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Barred Plymouth Rocks.

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

(Breeders' Directory continued on page 16.)

Agricultural Matters.

RESTORING PASTURE.

(Report of Iowa Agricultural Experiment Station.)

The maintenance of pasture lands has become one of the important problems in connection with farm management. Our system of close grazing followed by periods of prolonged drought inevitably leads to weakened vitality of grass plants, resulting in deficient stand and reduced productiveness. Plants, like animals, require nutriment for growth. Starving has the same effect in either case. In the spring of 1893, as soon as the frost was out of the ground, three plots of one-tenth acre each of shallow, gravelly soiled blue grass pasture on the college farm were fenced off and treated as follows:

Plot No. 1...230 pounds of dry well cured hay.
Plot No. 2...380 " " "
Plot No. 3...400 " " "

Plot No. 1 remained as it was except that it was fenced to keep stock off. Plot No. 2 had one quart of medium red clover seed sown on and disked in well. Plot No. 3 had 4,000 pounds of fine rich barnyard manure evenly spread on.

These plots were adjoining, on the same kind of soil and subject to the same conditions until July 18, when the grass upon them was cut and separately weighed, with the following results:

Clover seed disked into blue grass pasture at the rate of ten quarts per acre increased the yield 65 per cent., the equivalent of 1,500 pounds of cured hay per acre. Good fine barnyard manure applied to blue grass pasture at the rate of twenty tons per acre increased the yield 74 per cent., equivalent to 1,700 pounds of cured hay per acre.

A similar test was made during the past summer except on richer soil and better grass land. Four plots of one-tenth of an acre each were selected and fenced off from a permanent bottom land blue grass pasture, care being taken to have all of them as nearly equal in grass-producing capacity as possible. The four together formed an area of eight rods square. April 23, three pounds of clover and timothy seed mixed in equal parts were sown on Plot No. 1 and the ground disked twice and harrowed twice afterward. May 1, fifty pounds of land plaster were applied on the surface of Plot No. 2 and on the same day 400 pounds of liquid manure, diluted one-half, were applied on plot No. 3. Plot No. 4 had no treatment. All were subjected to the same conditions during the summer. On July 18, the grass was cut on all plots and after curing and remaining in the cocks until August 12 was hauled in and weighed, with the following results:

Plot No. 1 (timothy and clover seeding) 325 pounds.
Plot No. 2 (land plaster) 195 pounds.
Plot No. 3 (liquid manure) 310 pounds.
Plot No. 4 (no treatment) 245 pounds.

The liquid manure before diluting was analyzed by Dr. Weems and found to contain:

Nitrogen, 7 pounds per 1,000.
Potash, 1.67 pounds per 1,000.
Phosphoric acid, .33 pounds per 1,000.

The diluted fertilizer thus contained one-half of the above amounts of fertilizing matter.

The addition of thirty pounds of grass seed per acre, together with the disk and harrowing, increased the yield of grass 32.6 per cent., or the equivalent of 800 pounds of hay per acre.

The application of liquid manure at the rate of 4,000 pounds per acre increased the yield of grass 26.5 per cent., equivalent to 650 pounds of hay per acre. Observations will be taken on the condition and production of these plots during the coming summer to note the continuation of the benefit resulting from fertilizing grass lands. At this rate eighty tons of liquid manure applied to a forty-acre pasture will increase its grass-producing capacity 26.5 per cent. or cause it to grow twelve tons more hay the first year, and based upon these results, clover disked into forty acres of thin-soiled blue grass pasture will increase its grass producing capacity 65 per cent., or cause it to produce thirty tons more

hay. The inference seems warranted from the foregoing results that the grazing capacity of many pastures may be fully doubled by liberal top dressing or by the use of clover seed and the disc and harrow. The bottom land treated in the last experiment was already good pasture before anything was done with it, and it had not been overstocked. The upland pasture was naturally a poor piece of land though it was in good condition and the stand of blue grass was good in both cases and all of the plots were practically free from weeds. In the practice of treating pastures with clover seed and the disc, the work can be very much reduced by applying the seed early, while the ground is soft, in order that a part of it may be covered by the tramping of stock, and the disking and harrowing should also be done at a time when the surface will be most readily loosened. It is probable that half of the above amount of grass seed, or less if clover alone is used, will give good results.

Artichokes.

EDITOR KANSAS FARMER:—In answer to A. J. Houghton and other readers of the FARMER, I will endeavor to show up the artichoke. My experience is limited to the Jerusalem artichoke.

Soil should be naturally rich, if not, should be made so by manuring heavily previous year with coarse manure. Plow ground deep, and if possible subsoil, making a mellow bed not less than sixteen inches deep. Mark off in furrows four inches deep, same distance apart as for corn; plant same as potatoes, using one eye to a hill, eighteen inches apart in row. Give level culture, same as corn. Can use one horse and single-shovel while artichokes are small to cross-plow them. Before they commence to bloom be careful not to plow too near the hill or deep enough to break the young tuber shoots that are commencing to form at this time. When in bloom hill up slightly; after this keep weeds out and surface worked to a depth of one inch, to hold all the moisture. At this period they need all the moisture possible to develop them to full size. This is the great trouble in this section of Kansas—dry weather during the time when they are making themselves. Should season be favorable, look out for a bushel every six hills.

In winter, when green pasture is scarce, turn the hogs in, and if ground is not frozen they will help themselves. The value of artichokes is not so much in the fattening qualities as in furnishing a food to regulate the bowels and cool the system while hogs are on a corn diet. This makes them valuable as a food when fed with other dry feed. Cows, horses, sheep and fowls relish them.

Artichokes should be dug before ground freezes, and stored where they can be got to feed any time. Freezing does not hurt them if the frost be allowed so draw out before digging or removing from the pit.

To get rid of seed left in the ground, as soon as all have come up plow them under and you are rid of them. I never had good success in raising a second crop on same ground from volunteers. But they will come up if any are left in the ground. Five bushels will plant an acre and can be purchased at present time at 75 cents per bushel. I have no seed to sell.

Cherokee, Kas. M. H. ALBERTY.

Artichokes.

EDITOR KANSAS FARMER:—You asked some of your readers in last week's paper to answer a correspondent in regard to artichokes, how to plant them, etc. The writer has been a seed dealer for some twenty-five years, and has also grown artichokes. And together with his experience and that of some of the most successful and prominent farmers in the West with whom I am personally acquainted, and who will back up all I say in regard to them, enables me to speak understandingly.

The value of artichokes is just fairly being discovered, although it is an old plant. The agricultural papers have been airing their value for the last two

or three years, so that the demand is increasing for them, and it is going to be one of the most popular plants grown in the West, as it is the cheapest hog food grown, and is absolutely necessary in the Western country on the plains where there is no mast to keep the hog healthy.

The raising of hogs in Kansas, Nebraska and the new West, has become more or less unsatisfactory on account of the prevalence of hog cholera, but I believe that if every farmer who raised hogs had artichokes on his place he would have no hog cholera, as there is no better food to build up large, healthy frames. It makes plenty of bone and muscle. As proof of this assertion, I want to give an incident that happened several years ago, when the writer advanced this idea in a catalogue he was publishing, that I believed artichokes were a preventive of hog cholera, if not a cure. A farmer from western Kansas stepped into my office the second year after the article came out, as he said, to thank me for that article. He had been trying to raise hogs for several years without success. The hog cholera would invariably carry them off, but he saw the article referred to, planted a field of artichokes, and slapping his hand on his pocket, said he had \$800 in cash in his pocket, received that day from the sale of hogs, all the result of his artichoke field, which had made his hogs healthy and put him on the road to success in hog-raising. Any field that will raise fifty bushels of corn will raise 500 bushels of artichokes. Plant about May 1, when your hogs are turned out to pasture. Then when your pasture plays out in the fall, or about September 15 to October 1, you will have fine food in your lots for your hogs, where they can root at intervals where the ground is not frozen until the following May, when they will have received as much benefit from one acre of artichokes as from ten acres of corn. They will also leave enough tubers in your lots to reseed the ground for the next crop.

Cut the tubers, plant and cultivate precisely the same as potatoes. Six bushels will plant one acre. They are good food for man as well as beast. Make good pickles, and soup with a little of the flavor of oyster soup.

If the reader of this article cares to address the Kansas City Grain & Seed Co., they will furnish them recipes for pickles, soup and other uses of this valuable tuberous perennial; also a more complete article on artichokes and other sure crops. J. I. REYNOLDS.

Kansas City, Mo.

Summer Plowing.

EDITOR KANSAS FARMER:—I have read a good deal lately about subsoiling, and have subsoiled now for two years past, both years with good success. So far I have only raised potatoes on such land. My crop this last year was 250 bushels nice potatoes. My limited means did not allow me to buy a regular subsoil plow, so I just changed an old mold-board breaking-plow into a subsoil plow, by taking off the mold-board and changing the handles. Neither did I have an Aspinwall potato-planter, but I made a planter after my own pattern, whereby it took two men, one to drive and one to drop. Straight rows, uniform depth, even stand were the results. I never saw a nicer-looking potato field than this was when it was all in bloom.

What I wish to state, though, in regard to subsoiling, is this: Had I not prepared this ground the year previous, first, by selecting it in such a location that snow was sure to drift in; second, by working it so as to encourage weeds to make a good growth, I could not have done much good in subsoiling, as my other ground was not even in good shape to plow, let alone to subsoil, while this prepared ground had moisture as deep as the subsoiler went. And this is the suggestion that I would like to make, and especially to my western farmer friends who are located on these high plains, where dry farming is very uncertain and irrigation not feasible except on a very small scale from our stock wells. To bring the ground in better tilth for small grain crops, I have followed a somewhat different plan, which also has given gratifying

SPECIFIC FOR SCROFULA.

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



AYER'S

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

AYER'S

THE ONLY WORLD'S FAIR
Sarsaparilla

Ayer's Cherry Pectoral cures Coughs and Colds

results, and which consists in summer fallowing the ground, and, in my opinion, this is the only salvation for us western farmers. I have been advocating this for the last few years, but not until 1894 was I able to summer-plow twenty-eight acres of my ground, which I did in a time when the pig-weeds were nice and green yet, thereby giving the ground a good green manuring. In the spring of 1895 I sowed eight bushels of barley on fourteen acres, and threshed from thirteen acres of it 336 bushels, which makes very near twenty-six bushels per acre. Twelve acres of oats yielded me 350 bushels, or about twenty-nine bushels per acre. These were by far the best yields in the neighborhood. As we had a fair amount of rain last summer, I was able to get over 100 acres summer-plowed, seventy-five of which I have in fall wheat; the balance will be seeded this spring.

What I am advocating and practicing myself here in western Kansas is nothing new. In the "old country" they could not possibly keep their land up without this practice, and even in this country, in the Eastern States, it is being practiced more and more. But I do not even have to go as far as that to find supporters. I have the government report in the house, wherein certain crop reporters from the Dakotas are loud in their praise of summer-plowing. The unanimous verdict is that summer-plowing will be their main dependence hereafter. Why should we not here in Kansas, where droughts and hot winds are even more frequent than in the Dakotas, make summer-plowing our main dependence? The most objection to it that I have heard is that by summer-plowing the land we lose the chance for a crop that year, but said objection is not heard any more since we have lost the crops in 1893 and 1894, and only had part of a crop in 1895. The advantages gained by summer-plowing are so manifold that I cannot see why farmers should not take hold of it. Hoping that the KANSAS FARMER, ever ready to benefit its readers, will take hold of it, I am respectfully,

Colby, Kas.

G. R. WERNER.

The irritation of the skin, so helpful in counteracting the tortures of rheumatism, is promptly produced by Salvation Oil.

Homes for the Homeless.

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

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

The Stock Interest.

THOROUGH-BRED STOCK SALES.

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

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

HOG CHOLERA.

By Hon. Chas. H. Walker, of Surprise, Neb., read before the Improved Stock Breeders' Association of Nebraska, February 19-21.

Everybody with any experience knows that hog cholera is a non-recurrent disease, but not one in a hundred profits by the knowledge or they would save the sows that have recovered from it for breeding purposes. By such a practice hog-raisers would always be ready to start right up in the business again as soon as the disease abated. Everybody ought to know that it is a germ disease, but I guess they don't, or they would not attribute it to so many other harmless causes. And lest some one may question the fact now, I want to say that we have caught the critter that does the mischief, and are prepared to show him, or his works at least. We can grow the germ with the same ease and certainty that we can any other plant growth, and after raising enough of them to make a dose we can administer them to hearty hogs and produce hog cholera with all the symptoms and the same pathological conditions that characterize it. Their natural habitat is in the soil, but it is not generally believed that they are indigenous to Nebraska, because for years after the settlement of the State the disease was not known within its borders. The germs were probably brought here in infected cars or were introduced with diseased hogs that were imported into the State. Be that as it may, they are here, and it looks as if they had come to stay. They are so exceedingly shy they become established before you know it. We have not been able to locate them except through the help of the hogs. Frequently attention has been called to the fact that the hogs seem partial to graze on a certain spot and soon come down with cholera. This has excited surprise, which, by careful observation, leads to the discovery of the polluted spot. I have in mind the experience of Mr. Liberty Clark, a farmer residing five miles west of Surprise, who discovered the cause of his hogs' sickness without the aid of a professional investigation. His hogs have repeatedly taken the disease by having access to the basement under his horse barn. This place is not intended for use, and is usually kept closed, so that hogs cannot have access to it. Occasionally they have broken in and in a short time he would have cholera. Finally he caught onto the cause and has since taken care to prevent their exposure.

This is but one of many similar experiences that is relied on to establish the fact that the natural home of the germ is in the soil. Much attention has been given in studying the character and condition that the germs seem to thrive best in. A warm, moist place gives the best results for the growth and development of the most virulent infection, such a condition as is found in old stock yards and frequently in feed lots when manure and rubbish has been allowed to accumulate for years. Hog pens that have been neglected and filth has accumulated under the floor are frequently alive with germs. Many farmers have ignorantly established hot-beds for hog cholera on their farms when they thought they were acting with the greatest care and prudence. They have done it by imperfectly burying their dead hogs. I speak with authority on this point because I paid for my experience. An imperfectly buried hog cost me an outbreak in my herd that invoiced over a thousand dollars, and I have a neighbor that bought his experience even dearer than I did. He buried some 300 head, one season, by opening out a furrow and after stringing the hogs along threw another furrow over them. It was an expedient way of doing the job, but he has not got through paying for it. As certain as his hogs have access

to that field just so certain does he have an outbreak of cholera.

Shallow burying is one of the most effective methods of keeping a place infected; it is far better to leave the carcass exposed on the surface than to bury it not more than six or eight inches deep; exposure to the air and sun is unfavorable to the germ, growth and development. Buried deep enough there is no danger, but the safest and best way is to burn the carcasses. Neither is it necessary to more than thoroughly cook them to destroy the virulence of the germs. When this is done they are often eaten with relish by the sick hogs and it sometimes seems to help rather than to harm them. This fact must have led to the belief by some that a dead hog will not communicate the disease; this is a mistake. Live germs are rank poison to hogs, whether they are found in the carcass of a dead hog or in the earth or whether grown any other way.

I hate to blight the hope of people who think they have got a corner on hog cholera. There are those who think they have discovered some breed that is naturally immune, but they are deluded. There are individual hogs that will not contract the disease, but they are found in all breeds. It is also true that there are persons who will not take smallpox, but they do not belong to any certain race. Except in these rare cases, just as sure as he is a hog he will catch cholera without race if he has half a chance. I speak of this particularly because the Agricultural Department at Washington has recently advised the country that they have discovered a breed of hogs down in Florida that is cholera-proof. This branch of our government has the confidence of the people, and whatever is sent out to the people by it is regarded as authority by many; for that reason no time should be lost in correcting the mistake. Hogs of this breed that have been kept at the State farm for experimentation have contracted the disease without aid and died like other hogs. But there is this that can be said in their favor; they can suffer more from the withering blight of disease without showing it than any breed of hogs yet placed before the people.

A large per cent. of the misfortunes that overtake us in hog-raising are the result of the neglect of the sanitary conditions. They are the safest in a clean pasture, but if, when put in the feed lot, all cobs and litter should be regularly raked in piles and burned and the hogs permitted to eat the charred cobs and the ashes and the yard kept scrupulously clean the mortality would be greatly reduced. Lime is one of the best disinfectants and should be freely used in the hog pen. The bedding should be frequently changed and the old bedding should be burned; neither should hogs have access to foul mud-holes to wallow in, and whenever one dies he should be thoroughly roasted and fed to the others. This is simply a humane way of treating them and ought not to require a suggestion. If these rules were strictly followed there would be much less hazard in the hog business.

From time to time remedies have been offered that have been claimed to be specific, but so far no combination of drugs or medicines has been compounded that has afforded any relief. There are scores of germicides, either of which is destructive to hog cholera germs, but when fortified in the hog no combination of germicides has been able to destroy them before it would kill the hog.

Prevention has been the only safeguard, and, since the disease is non-recurrent, inoculation has been found to be the most certain protection; at the same time it has met with much opposition and unfriendly criticism.

There are but two questions to be settled as to its value for protection:

First, can it be safely administered, and, secondly, will it give immunity?

If it can be safely administered it is certainly very valuable.

In reply to the first question, no accumulation of mistakes or failures can destroy the evidence that hogs can be safely inoculated. The experiment has been performed too often and witnessed by too many. Positive evidence can

never be impeached by negative evidence. The operation is too simple and the expense so small that there is no excuse for ignorance on the subject.

Much as I believe in it I have no desire to hide a failure or misrepresent a result. I know they have occurred. Neither am I surprised at the fact, but since it is successfully practiced the conditions and methods that resulted in failure must have been different, and I prefer to find fault with the failure rather than with the success. My first experiments were successful, but the development of inoculation has resulted in great improvement, and as it is now practiced it is much more satisfactory. I cannot understand why so many men with such valuable herds can remain so ignorant of what it promises or so satisfied with what they do not know when experience may be had so cheaply. It produces immunity and certainly promises so much to so hazardous a business that it should receive greater attention.

It is sometimes urged as an objection that it tends to spread the disease. This objection applied to an infected place is worthy of but little consideration compared with saving a valuable herd. If a polluted place that has had hog cholera scattered broadcast over it is clean there is little to fear from inoculation where every precaution is observed and scrupulous care taken and every means used to disinfect.

