

# KANSAS FARMER

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## BREEDERS' DIRECTORY.

Cards will be inserted in the Breeders' Directory as follows: Four line card one year, \$15.00; six lines, \$23.00; ten lines, \$30.00; each additional line \$3.00. A copy of the paper will be sent to the advertiser during the continuance of the card.

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Fifteen White P. Rocks, 15 Silver Wyandottes, 20 Brown Leghorns, 10 Light Brahmas, 10 S. S. Hamburgs, 10 Black Langshans, 5 Black Javas, 12 Pekin drakes. All strictly first-class. Some are scored by Hewes and others.  
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Rocks, Black Langshans and Embden geese. None but good stock shipped. Write for what you want. Mrs. James D. Dyer, Hoffman, Mo. Shipping point, Warrensburg.

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Have no equal as an all-purpose fowl. I have high-scoring birds and eggs from first prize-winners for sale. Prices reasonable. Address Jeff. Payne, Hutchinson, Kas.

**EGGS FOR HATCHING—From high-scoring breed-**  
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**SILVER-LACED WYANDOTTES**  
Buy now and save higher prices next spring. They are from birds that have won prizes wherever shown. For prices, etc., address J. P. JOHNSON, JUNCTION CITY, KAS.

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Black Langshan, 323 Lake street, Topeka, Kas. I won at our last State poultry show, January 9-14, with 107 Langshan competition, first on cock, first on cockerel, first on pen, tied first for pullet, tied second for hen, third on pullet, third on hen, and had the highest-scoring pen of chickens in show room. I have without doubt the best Langshans in the West. Eggs \$2 per sitting. Write me for prices on stock. Correspondence a pleasure. (Mention Kansas Farmer when you write.)

**DOSE POULTRY FARM—J. M. & C. M. Rose, Elm-**  
dale, Kas., breeders of Light Brahmas. Yard, 92 1/2 cockerels; females 92 to 94 1/2. B. P. Rocks, yard, 92 1/2 cockerels; females 90 to 92 1/2. W. C. B. Polish, 91 1/2 cockerel; hen 93 and 94. S. C. B. Leghorn, yard No. 1, 93 1/2 cockerel; first prize at Sedgwick, Cottonwood Falls '98, and Topeka '99; females 92 1/2 to 94. Yard No. 2, headed by cock 94 1/2 as a cockerel last year; pullets 92 1/2 to 94. No more stock for sale. Eggs \$1.50 per sitting of fifteen.



**PERCHERON STALLION PRESBOURG 22008 (43139).**

Prize-winning two-year-old at the Great Government Show of France, 1898. Imported by and the property of the Estate of M. W. Dunham, Oaklawn Farm, Wayne, Du Page County, Illinois.

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AND PEKIN DUCKS—  
TOPEKA, KANSAS.  
Eggs in season, \$1.50 per sitting. Residence and yards south of Highland Park.

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We are selling eggs from our prize-winners scored by Shellabarger & Savage, \$2 for 15; \$3.50 for 30. White P. Rock eggs, \$1 for 13.  
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**CANFIELD'S WHITE PLYMOUTH ROCKS WON**  
first pen, first cock, first cockerel and first hen at the Kansas State Poultry Show, 1899, besides the grand sweepstakes for best ten birds in the American class. Eggs, \$2 for 15, \$5 for 45. M. L. Canfield, Belleville, Kas.

**Partridge Cochins and White Leghorns**  
at Hutchinson show took sweepstakes in Asiatic and Mediterranean classes (silver cup and silver teapot); Shellabarger judge. Eggs, \$2 and \$1 per 15. Write for descriptive circular. Address, J. W. Cook or Carrie A. Cook, Hutchinson, Kas.

### BARRED PLYMOUTH ROCKS.

E. R. Lock's Barred Plymouth Rocks are still in it. Twice in succession my birds have won all of the prizes where shown. Write me for prices on stock. Eggs \$1 to \$2 per 15. Catalogue free for writing.  
E. R. LOCK, Hutchinson, Kas.

### THIS SPACE WAS WON AS A PREMIUM

By the Best Pen of Buff Cochins at the Kansas State Show, 1899.  
Eggs, \$2.50 to \$5 per sitting. Write for circular.  
Chas. Steinberger, North Topeka, Kas.

### PRIZE-WINNING LIGHT BRAHMA CHICKENS

...EXCLUSIVELY...  
Our record for 1898-99: Won 5 out of 6 first premiums at State show in Topeka, including sweepstakes, in January, 1899. Won 6 out of 7 first premiums, including sweepstakes in Asiatic class, at Sedgwick (Kansas) show in December, 1898. Won 6 out of 6 first premiums, including sweepstakes, at Butler County show, held in Eldorado, December, 1898. Eggs \$1 to \$3 per sitting. Also breeders of Red Polled cattle. Address  
CHAS. FOSTER & SON, Eldorado, Kas.

### POULTRY.

**H. T. FORBES. L. C. FORBES.**  
...Breeders of...  
**THOROUGHbred BUFF COCHINS**

Eggs and stock from prize-winners at Kansas State Poultry Show, January, 1899. Write for description and prices. Address  
H. T. & L. C. FORBES, Topeka, Kas.

### YOU ARE MISSING..... A GOOD THING

If you fail to order some of those Langshan, Buff Cochins or White Wyandotte Cockerels. Don't be too late. They are going fast. Also

### EGGS FOR HATCHING.

Am booking orders now, for future delivery. Send stamp for circular giving matings and varieties, or 10 cents for catalogue and guide.

**EXCELSIOR FARM, C. B. Tuttle, Prop.,**  
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### ROCKS WHITE and BLUE BARRED

Five Pens—Three Barred, Two White.

One pen headed by E. B. Thompson Ringlet cockerel; one by a grand Lash cockerel; one by a bird of the Conger strain. My White Rocks are from Madison Square Garden winners—large, pure white birds. Eggs, \$1 for 13, \$2 for 30, \$3 for 60, \$5 per 100. White Guinea eggs same. Write for descriptive circular and prices. Printed recipe for making and using Liquid Lice Killer, 25 cents. Address  
T. E. LEFTWICH, Larned, Kas.

### EGGS FOR HATCHING

Royal Blue Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, White Cochins, Light Brahmas, Black Langshans, Silver Wyandottes, White Wyandottes, Brown Leghorns, White Leghorns, Silver Spangled Hamburgs, Black Javas, White Guineas, Pearl Guineas and Pekin Ducks. Pairs, trios and breeding pens. Prices low, considering quality. Circular free.  
A. H. DUFF, Larned, Kas.

### SWINE.

**D. TROTT, ABILENE, KAS., famous Duroc-**  
Jerseys and Poland-Chinas.

**M. H. ALBERTY, CHEROKEE, KANS., DUROC-**  
Jerseys and Pig Teeth Clippers.

**DUROC-JERSEY HOGS—Registered Stock.**  
Send stamp for 64-page catalogue, illustrated. Prices and history.  
J. M. STONEBRAKER, Panola, Ill.

**D. L. BUTTON, North**  
Topeka, Kas., breeder of Improved Chester Whites. Stock for sale. Farm 2 miles northwest of Reform School

**RIVERDALE HERD of**  
Chester White swine and Light Brahma poultry. J. T. LAWTON, BURTON, KAS., proprietor. All stock guaranteed. I can also ship from Topeka, my former place.

### Standard Herd of Poland-Chinas

Has some fine sows, 1 year old this fall, sired by Tecumseh Chief (he by Chief Tecumseh 2d), and are bred to Look Over Me (he by Look Me Over); also, an extra lot of Spring Gilts, bred the same, and some good Spring Males of the same breeding. Come and see, or write and get prices. Wm. McGuire, HAVEN, KAS.

### H. W. CHENEY, North Topeka, Ks. POLAND-CHINAS

of the fashionable prize-winning Chief I Know strain. Cheney's Chief I Know at head of herd. Pigs for sale. Prices low.

**T. A. HUBBARD,**  
Rome, Kansas,  
Breeder of  
POLAND-CHINAS and  
LARGE ENGLISH  
BERKSHIRES. Two hundred head. All ages.  
25 boars and 45 sows ready for buyers.



## Agricultural Matters.

### PLANT BREEDING.

(Continued from last week.)  
PROPOSED EXPERIMENT.

In view of these facts, I have the following experiment to propose to every farmer in Kansas who is a grower of corn:

Set apart a field of 2 to 10 or more acres for breeding seed corn. Let it be the best land on the farm. Half of the field should be planted to corn each year and the other half to potatoes, rotating the potatoes and corn so that corn shall always follow potatoes and vice versa. Potatoes have been stipulated because they take up very little nitrogen from the soil; no doubt other crops with the same peculiarities could be used just as well. If the potatoes ripen early some cover crop should be sown between the rows about the 1st of July to prevent the nitrogen from washing out of the soil. The cover crop should be returned to the soil in the fall when the potatoes are harvested. A heavy coat of barnyard manure should be put upon the land early in the spring, and should be turned under to as great a depth as the ground can be plowed. The corn for breeding purposes should be planted in check-rows, one grain at a place, 4 feet apart each way. Before planting, the ground should be furrowed out with a one-horse shovel plow, so as to get the corn in a ditch and yet not have it planted in the clay subsoil, as is the case when using a lister. Cultivate with implements that disturb the roots as little as possible, and keep a fine dust mulch upon the surface. In the fall, when husking, about a fifth of the crop from our breeding field should be saved for seed. This should be harvested before any hard freezing sets in and should be thoroughly dried. A number of shallow boxes or shelves should be placed along the walls of the largest accessible garret on the farm. In these the corn should be stored and labeled with the year in which it grew and other data of importance. Samples of this corn should be analyzed during the winter for the percentage of protein, and this analysis should be recorded on the labels. Enough seed should be saved over to plant at least two crops of the whole area on the farm devoted to corn. The second year's crop should be stored in the garret in a different place, and the third in still another place, and so on until six or eight crops accumulate. Each season's crop should be properly labeled so as to show the year when grown and its protein content. My reason for keeping old seed on hand is as follows: The season has much to do with the protein of cereals, as we shall find later on in our discussion of climate as a plant variant. If the crop of one year should happen to have a very low protein content, the breeder could fall back to some previous year's supply of seed and use that, thus preventing deterioration of the type. It is well known that seed corn properly cured will preserve a high percentage of germinability for five to ten years.

The seed with which to plant our breeding field should be selected with great care out of the best seed at our disposal. I think I would submit it to a specific gravity test as follows: Take a barrel and fill it about two-thirds full of water. Dissolve salt enough in the water to raise its specific gravity to very nearly that of corn. The gross quantity of salt to dissolve would have to be determined by taking a definite smaller quantity of water and dissolving salt in it from a weighed quantity of salt until the solution would float about 25 out of each hundred kernels of corn. By weighing the salt not used, the quantity dissolved could be determined. The figures obtained from this experiment should then be extended to the larger experiment. After having dissolved the proper amount of salt in the barrel of water to raise its specific gravity to very nearly that of corn, we should add a little salt at a time until a glass tumbler full of the solution will float about 70 out of a hundred average grains of the corn being tested. At this point our solution is strong enough. Have another barrel near by two-thirds full of fresh water, and a third empty barrel. Pour part of the corn into the salt water and stir a minute or two, then with a coarse sieve skim off and discard all the floating grains. This can be hurriedly repeated until we have a bushel or more of the heavy grains at the bottom of the barrel. Now pour the salt brine off into the empty barrel, and throw the corn into the barrel containing fresh water as soon as possible. In this barrel the corn should be thoroughly washed by emptying and replenishing the water until no salt can be tasted. After the salt has been thor-

oughly washed out of it, the seed corn should be spread out to dry. Caution must be exercised to prevent the corn from remaining long in the brine, and to remove all adhering salt, because salt in large quantities is destructive to the germ. This process of selection of seed has been tried in Germany with eminent success by Rimpau and other great seed breeders.

I have not mentioned crossing, because I expect to discuss it at length in a future communication. I hope that farmers may see the importance of planting the heaviest and best seed, both of corn and the small grains. GEO. L. CLOTHIER.

Cornell University, March 8, 1899.

(To be continued.)

### Potato Scab.

Press Bulletin, from Botanical Department Kansas Experiment Station.

In Kansas one of the most serious diseases attacking the potato is the scab. Every spring this Department receives numerous inquiries as to methods of prevention. To answer these inquiries the present bulletin is issued.

Scab is a germ (bacterial) disease. The germs attack the substance of the tuber, disfiguring the surface with rough spots and cavities. Scab is produced only when germs of the disease effect a lodgment upon the tubers during their formation. This may come about from their presence on the tubers used for seed or from their presence in the soil where scabby potatoes have been previously grown.

#### PREVENTION.

If possible use ground in which potatoes have not been grown, or at least where the disease has not appeared. Use smooth tubers for seed. If the tubers, though smooth, have been at any time mixed with scabby potatoes, or if one wishes to be sure on the safe side, the seed tubers should be treated with a chemical wash which will destroy any adhering germs.

For this purpose corrosive sublimate is

all the tubers treated should be planted. The new crop of potatoes will be entirely free from poison.

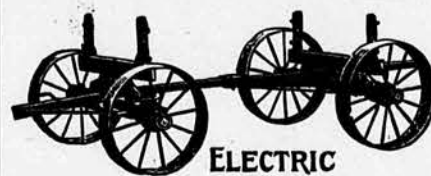
### Needed Improvements in Implements.

