



Agricultural Matters.

OFFICIAL KANSAS CROP STATISTICS.

The Kansas Board of Agriculture has issued a final bulletin showing yields of the more important crops grown in the State in the year 1896. The total yield of winter wheat is 27,153,365 bushels, or 11,641,124 bushels more than in 1895. Its total value is put at \$13,016,229. The average for the entire State being eight and one-half bushels. The corn crop is 221,419,414 bushels, or 19,962,018 bushels more than last year, the average being 28.03 bushels per acre. Its value is \$35,633,013, as against \$46,189,772 for the previous year's crop. Of oats the yield is 19,314,772 bushels, against 31,664,748 bushels the year previous. The yield per acre was but 13.06 bushels, and the value of the crop \$2,706,652. Spring wheat shows a yield of but 601,523 bushels.

The combined value of winter and spring wheat, corn and oats raised the present year is \$51,596,859, and that of the same crops in 1895 was \$59,273,079.

The following table gives the yields of winter wheat, corn and oats in each county for 1896:

Table with 3 columns: County, Winter wheat (Bushels), Corn (Bushels), Oats (Bushels). Lists counties from Allen to Wyandotte with their respective yields.

WINTER WHEAT The total acreage of winter wheat is reported to be less than one year ago;

show an increase, ranging from 2 per cent. in Sheridan and Wabaunsee to 36 per cent. in Bourbon, while forty-nine counties show a decrease from 2 per cent. in Woodson to 87 in Stanton. With few exceptions the counties having the smaller acreages sown show increase and are located in the eastern half of the State. The average price for the year is given as 65 cents per bushel. Prospects and conditions of this year's seeding are quite invariably reported excellent; perhaps never more satisfactory at the time of year.

CORN. The price of corn now being contracted to feeders and others is from 12 to 18 cents per bushel, with an average in the corn-raising, cattle-feeding counties of between 15 and 16 cents. Forty per cent. of the crop is likely to be sold at these prices before January. The number of cattle to be fattened is about the same as last year.

OTHER CROPS. The acreages and yields of other crops show as follows:

Table with 3 columns: Crop, Yield, Acres. Lists crops like Rye, Barley, Buckwheat, Irish potatoes, etc.

LIVE STOCK. The numbers (in March) and the total values of the various classes of live stock averaged for the year are as follows:

Table with 3 columns: Class, Number, Value. Lists Horses, Mules and asses, Milch cows, etc.

Total value \$73,565,899. Increase in value over last year, \$628,641.

Sheep have increased 45,716 head, swine 166,870, and other cattle 46,388 head; horses have decreased 5,948, mules and asses 1,721, and milch cows 2,179 head below the numbers in 1895.

Of hogs over six months old there is reported a slight increase over the same time last year, perhaps 2 per cent., and of pigs from 4 to 5 per cent.

ALFALFA AND KAFFIR CORN. This year's increase in the acreage of alfalfa is put by correspondents at 23 per cent. Assessors' returns show the year's area in Kaffir corn as 373,053 acres, a gain of 188,860 acres, or 102.53 per cent.

About Weeders. EDITOR KANSAS FARMER:—One of your subscribers in Cloud county, Kansas, has written me, asking for information about weeders, but I have lost his letter and cannot reply privately, and when he sees this, I trust he will pardon my seeming neglect. He wants a description of a weeder, and asks if a two-horse machine seventeen feet wide would be practical.

A weeder is not a harrow, but is a one-horse, seven and a half foot wide garden rake, with thirty-five teeth, two and a half inches from center to center, each thirty inches long. The work it does is exactly similar to the work done with a garden rake, only a little deeper and much wider. A seventeen-foot two-horse machine would not work unless the ground were perfectly level, and then it would be too clumsy to handle. Many Michigan men use a light homemade harrow, cutting about twenty-five feet wide, with teeth made of the largest size wire spikes.

I made my own weeder, and I would not trade it for any of them. I took old rake teeth and cut them up and straightened into weeder teeth, thirty-two inches long, sharpened one end like a carpenter's chisel, and turned over at a right angle two inches of the other end. Eighteen teeth must have this turn made backwards from the bevel of the other end, and seventeen teeth must have this turn made forward, as the teeth are in two rows, eighteen in one and seventeen in the other. I first took a 2x6-inch soft pine stick, seven and one-half feet long, and planed it thoroughly so as to make it

as light as possible, then one inch from the edge I bored eighteen three-eighth-inch holes, five inches apart, and one inch from the other edge I bored seventeen more the same distance apart, but alternate with the other holes; this gave me thirty-five holes two and one-half inches from center to center. Several holes were now bored crosswise through this stick in which to put bolts to hold this rake head together. Then I ripped the piece into three pieces, running the saw one inch from each edge, or directly through the middle holes made for the teeth. The middle section of this rake head had places burned in it to allow the teeth heads to counter sink into, then the teeth were put in place and the three pieces of the head bolted together. A 1x6-inch board was bolted down over the heads of these teeth and on top of the rake head. Another 1x6-inch board had holes bored in it similar to those in the rake head, except they were half-inch holes instead of three-eighth-inch holes, and this board was slipped over the teeth and suspended by chains so as to hang about eight inches above the lower end of the teeth. This board acts as a check-bar and prevents the teeth bending out of line, but at the same time allows vibration. This last board should be of as light stuff as possible, and the center should be cut out to reduce weight.

If I were to build another weeder, I should bore holes crosswise in the center strip of the rake head to receive the ends of the rake teeth, and this would do away with the 1x6 inch board and make the weeder some lighter, as the weight should be eighty pounds, while mine is 100 pounds. Two light shafts are bolted and braced to the rake head, in such a way that the front end of the shafts will be from six to twelve inches above a right angle to the perpendicular of the teeth, according to the height of the horse to be used. A light single-tree is fastened to the center of the rake head. A weeder cannot be used in soil full of corn stalks, neither will it work in stony or lumpy land, but when soil has been put in perfect tilth, the work done by the weeder beats anything I ever saw.

I generally harrow my potatoes twice before they are up, then use the two-horse cultivator with the "eagle claws" as soon as the row can be traced. In a few days the weeder is used, and should follow the roller if possible. The weeder should be used only on a bright, clear day when the barometer is above normal, as then it will annihilate all the small weeds, while if used on a cloudy day with a low barometer, the weeds will not be killed but simply transplanted. If a mistake is made here, the weeder cannot be again used at once, as it will run too deep. I have merely touched on a science in cultivation here, that will afford deep study, and which few farmers ever thought of. All harrowing to kill weeds, all weeding and cultivating should always be done on a clear day with a rising barometer, in order to do the best work.

The weeder will kill all the small weeds between and in the hills, but will not destroy large, strong weeds; as, if it did, it would by the same rule destroy the growing crop. The teeth will run in between the tops in a hill of potatoes and do just the same work one's fingers would do if drawn through the hill, and was made to imitate the work that could be done with the hand. When all conditions are favorable, the job done in one day with a weeder would equal that of fifty to 100 men with the hoe, and by all odds do a much better job. Few men who see a weeder would allow it in their crop, as they think it would pull up and destroy the crop, but it will not do as much harm as a man would accidentally with a hoe, and will do so much better job as to make the man's work not in it. The weeder can be run until the potato tops are so bushy as to not easily pass between the teeth. It is a machine that will pay for itself with a single day's work, and a machine that no potato-grower should be without, but if not run properly will be of little account. There was only one day last spring when the atmospheric conditions were

A Sufferer Cured

"Every season, from the time I was two years old, I suffered dreadfully from erysipelas, which kept growing worse until my hands were almost useless. The bones softened so that they would bend, and several of my fingers are now crooked from this cause. On my hand I carry large scars, which, but for



AYER'S

Sarsaparilla, would be sores, provided I was alive and able to carry anything. Eight bottles of Ayer's Sarsaparilla cured me, so that I have had no return of the disease for more than twenty years. The first bottle seemed to reach the spot and a persistent use of it has perfected the cure."—O. C. DAVIS, Wautoma, Wis.

AYER'S THE ONLY WORLD'S FAIR Sarsaparilla

AYER'S PILLS Promote Good Digestion.

suitable for running the weeder, and I stopped the corn-planter to run it, much to the wonder of my neighbors. CLARENCE J. NORTON. Morantown, Kas.

A Good Late Potato—Production of Seedlings.

EDITOR KANSAS FARMER:—Mr. J. J. Achenbach, of Washington, Kas., planted one medium small tuber of the new potato named in honor of the KANSAS FARMER, and here is his report:

"The total yield from the single tuber was thirty-seven pounds, three pounds being small. The largest tuber weighed 1 pound and 1/4 an ounce; the next largest weighed 15 ounces; six largest weighed 4 1/2 pounds; twelve largest weighed 7 1/2 pounds. The largest was 7 1/2 inches long and averaged 7 inches in circumference. Half the number of hills were twice washed out, and this accounts for the small tubers, as they grew above the ground on the vines. I am very much pleased with the Early Kansas. I am raising Early Ohios and Carman No. 1 also. The Early Kansas greatly outyields the Ohios under the same conditions. While my Ohios are 'A 1,' tip-top in every respect, they are no comparison to the Early Kansas for table use."

From the above report it will be seen that the season was favorable for a late potato, as this is the best report yet received for the Kansas Farmer potato. To raise thirty-seven pounds from a single small potato shows an enormous yield. If a bushel contained 200 such potatoes and each one yielded thirty-seven pounds, the yield for the bushel would be 7,400 pounds, or 123 1-3 bushels of potatoes, or about 950 bushels per acre. Of course, this yield is unusual, but it is evident this potato will do well in a favorable season.

Speaking of the quality of potatoes leads me to remark that the Kansas Farmer and Early Kansas always grow dry and mealy in Kansas, while the Ohio contains 83.03 per cent. of water, or only 16.97 per cent. of dry matter. This has just been proved by the Virginia Experiment Station and is reliable. I grow Ohios every year, but I never offer them for sale for seed, as I cannot recommend them for a table potato, as compared with others I have tried.

Mr. A. asks why variations in shape occur in seedling potatoes. When we plant potato ball seed, we generally do so in a hot-bed, and, as a rule, each ball will produce many different varieties, but each plant will grow little tubers that are all of one variety, yet of many different shapes of the same variety. Often a plant will have fifty to 200 little potatoes, and perhaps the



gain of the sow pig was due to the fact that she had a better appetite than the barrows had, and, indeed, the same holds true in lot I., where the sow ate considerably more than twice as much as either of the barrows.

Lot No. III. shows the same phenomena. The two Berkshire barrows gained respectively but 75 and 48 pounds, while the Poland-China sow gained 183 pounds. This is again due to the delicate appetite of the Berkshires as compared with the Poland-China. One of the barrows ate 368 pounds of feed and made one pound of gain for each 4.91 pounds of meal. The other barrow ate 341 pounds of feed and made a pound of gain on 7.11 pounds of meal; while the sow ate 766 pounds of feed—more than twice as much as any of the others—and made a pound of gain for every 4.19 pounds of meal eaten. The Poland-China sow here made a normal gain. A pound of gain on four pounds of corn for any considerable period is a good gain. That the Berkshires did not do so well must be ascribed to the fact that they did not eat as much.

The individuals in lot No. IV., as already noted, made almost equal gains, and they consumed also nearly equal quantities of feed. In this case the two Berkshire barrows gained respectively 13 and 16 pounds more than the Poland-China sow, while they ate but 25 and 2 pounds respectively more than she did. The mixture of two-thirds corn meal and one-third soy bean meal seemed to have suited the Berkshires exactly, and the gains of the barrows compared with the sow are more in accordance with common experience.

Irrigation.

Conducted by HON. M. B. TOMBLIN, Goodland, Kas.

THE CALIFORNIA FRIEND'S OBSERVATIONS.

In the last issue of the FARMER appeared a contributed article, under the title of "The High Plains of Western Kansas," in which the author drew conclusions the facts will not bear out. His statements of fact are in the main correct, and are as strong an argument in favor of the practicability of irrigation in western Kansas as any one could wish. No one familiar with the conditions in western Kansas expects to irrigate any considerable portion of the uplands. The province of deep well irrigation is only the orchard and garden. No one who has given the subject any study expects more.

