOOL, PELTS, HIDES AND FURS.

Top Prices, Quick Sales and Prompt Remittances.

Wool sacks, shipping tags and market reports sent free upon request.

WRITE US FOR PRICES, TERMS, &c., BEFORE DISPOSING OF YOUR CLIP.

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COMMISSION **WOOL** MERCHANTS.
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ESTABLISHED IN 1871.

REFERENCE:—Any Bank or Old Established Business House in St. Louis.

FUNSTEN & MOORE,
WOOL COMMISSION MERCHANTS.

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Correspondence solicited and liberal advances on consignments. Instructions to the shipper always forwarded. Write our references regarding our ability to handle your consignments satisfactorily.

REFERENCES:—St. Louis National Bank; Exchange National, El Dorado, Kas.; Geo. W. Brown, Banker, Augusta, Kas., and Woodson National Bank, Yates Center, Kas.

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SAM. LAZARUS, Vice President.
PAUL PHILLIPS, Treasurer.
J. W. T. GRAY, Secretary.

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GENERAL MANAGER

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CONSIGN YOUR CATTLE, HOGS & SHEEP TO
Larimer, Smith & Bridgeford,
LIVE STOCK COMMISSION MERCHANTS,
Kansas City Stock Yards, Kansas City, Kansas.

Highest market prices realized and satisfaction guaranteed. Market reports furnished free to ship pers and feeders. Correspondence solicited. Reference:—The National Bank of Commerce, Kansas City.

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—DEALERS IN—
Hides, Wool, Tallow and Furs.

CASH PAID FOR DEAD HOGS.

For dead hogs we pay from ½ to 1 cent per pound. We receive them at our store, 108 E. Third street, or at our tallow factory, on river bank east of town, near city dump. As to hides, we are always posted on the market, and having a large business in Kansas City it enables us to sell direct to the tanners; therefore we guarantee highest market prices at all times. Special attention given to consignment trade. Remember the place—108 East Third street, in rear of Kaczynski's old Grocery Store, corner Third and Kansas avenue, Topeka, Kas. Telephone 433.

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R. L. COFRAN, PROP'R, TOPEKA, KAS.

Manufacturer and dealer in all kinds of Machinery. Also manufacture and carry in stock SMALL ENGINES AND BOILERS FOR FARM USES, in five sizes, viz.: Two, four, six, eight and ten horsepower. Also STEAM PUMPS. Write for prices.

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HORSE OWNERS!
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CAUSTIC BALSAM

A SAFE, SPEEDY AND POSITIVE CURE for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, Skin Diseases, Thrush, Diphtheria, all Lameness from Spavin, Ringbone or other Bony Tumors. 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.

THE STRAY LIST.

FOR WEEK ENDING APRIL 29, 1891.

Lyon county—C. W. Wilhite, clerk.

HORSE—Taken up by S. Martin, in Reading tp., April 4, 1891, one br wn or bay horse, 4 years old, no marks or brands; valued at \$40.

Marshall county—James Montgomery, clk.

HORSE—Taken up by Sidney Walter, in Marysville tp., March 26, 1891, one dark brown horse, 6 or 7 years old, one hind foot white; valued at \$55.

FOR WEEK ENDING, MAY 6, 1891.

Montgomery county—G. W. Fulmer, clerk.

MULE—Taken up by J. W. Bowersock, in Caney tp., P. O. Havana, April 20, 1891, one bay mare mule, 2 years old, short mane and tail, stripes across withers; valued at \$40.

Cherokee county—J. C. Atkinson, clerk.

HORSE—Taken up by Geo. D. Back P. O. Baxter Springs, April 15, 1891, one dark bay or brown horse, about 14½ hands high, collar marks, white spot in forehead, thin tail, about 12 years old; va ued at \$30.

P FARMERS' trade solicited. Everything in my line. Prices the very LOWEST.
F. C. SEARS,
810 Kansas Ave., Topeka, Kansas.

G. W. LAIDLAW

—WHOLESALE—

HAY, COMMISSION AND FORWARDING MERCHANT.

Manufacturers' General Agent for LAIDLAW'S HAY PRESSES—half and full circle, HAY BALE TIES, "SWING" CARTS, DISC CULTIVATORS, and Local Agent for the Great MONARCH SCALES.

All orders promptly filled. Write for descriptive catalogue.

G. W. LAIDLAW, Topeka, Kas.

PRINTING Horse, Cattle, Swine and Poultry cuts, large variety. No charge for use on orders placed with me. C. W. Douglass, Topeka.