While inoculation is offered at this time as the best protection that has been discovered, investigators are hard at work striving to find something better to take its place, and with the development of knowledge this undoubtedly will be done. But it is not my purpose to speculate on what I think will be done or accomplished; simply to speak of some practical things that are within the reach of hog-raisers for immediate protection.

Keeps His Hogs Healthy.

EDITOR KANSAS FARMER:—Please find enclosed check for \$2 for KANSAS FARMER, to be sent to J. P. Nicholson, Dwight, and to continue my own subscription. You told us to look back for premiums. I will select "Samantha at Saratoga." If you are out of that, "The Story of the American People."

I think very much of the KANSAS FARMER, and the peculiarities of Kansas agriculture are such that every farmer and stock-grower in Kansas ought to take it and contribute to its columns what he has discovered of value to himself, thereby fulfilling the injunction, "To do good and communicate."

I would like to inquire if there is any apparatus whereby cobs can be held, fired and charred, in an easy way, so as to be used as an antiseptic and digestion corrective. I deem it a great medicine. I know hogs consider it a luxury. I have practiced firing a small pile—keep throwing on more, continuing until the heap is large enough, and while the coals are bright, throw on water. It takes a good deal of water and some activity to keep the hogs away until it is safe for them to partake and be merry. By the use of sulphur one part and four parts of salt I have, with the charred cob treatment, maintained an uncholeraed and moderately healthy piggery. A hog likes most everything that is grain or green. Shock corn gives them good roughness this time of the year. Sorghum is excellent when not too dry. We ought to feel it is our duty to please and interest, not only those with whom we associate, but all of the lower creation over which we have dominion. Dwight, Kas. C. H. TITUS.

Now For a Jersey Club.

The FARMER has received the following communication from W. S. James, Concordia, Kas., President of the Cloud County Live Stock Association, in behalf of improved stock in general and the Jerseys in particular, and every breeder of Jersey cattle in Kansas should correspond with him at once. Mr. James says:

"The recent sales of live stock held at Springfield, Ill., Kearney, Neb., Emporia and Burlingame, Kas., besides many others held in various parts of the country, are very encouraging to

Cures

Prove the merit of Hood's Sarsaparilla—positive, perfect, permanent Cures.

Cures of Scrofula in severest forms, Salt Rheum, with intense itching and burning, scald head, boils, pimples, etc.

Cures of Dyspepsia, Rheumatism, Catarrh, by toning and making rich, red blood.

Cures of Nervousness and That Tired Feeling, by feeding nerves, muscles and tissues on pure blood. For book of cures by

Hood's Sarsaparilla

Send address to C. I. Hood & Co., Lowell, Mass.

Hood's Pills are the best after-dinner pills, aid digestion. 25c.

the breeders of pure-bred stock. After so many years of depression, it seems now that our patience and perseverance will soon be rewarded by fair prices, at least for all kinds of improved live stock. Being particularly interested in the breeding of Jersey cattle, I am anxious to have them kept prominently before the people, their good qualities made as public as possible, and I believe there is no way by which this can be done so well as through the efforts of a well-organized Jersey cattle club. We have in this (Cloud) and adjoining counties over twenty breeders of pure-bred Jerseys, besides many who are breeding high-grades, and improving their herds all the time. We want an organization and are going to have it. A meeting was called for last Saturday (March 28), and many responded, expecting to be present, but on account of the terrible dust storms on Friday and Saturday, but a very few breeders were able to come, and those present thought advisable to give every breeder in Kansas and those in the northern part especially, a chance to have a say in the organization, therefore we deferred action to a later day, and we earnestly request all breeders of Jerseys who are interested in this matter, and want to see the best breed of cattle on earth kept in their proper place (which is at the head of the procession), to come and join us. Give us a word of encouragement. Would like an expression from every breeder in the State. Prof. Georgeson, of State college, Manhattan; Valancey E. Fuller, who so nobly led the Jerseys to complete victory at the Columbian exposition, and Hon. D. H. Jenkins, of the *Jersey Bulletin*, have kindly proffered their assistance in any way possible.

"We will probably meet some time early in May to organize, and would be pleased to have you be a charter member. Let us hear from you."

Important to Breeders.

Every one interested in improved stock should have the *Breeder's Gazette*, of Chicago, as well as the KANSAS FARMER, which we furnish for the price of one—both papers one year for only (\$2) two dollars; or we will supply the *National Stockman and Farmer*, of Pittsburgh, Pa. (the best general farm and stock journal in this country, price \$1.50), and the FARMER, for \$1.50. Send for sample copies to the papers direct, and save money and get a big benefit by sending your subscription to KANSAS FARMER, Topeka, Kas. No progressive farmer or breeder can afford at this low price to be without this great trio of farm magazines.

FOR ALLAYING HOARSENESS AND IRRITATION OF THE THROAT use "Brown's Bronchial Troches." 25 cents a box. Avoid imitations.

Seekers for Homes,

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

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

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

Irrigation.

SMALL FRUIT CULTURE BY IRRIGATION.

PART I.—Water Supply, Storage and Distribution.

From Bulletin No. 53, Kansas Experiment Station, by Profs. S. C. Mason and F. C. Sears.
(Continued from last week.)

As ponds are often constructed a serious leakage occurs at the junction

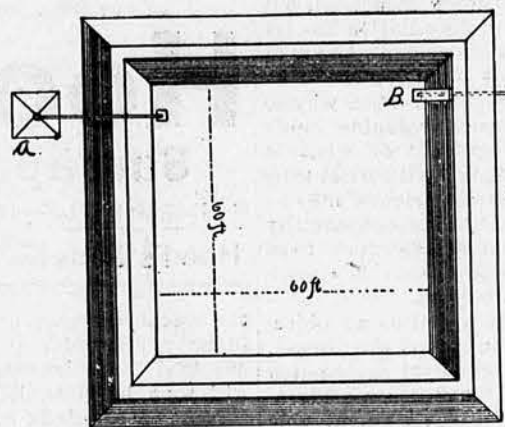
leather on the faced side, securely tacked around the edges. Strong cleats screwed on the outside may be made so as to wedge a little after the gate is closed, holding it up closely in place. Detail drawings of this, shown in Plate III., will enable a carpenter to build one which will hold securely. A very good outlet, costing a little more, is made of spiral riveted galvanized pipe. A flanged elbow is placed on the inner end, having the flange covered with pump-valve leather. A

The box or pipe outlet should be set with the inner end a little above the bottom of the pond, and kept clear of mud. It should have a slight fall to the ditch.

The setting of this should be done with a good deal of care, tamping the earth very firmly around it, as this is one of the most difficult spots to keep from leaking. Set four posts around the end of the box which will reach a little above the water, and will support a platform, from which the valve is

The supply spout from the pump should be carried out well over the bank, and if a floating box or trough is provided for the water to fall into, all damage from the wash will be avoided.

The main ditch should be built with the sides thrown up so as to bring the bottom on the level of the surface where the water is taken out, or even a little above, if the ground is very level. The capacity of this ditch should be ample, and the banks carefully built and well settled, as annoy-



Ground plan of Irrigation Pond 60x60 ft.
with arrangement of ditches & rows.
A, well & windmill; B, outlet; C, main ditch; D, laterals.
Scale 20 ft. to 1 S.C.M.

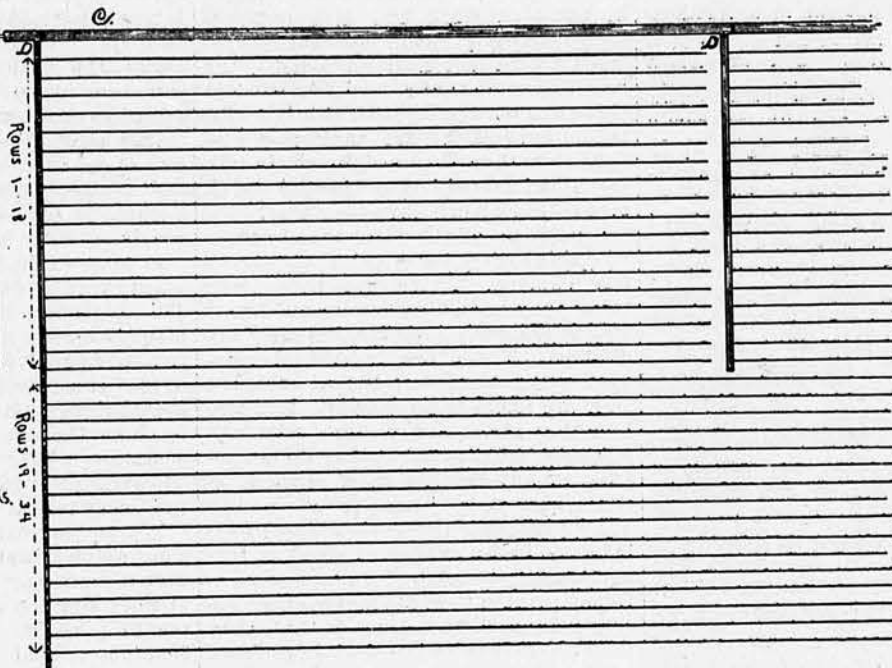


PLATE II.

of the bottom and sides, which is explained by the fact that the earth upon which the embankment rests has not been puddled or made water-tight.

Then, when the earth is taken from the interior to build upon the bank, lowering the bottom, that much in depth is left at the base of the embankment, exposed to the heaviest pressure of water.

The pond which was upon the land leased by the station at Garden City had been built in this way and gave constant trouble, which was only remedied by working the entire embankment over, throwing it in and tramping it thoroughly with teams from the bottom up.

A much better plan is to lay off the ground 90x90 feet, or the size the pond is to be outside of banks, run one or two furrows around this, forming a ridge that will hold a little water; start the windmill and run on water till the whole is well soaked; then, with a bunch of horses or any kind of stock that can be driven over it, the whole mass is worked into a mud. As this settles and becomes stiff enough it is smoothed down with a plank and tramped till as smooth and firm as a floor. It should be slightly lower at corner where the outlet is to be.

On this well-puddled bottom, shown at A, Plate I. [Plate I. was printed in last week's KANSAS FARMER], the walls can be built up, putting on the earth in thin layers and thoroughly tramping and settling it all the way. A slope of 45°, or having one foot rise to one foot run, is as steep an embankment as can be maintained, and a more gradual slope on the inside will perhaps be better, unless the bank can be promptly sodded over to keep it from washing.

The outlet box should be made long enough to reach well through the bank at either end. Use two-inch plank of good quality. Pieces of 2x6 for the sides, with top and bottom 2x12, will give an outlet 6x8, which will be ample. The lumber should be well jointed and the joints laid with strips of cloth soaked in white lead. The valve is usually placed on the inner end of the box, that the pressure of the water against it may help to keep it tight. It is most commonly made as a gate to be lifted, having a standard extending above high-water mark and reached by a platform from the bank. The end of the box is dressed off square and true. The gate should be of good clear lumber, faced up to match the end of the box, and covered with pump

heavy circular valve of iron sets down onto this, like a lid on a kettle, and is kept centered by a conical guide of iron rods. This valve is raised by a rod operated by a lever from the platform. This is the device of Mr. E. E. Frizell, of Larned, Kas. The valve used in our Garden City station pond is made by cutting off the inner end of the outlet box at an angle of 45° and

worked. Around these wire netting may be tacked to keep weeds and trash from clogging the outlet.

The banks should be finished up in good shape, tramping every inch of the earth well. Sodding the inner face is an excellent way to keep the earth from washing at the start. Of course such grass will not live be-

ing breaks and losses are sure to occur if the work is carelessly done. The size of the ditch needed will, of course, vary with the slope of the ground. A strong slope will carry off a large volume of water in a quite small ditch. If the ditches do not hold well, as is apt to be the case in a loose or sandy soil, it may be necessary to puddle them. This is done with a short log or trough of the right shape, hauled over the bottom after a little water is run in to make a mud.

At the Garden City station, a record of the water used in one instance shows that with the gate opened to give an outlet of 4x8 inches, we drew off, as nearly as could be estimated, 7,800 cubic feet of water in an hour's time, starting with a head of three feet and lowering it to about two. The main ditch was twenty inches wide on the bottom, forty inches wide on top, and twelve inches deep. From this water was distributed equally to three laterals, each twelve inches wide on the bottom, thirty inches at the top, and seven inches deep. At the branching of each lateral was a box with a twelve-inch opening, the gates to these being raised from two and one-half to three and one-half inches to properly divide the water. This volume of water filled the main ditch and laterals as full as they could safely carry and kept two men very busy to take care of it.

In Plate II., at B, is shown position of outlet box to discharge into ditch, C. At D D, laterals lead out to the field prepared for furrow irrigation. At such points should be placed boxes securely fastened down, having gates of suitable size arranged with standards and pin holes to allow them to be set at any desired height.

Water should not be carried over the land too great a distance, either by flooding or by furrow irrigation, as the upper part of the land absorbs too large a proportion of the water before the lower part has enough.

In irrigating small fruits, it is better to divide a long land into blocks of 100 or 150 feet in length, running the water from the main ditch out to each one separately, than to run down through the rows for the whole length.

This is illustrated in Plate II., in which the distance between the laterals, D D, is 150 feet. Rows 1-18 can be watered much more economically than rows 19-34, where the water is carried clear through. It must not be forgotten that this whole field should be brought to as even a surface as is pos-

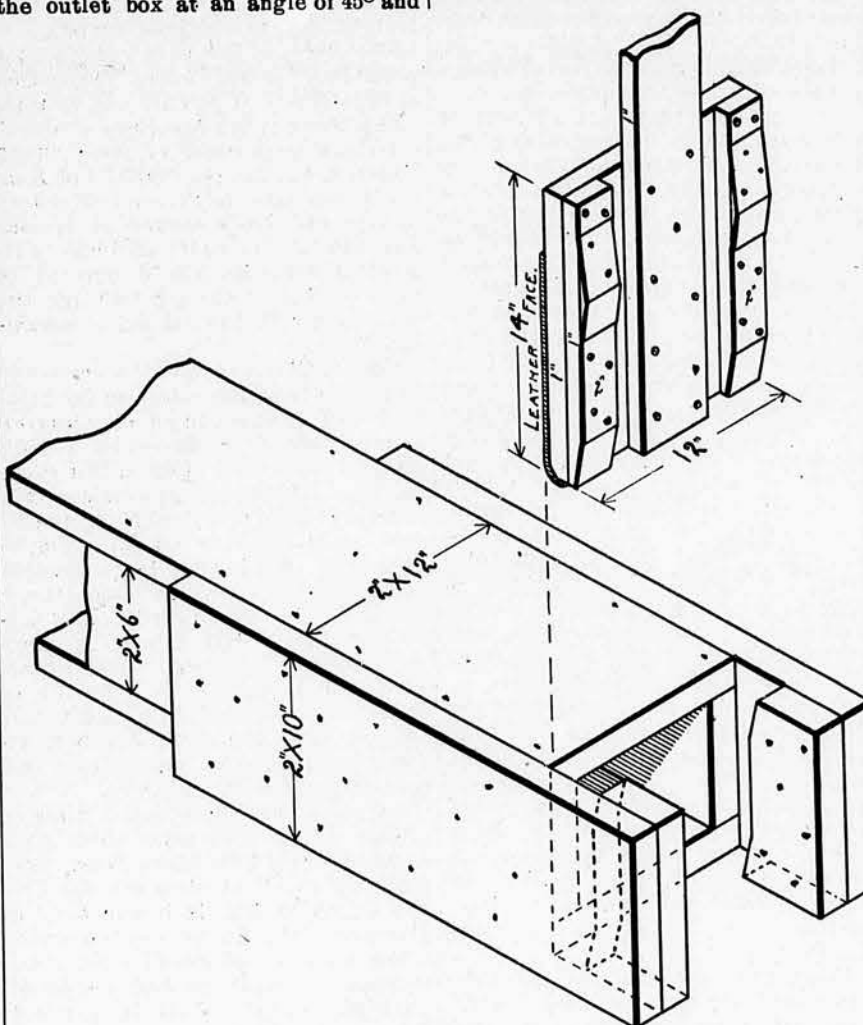


PLATE III.

Showing perspective view of outlet box with guides attached for holding valve. The valve shown above should be faced with pump-valve leather, securely tacked on. A carpenter's bench screw attached to the upper end of the standard will raise and lower this valve very nicely from platform. Do not have valve fit too tightly before the lumber has swelled.

screwing onto it an iron face covered with packing leather. The valve is also of iron, hinged to this, accurately fitted and raised by a rod attached to a ring. An improvement on this has been made by attaching the rod to the under side of the valve and carrying it out horizontally through the outlet box, where it is worked by a lever. This enables the valve to be drawn down perfectly tight against packing.

low water line; but in the meantime plant the coarse sedges and water grasses that naturally grow in moist places, and in a short time their roots will effectually hold the banks in place.

Some ponds, where trees have been planted around them and water plants are growing in the margin, are made very attractive, adding greatly to the beauty of the home rather than marring it.

sible in order to secure the best results. If the field is a plane sloping with the main ditch, C, and from it in the direction of the laterals, then the water can be delivered evenly over the whole.

This is the ideal irrigation field; and much of our land in Kansas is in that condition, or may be brought to it by the use of a plank leveler, which can be easily constructed. Land that is more or less uneven and broken may be managed by curving the main ditch and laterals around, so as to follow the higher ridges and keep the proper fall, sometimes even carrying the water over low places in sluices; but this involves a good deal of work in laying out and still more in cultivating, as it often cuts the land up into small and irregular patches.

In concluding this subject, it is but just to say that the irrigation of even one acre of land involves a great deal of work when compared with the ordinary methods of culture practiced in our State. There are many things about the successful use of water, only to be learned by practical experience. It is wise not to attempt too much at first, and to be willing to make haste slowly. In the long run, we may expect that the profits of fruit-raising or gardening by irrigation will be sure and ample enough to justify the increased outlay.

What Kind of Corn?