This observer says that "in his trip he crossed nearly at right angles the depressions or draws leading down to the head-waters of the Republican and Smoky Hill rivers. He states that he found the bottom lands of the streams to be in the aggregate considerably larger than might be anticipated from the general description of the plains. At Russell Springs there was found to be opportunity for extensive irrigation from both storage and ground water supply, but only one man was seen who appreciated his opportunities. These plains afford excellent grazing and are sufficiently dissected by drainage to afford bottom lands. On these latter the water is close beneath the surface, apparently sufficient for a population such as can make full use of the uplands for pasturage."

The favorable conditions he found for extensive irrigation at Russell Springs this traveler must also have found to a greater or less extent in all the valleys and draws he crossed. The valley of the Smoky Hill river at Russell Springs possesses no better facilities for irrigation than can be found all along the valley, and there is no reason to believe that the valley of this stream has any greater supply of "ground water" than other small streams scattered all over western Kansas. Certainly storage facilities are no better. It is these lands the friends of irrigation are seeking to have developed and are developing as fast as the limited means and experience of the people will permit. The people who first settled in western Kansas did not possess the discernment, or, in

other words, were not able to "size it up" as did this California friend on the occasion of his first visit, but years of dear experience have taught those who remain its possibilities, and barring the fear of the town-building schemer, they agree with this friend when he says: "If the plains, the greatest natural grazing land of the country, can be protected from the spasmodic and unprofitable plowing, and also from the incursions of the town-building schemers, the country can become one of the most prosperous of stock-raising communities. It is being demonstrated, however, that there must be a considerable change from the old method of handling cattle. It is necessary to keep constant care of the stock, and not only shelter the herds but feed when necessary. For this purpose alfalfa and other forage crops can be grown on the bottom lands and some wild hay put up in good season."

They well know the value of utilizing the uplands for grazing purposes, and the folly of depending on dry farming for a living. Those who remain and expect to stay are gathering about them a little herd, their farming operations are confined to raising forage crops for winter feed, when necessary. The farm well which supplies the water for domestic and stock purposes also will supply the water to irrigate a small garden and orchard, sufficient to supply the wants of the family and make pleasant the home surroundings. In the valleys, facilities for irrigation are as good as in any State in the Union, not in as large tracts perhaps, but at a cost very much less than the average for irrigated land. The people of western Kansas believe they can work out their own salvation, and are not disposed to look with favor on the advice of tender-feet, especially when offered with that assumption of superiority evinced by this correspondent when he says: "It is only by bringing in the more intelligent men from eastern Kansas that anything can be accomplished."

The Matter With Kansas.

It is an unpleasant fact to admit that Kansas has lost step in the procession, that neighboring States are leaving her behind. We have lost population because, throughout the western part of the State, may be seen thousands upon thousands of abandoned homes, whose crumbling walls testify to misdirected effort and a hopeless fight against the laws of nature. The fair name of our State has suffered because the former inmates of these abandoned homes, now scattered to the four corners of the earth, have no good word for Kansas. Our securities and credit are in bad repute because, somewhere in the East, the owner of the mortgages on these abandoned homes is "breathing maledictions both loud and deep" on Kansas and her securities. Crop failures have not been confined entirely to the western part of the State. The facts are, even in the eastern part of the State the rainfall is not sufficient every year to produce a full crop, and, rapidly decreasing as we go west, the rainfall on the western border is not sufficient to produce a full crop one year in five. We might as well acknowledge these facts. The sooner we realize that the rainfall will not increase; that we must make the most of conditions as they now exist; that agriculture in Kansas must be adapted to the natural conditions as we now find them, instead of what we hope they will be, the sooner our farmers will prosper, and general prosperity over the State follow.

The farmer, discouraged and disheartened by repeated crop failures, the business man ruined by the inability of the farmer to meet his obligations, do not go to make up that class of citizens who build up a great commonwealth and who take pride in the State and her institutions.

The people of Kansas must do one of two things—either develop the State under the conditions of rainfall which we do receive, instead of what we hope for, together with the proper use of the available water supply, or, following along in the old ruts we have been traveling, see our State the temporary abiding place of a discouraged, homeless people.

Irrigate Your Orchards.

Down at Winfield, this fall, apples were shipped in by the car-load, retailing at 90 cents per bushel, yet the State Board of Agriculture reports 172,113 apple trees in bearing in Cowley county—that is, they were old enough to bear, and do bear when seasons are favorable, or when they get enough moisture.

Fully 50 per cent. of the orchards of Cowley county can be irrigated. Many are situated where the water lift is less than twenty feet; many where, by damming a draw, storm waters can be stored that would furnish the necessary moisture to insure a crop every year.

Not only in Cowley county, but all over the central part of the State, are thousands of acres of orchards which could be put under irrigation at an outlay that would be returned the first year in the increase in quality and quantity of the crop.

Kansas had last year in bearing, or large enough to bear, 13,843,071 fruit trees, yet does not grow enough fruit for home consumption. Had every apple tree in the State large enough to bear produced only one bushel of apples, every man, woman and child in the State could have had five bushels each, and some to spare. The actual product would probably not equal one good apple per tree. Take your pencil and figure out what these trees ought to bear—would bear if they had sufficient moisture.

Of course, it would not be practicable to irrigate all the orchards of Kansas where they now stand. Many of them are located where the water could not be obtained, with any profit, but a very large per cent. could, either from storm waters stored above or subterranean waters pumped from below, be irrigated with profit. In many instances the increased production would, the first year, meet the entire cost of plant.

Insect Pests.

The loss this year to the irrigation farmer by reason of the destructive work of grasshoppers, bugs, lice and other vermin, was enormous, scarcely a garden in the western half of the State but suffered more or less from their ravages. The fact that these pests were more numerous or destructive than ever before, was probably due to causes which we cannot remove, and it would follow that we can at this time consider with more profit means for their destruction, rather than to prevent their appearance.

Grasshoppers have every year been more or less troublesome to the gardener, some years much more so than this. The most effective means the writer has found for preventing their ravages is an old hen with a good brood of chickens, the number of old hens and broods depending on the size of the garden. If the chickens are properly cared for—that is, receive the attention that young chickens should have—they will do but little harm to the garden, at any rate only a small fraction of the damage the hoppers would do if not molested.

The best method found to get rid of the black flea, so destructive to young cabbage, radishes, beans, etc., is an application of road dust slightly moistened with coal oil. This application is also very distasteful to the squash bug of all varieties.

The striped potato bug appeared in great numbers this year, but by picking them off every day or two, for about two weeks, we prevented the appearance of but comparatively few young ones, and had no further trouble—saved seven acres, while neighbors who neglected their potatoes until the young bugs appeared had their vines entirely consumed.

The aphids, or plant louse, is usually very troublesome to cabbage plants in various parts of the State, this year, particularly so to cucumber and melon vines all over the West. It is here confessed, after a three-years' fight with these miserable little creatures,

PATIENTS

Requested Not to Wait—Notice of the Extension of the \$3.00 Rate Made Imperative.

Drs. Copeland and Branaman Able to See Only a Small Proportion of Those Applying During Last Few Days—The \$3.00 Opportunity Frankly Extended to All for the Remainder of the Year.

On account of the vast number of applicants for treatment in the past week, many of whom could not be attended to by reason of the great number of persons ahead of them, Drs. Copeland & Branaman decided after consultation in the matter to make an extension of time during which treatment would be given for \$3.00 to include the month of December. Patients proposing to come in during December are requested not to wait till towards the end of the month when the offices are crowded beyond their capacity.

THE OFFER.

All office or mail patients who begin or renew treatment at the Copeland Institute during the present month of December will be treated at a total expense of \$3.00 per month, all medicines included, until cured.

Mr. E. S. Triggs, engineer, Nineteenth and Bell streets: "I had been a sufferer from catarrh of the head and throat for eight years. I became so bad that I could not swallow—my palate was eaten by the disease, so that I could swallow only warm fluids. I lost flesh and strength rapidly. Being told that Drs. Copeland and Branaman would not treat any diseases that they could not cure, I went to them for examination, and being told that they could cure me, began a course of treatment at the Institute. I improved rapidly from the very beginning. I can now swallow any food, my throat is well and I am gaining in strength. I cannot say enough in praise of this quick cure."

Mr. Jas. Neeson, 808 Penn street, this city: "I had a severe headache, pain in the eyes, stopped up nose and a dry throat. I coughed all day long, and felt miserable. At times I could not work. After taking a course of treatment with Drs. Copeland & Branaman, I am now enjoying good health."

Herman Peters, Fairdale, Kas.: "I am taking the Copeland treatment for Catarrh and Deafness. I have been treated by other physicians, but received no benefit. I can truthfully say that I'm improving under the treatment of the Copeland Specialists, and know that within a short time I will be perfectly well."

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we cannot conquer them, and while not willing to give up yet, have so far invariably found that their appearance on a plant or vine meant certain death to it. We tried everything we could read or hear about, yet they destroyed every melon and cucumber vine on the place this year. All authorities on the subject recommend kerosene emulsion, but we tried it on the vines several times, but always damaging the vines more than the aphids. Tried to drown them, but they seemed to enjoy the bath. On cabbage this fall they would actually freeze solid in the night and during the day thaw out and seem as lively as ever. If any of our readers have been more successful in preventing the ravages of these pests, we will be glad to offer them these columns to relate their experience.

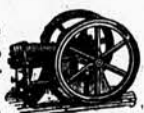
Work is to be resumed on the plan to construct a large pumping station at Pallsade, Mesa county, for the purpose of irrigating the Upper Orchard mesa. A son of Governor Drake, of Iowa, is said to be backing the scheme. The pump is already on the ground, or rather in the Grand river, and the lift will be from 165 to 175 feet, with a ten-mile ditch to cover 6,000 acres.—Denver Field and Farm.

The readers of our publications are requested to use Salvation Oil for any and all pains. It is a sure cure. 25 cents.

Kalamazoo, Mich., is famous for celery—also as the home of Thos. Slater, whose advertisement appears on page 15.

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The Young Folks.

GIVER OF GOOD.

Giver of good, One gift o'er all Its wondrous greatness lifts.

So when I praise for length of days, For health and peace from strife,

When waiting trembling at Thy feet Because Thy tender will Has changed Thy gifts so fair and sweet

How can we thank Thee, Oh, our God, When ev'ry care or loss Has lost the sting of chastening woe

CHICKEN AND CANARY.

A Firm Friendship That Was Begun in a Singular Way.

One day last spring, in purchasing a lot of fowls from her marketman, a lady in Nashville, Tenn., got one little bit of a chicken that was almost too small to eat, and which made its escape through the wires of the coop and began to chirp and cry about the yard.

It chanced that the lady has a pet canary of which she is very fond, and to which she devotes much care and attention. For instance, it is her invariable custom in mild weather to turn the bird out of his cage for a certain portion of each day, letting him have his bath in a sunny spot on the back porch.

That was the beginning of the singular friendship, which continues still unabated. The chicken stayed in the bird's cage with him till it was too large to get in the door, and then a roost was placed for it close to the cage hook, so that they might be near each other at night.

Where Hens Are Kept Busy.

In China hens are kept busy hatching fish. The spawn is placed in egg shells, hermetically sealed, and a hen is induced to sit on them.

SEA OTTER HUNTERS.

Their Hermit Home on the Summit of a Storm-Lashed Rock.

About a hundred miles below Cape Flattery is a rock which every mariner of the Pacific knows as marking the dangerous shallows of Granville bay. Copalis rock, as it is called, is only a hundred yards or so from shore, but is always surrounded by tumbling breakers.

These men were the pioneer sea otter hunters of this part of the coast—the first white men who engaged in the business. From their perch high over the angry sea they watched for sea otter and shot them. Behind the rock in an eddy that was comparatively quiet they kept their canoe, foot and hand holds down the side of the rock giving them access to their craft, in which they would search for the otter they had killed, or perhaps chase their quarry when sighted at a distance too great for the range of their guns.

Sea otter hunting is a most peculiar and hazardous business, and the boast of those that follow it that they are the finest marksmen and the finest boatmen in the world is well sustained. This is only to be expected, for the precious fur they hunt—a No. 1 sea otter sometimes selling for as much as \$300—allures the hardiest and most skillful hunters. Along the strip of coast running north from Gray's harbor are a half dozen white men and a score of natives whose sole industry is to hunt this animal.