THE GEO. W. CRANE PUBLISHING Co., Topeka, Kas., publish and sell the Kansas Statutes, Kansas and Iowa Supreme Court Reports, Spalding's Treatise, Taylor's Pleading and Practice, Scott's Probate Guide, Kansas Road Laws, Township Laws, Lien Laws, etc., and a very large stock of Blanks, for Court and other purposes, including Stock Lien Blanks, Conveyancing Blanks, Loan Blanks, etc. For fine printing, book printing, binding, and Records for County, Township, City and School Districts, this is the oldest and most reliable house in the State.

DR. G. A. WALL,
EYE AND EAR

521 Kansas Avenue, Topeka, Kas.

HOURS:—9 to 12 a. m., 1:30 to 5 p. m. Sundays, 8 to 5 p. m.

HENRY W. ROBY, M. D.,
Surgeon.
118 W. Sixth St. Topeka, Kas.

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Hemp Binder Twine.

Manufactured by the Fremont Hemp & Twine Co., at Fremont, Neb., out of hemp grown on the farms of Nebraska. Every Western farmer should use this twine. It is as strong and will work as well as the best made anywhere, out of any kind of fiber. We guarantee it to work well on all makes of binders, and to be crick-proof. Try our twine and be convinced. There is no longer any necessity for Western farmers to be dependent upon foreign-grown fibers for binding their grain. We will be pleased to furnish samples and prices on application.

FREMONT HEMP & TWINE CO.,
FREMONT, NEBRASKA.

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I have several very fine farms, from 160 to 1,280 acres each, and three excellent stock farms, located in Boone county, Kansas, the best stock country in the world. The soil is very rich and excellent for wheat and other grain or grazing. The farms are among the very best. I will sell cheap, on long time if desired, or will trade for property in Omaha or vicinity or in Iowa, or for standard-bred mares and fillies or coach and Percheron stallions. Address B. J. KENDALL, Room 403 Brown Bldg., Omaha, Neb. Send for my catalogue of Standard-bred horses and Shetland ponies.

GREAT "ACTINA" ONLY KNOWN CATARRH CURE.



The
Deaf Hear
The
Blind See.
—
Catarrh
Impossible



The above figure represents the manner in which our Magneto-Conservative Garments are worn. It can be readily understood that they are not worn next to the skin, nor have they to be dipped in acids. The dangerous character of Electric Belts charged with acid and worn next to the skin is too well known to be repeated here. PROF. WILSON'S system is as distinct from these dangerous Copper and Zinc Belts as is a pine knot in an Indian's wigwag to the electric lights of our stores and city streets. There need not be a sick person in America (save from accidents) if our Magneto-Conservative Underwear would become a part of the wardrobe of every lady and gentleman, as also of infants and children.

Just as cataracts and all diseases of the eye are cured by "Actina," so do our garments cure all forms of bodily disease. Send for pamphlet and price list.

One million people in Europe and America are wearing our Magneto-Conservative garments—they cure all forms of disease after the doctors have utterly failed. There is no form of disease our garments will not cure. Gout, Rheumatism, Paralysis, Consumption, Constipation, Stiff Joints. Our garments cure when all drug treatments fail. Twenty-five thousand people in Kansas City testify to our marvelous cures. If you suffer it serves you right. Listen to your doctors and die. Wear our Magneto-Conservative Garments and live.

READ GENERAL REPORT FROM NATIONAL MILITARY HOME—Catarrh, Color-Blindness, Near-Sightedness, Quinsy and other forms of Disease Cured by one instrument.

NATIONAL MILITARY HOME, LEAVENWORTH, KAN., March 12, 1891.
Your letter received. I answer with much pleasure. I am well pleased. The Actina has been doing good work. My left ear was nearly deaf—now completely restored. My throat has been affected for nearly ten years—have had quinsy several times—now completely cured; my eyes are greatly improved. Mr. White uses it for throat and eyes; has congested, weak eyes; has been greatly benefited. Mr. Mason, an old case of catarrh, has been greatly benefited; he is an old case; has spent several hundred dollars with specialists, and says he has received more benefit from the use of Actina than all the rest put together; he has thrown his glasses away. One case of a comrade I mention; has been near-sighted since 14 years old, and nearly blind for five years; one eye greatly improved; the other was treated with cautery; he says if both eyes were equally good he could read; he can distinguish colors, which he could not do for five years. I am coming to Kansas City as soon as I can. I want a 10 Belt and \$2.50 Insulator. There are several other comrades in the Home who have bought your Belts, and I have heard favorable reports of their effects. A great many intend getting your Actina and Garments as soon as they get their pensions.
Yours respectfully, MORGAN WALBIEFF, Co. B, 65th Ill.