Editor Kansas Farmer:—I thought I would call the attention of the farmers of Kansas to improvements that might be made in some of the tools and implements that we use, more especially the sulky lister. I have examined all the different makes that I have seen, and I have yet the first one to see that is constructed on correct principles. On all that I have noticed the wheels of the carriage are both stationary; neither one can be worked, that is, raised or lowered, independently of the other. Now, most persons plant about 3 feet 4 inches apart, and if the lister scours perfectly and the team walks fast the dirt will necessarily be thrown beyond the middle of the row, and in coming back on the next row the wheel must pass over 2 or 3 inches of dirt that the lister has thrown out in the middle of the row. This, of course, raises one side of the carriage and causes the share to run shallow on one side and deeper on the other. Perhaps we may raise just as much corn by running the lister that way, but I would prefer having the bottom of the share run parallel with surface of the ground. Now this can be easily remedied by making the carriage so each wheel can be either raised or lowered independently of the other. While the manufacturer is making the improvements on lister carriage, let him go still further and make the carriage so that either wheel can be raised or lowered 6 or 8 inches above or below the level. He will then have a carriage on which either a right- or left-handed plow can be used. I, for one, would like to have a sulky lister, but I do not wish to pay \$40 for one and only use it about five days in a year, but I would try one immediately if they were made as I have suggested.

I think the farmers ought to call the

### Buy the Best.

If you want the best low down wagon you should buy the Electric Handy Wagon. It is the best because it is made of the best material; the best broad tired Electric Wheels; best seasoned white hickory axles; all other wood parts of the best seasoned white oak. The front and rear hounds are



ELECTRIC

made from the best angle steel, which is neater, stronger and in every way better than wood. Well painted in red and varnished. Extra length of reach and extra long standards supplied without additional cost when requested. This wagon is guaranteed to carry 4,000 pounds anywhere. Write the Electric Wheel Co., Box 46, Quincy, Illinois, for their new catalogue which fully describes this wagon, their famous Electric Wheels and Electric Feed Cookers.

ive; and a Hindu nearly black. Such of the Hindu women as have never been exposed to the sun are as the inhabitants of the south of Europe.

### Tenia Fimbriata (Fringed Tape-Worm).

Press Bulletin, from Veterinary Department Kansas Experiment Station.

This is one of the common intestinal worms affecting Western sheep, and causes by far the greatest loss of any parasite affecting this animal in this and adjoining States. In the adult state, this peculiarly ornamented worm measures from 3 to 5 inches in length, and about three-eighths of an inch at the middle or widest part of body, which is flat and tapers gradually toward either extremity. A careful examination will reveal a fringed border of each section, which is characteristic of this tapeworm. Until quite recently, sheep owners were disposed to attribute the cause of death to some poisonous effect resulting from feeding upon the loco plant. Recent investigation has shown that this little parasite is responsible for the many ills giving rise to the following

#### SYMPTOMS.

Lambs that are badly affected are large-headed, with undersized bodies and hide-bound skins. Their gait is stiff. They seem to have difficulty in cropping the shorter grass; they also appear to be more foolish than the rest of the flock, standing often as if they intended to attack the dog or their shepherd. Others show evidence of impaired vision or are so affected that they appreciate danger less. In driving, they are to be found in the rear, and show marked evidence of exhaustion. Such symptoms as described gradually become worse, as the worms increase in number and size, until emaciation removes all doubt from the mind of the owner as to the presence of some very obstinate disease.

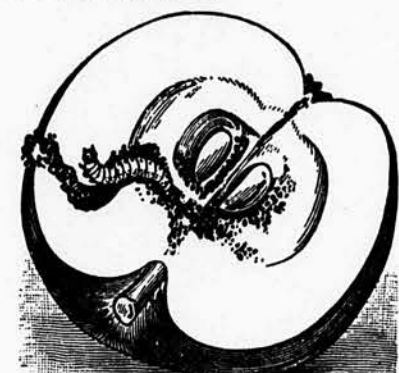
The constant irritation produced by these parasites in the intestine and other digestive organs so impairs their function that indigestion, with its long train of evils, is the consequence. Lambs and yearlings, being yet undeveloped, require all the nourishment their digestive organs are capable of handling under the most favorable circumstances in order that the desirable development may be quickly obtained. Therefore any cause operating in direct opposition to the proper performance of the various functions of animal life should be regarded as a direct cause of disease and death.

#### TREATMENT.

From the present knowledge of the life history of this parasite, we are unable to prescribe specific rules by which the danger could be effectually removed by destruction of this worm and its eggs. The presence of the adult and young parasite throughout the year, and the methods at present employed by ranchmen, are factors directly opposed to any systematic eradication. Nourishing food, fed liberally to both ewe and lamb; fresh pasture when lambs begin to eat; water free from surface drainage; suitable shelter during the winter months; feeding from troughs and racks; avoiding all accumulation of filth, which harbors embryo and germ of many diseases peculiar to the young—such sanitation will surely bring about desirable results, and we may safely say that the time has arrived for improvement in this direction.

### Spraying Fruit Trees.

The question of spraying fruit trees to prevent the depredations of insect pests and fungus diseases is no longer an experiment but a necessity.



Our readers will do well to write Wm. Stahl, Quincy, Ill., and get his catalogue describing twenty-one styles of Spraying Outfits and full treatise on spraying the different fruit and vegetable crops, which contains much valuable information, and may be had for the asking.



POTATO AFFECTED WITH SCAB.

(Galloway, Farmers' Bulletin No. 15, Division of Vegetable Pathology, United States Department of Agriculture.)

probably the best. Mr. Galloway, of the Department of Agriculture, says: "For the treatment of potato scab a solution of corrosive sublimate has given the best results. This should be prepared by dissolving 2½ ounces of corrosive sublimate in about 2 gallons of hot water, and after an interval of ten or twelve hours diluting with 13 gallons of water." (Farmers' Bulletin No. 15, page 6.)

The liquid should be placed in a wooden vessel, such as a barrel or large tub. Earthenware would do, but metal vessels of all description must be avoided, as they would be at once attacked by the solution. The whole potatoes can be placed in a gunny sack and immersed for the required time, about an hour and a half. After being taken from the solution they are spread out to dry and planted in the usual manner. If the tubers are dirty they should be washed, or at least freed from adhering soil before treatment. Scabby seed should not be used, because it is difficult to reach and kill all the germs in the cavities. Corrosive sublimate should cost about 15 cents an ounce.

In case it is necessary to plant upon ground infected with scab, it has been recommended that the furrows be sprinkled with the solution in which the tubers were soaked.

Some investigators suggest sulphur, but as all have not been equally successful with this, we do not at present recommend its use. Professor Halstead, of the New Jersey Experiment Station, publishes the following: "After the seed is cut, dust it with sulphur, and if the planting is done with a machine it is possible to add the sulphur in the hopper of the machine. In this way both the sulphur and its application will cost but a dollar or so per acre." (Halstead, N. J. Rep. 1895, page 282.)

#### CAUTION.

Corrosive sublimate is a poison and should be kept out of the reach of children and animals. For the same reason,

attention of the manufacturers (through the agricultural papers) to such matters, for it is only by so doing that they can know all the farmers' needs.

One of my neighbors was in town the other day getting some part of his new stalk-cutter mended. I asked him if he didn't know any better than to invest money in a stalk-cutter. He said he didn't. I told him to invest in a good 20-inch disk harrow, and gave him a copy of Kansas Farmer containing my article on "Disposing of Cornstalks." The farmers want implements that can be used for all kinds of work. The farmer should throw away the stalk-cutter and adopt the disk harrow and he should refuse to buy a sulky lister until they are built on the principles I have suggested.

A great many farmers, no doubt, will buy a cultivator this spring. I would not buy one that did not furnish (besides the regular large shovels) a spring-tooth 8-shovel gang also. Where a lister is used it is almost a necessity, especially where Kaffir corn, sorghum, broomcorn, and such crops are grown. I have always had trouble on very foul land to keep corn perfectly clean, because it is impossible to plow it when very small with the large shovels, and in letting the corn get up out of the lister furrow sometimes the weeds also get a start; this is especially so of a wet season. By putting the fenders on I can plow corn with the spring-tooth gangs in a deep lister furrow when it is not over 2 inches high and do a fine job. The gangs should be made so they can be moved to fit the lister furrow, that is, sloping so each gang can run on the side of furrow and all the shovels run an equal depth. J. W. MARTIN, Leon, Kans.

Climate has a great effect on the complexion. For instance, the Caucasians are of all complexions, according to the climate, but white is the natural color. Thus, a native of northern Europe is fair; of central, less so; of southern, swarthy; a Moor, more so; an Arab, ol-



## The Stock Interest.

### THOROUGHBRED STOCK SALES.

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

APRIL 27—G. W. Glick & Son, Powell Bros., and John McCoy, combination sale of Shorthorns, stock yards sale pavilion, Kansas City.

### LICE ON ANIMALS.

Press Bulletin, from Veterinary Department Kansas Experiment Station.

These wingless insects are found parasitic on all animals. Cattle are unfortunate in being the most common victims of lousiness. Sheep are rarely affected. We meet with this disease most frequently during the winter months, in neglected, half-starved, dirty animals. Young animals are especially liable to be infected. Sometimes, however, even well-kept cattle suffer severely.

So-called lice are either true lice (Haematopinus) or bird lice (Trichodectes). The former have a slender, often spindle-shaped body, a pointed head, grayish blue color, and suck blood. The Trichodectes are broader, have a squarish head, brown color, and have biting mouth parts, living on hair and epidermal scales. Trichodectes are usually found on neglected, unthrifty animals with long, shaggy hair and a dirty, scaly skin. They usually disappear as soon as the animal's condition improves. True lice, on the other hand, occur also on thrifty animals.

Every species of domestic animal has its own specific louse, or lice (horse louse, ox louse two kinds, pig louse, goat louse, dog louse, etc., and Trichodectes of the horse, ox, sheep and dog). The louse of one species of animal can not exist permanently on another species.

**SYMPTOMS.**—Lice always give rise to a troublesome itching, causing the animal to rub and scratch the infested portions of the body. The hair is rubbed off, or drops out, the exposed skin becomes inflamed, scaly, and even covered with extensive eruptions and large raw, bleeding surfaces, giving the animals an extremely distressful and unsightly appearance.

Lice seem to prefer the region of the neck and mane, the back, root of tail and, in cattle, the base of the horns, in pigs the region between the hind legs.

The presence of lice and their nits attached to the hair is sufficient evidence regarding the nature of the trouble.

**TREATMENT.**—There are many remedies for destroying lice, e. g., arsenic, mercurial ointment, hellebore, tobacco decoctions, the seeds of Delphinium staphysagria (stavesacre), creolin, carbolic acid, lysol, train or fish oil, etc.

The following are of especial merit:

1. Mercurial ointment, diluted with a little oil, is very effective on horses and pigs. It is applied in small quantities to the affected parts only. It must not be used on cattle.

2. A tobacco decoction (one pound tobacco and three gallons boiling water, allow to stand for half an hour) with or without the addition of two pints of vinegar, is very effective; but often produces nausea in horses and cattle.

3. Five per cent solutions (three teaspoonfuls to a pint) of creolin or lysol, in water containing 20 per cent of alcohol, well rubbed in with a stiff brush, is very effective.

4. The remedy which has given the most satisfactory results to the writer is kerosene emulsion, made as follows: Kerosene, two gallons; common or whale oil soap, one quarter pound; water, one gallon. Heat the solution of soap and add it boiling hot\* to the kerosene; then churn the mixture for ten minutes. Dilute the emulsion with twenty gallons of water and apply with a spray pump. If no spray pump is at hand, drive the animals, if many are to be treated, into a narrow chute and apply the emulsion with a common watering-can, being careful to treat all parts of the body.

Select a mild, sunshiny day for the operation. In the course of four days or a week repeat the application in order to destroy those lice that have, in the meantime, emerged from the nits. Where the animals have been kept in stables or pens do not neglect to give these places the same treatment; they are just as lousy as the animals, and if not treated they will soon reinfest the animals. Finally, avoid conditions favorable to future infections, by giving animals proper care and keeping them in a vigorous, thrifty condition. For long-haired animals (calves), shearing might be recommended. Weak, run-down ani-

\* Note.—Be sure to have the water boiling hot when you add it to the kerosene, and churn it thoroughly, otherwise you will have trouble in making a good emulsion; which, when made right, should have a creamy appearance.  
ad Nonp Note.

mals may require special nursing to recover completely from an attack of lousiness.

### Two Valuable Feeds.

Editor Kansas Farmer:—Some few years ago, while a newspaper man in southern Kansas, my mind became impressed with the utter foolishness of attempting to raise corn year after year upon the uplands of the western two-thirds of this State. Corn is adapted naturally to first bottom land, and there is fair dependence to be placed on second bottom land, but when two and three crops out of five totally failed on the upland it did seem like gambling to continue to plant that crop.

Since that time Kaffir corn has come in as a substitute and its use has become so nearly universal that even our farmers in eastern Kansas recognize its value after a trial, and I have seen it do wonders on rocky, barren land, and even on wet bottoms it has been planted with good results. Going down the Santa Fe railway, in November last, into southern Kansas, there was no place on the entire route but that I could see fields of Kaffir corn from the car windows.