THE DERRICK OUTLOOK.

but claims to have in a safe that he picked up in a wreck near by furs valued at \$2,000. He is the most successful hunter in the lot, and is waiting for a rise in the market. He will probably get a heavy premium before he dies—he is still young—for the otter is fast being exterminated.

There are several methods of hunting the otter. The Indian chases the animal through the surf and out at sea with his canoe. So does the white man sometimes, but ordinarily he shoots from the shore. Along the beach are tripod-shaped "derricks" standing at the edge of the surf, from which the white man watches, days at a time, for his game.



IAN MACLAREN, ONE OF THE COMPANION'S NOTED CONTRIBUTORS FOR '17. See Special Offer Below.

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THE YOUTH'S COMPANION, Boston, Mass.

AMUSING SEA DOG.

This Canine Chews Tobacco and Blows Out a Match.

"Grip" is the name given a remarkable dog that follows the fortunes of the Neptune liner Ohio, on account of the tenacious hold on life he has shown, he having fallen from the ship into mid-ocean no less than three times, says the New York Journal. He is a cross between a Bedlington and a Skye terrier, and does many things that other dogs do not do.

He will eat raw potatoes ravenously, but will not touch meat. The sailors have taught him to chew tobacco, and he has developed a taste for whisky and water, under the influence of which he does many foolish things and shows a bad temper.

He will blow out lighted matches. He has one trick of standing on his hind legs and by a little twist throwing into the air and thence into his mouth any article placed on his nose.

His brightest accomplishment is to select at word of command a given coin out of a collection composed of a half-penny, penny, sixpence, shilling and half-crown, which are laid on the floor of the captain's cabin, Grip being sent below, with the command: "Bring me the shilling," or whatever it may be that is asked for.

An Amusing Introduction.

The little word "again" once threw a large assembly into fits of laughter. It was at a public meeting in New York. One of the speakers, Rev. Mr. R—, had the misfortune, when he tried to take his seat, to miss his chair; and come down at full length on the platform. The accident caused not a little subdued mirth. When at last it came his turn to speak the presiding officer introduced him in these words: "Rev. Mr. R— will again take the floor." The reverend gentleman never met with so enthusiastic a reception as greeted the announcement.

Pigs the Size of Rats.

A hog that was no bigger than a house rat would hardly seem like much of a hog, would it? Yet, in Australia there is a breed of pigmy pigs no bigger than that. They are like the larger breeds in every respect, except in the size of their squeals and their appetites. They are said, too, to be quite as unclean in their habits as are those with which we are familiar.

THE WAY TO CURE catarrh is to purify the blood, and the surest, safest, best way to purify the blood is by taking Hood's Sarsaparilla, the One True Blood Purifier.

HOOD'S PILLS are prompt, efficient, always reliable, easy to take, easy to operate.

When writing to advertisers please mention KANSAS FARMER.

Making a Hole in Glass. Everybody who has tried understands how difficult it is to bore a hole in a strip or sheet of thin glass.

The following method is said to be successful: Press a cake of wet clay upon the glass and then make a hole through the clay of the desired size, laying bare the glass at the bottom of the hole. Then pour melted lead into the hole, and it will drop through the glass, making a round aperture. The explanation is that the sudden application of heat cracks the glass in a circle corresponding in size with the hole in the clay.

New remedies are being constantly introduced to the public, but Dr. Bull's Cough Syrup still maintains its pre-eminence.



Train for Business

At Kansas' most thoroughly practical institution. The Emporia Business College and Short-Hand Institute. Modern methods, able teachers and low expenses. Board \$1.50 per week. Students are assisted in getting positions when competent. Write for any other information to the President. C. E. D. PARKER, Emporia, Kansas.

Washburn College, TOPEKA, KANSAS.

Progressive Management, Thorough Courses of Study, Economical for Students.

Academic and Collegiate departments. Special teachers of Oratory, Music and Art. THE FALL TERM begins Wednesday, September 16, 1896.

GEO. M. HERRICK, President.

FIELD FLOWERS The Eugene Field Monument Souvenir

The most beautiful Art Production of the century. "A small bunch of the most fragrant of blossoms gathered from the broad acres of Eugene Field's Farm of Love." Contains a selection of the most beautiful of the poems of Eugene Field. Hand-somely illustrated by thirty-five of the world's greatest artists as their contribution to the Monument Fund. But for the noble contributions of the great artists this book could not have been manufactured for \$7.00.

WE BUY paper clippings and acquaintance names 50¢ a thousand. Particulars for stamp. NEWS CLIPPING CO., Dept. H. N., 504 W. 17th St., N. Y.

# KANSAS FARMER.

ESTABLISHED IN 1863.

Published every Thursday by the

**KANSAS FARMER COMPANY.**OFFICE:  
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

An extra copy free fifty-two weeks for a club of six, at \$1.00 each.  
Address KANSAS FARMER CO.,  
Topeka, Kansas.**ADVERTISING RATES.**Display advertising, 15 cents per line, agate, (fourteen lines to the inch).  
Special reading notices, 25 cents per line.Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.  
Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$15.00 per year, including a copy of *KANSAS FARMER* free.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.

If our friends whose subscriptions will expire January 1 will bear in mind that the labors of our subscription department at that time may be lightened by early renewals, and take the first opportunity to send in their dollar bills, they will confer favors which will be greatly appreciated.

The price of hogs averages about 20 cents per 100 pounds lower than at this time last year. The highest prices of the last twelve months obtained early in February.

We have left on hand a small number of *KANSAS FARMER* binders. Any one sending \$1.05 and requesting the binder will receive *KANSAS FARMER* for one year and a binder. Until the demand becomes very strong for binders we shall not make a new supply.

December is the month in which prices for prime beef cattle are on the average higher than in any other month of the entire twelve. If beeves are fat and ready to sell in December, under the usual course of the market it will be more profitable to let them go than to hold them until spring. It costs more to feed to add a pound of beef after than before Christmas.

Ex-Mayor T. W. Harrison, of Topeka, one of the most extensive and successful farmers in Shawnee county, who has had a wide agricultural experience of over forty years in Illinois, Wisconsin and Iowa, and for the last fifteen years in Kansas, will address the next annual meeting of the State Board of Agriculture, in January, upon the subject of "Longevity of Farms," which he is certain to make very interesting.

Market quotations of wheat are made on the speculative grade. This is No. 2 hard, a grade of spring wheat. Red winter wheat has usually commanded considerably better prices than those quoted for No. 2 hard. The difference is now greater than heretofore. Thus, on December 2, the closing Chicago quotation on the speculative grade was 79½. It was reported that on the same day a Missouri river elevator had an offer of 94 cents for No. 2 red winter wheat.

When the children's poet, Eugene Field, died, a few months ago, his death was felt by the children's friends, to be a great bereavement. A movement is in progress to provide a monument for the dead poet and to help his family. A volume containing some of Field's choicest poems, superbly illustrated by thirty-two of America's greatest artists, a volume which would ordinarily cost \$7, it is said, is to be sold for \$1. This is made possible and yields a profit because the work of the artists has been contributed as a love offering. The objects of the association having the matter in charge are most worthy. In selecting presents for friends no mistake can be made in taking "Field Flowers."

**IS IRRIGATION A SUCCESS?**

In quoting a portion of an article from *KANSAS FARMER* of December 3, the Topeka Daily *Capital* and two of the Kansas City dailies of December 5 do the *FARMER* and the cause of irrigation great injustice by attributing the opinions expressed in the article to this paper, instead of correctly stating the fact that the views expressed were those of one of our California friends. This was explicitly stated in the first sentence of the article referred to, but which the *Capital* neglected to copy.

It is well known by regular readers of the *KANSAS FARMER* that we view the success achieved at irrigating small areas of the semi-arid portion of Kansas as incontrovertible evidence of the broader success which awaits the development of a fuller knowledge of the situation and the more extended use of the water resources which nature has provided with great liberality, although in different manner from that to which most irrigators are accustomed.

Instead of advising Kansans to discontinue their efforts at irrigation, as suggested in the headings which the daily papers have given to their excerpts from our California friend's views, we have uniformly held that a large portion of the plains are redeemable by the artificial application of water and that nature has provided a constantly replenished supply of water in a great underground reservoir of sand and gravel, from which it may be obtained without greater expense than the average cost of water in countries where irrigation has long been successfully practiced. The *KANSAS FARMER* believes that a man who has a piece of the rich lands of the plains of Kansas, where the depth to this great reservoir is not over fifty feet, has the foundation for a prosperous farm. Where the depth is not more than 100 feet a good living may be made, and where the depth is ten to twenty feet he has under him a fortune.

That stock-raising, dairying and poultry-raising should constitute important features of the farming of the plains, and that the rich and unused native pastures should be grazed, are propositions not open to argument.

With the advancing prices of farm staples, which seem inevitable from the most careful statistical estimates of demand and possible supplies, the outlook for the farmer is better than it has been for many years. The rise has already commenced as to wheat, and is likely, before the close of the century, to be distinctly noticeable as to farm staples in general. These can be produced in great abundance on the plains of Kansas by irrigation. The grains and forage can be fed to excellent advantage to animals which live half the year on the cheap grazing which so forcibly impressed our California friend.

The *KANSAS FARMER*, so far from being ready to call a halt of irrigation development in western Kansas, is conducting each week a department devoted expressly to that subject, and expects to see the favorable results, which have thus far followed well directed efforts, greatly multiplied and a very large proportion of the now almost unused plains subjected to a change as magical as that produced by irrigation in the southern portion of our California friend's own State.

So little accustomed are irrigators generally to finding great supplies of water in other than surface streams or lakes that they uniformly underestimate the invisible supply of the great plains, and look upon the short grass which grows upon the surface as the only valuable product possible.

It is hoped that the forthcoming report of our State Irrigation Board will furnish such authoritative information as a result of its two years' investigations and \$30,000 as shall prove an eye-opener as to the capabilities of the plains of Kansas.

But whatever the future may have in store, the success of those who have applied water to Kansas land is such that no intelligent observer can fail to recognize it.

Dornbusch, the London grain statistician, recently gave the following brief summary of the position of wheat: "The world's harvest of 1896 was

at least 20,000,000 quarters smaller than the average of three preceding years. The shortage was caused by the diminished yield in the United States, Canada and Russia. The Indian wheat crop of 22,000,000 quarters, was 9,000,000 quarters under the average of 1895, 1894 and 1893, and the country stands face to face with famine—and instead of contributing to the wants of Europe, is compelled to accept extraneous assistance. The autumn sowings of wheat and rye have been frustrated by drought in the Russian provinces whence Black Sea and Azov ports draw their chief supplies."

**A BROAD-GAUGED MOVEMENT.**

The organized movement of the Santa Fe Railway Co. to promote and assist material development along its route, as set forth in the circular of Vice President Morton, published in *KANSAS FARMER* last week, is a matter of importance. This great company, whatever may have been its errors in other directions, has always recognized the fact that its business, and consequently its prosperity, must come from the development of the resources of the country along its lines. The time is at hand when, instead of producing and shipping out unmanufactured products of the soil, and depending on this to keep us even with the world, Kansas will find it profitable to manufacture much of what her people consume and to give some finishing touches to our primary products. So, also, we shall diversify our crops and add to our production by irrigation and by otherwise intensifying our agriculture.

The announcement that the Santa Fe Company stands ready to assist and encourage and to advise in every effort for the advantage of the country and towns it serves, is a recognition of the mutual interests of all in the prosperity of local industry. It is not to be expected that the Santa Fe will draw on its treasury to promote doubtful or even meritorious enterprises. But the company can assist in the ways suggested in Vice President Morton's circular, and promoters of proposed enterprises should avail themselves of all that is suggested, and should not allow the clerks in the Vice President's office to forfeit their positions for lack of correspondence to answer.

**SHAWNEE HORTICULTURISTS.**

The December meeting of Shawnee County Horticultural Society was held last Friday, at the court house.

Mr. Charles presented an able discussion of California fruits, but on comparison showed that there is more money, more pleasure, and more satisfaction in being a horticulturist in eastern Kansas than in being one of a horde of California fruit-growers, each striving for a profitable sale in an over-stocked market. Representative Brooke led in a discussion of the San Jose scale. The conclusion was that legislation should be had for protection against this and other depredators.