IMPORTANT NOTICE—We have a Patent on Actina, No. 341,712, also Copyright and Trade-Mark on the word Actina. We will prosecute all infringers.

Private Parlors for Ladies. Office Hours—8 a. m. to 10 p. m. Sundays—9 a. m. to 4 p. m. Address all private matter to PROF. WILSON.
NEW YORK & LONDON ELECTRIC ASS'N, Mfrs., 1021 Main Street, KANSAS CITY, MO.



11TH AND BROADWAY.

Private, Special or Nervous Diseases, Syphilis, Gleet, Stricture and Venereal. Diseases of the Eye and Ear treated in the most skillful and scientific manner. All the most difficult Surgical Operations performed with Skill and Success. Fifty rooms for the accommodation of Patients. Physicians and trained nurses in attendance day and night. Consultation free. For further information call on or Address **DR. C. M. COE, President,** 11th & Broadway, KANSAS CITY, MO.
Or, Kansas City Medical and Surgical Sanitarium.



(TRADE MARK)

TESTIMONIALS:

G. H. JEROME & Co., CITY DRUG STORE, YORK, NEB., April 4, 1890.
Bragdon Chemical Co.—Gents:—In answer to yours of recent date, would say: The SPECIFIC is gradually gaining ground with us. Our community has been imposed upon by Haas, Clark and many other preparations, so it is passing hard to introduce a new one, even though it possesses merit. One of our biggest shippers has tried it to his perfect satisfaction as a cure, and has recommended it to his friends as a Specific. Will let you know from time to time what friends it is making. Yours, JEROME & CO.

Office of E. C. HEALY, DEALER IN DRUGS, CLOTHING, BOOTS AND SHOES, MORGANVILLE, KAN., April 19, 1890.
The Bragdon Chemical Co., Fort Scott, Kas.—Gents:—Please find enclosed \$11.65, discount 35c. I have held Haas' and Clark's remedies, and hogs have continued to die. I sent to Junction City for some of your Specific, and I have not lost but one hog since I commenced feeding it. One of my customers has lost \$300 worth of hogs the past month. He has not lost a hog since I got your Specific from Junction City.
Yours respectfully, E. C. HEALY.

MERIDEN PARK HERD OF POLAND-CHINAS, F. A. TRIPP, PROPRIETOR, MERIDEN, KAN., December 15, 1890.
Bragdon Chemical Co., Fort Scott.—Kind Friends:—I call you kind friends because you have a remedy that is the only friend of the hog man. You will please find enclosed P. O. money order for six dollars, for which please send me by express half case of the hog cholera remedy. I am not losing hogs myself now, but my neighbors are. I am satisfied that your remedy will knock the cholera. A man by the name of Muselman has tried it. He got three doses of a neighbor and says he has cured two hogs with three doses; they were shoats, and were in very bad shape. I saw them, and I told him then they were infected. They were in terrible condition. Send my order as soon as possible.
I remain your friend, F. A. TRIPP, Meriden, Jefferson Co., Kas.

The BRAGDON CHEMICAL CO.,

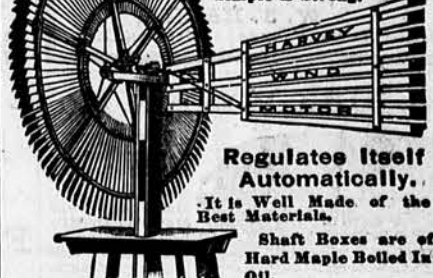
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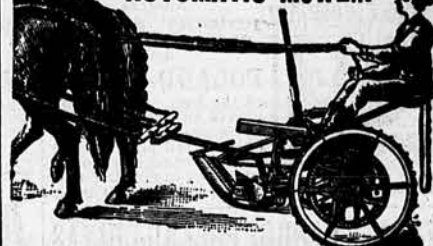