The Iowa Experiment Station, in a recent report, says that it has been the custom to test and improve by selection and good cultivation some of the leading varieties of corn best suited to its locality. The object is stated to be to develop a large ear as will ripen with certainty under Iowa conditions, at the same time looking to uniformity of type, straight even rows, deep kernels, well carried out to the tips, and firmly set on the cob, giving a solid, deep-grained, well-shaped ear of bright yellow color, and a stalk of medium or large size uniformly bearing one or more good ears. The varying yields of some of the varieties mentioned illustrate the importance of having the right seed:

	Bushels per Acre.	Shelled Corn to 70 lbs. of Ears.
Iowa Gold Mine.....	59.5	60.5
Legal Tender.....	64	55
Early Yellow Rose.....	85.2	62
Mortgage Lifter.....	70.2	59
Nickel Plate.....	107	59
Stanner's Yellow Dent.....	79.3	56.5
Capital.....	59.5	60
White's Mammoth Red.....	47.1	56.5

If the varieties shall maintain their relative positions as to yields it would seem an act of folly to fail to plant the Nickel Plate variety.

Winter Packing in the West.

The Cincinnati Price Current gives the following table of total number of hogs packed in the West during winter seasons, and cost of hogs per 100 pounds, live weight, according to Cincinnati Price Current special reports since 1849, and estimates previously from best available data:

Season.	No.	Cost.	Season.	No.	Cost.
1895-96.	6,815,800	\$3.08	1869-70.	2,490,873	\$8.18
1894-95.	7,191,520	4.28	1867-68.	2,781,084	6.36
1893-94.	4,884,082	5.26	1866-67.	2,490,791	5.78
1892-93.	4,633,520	6.54	1865-66.	1,785,955	9.34
1891-92.	7,761,216	3.01	1864-65.	2,422,779	11.46
1890-91.	8,173,128	3.54	1863-64.	3,261,105	5.36
1889-90.	6,663,802	3.66	1862-63.	4,069,520	3.36
1888-89.	5,483,852	4.99	1861-62.	2,893,666	2.42
1887-88.	5,921,181	5.04	1860-61.	2,155,702	4.57
1886-87.	6,439,009	4.19	1859-60.	2,350,822	4.73
1885-86.	6,298,995	3.66	1858-59.	2,465,552	5.02
1884-85.	6,460,240	4.29	1857-58.	2,210,778	3.89
1883-84.	5,402,064	5.18	1856-57.	1,818,468	4.75
1882-83.	6,132,212	6.28	1855-56.	2,489,502	4.60
1881-82.	5,747,760	6.06	1854-55.	2,124,404	3.37
1880-81.	6,919,456	4.64	1853-54.	2,534,770	3.35
1879-80.	6,950,451	4.18	1852-53.	2,201,110	4.81
1878-79.	7,480,648	2.85	1851-52.	1,182,846	3.56
1877-78.	6,505,446	3.99	1850-51.	1,332,867	3.00
1876-77.	5,101,308	5.74	1849-50.	1,652,220	2.13
1875-76.	4,880,135	7.05	1848-49.	1,560,000	2.75
1874-75.	5,506,226	6.66	1847-48.	710,000	2.60
1873-74.	5,466,200	4.34	1846-47.	1,825,000	2.85
1872-73.	5,410,314	3.73	1845-46.	940,000	2.80
1871-72.	4,831,558	4.12	1844-45.	790,000	2.65
1870-71.	3,695,251	5.26	1843-44.	245,000
1869-70.	2,635,312	9.22	1842-43.	1,675,000

For hoarseness, sore throat and cough, take Dr. Bull's Cough Syrup, the specific for affections of the throat and chest.

Home-Seekers Excursions.

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

Weather Report for March, 1896.

Prepared by Chancellor F. H. Snow, of the University of Kansas, from observations taken at Lawrence:

The past month has had a remarkably small amount of rainfall. Only one March—that of 1879—has had less. In other respects the month was normal. The temperature was only slightly below the average, although the number of winter days was high. The cloudiness and humidity were slightly below, and the wind slightly above the average.

Mean temperature was 39.16°, which is 2.11° below the March average. The highest temperature was 76.5°, on the 30th; the lowest was 10.5° on the 13th, giving a range of 66°. Mean temperature at 7 a. m., 31.38°; at 2 p. m., 48.17°; at 9 p. m., 38.54°.

Mean cloudiness was 48.81 per cent. of the sky, the month being 0.29 per cent. clearer than usual. Number of clear days (less than one-third cloudy), twelve; half clear (from one to two-thirds cloudy), ten; cloudy (more than two-thirds), nine. There were three entirely clear days, and four entirely cloudy. Mean cloudiness at 7 a. m., 57.26 per cent.; at 2 p. m., 51.45 per cent.; at 9 p. m., 37.74 per cent.

Rainfall, including melted snow, was 0.62 inch, which is 1.75 inches below the March average. The entire rainfall for the three months of 1896 now completed is 2.05 inches, which is 3.04 inches below the average for the same months in the twenty-eight years preceding. Rain or snow in measurable quantities fell on five days; in quantities too small for measurement on four days. The entire depth of snow was 2.1 inches. There was one thunder shower during the month.

Wind was southwest fourteen times; northwest, twenty-five times; north, ten times; south, eight times; northeast, fifteen times; east, twelve times; southeast, five times; west four times. The total run of the wind was 14,248 miles, which is 566 miles above the March average. This gives a mean daily velocity of 459 miles, and a mean hourly velocity of 19.1 miles. The highest velocity was 50 miles an hour, between 2 and 3 p. m. on the 27th.

Barometer.—Mean for the month, 29.126 inches; at 7 a. m., 29.140 inches; at 2 p. m., 29.100 inches; at 9 p. m., 29.138 inches; maximum, 29.599 inches, at 2 p. m. on the 23d; minimum, 28.444 inches, at 7 a. m. on the 28th; monthly range, 1.155 inches.

Relative humidity.—Mean for the month, 64.62 per cent.; at 7 a. m., 79.25; at 2 p. m., 44.42; at 9 p. m., 70.19; greatest, 100, on several occasions; least, 20, at 2 p. m. on the 25th. There were no fogs during the month.

As baldness makes one look prematurely old, so a full head of hair gives to mature life the appearance of youth. To secure this and prevent the former, Ayer's Hair Vigor is confidently recommended. Both ladies and gentlemen prefer it to any other dressing.

Publishers' Paragraphs.

B. H. Pugh, of Oakland, Kas., whose advertisement of pure Early Ohio seed potatoes has appeared in the KANSAS FARMER for several weeks, reports the entire stock sold, and orders for two car-loads more than he can supply. Readers of the FARMER ordered by the bushel and by the car-load and the car-load orders were duplicated until Mr. Pugh is obliged to cry, "hold, enough!"

Augusta, Maine, is one of the most charming of the New England capitals. It has been the home of many prominent political men besides the late Mr. Blaine, and, standing as it does on the banks of the busy Kennebec, it has been for years an energetic manufacturing centre. The city is the subject of an admirable article by Ewing W. Hamlen, in the April number of the New England Magazine. The important features in its history and its present life are well brought out, it is beautifully illustrated, and it will be read with pleasure by hundreds of people beyond the borders of Maine, within which it will have a special interest. Warren F. Kellogg, 5 Park Square, Boston, Mass.

The Western Exporting and Importing Company, of Topeka, Kas., have reorganized and elected the following officers: J. S. Dummer, of Leocompton, Douglas county, President; James Godwin, Menoken, Shawnee county, Vice President; J. B. Reed, Tecumseh, Shawnee county, Treasurer, and J. F. Helms, Silver Lake, Shawnee county, Secretary. These men are representative farmers. The object of this company is to avoid from five to seven short hauls and as many profits and commissions, and take instead one long haul between the producers of the West and consumers of Europe and one commission. The European agent sailed on the Majestic, on Wednesday of this week. Office, room 5, Office block, Topeka, Kas.

In this issue our readers will again find the familiar advertisement of the Empire Machine Co., of Richmond, Ind. Their fence machines, which have been well and



THE PREMIUM ENGINE
At Garden City Fair.

The WITTE ALWAYS TAKES FIRST PREMIUM.

IRRIGATION. Can be used for feed-grinding, shelling, etc.

WE GUARANTEE RESULTS!

WITTE IRON WORKS, Kansas City, Mo.

favorably known for several years, have been greatly improved and they now offer a machine that, for practical and economical fence-building, certainly cannot be excelled. It will weave from three to nine cables with wood pickets of any size or kind, or where wood is not available or desired, they will furnish steel pickets which make one of the very best farm fences ever devised. Any of our readers wanting good farm fence wire, or fence supplies, will do well to write for their catalogue, which contains much valuable information in regard to fence-building. The reputation of this company is an assurance of fair dealing and their prices will be found to suit the times.

SPRAYING FRUIT TREES.—The benefits to be derived from spraying fruit trees are now so well known that tens of thousands of farmers and fruit-growers are looking for a good spray pump. It is difficult to determine which of the many pumps advertised is best, as all pumps look well on paper. There is no safer way than to take the advice of our leading State entomologists and large fruit-growers, and profit by their experience. First, they say that brass is the only material that will withstand the action of chemicals used in spraying. You should therefore buy an all brass pump, as cast-iron soon rusts, corrodes or breaks, and becomes worthless. Second, they say that the pump should be fitted with fine spray nozzles and a good quality of hose. Third, that the pump should be easy to operate. Fourth, that it should have a reliable automatic mixer. Fifth, that it should have expansion valves, and, sixth, the manufacturer should guarantee satisfaction. The spray pumps manufactured by the P. C. Lewis Manufacturing Co., of Catskill, N. Y., it is claimed fully meet all the requirements, as they are made entirely of brass. The hose is guaranteed to stand pressure of 300 pounds. They furnish either the fine graduating spray nozzle or Vermorel nozzle. Their pumps are equipped with reliable automatic mixers and expansion valves. They warrant all pumps for three years and guarantee that each pump sold shall give absolute satisfaction or money refunded, and they are endorsed by the leading entomologists of the United States. We would suggest that parties interested in spraying write them for their illustrated catalogue and full treatise on spraying, which will be sent free.

Smooth roadway. Quick time. Perfect passenger service. Uniformed train porters for the convenience of first and second class patrons. Through sleeping cars between Chicago, Buffalo, New York and Boston. Unexcelled dining car service. No change of cars for any class of passengers between Chicago and New York city via the Nickel Plate Road. J. Y. Calahan, Gen'l Agent, 111 Adams street, Chicago, Ill. 52

Unequaled Service

Denver to Chicago via Kansas City is given via the UNION PACIFIC and Chicago & Alton railways.

Through Pullman Sleepers, Pullman Dining Cars and Free Reclining Chair Cars leave Denver Daily. The Union Pacific is the great through car line of the West. Ask your nearest ticket agent for tickets via this line. E. L. LOMAX, Gen. Pass. and Ticket Agent, Omaha, Neb.

HOME-SEEKERS' EXCURSIONS.

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

These tickets will be sold to various points in Oklahoma, Texas, Arkansas, Missouri, Arizona and Indian Territory. Dates of sale will be April 7 and 21, and May 5, with final limit of twenty-one days from date of sale. For tickets and all particulars, call on J. P. ROWLEY, City Ticket Agent Santa Fe Route, Topeka, Kas.

ALLIANCE Seed House
GOVE CITY, KAS.
Is acknowledged by all to be the cheapest reliable Seed House in the West. Catalogue free on receipt of stamp. Give us a trial.

KANSAS HOME NURSERY
Grows the best New and Standard Fruits and Ornamentals. Own the largest and oldest experiment grounds in the West. Offer new Apricots, Raspberries, Strawberry and Apple. Catalogues free. A. H. GRIESEA, Box J, Lawrence, Kas.

IT DOESN'T COST YOU ONE CENT TO GET OUR CATALOGUE OF WINDMILLS, Pumps and Gasoline Engines
FAIRBANKS, MORSE & CO., Station "A," KANSAS CITY, MO.

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

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

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

EVERGREENS.
Largest stock in America, including Colorado Blue Spruce and Douglas Spruce of Colorado. Also Ornamental, Shade and Forest Trees, Tree Seeds, Etc. R. DOUGLAS & SONS, Waukegan, Ill.

CHOICE EARLY SEED POTATOES!
Extra Early Six Weeks, 55 cents per bushel. Early Kansas, 50 cents per bushel. Early Ohio, Early Beauty of Hebron, Early Rose, Early Sunrise, 30 cents per bushel. Medium and late varieties: Snowflake, Blue Victor, Burbank, White King, Late Rose, 30 cents per bushel. Potatoes good average size and sound, put up in sacks or barrels and delivered to railroad depot here. Address EUGENE R. HAYES, Topeka, Kas.

Carman No. 1 Seed Potatoes, \$1.00 Per Bushel F. O. B.

I have got a chance to secure a few bushels of these celebrated potatoes, from the American Bottoms, of Illinois, grown under straw mulch, and guaranteed true and sound. Ten per cent. discount on ten bushels. I can recommend this potato. CLARENCE J. NORTON, Morantown, Kas.

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

RED RIVER VALLEY SEED POTATOES

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

FOR SALE!

Choice Varieties of Best Early SEED POTATOES.

Early Six Weeks.....60c. per bushel
Early Kansas.....50c. per bushel
Early Ohio.....30c. per bushel
Early Rose.....30c. per bushel
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All the above varieties good size and sound, in sacks or barrels, delivered to any railroad depot here.

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The Home Circle.

SWEETHEARTS ALWAYS.

If sweethearts were sweethearts always,
Whether as maid or wife,
No drop would be half as pleasant
In the mingled draft of life.

But the sweetheart has smiles and blushes
When the wife has frowns and sighs,
And the wife's have a wrathful glitter
For the glow of the sweetheart's eyes.

If lovers were lovers always,
The same to sweetheart and wife,
Who would change for a future Eden
The joys of this checkered life?

But husbands grow grave and silent,
And care on the anxious brow
Off replaces the sunshine that perished
With the words of the marriage vow.

Happy is he whose sweetheart
Is wife and sweetheart still,
Whose voice, as of old, can charm him,
Whose kiss, as of old, can thrill;

Who has plucked the rose to find ever
Its beauty and fragrance increase,
As the flush of passion is mellowed
In love's unmeasured peace;

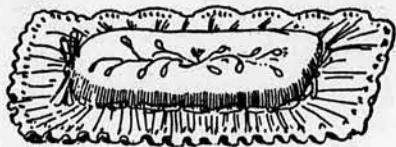
Who sees in the step a lightness;
Who finds in the form a grace;
Who reads an unaltered brightness
In the witchery of the face

Undimmed and unchanged. Ah, happy
Is he crowned with such a life!
Who drinks the wife pledging the sweetheart,
And toasts in the sweetheart the wife!
—Domestic Monthly.

DRESSING THE BUREAU.

Dainty Trifles That Can Be Had at Very Little Expense.

The very latest fad in bureau arrangement is to have everything slight and dainty as possible. The handsome, square, cumbersome pin-cushion so long in vogue, is now placed on the toilet table in company with the pretty handkerchief case and glove-box. But the up-to-date cushion for the bureau is almost small enough to be placed within my lady's work basket. It is long and narrow, with a frill of silk all around it, over which is gathered another frill of delicate lace, and the tiny bows, with which it is adorned, are made of the narrowest of baby ribbon. A pretty sample of one of these cushions was



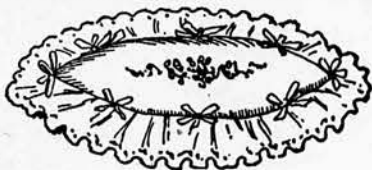
BUREAU CUSHION.

made of pink satin, and stuffed with bran or sawdust until it was tight and firm as if carved out of wood or ivory. Over this was a cover of thin white lawn or bolting-cloth, with a few small rosebuds embroidered in pink and light green. The cushion part, when stuffed, measured 7½ inches in length, and not quite three inches in width. The silk frill, which was sewed around the edge, was pinked in sharp points, and was about 2½ inches wide. The lace frill was the same width, and the small bows made of long, flat loops of daisy ribbon were placed about the edges, as shown in the drawing.

Another of these cushions was made of blue satin, with forget-me-nots on the white cover; and still another, which was made of yellow silk, had butternuts embroidered across the top. Some are made eight-sided, like an elongated octagon, and we give an illustration of one made in this style.

The pin tray to accompany these cushions should be Dresden china or delicate celluloid, and long and narrow in shape. There is always something new in burnt match receivers, but few are so satisfactory as the diminutive glass tumblers so long in use.

Another way of "fixing up" this useful small receptacle is to make a net-



PIN TRAY.

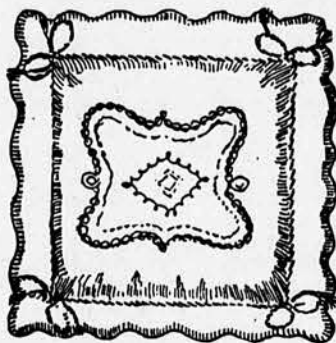
work of daisy ribbon by sewing it to fit the glass and carrying the ends to meet six inches above the top, where they are tied in a bow.

Out of stiff, white cardboard cut a small circle, four inches in diameter, and notch the edge. Cut an opening in the center to fit the small glass, and

slip over, letting it rest upon the edges of ribbon which form the holder. Now gather a frill of silk and lace, similar to the one described, about the pin-cushion, and fasten it above the circle of cardboard, where it will flare out prettily, quite like a flower.

The fad for denim seems to outlast all others, chiefly because it has proved so useful and durable. Whole rooms are furnished in denim—cushions, table-covers, portieres—are made of this material, and it is even used on the floor in place of carpet. Now that it can be procured in various colors, all sorts of pretty things are made of it.

A handsome new sofa pillow is of generous dimensions, and made out of two



SOFA PILLOW.

square pieces of blue denim. The larger piece is 28 inches square; the other is 18 inches square. The smaller piece is placed on the center of the larger, leaving, of course, a margin of five inches all around. It is stitched on securely along three sides, and a few inches at each end of the fourth side, leaving an opening large enough to force an 18-inch-square pillow within.

The margin is buttonhole-edged with long, coarse stitches in heavy white silk, and forms an effective border for the pillow, falling loosely, and with its irregular scallops, somewhat like a frill.