The election of officers for the ensuing year was held, resulting in the election of Representative A. L. Brooke, President; A. B. Smith, Vice President; Mr. Charles, Secretary; John Armstrong, Treasurer; B. F. Van Orsdal and A. B. Smith, delegates to the annual meeting of the State Horticultural Society, and B. B. Smythe and John Armstrong, alternate delegates.

The Agricultural college at the State University of Missouri is offering two practical short courses, one for the farmer and stock breeder, the other for the horticulturist, both beginning January 5, 1897, and continuing twelve weeks. No tuition is charged. These courses deal exclusively with the practical phases of agriculture, dairying and horticulture, and cover the subjects of breeding, feeding and judging live stock, butter and cheese-making, crop-growing, veterinary science, manures and fertilizers, drainage, orcharding, small fruit growing, market gardening, methods of combating injurious insects and destructive diseases of the orchard and field crops, and training in carpentry and blacksmithing.

**KANSAS IMPROVED STOCK BREEDERS.**

The next annual meeting of the Kansas Improved Stock Breeders' Association (which also includes the Kansas Swine Breeders' Association) and the first annual breeders' combination sale, will be held at Topeka, January 12 and 13, 1897. This will be the greatest occasion for fine stock breeders ever held in Kansas, and each member of the association is expected to do something for the good of the order. This may be the only warning given. Prepare yourself accordingly, so that when the Executive committee calls you will be properly equipped for action.

The Committee on Program and Arrangements will shortly issue the annual program, and meantime it is expected that each member will immediately send suggestions by return mail to the Secretary, so that this annual meeting shall by far surpass all previous ones.

The year 1897 should be a great year for breeders and the improved stock business generally, and this convention will probably start the ball rolling. Address, H. A. HEATH, Secretary,  
Topeka, Kas.

*KANSAS FARMER* and *Agricultural Epitomist* to January 1, 1898, for \$1.25. Subscribe now.

One bunch of forty-five export steers sold at \$5 per hundredweight at Kansas City, last Monday.

It is reported that despite the recent rains the 1896 famine in India will be the worst ever experienced.

The publisher of the *Kansas Sunflower*, the now famous "Becky Sharp's paper," has made arrangements with us whereby we can offer it and *KANSAS FARMER* one year for \$1.50, which is the price of the *Sunflower* alone. Send in your subscriptions to this office.

The *Youth's Companion* is one of the finest publications for young and also for older people. We can furnish *KANSAS FARMER* and *Youth's Companion* for \$2.35 for one year to new subscribers to *Youth's Companion*. Or we will renew subscriptions, with *KANSAS FARMER* subscriptions, at \$1.65, if sent direct to this office.

Congress convened last Monday. The present session is what is known as the short session. The terms of the Representatives will expire at the close of the day, March 3, 1897, and Congress adjourns "without day." Whatever legislation is had during this session must be completed and signed by the President before March 4, when the terms of the new Congressmen and the new President will begin.

Wheat took a tumble of 2 cents last Monday. This need not scare holders. There will be fluctuations, but unless all predictions, on both sides of the water fall, the price must continue to advance until a considerably higher figure is reached. The substitution of corn as the difference in price widens acts as a check to the rise which would otherwise take wheat to a figure necessitating short rations for many.

There was a pretty exhibition of pigeons in Topeka last week. About 800 birds were shown. Nowhere in animate nature is the transforming power of the skillful breeder more apparent than in the case of pigeons. From a graceful and easily-domesticated but otherwise rather uninteresting kind of bird, have been produced such variations as appear to be scarcely related. Birds of almost tireless powers of flight and birds which cannot fly at all, birds of greatly varying colors, pure white, black as a crow, red, yellow, buff, variegated; birds of every form, birds of great performance, like the carrier pigeon; amusing birds, like the parlor tumbler. The parlor tumbler is the most interesting of all. In its cage it shows no noticeable peculiarity. Placed on the floor it turns somersaults backwards with great rapidity, actuated by an inherited instinct. The lesson of the transformations of the pigeon are of great value to the stock breeder, and will not unlikely be studied with advantage by the sociologist as well.





## Horticulture.

### OBSERVATIONS ON THE CARE OF FRUIT TREES.

By Prof. L. H. Bailey, in Bulletin 102, Cornell University Experiment Station.

(Continued from last week.)

#### SOME REFLECTIONS UPON WEEDS.

The one deplorable fact in the minds of most farmers is the existence of weeds. From the time the boy is old enough to vent his energy in the smothered carrot bed, he is everywhere and always impressed with the fact that he must hoe to kill weeds. From youth to old age the burden is upon his mind and back. Writers of agricultural literature have taken up the wall, and have drawn it out to disproportionate lengths by specifying long lists of plants which are often weedy intruders, and by describing their habits and migrations in vivid detail. The truth is that weeds always have been and still are the closest friends and helpmates of the farmer. It was they which first taught the lesson of tillage of the soil, and it is they which never allow the lesson, now that it has been partly learned, to be forgotten. The one only and sovereign remedy for them is the very tillage which they have introduced. When their mission is finally matured, therefore, they will disappear, because there will be no place in which they can grow. It would be a great calamity if they were now to disappear from the earth, for the greater number of farmers still need the discipline which they enforce. Probably not one farmer in ten would till his lands well if it were not for these painstaking schoolmasters, and many of them would not till at all. Until farmers till for tillage sake, and not to kill the weeds, it is necessary that the weeds shall exist; but when farmers do till for tillage sake, then weeds will disappear with no effort of ours. Catalogues of all the many iniquities of weeds, with the details given in mathematical exactness, and all the botanical names added, are of no avail. If one is to talk about weeds he should confine himself to methods of improving the farming. The weeds can take care of themselves.

The presence of weeds is only one of the many illustrations of the effects of the desperate struggle for life which is forced upon every plant and animal when left to shift for itself. Every plant produces more seeds than it can ever expect to rear into plants. There is room for more only as other plants die. So when the farmer breaks up the earth, he kills the plants which inhabited the land and thereby opens opportunities for the myriad host which stands waiting over the border for a chance to spread itself. These plants are bound to make the attempt to fill the breach. The farmer may keep them out either by killing them or preventing their establishment by means of tillage, or by covering the ground with other plants so that the weeds can find no chance to live. Now, these two things—tillage and cropping—comprise the whole science and practice of agriculture; and it follows that better farming is the only method of permanently keeping down the weeds. This fact is admirably illustrated by the common observation that those persons who are called "good farmers" complain least of weeds. It is often asked that the government lend its aid in directly fighting serious invasions of weeds; but the government cannot take men's farms in charge and do their farming for them, and unless it does this it can only temporize with the invader.

Nature is a kindly and solicitous mother. She knows that bare land becomes unproductive land. Its elements must be unlocked and worked over and digested by the roots of plants. The surface must be covered to catch the rains and to hold the snows, to retain the moisture and to prevent the baking and cementing of the soil. The plant tissues add fibre and richness to the land and make it amenable to all the revivifying influences of sun and rain and air and warmth. The plant is co-partner with the weather in the building of the primal soils. The lichen spreads its thin substance over the

rock, sending its fibres into the crevices and filling the chinks, as they enlarge, with the decay of its own structure; and finally the rock is fit for the moss or fern or creeping vine, each new-comer leaving its impress by which some late new-comer may profit. Finally the rock is disintegrated and comminuted, and is ready to be still further elaborated by corn and ragweed. So nature intends to leave no vacant or bare surfaces. She providently covers the railway embankment with quack-grass or willows, and she scatters daisies in the old meadows where the land has grown sick and tired of grass. So, if I pull up a weed, I must quickly fill the hole with some other plant or nature will tuck another weed into it. Man is yet too ignorant or too negligent to care for the land, and nature must still stand at his back and supplement the work which he so shabbily performs. She knows no plants as weeds. They are all equally useful to her. It is only when we come to covet some plant that all those which attempt to crowd it out become weeds to us. If, therefore, we are competent to make a choice of plants in the first place, we should also be able to maintain the choice against intruders. It is only a question of which plants we desire to cultivate.

We must keep the land at work, for it grows richer and better for the exercise. A good crop on the land, aided by good tillage, will keep down all weeds. The weeds do not "run out" the sod, but the sod has grown weak through some fault of our own and thus the dandelions and plantains find a chance to live. So the best treatment for a weedy lawn is more grass. Loosen up the poor places with an iron garden rake, scatter a little fertilizer and then sow heavily of grass seed. Do not plow up the lawn, for then you undo all that has been accomplished; you kill all the grass and leave all the ground open for a free fight with every ambitious weed in the neighborhood. If the farmer occupies only half the surface of his field with oats, the other half is bound to be occupied with mustard or wild carrot or pigweeds; but if his land is all taken with oats, few other plants can thrive. So, a weedy farm is a poorly-farmed farm. But if it does get foul and weedy, then what? Then use a short, quick, sharp rotation. Keep the ground moving or keep it covered. No Russian thistle or live-forever or Jimson weed can ever keep pace with a lively and resourceful farmer.

Some two years ago I saw the much-described Russian thistle along a railroad track in western New York. "There," I said, "is your schoolmaster. It comes with all the energy and freshness of the West. It will bring new ideas. Presently it will invade our old orchards, and how it will shake them up! Then farming will mean cultivation or thistles. And now and then the farmer will debate if the old orchard is worth the trouble, and he will make wood of the trees and a potato patch of the land, and every one will be the gainer. If all that they say of it is true, this Russian thistle will beat the canker worm and the apple scab and the codlin moth as a reformer. I am afraid that we need the Russian thistle."

And yet I do not look for such a furious spread of this Russian thistle as it has enjoyed in the West; for even in the East we grow more wheat per acre than they do in Dakota. Six to ten bushels of wheat means that lots of land is left for the thistle; and to this must be added raw prairie, and waste land upon farms which are too big to be farmed; and still to these encouragements to the plant must be added the fault of wheat after wheat year by year. The reports say that 25,000 square miles of land are threatened to be made profitless for wheat by the Russian thistle. Then, upon so much area the advent of a mixed and self-sustaining husbandry will be hastened, and the Russian thistle should have all the honor of the achievement. The oncoming of the Canada thistle was proclaimed over a half century ago with the same forebodings of disaster. One New York agitator warned the people that it would "establish its fatal

empire over the whole of North America," and perhaps result in the depopulation of the country! But whilst the Canada thistle has spread, it has met its Waterloo whenever it has made an onslaught against a good farmer. It is no longer dreaded by the farmers of this State. The land is now too precious to be given over to thistles. Now and then one sees a place like Solomon saw when he "went by the field of the slothful, and by the vineyard of the man void of understanding; and lo, it was all grown over with thorns, and nettles had covered the face thereof, and the stone wall thereof was broken down."

#### When to Plant--How to Sell Seeds.

EDITOR KANSAS FARMER:—When conversing with your representative at Lawrence, he asked me, "When is the time to plant seeds in Kansas?" This question is very difficult to answer, as it depends largely on how soon spring opens. We begin planting from the latter part of February, and in March, and main crop is planted in April; and, then, it depends on what varieties of seeds are planted. For instance, onion sets ought to be planted very early, say in February, or they should be planted in the fall, in order to produce an early crop. Lettuce will stand a good deal of cold weather, while beets and tomatoes are very tender and liable to freeze. Dealers in seeds, as the farmers themselves, make a great mistake by not supplying themselves with seeds early enough to plant when the time comes. Both usually wait until the very last moment, when they want them, and then they want them bad. We therefore suggest to the country dealers that they have their stocks at least in January, to be able to supply the farmers when they are in need. In regard to buying grass seeds, sorghums and other varieties, throughout the country, from country dealers and farmers, this is principally done by samples sent from the different parties, upon which samples we make our bids.

F. BARTEDES & CO.

Lawrence, Kas.

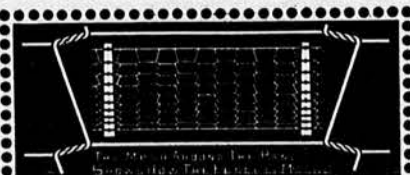
#### A Business Chance.