But it was before the day of Kaffir corn, that, in looking for a substitute for corn and its attendant crop failures, I settled upon barley as a good substitute. It has been grown with great success in a number of western Kansas counties, but owing to there being no cash market for it at the elevators and in the towns, many abandoned it in favor of a cash crop.

Yet barley is a valuable feed crop, and all the more valuable because there are two chances each year of making a crop to carry the farm live stock through the entire year, sowing in the fall as a winter crop and sowing early in the spring like oats. This double chance against failure was a feature of great value, for we all know that one thing that has kept Kansas down was the compulsory selling of breeding stock because of total crop failure—little, big and everything; hogs, cattle and horses; lean

ing large plump grains. Straw bright, very days later than the common six-rowed barley, or about the same time as two-rowed barley. Bushel, 80 cents.

Common Barley.—Barley succeeds best on lands more sandy and lighter than those adapted to wheat. It is sown in the spring, and can be grown farther north than any other grain. Sown from 2 to 2½ bushels per acre. Bushel, 80 cents.

Imperial Black Barley.—This is used mainly for food, and it produces one of the best hog-fatteners that we know of. It is equal to the best Kansas, Iowa, Nebraska or Illinois corn as a fattener, and it is surer than most all crops. The yield the past season was 50 bushels per acre. The Black Barley did splendidly. We urge all farmers and stock raisers to give this splendid sort a trial. Bushel, 90 cents.

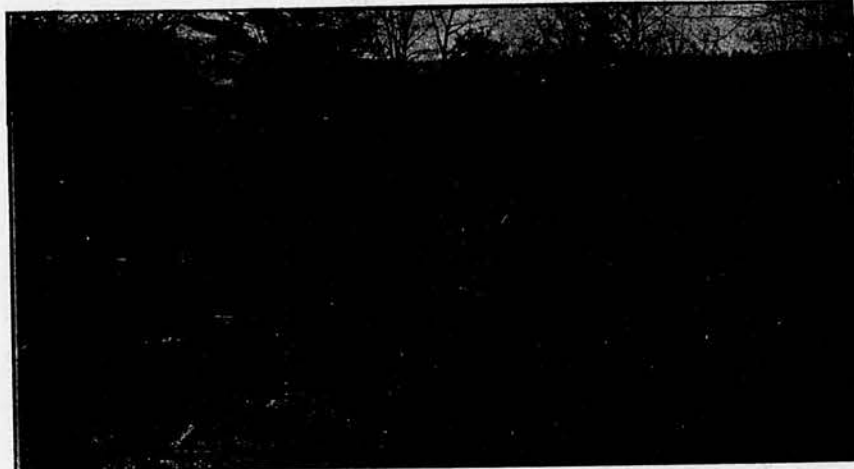
Success Barley.—A new beardless barley, earliest barley known, about ten days earlier than other kinds. A good yielder, six rowed and strictly beardless, it can be handled as easily as oats. Our supply of this variety very limited. Bushel, \$1.25.

Winter Barley.—For fall sowing. Must be sown early in fall to get well rooted before frost sets in, so as to not winter kill. Bushel \$1.00.

In Harper County we had a beardless barley well liked by our farmers. In that county I have planted town lots for summer pasture and it did exceedingly well. Here, near Lawrence, I have used it as a nurse crop and it surpassed oats used for the same purpose. This winter, during the egg blockade, I bought barley as a change of food for the lazy hens. But Kaffir corn is now all the rage as a chicken food. It is not so fattening as common corn and just the right size for a fowl to pick up and swallow. GEO. W. MAFFET.  
Lawrence, Kans.

### An Angus Breeder's Great Offering.

From the large and high-class herd of Aberdeen-Angus maintained at Walnut Grove Farm, near Estill, Howard County, Missouri, Mr. Hugh W. Elliott will sell at Kansas City, on April 6, a draft of "doddies" not surpassed in average excellence by any offering of this popular breed ever made this side of the Atlantic. A recent visit to the farm reveals the fact that Mr.



RESIDENCE OF W. D. SLOAN, LENOX, MASSACHUSETTS.  
(Fenced with 19-bar 58-inch Page Fence.)

The above cut shows Page fence, 58 inches high, with 19 lateral wires, erected on an incline, and this photograph was taken particularly to show how well the coil in the wire adapts the fence for erection on uneven ground. The readers will notice that the cross-wires are perpendicular in any part of the fence, and they would be so even though this same fence was continued right over a hill and down another ravine.

We hardly think we need to introduce the Page fence to our readers, because it is already so well known. There is now about

\$600,000 worth of it in use in our State, and we have carried their advertisement in every issue of our publication for several years.

Did you ever notice the Page fence advertisements in our columns? They are changed every week and afford rather interesting reading matter. The company publish a little paper called the "Page Fence Age," which they will send to every farmer six months free, simply for the asking. Address the Page Woven Wire Fence Co., Adrian, Mich.

of course, not fit for market, and consequently sold at a sacrifice price. Then came a good crop and the farmers had to pay big prices to buy another start of breeding animals for their farms. This thing has been repeated time and time again, in cycles of a very few years. This one thing more than anything else, has retarded the accumulation of wealth. Kaffir corn is one "way out," barley may be another.

Barley is a very rich, succulent grain. The United States Government feeds its cavalry horses in the Southwest States on barley. Some of the fastest horses in the Union have been bred in California and have been raised on barley pasture, barley hay and barley grain. Milch cows in southern Kansas have been fed barley through the winter, gave lots of milk and came out in high flesh in the spring. Hogs were fattened on barley in western Kansas and shipped to Kansas City with the request for the packers to make a special report on barley-fed hogs. The packers reported back that meat was firm and sweet and as good as corn-fed pork in every way, and to send on some more. This was seven or eight years ago.

The Kansas Seed House, a strictly Kansas institution that believes in advertising in the Kansas Farmer, has in its catalogue the following varieties of barley:

Highland Chief Barley.—This is an entirely new and distinct two-rowed variety of barley. It is very robust, a vigorous grower, and the size of the grain when compared with any other is immense. It is less liable to be damaged by wet than any other kinds, inasmuch as it is more closely covered with broad awns or spikelets, consequently it is less liable to lose color by the wet weather. Has strong, upright straw, yields from 50 to 60 bushels per acre, and usually weighs over 50 pounds to the measured bushel. Bushel, 80 cents.

Mansury Barley.—A six-rowed barley, with long, heavy, well-filled heads, containing, and is not apt to lodge, even on the richest lands. Ripens about a week to ten

Elliott has been exceedingly modest in his claims concerning his herd and pre-eminently successful as a producer of a grand type of beef cattle. Without exception every one of the sale animals was bred at Walnut Grove, and as it is the only large contribution of the breed ever made in this country in which every animal was bred by the seller, it is particularly interesting to study the cause of the wonderful uniformity and average excellence of the cattle that will grace the ring on this occasion. Such a type fixed and unerringly transmitted is not secured in the short lifetime of the average breeder. Such width and depth, broad straight backs, thick flesh, mellow hides and beautiful breed character are rarely attained. Mr. Elliott founded wisely, obtaining Ericas direct from the Ballindalloch blood as well as the other strain of this famous family that has produced more herd-headers and superior show animals than any other strain of any Angus family imported to America; the Prides strong in the Tilly-four blood; the Heroines fresh from Montbleton, the home of the celebrated Blackbirds, and the Shempston Duchesses that for years produced the Smithfield winners on the other side, and the champion Black Prince of Turlington 2d, in America. The best of the Jennets, Minas and Dimples were also purchased. On these females Mr. Elliott used the noted Blackbird bull, Imp. Bushranger, sire of Dot (the fat stock show champion), and Estill Eric, the greatest Angus sire of producing dams America has ever known. This great Blackbird sire left a superb array of short-legged, big-bodied, thick-fleshed matrons at Walnut Grove that have given splendid results from every bull in service on them. Prior to the last two years they dropped calves mainly by the Erica bull, El Rey, that was bred by Mr. Elliott from Etta Estill and sired by the imported Pride bull, Kabul. El Rey was highly satisfactory as a sire, his daughter

## Salt Rheum

Intense suffering—Could Not Sleep—Cured by Hood's Sarsaparilla.

"I had salt rheum on my arms, which itched intensely and kept me from sleeping. The skin on my hands would crack open. My friends believed I was suffering from blood poisoning. I decided to take Hood's Sarsaparilla. I did not see any improvement with the first bottle but continued with the medicine and after taking five bottles I was completely cured. My hands are now as smooth as I could wish." A. D. HAGEY, Elroy, Pa.

### Hood's Sarsaparilla

Is the best—in fact the One True Blood Purifier. Sold by all druggists. \$1; six for \$5.

are prompt, efficient and easy in effect. 25 cents.

Hoping selling last year to Messrs. Palmer & Palmer at \$500 (the highest reported price for an Angus female in 1898), and his ten 2-year-old daughters included in this sale are among the best the breed affords. They will calve early to the service of the remarkable young Pride sire, Polar Star. This bull has been a most important factor in the great uniformity and superiority of these sale cattle. At 3 years old he has won high place among Angus sires as a getter of easy-feeding, thick-fleshed, smooth, shapely cattle. We cannot now recall when so many animals (48 head) the get of one bull of such high average individual excellence entered an American sale ring as Mr. Elliott has catalogued for this great event at Kansas City. Polar Star has crossed equally well with the daughters of Bushranger, El Rey and other noted sires used at Walnut Grove. He was sired by Golden Abbott, a son of the Pride bull, Imp. Guinea, and the celebrated Abbess of Turlington, the Columbian champion cow. His dam, Pride of Glendale 2d, is by the Pride bull, Peerless Knight. The entries for this sale include the entire 1897-98 produce of the herd, and Mr. Elliott thereby parts with 10 of his Erica females that hitherto he has never priced to anyone, although repeatedly urged to do so. It is also the first large consignment of the great early-maturing Heroines that ever went under an auctioneer's hammer in this country. There are valuable herd-headers in plenty and show bulls and show helpers, several of which promise great things in the coming contests of 1899. The fact that Mr. Elliott does not exhibit renders this a rare occasion upon which to secure show cattle, as other breeders producing such animals usually retain the best of them to exhibit themselves. The catalogue is deeply interesting to all engaged in stock raising. The advertisement is on page 16.

### "Forgot to Get Up."

Editor Kansas Farmer:—Here we are, the 16th of old treacherous March, who sits straddle of the house and hoots. Some days he is just as still and just too nice for anything, but we do not know what day he will get on a bum and send snow and cold, bleak winds that will almost freeze our cattle to death and make that day a "cow-killer." In our last storm some of our cattle in Barber County forgot to get up and eat their feed. But, taking so many cattle as our county holds, we are so far with a small percentage of loss. But the rub is to get through March, then April will come and grass and warm days, and we cattlemen will feel relieved. There is a shortage of feed in our county, caused by the extreme cold storms that would scoop down on us and would nearly take a whole field for a day's feed, and some days would have to open gates and let cattle in a field to help themselves, for wind blew so cold and hard we could not keep feed on a wagon, but to-day the cattle lie stretched out in the warm sun and the little calves frisking around which a few days ago were in a snow bank. Some have started the listers. In the deep canyons the grass is starting and we hope spring is almost here. The next thirty days means much for Kansas and her cattle interests.

ELI C. BENEDICT.  
Medicine Lodge, Kans.

### Removing Curbs.

Editor Kansas Farmer:—Not long since a couple of your subscribers asked concerning curbs on back of horses' hocks. One was still lame with the inflammation, the other case was of long standing. If both of these men, when they take their horses to the blacksmith, will ask to have their heels kept high behind, in order to relieve the strain on the cord, and continue to do so for a year or more, the curbs may disappear of themselves. If not, a severe blister will soften up the point so that an absorbent liniment will remove the ordinary curb. Keep the horses at usual work. Horsemen do not consider a curb of much injury, except as a blemish that will injure the sale of a horse. Joe Patchen, the great pacer, sprung a curb a couple of seasons ago, but he was kept at fast work, inflammation kept down, and it disappeared while he was going terrific heats in 2:05 and better, and his fast record of 2:01½ was made since. Pity some of our own horses cannot go fast enough to "spring a curb." Keep toes of hind feet short and heels high and a "curby hock" often rights itself.  
Lawrence, Kans. GEO. W. MAFFET.



Horse Owners! Use GOMBAULT'S Caustic Balsam



The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Blemishes from Horses and Cattle. SUPPRESSES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Sent for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

ast Thursday's Hereford Sale.