The small square has a design stamped first, and then followed with fancy white braid, buttonhole-edged on with heavy white silk. It is finished about the edge with white cotton cord, tied at each corner in bow and tassels.

The long dotted line in the illustration shows the length of slit left open for the pillow to slip into its pretty case. —Gretchen Trivie, in Home Queen.

MAKING OVER SKIRTS.

An Effectual Remedy for One That Is Good But Too Short.

One of the trying things a careful woman has to undergo is the accumulation of skirts whose bindings about the hem are muddled and frayed. The old binding may be ripped off and a new one put in place, and the skirt neatly prepared for more wear. But there comes a time when the skirt will be entirely too short should another binding be attempted, but the skirt is a nice one, a little soiled, perhaps, but too short for mending. If the goods is black, so much the better, as good black always makes over to greater satisfaction than colors. Rip it carefully apart, take the stiffening out and wash the goods nicely. When dry enough press it smooth and free of wrinkles, and put in a new interlining of stiffening. About the hem put another piece of black goods to make what is lacking in length. This should be bias. To cover the seam four little folds of black silk are put on, one just above the other—very much after the fashion of milliner's folds. If the skirt is still too short and fits smoothly over the hips, a yoke may be fitted very neatly; a pointed yoke of the silk folded like the bottom trimming, and above that about the waist a ribbon belt fastening in a looped bow at the back of the belt and yoke will make the garment the desired length and add a smart finish.

Ways and Means After the Bath.

The average baby, on being lifted from his morning tub, usually begins to shriek madly. It is not, as one might easily imagine, because he hates to leave that comfortable spot; but it is because the cold air strikes suddenly upon his little wet chest and stomach and gives him an unpleasant shock. If he is lifted sideways, or even head first, and rolled up quickly in his warm bath blanket he seems to enjoy the operation much better, and usually waits until he is half dressed before he begins to wail.—Babyhood.

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

Royal Baking Powder

ABSOLUTELY PURE

Proportion and Symmetry.

What is a well-proportioned waist? Lady Haberton says: "The true proportion is a difference of ten inches between the circumference of the bust and that of the waist. Thus a woman whose bust measures 36 inches should have a waist measuring 26 inches. Bust 40 inches, waist 30 inches, and so on. Very few corsets are made in this proportion, and if they were, still fewer people would buy them, as fashion decrees that the waist should measure from 12 to 15 inches less than the bust." In the course of time, women may come to realize that true artistic effect is only attained by a proper respect for proportion and symmetry. Plenty acknowledge this truism in most things but dress, where they cannot avoid flying to extremes.—The Gentlewoman.

Bedquilts Used as Portieres.

The old-fashioned, hand-woven bedquilts, such as our grandmothers made, are now the fashion for portieres. Those which were woven in blue and white are just the thing for a delft room. Though they may look a bit faded this will not detract from their artistic value. Besides being useful for portieres, these old-time bedspreads make admirable couch covers.

ARE YOU ONE of those unhappy people suffering with weak nerves? Remember that the nerves may be made strong by Hood's Sarsaparilla, which feeds them upon pure blood.

Hood's PILLS are the best after-dinner pill; assist digestion, prevent constipation. 25 cents.

Great Chance to Make Money.

MR. EDITOR:—I wish to tell others of my success these hard times. We had so many fires and so many valuables burned, being out of a job I decided on selling the new family fire-proof deposit case for storing deeds, mortgages, notes, receipts, money and valuables. I ordered a sample family size from the World Manufacturing Co., Columbus, O. Sold six first day, right around home, at a profit of \$24. Last week I made \$87. They are nice and so cheap all can buy. The firm make aluminum goods and other good sellers for agents. I shall make \$1,000 clear this winter sure. Reader, write the company for a job. JAY COX.

A Look Through South Missouri for Four Cents.

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

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

J. E. LOOKWOOD,
Kansas City, Mo.

Some men so dislike the dust kicked up by the generation they belong to, that, being unable to pass, they lag behind it.—Hare.

The stage is a supplement to the pulpit, where virtue, according to Plato's sublime idea, moves our love and affection when made visible to the eye.—Disraeli.

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



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

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The Young Folks.

Written for KANSAS FARMER.

MEMORIES RECALLED.

BY FRANK W. ELLIOTT,

Ah! well do I remember,
Lo, many years ago,
The cold wind of December,
With its frosty ice and snow.

I see, as if 'twere yesterday,
The hill beyond the vale
Snow-crowned to-day;—beset in May
The valley's winding trail.

'Neath stately trees the mansion stood,
Wherein was born and bred
The brothers and the sisters of my childhood,
Long numbered with the dead.

'Twas here in this sequestered spot
I first came nature knew;
'Twas here I learned and ne'er forgot
Love's lesson kind and true.

The years since then have been to me
A vast and fearful dream,
As o'er the earth and the dark blue sea
I've wandered, hoping thus myself to seem.

And, now, when life's winter months
Are closing o'er the scene,
I turn with fondest care for once
The leaves that memory keeps so green.

With fondest care I view them o'er
And cull from memory's golden urn
The thoughts and dreams of childhood's store.

Ah! happy days that ne'er return.
Denton, Kas., March 28, 1896.

ROBBING A SPIDER.

A Simple Device for Reeling Out the Web from Its Spinners.

This is written for boys only. Girls, of course, wouldn't touch the nasty things—not for anything. Unless, indeed, there is a "new" girl, too; and I rather hope there isn't, for I am such an old boy now that I don't like innovations. The old girls—that is, the sort of girls I used to know—seem to me hardly to admit of improvement. And they just hated spiders. But I was a boy, and to me a big, fat, sprawly spider was one of the most interesting things in nature.

One day I was watching a fine large specimen completing his web. The stay-ropes were already stretched across the open window; and beginning where they crossed he was hobbling round and round fastening the cross-lines of fresh shiny silk.

Suddenly it occurred to me that I might reel out that silk for my own use



DUEL BETWEEN SPIDER AND LARGE ANT.

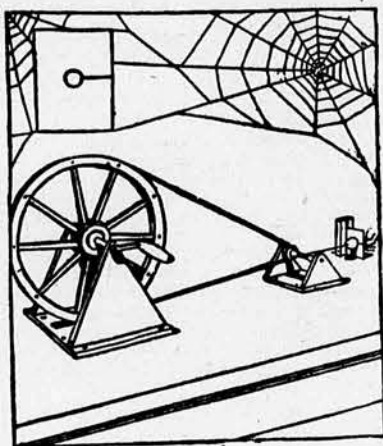
—or amusement. Really, I fancied myself on the verge of a great discovery. Why might not a most beautiful fabric be made of that glistening material? Who could tell what might come of it?

So I managed to get hold of the end of the strand, and began to draw it out. Now if there is anything that a spider particularly detests it is to be robbed of his silk; no pack-peddler values his stock half so highly. As soon, therefore, as my victim perceived what I was at, he reached back with a claw and snipped the thread. This was repeated several times.

Then I saw that I must devise some means for preventing this sort of interference. So I cut a small round hole in a bit of cardboard, and made a slit from the hole to the edge—see cut. This arrangement I slipped about my spider's wasp-like waist. As his legs were on one side of the card, and his abdomen with the spinners on the other, he could no longer meddle with the thread; neither could he get out of the sort of pillory in which I had placed him. He wasn't hurt in the least, but he was altogether helpless and in the worst of humors. Then I got hold of the strand

with a pair of tweezers and proceeded to draw out as much silk as I pleased, winding it about my finger.

But this process was slow, and did not satisfy me. I wanted spider's silk in bulk; my head was full of schemes for producing a new and beautiful fabric from this bright and elastic material. I therefore mounted a spool upon a spindle in such a way that I could make it rotate with great speed by means of a band running from a wheel—about eight inches in diameter—which I turned with a crank. To this spool I attached the end of the thread, and set my machine in motion. It was a great success. The spindle sang like a humming-top as it spun on its bearings, reeling his precious silk from that disgusted spider until the glistening thread covered the spool as with a sheet of varnish. An angrier insect, I fancy, never lived; but what could he do about it? And afterwards I fed him well by way of compensation. Thus far my plans had worked to perfection; but when I endeavored to



REELING SILK FROM THE RELUCTANT SPIDER.

utilize the material so unscrupulously obtained, like many another thief I became involved in difficulties. I found that the adhesive strands—so perfectly adapted to the owner's own business of fly-catching, were not so well suited to manufacturing purposes as I had fondly hoped. In fact they had glued themselves together so firmly that I was never able to unwind them from the spool; and my invention, though highly interesting, did not prove remunerative—a lucky thing for the spiders.

There were other experiments that I tried with these ungainly pets—some of them too cruel, as I now realize, but I was quite unconscious of it then. For example, I often wafted flies against a large fresh web, and in this way I presently discovered that the ordinary spider, though he has eyes with numberless facets, is really almost blind. He does not trust to sight at all. He stands waiting at the center of his web, his feet clutching the strands. When a fly strikes against the meshes the spider gives the whole fabric a sharp shake. If the fly remains still the owner of the web seems unable to locate him, but if he buzzes or struggles Mr. Spider is down on him in an instant, and hastily incasing him in a winding sheet of silk, bears him back and hangs him up to be devoured at leisure.

Once, I remember, I presided at an encounter between a spider and a bumble bee. The bee, of course, buzzed loudly. The spider rushed upon him, was stung, and hastily withdrew. Again the bee buzzed, and again the spider, unable to resist his instinct, rushed to the attack—with the same result. At last, however, the spider managed to get his silken shroud about his formidable prey, and bore him off in triumph.

He was not so fortunate, however, with a large, black ant which I treacherously dropped upon his web. The ant began to struggle, and down came the spider; whereupon the ant coolly bit off one of his legs. The spider withdrew in dismay. But being a ravenous old fellow of great size, the destroyer of unnumbered flies, he could not forbear a second attack. He strained his mandibles without effect on the hard armor of the ant, who meanwhile nipped off another leg.

In the third attack the ant began to operate on his enemy's abdomen; and the spider, escaping with difficulty, re-

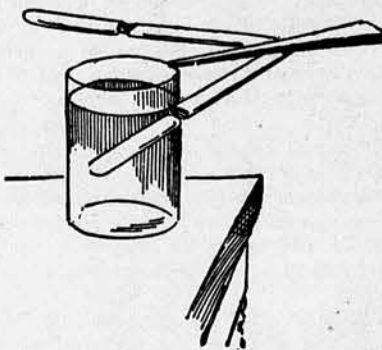
treated utterly discomfited. Then the ant proceeded to break the meshes, and fell unharmed to the floor. Thus were the flies avenged. C. KAY.

MIRACULOUS BALANCING.

Amusing Experiment Which Would Seem Almost Impossible.

The harder a thing seems, the more interesting it is. Here is a little experiment, very simple, too, which seems almost impossible on the face of it—it seems to defy the law of gravitation.

You take a tumbler, says the Popular Science News, filled partly with water,



so as to stand firmly. Then take a strip of wood, about the length of an ordinary lead pencil, half an inch wide and an eighth of an inch thick and tapering to a point at one end. About one-third of the way from this end you wedge two ordinary table-knives into the strip. Now balance the "tongue" of the strip carefully upon the edge of the tumbler, moving it slightly backward or forward to make the equilibrium perfect. When you have found the center of gravity—which may occasion you a little trouble at first—you will be rewarded by seeing the frail contrivance delicately poised in an exquisite balance, which at first sight seems almost miraculous.

How to Mend Your Gloves.

Mend your gloves with fine cotton thread instead of silk. The silk is apt to cut the kid. In mending gloves turn them inside out and sew them over and over. If there is a tear in the glove set a piece of kid under it and secure it with a few stitches.

KEYSTONE WOVEN WIRE FENCE

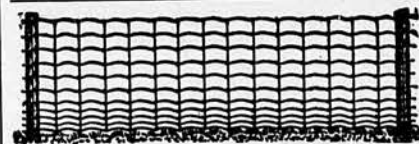


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PAGE WOVEN WIRE FENCE CO., Adrian, Mich.



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has always merited condemnation.



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

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Electros must have metal base.

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

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

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

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

Address all orders—
KANSAS FARMER CO., Topeka, Kas.

The demand for the spray calendar was so great last year and has opened so briskly this spring, that we print it in full on our Horticultural page. Save this paper for reference.

"Exaggerated pessimism" is what Henry Clews calls the prevailing feeling in Wall street just now. He is sure the conditions are worse in that center than in other parts of the country.

By an unfortunate mistake, proper credit was omitted last week for the portion of Bulletin No. 53, Kansas Experiment Station, which appeared in the "Irrigation Department" of the KANSAS FARMER.

P. D. Armour, the packing-house magnate, is reported to have predicted in an interview last Monday that wheat will very soon bring a dollar a bushel. It has been understood for several weeks that Mr. Armour was a heavy buyer of wheat.

The famous Hillmon case was tried for the sixth time at the last term of the United States court, in Topeka, and for the sixth time the jury disagreed. The amount of insurance claimed and the interest thereon amounts to more than \$40,000.

We have received from the Armenian Relief Committee a book prepared by an old resident of Turkey, summarizing the situation in Armenia. Written by one who has made a specialty of the subject, it is vouched for by the committee as accurate. It retails at 10 cents a copy. Address the Armenian Relief Committee, Chicago.

Financiers are expecting some exports of gold in the near future. The price of foreign exchange is now almost at the point to make exporting profitable. When our nabobs who annually fly to Europe during the summer begin to make their drafts on their American bankers a considerable outflow of gold from this country may be expected and the usual scare at its departure will masquerade in Wall street.

There will be a grand reunion on the Shiloh battle field of the survivors of that battle on May 29 and 30. Prominent speakers from North and South will deliver addresses. One feature of the program will be the dedication of a monument by the Ninth Illinois Infantry, at the National cemetery, in honor of their comrades who fell at Shiloh, they having lost 365 men, killed and wounded, in the battle. This will be the greatest meeting ever held on the battle field. The graves of the fallen comrades will be decorated with flags and flowers. Reduced rates will be given on the railroad and steamboat lines. For further particulars, address Col. E. T. Lee, Secretary Shiloh Battlefield Association, Monticello, Ill.

RETURN TIDE TO THE COUNTRY.

A fact often deplored is the tendency of populations to flock to the cities. Readers of ancient history do not forget that these tendencies have been manifested in a marked degree for some time before each downfall of society. It is perhaps natural for the very strong, the energetic, the ambitious, to seek the activities, the competitions, the spur to action, the opportunities at hand incident to concentrated populations. These, therefore, go to the cities to seek a field for their powers. Then follow after them the average man, the mediocre and the inefficient. The average man finds in the competition something of a spur, and he may, if possessed of a little above average perseverance, escape a descent into that great level of city humanity known as "the masses." The mediocre and the inefficient engage in a struggle for existence, in a competition for the work which employers control, and in a contention against reduction of wages without reasonable hope of betterment of conditions.

The rush of "the masses" for the cities has swelled the populations of modern old world cities to proportions unknown to ancient times, and is crowding the centers in this country to the danger limit. And yet the increase of population is now confined almost entirely to the cities and towns. The question of municipal government, of the preservation of society from control by the avaricious and the confiscation of property by the methods of the boodler is one of great moment. The greater efficiency of modern governments, the greater diffusion of intelligence and the influences of Christianity are the chief reliances against a modern repetition of some of the ancient subversions of society.

There is, however, another source of strength and hope of preservation for what has been gained by modern civilization. While in the cities the influence of the mere citizen in public affairs is insignificant compared with that of the professional politician—the politician for gain—in the country the citizen has a chance to make his influence felt without engaging in politics as a business. That political virtue has strongholds in the rural communities has long been recognized, and philanthropists have hoped for some reversal of the currents to the unloading of the slums of the cities upon the country, in the fond hope that the pure air, the cheerful surroundings, the "touch of nature" would elevate the depraved to a new manhood.

Humanity does not work that way. While the strong, the efficient, the leaders, flock to the cities, the "common herd" will follow. It is related that when potatoes were first grown in France, philanthropists were elated with the idea that here was a tuber which would furnish abundance of cheap and wholesome food for the poor. But the poor refused to eat them, and not until at great dinners of the nobility they had constituted a leading article would the French peasants avail themselves of the benefits of potatoes.

A prominent Kansan has said of the masses in the cities, "They are cattle." They have in all ages followed leaders much as cattle in freedom do.

It has been remarked in these columns, how prone we, in this country, are to imitate our cousins in England. We do this sometimes to our hurt, sometimes to our advantage, but we have a pretty safe indication as to what Americans will do under any combination of circumstances if we can ascertain what the English have done or are doing under similar circumstances. The tendency in England to the tenant system, to large holdings, both by owner and by tenant, has been noticeable in the past, and equally noticeable has been the tendency here to acquire large tracts of land, move to town and live from the rents. There is, however, a very recent movement in the opposite direction in England, and as sure as noonday follows sunrise, we shall see it here.

In the March 21 number of the *Agricultural Cable*, of London, England, occurs an interview with a Mr. George Simmins, of Oak Lodge, Crawly, who

is engaged in subdividing large farms and locating people on the subdivisions. He said:

"During the course of business my attention was frequently drawn to the constant demand for small holdings, or cottage and villa farms; and the ready sale and letting of them, compared with that of larger farms, suggested the idea of cutting up the latter into suitable holdings. To test the matter for myself, I bought a few years back a small farm of twenty-five acres with a pair of cottages, near Horsham, and sold it immediately at about £25 an acre."

His next experience illustrates the tendency, not yet extinct in England—possibly reviving—to seek a residence on a farm:

"Subsequently, in 1891, I bought of Col. St. John a farm of fifty acres, which, with the timber and tenant right valuation, cost in all about £55 per acre. I subdivided it into twelve lots, varying from three to eight acres each, taking the natural fences for division of boundaries. I had sold off five lots to four purchasers, when one of them expressed a wish to acquire the whole property for conversion into a residential estate."

He next tells of a farm which he cut up into small holdings, first selling about twenty-five acres for a dairy and poultry farm. Next he sold twenty-eight acres for a similar purpose. He continues:

"Then I sold about forty-nine acres to a gentleman from Pevensy, who erected a nice house and some good cottages, with a view of forming a pleasure and poultry farm. Later I sold fifty acres with two cottages to another local man, who himself subdivided the land. He sold a small part to a local workman who farmed it, and another part to a builder and brick-maker, both of whom appear to be doing very well. I also sold thirty-six acres to a local gentleman, partly for allotments; thirty-six more, with farm house and buildings, to a doctor for his nephew, who had just returned from Australia, for dairy and poultry; and forty-one acres, with homestead but no house, to a local farmer for dairying and poultry."