EDITOR KANSAS FARMER:—There is one enterprising nurseryman in Vermont who does a thriving business chiefly in native plants. He collects from the fence rows, wood lots, pasture, brook and mountain sides the commonest weeds and shrubs and furnishes them to a large and profitable list of customers. His success is encouraging; his methods are worth studying; his idea should be put into effect elsewhere.

Kansas has a comparatively very large number of native plants, numbering an unusual quota of attractive species. Along the river bottoms in the eastern portion of the State nearly all the Mississippi valley plants may be found; while coming down from Colorado on the west are many Rocky mountain species. The meeting of these two floras is a very seductive subject for botanic study, but the opportunity for a little profitable business may be found here also.

I can readily name from memory several plants native to Kansas which are quite worth introduction to gardens. I will mention *Malva coccinea*, *Vernonia Baldwinii*, *Kuhnia eupatorioides*. Several species of the button snakeroot, or blazing star, several of the goldenrods, several of the wild asters, and such shrubs as *Cephalanthus occidentalis*, *Rosa setigera*, *Calycanthus*, *Symphoricarpos vulgaris*, *Cornus stolonifera*, *Cornus paniculata*, etc. This list could be greatly extended and improved. I have simply cited a few examples from those which have first occurred to me.

And let no one be frightened by the long scientific names. The people who would be the best customers for this sort of stock would insist on having just those names, and on having them accurately applied. I should advise the enterprising young man who would take up this business to make a special study of these scientific names. There is another class of customers who would buy the names. For them one should keep that beautiful blossom of the western Kansas prairies, known as *Lepachys columnaris* var. *pulcherrima*.



### KEYSTONE WOVEN WIRE FENCE.

Practical farmers say it is the best. Fence in use seven years still in first-class condition. Can also be used as a portable fence. Write for catalogue.

**KEYSTONE WOVEN WIRE FENCE CO.,**  
12 Rush St., PEORIA, ILL.

It will not be wrong to say that last spring I tried hard to buy seed of this plant but couldn't find it.

Doubtless there are scattered over the United States many exiles who "Want to be in Kansas when the sunflowers bloom."

and who would gladly buy guaranteed packets of sunflower seed. Here I spent all last summer in Vermont and didn't see a sunflower! Think of it! How do you suppose it makes a Kansan feel? The sunflower is a pretty plant, after all. You will remember what Oscar Wilde said about it, and how very fashionable sunflowers were a few years ago with a certain class; yet I have never heard that any shrewd Kansan took advantage of the craze in a commercial way. This would have been the chance for our dealer in Kansas plants to gather 10,000 packets of sunflower seed from some office-seeker's corn field and send them out: "The Oscar Wilde Sunflower, grown in Kansas, and warranted to germinate." One of the perennial sunflowers common in many parts of the State, *Helianthus Maximilliani*, is a noble garden plant, and has been receiving many favorable notices in Europe in recent years. I have no doubt a market could be found for hundreds of the plants which could be collected by the wagon-load. The so-called "wild flax," *Coreopsis tinctoria*, which makes many Kansas grain fields yellow at harvest time, is sold in many improved varieties by all American and European seedsmen. *Sabbatia campentris*, a beautiful little spring blossom, growing in the southern part of the State, has been favorably received in Europe, but can hardly be bought of American dealers.

Who would buy these things? Well, the man who should go into the business would have to find his own customers; and yet the question may be partially answered by saying that botanic gardens, at home and abroad, and wholesale plant and seed dealers would be the chief patrons of such a nursery. The Vermonter whom I have in mind has hardly any local custom at all. And the Kansas nurseryman need not think that because he can't sell sunflower seed and goldenrod plants to his next neighbor there is no market for such things. I have no doubt that a man who would go at it rightly would find the collection of Kansas native plants a very remunerative business. Kansas is a fine field for such work.

Burlington, Vt. F. A. WAUGH.

It is often a mystery how a cold has been "caught." The fact is, however, that when the blood is poor and the system depressed, one becomes peculiarly liable to diseases. When the appetite or the strength fails, Ayer's Sarsaparilla should be taken without delay.

#### This is Your Opportunity.

On receipt of 10 cents, cash or stamps, a generous sample will be mailed of the most popular Catarrh and Hay Fever Cure (Ely's Cream Balm) sufficient to demonstrate the great merits of the remedy.

ELY BROTHERS,

56 Warren St., New York City.

Rev. John Reid, Jr., of Great Falls, Mont., recommended Ely's Cream Balm to me. I can emphasize his statement, "It is a positive cure for catarrh if used as directed."—Rev. Francis W. Poole, Pastor Central Presbyterian church, Helena, Mont.

Ely's Cream Balm is the acknowledged cure for catarrh and contains no mercury nor any injurious drug. Price, 50 cents.

#### Union Pacific Route.

What you want is the through car service offered between Denver and Chicago via the Union Pacific and Chicago & Alton railroads, which is unexcelled by any other line. Magnificent Pullman sleepers, dining cars and chair cars, run through daily without change, Denver to Chicago via Kansas City.

## In the Dairy.

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

### Gathered From Many Sources.

From Report of Kansas State Board of Agriculture ("Cow Culture").

We have so many advantages over the Canadian cheese-maker in the way of cheaper feed, cheaper land and good market that we ought to be able to do better than he does. Certainly there is no good reason why we should pay the freight on cheese all the way from New York, as we now do, when we can make it at home cheaper. What we need along these lines is education of the farmers to realize their opportunities and to know how to take advantage of them. Creameries may very easily be converted into cheese factories at small expense, for all or a part of the season. The largest cheese factory in the State, at Waterloo, is operated as a cheese factory in the summer and a creamery in the winter, the most profitable season for each line. We are making the fancy cheeses here at the college, such as Edam, brick and Switzer. They can just as well be made in the State as elsewhere, though most of them used in this country are now imported. The principal requisite is absolutely clean milk.—Prof. G. L. McKay, Dairy Instructor, Iowa Agricultural College.

I am decidedly in favor of co-operative creameries, for the following reasons: First—The farmers get all there is in it, after the necessary running expenses are taken out. Second—In the course of time the farmers own the creamery, and get more for their milk at the same time than they otherwise would. Third—The patrons, being stockholders, are also voters for the officers, and if there is a rascal in they can put him out on the first ballot. Fourth—The patrons are better satisfied if they have something to say about running the creamery and will produce more milk. The creamery that we now operate was owned by a stock company that had ceased to do business for the want of sufficient milk to make the running of the creamery profitable. Our average daily receipts of milk in June were about 10,000 pounds. We borrowed every dollar to pay for our creamery and will soon have it paid back. Our patrons have received more per hundred for their milk than they received the year before we bought the creamery, when butter was higher.—Wesley Fegles, Secretary La Porte, Iowa, Co-operative Creamery, in Creamery Journal.

The farmers of Kansas should turn everything into milk that they sell to anybody outside of the State for that purpose. Butter and cheese can be made cheaper here than they can farther east. The freight on dairy products is very much less than on the feed that makes them. The skill possessed by the people of the East who make your corn and bran and shorts and oil cake and other things into butter and cheese costs you too much. It may be true that they need your feed stuffs to make their soils fertile but you need them for the same purpose. The man who grows grain to sell is a soil robber, who will reduce the best acres on the continent to poverty; the farmer who keeps cows and consumes his crops on his farm can keep up the fertility of Western prairies and I do not know of any other way by which that can be done so certainly. The products of the cow sold from the farm do it less injury than any other kind of products, especially butter. We have seen Western farms steadily improve for thirty-eight years, where the cow was the center of the farm system and nothing was sold but meats and dairy products.—Prof. James Wilson.

You will find that a man who makes sure that he washes his hands clean before he milks his cows will make his dairy farm pay better than the man who does not do that. It is not that the money is made by that one act, but if a man believes in the importance of little things he will make his

business successful. Most men fail, not on the main issue, but on the little things.—Prof. J. W. Robertson.

### That Cow Report—Utility of the Dairy Cow.

EDITOR KANSAS FARMER:—I have before me report of the State Board of Agriculture for the quarter ending September 30, 1896, entitled "Cow Culture," devoted to the dairy industry. The report shows Secretary Coburn to be an expert in compiling valuable information for the farmers of Kansas, and reflects great credit on the Secretary. It has been a long time since I have found as much practical information in so small a space as is contained in "Cow Culture." While every farmer should supply himself with these reports, this one is of special interest to every farmer who keeps a cow, and this includes about all, for she seems to be a necessity on the farm. And I sometimes think that on some farms she is a necessary evil—not from choice to the cow, however, but from neglect of her owner, or a lack of knowledge on his part as to how to feed and care for her and so make and handle her product that she will become a paying necessity instead of an evil.

We hear a great deal these days of big dividends made on money invested in stocks and bonds by grasping capitalists, but I say, and know what I am talking about, that a good herd of cows taken care of as they should be, and must be for best results, will return a profit to their owner that makes the returns from legitimate stocks and bonds look mean. And this can be done right here in Kansas on almost any farm. Now please don't call me a fool or a crank. I have demonstrated that it can be done, not on paper but in practical work. Nowhere can this be done easier than in this State, with its abundance of cheap feed.

I have dairied in the famous dairy regions of Ohio, but we can make butter here at about one-half the cost we could in Ohio, and if our farmers could see the golden opportunities as I see them, millions of dollars would be brought into the State yearly for dairy products. We should feed every bushel of oats and corn and every pound of bran raised in the State to cows and sell them in the form of dairy products, instead of shipping east and north to be fed by dairymen there. The western or dry belt of this State would be far better off if, instead of asking national aid for irrigation, the people would turn their attention to dairying, raising sorghum, Kaffir corn and such forage plants as are drought-resisting for feed.

There is no other crop, no other farm stock that can compete with the dairy cow. She does not ask you for from six months to one year's credit for feed and keep, but she is able and ready to make a contract to pay her bills promptly at the end of each week, and not only pay her bill but also interest on first investment that will doubly discount the best gilt-edge securities.

Not only should farmers read this report, but they are entitled to all of the reports issued by the Board of Agriculture. They are taxed to pay for them; they are printed for their benefit, and no doubt Friend Coburn would be pleased to fill all orders from farmers for them. M. E. KING.  
Elm City, Kas.

### A Kansas Dairymaid.

At the Kansas Dairymen's Association meeting, in November, Mrs. Parvin, of Larned, a woman who picked up the art of making cheese herself, and studied the dairy papers, exhibited a sample of cheese of her make which scored 97 points. She has bought over \$500 worth of milk this summer of her neighbors, besides using home milk of quite a herd of cows. The product was sold within a distance of twenty-five miles, at from 8 to 10 cents. She manipulated the milk, and, in fact, did everything up to delivering the cheese to the curing-room, when her husband took it and marketed it. Mrs. Parvin gained her primary ideas from J. H. Monrad's "A, B, C in Cheese-Making," and the enthusiasm with which she has entered upon her chosen field is an indication of still better results in the future. If there was a hundred more like her distributed over the State the problem of Kansas cheese would soon be solved.

TO HAVE HEALTH AND HAPPINESS  
Use "Garland" Stoves and Ranges.

## AN AWFUL VISION.

### A Man Dreams That Death Comes and Beckons Him.

#### A NIGHT OF HORROR.

In a New York club-room, the other day, a man was overheard telling an acquaintance about a dream he had on the previous night.

"I would not go through that night again," he said, "for a small fortune. I have been working pretty hard for the last few months and have been troubled a great deal with restlessness and sleeplessness. Last night I went to bed early, but couldn't sleep. I tossed and tumbled about until midnight, and then got up and smoked and read for an hour. Then I turned in again and finally dozed off.



"Directly I was aroused by the creaking of the bed-room door. It slowly opened, and the light from the hall shone into the room. By this time I was thoroughly frightened, but there was worse to come. A skeleton figure stepped through the door and walked slowly to the foot of the bed. There it stopped. I was faint with fear but managed to raise myself on my elbow and stared at the intruder. I was never so terrified in my life. I was chilled to the bone with horror and could hardly catch my breath. The skeleton figure stood and looked at me for what seemed an age, and I stared back with my heart in my mouth. At last the skeleton slowly beckoned me as if commanding me to follow him, and then it retreated slowly to the door. By this time I had partially recovered my scattered wits and demanded of the intruder who he was. With a hand on the door-knob he responded, in measured and solemn tones, 'My name is Death.' Then I awoke. The door was shut and the vision had vanished. But my every limb was quaking and I was covered with a cold perspiration. I tell you, my boy, I am not going to have any more skeleton dreams in mine if I have to take all the morphine on Manhattan island."