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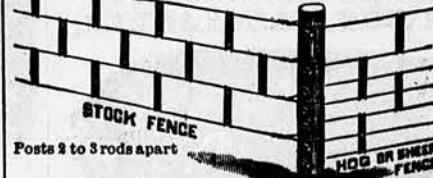
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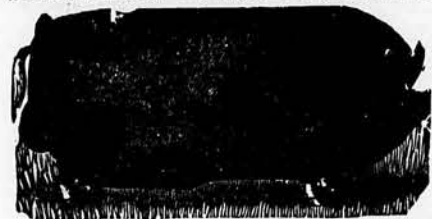
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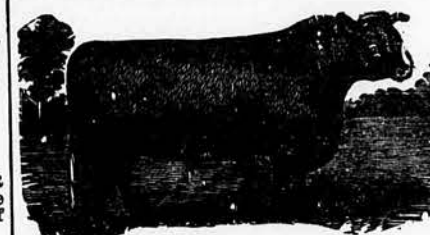
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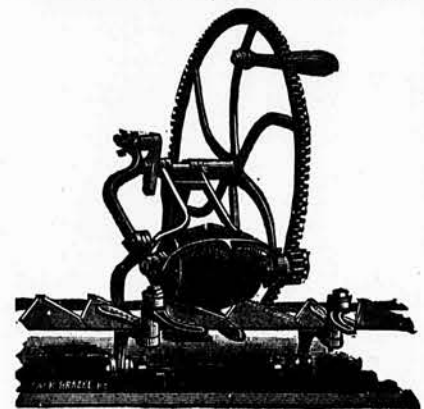
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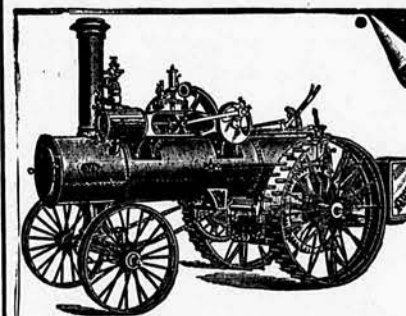
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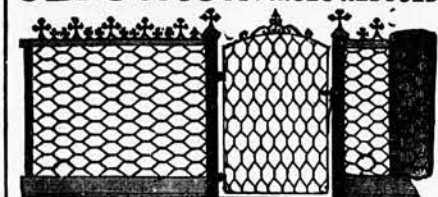
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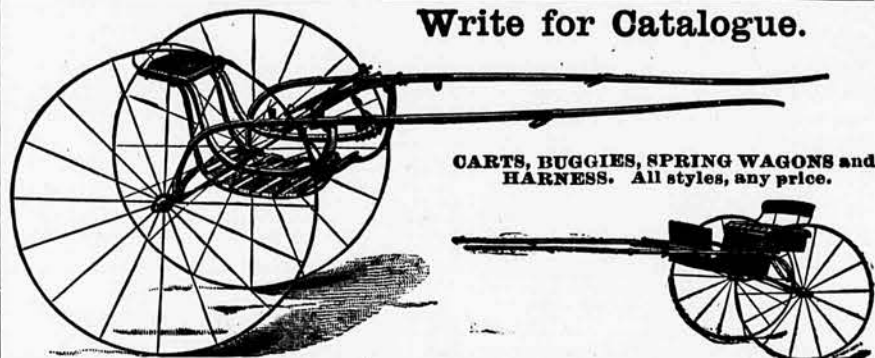
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Have now for sale at a bargain thirty bulls, eighteen to twenty-two months old. Carload of heifers or cows. Come and see stock or write for prices.

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A special offering of low-legged, thick-fleshed bulls, in every way suitable to head pure-bred herds, is made from the Rock Creek herd of Thos. J. Higgins. The bull calf crop from this herd is rigidly culled each year, and the offering includes only strictly first-class specimens of the breed. These bulls will be sold at prices and on terms which bring them within the reach of breeders of beef cattle. Attention is confidently invited to this offering from the leading herd of Herefords in the West. For further particulars address THOS. J. HIGGINS, Council Grove, Kas.

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FOSTORIA HERD HOLSTEIN-FRIESIAN.

Choicest imported cows, prize-winners in Holland and America, at the pail and churn in this herd. Also, grand sweepstakes butter cow, Ohio State fair; grand sweepstakes bull, Ohio State and West Virginia State fairs; grand sweepstakes bull at the great St. Louis fair. Also the finest selection of the celebrated Mercedes family.

If you want the best, visit the Fostoria herd and make selections. Prices low, terms easy.

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PUBLIC SALE!

Cruickshank and Cruickshank-topped Short-horns

At the Casey barn, near the Union depot, **St. Joseph, Mo., Tuesday, May 19th, 1891.**

The sale includes FORTY HEAD, eighteen bulls and twenty-two cows and heifers of popular families, such as Waterloo, Mazurka, Young Mary, Young Phyllis, Rosemary, Desdemona, Cowslip, etc. For catalogues address B. O. COWAN, NEW POINT, MO. or JOHN MCCOY, SABBETHA, KAS.