The public sale of registered Hereford cattle, held Thursday of last week by Messrs. Mosher, Taylor and Summers, at Salisbury, was fairly well attended, buyers and visitors being present from Illinois, Kansas and Missouri. Of the 55 head sold, all but 7 went to Missouri buyers. Four head were secured by Illinois and 3 head by Kansas. The prices realized were not, in several instances, up to the real worth of some of the individuals offered, but when it is considered that there were several old cows, some that were dehorned and several youngsters, the result attests that there were even at the prices had, money in well-bred Herefords. Edward J. Taylor, manager of Mr. Sotham's Weavergrace Farm, topped the sale on the 8-year-old cow, lot 36, Bunchie 2d 60572, at even \$300. There were 7 cows and heifers that brought \$200 or better. The highest-priced bull was lot 72, Nemus 81304, in his 16-months' form that went to G. W. Craven, of Salisbury, Mo., for \$245. The second highest priced one was lot 73, Mark Hanna (Vol. 19), another 26-months-old youngster, that was secured by W. E. Gregory, of Walnut, Kans., at \$215. The prices not coming up to the anticipations of the holders of the sale after the 55 animals were sold, the promoters called the sale to a close, hence only 55 of the 81 head that had been catalogued were sold. It was generally conceded that Messrs. Mosher, Taylor and Summers were justified in calling the sale to a close as above mentioned. The prospective buyer will find about 30 head, mainly young serviceable bulls, that are open for inspection and private sale.

SUMMARY.

Table with 2 columns: Quantity and Price. 13 bulls brought \$1,960.00, Average 150.75; 42 cows and heifers brought 6,165.00, Average 146.78; 55 head brought 8,125.00, General average 147.72.

Gossip About Stock.

There will be held soon two public sales of pure-bred beef cattle of special interest to Kansans as well as to the breeders of Shorthorns and Herefords throughout the West generally, for the reason that they will probably be the most representative offerings of the year. The first will be the Sunny Slope sale of Herefords, to be held at Kansas City stock yards pavilion on April 18; the other is the combination Shorthorn sale of Messrs. G. W. Glick & Son, Atchison, Kans., John McCoy, Sabetha, Kans., and Powell Bros., Lees Summit, Mo., April 27, at Kansas City, Mo. Details of these sales will be advertised in the Kansas Farmer.

Detrich & Spaulding, Richmond, Kans., on sending in a change of copy for their advertisement, writes: "Highland Herd has passed through the winter in good shape and the herd sire, Knoxall Wilkes, is still as active as a yearling, and the more we see of his produce the higher we prize him. Our spring crop of pigs is beginning to come and we aim to put some of the best to the front this season. Last week we sold the fourth boar to one of our customers and he informs us that he topped the market with two different car lots of hogs, the get of his last boar, and considers him well worth \$200. The customer raises hogs for the market and is in it for the dollars there are in it, and believes in raising improved stock to do it."

Receipts at the horse markets continue much smaller than those of 1898. The figures at Chicago show for the week past a shortage of 683 head compared with the receipts for the same week of 1898, and as the arrivals footed up 3,142, the shortage was very nearly one-fifth. The quality of the arrivals was not so good in the main, though some very fine individual offerings were on the market at different times during the six days. Prime heavy drafters were in the most active sort of demand and prices ranged in a general way from \$125 for the smaller, commoner sorts, weighing around 1,000 pounds, to \$250 for the more shapely lots going up to 2,000 pounds on the scales. The top was at \$305 for a gray Percheron gelding, weighing 2,200 pounds, consigned by R. Barret, Eureka, Ill., to M. Newgrass & Son, Eureka, Ill. Buyers were present in force from most of the large Eastern centers of population and the hardy one of them or one of the exporters got all the good horses he wanted. Many of the more urgent orders had to be made out with animals inferior to those desired.

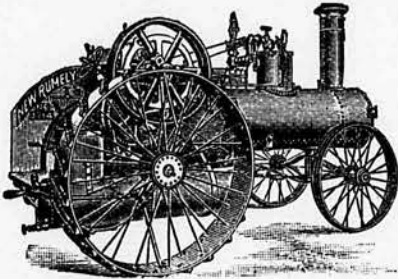
The sale announcement of Shorthorns by Messrs. F. M. Gifford and J. B. Gifford, whose 1,800-acre farm lies near Milford, Kans., north of Junction City, on the Union Pacific railroad, appears elsewhere in this issue. The Giffords grew up with the best of selected Shorthorns, the herd having been founded by their father in 1873, and during the years of depression in pure-bred beef cattle the best were retained on the farm. The visitor now finds about 110 head in the herd whose breeding and individuality is the equal of any in the State. Early last year it was decided to reserve the surplus for a public sale, hence all the tops, both bulls and heifers, have been catalogued for the coming sale. The Messrs. Gifford, in the catalogue sale announcement, among other things, state: "We have always used the best bulls obtainable only, being convinced that nothing but the best will enable us to keep our herd up to a high standard, which has always been our aim and upon which an intelligent patronage now insists. We aim to keep our herd in the best condition for usefulness

and feed only such grains as are raised on the farm. The cattle contained in this catalogue were all raised on our farm and are the natural surplus of our herd, and we have catalogued for this sale an attractive lot of young, thrifty cattle that cannot help but be a good investment to the purchaser." The bulls that go in this sale are the sons of the Cruickshank bull, Lord Elmer 129242, and very strongly show their Scotch character. All the females old enough to be in expectancy will have been bred to the very excellent bull, Red Knight 120752, bred by Cookson Bros., of Iowa, sired by Pro Brampton 116933 and out of Home Mysie (Vol. 40). He is a large, very compact, deep-bodied bull on very short legs, his brisket only 14 inches above the ground. He came to the Elmwood herd, his present home, because his sons and daughters proved him a breeder among a hundred. All of the older breeders throughout the West will doubtless recall the merits of the Gifford cattle in years gone by, and the writer takes it on himself to state that none will be disappointed in the offerings that will go at Manhattan, Kans., on Tuesday, April 4, 1899.

The Shorthorn cattle sale advertised in this issue by Thos. Andrews & Son, of Cambridge, Neb., will be held at South Omaha stock yards. There will be 51 head in the offering, of which 24 are bulls and 27 are cows and heifers. It should be remembered that Tom Andrews is one of the best Shorthorn breeders in the West that his large herd has been well established for several years, and that he perhaps has more good representatives of the breed—Scotch-bred—good, large, fine animals, than can be found in any other herd in the West. He keeps this fine large herd in southwestern Nebraska, near Cambridge, in Furnas County, where one would not expect to find so many grand cattle. They are well cared for here, well fed, where they get plenty of alfalfa, good blue-stem grass and an abundance of grain properly fed. One of the barns of this breeding establishment will house over one hundred head, and Mr. Andrews has cattle enough to fill it twice. This is to be a sale of select Shorthorns, including the fine show herd and other good ones. There will be no culls nor worn-out cattle—nothing over 5 years old among them is the great show cow, Cambridge Lass, a prize-winner, and believed to be the heaviest cow of any breed at the late Trans-Mississippi Exposition at Omaha, and she now has a fine heifer calf at her side. She has lost none of her show yard bloom and is heavier now than she was last October. There are other very choice young cows and heifers. All those old enough have calves at foot or are bred to the fine Cruickshank bull, Margrave 125162, sired by Sir Sittytton Stamp 110269, 6C368 English Herd Book number, and 18963 Canadian Herd Book number. Margrave was bred by John Miller & Son, Canada, and is a low, thick, fleshy stock bull, whose sire and granddam were both imported. The 24 young bulls to be sold are the best lot ever put up at auction at one time here in the West. They are prize-winners and the get of show yard cattle and well enough bred to head any herd in the land. Besides Dewey, first prize animal in a ring of eleven at the Omaha exposition last fall, there are others of equal merit. The sale catalogue is now ready, and you should send for it at once.

The M. Rumely Company.

The institution bearing the above name was established forty-six years ago and has been doing business and growing all these years at LaPorte, Ind. They are manufacturers of a line of machinery that has not only made them famous in this country but which has been of such quality and superiority as to attract trade from European countries as well. The M. Rumely Separators and Engines are known everywhere for the superiority of their construction and the uniform high quality of their work. The cut which we present herewith is that of the New Rumely Rear-Geared Traction Engine with Friction Clutch. It serves in an excellent way to illustrate the high quality of this company's product. This engine is famous for its high power, coupled with economy as to steam and fuel; it is the quickest steamer known and is possessed of high reserve force; it is possessed of unusual traction power and takes its load with ease over the most slippery roads. With all its size and power



it is so sensitive to the steering apparatus as to be handled with perfect ease. In addition to this traction engine these people make also Compound Traction Engines, Portable Engines and Semi-Portable Engines. In Threshers they manufacture the New Rumely Separator, which combines the New apron and vibrating principles, with leading spouts, high wagon elevators, clover hulling attachment, telescope weighing device, telescope bagger, etc. These machines are equipped with the famous Rumely Uncle Tom's Farmer's Friend Straw-Stacker, the Rumely Band-Cutter and Feeder and the Rumely Automatic Stacker. A full line of Dingee-Woodbury Horse-Powers, Sawmills of various sizes, and Maurer's Automatic Baling Presses, completes the line. Every article is the complete embodiment of good material, good skill and perfect workmanship. Write them for large illustrated catalogue, which they will take pleasure in mailing to our readers.

The total resources of the Catholic University of America at Washington were shown by the treasurer's report at the last meeting of the trustees to amount to \$1,809,725. This sum was accumulated in ten years.

Dr. Bull's Cough Syrup will positively cure croup. Many a home has been made desolate by the loss of a dear child which could have been saved by this great remedy.

Bank of Brides.

Simla, the summer capital of the Indian empire, is a pretty pine-treed place well up in the foothills of the Himalayas. A feature of Simla life is the annual fair held by the native people, an attractive item of which is a "Bank of Brides" in an amphitheater, where sit numbers of young women, who thus calmly announce that they are candidates for hymenial honors. Some of these aspirants to matrimony so patiently awaiting a choosing are quite pretty, and have intelligent faces, but those of the Mongol cast must needs linger long for a partner if personal beauty enters into the equation.—Woman's Home Companion.

The Grand Duke Nicholas, who has been the Sultan's guest, is said to have the longest neck of any prince in Europe. It is almost of giraffe dimensions. His cousin, the Grand Duke Constantine, comes next, and then the King of the Hellenes. It is pointed out that the long-necked hardly ever die of apoplexy, and that they are not liable to violent anger.

When a chimney sweep at work in Potsdam castle found himself, through a sudden descent of a chimney, in the private apartment of the German empress, he was greatly embarrassed, and tried to escape the way he had come, but the empress called the little Prince Joachim into the room and persuaded him to give the "black man" a honey cake.

Whenever the Empress Eugenie of France has occasion to write anything about her lamented husband she always uses the diamond pen which signed the treaty of Paris. All those who participated in this historical occasion wanted the pen as a memento. But so keen was the Empress on possessing it that she begged that only one pen should be used, which she thought she had a right to retain as a souvenir. This was agreed to. The pen takes the form of a quill plucked from a golden eagle's wing and richly mounted with diamonds and gold.

Publishers' Paragraphs.

Mr. F. B. Mills, the enterprising seedsman of Rose Hill, N. Y., whose success has been most remarkable, made so largely on account of his enterprise and fair dealing, he devised another scheme that is equally as forceful and attractive. The 10-cent due bill that he furnishes to all who write him for a catalogue is proving a very liberal offer and our readers need have no fear that they will be unfairly dealt with. Better send at once and get a due bill which will help pay for your season's seeds. The object in making this liberal offer is to induce those not acquainted with Mr. Mills to try his seeds for this season. Mr. Mills feels confident that one season's trial will make a permanent customer.

DR. COE'S SANITARIUM.—A representative of this paper recently had a short chat with Dr. C. M. Coe, proprietor of Dr. Coe's Sanitarium, Kansas City, Mo., on the subject of "Advertising." Dr. Coe has advertised extensively and successfully during the past twenty years, and has mastered the art of public announcement. He knows what to say, when to say it, and the best medium to use to reach those whose attention he seeks to arrest. When asked what he deemed the most essential feature of an advertisement, Dr. Coe replied: "Truthfulness. An advertisement should be straightforward and sincere in every line. That kind of advertising which is done under the guise of selected reading matter, in which the fact that it is an advertisement is kept back until the last line is almost reached, is bad advertising. The deception disgusts the reader and makes him mad. The best advertisement is the one that tells the truth from start to finish." "In placing your advertisements, what is your rule?" "I select a paper or periodical having a circulation among the class of people I desire to reach. For instance, when I wish to reach the farmer and the stockman, I advertise in the live stock and farm papers. These papers are taken home and read by the entire family, the advertising columns always receiving their share of attention. And, by the way, I wish to note, right here, the fact that stockmen, especially the breeders of blooded live stock, have learned the value of liberal advertising. The recent sales of Hereford cattle in Kansas City were extensively and effectively advertised, with the result that they were attended by stock breeders from all parts of the country. The money spent in advertising these sales was money well invested." "Admitting that an advertisement is properly written and well placed, is there not something else necessary?" "Most assuredly. The advertiser must back it up. Every statement contained in it must be made good. The advertiser must acquire and must maintain a reputation of dealing honestly with the reader. His permanent success depends not so much on the confidence gained as the confidence retained. Such is the opinion of a man who has spent thousands of dollars annually for a score of years in the columns of the newspapers and periodicals of the West. The best evidence of the fact that it has been money well spent is to be found in the professional and business success that has resulted. Dr. Coe is now at the head of one of the largest private sanitariums in the country, his reputation as a skillful and successful physician is established, and his name is widely known as one that stands for professional honor and honesty. Back of the successful physician is the successful advertiser, and back of the successful advertiser is the man who makes good his printed statements and promises. This is the very essence of successful advertising."



A man must reap as he sows. If he sows ill-health he will reap ill-health. If he neglects his health the weeds of disease will grow up and choke it.