And both men laughed. Men think that dreams are jokes. If told that a dream like that is a warning they laugh the informer to scorn. They make a great mistake. If dreams are jokes, then so are life and death. Dreams are a warning. A healthy man doesn't see skeleton deaths parading in his bed-chamber after midnight. A healthy brain, like a healthy body, sleeps soundly at night. The brain that dreams works; and no brain can work day and night and last. An over-worked brain means shattered nerves and a general derangement of every organ of the body. Death truly invades the bed-chamber and beckons to the man whose brain declines to rest at night.

There are thousands upon thousands of men all over the land who suffer in this way, and joke about it. If they but knew, it is a ghastly joke. During the day they work with fevered brows and aching heads. They go home in the evenings with nerves shattered and unstrung. They retire and sleep refuses to come to them. In the morning they arise unrefreshed to go through another day of reluctant toil. Their trouble is due to one all-embracing disorder. That disorder is indigestion. When the digestion goes wrong everything goes wrong. The life-giving elements of the food are not properly assimilated. The blood becomes thin and poor. Old inert tissues

are not carried away and replaced by new and healthy ones. The nerves do not receive their proper sustenance from the blood. The man is a sufferer from nervous prostration and death beckons him.

There is a sure, swift and permanent remedy at hand for this condition. Thousands of men have testified to their recovery through its use after all other remedies had failed. It is Dr. Pierce's Golden Medical Discovery. It is the greatest of all known nerve tonics. It not only acts directly upon them, soothing and toning them, but it also goes to the seat of the trouble and remedies the disorder there. It corrects all faults of the digestion. It makes the appetite keen and hearty. It makes assimilation perfect. It fills the blood with the life-giving elements that build healthy flesh and muscle tissue and healthy nerve fiber. It is an unfailing cure for all forms of nervous exhaustion and prostration and also for all wasting diseases. It cures 98 per cent. of all cases of consumption. It is the great blood-maker and flesh-builder. All druggists sell it. There is nothing else "just as good."

One of a wife's and mother's most important duties is to keep all members of the family in health. It is a reflection on a woman that a doctor should always be running to her house. There are 680,000 women in this country who know how to look after the health of their families and into whose homes the doctor never comes save in case of severe, acute illness or serious accident. These women are possessors of Dr. Pierce's Common Sense Medical Adviser. It is a home medical book, written in plain, everyday language, without technical terms. It tells how to keep the family healthy and what to do in the emergencies of illness or accident. The women who have copies paid the original price of \$1.50 each. A new edition has just been printed and will be given away absolutely FREE. If you want a copy, in a heavy manilla cover, send twenty-one 1-cent stamps, to cover cost of mailing only, to the World's Dispensary Medical Association, Buffalo, N. Y. If you prefer a copy with fine French cloth binding, beautifully stamped, send 10 cents extra, 31 cents in all. The book contains 1,008 pages, 300 illustrations, and invaluable prescriptions.

### KANSAS HOME NURSERY.

Up to date for reliable Fruit and Ornamental trees. Best varieties of Small Fruits in full assortment for all planters in the West. Catalogue free.  
A. H. GRIESA, BOX J, LAWRENCE, KAS.

### SMITH'S SMALL FRUITS FOR SPRING 1897

100 varieties old and new Strawberries, including Wm. Belt, Brandywine, Paris King, Bissel, Isabel, Barton, Marshall. New Raspberries—Egyptian, Miller, Bishop, Columbian. If you want plants I have two millions for sale.  
B. F. SMITH, BOX 6, LAWRENCE, KAS.

### Garnahan's Tree Wash and Insect Destroyer

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., and Cleveland, Ohio.

### CHOICE SEED POTATOES

COBURN No. 1.—A new seedling of great vigor; pinkish; short but very bushy vines; white bloom; extra early; eyes shallow; very prolific, indeed; good table potato and a good keeper. Price \$1.25 per bushel, or three bushels for \$3.

EARLY KANSAS.—A large medium variety; russet straw color; medium vines; purple bloom; eyes rather deep, but a great yielder of very large potatoes, and an extra good table potato. Price \$1 per bushel, or three bushels for \$2.25.

CARMAN No. 1.—Same as the Early Kansas, except it has white bloom and does not grow so large tubers. Price \$1 per bushel, or three bushels for \$2.25.

KANSAS FARMER.—A new seedling of great vigor. A late variety, oval, flattened; eyes very shallow; straw color; very prolific; vines medium and spreading, completely covering the row; white bloom; very best of all keepers and a good eater. Surely worthy of its name and a grand potato. Price \$1.25 per bushel, or three bushels for \$3.

Three pecks of each of the above four kinds, \$2.50; packed in lined barrels and delivered at depot free. Write your name, postoffice, county and express office very plainly, and send money with order. I can furnish most all of the leading new kinds.

Address CLARENCE J. NORTON,  
Morantown, Kansas.

### Wanted, an Idea.

Who can think of some simple thing to patent? Protect your ideas; they may bring you wealth. Write John Wedderburn & Co. Patent Attorneys, Washington, D. C., for their \$1,800 prize offer and list of 200 inventions wanted.

To Make a Hedge Hog-Tight.

EDITOR KANSAS FARMER:—I see in your valuable paper an inquiry, how to make a hedge hog-tight. A good way is to trim to the top, then hack it a little at the ground, then run a log over it, about ten feet long, in the shape of a roller, with a horse hitched to each end, and have forked limbs, with one prong that will answer for a stake and the other end for a hook, and stake it to the ground. Then take one horse and a turning-plow and plow it under in the spring. But when it grows up again you may have to cut a few holes to let the rabbits out.

J. H. CANADAY.

Elsmore, Allen Co., Kas.

The Irrigation Farmer.

Irrigated farms have a tendency to induce their owners to cultivate crops that will pay the largest profits, and the irrigation farmer is, in a vast majority of cases, a man of high intelligence, who studies to make his land as profitable as possible. He has broken loose from the traditions of his forefathers because he is surrounded by different conditions. He has learned what it means to control the water supply of his land, and he seeks to take advantage of this tremendous lever to cultivate his acres. Farming, with him, is a science, in which he has learned that the conditions which tend toward success are greatly in his favor if intelligently applied, and he uses this intelligence to produce the best results. Water is the predominating element in farming in the arid region, and its value will never be less than at present, while its average cost is likely to diminish through the use of improved methods for its conservation and distribution.—Irrigation Age.

Publishers' Paragraphs.

Send \$1.35 to KANSAS FARMER office for one year's subscription to KANSAS FARMER and Chicago Weekly Inter-Ocean.

Every reader of this paper should notice the advertisement of Hapgood Plow Co., on page 16, which will interest every practical farmer.

Remember that you can get the KANSAS FARMER and the Kansas City Daily Star, both for one year, for \$4, or the KANSAS FARMER and the Kansas City Weekly Star both for one year, for \$1.20.

We can furnish you KANSAS FARMER and Peterson's Magazine, each one year, for \$1.75. Or KANSAS FARMER and Arthur's Home Magazine for \$1.65. Send to this office amounts above named.

"Dairying for Profit, or the Poor Man's Cow," is practical, was written by a woman who knows what she is talking about, and is cheap—only 10 cents for a 25-cent book, to subscribers for the KANSAS FARMER. Send to this office.

W. N. Willits, of Kensington, Kas., recently ordered a KANSAS FARMER sewing machine. December 4 he wrote us as follows: "The sewing machine came all right. Have not used it much, but think it is all right. Am well satisfied. Yours, W. N. Willits."

The Home Magazine, published at Washington, D. C., is brighter and better than ever. One dollar and 20 cents sent to KANSAS FARMER Co., Topeka, Kas., will pay for one year's subscription to both KANSAS FARMER and Home Magazine. Drop us a card and we will send you a sample copy of the magazine.

The knowledge, how to make a profitable as well as beautiful garden, would be a valuable acquisition to any farmer or farmer's wife. The excellent magazine called American Gardening will impart the desired information. Send to KANSAS FARMER \$1.15 and it will pay one year's subscription to KANSAS FARMER and American Gardening.

"Bear in mind we are in the KANSAS FARMER family to stay with it. When our time is up let us know and we'll find the dollar. We are entitled to a premium [on account of sending two subscriptions], so send us the Atlas. Will try to rustle some new subscribers." These are the pleasant words of A. C. Genet, of Hesston, Kas., under date December 7.

Nothing is more desirable than that every household in the United States should have a clear idea of the duties and hardships of its public men. Two articles on Congressional life, from the point of view of the closest personal intimacy, have been written for The Youth's Companion by the Speaker of the House of Representatives and by Senator Henry Cabot Lodge. "I could tell stories of the Senate and of the famous men who have been there and of

HOW AN OLD SOLDIER MAKES MONEY.

Mr. Editor:—No use being hard up with such chances open. Been selling Vapor Bath Cabinets several months and never made money so fast and easy in my life. Honestly its the best thing to cure Colds, Rheumatism, Gout, Pains, Neuralgia, Malaria, Bright's Disease, La Grippe and Blood, Nerve and Kidney Diseases I ever saw. Saves Dr. and medicine bills; renovates your system, and everybody, sick or well buys. The first week I made \$34, and since never less than \$40 a week. I am a G. A. R. man, old and was poor, and my comrades should write F. World Mfg. Co., Columbus, O. for instructions and make money as I have. OLD SOLDIER.

the historic scenes in which they have taken part, but the every-day life and work of a Senator is what, after all, the readers of The Companion want to understand." That is what Senator Lodge describes in an article of unique interest. "Probably a great many young people think that the life of a Member of Congress, with \$5,000 a year, is a life of pleasure, comfort and luxury, full of power and dignity; but the picture has some shadows as well as lights." These are shown by Hon. T. B. Reed in his article.

Horns On or Off?

There was a time, not many years ago, when a muley or polled animal—one without horns—was something of a curiosity. Of course people did not go miles to see them, but most of our readers will remember how oddly and out of place the muley looked. More recently, by almost common consent, people have demanded that, for reasons of profit and humanity both to man and among animals themselves, there should be more muleys, and the practice of dehorning sprung into popular favor. This very excellent practice has extended to such breadth that we would not be at all surprised if eventually the animal with horns will be as much a curiosity as the muley was formerly. From the very beginning there have been those who bitterly opposed the dehorning of cattle as being unnecessary and cruel practice, but the tide of public opinion has turned against them, and dehorning is the rule now rather than the exception. While the operation in itself seems a little severe, it is certainly no more so than is the drawing of a tooth, to which we all submit willingly, because it subserves our best interests. The after consequences of dehorning are



THE KEYSTONE DEHORNER.

really fraught with less danger than the drawing of a tooth, and both operations are of such short duration that the pain and shock are very slight. The best way, and indeed the only way, to bring a savage to reason is to first disarm him—take from him all defensive weapons. As a result he at once becomes tractile in disposition and is ready to listen to reason. It is so with horned animals; once remove their horns and they become quiet of disposition and are much more easily and economically handled, for which reason the profit from live stock is greatly enhanced. In the selection of an instrument for dehorning, that one which will remove the horn quickest, cutting clean and not crushing the horn, must occasion the least pain and therefore be the most humane and best. These are among the claims made for the Keystone dehorning clipper by its inventor and maker, A. C. Brosius, of Cochransville, Pa. Write to the gentleman, who will send you circulars, testimonials, etc., which will help you to reason this matter to your entire satisfaction and profit.

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.

To Chicago, St. Louis and the East via Burlington Route.

The traveling public is sure to find the best fast vestibuled trains to the East via the Burlington Route.

Handsome new compartment sleepers (same rate as standard sleepers), chair cars (seats free), Kansas City and St. Joseph to St. Louis; standard sleepers, chair cars and dining cars—"pay for what you order"—to Chicago. Take the "Vestibuled Eli" to Chicago and the "Vestibuled Limited" to St. Louis.

Ask agent for tickets via the Burlington Route.

L. W. WALKLEY, Gen. Pass. Agt., St. Louis, Mo.

Gossip About Stock.