Again he tells of selling a thirty-acre farm, thus:

"A local gentleman bought eight and one-half acres; a gentleman from Swanley college bought ten and one-half for a fruit farm, together with the farm house homestead and two of the cottages. He has since put up three large glass houses. Another gentleman, who contemplated fruit farming, bought six and one-half acres, and has since added a house and a large area of glass. Lastly, a farmer retiring from business, bought four and one-half acres for a small cow farm, and he took the other two cottages."

Of a 250-acre farm purchased, he said:

"I at once sold off twenty-four acres to an enterprising market gardener, with a business in Covent garden. He has erected a good house and buildings. Then I sold fifty-four acres, nearly all arable, with a pair of cottages and buildings, to another very energetic and intelligent market gardener, and also an excellent farmer. I sold twenty acres to some maiden ladies, who erected a house and outbuildings, planted fruit trees, and let the property to a small working farmer; thirty-three acres, mostly woodland, to a hard-working, persevering local man, who farmed the pasture land and has a brick yard in successful operation on the woodland, which he grubs as he extends his yard; and fifty-six acres, chiefly pasture, with a barn and outbuildings, to a gentleman from the North for a brother for a dairy and poultry farm. The last has erected house and buildings. The next purchaser was a market gardener, who said that he had made a good round sum out of a market garden in Kent which he rented, but wanted land of his own. He bought twenty-four acres, and is putting up a range of glass houses, as well as a residence for his own occupation. He intends raising strawberries and tomatoes. The remainder of the farm, about forty acres, I have just sold with house and principal homestead to a London gentleman, retiring from business, for dairying and general farming."

Of another farm of 291 acres, he said: "I first sold eighty-nine acres without any buildings, which I cut up in four lots, to Messrs. Bailey, the well-known West-End poultryers. I sold 200 acres to an independent gentleman for a pleasure farm."

A farm of 130 acres was disposed of as follows:

"One lot of eight acres I sold to an adjoining farmer. About seventeen acres I sold to a gentleman who wanted the land for occupation as a bee farm. The house and buildings were included. The remaining six lots I sold to a local land-owner, who has since built some houses for the purpose of sub-letting the land as small holdings."

Speaking of the demand for these small holdings, he said:

"I have fifty or sixty applicants for small cheap lots of land at the present moment."

"What do you call small, and what do you call cheap?"

"Anything from ten to fifty acres is small, and anything from £15 to £25 an acre is cheap. I have sold up to £60 an acre. The price is really governed by the position, buildings or no buildings, the quality of the land and the proportion of grass land."

In reply to an inquiry as to whether he finds a growing tendency to buy farms for residential and pleasure purposes, he said:

"Decidedly I do. At least, many resi-

dences have been purchased in this way in Surrey and Sussex during recent years, on farms varying in size from fifty to 800 acres."

A notable feature is the indication that not the lower classes nor the very poor are inclined to leave the cities, but the wealthy and the fairly well-to-do. This is likely to be followed by, not the abject, but by the thrifty and ambitious. More room may not be left for those who crowd the slums, but they will scarcely forego their crowded pleasures of vice, and the condition of the cities may not be improved, but the country, the farm, is likely to become more popular with the better classes.

POLITICAL SHADOWS.

It is stated that Grover Cleveland is so much afraid that the coming Chicago convention will not sit down sufficiently hard on the free silver wing of the Democratic party that he has about concluded to stand for its nomination and thereby nip the sprouts of the free silver heresy in the bud—to have himself appointed guardian for the party *ad litem*, so to speak. He wants also to annex Cuba.

It is possible that thoughtful, industrious people will, sometime, arrive at an appreciation of what politicians' promises mean. Men engaged in the active pursuits of life have been surprised by the fact that, while producing as efficiently as ever, while conducting their business on conservative lines, changes of conditions have come about which have rendered formerly profitable industries unprofitable—which have swept away in a few years—in some cases in a few months, or even in a few days—the accumulations of a lifetime of conscientious effort.

While these things have been happening, political parties have been promising in high-sounding platforms and in eloquent speeches, that, should the policies they advocate be adopted, they would make for the general good. True, the unfortunates in business have been, in general, the less shrewd, the weaker, with the result of adding their numbers to those of the wage-earners, those who crowd the cities and towns and become an element of unsafety to the general welfare. But the politician still insists that his election to office is essential to prosperity. President Cleveland, according to a late dispatch, is coming to the conclusion that another term of his policy will be good for the country. In this connection the quarterly review of trade recently published by R. G. Dun & Co., is of interest:

The regular quarterly statement of failures shows 4,031, with liabilities of \$57,425,135, against 3,802 last year, with liabilities of \$47,813,683, and 4,304 in the same quarter of 1894, with liabilities of \$64,127,333. The average liabilities were \$14,246, against \$12,577 last year and \$14,900 in 1894.

Manufacturing failures were 833, against 651 last year, with liabilities of \$23,507,326, against \$20,233,991 last year, increase 16.2 per cent., but the decrease in comparison with 1894 is 16.4 per cent.

Trading failures were 3,118, with liabilities of \$31,424,312, against \$35,979,894 last year; increase 20.9 per cent., but in comparison with 1894 the decrease is 6.9 per cent.

The main increase over last year has been in manufacturing failures, in New York, Pennsylvania, Ohio and Kentucky, and in trading failures in Texas and Minnesota, owing to two large defaults. Other commercial failures are also larger than last year, practically all the increase being at the South.

Banking failures have been fifty-one, against thirty-six last year, but with liabilities of only \$4,751,972, against \$13,452,537 last year. More than half the entire banking defaults were in Northern States, west of the Mississippi.

The record of bank clearings for last week, compared with those of the corresponding week last year, showed a decrease of 6 per cent. The decrease in New York city was over 8 per cent.

The entire record is a tiresome one. Nearly the entire civilized world, with the exception of the small proportion whose incomes are assured beyond the influence of the general conditions of society, is complaining of the badness of the times. Each locality thinks its case is worse than that of the others, and each industry thinks its case is worse than any other. Is there a Moses who can lead out of this wilderness?

It is not impossible that Grover Cleveland may be made the standard-bearer of the "sound money" extremists. Will there be three candidates in the field, two dividing the "sound money" elements and the third concentrating the entire opposition?

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending April 6, 1896, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

The week has been cool and dry and unfavorable to crops, though quite favorable to work. Oats are generally in and some up. Flax is being put in in the eastern counties. Corn-planting has begun. The high winds of the 27th, 28th and 30th and the cold snap following were very unfavorable to the crops in the ground and those growing, but the general showers of the 5th will materially benefit conditions.

RESULTS.

EASTERN DIVISION.

Spring work is well along, with oats all in and flax-sowing in progress. Plowing for corn is general, while planting has begun as far north as the Kaw river. Apricots have bloomed, and peaches, which are in bloom in the south, are just coming into bloom as far north as Coffey. Pears and plums are in bloom in Labette. Wheat looks well, grass is starting, and gardens are well under way, but everything needs rain.

Allen county.—Farmers are well along with their work; oats are mostly up; trees are leafing out, and the fruit prospect is good; it is very dry and crops are needing grain.

Brown.—Rain is needed; wheat looking well; oats all sown; plowing for corn is general.

Chautauqua.—The entire absence of rain last week and the cold snap of the 1st and 2d had a tendency to retard vegetation, yet we are doing fairly well for this time of the year; peach bloom is three days earlier than last year; corn-planting has begun; rather dry for

wheat is looking well; some early corn planted; early potatoes and gardens being planted; ground very dry.

Riley.—Ground very dry and dusty on top but in good condition for crops. Wilson.—The week has been dry and cool; the hard freezing on the 1st, 2d and 3d has killed the forward fruit buds; wheat is growing slowly; grass is at a stand and everything needs rain; farmers are planting corn and flax.

MIDDLE DIVISION.

Wheat is generally in good condition; oat-sowing about completed, and in the south corn-planting begun. The conditions, so far, are favorable to the fruit prospect. The high winds delayed farm work, and with the cold snap, were unfavorable to crops.

Barton.—Rather a bad week; the dust storm on the 27th damaged the wheat, especially in the sandy soil, where it was blown out to a considerable extent, since then dry and cool; wheat has commenced to suffer in spots; spring grain is all sowed and rain is needed.

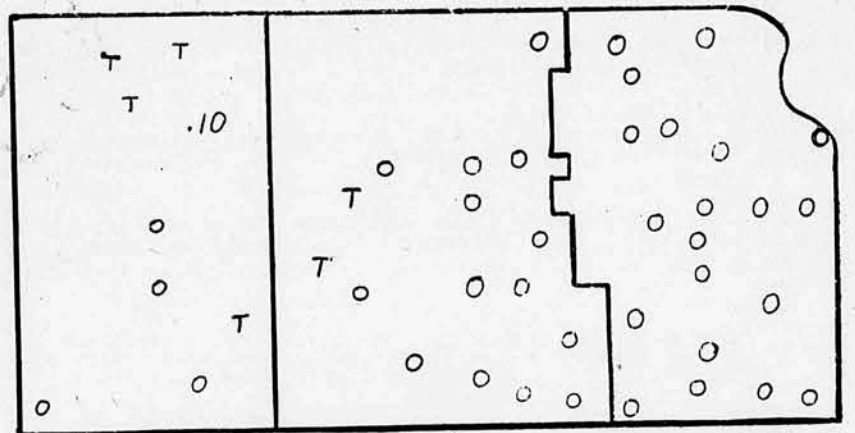
Butler.—Grass starting well; oats coming up well; wheat fine; corn-planting begun; ground in good working condition; corn and Kaffir corn will be largely planted; are in moderate need of rain.

Cloud.—Oats nearly all sown; wheat looking fine; rain needed.

Cowley.—The winds have damaged the wheat and oats, though a good rain might restore some of the injured; corn-planting in progress; much Kaffir and sorghum will go in; the frost injured some of the fruit.

Dickinson.—Wheat beginning to turn yellow in spots, owing to the dry weather; oats mostly planted but none up yet; gardening and potato-planting in order.

Harvey.—Dry, cold week; wheat in



Scale of shades less than 1/2 inch 1/2 to 1 inch 1 to 2 inches over 2 inches T Trace
ACTUAL RAINFALL FOR WEEK ENDING APRIL 4, 1896.

wheat; grass is starting but is too short for stock to live on.

Cherokee.—A cold week; oats not coming well; corn-planting in progress; peaches coming into bloom with good prospect.

Coffey.—Corn-planting the order this week; wheat looks well but very dry; grass starting slowly; flax-sowing in progress; plowing largely finished; peach trees beginning to bloom.

Franklin.—Farm work of all kinds pushed with vigor.

Greenwood.—A rainless week, with a cold snap the first three days of the month; corn-planting being pushed.

Labette.—Wheat needs rain; corn-planting under way; peach trees in full bloom; pears and plums blooming.

Lyon.—Plowing for corn well along; wheat and oats in good condition; the frost on the 1st did no damage.

Marshall.—Oats are sowed but need rain; wheat looks well considering the dry weather; corn-planting will commence next week.

Miami.—Spring work is well advanced; the ground is in good condition, but needing rain for some soils; oats are sown and most of the corn ground is plowed.

Montgomery.—A rainless week; favorable for plowing and planting; the last three days of March were favorable to growth; April came in with a cold wave, ice forming on still water; peach trees were blooming the 30th but are not yet in full bloom; oats are coming up; flax is being sown and some corn has been planted; grass has made but little growth; wheat on bottoms has made a good growth and looks well.

Oaage.—Plowing for corn and potatoes is under way and in some localities planting has begun; the present prospects for fruit are good; the ground is in good condition for gardening, which has begun.

Pottawatomie.—Oats all sown and coming up nicely, but the high winds damaged the plant to some extent;

best of shape; oats coming up; farm work being pushed; apricots in full bloom, peaches beginning to bloom, good prospect for fruit.

Kingman.—Wheat in excellent condition; oat-sowing finished, some coming up, the past week's winds blew out a few pieces; corn-planting will begin next week, with ground in good condition.

Marion.—Spring work being pushed, but we need rain.

Osborne.—Wheat in prime condition considering the dryness of the ground; very windy all the week; not much oat-sowing; preparing for corn.

Pawnee.—Wheat not growing as it should, owing to the dry winter; early-sown oats up but cut down by the frost of the 1st; corn-planting begun.

Pratt.—High winds this week damaged wheat in localities; some report the freeze on the 2d damaging peaches and apricots, no damage personally found; vegetation growing slowly.

Reno.—Sand storm on 31st, ice on 1st, 2d and 3d, but no injury done to speak of; ground in good condition; wheat growing nicely; oats coming up; grass starting, and corn-planting begun.

Rush.—Wheat making a splendid growth; oat-sowing delayed some by windy weather; buffalo grass commencing to grow; peach trees promise full blossom.

Russell.—High winds, though but little damage to wheat, which is looking better than for years.

Saline.—Until the 2d, high winds greatly interfered with farm work, but now everything is moving right along; rain is needed for wheat and oats, otherwise the ground in fine shape for spring work.

Stafford.—Wheat in fair condition; oats all sowed; corn-planting begun; peach and apricots in full bloom; much wheat blown out on sandy ground.

Sumner.—Wheat looking well; heavy winds doing some damage, blowing

Scott's Emulsion

is one of the best fuel-foods. The cod-liver oil ob-

of Cod-Liver Oil with Hypophosphites

blood, and fortifies against the piercing winds

tains its oxygen from the air, and heat is produced. It warms, nourishes, invigorates, gives good

of fall and winter. The Hypophosphites tone up the nervous system and improve digestion.

Scott's Emulsion prevents colds, coughs, consumption and general debility. 50c. and \$1.00 all druggists.

wheat out and leaving it in bad shape in spots.

Washington.—Oats about all sown.

WESTERN DIVISION.

The cold snap of the 1st to 3d injured the early peaches in the southern counties, but in the northern, fruit buds were not far enough along. Spring work is well advanced, though the dry weather has retarded it in the southern counties; in the northern, the ground is in good condition.

Decatur.—No rains, light snow, high winds.

Finney.—The continued dry weather is telling on the wheat, and interfering to some extent with spring plowing and planting; conditions favorable for fruit.

Ford.—Wheat looks well; ground very dry and no spring work done; early peaches were killed by the cold weather of the 2d, other fruit prospects good.

Grant.—Some oats and barley sowed; wheat is alive; grass starting; the high winds of the 27th injured the small grains; not much farming done yet.

Meade.—But little farm work being done yet, too dry to plow; fall appearance of wheat very favorable; peaches and apricots badly injured by heavy freeze April 1st and 2d, also barley.

Morton.—Apricots and peaches had bloomed finely the last of March, but the freezes of the 1st and 2d have cooked them, and cut off young peach trees in the nursery.

Scott.—The weather this week has, in the main, been favorable to the crops, but the cold snap of 2d has probably hurt the fruit.

Sheridan.—Past week very dry with high winds; alfalfa growing rapidly; wheat looks fairly well.

Thomas.—Winter wheat is looking well, spring wheat, barley and oats mostly all sown and some up; ground is in excellent condition, but we need rain soon; apricots in full bloom, not damaged by frost the first of month.

T. B. JENNINGS,
Section Director.

Our Nurseries.

EDITOR KANSAS FARMER:—The nurseries are one of the factors in building up the State and national industries. In their keen desire to supply the substantial orchards and choice ornamentals, their choice has been dictated by the planters, in furnishing trees of good size and shape when sold or delivered. Varieties of slow growth are dropped because they make small trees, and less attention has been paid to kinds of merit for filling the barrels. The Lawver, Mann, New Missouri, Delaware Red Winter and others, are trees of strong growth, but no man ever made any money to grow their fruit, or esteemed it of value, what little they did produce. In selecting a few productive kinds will make fruit-growing profitable, as in the past, even in the general depression of business. This is the secret of success in the commercial orchards. These few kinds make the family orchard profitable, yet in these a larger variety is needed to supply fruit throughout the season. In this selecting the best should the attention of nurseries be directed, and plant trial orchards for comparing the merits of each kind in its season and discard the worthless. For this purpose the proprietor of the Kansas Home Nursery, at Lawrence, Kas., has for years been growing all kinds of new fruits when offered by a good firm and grown them side by side with other standard kinds, given to each good care as any one should or does, and he has arrived at some conclusions worth money to every man who plants trees, whether for fruit or ornamental use. His catalogue, with these conclusions, is sent to all applicants, and criticisms desired. This is a new line of work for nurserymen, but its what will or

ought to be appreciated. This would awaken a new interest in the business. It would put such frauds as are practiced by some out of existence, like the tree peddlers selling trees on whole roots, or the new fraud selling peach trees worked on the wild Canadian peach stocks, and the many other humbugs that only dishonesty can contrive, which class hurts more the progress in the business than the proverbial lazy farmer.

A. H. GRIESA.

Lawrence, Kas.

Apricots.

The summary of the bulletin on apricots, recently issued by the Agricultural Experiment Station at Tucson, Arizona, is as follows:

1. Our cultivated apricots are derived from three species, but one (*Prunus Armeniaca*) furnishes all that are valuable for fruit in this region.

2. The fruit takes a large quantity of potash and phosphoric acid from the soil.

3. In the fruit an average of 94 per cent. is flesh and 6 per cent. is pit. Kaisha has the smallest proportion of pit and Breda the largest.

4. There is 87 per cent. of juice and 13 per cent. of fiber in the flesh of an apricot. The juice contains 13 per cent. of sugar, the flesh 12 and the whole fruit, including pit, 11 per cent. Of albuminoids (crude protein) there is 1.2 per cent.

5. The mean weight of fruits of all varieties was one ounce each. The Breda bore the smallest fruit, averaging about twenty-two to the pound. The largest fruit was twelve to the pound, borne by Kaisha and Moorpark.

6. The soil not being a typical one for either apricot, plum or peach stock, the growth of trees upon the different kinds of stock was practically the same.