It is a daily and hourly marvel that men will recklessly neglect their health, when a moment's thought should tell them that they are courting death. It lies in most every man's power to live to a green old age. If a man would only take the same care of himself that he does of his horse, or cow, or dog, he would enjoy good health. When a man owns a hundred-dollar horse, and it gets sick, he does not waste any time about doctoring him up. When his garden gets full of weeds, he doesn't delay about rooting them out, for he knows they will choke out his vegetables. When he is out of sorts, sick, nervous, headache, has no appetite and is restless and sleepless at night, he pays little attention to it. The result is consumption, nervous prostration or some serious blood or skin disease. Dr. Pierce's Golden Medical Discovery is the best of all medicines for hard working men. It gives edge to the appetite, facilitates the flow of digestive juices, invigorates the liver and purifies and enriches the blood. It is the great blood-maker and flesh-builder. It cures 98 per cent. of all cases of lingering coughs, bronchial and throat affections, weak lungs, bleeding from lungs and kindred affections. Do not wait until the lungs are too far wasted to admit of being cured.

"As you know, five years ago the doctors had given me up to die with consumption," writes Mr. E. G. McKinney, of Deepwater, Fayette Co., W. Va. "I took treatment from Dr. R. V. Pierce, and am entirely well now. I had taken steadily, as directed, his 'Golden Medical Discovery.' Dr. Pierce's Pleasant Pellets cure constipation. One little 'Pellet' is a dose."

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on all the Dry Goods you buy here—difference between this store's small profit, less prices, and usual store's usual prices—which is considerable.

Here you get choice goods—it's the choiceness of this store's goods that makes its prices genuine less prices.

Costs you nothing but a postal card to get samples—just give us an idea of your preference in each or the several lines you're interested in. Superb assortments of Silks, Dress Goods and Wash Goods.

Rich Fancy Silks of rare and, in most cases exclusive, beauty, 65c, 75c, 85c to \$1.25. New Novelty Dress Goods and Suitings, 35c, 50c, 75c. Neat and good mixtures, 20c, 25c.

New and pretty Wash Goods for as little as 6 1/2c—from that on up to the finest Fancies, at \$1.25. There's greater variety of handsome colorings and fine styles than shown anywhere else in America—goods here as evidence.

Extensive lines new Madras, 10c to 35c. The new Silk Warp Mousselines, 45c, are exquisite.

Other fine Dress Cottons for gowns 20c to 50c.

New illustrated catalogue will be ready soon after April 1. Send your name and address, so you'll get a copy among the first. It's free.

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DEPARTMENT G. G.,

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To introduce our goods. An elegant silver-plated watch, guaranteed for one year. Send 10 cents to pay postage. WATCHUNG WATCH CO., Dept. 6, Montclair, N. J.

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The cheapest source of Protein for a Balanced Ration.

Will produce richer milk and more of it; a more rapid growth and development of Cattle and Hogs, and better meat for market purposes than any other feed on the market. Highly recommended by Prof. H. M. Cottrell, of Manhattan Agricultural College. For information and prices address N. T. GREEN & CO., Kansas City, Mo.

R. H. WILLIAMS, Wholesale and Retail Groceries, 537-539-541-543 and 1015 Main Street, KANSAS CITY, MO. Largest mail-order grocery house in the West. Send for our April catalogue. Free. Contains groceries, hardware, drugs and farm supplies. Wholesale prices direct to the consumer in large or small quantities. No charge for packing or drayage.



## Your Butter Profit

may not be as great as you could wish. No matter what it now is, it would be increased one-fourth to one-third if you used a **Safety Hand Separator**. It is better in every way than any plan you have yet tried. It gets all the butter fat and makes it into an improved quality of product. Better butter, better prices, and more money. Send for Catalogue No. 19.



**P. M. SHARPLES,**  
West Chester, Pa.  
BRANCHES:  
Toledo, O. Omaha, Neb.  
Dubuque, Ia. St. Paul, Minn.  
San Francisco, Cal.

## The Last Voyage of Christopher Columbus.

Under a brilliant summer sky the remains of Christopher Columbus were brought home to Seville—home to the city where more than four hundred years ago he came in triumph to receive the homage and thanks of his grateful sovereigns. Up the same river, through the same streets, to the same old cathedral, which he traveled in the flesh and flush of life, the little box of dust—all that remains of the once great man—was brought in befitting ceremony back from the Indies, the pride of Spain, to rest sadly enough among the other relics of past greatness.

There was a brilliant gathering at a properly decorated landing on the river embankment. All branches of the official life of Spain were represented—church and state—glittering in the bright sunlight in uniforms and vestments of every hue and elaboration. Conspicuous among all was the Duke of Veragua, in a resplendent admiral's uniform, cocked hat with white feathers and gold lace, brilliant decorations, pink silk sash and belt, and crape tied in conspicuous bows on his left arm and sword hilt. There was the archbishop, in his richly figured vestments, followed by the two little boy train-bearers; the cardinal in his purple cape; bishops and priests; army and navy officers, foreign representatives, civil dignitaries in evening dress, boys bearing heavy candlesticks in which huge candles burned sickly in the bright sunlight, but poured streams of candle-grease on inattentive uniforms—a gathering that sparkled under the arches of laurel and the streaming flags, surrounded by soldiers and guards, and viewed by thousands of Seville's light-hearted populace, all awaiting the arrival of the ship Giralda, which came in good time, amid the booming of salutes and the excitement of landing the precious box containing the remains.

The Duke of Veragua went on board the ship to view the relic, and then followed it in procession through the crowded streets and beneath the many balconies, where the senoras and Carmens of old Seville were grouped to see the show. Arrived at the cathedral, there was a service of great solemnity, conducted while the people packed and crowded to get a glimpse of the tall bier, where, surrounded by many huge candles, the little box was perched high up on the top of all. Women knelt in groups before the altar rail, the rich tones of melody thundered and melted through the gloom of the old arches and recesses, the sunlight streamed in through a distant window, colored by the glass through which it passed, lighting up the tops of the heads and faces of the crowd who stood in the gloom, the many candles spread a soft light around the bier, while the incense rose in thin clouds as the service proceeded, conducted by all the clergy present. A guard of soldiers stood fixed around the precious relic, and a row of priests in front of them held candles while the cardinal went in solemn procession twice around the bier. The choir of priests sang the services from the old parchment volumes, turning the huge leaves of sprawling bars and notes large enough to be read across the aisle. The service over, the box—with the one small bone and heap of dust—was taken down with the greatest care by the cathedral servants, gently lifted down onto a huge plush cushion, and

then covered by a cloth, and with great solemnity carried and treasured away, under lock and key, surrounded by a strong guard.—William Bengough, in Collier's Weekly.

"The trouble with him," said the young man who had been trying to fittingly describe an acquaintance, "is that when he dipped into the sea of knowledge he thought he brought up so much the blamed thing went dry."—Chicago Post.

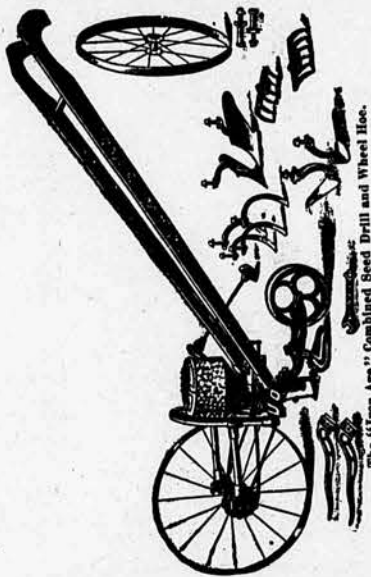
"It's an awful thing not to know where one's next meal is coming from."  
"Yes, but a good many of us married men are experiencing it since the grocery stores got to advertising bargain sales."—Indianapolis Journal.

"I am glad to say," remarked Mr. Meekton, "that I never spoke a hasty word to you." "No, Leonidas," answered his wife, rather gently, "I am willing to give you credit for not hurrying about anything."—Washington Star.

Dr. Bull's Cough Syrup has been in use for half a century. Some families have used it for three generations, and it is to-day the standard cough remedy of this country.

## A Tool of Many Uses.

The combined seed drill and wheel hoe, illustrated below, shows only one of many of the wonderful "Iron Age" labor-saving implements. This tool is a whole tool house of itself. It is a perfect seed drill, double wheel hoe and single wheel hoe. It will sow, weed, cultivate, rake and plow—in fact, it will do all the work that could be desired in a garden or truck patch. The wheels are made of steel, 16 inches high; the frame is made of pipe coupled to malleable castings. The



arch is high, so that 20-inch plants can be cultivated without injury. The combination is such that it can be quickly changed to a perfect double or single wheel hoe, as may be desired; while the seed drill, which is a perfect one, can be quickly attached or removed. This tool, in common with the other well-known "Iron Age" implements, is having a large sale throughout the country.

The handsome "Iron Age" catalogue sent free to all mentioning this paper. Address Bateman Mfg. Co., Box 117, Grenloch, N. J.

## Big Baby Carriage Sale.

If any of our readers will cut this notice out and send to Sears, Roebuck & Co., Chicago, Ill., they will send you, free, by mail, postpaid, a handsome catalogue of baby carriages in colors, with lowest Chicago wholesale prices, free examination offer, tell you how to order, etc., etc.—[Editor.]

## 1899 Bicycle for One Dollar.

We will send our highest grade gents' or ladies' 1899 Acme King Bicycle to any address on easy conditions for only \$1.00—the conditions include the distributing of 1,000 small circulars, which you can use in three hours. Send no money. For full particulars how to get our best bicycle for \$1.00 and a few hours work cut this notice out and mail to us.  
SEARS, ROEBUCK & CO.,  
Cycle Dept., Chicago.

## The Lowest Rates East

are offered via the Nickel Plate Road. With solid through trains to New York, and through sleeping cars to Boston, travelers via this deservedly popular low-rate line are offered all conveniences of an exacting traveling public. Then, too, the quality of the service is unsurpassed. Modern day coaches and luxurious sleeping cars contribute to the comfort of passengers, while unexcelled dining cars cater to the tastes of the most exacting.

## Off Its Hinges.

Every man who owns a building of any kind, and particularly barns, stables, poultry houses, etc., knows what that means. He knows also that it is a measure of economy to get the door back again as quickly as possible; he knows that one cold night with an improperly fitting and draft-admitting door means loss of comfort, loss of flesh, milk, etc., and money. The real remedy is a better hinge for all time in the future. That better hinge is the Stanley Corrugated Steel Hinge. No need to prop up a barn door with an old rail where these are used. They are stronger by half than the old style hinge, because the corrugations reinforce them to just that extent. They are so made that they can't bind on the pin even should they become rusty. If you want to know all about them and the money they will save you, send to the manufacturers, The Stanley Works, New Britain, Conn., and ask for a copy of their booklet, "Biography of a Yankee Hinge." It's free to our readers.

## Preserves

—fruits, jellies, pickles or catsup are more easily, more quickly, more healthfully sealed with Refined Paraffine Wax than by any other method. Dozens of other uses will be found for  
**Refined Paraffine Wax**  
In every household. It is clean, tasteless and odorless—air, water and acid proof. Get a pound cake of it with a list of its many uses from your druggist or grocer. Sold everywhere. Made by  
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## LIVE STOCK AUCTIONEERS.

**GEORGE W. BARNES,** Auctioneer, Yalencia, Kas. Lowest terms. Extensive experience both as breeder and salesman. All correspondence given prompt attention.

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**LIVE STOCK AUCTIONEER, LAWRENCE, KAS.** Years of experience. Sales made anywhere in the United States. Terms the lowest. Write before claiming date.

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

## BARGAINS.

We have a few very fine Poland-China Boars ready for service that we will sell you so cheap you cannot afford to buy a scrub. Sired by Knox All Wilkes and Highland Chief. Some fancy fall boar pigs by same sires.  
**DIETRICH & SPAULDING,**  
Richmond, Kans.

## MAMMOTH BRONZE TURKEYS A SPECIALTY.

All of my breeding stock this year consists of high-scoring birds. One lot of hens, weighing from 18 to 23 pounds, mated with prize-winning cockerel at Topeka show, weight 27½ pounds, score 96½. One lot of pullets to be mated with high-scoring 40-pound tom, each lot to have run of separate farms. Eggs in season, \$3 per dozen.  
**C. H. CLARK,** Delphos, Kans.

## THE POULTRYMEN'S WORST FOE.

**OUR SURE-SHOT PLAN** knocks them every time. No expensive liquid (ice killer) used. Cheap, simple, effective. Sent to any address for 50c.  
We breed the large B. P. Rocks. Won five firsts and one second on six entries at Superior, Neb., February 9, 10 and 11, 1899. We have three fine pens mated for best results. Eggs, \$1.50 for 15; \$2.50 for 25. Satisfaction guaranteed.  
Send money order on Superior, Neb.  
**ALBERT SMITH,**  
Cadams, Nuckolls Co., Neb.

## SOMETHING YOU WANT

to keep your stock and poultry in a **GOOD, THRIFTY CONDITION.** Give them **ECONOMY CONDITION POWDERS!** Best made for the money. Wards off Disease. Gives an appetite. Package by mail 30c. Five packages by express \$1. Order now. Say which kind. **ECONOMY CO.,** Eldon, Mo.