The Zenner-Raymond Disinfectant Co., of Detroit, Mich., desire to have a number of good local agents throughout Kansas to handle the Zenoleum sheep dip. They wish to refer all orders for Kansas to their nearest local agent.

C. A. Stannard, the Berkshire breeder, at Hope, Kas., reports brisk trade last week, selling eleven head at quite satisfactory prices. Mr. Stannard is a careful business man as well as a conscientious breeder, and simply deserves this success as one of our new advertisers.

Grant Hornaday & Co., owners of the Clover Leaf herd of Poland-China swine, at Fort Scott, Kas., are also getting interested in Hereford cattle quite strongly, having purchased more good quality pure-breds for their Kansas establishment than any other single breeder. A very creditable thing to do from an improved stock standpoint. Let the good work continue.

Among others that will hold a public sale of registered Poland-Chinas next month is Mr. D. A. Kramer, the well-known Washington county breeder, who will offer a choice lot of matured brood sows and a fine bunch of Wilkes gilts that will be bred to a son of the noted Chief I Know, that has more prize-winning sons and daughters than has any Poland-China sire living. More will be given later on concerning the offerings that will go into the sale.

Dietrich & Spaulding, Richmond, Kas., who this week advertise for sale their herd boar, Breckenridge 12987, say: "As an individual he is hard to beat, and as a producer we think he is the best we have ever owned in our herd. His pigs are very strongly marked after himself, having nice coat and markings, good length bodies on good feet and legs, extra back and growth. We sell or trade him only because we have used him as long as we can to good advantage and have bred several of our best sows to him for spring farrow."

The KANSAS FARMER takes pleasure in calling the attention of its readers interested in high-class Poland-China swine to the announcement elsewhere in this issue by the very successful Missouri breeders,



You can get a SAFE and SURE remedy for all the ordinary ills of life as well as a SURE CURE for . . . . .

BRIGHT'S DISEASE, URINARY DISEASES, FEMALE COMPLAINTS, GENERAL DEBILITY, MALARIA

and all diseases caused by disordered kidneys and liver at the Country Store. . . .



a PURELY VEGETABLE PREPARATION that has cured thousands and will cure you. Large bottle or new style smaller bottle at your nearest store.

Strange Tales ARE TOLD OF Tropical MEXICO

It will cost you only 2 cents to learn the TRUTH. Write us. Our circulars will tell you of our land and colony of 150 Americans, of COFFEE, VANILLA and RUBBER, and open your eyes to an opportunity to make a home and fortune you never dreamed of. No drought; no irrigation; no frigid cold nor torrid heat. \$5 per acre. Easy terms.

The International Land and Colonization Co., Ltd., Mexico City, Mex.

Address GEORGE C. CARTER, Representative in United States.

Marquette Building, Chicago.

SALESMEN to sell Cigars to dealers; \$25 weekly and expenses; experience unnecessary. Reply with 2c. stamp. National Consolidated Co. Chicago

FREE TO ALL WOMEN.

I have learned of a very simple home treatment which will readily cure all female disorders. It is nature's own remedy and I will gladly send it free to every suffering woman. Address MABEL E. RUSH, Joliet, Ill.

GIVEN AWAY!

An Iowa Feed Steamer, if it does not save its cost on one lot of hogs, Omaha Hay Press Co., Omaha, Neb.



BIG SPECIAL OFFER

TO FARMER SUBSCRIBERS

The Kansas Farmer For 1897—Price Alone, \$1.00.

The Peterson Magazine For 1897—Price Alone, \$1.00.

Both for the Year \$1.60!

To separate addresses if desired.

Great Rock Island Route Playing Cards.

Send 12 cents in stamps to John Sebastian, General Passenger Agent C. R. I. & P. railway, Chicago, for the slickest pack of playing cards you ever handled, and on receipt of such remittance for one or more packs they will be sent you postpaid. Orders containing 60 cents in stamps or postal note for same amount will secure five packs by express, charges paid.

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. LOCKWOOD, Kansas City, Mo.

Young men or old should not fail to read Thos. Slater's advertisement on page 15.

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.

"THUMPS."—I have a pig, 6 months old, that has the "thumps." What can I do for it? J. T. T. La Harpe, Kas.

Answer.—Give a tablespoonful of castor oil once daily until the bowels move freely, then give easily-digested but nutritious soft food.

QUITTOR.—I have a mare that cut her foot on a barbed wire, about two years ago. It healed up but she is "club-footed." I have worked her until recently. Now she is very lame and there is a running sore at the top of her hoof. J. C. Bazine, Kas.

Answer.—Trim off the mare's foot so as to get it in as good shape as possible, so there will be no leverage to pry the hoof loose. Wash out the sore with warm water once daily and inject some "white lotion," made as follows: Zinc sulphate, 1 ounce; lead acetate, 1 ounce; rainwater, 1 quart. If it doesn't heal readily write again next week.

ALFALFA.—Is alfalfa a good feed for horses, not to work on, but generally? Is it safe especially for mares? Is it not powerfully diuretic (stimulating to kidneys)? Will it not produce "heat" in the mare? What effect has fall grass, cured as hay, in these respects? Junction City, Kas. R. W. S.

Answer.—Alfalfa hay, properly cured, while not especially dangerous is not considered a first-class food as a steady diet for horses. Alfalfa stimulates the bowels, kidneys and the various glands of the body, and in this manner would tend to induce "heat" in the mare. Many horsemen like to give an occasional feed of good alfalfa hay to their horses to "clean them out and tone them up." Fall grass cured as hay does not possess the properties before mentioned.

CEREBRITIS, "STAGGERS."—P. F., Athol.

Answer.—Your horses died from cerebritis. See last week's FARMER.

"BROWN'S BRONCHIAL TROCHES" are of great service in subduing Hoarseness and Coughs. Sold only in boxes. Avoid imitations.

Thos. Slater has a message for every man on page 15.

Tours in the Rocky Mountains.

The "Scenic Line of the World," the Denver & Rio Grande railroad, offers to tourists in Colorado, Utah and New Mexico the choicest resorts, and to the trans-continental traveler the grandest scenery.

Write S. K. Hooper, G. P. & T. A., Denver, Col., for illustrated descriptive pamphlets.

No Room for Doubt.

When the facts are before you, you must be convinced.

The facts are that the UNION PACIFIC is leading all competitors, is the acknowledged dining car route, and great through-car line of the West.

The line via Denver and Kansas City to Chicago in connection with the Chicago & Alton railroad, with its excellent equipment of Free Reclining Chair Cars, Pullman Palace Sleepers and Pullman Dining, demands the attention of every traveler to the East.

Half Rates Plus \$2.

Burlington Route to the West and Northwest, November 8, 17, December 1 and 15, round trip, twenty days limit, to Nebraska, Kansas, Wyoming, Utah, Black Hills, and certain parts of Colorado. Splendid through trains of chair cars (seats free), and handsome compartment observation vestibule sleepers.

Horse Owners! Use



Caustic Balsam. A Safe Speedy and Positive Cure. The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action.

MARKET REPORTS. Kansas City Live Stock. KANSAS CITY, Dec. 7.—Cattle—Receipts since Saturday, 9,072; calves, 313; shipped Saturday, 2,033; cattle: 714 calves. The market was slow, weak and in some cases lower.

Table with columns: No., Ave. Price, No., Ave. Price. Rows include NATIVE HEIFERS, NATIVE COWS, NATIVE BEEFERS, and TEXAS AND INDIAN STEERS.

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Table with columns: Dec. 7, Opened, High'st, Low'st, Closing. Rows include Wh't, Corn, Oats, Pork, Lard, and Ribs.

Kansas City Grain. KANSAS CITY, Dec. 7.—Receipts of wheat to-day showed considerable improvement. The grades on the floor were, as a general thing, not of the best, and the market was very slow throughout.

BROOMCORN F. JELKE & SON

Established 1850. 53 Walnut St., Cincinnati, O. Commission Merchants and Dealers in Broomcorn and all kinds of Broom Materials and Machinery.

The Kansas City Stock Yards

are the most complete and commodious in the West, and second largest in the world! The entire railroad system of the West and South-west centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

Table with columns: Cattle and calves, Hogs, Sheep, Horses and mules, Cars. Rows include Official Receipts for 1895, Slaughtered in Kansas City, Sold to feeders, Sold to shippers, Total Sold in Kansas City, 1895.

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. NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.

nominal 78@79c; No. 3, 1 car fancy 77 1/2c, 1 car 76c, 3 cars 75c, 4 cars 73c; No. 4, 1 car 69c, 1 car 65c, 2 cars 60c, 2 cars 56c; rejected, nominal 50@60c; no grade, nominal 40@50c.

The receipts of corn here to-day were heavy, being nearly twice as much as a year ago. The demand, however, from Texas interior points was very good, and offerings were quite well absorbed.

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GRASS AND FIELD SEEDS MITCHELLHILL & RAMSEY, ST. JOSEPH, MISSOURI.

When you write mention Kansas Farmer. Consign Cattle, Hogs and Sheep to LONE STAR Commission Company. For best results. A new company. Capital \$100,000. Telephone 1198. Market reports furnished. Write us. KANSAS CITY STOCK YARDS.

Parker's Arctic Sock, Best for RUBBER BOOTS. Absorbs perspiration. Recommended by Physicians for house, chamber and sick-room. Made in Men's, Women's and Children's. Ask shoe dealer or send 25c. with size to J. H. PARKER, 103 Bedford St., Boston, Mass., Dept. 17. Take no substitute. Parker Pays the Postage.

John Moffett, Manager. L. B. Andrews, Office. T. S. Moffett, W. C. Lorimer, Cattle Salesmen. H. M. Baker, Hog and Sheep Salesman. W. A. Morton, Solicitor.

MOFFETT BROS. & ANDREWS Live Stock Commission Merchants. Feeders and stockers purchased on orders. Personal attention given to all consignments. Correspondence invited. Market reports furnished. References:—National Bank of Commerce, Kansas City, Mo.; Citizens' State Bank, Harper, Kas.; Bank of Kiowa, Kiowa, Kas. Rooms 67-68 Live Stock Exchange, Kansas City, Mo.

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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.

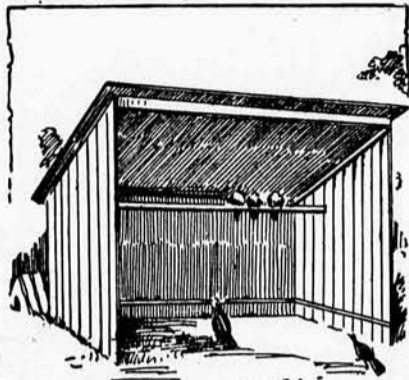
GOLD! GOLD!! Address G. T. Nicholson, G.P.A., A., T. & S.F. Ry., Monadnock Bldg., Chicago, or W. J. Black, A. G. P. A., Topeka, Kas., and ask for free copy of profusely illustrated book descriptive of Cripple Creek. It is well worth reading. SANTA FE ROUTE

## The Poultry Yard

### ROOST FOR TURKEYS.

A Cheaply-Made Open Shed That Serves as a Protection.

Turkeys will always seek a high roost, and they resort to the tree-limbs instinctively to escape danger from enemies that may reach them on the ground. The limbs of trees, however, are not suitable roosting places, as the turkeys are thus exposed to cold and driving storms, frequently their feet becoming frozen to the limbs. An open



SHED ROOST FOR TURKEYS.

shed, with roost as high as can be located, as may be noticed in the illustration, will serve as a protection, and may be made either of boards or by arranging cornstalks on stakes and poles in some manner so as to accomplish the purpose.—Farm and Fireside.

### Too Much of a Good Thing.

Glass on the south, east and west of the poultryhouse is of course necessary to the health and comfort of the fowls. One can err, however, on the side of too much glass. It is a great mistake to make a poultryhouse after the pattern of a greenhouse. It won't do at all, for the change between day and night temperature is far too much. The fowls will become sick and unproductive. A window for every six or eight running feet on the south side with a window on both the east and west sides, will be all the sash surface necessary. In cold northern climates I would advise the use of shutters or double windows or both. These will keep out any amount of cold and wind and pay for themselves a hundred times over.—W. P. Perkins, in National Stockman.