7. This season upon this soil fruit from trees of several varieties is larger, of better quality and earlier when upon apricot stock than upon Myrobalan. Other varieties show no differences due to stock.

8. Pringle was the first to ripen, but the fruit is not of as good quality as most others.

9. St. Ambrose bore the finest appearing fruit.

10. Royal was the most prolific.

The latest results of pharmaceutical science and the most modern appliances are availed of in compounding Ayer's Sarsaparilla. Hence, though half a century in existence as a medicine, it is fully abreast of the age in all that goes to make it the standard blood-purifier.

Millions of Gold

In sight at Cripple Creek, Colo. Only twenty-three hours from Topeka by the Santa Fe Route, the only broad-gauge route passing right by the "Anaconda" and all the famous mines. See the nearest Santa Fe agent for all particulars, or write to GEO. T. NICHOLSON, W. J. BLACK, G. P. A., A. G. P. A., Chicago, Ill. Topeka, Kas.

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

Horticulture.

SPRAY CALENDAR.

[The following is from a calendar prepared by E. G. Lodeman, Assistant Horticulturist, Cornell University Experiment Station, Ithaca, N. Y.]

Although much has been written on the subject of spraying, the informa-

tion is so scattered that it cannot readily be brought together. In the preparation of this calendar the most important points regarding sprays have been selected and arranged in such a manner that the grower can see at a glance what to apply and when to make the applications. The more important insect and fungous enemies are also mentioned, so that a fairly clear

understanding of the work can be obtained by examining the table below. When making the application advised, other enemies than those mentioned are also kept under control, for only the most serious ones could be named in so brief an outline. The directions given have been carefully compiled from the latest results obtained by leading horticulturists and entomologists, and they may be followed with safety.

NOTICE.—In this calendar it will be seen that some applications are italicized and these are the ones which are most important. The number of applications given in each case has particular reference to localities in which fungous and insect enemies are most abundant. If your crops are not troubled when some applications are advised, it is unnecessary to make any.

PLANT.	First Application.	Second Application.	Third Application.	Fourth Application.	Fifth Application.	Sixth Application.
APPLE. (Scab, codlin moth, bud moth.)	When buds are swelling, copper sulphate solution.	Just before blossoms open, Bordeaux. For bud moth, arsenites when leaf buds open.	When blossoms have fallen, Bordeaux and arsenites.	8-12 days later, Bordeaux and arsenites.	10-14 days later, Bordeaux.	10-14 days later, Bordeaux.
BEAN. (Anthracnose.)	When third leaf expands, Bordeaux.	10 days later, Bordeaux.	14 days later, Bordeaux.	14 days later, Bordeaux.		
CABBAGE. (Worms, aphids.)	When worms or aphids are first seen, kerosene emulsion.	7-10 days later, if not heading, renew emulsion.	7-10 days later, if heading, hot water 130° F.	Repeat third in 10-14 days if necessary.		
CHERRY. (Rot, aphids, slug.)	As buds are breaking, Bordeaux; when aphids appear, kerosene emulsion.	When fruit has set, Bordeaux. If slugs appear, dust leaves with air-slaked lime. Hellebore.	10-14 days, if rot appears, Bordeaux.	10-14 days later, ammoniacal copper carbonate.		
CURRENT. (Mildew, worms.)	At first sign of worms, arsenites.	10 days later, hellebore. If leaves mildew, Bordeaux.	If worms persist, Hellebore.			
GOOSEBERRY. (Mildew.)	When leaves expand, Bordeaux.	10-14 days later, Bordeaux.	10-14 days later, ammoniacal copper carbonate.	10-14 days later, repeat third.		
GRAPE. (Fungous diseases.)	In spring, when buds swell, copper sulphate solution.	When leaves are 1-1½ inches in diameter, Bordeaux.	When flowers are open, Bordeaux.	10-14 days later, Bordeaux.	10-14 days later, if any disease appears, Bordeaux.	10-14 days, ammoniacal copper carbonate. Make later applications of this if necessary.
NURSERY STOCK. (Fungous diseases.)	When first leaves appear, Bordeaux.	10-14 days, repeat first.	10-14 days repeat first.	10-14 days repeat first.	10-14 days repeat first.	10-14 days repeat first.
PEACH, NECTARINE (Rot, mildew.)	Before buds swell, copper sulphate solution.	Before flowers open, Bordeaux.	When fruit is nearly grown, Bordeaux.	5-7 days later, Ammoniacal copper carbonate.	5-7 days later, repeat fourth.	5-7 days later, repeat fourth if necessary.
PEAR. (Leaf blight, scab, psylla, codlin moth.)	As buds are swelling, copper sulphate solution.	Just before blossoms open, Bordeaux. Kerosene emulsion when leaves open, for psylla.	After blossoms have fallen, Bordeaux and arsenites. Kerosene emulsion if necessary.	8-12 days later, repeat third.	10-14 days later, Bordeaux.	10-14 days later, Bordeaux if necessary.
PLUM. (Fungous diseases, curculio.)	When buds are swelling, copper sulphate solution.	When blossoms have fallen, Bordeaux. Begin to jar trees for curculio.	10-14 days later, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, ammoniacal copper carbonate.	2-3 weeks before plums ripen, Bordeaux, or ammoniacal copper carbonate.
POTATO. (Blight, beetles.)	When beetles first appear, arsenites.	When vines are two-thirds grown, Bordeaux and arsenites.	5-15 days later, Bordeaux.			
QUINCE. (Leaf and fruit spot.)	When blossom buds appear, Bordeaux.	When fruit has set, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	10-20 days later, Bordeaux.	
RASPBERRY. BLACKBERRY. DEWBERRY. (Anthracnose.)	Before buds break copper sulphate solution.	During summer, if rust appears on leaves, Bordeaux.	(Orange or red rust is treated best by destroying the plants.)			
STRAWBERRY. (Rust.)	As first fruits are setting, Bordeaux.	As first fruits are ripening, ammoniacal copper carbonate.	When last fruits are harvested, Bordeaux.	Repeat third if foliage rusts.		
TOMATO. (Rot, blight.)	At first appearance of blight or rot, Bordeaux.	Repeat first if diseases are not checked.	Repeat first when necessary.			

FOR APHIDES OR PLANT LICE USE KEROSENE EMULSION ON ALL PLANTS.

BLACK KNOTS ON PLUMS OR CHERRIES SHOULD BE CUT OUT AND BURNED AS SOON AS DISCOVERED.

FORMULAS:

Bordeaux Mixture.
Copper sulphate..... 6 pounds.
Quicklime..... 4 pounds.
Water..... 40 gallons.

Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least four gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make forty gallons. It is then ready for immediate use. For rots, moulds, mildews, and all fungous diseases.

Ammoniacal Copper Carbonate.
Copper carbonate..... 1 ounce.
Ammonia, enough to dissolve the copper.....
Water..... 9 gallons

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, and it should be

diluted with water as required. For same purpose as Bordeaux.

Copper Sulphate Solution.
Copper sulphate..... 1 pound.
Water..... 15 gallons.
Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use twenty-five gallons of water. For fungous diseases.

Paris Green.*
Paris green..... 1 pound.
Water..... 250 gallons.
If this mixture is to be used upon peach trees, one pound of quicklime should be added. Repeated applications will injure most foliage unless lime is added. Paris green and Bordeaux can be applied together with perfect safety. The action of neither is weakened and the Paris green loses all

caustic properties. For insects which chew.

London Purple.*
This is used in the same proportion as Paris green, but as it is more caustic it should be applied with the lime, or with the Bordeaux mixture. Do not use it on peach or plum trees. For insects which chew.

Hellebore.
Fresh white hellebore..... 1 ounce.
Water..... 3 gallons.
Apply when thoroughly mixed. For insects which chew.

Kerosene Emulsion.
Hard soap..... ½ pound.
Boiling water..... 1 gallon.
Kerosene..... 2 gallons.
Dissolve the soap in the water, add the kerosene, and churn with a pump for five to ten minutes. Dilute ten to fifteen times before applying. For

insects which suck, cabbage worms, and all insects which have soft bodies,

* Paris green and London purple are often referred to as arsenites.

There is no excuse for any man to appear in society with a grizzly beard since the introduction of Buckingham's Dye, which colors natural brown or black.

A Full Supply of All Kinds of Nursery Stock in

Pear, Peach, Apricot

Apple, Cherry, Plum, Grape Vines, Small Fruits, Evergreens, Roses, Shrubs, etc.

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EVERGREENS!
and Ornamental trees, Nursery grown.
250 Choice Evergreens, 10 varieties \$2.
400 Ornamental trees, 5 varieties \$3.
Other \$5 and \$10 bargains, 100 Scotch Pine, 2 ft. high, \$8; 1,000 10 to 12 inches \$10. All other varieties and sizes cheap. Local Agents Wanted. Send for Illustrated Catalogue. FREE.
Evergreen Specialist,
D. HILL, DUNDEE, ILLINOIS.

In the Dairy.

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

Milk as a Food.

Milk is a substitute that is complex in its composition, says Professor Robertson, of Toronto. All of the ingredients, except the fat, are in solution; the fat is in suspension, and when the milk stands for any length of time these little globules of fat rise to the surface and form what is known as cream. A drop of milk contains 5,000,000 globules of fat. Food, to be healthy and nutritious, must have the correct proportions of flesh-forming and heat-producing material. Good nature, wholesomeness, self-mastery depend on the quality of food we eat. Raise a boy on bread and milk rather than on potatoes and bacon. Bread and milk is a cheaper and much better food. It is a mistaken idea that a man who works hard must eat rich food. Three quarters of a pound of beef, costing 10 cents; one quart of milk, costing 5 cents; and five ounces of wheat, costing $\frac{1}{4}$ of a cent, are equal in nourishing material. One pound of cheese is equal to two and a half pounds of beef. There is no better diet to work hard on than cheese and potatoes, and there is no diet more digestible. Wheat bread is not a well-balanced food, but bread well buttered is very nutritious. Skim-milk and oatmeal are valuable foods.

Ropy or slimy milk is often caused by the cow's digestion being out of order or by eating of poor, rotten fodder, in which case ropiness will show in the milk as it is drawn from the udder. The principal cause, however, is certain bacteria, which, as a rule, are developed whenever perfect cleanliness is not observed. If once these little invisible pests have gained foothold, the trouble may remain long after everything is apparently clean. Much of the trouble and annoyance caused by ropy or slimy milk can be saved by keeping your cow stables and milk room thoroughly clean.

The reappointment of W. K. Boardman as Dairy Commissioner of Iowa, by Governor Drake, is the cause of general rejoicing among the dairymen of that State. There was considerable opposition from certain factions against Mr. Boardman's serving another term, but the Governor held off this appointment for weeks until he had made the most thorough and minute examination of Mr. Boardman's record and has found that from the first day to the present he is clean and energetic, diligent and faithful. Under these circumstances his appointment means a complete and full vindication against all the charges that have been made against him.

The peculiar excellence of Swiss cheese and butter is said to come from the pasturage of the Swiss mountains. They are covered with snow throughout the winter. Underneath the snow meantime grows a particularly sweet, tender grass for pasturage. As soon as the snow melts, about May, the cows are driven up to the mountain sides, where they stay till snow comes again. With the grass are mixed certain other small and tender plants, making a delicious herbage for the cattle. It is in the summer that the bulk of the cheese is made. Why cannot American cheese-makers borrow a hint from the Swiss? Cannot scientific dairymen import from Switzerland the seeds of their grass and pasture plants?

The price of butter has slowly but surely been dropping into the low level of other farm produce, and the question to solve is whether we can produce it with a profit at these low prices. Though the breed and the feed is important, the main thing is the selection of the individual cows, be they of whatever breed. The cow that produces the most butter at the lowest cost is what we are after. In discussing this question a prominent dairyman said he had been converted from the general-purpose cow idea, and discarded all that did not give 4 per cent. of fat in their milk, and now since he has adopted the Jersey breed, they aver-



HAVE YOU ONE OR MORE COWS?

If so, whether for pleasure or profit, household or dairy, you should know of the **CENTRIFUGAL CREAM SEPARATORS.**

The De Laval Separators save at least Ten Dollars per Cow per year over and above any other Separator or Creaming System. All other Separators are merely inferior imitations or infringe the De Laval patents. Many users have already been enjoined.

SEND FOR CATALOGUE and any desired particulars. SATISFACTION GUARANTEED as a condition of sale.

BRANCH OFFICES: ELGIN, ILL. **THE DE LAVAL SEPARATOR CO.** 74 Cortlandt St., New York.



age 5 per cent. In three years the cost of a pound of butter has been reduced 3 cents. The great factor is the individuality of the cow, and the passage of a stringent anti-oleo law.

Canada is a cheese-producing country. Sixteen millions of the twenty-six millions of fancy cheese that England buys annually is produced in Canada.

The difference between Pasteurizing and sterilizing milk is a difference in the degree of heat applied. In the former, the milk is never heated above 175 degrees, while to sterilize it properly, boiling heat or even a higher temperature, is applied.

Prof. M. Winter, who has specially investigated serum and milk, has observed that the freezing point of organic liquids is invariably below that of pure water. He suggests from this that freezing is a convenient means of recognizing the adulteration of milk with water.

Some of the men that do not take agricultural papers are still setting milk in the root and onion cellar and making tenth-grade butter, which usually sells for about 10 cents a pound. The buyer not infrequently receives in his butter more scents than he has paid cents per pound.

The healthfulness of milk is of more consequence to public health than adulterations. Milk receivers should use every care in keeping the surroundings of the milk room free from decaying germs and other offal matter. Refrigerators, sinks and all utensils should be kept thoroughly clean.

It was not so long ago that some people declared Jersey cattle would not thrive in the Southern States, and now Texas has a large and flourishing Jersey Cattle Breeders' Association. One of the rules it has adopted is similar to the one in operation in Eastern States, that only registered bulls can enter contests at fairs and shows.

It is claimed, and no doubt truthfully, that the souring process in milk and cream is the beginning of decomposition, and that the nutty flavor and aroma found so agreeable in nice butter is due to the chemical change or decomposition of the butter fat. This being so, the nice point is to arrest the process at just the right point. And churning does arrest the chemical change going on, and by a separation of the constituents of the cream prevents its further advance in the fat.

MARCH, APRIL, MAY,

Weak Nerves, Poor Digestion, Impure Blood, Depressed Spirits.

The sun has just crossed the equator on its yearly trip north. The real equator is shifted toward the north nearly eighteen miles every day. With the return of the sun comes the bodily ills peculiar to spring. With one person the nerves are weak; another person digestion poor; with others the blood is out of order; and still others have depressed spirits and tired feelings.

All these things are especially true of those who have been suffering with catarrh in any form, or la grippe. A course of Peru-na is sure to correct all these conditions. It is an ideal spring medicine. Peru-na does not irritate—it invigorates. It does not temporarily stimulate—it strengthens. It equalizes the circulation of the blood, tranquilizes the nervous system, and regulates the bodily functions. Peru-na, unlike so many spring medicines, is not simply a physic or stimulant or nervine. It is a natural tonic and invigorator.

Send for free spring book. Address The Peru-na Drug Manufacturing Co., Columbus, O.

The Limited Fast Express Train leaving Chicago daily at 1:30 p. m. via the Nickel Plate Road, arriving at New York city the following evening at 6:30 and Boston at 8:45, is unrivalled, peerless and incomparable for speed, comfort and safety, with rates that are as low as the lowest. Trains consisting of baggage cars, buffet sleeping and elegant day coaches, lighted by gas, heated by steam and with all modern improvements, are run through without change from Chicago to New York with through cars to Boston. J. Y. Calahan, Gen'l. Agent, Chicago, Ill. 57

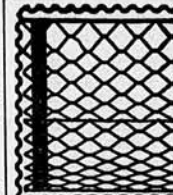
Make Cows Pay.



Twenty cows and one SAFETY HAND CREAM SEPARATOR will make more butter than twenty-five cows and no separator. Sell five cows; the money will buy a separator and you save cost of their keep, while the butter you make sells for two cents more per pound. Send for circulars. Please mention this paper.

Rutland, Vt.
Omaha, Neb.,

P. M. SHARPLES,
West Chester, Pa.,
Elgin, Ill.



FENCE YOUR FARM

With Best Galvanized Steel Woven Wire Fencing and THEN USE OUR GATES BECAUSE THEY HAVE POINTS OF ADVANTAGE YOU WILL LIKE. Our Catalogue tells the whole story. Write at once to THE SEDGWICK BROS. CO., Richmond, Ind.



Used and endorsed by Adams Express Co.

FOR COLIC, CURBS, SPLINTS, Contracted and Knotted Cords, Shoe Boils, Callous of all kinds, Sweeney, Horse Ail, and most diseases to which the horse is subject.

TUTTLE'S ELIXIR

is a sure and reliable remedy. It is warranted to locate lameness when applied by remaining moist on the part affected. The rest dries out. If it fails to satisfy, money will be refunded.

Dr. S. A. Tuttle, Boston, Mass.—Dear Sir: Having tested your Elixir for the different purposes for which you recommend it, would say: We use it on all horses in our department, and I must state that I have not found one instance where I have not received more benefits than advertised. We adopted it in our whole department. Men as well as horses are using it, and I cannot speak in terms of too high praise of it, as I never saw its equal.

Yours very truly,

DR. EUGENE SULLIVAN,
In Charge of the Horses in the Chicago Fire Dept.

Tuttle's Family Elixir is the best for Rheumatism and all pain. Sample bottle free for three 2-cent stamps for postage; 50 cents buys either Elixir of any druggist, or it will be sent direct on receipt of price.

DR. S. A. TUTTLE, 27 G. Beverly St., Boston, Mass.

Plant Trees and Orchards in 1896.



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

Illustrated Planter's Catalogue and Price List.

We solicit your correspondence and invite inspection of our stock.

Reliable Agents Wanted.

Address

HART PIONEER NURSERIES,

FORT SCOTT, KANSAS.

Early Ohio Grape, Six Weeks Earlier Than Concord.

Gossip About Stock.

The old reliable Maple Grove herd of Poland-Chinas, owned by Wm. Plummer, of Osage City, Kas., is again represented in our columns. He reports a splendid trade and that his stock is giving great satisfaction to his customers, as shown by their appreciative letters.