## BLOSSOM HOUSE—Opposite Union depot, Kansas

City, Mo., is the best place for the money, for meals or clean and comfortable lodging, when in Kansas City. We always stop at the BLOSSOM and get our money's worth.

**WANTED—**One Kansas Farmer agent in every locality to represent the paper regularly. Good inducements offered. Address Kansas Farmer Co., Topeka, Kas.

**HARNESS** Write for illustrated catalogue. Largest Harness and Carriage house in the Northwest. **NORTHWESTERN HARNESS & CARRIAGE CO.,** 172 6th St., St. Paul, Minn.

## A BIG DISCOUNT

For the next 90 days on the Perine Subsoil Plow. Remember, these plows make a reservoir from 16 to 25 inches below the surface—the right place for moisture. Write for more information about them, and our Surface Cultivators, Sweet and Irish Potato Diggers that do not choke up in crabgrass or trash. They border close on to perfection.  
**PERINE'S PLOW WORKS,** Topeka, Kans.

## THE STRAY LIST.

### FOR WEEK ENDING MARCH 9, 1899.

Barber County—J. E. Holmes, Clerk.  
**HEIFER**—Taken up by S. A. Ferguson, in Elm Mills tp. (P. O. Medicine Lodge), February 28, 1899, one nearly red heifer, bar on brisket; valued at \$25.

### FOR WEEK ENDING MARCH 16, 1899.

Riley County—C. M. Brees, Clerk.  
**STEER**—Taken up by S. A. Blomquist, in Jackson tp. (P. O. Randolph), December 17, 1898, one yearling black steer, no marks or brands; valued at \$12.  
Chase County—M. C. Newton, Clerk.

**CALF**—Taken up by Oscar Duehn, in Cottonwood tp. (P. O. Clements), December 24, 1898, one red and white Hereford heifer calf; valued at \$12.  
Gray County—C. A. Tabb, Clerk.

**MARE**—Taken up by Jonathan Lees, sw. ¼, sec. 22, tp. 24, range 29, January 4, 1899, one bay mare with white strip in face, right hind foot white; valued at \$40.

### FOR WEEK ENDING MARCH 23, 1899.

Cowley County—S. J. Neer, Clerk.  
**HORSE**—Taken up J. S. Newby (P. O. Seelye), February 18, 1899, one gray horse, about 17 years old, weight 1,100 pounds, mane and foretop clipped, had kink in lid of left eye, was shod all around, had on halter with wire attached; valued at \$15.

## NO DRUGS. NO MEDICINE.

Cures every known disease, without Medicine or Knife. Hundreds willingly add their testimony.



Prof. Axtell heals all manner of diseases, and teaches this art to others.

He grants to all men the power he claims for himself. The reason why he can heal without medicine is because he knows how; he not only cures all manner of diseases in his office but HE CURES AT A DISTANCE WITH EQUAL EFFICACY. Circulars of many prominent people—who sign their names and recommend his treatment—mailed on application.

Prof. Axtell is endorsed by the leading business men of this city. Address all communications to  
**PROF. S. W. AXTELL,**  
200 W. 3d St., Sedalia, Mo.

## DROP

Me a postal card and I will drive around and leave a price list of.....

## EVERGREEN TREES

for sale, thrice transplanted, from one to five feet in height, price 10 to 30 cents each. No fall-dug, root-dried stock. **A. W. THEMANSON,** Wathena, Doniphan Co., Kans.

Our famous "Blue Label Brand." Prices and samples ready April 20th. Write now and we will send when ready. Prices will be lower than you think. We deliver from Chicago, Omaha or St. Paul, as desired. **MONTGOMERY WARD & CO., CHICAGO.**

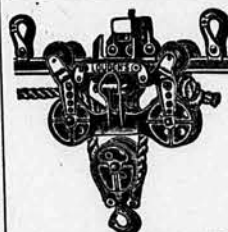
## ROOFING IS GOING UP.

Buy your Corrugated iron roofing, steel roofing, metal shingles, etc., before the advance in price. **CHEAPER THAN SHINGLES,** easier put on, last longer. How to order and how to use, estimates of cost, etc., contained in our catalogue No. 8, to all who enclose 2c for postage. Tells all about **DONKEY PAINT,** rust proof, for metal, wood or felt. Mention this paper.  
**THE KANSAS CITY ROOFING & CORRUGATING CO.,** KANSAS CITY, MO.



## HAD THE CRIPPE?

Wire fences, as well as people, have felt the grip of hard winter. Notice how they compare "after taking." No "tired feeling" about the Page. **PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.**



## WHY BUY?

an old-style Hay Carrier when you can get the Latest Improved Loudon worth more than twice as much? The Strongest Lasts Longest. Takes Least Room and Works Best. Gold Medal at Omaha. Write for "Pointers" Showing Superior Merits. Also circulars of **Best Barn Door Hanger on Earth.** "How to Build Hay Barns," etc.  
**LOUDEN MACHINERY CO.,** Fairfield, Ia.

## MATERIAL & MERCHANDISE AT ONE HALF PRICE.

Write at once for our Free Illustrated Catalogues for anything required for the HOME, FARM or FACTORY.

**CHICAGO HOUSE WRECKING CO.,** West 35th & Iron Sts., CHICAGO. The largest mail order depot in the world for Merchandise bought at Sheriff's, Receivers', Assignees' and Manufacturers' Sales.

Can't get under. The barbed wire holds him back.

## Pig-Tight

With our Duplex Automatic Machine you can make 100 styles of fence at the rate of 60 rods a day, that will turn everything except wind and water. Makes a good hog fence at 12c per rod. Rabbit-proof fence for nurseries, orchards, etc., at 16c per rod. A splendid farm fence at 18c per rod and poultry fence

## Horse-High

at 19c per rod. Every foot of it will possess the three leading features of this ad. Plain, coiled Spring and barbed wire to farmers at wholesale prices. Get our free catalogue before buying. Address,

**KITSELMAN BROS.,** Ridgeville, Ind. Box 64.

## Bull-Strong

When writing to any of our advertisers, please state that you saw their "ad." in Kansas Farmer.

**BROWN'S** Bronchial Troches  
the popular cure for  
**IRRITATED THROATS.**  
Fac-Simile Signature of *Wm. D. Brown* on every box.



## The Home Circle.

### A MORNING THOUGHT.

What if some morning, when the stars  
were paling,  
And the dawn whitened, and the East  
was clear,  
Strange peace and rest fell on me from  
the presence  
Of a benignant Spirit standing near:

And I should tell him, as he stood beside  
me,  
"This is our Earth—most friendly Earth,  
and fair;  
Daily its sea and shore through sun and  
shower  
Faithful it turns, robed in its azure air:  
"There is blest living here, loving and serv-  
ing,  
And quest of truth, and serene friend-  
ships dear;  
But stay not, Spirit! Earth has one de-  
stroyer—  
His name is Death; flee, lest he find thee  
here!"

And what if then, while the still morning  
brightened,  
And freshened in the elm the Summer's  
breath,  
Should gravely smile on me the gentle  
angel,  
And take my hand and say, "My name  
is Death!" —Edward Rowland Sill.

### SAN JUAN'S ONLY PLEASURE.

Now that the last regular Spanish soldier has sailed from the island of Porto Rico, and the American flag is at last floating over the public buildings in San Juan, the people of the capital are, no doubt, beginning to make comparisons between the military governments of the old and new rulers. Americans feel that but one conclusion can follow, and, unquestionably, in the more important factors in the essentials of a satisfying rule, even the native Spaniards left in Porto Rico will willingly confess the superiority of their conquerors. Yet in certain particulars, immaterial in themselves, but potent in the creation of a sentiment favorable or unfavorable, the Spanish regime had a charm from whose allurements those of Latin blood will find it difficult immediately to escape.

One custom which for generations has obtained in San Juan is almost sure to be discontinued once we are in full swing, and for a time it will cause more or less of a revolution in the habits of the people. Reference is made to the regimental band concerts, which under Spanish rule occurred every Thursday and Sunday night regularly, and on all church holidays as well, in the plaza of Alfonso XIII. The whole year round the band plays here on these nights, and the society of the capital turns out en masse for an evening's promenade. These promenades are regular social functions when the beaux and belles may meet and exchange their little nothings, although ever under the watchful eye of the omnipresent duenna or the even more watchful parent.

The plaza of Alfonso XIII is perhaps 150 yards in length by half that in breadth, stone paved, well lighted by gas and surrounded by public buildings, handsome shops open until after the concerts and brilliantly lighted cafes where drinks, ices and sweets are sold. The band marches into the plaza with military precision at 8 o'clock and takes station at one end. Immediately the concert begins. It lasts until 10 o'clock, and in those two hours there is a constant throng of officers, civilians of more or less social consideration, and beautifully dressed women promenading to and fro. The Spaniards do not promenade as we do—round and round in a circle. They move more quickly, turning square on the heel and facing about.

This promenade is especially a godsend to the women. Social convention makes prisoners of women in Porto Rico if they desire to keep their standing. An unmarried woman until she is at least 30 years of age, and that is very old down there, cannot go upon the streets alone even in daytime. It is not proper for a young man to call often at her home unless his intentions have been declared to her parents, and even then, he is never allowed to see her alone. Such freedom as our girls have would shock them beyond expression. There were balls in official circles in the old days, but it is so hot that dancing is not a pleasure, and the great formality of these affairs almost forbade enjoyment. The theater has not and necessarily cannot thrive, so the band concerts have been the only function where there was freedom enough to render the evening effort at pleasure satisfactory.

The Americans at San Juan in the last days of the Spanish regime used to look forward to band night as the one break in the dreary monotony of those days. The music was always excellent, much better than our army can boast. There were great wicker rocking chairs stretching along one whole side of the plaza, where one could sit when weary of walk-

ing and watch the brilliant procession as it passed back and forth. To stop all this seems a pity, and yet it will no doubt be done, if it already has not been done. Even should it be deemed wise to keep it up for a time, it will not be as well managed, if Ponce be any criterion. In that city our bands used to play on Sunday night, but the concerts soon lost their social character. The American private soldier is not a social favorite when in muddy shoes, dirty campaign trousers and soiled blue shirt. In his great democratic good nature and simplicity he overran the plaza at Ponce, and the Porto Rican and Spanish women simply stayed away. In a short time the concerts stopped.

In San Juan the private soldier was not allowed in the promenade after 8 o'clock. Up to that hour he had the plaza all to himself, and he and his comrades swarmed there. Not an officer was to be seen among them. At 8 they all disappeared and dapper little officers, with dangling swords and canes, showed up to court and simper at the women, who soon came trooping in. If these concerts are given up or lose their exclusiveness it will be a sore trial to a people who have little else to enjoy.—New York Sun.

### In the Little and the Great.

BY J. P. McCASKEY.

We never see anything so sublime as the star-gemmed sky of a winter night. The telescope has now made clear to the astronomer the existence of a hundred million stars, larger and smaller than our sun. The spectroscope shows them for the most part identical in structure with our sun, made of the same primary elements, so that the universe has in it millions of solar systems like our own. About these suns it is fair to assume that planets revolve, whose purpose is similar to our own, mainly, I believe, that upon them immortal beings may come into existence. If so, it is not unlikely that the same spirit of evil which has wrought so much mischief in this world of ours is also abroad in the Universe, and that the same remedial dispensation exists for others as for us—and Christ may have lived and died in ten thousand worlds besides our own. No one can say yea or nay to a thought like this, but what an empire of love and gratitude and devotion it opens up to Him who said, "I, if I be lifted up, shall draw all men unto me!"

Let me turn aside from a thought so thrilling, so tremendous, to a very little thing that I always like to look at and to think about. It is the pollen of plants. Nothing else in the blossom seems to me quite so wonderful as the pollen. Dust it is to the naked eye, but put it under the microscope and plan is evident in every grain. The telescope looks to the stars, on the side of greatness where we have magnitude and distance. The microscope goes far below the range of the eye towards the near and the minute, and is the greater wonder-glass of the two. Take, for instance, the dust on the wing of the butterfly, which is feathers! or the pollen of the little round-leaved mallow in the field or along the fences, which is a spiked globe, every grain! I do not envy the man or woman who can look at or hear of things like these without interest or wonder. God in the little and the great, in the beginning and the end—everywhere! Hear Robert Browning in Pippa's song of trustful gladness:

The year's at the spring;  
And day's at the morn;  
Morning's at seven;  
The hillside's dew-pearled;  
The lark's on the wing;  
The snail's on the thorn;  
God's in His heaven—  
All's right with the world.

And some one whose name I do not know, to whom the blue sky that bends above us is the dome of His earthly temple, puts the same thought of the pervading presence of God in these suggestive lines:

A haze on the far horizon,  
The infinite, tender sky,  
The ripe, rich tint of the cornfields,  
And the wild geese sailing high,  
And all over upland and lowland  
The charm of the golden rod—  
Some of us call it autumn,  
And others call it God.

Like tides on a crescent sea beach,  
When the moon is new and thin,  
Into our hearts high yearnings  
Come welling and surging in—  
Come from the mystic ocean,  
Whose rim no foot has trod—  
Some of us call it longing,  
And others call it God.