### Rice Is Good for Fowls.

Rice is said by those who have tried it, to be the very best of food for fowls, and that it possesses more fattening qualities than corn. In the Carolinas and the rice growing regions of the south, rice meal or broken rice can be purchased from one-fourth to one-half cent per pound, and is largely used as a feed in those sections. Poultrymen within easy reach of the southern or Gulf seaboard can thus get a cheap poultry food at small cost for freight. Rice will never produce diarrhoea in fowls or animals like some grains, but will check it when produced by other causes. With broken rice, Kaffir corn, and wheat, we not only have a good ration for chicks, but an ideal food for broilers.—Southern Fancier.

### To Cure Feather Pulling.

Feather pulling is a vice that comes from confinement and idleness; there is no remedy, but it may be prevented in a measure by so feeding the fowls that they will be compelled to scratch. It is contagious, to a degree if one or two fowls become addicted they are apt to teach the others. For this reason, preventive measures in the way of giving the fowls something to do should be adopted, but if any of the hens acquire the habit, the quicker they are killed and marketed the better, or soon the whole flock will be at it, and this means ruination to all.—Rural World.

Thoroughbred poultry pay best. Select your breed, basing judgment upon their characteristics and surroundings, and then keep them pure; introduce new blood every other year.

It is a good policy on general principles to give the hens a dusting over frequently with Persian insect powder; hold the fowl up side down, and ruffle the feathers the "wrong way."—Rural World.

### Treatment for Chicken Cholera.

EDITOR KANSAS FARMER:—The card from a subscriber which you have referred to me, asking for a cure for chicken cholera, to hand.

First, remove all well birds to new and clean quarters. Wring the necks of all sick birds and burn their carcasses and disinfect their quarters. The virus of cholera is not diffusible in the air but remains in the soil, which becomes infected from the discharges of the sick fowls and is carried from place to place on their feet. Use lime in abundance about the yards, then spade deeply. For cases not too far gone, give sugar of lead, pulverized opium, gum camphor, of each 60 grains, powdered capsicum 10 grains. Dissolve the camphor in just enough alcohol to do so without making a fluid, then rub the other ingredients in the same (camphor and alcohol) mixture, and mix this with enough of fine corn meal to make a stiff dough. Separate this mass into fifty pills, giving one to each grown chicken each day. The birds that are well enough to eat should have enough of powdered charcoal put into their soft feed to color it slightly, also five drops of carbolic acid to every twenty fowls, in the hot water with which the soft feed is moistened.

Homeopathic treatment.—Dissolve two or three dozen pellets of *veratrum album* in their drinking water, or *arsenicum iodatum* 3. Mix about two pounds of meal with two drams of this remedy and leave where they can eat it at will.

Parched corn, whole or cracked, is an excellent food for flocks afflicted with cholera, to be used only as a part of the food.

To prevent, keep everything about the yards and coops clean, feed no soured food, don't feed more than will be eaten up clean, give plenty of good grit, and cholera medicine will not be needed. D. A. WISE.

Topeka, Kas.

### Treatment of Poultry Manure.

Poultry manure should be removed from the houses every day and should be kept under cover. Every time droppings are added to the pile, sprinkle on either land plaster or kainit. The latter is to be preferred because it contains potash, in which the poultry manures are deficient. The object of the addition is to prevent the escape of ammonia, and the nose will be a safe guide in determining the amount of kainit to use. The quantity necessary will vary with the degree of moisture of the manure and the temperature of the air. Add enough so that there is no odor of ammonia when the pile is stirred. The mixture of kainit with hen manure fits it for use for hoed crops. It should be made fine before application.—Western Plowman.

### Lice Affect the Egg Supply.

The presence of lice on our hens is a great detriment to the egg supply. These can be driven away by the persistent use of kerosene emulsion. Hens must be kept clean, that is, the droppings must be removed often, so as to prevent any bad smell, and give the hens a chance to bathe in the road dust gathered in the dry weather of summer. Eggs will not hatch if the hens are covered with lice and mites. Eggs will not hatch if come of them are broken in the nest and allowed to remain and befool the sound eggs, stopping up the air cells and thereby killing the germ. Buyers of eggs from breeders of fancy fowls should bear in mind and not blame the seller for poor hatches, when the fault lies with themselves when these conditions exist.—Western Plowman.

### \$100 Reward \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer one hundred dollars for any case that it fails to cure. Send for list of testimonials. Address, F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75 cents.

Every man should read the advertisement of Thos. Slater on page 15 of this paper.



## BRIGHT'S DISEASE

Is the most dangerous of all Kidney Diseases. Pains in the Back, Irregularities in the Urine, Swelling of the Limbs or Abdomen are the first symptoms

## Dr. J. H. McLEAN'S LIVER AND KIDNEY BALM

Has proven, in thousands of cases and for many years, to be the Peerless Remedy for this dreaded disease. It relieves promptly and works a permanent cure

FOR SALE EVERYWHERE. PRICE, \$1.00 PER BOTTLE

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## Horse Owners ATTENTION!

We have been advertising for years to pay \$100 reward if Tuttle's Elixir failed to cure colic, horse all, shoe boils when first started, callous of all kinds, etc., but have never as yet been called upon to pay this reward. Doesn't this fact prove conclusively that this great remedy will do exactly what we claim for it? If you are not satisfied at any time, you can have your money refunded.

### TUTTLE'S ELIXIR

Is a sure cure for Colic, Horse All, Spinal Diseases, Spavins, Ring-Bone, Cackle Joints, Contracted and Knotted Cords, Curbs, Splints, Sweeny, lameness of all kinds, etc. Price 50 cents a bottle. Sold by most dealers; a sample bottle will be sent by mail for three 2-cent stamps for postage.

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

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STEEL  
Special prices.  
Kansas City Hay Press Co., 129 Mill St. Kans. City Mo

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Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class hatcher in the market. **Price FREE.**  
GEO. ERTTEL CO., QUINCY, ILL.

**4 BY INCUBATORS**  
Send 6 cents for our fine illustrated catalogue and poultry book. It's worth \$1! It will pay you many times its cost. Address....  
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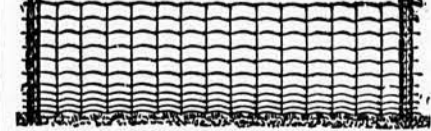
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The Great Disinfectant Insecticide  
**KILLS HEN LICE**

By simply painting roosts and dropping-boards. Kills Mites and Lice, cures Colds and Cholera, also kills Hog Cholera germs. If your grocer or druggist does not keep it, have them send for it.

THOS. W. SOUTHARD, Gen. Agent, 628 Delaware St., Kansas City, Mo.



Behold, What a Fire a Little Spark Kindled.

One little runty pig crawled through a rail fence from the highway, meandered up around the barn, sneaked through the gate and introduced Hog Cholera to the fattening herd. The resulting loss would have covered the cost of pig-tight Page fence for that whole farm. Are you protected?

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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**Housewives** Can easily chop meat for sausage and mince-meat, hamburger steak, suet, corn for fritters, scrap meat for poultry, hash, beef for tea, etc., with the

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A combination tool used in repairing and removing wire fences. Price \$1.25. Drives and pulls staples, cuts and splices wire. Its special use is in building and repairing wire fences, but may be used for many different purposes about a farm. Saves its cost in one day's work. You can't afford to be without it. Ask your hardware merchant for it, or address  
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**GRIND CORN**  
Ear or Shell Oats, Wheat, Bye and Barley Fine Enough for any Purpose. Made only by Stevens Manufacturing Co., Joliet, Ills.

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Hundreds of Specialties at less than Wholesale prices, viz: Sewing Machines, Bicycles, Organs, Pianos, Older Mills, Carriages, Carts, Buggies, Harness, Saws, Bone Mills, Letter Presses, Jack Screws, Trucks, Anvils, Hay Cutters, Press Stands, Feed Mills, Stoves, Drills, Road Plows, Lawn Mowers, Coffee Mills, Forges, Lathes, Dump Carts, Corn Shellers, Hand Carts, Engines, Tools, Wire Fences, Fanning Mills, Cross Bars, Rollers, Watches, Clothing &c. Hay, Stock, Elevator, Railroad, Platform and Counter SCALES. Send for free Catalogue and see how to Save Money. 151 S. Jefferson St. CHICAGO SCALE CO., Chicago, Ill.  
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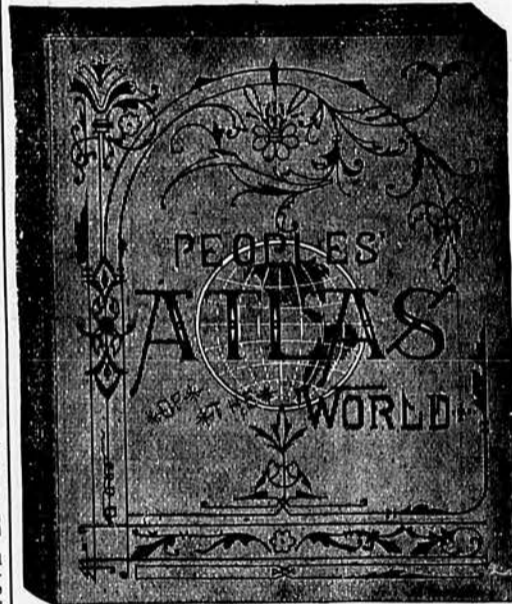
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AND ALL WASTING DISEASES should write to me for advice. I have been a close student for many years of the subject of weakness in men, the fact is, I was a sufferer myself. Too bashful to seek the aid of older men or reputable physicians I investigated the subject deeply and discovered a simple but most remarkably successful remedy that completely cured me. I want every young or old man to know about it. I take a personal interest in such cases and no one need hesitate to write me as all communications are held strictly confidential. I send the recipe of this remedy absolutely free of cost. Do not put it off but write me fully at once; you will always bless the day you d.d. so. Address

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HIGH-CLASS POULTRY FOR SALE.—Three hundred fine birds. L. Brahmas, Buff and Partridge Cochins, B. Langshans, B. P. Rooks and S.C.B. Leghorns.

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WE MAKE A GOOD FARMER'S SPRING WAGON, two lazy backs and let-down end-gate, for \$55.

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HARVEST FOR AGENTS.—Men, women, boys, girls, \$1 per hour easily made.

THE STRAY LIST.

FOR WEEK ENDING NOV'R 26, 1896.

Linn county—William H. Ward, clerk. MARE—Taken up by W. V. Brice, in Blue Mound tp., October 30, 1896.

Comanche county—J. E. Harbaugh, clerk. STEER—Taken up by M. Schoub, in Rumsey tp. (P. O. Coldwater), October 24, 1896.

Bourbon county—H. Frankenburg, clerk. PONY—Taken up by C. G. Beaman, in Marion tp., November 2, 1896.

Labette county—J. F. Thompson, clerk. HORSE—Taken up by E. F. Ferril, in Mt. Pleasant tp. (near Altamont), October 22, 1896.

Shawnee county—Chas. T. McCabe, clerk. COLT—Taken up by C. W. Edson (P. O. Silver Lake), one sorrel mare colt, 1 year old.

Pottawatomie county—Frank Davis, clerk. STEER—Taken up by C. J. Reed, in Lincoln tp., October 23, 1896.

Wabunsee county—J. R. Henderson, clerk. STEER—Taken up by Wm. Breymer, in Newbury tp. (P. O. Paxico), November 4, 1896.

Wyandotte county—Leonard Daniels, clerk. STEER—Taken up by L. E. Scott, in Prairie tp., on or about October 15, 1896.

FOR WEEK ENDING DEC'R 3, 1896. Montgomery county—J. W. Glass, clerk. HORSE—Taken up by Wm. Adams, in Fawn Creek tp., one black horse, 4 years old.

FOR WEEK ENDING DEC'R 10, 1896. Lyon county—M. Q. Starr, clerk. MARE—Taken up by Frederick Kluth, in Center tp., November 19, 1896.

TWO STEERS—Taken up by J. E. Rathke, in Center tp., November 11, 1896.

TWO MARES—Taken up by F. A. Layton, in Agnes City tp., November 30, 1896.

Wilson county—T. D. Hampson, clerk. MARE—Taken up by R. R. Brinkley, in Clifton tp., November 27, 1896.

THEOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884.

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