Our advertisers, Ben. L. Welch & Co., of Kansas City stock yards, desire us to announce to their Kansas stock shippers that they have opened another office at the National stock yards, East St. Louis, Ill., and with these two offices expect to serve their customers better than ever. This is a good commission house and deserves credit for their enterprise.

"Facts and Figures" is the title of a little book which deals with the live stock and kindred statistics of the country in general and Chicago in particular. It contains many interesting records of great value to those interested in the live stock industry. It is issued by Wood Bros., the well-known commission merchants of Chicago, and will be sent free to stockmen who write for it.

The dispersion of Linwood herd of Short-horn cattle, by W. A. Harris & Son, is the most important offering of modern Cruickshank cattle ever made in the United States. There is no herd anywhere in the country that surpasses it, and therefore our Kansas breeders should make the closing-out sale at Linwood, on May 6, a regular reunion of Kansas Short-horn breeders. For Kansas' sake not a single animal should be allowed to go to other States. Send for catalogue.

P. C. Bowen & Son, of Cherryvale, Kas., write: "Having sold all of the breeding stock of poultry that we can spare this spring, you will please drop out of our advertisement the words 'stock for sale with score-cards by Emery,' and as we are much pleased with the way our 'ad.' with you has helped our sales of stock, anything that you can do for us by way of local notices to aid us in disposing of our egg surplus will be thoroughly appreciated. We expect to have a fine lot of stock for sale in the coming fall."

Our sheepmen are fast adopting the custom of dipping their flocks a few weeks after shearing and the results certainly justify the small expense and trouble. Of the various compounds offered to the public the Cooper Sheep Dip appears to possess a unique record and from evidence which has been placed in our hands from all over the States we do not hesitate to endorse it. Those who have used it report a great improvement in the condition of the flock and many an increased weight of wool, while others state that their clips brought higher prices. The advertisement of this dip is in our columns this week.

Kansas swine-raisers have noticed the advertisement of the Anglo-American Stock Food Co., of Chicago, who advertise "Bannerman's Phenyle." Recently the FARMER wrote John M. Stonebraker, one of our old customers, who has had much experience and observation of its use in Illinois. He is a breeder of Duroc-Jersey swine, and writes the FARMER as follows: "I have used Bannerman's Phenyle as a disinfectant and deodorizer ever since the World's Fair, with perfect satisfaction. It is a complete success as to the purpose used, in and around stables, pens and manure piles and where bad odors are, hence I consider keeping hog stables and stys clean by the use of the above article, making them much less susceptible to disease."

The famous Poland-China boar, Hadley Jr., which was at the head of Sunny Slope farm, of Emporia, which recently held such a sensational closing-out sale, is now used at the head of Kansas City herd of W. P. Goode, of Lenexa, Kas., whose advertisement appears this week, and who writes as follows: "Fellow breeders and those who raise hogs for market, I come among you in no boasting way or spirit, but am determined to breed the best strains of Poland-China blood to be had. This age demands the best. I ask the aid and advice that breeders will and can consistently extend to me. Promising a hearty appreciation of all favors and fellowship, I will endeavor to sustain the high standing of excellence the Poland-China hog holds to-day. Any breeders or prospective breeders will be furnished free conveyance to and from my railroad station, Lenexa, Kas."

The Old Homestead Farm Herefords.

The value of pure-bred Hereford cattle, commonly known as the "white-faces," was never, since their first introduction into this country, more highly appreciated than at the present time. The demand is such that it is possibly a fair way of putting it, that not more than one order in a hundred can be filled by the professional breeders of pure-breds throughout the United States.

The wide-awake and progressive beef breeder, the feeder and shipper have learned that "baby beef" means that the earliest-maturing kinds are the more profitable, hence the demand for white-face cattle appears to lead all other breeds. Herds

are being founded all over the great beef-producing areas of the country, and among the most prominent founded early in 1895 was that known as the "Old Homestead Farm herd," near Martinsville, Ind., owned by Mr. Jas. H. Veitch, and under the immediate and personal supervision of Mr. Geo. N. Sprague, a Hereford man of forty years to the white-face manor born. In order that the more western breeders might see and appreciate the result of the first year's operations, Mr. Veitch concluded to offer a draft of five choice-bred young bulls in connection with the well-known breeder of Herefords, Mr. T. F. B. Sotham, whose regular annual sale will take place on the farm, near Chillicothe, Mo., on Wednesday, April 15, 1896. One of the youngsters, Lamplighter Jr. (Vol. 16), is by the World's Fair winner, Lamplighter 51834, he by Don Carlos 33734 and he by Anxiety 4th 9904. The dam of Lamplighter was Lady Bird 3d 31101, by North Pole 8946. Taking into consideration that Lamplighter won at the Columbian first premium bull 1 year and under 2, and first money young herd under 2 years, while his sire (Don Carlos) won second, bull 8 years old or over, second herd four animals get of one sire, also third herd graded by ages, is enough for prize record history. The youngster weighs 1,180 pounds at 13 months of age, and is a smooth, sappy individual of great Hereford character. The other four are equally as well-bred, being sired by the imported Chesterfield 56697, he by Statesman 57692 and he by Monarch 20001. His dam was Venus 3d 21197 by the Grove 3d 2490. Donna's Chesterfield (Vol. 16) is out of Donna 3d 56701 by Don Carlos 33734; Chester (Vol. 16) is out of Lady Bird 64084, a granddaughter of the noted sire, North Pole 8946; Chesterbrook (Vol. 16) is out of Bright Duchess 13th 64080, a granddaughter of Anxiety 4th 9904 and Merry Monarch 5794, and the last one of the Chesterfield quartet, Manager (Vol. 16), is out of Bonny Lulu 14th 64079, a granddaughter also of Anxiety 4th 9904, the greatest of American sires, as every well-up white-face breeder knows that he did more toward the improvement of the American type of Herefords than did any sire ever used in the United States. All five of these youngsters are worthy, both in individual Hereford character and royal breeding, to merit a premiership in any herd, the world over.

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, Underdeveloped Portions of Body. Absolutely unfailing Home Treatment. — Benefits in a day. Men testify from 50 States and Foreign Countries. Send for Descriptive Book, explanation and proofs, mailed (sealed) free.

ERIE MEDICAL CO., Buffalo, N. Y.

LIVE STOCK AUCTIONEERS.

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

ELI ZIMMERMAN, Hiawatha, Kansas, Live Stock and General Auctioneer. Pedigreed and registered live stock a specialty. Write for dates. Sales conducted anywhere in the country. Best of references and satisfaction guaranteed.

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

CRIPPLE CREEK

The Santa Fe Route is the most direct and only through broad-gauge line from Chicago and Kansas City to the celebrated Cripple Creek gold mining district. Luxurious Pullmans, free chair cars, fastest time, and low rates.

GOLD! GOLD!!

Address G. T. Nicholson, G.P.A., A., T. & S.F. Ry., Monadnock Bldg., Chicago, or W. J. Black, A. G. P. A., Topeka, Kas., and ask for free copy of profusely illustrated book descriptive of Cripple Creek. It is well worth reading.

SANTA FE ROUTE

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time, will be inserted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will pay. Try it!

SPECIAL.—Until further notice, orders from our subscribers will be received at 1 cent a word or 7 cents a line, cash with the order. Stamps taken.

DISEASES OF YOUNG AND OLD MEN.—Private and skin diseases a specialty. Wm. H. Richter, Ph. G. M. D., 503 Kansas Ave., Topeka, Kas. Correspondence solicited.

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

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

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

PEKIN DUCKS.—Pure-bred eggs for sale at 50 cents a sitting. Mrs. E. L. Jones, Box 224, Topeka, Kas.

CHOICE SOUND SEED SWEET POTATOES.—Yellow Nansemond, Yellow Jerseys, Red Nansemond, Southern Queen. 50 cents per bushel, put up in barrels and delivered to railroad depot here. Address Topeka Produce Co., 304 Kansas Ave., Topeka, Kas.

I HAVE.—The following varieties of good seed sweet potatoes: Yellow Jerseys, Yellow Nansemond, Red Nansemond, in barrels and delivered to railroad depot here. Address Eugene R. Hayes, Topeka, Kas.

PUBLIC SALE OF SHORT-HORN CATTLE.—At Sabetha, Kas., Friday, April 10, 1896, by John McCoy, of Sabetha, Kas., and L. J. Hitchcock, Salem, Neb. The offering consists of forty registered cattle—cows with calves at foot, heifers and seventeen extra bulls, all Cruickshank-topped. Write for catalogue.

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

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

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

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

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

HEDGE! HEDGE!—We still have for sale a large amount of extra No. 1 one and two-year hedge. 90 cents per 1,000, boxed, 50,000 White Columbian asparagus, two-year-old, \$8 per 1,000, packed. No. 1 two-year apple trees—assortment largely Ben Davis \$7 per 100, packed. Small fruits in abundance. Everything away down in price. Douglas County Nursery, Lawrence, Kas. Wm. Plasket & Son.

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

A FEW BUSHELS.—Of the famous stock pea, \$1.20 per bushel f. o. b. Mammoth Springs, Ark. Address Walter Lukens, Pilot, Ark.

S. S. HAMBURG, S. L. WYANDOTTES, DARK S. Brahmas. Finely bred, fine birds. Eggs \$1 per fifteen. Mrs. Lily McCully, Pontiac, Kas.

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

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

NURSERY STOCK SURPLUS.—Send for prices. Small fruit, apples, peaches, pears, cherries, dirt cheap. Frank Holsinger, Rosedale, Kas.

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

PLANTS BY MAIL.—Fuchsias, Coleus, Geraniums, Roses, Begonias, Carnations, etc., assorted, strong, well-rooted. Will send as samples, fifteen for 50 cents (2-cent stamps); for clubs of five, these (separate) for \$2. Satisfaction and safe arrival guaranteed. Try them. Tyra Montgomery, Box 186, Larned, Pawnee Co., Kas.

AUBURN POULTRY YARD.—Eggs for sale from prize-winning B. Langshans and S. S. Hamburgs. B. Langshan pen headed by first premium cock at the State poultry show at Topeka, 1895; first on Hamburg breeding pen. A few cockerels left for sale. Write for prices. Address W. E. McCarter & Son, Auburn, Kas.

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

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

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

KAFFIR CORN SEED.—Any quantity, sacked, 25 cents per bushel. W. D. Harry Grain Co., Conway, Kas.

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

FOR SALE.—A very desirable eighty-acre improved farm at a bargain. Ten miles southwest of Topeka. Apply to Chicago Lumber Co., Topeka, Kas.

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

CORK-FACED COLLARS

are strictly hand-made, hand-stuffed, shaped on scientific principles and are provided with sole leather pressed pads.

Light, cool, elastic, and never galls. Perfect shape hold.

World's Fair Medal awarded over all competitors. Endorsed and in use by the United States Government.

For Sale Everywhere.

Cork-Faced Collar Co., LINCOLN, ILL.

SPECIAL WANT COLUMN--CONTINUED.

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

ORDER NOW!—Barred Plymouth Rocks exclusively. Eggs in season, \$1 for fifteen. Mrs. F. A. Hargrave, Richmond, Kas.

FOR SALE.—Six extra good summer boars, large enough for service—Wilkes and Admiral Chip strains—\$15 apiece. John Bollin, Kickapoo, Kas.

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

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

EGGS FROM HIGH-SCORING B. P. ROCKS.—I bought my birds direct from Mrs. Walters, of Emporia. They score from 92½ to 93 points. Eggs from this pen \$2.50 per fifteen. From any other pen \$1.50 per fifteen. Buff Leghorns the same. Mrs. E. E. Bernard, Dunlap, Kas.

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

FOR SALE.—Pure-bred Duroc-Jersey boars. Good individuals and in line with World's Fair winners. J. F. Stodder, Burden, Kas.

SCHOLARSHIP.—In business course or shorthand in a Kansas City business college for sale cheap. Address A. B. Frazer, 404½ East Twelfth St., Kansas City, Mo.

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

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

FOR SALE.—One hundred and sixty acre farm, one and a half miles from Bushong station, Lyon county, Kansas. Good spring. Price \$8 per acre. J. B. McAfee, Topeka, Kas.

FOR A PRACTICAL BUSINESS EDUCATION address Coon's National Business College, Kansas City. Self-help furnished students of limited means.

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

SORGHUM SEED FOR SALE.—For prices, write J. H. Foote, Fort Scott, Kas.

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

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

SEVEN FIRST-CLASS BLACK JACKS.—For sale or trade. Prices reasonable. Sam Welchbaum, Ogden, Kas.

2,000 BUSHELS SEED SWEET POTATOES! on two lacy backs and let-down end-gate, for \$55. Warranted. Kinley & Lannan, 424-426 Jackson street, Topeka.

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

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

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

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

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

FOR SHORT-HORN BULLS.—Calves and yearlings, extra fine, write D. P. Norton, Council Grove, Kas.

Salesmen Wanted!

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

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.

STEER DIED.—My grade Hereford steer died after several days' sickness. Hilltop, Kas. W. A. B.

Answer.—Your letter is too long for publication, besides, the symptoms are conflicting and furnish nothing definite. You should have called on the State authorities to investigate such a case.

SICK BULL.—I have a Short-horn bull that commenced to breathe hard about a week ago. I tried to force a stick down his throat but could not. It seemed to be swelled shut. In a few days blood and matter formed in his throat and has been running from his nose ever since. He eats very little and has lost in flesh. I have given him one dose of salts and am now feeding small doses of raw linseed oil and gelseminum. He is better at times, then as bad as ever again. P. E. A. Hanover, Kas.

Answer.—The bull probably had sore throat and pushing a stick down was wrong. Continue the doses of raw oil, and give also 4 drachms of nitrate of potash in soft feed twice a day. Also rub lard and turpentine in equal parts on the outside of his throat to irritate the skin.

Deafness Cannot be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the eustachian tube. When this tube gets inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by catarrh, which is nothing but an inflamed condition of the mucous surfaces.

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THE LAWRENCE-WILLIAMS CO., Cleveland O.

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, April 6.—Cattle—Receipts since Saturday, 5,000; calves, 40; shipped Saturday, 713 cattle; no calves. The market was steady to strong. The following are representative sales:

SHIPPING AND DRESSED BEEF STEERS.			
No.	Ave. Price.	No.	Ave. Price.
21.....	1,297 \$4.00	34.....	1,283 \$3.95
15.....	1,713 3.90	19.....	1,331 3.90
84.....	1,262 3.85	20.....	1,352 3.85
14.....	1,562 3.75	1.....	1,470 3.75
40.....	1,262 3.70	18.....	1,411 3.70
34.....	1,163 3.60	1.....	1,383 3.60
21.....	1,007 3.50	25.....	1,146 3.50
17.....	1,349 3.35	1.....	1,110 3.35

TEXAS AND INDIAN STEERS.			
No.	Ave. Price.	No.	Ave. Price.
40.....	1,247 \$3.65	25.....	1,334 \$3.65
41.....	1,117 3.35	26.....	1,021 3.35
1.....	1,400 2.50	4.....	1,080 2.35
1.....	1,160 2.25	2.....	925 1.75

WESTERN STEERS.			
No.	Ave. Price.	No.	Ave. Price.
99.....	1,214 \$3.65		

ARKANSAS COWS.			
No.	Ave. Price.	No.	Ave. Price.
22.....	877 \$2.70	3.....	1,063 \$2.55
18.....	783 2.55	1.....	900 2.35

ARKANSAS STEERS.			
No.	Ave. Price.	No.	Ave. Price.
4.....	1,015 \$3.25		

TEXAS AND INDIAN COWS.			
No.	Ave. Price.	No.	Ave. Price.
1.....	1,100 \$3.00	3.....	1,106 \$3.00
3.....	793 2.75	22 hf.....	472 2.70
3.....	830 2.25	9.....	897 2.00

COLORADO STEERS.			
No.	Ave. Price.	No.	Ave. Price.
79.....	1,291 \$3.75	42 hf.....	1,070 \$3.35

COLORADO COWS.			
No.	Ave. Price.	No.	Ave. Price.
32 hf.....	540 \$3.35		

COWS AND HEIFERS.			
No.	Ave. Price.	No.	Ave. Price.
1.....	1,340 \$3.50	3.....	531 \$3.40
1.....	720 3.40	13.....	682 3.35
7.....	600 3.25	7.....	997 3.25
26.....	674 3.15	1.....	1,100 3.10
1.....	1,300 3.00	1.....	1,440 3.00
9.....	801 2.65	3.....	1,010 2.60
2.....	935 2.50	2.....	990 2.50
1.....	1,120 2.25	1.....	700 2.00
1.....	1,020 2.00	1.....	900 2.00
7.....	972 2.00	1.....	900 1.75

STOCKERS AND FEEDERS.			
No.	Ave. Price.	No.	Ave. Price.
31.....	1,258 \$4.10	31.....	465 \$3.90
4.....	462 3.85	126.....	358 3.80
20.....	335 2.75	1.....	1,000 2.75
2.....	675 2.75	2.....	440 2.50

Hogs—Receipts since Saturday, 5,340; shipped Saturday, 701. The market was steady to 50 higher. The following are representative sales:

88.....	166 \$3.70	14.....	186 \$3.70	60.....	194 \$3.67½
101.....	178 3.65	78.....	223 3.65	80.....	181 3.65
18.....	215 3.62½	68.....	204 3.62½	27.....	173 3.62½
33.....	208 3.62½	60.....	191 3.60	81.....	204 3.60
51.....	215 3.60	63.....	228 3.60	85.....	212 3.60
56.....	233 3.57½	76.....	198 3.57½	78.....	170 3.57½
77.....	222 3.55	57.....	224 3.55	68.....	161 3.55
8.....	121 3.55	50.....	251 3.55	74.....	263 3.55
62.....	247 3.55	64.....	258 3.52½	71.....	253 3.52½
89.....	226 3.52½	52.....	271 3.52½	72.....	270 3.52½
60.....	294 3.50	38.....	284 3.50	67.....	253 3.50
43.....	296 3.50	35.....	292 3.50	10.....	325 3.47½
60.....	285 3.47½	59.....	307 3.40	57.....	326 3.40
85.....	188 3.40	66.....	225 3.37½	47.....	417 3.35
50.....	391 3.35	51.....	367 3.30	4.....	375 3.25
2.....	500 3.00	5.....	454 3.00	3.....	380 3.00
4.....	456 3.00	2.....	365 3.00	4.....	407 2.85
2.....	355 2.75	2.....	310 2.75	72.....	128 2.50

Sheep—Receipts since Saturday, 7,244; shipped Saturday, 819. The market was steady to strong. The following are representative sales:

963 N. M. 1...	74 \$4.20	335 Ariz. lb...	75 \$3.85
51 Ariz. cls.	53 2.75	10 Ut. e. cls.	71 2.50

Horses—Receipts since Saturday, 171; shipped Saturday, 132. The week's auction sales commenced shortly after the noon hour to-day and the attendance was fair. There were several eastern buyers and a number of southern men on the market. The trade was not brisk, but prices were generally steady. Eastern men are seeking good drivers and draft horses, and while these kinds are scarce prices have not advanced to speak of.