A picket frozen on duty,  
A mother starved for her brood,  
Socrates drinking the hemlock,  
And Jesus on the rood;  
And millions who humble and nameless  
The straight, hard pathway trod—  
Some call it consecration,  
And others call it God.

Health for 10 cents. Cascarets make the bowels and kidneys act naturally, destroy microbes, cure headache, biliousness and constipation. All druggists.

### The Browning Letters—Opinions of American Authors.

It is safe to say that everyone who reads the charming letters of this wonderful man and woman will agree with Miss Barrett that letters are indeed the most vital part of biography. Certainly these volumes give an insight into the personality of two great poets never before vouchsafed to their admirers. It is more than a biography. It is the story of a most romantic love told in the poet's own words, and has all the fascinating elements of a novel of the old letter-writing school. The first thing to be noted about the letters is that they are worthy of their authors. They are such as one would expect from the author of "Sonnets from the Portuguese" and "Aurora Leigh," from the author of "Pippa Passes" and "The Ring and the Book." Throughout two volumes of some 1,200 pages we find much thoughtful comment on literature and life, but it is after all rather incidental to the main subject. Above everything else they are love letters, and their writers show that their chief interest lies only in their love for each other and for each other's work.

As a commentary on the immortal work Robert Browning and Elizabeth Barrett have given to the English language, their letters will be indispensable to every American who has learned to know and love them. Of special interest are the comments made from time to time on American authors. Says Miss Barrett, referring to James Russell Lowell: "He has a refined fancy, and is graceful for an American critic, but the truth is, otherwise, that he knows nothing of English poetry, or the next thing to nothing, and has merely had a dream of the early



Robert Browning in 1845. After a photograph in "Letters of Robert Browning and Elizabeth Barrett." Copyright, 1898, by Harper & Brothers.

dramatists. The amount of his reading in that direction is an article in the Retrospective Review, which contains extracts, and he re-extracts the extracts, re-quotes the quotations. How a writer of his talents and pretensions could make up his mind to make up a book on such slight substratum is a curious proof of the state of literature in America. Why, a lecturer on the English dramatists for a 'young ladies' academy here in England might take it to be necessary to have better information than he could gather from an odd volume of an old review. Altogether, the fact is an epigram on the surface literature of America. As you say, their books do not suit us."

On Edgar Allen Poe Miss Barrett is not quite so severe. "I send you," she writes, "a most frightful extract from an American magazine sent to me yesterday on the subject of mesmerism, and you are to understand that the Mr. Edgar Poe who stands committed in it is my dedicatory; so while I am sending, you shall have his poems with his mesmeric experience, and decide whether the outrageous compliment to Elizabeth Barrett Barrett or the experiment on M. Valdemar goes furthest to prove him mad. There is poetry in the man, though, now and then seen between the great gaps of pathos. 'Politian' will make you laugh, as the 'Raven' made me laugh, though with something in it which accounts for the hold it took upon people such as N. P. Willis and his peers. Some of the lyrics have power of a less questionable sort. For the author, I do not know him at all, and in my opinion there is more faculty shown in the account of that horrible mesmeric experience than in his poems."

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### Franklin's Mother.

In Franklin's autobiography there is only the barest mention made of his mother Abiah, and merely as the daughter of "one of the first settlers of New England." Presumably this silence was due to the eighteenth century attitude towards women more than to the want of affection, for the two corresponded with regularity even after the mother was "very weak and short of breath—so that I can not sit up to write, altho' I sleep well o' nights and my cough is better, and I have a pretty good stomach to my victuals," and she had to beg her son to "please excuse my bad writing and inditing, for all tell me I am too old to write letters." To her Franklin sent gifts of various kinds, including "a moldore \* \* \* which please to accept towards chaise hire, that you may ride warm to meetings this winter." Upon her death in 1752, he wrote his sister Jane: "I received yours with the affecting news of our dear mother's death. I thank you for your long continued care of her in her old age and sickness. Our distance made it impracticable for us to attend her, but you have supplied all. She has lived a good life, as well as long one, and is happy."—Century.

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# The Young Folks.

## PATIENT WITH THE LIVING.

Sweet friend, when thou and I are gone,  
Beyond earth's weary labor,  
When small shall be our need of grace  
From comrade or from neighbor,  
Passed all the strife, the toll, the care,  
And done with all this sighing,  
What tender ruth shall we have gained,  
Alas, by simply dying.

Then lips too chary of their praise  
Will tell our merits over,  
And eyes too swift our faults to see  
Shall no defect discover.  
Then hands that would not lift a stone  
Where stones were thick to cumber  
Our steep hill-path, will scatter flowers  
Above our pillowed slumber.

Sweet friend, perchance both thou and I,  
Ere love is past forgiving,  
Should take the earnest lesson home—  
Be patient with the living.  
To-day's repressed rebuke may save  
Our blinding tears to-morrow;  
Then patience—'en when keenest edge  
May whet a nameless sorrow.

'Tis easy to be gentle when  
Death's silence shames our clamor,  
And easy to discern the best  
Through memory's mystic glamor;  
But wise it were for thee and me,  
Ere love is past forgiving,  
To take the tender lesson home—  
Be patient with the living.

—Margaret E. Sangster.

Written for Kansas Farmer.

## YOUNG FOLKS IN THE OLD COUNTRY.

BY ANNA MARIE NELLIS.

NUMBER 56.

### THE ROYAL BALL.

Although the German capital is not considered of as much importance in the fashionably social world as London, Paris or Vienna, yet it has its "season," during which the Berliners find time for very much enjoyment in dancing, from early in December until the beginning of Lent. But the real social season does not begin until the Kaiser and family, with the court, come from Potsdam and locate in Berlin for the winter. This event usually occurs about the 15th of January, and then the first court affair is the presentation ceremony at the royal palace, followed by the royal balls, three of which are given at the palace and one at the Royal Opera House.

The court of Berlin is, we might say, the most unpretentious of any of the imperial courts in Europe, and at the reception ceremonies, usually, only Germans are presented, and not very many of them except of the highest nobility and most prominent families in the empire. Of course, the diplomatic representatives of the various governments and members of their families have a chance on these royal occasions to shake or kiss the royal hands.

The Emperor is most decidedly German in all his undertakings, and he holds the "Fatherland" and its people above all else in the world. An instance of his dislike for names outside of German origin might be mentioned in the fact that he has discarded the title of "Lieutenant" for his officers in the army. The word is of French origin and means, practically, the same as deputy, or one who holds the place of another; so the Prussian military officers for centuries have each been supposed to hold the place of the King in the various regiments and armies, and were therefore his Lieutenants or deputies. On his birthday (January 21) it is the Emperor's custom to address his Lieutenants at the Arsenal or Royal Guard House. This year on his anniversary he ordered the title of Lieutenant should be discontinued, as it is a French word.

We were not of royal origin, nor of the nobility of Germany, so we could not attend the royal reception at the palace, but from one who was there I learned how the affair was conducted.

This year, on February 23, the Kaiser and Kaiserin gave their royal subjects of noble lineage a chance to greet them in their own house—the royal palace on Unter den Linden. At the reception, all the diplomatic corps from the various countries represented in Berlin and the nobility who are permitted to appear at court are presented to the Kaiser and Kaiserin after having been commanded to appear before their majesties. You see, Kings and Queens and Emperors and such do not invite their friends, as we do in America; they command them to come. But their friends do not seem to mind it very much, for they are very, very glad to go.

They must arrive very early in the evening at the palace, where they are carefully "sorted over" and seated in different rooms according to their station or rank. The diplomatic people are also arranged according to the rank of the country represented. When the royal pair are ready to receive, the Ober-Hof-

Marshal comes and announces the names; of course the greatest dignitaries are called first. They march to the throne room, and as the names are again announced, they advance, bow very low to the Kaiser, take three steps to the left and bow again very low to the Kaiserin, and then pass out to join those already presented.

I can imagine how happy must one be to know that royal eyes have actually fallen upon him individually; and when no one else is looking he must pass his hand over his head and shoulders to see if he can feel where the eyes landed.

After the presentation or reception, three grand court balls are given at the palace, exclusively for the nobility and the diplomats, and those who were commanded to appear at the presentation are by the same command invited to the balls which are given on the three succeeding Tuesday evenings.

But there are many very nice people in Germany who would like to approach royalty and yet are excluded by reason of lack of "nobility." For these there has been established since the middle of the last century, a Royal Opera House ball, which is given shortly after the court presentation. Again the sifting process is indulged in, and "everybody" cannot go—only those who have influence or friends to get tickets of admission. Of the many thousands desiring to attend only a few hundreds succeed in getting tickets.

These balls were in great favor with Queen Louise, as she dearly loved to dance, and always took an interesting part in them.

It is the custom of the Emperor and Empress, with their attendants, to occupy the royal loge or balcony at the opera house, on these occasions, and the ambassadors and foreign ministers occupy another nearly opposite. At exactly 9 o'clock in the evening, a choir of fifty young girls, all robed alike in white, come to the front of the orchestra balcony, which faces the royal loge, and sing the choral, which is a welcome to the Kaiser. Immediately on the finish of this, the Hof-Marshal comes to the front of the center of the royal balcony, taps three times on the floor with his long official baton or staff and then the Emperor leads the Empress, followed by the Princes and Princesses of Prussia, down from the loge and around the whole ball-room once; then they retire to the boxes on the left. Then the Kaiser goes to the ambassadors' boxes and speaks a few words to each diplomat therein. The dancing begins at 10 o'clock. This is the way it has happened every year since 1750, except during the time from 1806 to 1817, when Napoleon was making the Germans dance to a sorrowful tune.

On February 8, the Royal Opera House ball was given, and myself, my mother and sister were of those who held tickets. We knew the music would not begin until 9 o'clock, but we also knew the seating capacity of the large opera house would be limited, as the whole floor had been cleared for the dancing; so we went early and found a fine locality, where we sat from 8 till 9 o'clock watching the arrivals.

But as early as we were, there were others earlier. About the doors of the opera house were a great crowd of persons who came to see those who would enter in. The streets for several blocks on either side were well covered with spectators and long lines of mounted and unmounted police extended east and west of the main entrance. Inside, the opera house appeared like fairyland. The stage had been built out over the parquet, making a dancing floor three hundred feet long by seventy-five feet wide, leaving only three ranges of balconies for seating purposes.

All the ranges and boxes, in addition to their beautiful gold and red velvet trimming, were most exquisitely decorated with flowers and many-colored electric lights. At the further end of the stage was erected a balcony trimmed with flowers and vines, behind which was seated the orchestra, consisting of 115 men. Opposite, and above the royal box, which is in the middle of the first range, was a military band of only twenty-five musicians.

In the middle of the stage and on either side of the room were beautifully playing fountains in large grottoes, all illuminated with sea-green lights, making a beautiful effect.

At 9 o'clock there was a moving sea of people on the floor; no dancing can be done until after the Kaiser should be announced. The bright uniforms of the officers and the exquisite toilets and jewels of the ladies made a very beautiful picture.

But a troubled look was on many faces. Would the Kaiser and Kaiserin come? The royal ball at the palace appointed for the evening before had been



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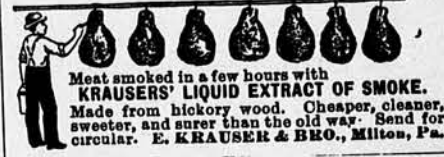
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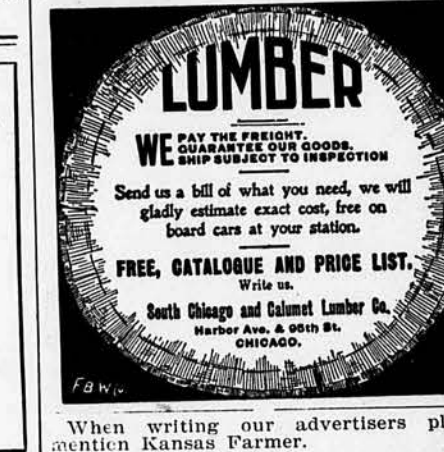
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A correspondent inquires for ferrets. Any breeder of these useful animals will find a notice in our "Exchange" column valuable.

The secretary of the Kansas Improved Stock Breeders' Association desires to state to those interested that the published report will be out about April 1, 1899.

A new paper in Topeka is "The Apostolic Faith," James A. Staples, publisher; Chas. F. Parham and James A. Staples, editors. It is a vigorous exponent of the doctrine of "divine healing." This earnest body of propagandists seems to be increasing rapidly in numbers. Their newspaper organ is candid and is characterized by the boldness of the fullest confidence in the doctrines taught. Subscription is \$1 per year.

The increase of its acreage by more than 35 per cent in 1898, in Kansas, suggests that alfalfa is a plant in which the farmers and stockmen are becoming greatly interested. Those who know it best appear to think most highly of it, and those who grow it most largely are the ones who want more. A pamphlet worth a hundred times its cost, giving the greatest fund of information anywhere available about the raising and management of alfalfa, together with many valuable articles on subsoiling and irrigation, can be obtained by sending the postage, which is 6 cents, to the Kansas Board of Agriculture, Topeka. Every Kansas land-owner should have it.