Prize-Winning Short-horns at PUBLIC SALE

We will offer at public auction, at the farm of WM. A. POWELL, three miles east of

Lee's Summit, Mo., Thursday, May 28, 1891,

Forty head of Short-horn cattle, all but a few of which are Rose of Sharon. Mr. Powell's Short-horns have won more premiums at Missouri State Fairs in the past four years than any other four exhibitors. At these fairs the Powell Short-horns won all the herd prizes and a six out of eight sweepstakes, besides a majority of class prizes. Cattle that can obtain such records need no further praise. "MERIT ALWAYS WINS." The balance of W. A. Powell's entire herd, not catalogued for this sale, will be sold privately.

TERMS:—Cash or six months negotiable note at 8 per cent. Lunch at 11:30. Sale will begin promptly at 1 p. m. Catalogue on application to W. A. POWELL, Lee's Summit, Mo., or A. J. POWELL, Independence, Mo. COL. H. D. SMITHSON, Auctioneer.

Public Sale of Short-horns!

FORTY-FIVE HEAD FROM MAPLEDALE HERD.

At Washington, Iowa, Wednesday, May 27, 1891.

Thirty choice cows and heifers and fifteen as fine bulls as are to be sold this season. Choice animals of fine breeding of such families as Renick Rose of Sharon, Young Mary, Young Phyllis, Josephine, Rosabella 2d, Ianthe, Rosemary, Easterday, and other good ones. This sale includes some of the best of Mapledale herd, affording a good opportunity for buyers to secure choice breeding stock and good show cattle. Twelve months time on approved note at 7 per cent. interest. Send for catalogue. C. B. CRUMPACKER. COL. J. W. JUDY, Auctioneer.

Great Combination Sale of Short-horn Cattle

At Riverview Park, Kansas City Stock Yards, **KANSAS CITY, MO., MAY 13TH, 14TH AND 15TH, 1891.**

On Wednesday, May 13, Thursday and Friday, May 14 and 15,

THE INTER-STATE SHORT-HORN SHOW & SALE ASSOCIATION DARR & SON and J. W. PICKETT

Will sell 98 head, Consisting of Oxfords, Craggs, Waterloos, Renick Rose of Sharon, Flat Creek and Beck's Duchess Young Marys, Young Phyllises and other popular families. Purchasers can select such breeding as may suit them, as one-half will be Cruickshank-topped and the others of the highest Bates breeding.

If you want a truly fine young bull or heifer, you cannot afford to miss the sale, as many show animals will be sold. For catalogue address W. Z. DARR & SON, Carrollton, Mo. Or J. W. PICKETT, Lilly, Mo.

Will sell 50 head, selected by the expert Judge, J. N. Wix, from the leading herds of Kansas and Missouri. All the leading tribes represented—Bates and Bates-topped, Cruickshank and Cruickshank-topped animals of the highest individual merit. All these cattle will be exhibited for prizes on the morning of the sale. For catalogue or other information, address P. D. ETTE, Secretary, L. P. MUIR, Auctioneer, Kansas City, Mo.

The Kansas City Stock Yards.

Are by far the most commodious and best appointed in the Missouri Valley, with ample capacity for feeding, weighing and shipping Cattle, Hogs, Sheep, Horses and Mules. They are planked throughout, no yards are better watered, and in none is there a better system of drainage. The fact that higher prices are realized here than in the East is due to the location at these yards of eight packing houses, with an aggregate daily capacity of 3,600 cattle and 37,200 hogs, and the regular attendance of sharp, competitive buyers for the packing houses of Omaha, Chicago, St. Louis, Indianapolis, Cincinnati, New York and Boston.

All the sixteen roads running into Kansas City have direct connection with the yards, affording the best accommodation for stock coming from the great grazing grounds of all the Western States and Territories and also for stock destined for Eastern markets.

The business of the yards is done systematically and with the utmost promptness, so there is no delay and no clashing, and stockmen have found here, and will continue to find, that they get all their stock in worth with the least possible delay.

Receipts for 1890 were 1,472,229 cattle, 76,568 calves, 2,865,171 hogs, 535,869 sheep, 87,118 horses and mules. Total number of cars, 108,160.

Kansas City Stock Yards Co. Horse and Mule Market. CAPT. W. S. TOUGH, Manager.

This company has established in connection with the yards an extensive Horse and Mule Market known as the KANSAS CITY STOCK YARDS HORSE AND MULE MARKET. Have always on hand a large stock of all grades of Horses and Mules, which are bought and sold on commission or in carload lots. Regular trade auction sales every Wednesday and Saturday.

In connection with the Sales Market are large feed stables and pens, where all stock will receive the best of care. Special attention given to receiving and forwarding. The facilities for handling this kind of stock are unsurpassed at any stable in this country. Consignments are solicited with the guarantee that prompt settlements will be made when stock is sold.

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