Chicago Live Stock.
CHICAGO, April 6.—Cattle—Receipts, 11,000; market strong to 10c higher; fair to best beefs, \$3.40@4.50; stockers and feeders, \$2.50@3.75; mixed cows and bulls, \$1.50@3.70; Texas, \$3.00@4.00.

Hogs—Receipts, 22,000; market strong to 10c higher; light, \$3.70@3.95; rough packing, \$3.50@3.60; mixed and butchers, \$3.65@3.85; heavy packing and shipping, \$3.65@3.75; pigs, \$3.00@3.90.

Sheep—Receipts, 12,000; western, \$3.40@3.85; Texas, \$2.50@3.40; lambs, \$3.80@4.75.

St. Louis Live Stock.
ST. LOUIS, April 6.—Cattle—Receipts, 7,000; market active, higher; native steers, \$3.50@4.40; Texas steers, \$2.60@3.80.

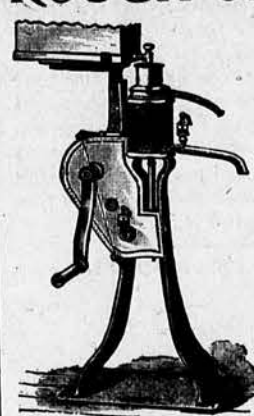
Hogs—Receipts, 6,000; market 5c higher on light, steady on heavy; light, \$3.60@3.85; mixed, \$3.50 3.70; heavy, \$3.50@3.80.

Sheep—Receipts, 1,800; market 10c higher.

Chicago Grain and Provisions.

April 6.	Opened	High't	Lowest	Closing
Wht-April...	65	67½	64½	66¾
May...	65½	67½	65½	67¼
July...	65	67½	65	66¾
Corn-April...	29¾	30¾	29¾	30¼
May...	30¾	31¾	30¾	31¼
Sept...	32	33¾	32	32¾
Oats-April...	19¾	20¾	19¾	20¼
May...	20¾	21¾	20¾	21¼
July...	20¾	21¾	20¾	21¼
Pork-April...	8 50	8 62½	8 42½	8 55
May...	8 50	8 62½	8 42½	8 62½
July...	8 70	8 82½	8 62½	8 82½
Lard-April...				5 0½

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KANSAS CITY GRAIN.

KANSAS CITY, April 6.—The advance in Chicago did not appear to stimulate the demand for wheat here at all. There was no inquiry for spring wheat. Winter was nominally steady.

Receipts of wheat here to-day were 24 cars; a year ago, 23 cars.

Sales were as follows on track: Hard, No. 2, nominally 63c; No. 3, nominally 45c@50c; No. 4, 1 car 43c, 3 cars 42c, 3 cars 41c, 1 car 40c; rejected, nominally 31c@40c; no grade, nominally 30c@35c. Soft, No. 2 red, 2 cars 74c, 1 car 73c; No. 3 red, nominally 60c@68c; No. 4 red, nominally 50c@60c; rejected, 1 car 49c; Spring, No. 2, nominally 63c; No. 3, nominally 59c@61c; rejected, nominally 45c@52c; white, nominally 48c@60c.

Mixed corn was a little higher, but there was less demand for white corn than usual. For May mixed, 24c was bid and 10,000 bushels September sold at 26c. May white was offered at 25c.

Receipts of corn here to-day, 31 cars; a year ago, 32 cars.

Sales on track by sample: No. 2 mixed, 3 cars 23c, 8 cars 23½c; No. 3 mixed, nominally 23c; No. 4 mixed, nominally 21½c@22c; white, No. 2, 2 cars 24c, 9 cars 24½c; No. 3, nominally 23c.

Receipts of oats to-day, 6 cars; a year ago, 9 cars.

Sales by sample on track: No. 2 mixed, 1 car good 17½c; No. 3, nominally 15c; No. 4, nominally 14c; no grade, nominally 13c; No. 2 white, 1 car 20c, 1 car 19½c; No. 3 white, nominally 18½c.

Hay—Receipts, 58 cars; the market is firm; timothy, choice, \$11.00@11.50; No. 4, \$9.00@10.50; No. 2 \$7.00@9.00; No. 3, \$4.50@6.50; choice prairie, \$7.00@8.00; No. 1, \$8.00@8.50; No. 2, \$5.00@5.50; No. 3, \$4.00@4.50; No. 4, \$3.00@3.50; straw, \$3.50@4.00.

St. Louis Grain.
ST. LOUIS, April 6.—Receipts, wheat, 29,716 bu.; last year, 7,722 bu.; corn, 61,656 bu.; last year, 12,487 bu.; oats, 41,000 bu.; last year, 20,418 bu.; shipments, wheat, 29,752 bu.; corn, 11,546 bu.; oats, 30,700 bu. Closing prices: Wheat—Cash, No. 2 red, 68c; April, 61½c; May, 62½c; 6½c; July, 63c. Corn—Cash, 26c; April, 27c; May, 27½c; July, 28c. Oats—Cash, 19c@19½c; April, 19½c; May, 20c; July, 19½c.

Kansas City Produce.
KANSAS CITY, April 6.—Butter—Creamery, extra fancy separator, 18c; firsts, 16½c; dairy, fancy, 16c; fair, 12c; store packed, fresh, 10c@11c; packing stock, 7c; country roll, fancy, 14c; choice, 11c@12c.

Eggs—Strictly fresh, 8½c per doz., 9½c in new No. 2 cases.

Poultry—Hens, 6½c; springs, 10c; broilers, 2 to 2½ lbs., from \$3.00@3.50 per doz.; roosters, 15c; young, 17½c; turkeys, hens, 11c; gobblers, 10c; old, 8c; ducks, 9c@9½c; geese, fat, 5½c@6c; pigeons, 90c@1.00 per doz.

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

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The Poultry Yard

THE SCOTCH GRAYS.

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This once famous Scotch breed of poultry is again attracting attention abroad. In America it is as yet unknown, but if the efforts of its admirers are successful we shall soon see it in our midst. For this reason the following description of the breed will be of interest:

The Scotch Gray is supposed to have resulted from the union of the common barnyard fowl of Scotland with the Cuckoo Dorking. For a long time the Dorking type prevailed in the offspring, but it is now going out of favor. The standard of points adopted for the modern Scotch Gray cock is as follows: Plumage, cuckoo feathered; ground color of body, thigh and wing feathers should be bluish white, while that of the hackle, saddle and tail feathers may



SCOTCH GRAY COCK.

vary from bluish gray to light gray. The color of the barring must be glossy black, with a metallic lustre. The barring on the body, thigh and wing feathers should be straight across, while that on the hackle, saddle and tail may be slightly angled or V-shaped, and the alternating bands of black and white should be equal in width and should read throughout—i.e., be the same shade from head to tail and be free from red, black, white or yellow feathers, and the hackle, saddle and the tail should be distinctly and evenly barred, while the marking all over should be rather small, even, distinct and sharply defined. The markings of the hen are the same as the cock, but larger and more distinct. They have a straight single comb and red ear lobes. The breed is considered hardy and profitable, and we might do well to add it to those we already possess.—N. Y. World.

STUDY YOUR FOWLS.

They Need Different Food at Different Seasons of the Year.

Study the wants of your birds, says a Missouri poultryman. A change of diet is often necessary. In the spring, when their systems are changing, they need easily-digested, cooling food, just the same as you do. If you study your physical self you will know what to feed and how often a change is necessary. Unless you keep your birds in a healthful condition the chicks will not be vigorous. If any of your birds are sick or off their feed try and find out what ails them. Use your mother wit and don't depend on the reasoning power of others. Do not breed from immature stock; if you do you will have roup and other diseases. Old birds are better to breed from than young. There can be no rule laid down to show the amateur how to successfully raise good birds, but never let them stop growing. Follow nature's methods as near as you can in everything, and, above all, don't attempt to raise too many varieties. One breed is better than two, two are better than three, and three are better than more. How many well-known breeders made a reputation on more than one breed? A word to the wise is sufficient.

Keeping Poultry Houses Clean.

It is not a pleasant part of the farm duties to keep a poultryhouse clean, and in winter it is too often neglected; but there is nothing so necessary to the health of the flock as to at-

tend to the matter of cleanliness in winter, when the fowls are indoors most of the time. It is much easier to keep the house clean if a good, thick bed of chaff or short straw is kept on the floor constantly, for this can be taken out easily and renewed in a few minutes. No poultryhouse should ever be allowed to become foul and ill-smelling, and no good poultry keeper ever neglects this matter.—Farm and Fireside.

DISEASES OF POULTRY.

It Will Never Pay to Attempt the Cure of a Sick Bird.

If fowls are kept clean and well sheltered from the wind and wet, and not overfed and have a due proportion of both soft and green food, and a never-failing supply of clean water, they will usually remain free from disease, unless infected by strangers. When disease does occur among fowls it may usually be ascribed to our variable climate, to dampness and cold, to injudicious feeding and to an ill-ventilated roosting house. We would therefore recommend, says an authority, as a cure in chief for all the ills to which poultry is subject, the practice of the old saw, "an ounce of prevention is worth a pound of cure." And a good general rule for the cure of sickness is that it be killed without delay, for unless the birds be valuable ones, it will never pay to attempt a cure, and rarely so if they are. A diseased fowl, as will be the result of general observation, is never kindly treated by its healthy companions, and, as most of the diseases to which they are liable are highly contagious, if not killed and thus summarily disposed of, it should be at once removed from the flock and confined by itself for treatment.—Farmer's Voice.

Profit in Small Things.

The heaviest profit is made from the small things on the farm in proportion to capital invested. The garden pays more than the fields, and the chickens, ducks, geese and turkeys give larger profits than the cattle, according to the cost of the articles sold. Nothing produced on the farm sells at such high prices as eggs, and choice poultry will sell at all seasons, enabling the farmer to have returns from such sources every week in the year.—Crabtree's Farmer.



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Best Combination Bit made. Severe or Easy as you want it. Sample mailed, XC \$1.00. Nickel..... 1.50.
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Destroys the bore worm and apple root louse, protects the plum from the sting of the curculio and the fruit trees from rabbits. It fertilizes all fruit trees and vines, greatly increasing the quality and quantity of the fruit. Agents wanted everywhere to sell the manufactured article. Address all orders to John Wiswell, Sole Mfr., Columbus, Kas.

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I have for sale four Short-horn bulls—three coming 1 year and one coming 2 years old—all eligible to record. One yearling Poland-China boar, Sunset-bred, a good one. Also Light Brahma and G. L. Wyandotte eggs \$1 per fifteen. Write.
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\$3 A DAY SURE Send us your address, dress, and we will show you how to make \$3 a day; absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work; absolutely sure; write at once.
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A. R. Beloit, Kas., April 21-24, 1896.
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	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts for 1895.....	1,689,652	2,457,697	864,713	52,607	103,368
Slaughtered in Kansas City.....	922,167	2,170,827	567,015		
Sold to feeders.....	392,262	1,376	111,445		
Sold to shippers.....	218,805	278,999	69,784		
Total Sold in Kansas City, 1895.....	1,533,234	2,346,202	748,244	41,588	

CHARGES: YARDAGE, Cattle, 25 cents per head; Hogs, 8 cents per head; Sheep, 5 cents per head. HAY, \$1 per 100 lbs.; BRAN, \$1 per 100 lbs.; CORN, \$1 per bushel.

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BREEDERS' DIRECTORY.

(Continued from page 1.)

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Herd headed by Breckenridge 12987 S. We have a fine lot of fall boars and sows ready to ship. Spring gilts bred. A fine lot of spring pigs just arrived that are sired by such noted hogs as Seldom 14251 S., Upright Wilkes 13246, a noted son of George Wilkes, and World's Leader 15578 S. Dietrich & Gentry, Richmond, Kas.

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J. R. KILLOUGH & SONS,

Richmond, Franklin Co., Kansas, POLAND-CHINA SWINE.

Headed by Upright Wilkes 13246 and assisted by J. H. Sanders Jr. 13739. Our brood sows are all richly bred and high-class individuals. Extra nice boars of June farrow, also fall pigs.

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G. W. GLICK, ATCHISON, KAS. Breeds and has for sale Bates and Bates-topped SHORT-HORNS. Waterloo, Kirklevington, Filbert, Cragg, Princess, Gwynne, Lady Jane and other fashionable families. The grand Bates bulls Winsome Duke 11th 115137 and Grand Duke of North Oaks 11th 115735 at head of the herd. Choice young bulls for sale now. Visitors welcome. Address W. L. CHAFFEE, Manager.

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HAVING accurate knowledge of Herefords since father introduced them in 1839, I maintain there never was offered so prime a lot as 20 bulls and 30 heifers which Col. Woods and Col. Sparks will auction as above (5 bulls property of J. H. Veitch "Old Homestead Farm," Martinsville, Ind., are included).

Rich Color, Peerless Ancestors, Show Animals. My regular arrangements. Sale under cover, rain or shine. Complete details in 200-page catalogue 13. Free. Name this paper. T. F. B. SOTHAM, Chillicothe, Mo.

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AT AUCTION.

On Wednesday, May 6th, 1896.

This entire herd of Scotch-bred cattle, including sixty-three head of richly-bred Cruickshank Victorias, Lavenders, Secrets, Butterflies, Braith Buds, etc., the Linwood Golden Drops, and other valuable breeding stock, will be sold at public sale at the home farm, adjoining Linwood Station, Kas., on the U. P. R. R., twenty-seven miles west of Kansas City, Mo. Catalogues now ready and sent to any address on application.

W. A. HARRIS & SON, Linwood, Leavenworth Co., Kas.

COL. F. M. WOODS, Auctioneer.

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Kill the Germs in the pen and under the Hogs' feet with Bannerman's Phenyle, a Disinfectant and Germicide, and feed your hog Anglo-American Food, a conditioner.

NOT WHAT WE SAY, BUT WHAT PROMINENT HOG BREEDERS SAY. I would as soon be without feed as without Phenyle Disinfectant. Have used it three years and never lost a hog. O. S. WEST, Paulina, Iowa.

Ship us two 100-pound kegs by express at once. Heard of your wonderful Remedy through James Hammond, of Scheller, Iowa. I am the largest farmer in the State of Iowa, having 8,000 acres, and carry from 3,000 to 5,000 hogs. C. J. COOK, Odebolt, Iowa.

Since I have been using your goods I have had no sickness in my herd of any kind. I am fully convinced by a proper use of them, there is no use to have cholera or any other sickness in a herd of hogs. JNO. M. STONEBRAKER, Panola, Ill.

Thousands more such testimonials on hand. Write for particulars.

THE ANGLO-AMERICAN STOCK FOOD CO., 113 Adams St., Chicago, Ill.

THE STRAY LIST.

FOR WEEK ENDING MARCH 26, 1896.

Cowley county—S. J. Neer, clerk. HEIFER—Taken up by R. J. Stewart, in Otter tp., (P. O. Cloverdale), about September 1, 1895, one small red yearling heifer, white spot in forehead, white on belly, bush end of tail white, blind in left eye, no brand.

Crawford county—John W. Eckes, clerk. COLT—Taken up by A. J. Wilson, of Pittsburg, March 5, 1896, one dark bay two-year-old horse colt, both hind feet white; valued at \$10.

Cherokee county—T. W. Thomason, clerk. MULE—Taken up by J. S. Michie, in Pleasant View tp., (P. O. Opolis), February 26, 1896, one dark brown horse mule, fifteen hands high, weight between 900 and 1,000 pounds, supposed to be 6 or 7 years old, slit in left ear, pigeon-toed in front feet, harness marks; valued at \$25.

Osborne county—W. F. Vawter, clerk. STEER—Taken up by Joseph Hirst, in Jackson tp., (P. O. Cheyenne), February 5, 1896, one red steer, 2 years old, branded R on right hip and notch in right ear; valued at \$17.35.

Woodson county—W. O. Eades, clerk. STEER—Taken up by N. H. Hagerman, in Everett tp., four miles west of Neosho Falls, February 16, 1896, one red steer with white face, white belly and some white on back, dehorned, branded on right hip with horseshoe, supposed to be 4 years old, weight about 1,100 pounds; valued at \$35.

FOR WEEK ENDING APRIL 2, 1896 Barber county—B. D. Gaddie, clerk. MARE—Taken up by Geo. L. Graves, in Elwood tp., March 7, 1896, one bay mare, five feet six inches high, left hind foot white, no brands; valued at \$20.

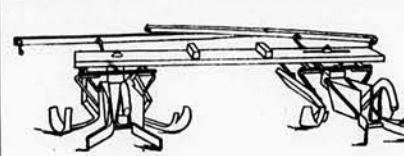
FOR WEEK ENDING APRIL 9, 1896. Johnson county—J. W. Thomas, clerk. MARE—Taken up by Frank Stohrer, in Shawnee tp., one mile west of Lenexa, March 11, 1896, one black mare, fifteen hands high, three white feet, scar in forehead, shod all around, had on halter and strap; valued at \$15.

Hamilton county—John Wensinger, clerk. MARE—Taken up by C. W. Chilton, in Kendall tp., three miles west of Kendall, March 10, 1896, one dark iron-gray mare, light face, fifteen hands high, 4 years old, weight about 950 pounds, large scar on right fore foot; valued at \$15.

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