In the Kansas Farmer of March 2 the Veterinary department contained an excellent description of blackleg in cattle. This was furnished by the Veterinary department of the Kansas State Agricultural College and was in answer to an inquiry in the regular way. Soon after the appearance of the article complaint was made by Mr. Harold Sorby, manager of the Pasteur Vaccine Co., of Chicago, Ill, that the matter was plagiarized from a copyrighted publication of his. The attention of the College Veterinary department was called to the matter. Dr. Fischer and President Will made a thorough investigation. The writer of the article was given every opportunity to explain, but, his explanations being entirely unsatisfactory, it was found necessary to inform him of that fact and to discontinue his connection with the institution on that date. This explanation is made here in justice to the Pasteur Vaccine Company and to the College, whose employees are expected to possess the highest type of integrity, and especially to the Veterinary department, whose head, Dr. Paul Fischer, would scorn to do a dishonorable act.

### What Kind of Grass?

Editor Kansas Farmer:—I would like to ask a few questions, through the "Old Reliable." What is the best thing to sow for this year's pasture, as well as for next year? Can someone give me his experience with Johnson or orchard grass? The orchard grass certainly has one drawback, and that is expensive seeding, being from \$6 to \$8 per acre. Rye is all right for early summer, but I want something that will last the summer through. Information on this subject will be greatly appreciated by a reader of the Farmer.  
Peabody, Kans. H. M. S.

### THE FUTURE INTEREST RATE.

A prominent insurance official has investigated the probable interest rates of the near future by propounding to prominent financiers of the country the question "What rate of interest do you consider it safe for a life insurance company to count upon realizing, on its total assets, invested in such securities and mortgages as an institution of this kind should hold during the next twenty years?"

The replies include opinions from the Secretary of the Treasury, the Assistant Treasurer of the United States at New York, presidents of the leading banks, trust companies, savings banks and exchanges, both in this city and throughout the country, prominent Wall street financiers, railroad presidents, merchants, lawyers and political economists.

Three per cent may be said to be the average maximum rate which these distinguished financiers believe can be realized, beyond all peradventure, upon the funds of life insurance companies during the first two decades of the twentieth century. A few place 2½ per cent as a minimum, and some suggest 3½ per cent as the maximum, but with almost surprising agreement, 3 per cent is the rate upon which it is believed the companies may safely base their calculations for the future.

### GRANGE SUGGESTS REFORMS.

The master of the National Grange was before the industrial commission, at Washington, a few days ago. He expressed the opinion that transportation was the most important question with which the farmer has to deal. He believed rates should be made by an independent commission, and that the railroad companies should not be allowed to fix rates arbitrarily. He also asserted that the trusts should be controlled, and expressed the hope that the commission would devise legislation to that end. He thought our consuls abroad should interest themselves in the agricultural products of the country as much as in its manufacturing interests. Another reform suggested was the lowering of the salaries of government officials. "I remember," he said, "when the salaries of Congressmen were increased from \$3,000 to \$5,000. This increase was made on the plea that the purchasing power of the dollar had decreased. Now that there has been an increase in the purchasing power, we hear no agitation for a reduction of salaries."

He asserted that the farmer is unfairly and inequitably taxed, one-fourth to one-third of the income of the average farm in Indiana being necessary to pay the taxes levied upon it. He suggested legislation looking to uniformity in taxation in the different States. He was favorable to a uniform income tax, but opposed the inheritance tax. On the question of immigration, he said the Poles were the most non-assimilable of all foreigners coming to this country. They insist upon maintaining their own schools for the preservation of their language and religion. He mentioned one community in Indiana where there are 1,500 Polish children, none of whom attended the public schools.

### NEW CREATIONS.

One of the most interesting publications that ever came to the editor's desk is a pamphlet of twenty pages including cover. It is entitled, "The 1899 Supplement to New Creations in Fruits and Flowers," and contains brief descriptions of some of the new forms and new excellencies produced through plant breeding and selection by Luther Burbank, of Santa Rosa, Cal. A fitting introduction of Mr. Burbank to those who may not know him is contained in the following from the San Francisco Call:

"A tiny seed may feed a nation!  
"An atom of vegetable life may evolve results of universal benefit to mankind.

"Twenty-three years ago last May a New England youth living not far from Boston, in the 'Old Bay State,' held in his hand a single seed about half as large as an ordinary pinhead. It would have taken several hundred of a similar size to make a meal for a canary.

"To the ordinary observer the seed would have seemed to differ in no respect from others of its kind, but the youth, who scrutinized it through the eye of genius, thought he had good reasons for believing that it deserved a better fate than to be fed to the birds, and it was therefore carefully planted and tenderly watched all through that New England summer of 1874—and millions of his fellow men have the benefits wrought by the prescience of a youthful enthusiast then on the threshold of renown in his chosen field of science.

"When the hazy Indian summer came the plant had done its work, and three and one-fourth pounds of the most beautiful white potatoes which had ever been seen were the product of the little seed.

"The tubers were planted and replanted, and when the second season had passed two tons was the crop which a prominent East-

ern seedsman purchased and introduced to the public in the spring of 1876.

"The new potato was such an evident improvement upon any tuber of its kind ever known theretofore that it immediately sprang into favor in all parts of America, and it was not long ere its superior qualities became known in other countries where the potato is grown.

"Such is the genesis of the Burbank potato—named in honor of its originator, Luther Burbank, of Santa Rosa.

"The young New Englander who made this fortunate experiment so many years ago has since become famous among the world's savants in the same line of scientific experiment. Many times has he thrilled the scientists of the vegetable world by the announcement of a new and distinct species—the creation of such being the principal aim of his professional life—and rich have been the honors showered upon him by his fellow scientists and the world at large for his brilliant achievements in the propagation of new fruits, flowers and vegetables, but it is safe to say that no product of his genius has wrought so much of material good to Christendom as has the potato which bears his name.

"More than two hundred million bushels of the Burbank potato are now grown every year, and by a most careful and conservative estimate, made from reliable statistics, the amount of this variety which has been grown since its introduction is considerably more than two billion seven hundred million bushels, or one hundred and sixty-two trillion pounds—enough to give every inhabitant of this earth nearly two bushels.

"From the figures quoted above it will be seen that enough Burbank potatoes have been produced (counting one pound laid lengthwise to measure one foot) to reach twelve hundred and twenty-seven times around the world, and more than one hundred and twenty times the distance to the moon.

"The price paid the young propagator for this potato, which is yet in its prime and which has added to the wealth of all nations and will doubtless augment the wealth of nations yet unborn, was \$150. The reader may ponder the consequences to the race if, by carelessness or ignorance, this little seed had been lost or destroyed.

"Mr. Burbank now handles, nearly every day, seeds as precious in potentialities as was the subject of this sketch—seeds which hold within themselves forces calculated to sway the destinies of mankind and even to affect the weal of nations."

The inspiration derived from this success with the potato seed has opened to Luther Burbank a life work at once fascinating and profitable. His success with plums has been remarkable. One of these—the Burbank—has carried his name almost around the world. His "Wickson" plum sold last year in New York for the highest prices ever paid for plums. Another called the Climax is described in the pamphlet, as follows:

"Thousands of fruit growers, who know that our 'Wickson' plum has been selling for \$5.50 to \$8.55 per 20-pound box wholesale at auction in New York the past summer, are planting it on an extensive scale, knowing, full well, that it is of no use to grow any other plum during its season. The Wickson has been very appropriately named the 'King of Plums,' and we now have the extreme pleasure of introducing a new king—the 'Climax'—which is the best selection from a great number of hybrids of Simoni X Botan. Fruit heart-shaped, as large as Wickson and more highly colored, so fragrant that a whole house is perfumed with a single fruit; delicious as could be desired or imagined, and, above all, it ripens here July 12, before any other good plum, and nearly a month before Wickson. Tree extremely vigorous, rather upright growth with strong branches, prominent buds and very large leaves—the very picture of hearty vigor. Productive as the Burbank, about four or five times as large, two or three weeks earlier and very much more richly colored. The most wonderful plum ever grown, and one which will change the whole business of early fruit shipping."

This review is written not for the purpose of advertising Mr. Burbank's business, but to illustrate the possibilities of intelligent plant breeding. It will do no harm, however, to state that for grafting wood of this latest plum the originator is able to command a price of \$10 per foot.

Announcement is made, also, of a new quince called the "Pineapple." Of this the pamphlet says:

"Quinces can probably be grown with less expense than any other fruit, and if the quality could be improved, would be extensively grown and more generally used; a more promising fruit for improvement cannot be named. For about fifteen years we have been working in this direction, and have succeeded in obtaining the 'Pineapple,' a quince which will cook as tender in five minutes as the best of cooking apples, and with a flavor never before equaled. Jelly made from it is superior to that made from any known fruit—absolutely unapproachable—something which could never

have been thought of until it was brought into existence. The fruit, in form and size, very much resembles the Orange quince, but smoother and more globular; in color, much lighter yellow; average weight about three-quarters of a pound each. The tree is a strong grower, and as productive as the Orange."

Those who have tested this quince say that it is excellent to eat out of hand like an apple, having the mellowness of a ripe Christmas apple and the flavor of the pineapple.

Not many horticulturists are, like Mr. Burbank, possessed of the skill and knowledge and at the same time the business ability to make financially successful a plant breeding farm. Every success like those here cited must be understood to be accompanied by many failures. Every valuable result realized was attained at great cost of labor, skill, and time. The lifetime of one man, though he be inspired by a dauntless enthusiasm, and though he have at command ample means, suffices but for an entrance upon the great work of plant improvement. Experiment station workers sometimes grow despondent under the impression that every field has been covered. The work of plant improvement by scientific methods has been barely touched. It invites the agriculturist, the horticulturist, the botanist and the chemist. Its subjects are every plant that contributes to the good of mankind. It may well be extended to the amelioration of plants now detested as weeds. Luther Burbank has so improved plums as to produce an article which last season brought \$855 per ton at auction, wholesale. The breeder's art is as applicable to any other plant as to the plum.

### He Stayed by Kansas.

Editor Kansas Farmer:—I am a farmer of Kansas and have been ever since old enough to work. I was born in Clearfork Township, Marshall County, on the 18th of May, 1862, and have never left the place where I was born. I have farmed the same old farm ever since I was old enough to work. My father moved here about forty-five years ago and he is still on the same farm, resting after his many years of toil. Although some shiftless ones give Kansas a hard name sometimes, so far as farming possibilities are concerned, I have found that the man who attends to his own business, no matter what it is, and stays in one place long enough, will gather wealth much faster than he who always keeps running from place to place. I have seen some of my neighbors sell out and move away five or six times, cursing Kansas and solemnly averring that they would never come back. However, I have had the good luck to be their neighbor two or three times since, and usually on their return they need a little help to get started again. In two or three cases I have noticed farmers moving away three times and getting back for the third time, and then they needed more help than ever to keep body and soul together. But they always knew where to go for relief, and that was to the farmer who did not know enough to go off to a better country, and who, as they formerly said, was fool enough to stay with the grasshoppers and hot winds, where nothing but sun-burnt corn could be raised. I have gently informed them that it is better to have plenty of sun-burnt corn than to have nothing but sun-burnt "kids" when they got back. In every case they were glad to get back near the brother farmer who, as they said, did not know enough to hunt a good country. But, "poor fool," as they called him, he is here yet and has helped all of them and is able to help many more if the case should require, and he has also been able to rent some of them land upon which they can raise plenty of good corn. I have come to the conclusion that the foolish people who love Kansas and stay with it can live all right and have plenty to spare. My experience teaches me that the trouble with most of them consists in the fact that they do not take care of what they have and waste too much. In fact, they waste more than farmers of some countries can raise, and they work less than people at any other place on earth. They would be all right were bread to come all ready to be eaten and potatoes already cooked with their "jackets off," and good sorghum on their corn bread, with other good things to make it taste fine. But I am sure they would also need to have the butter come already churned, and then, when everything would be to hand for them without any work at all, they possibly would be satisfied that Kansas is a very good place to live in. But I, as a Kansas farmer, am willing to work, and even work hard, knowing that my reward will be sure in getting good returns for farm labor intelligently performed.  
Bigelow, Kans. JAMES WALLS.



## KANSAS EXPERIENCE IN ORCHARDING.

From "The Kansas Apple."

Edwin Taylor, Delaware Township, Wyandotte County: I have lived in Kansas twenty-seven years. Have about 5,000 apple trees aged from eight to twelve years. The best varieties of apples for commercial orchards are not many. No one variety could be named which would be best for all locations or conditions. The Ben Davis is most largely planted in the West. Jonathan, Missouri Pippin, Willow Twig, Park's Keeper, are all valuable sorts. There are others. A family orchard is the most important orchard a farmer plants. It should contain a small number of trees and a large number of varieties. Two of a kind are a plenty. There should be at least twenty kinds. That will allow for a new variety to ripen in its season every two weeks or less in summer and fall and every three weeks during the winter. They should begin with the earliest and finish with the very longest keeper. These varieties will overlap, so that the farmer will almost always have two sorts to choose from. There should be sweet apples among them—particularly winter sweets.

The names, characteristics, qualities, description, etc., of the twenty to thirty varieties that make up an ideal orchard would require a long chapter, if the subject were fully treated. Beginners in tree buying should be cautioned not to let the nurseryman run in half a dozen trees of each kind for the family orchard on them. Two trees of a kind are plenty, particularly as the surplus of the family orchard commonly goes to waste. The names should be carefully registered, so there will be no wondering what an apple is when it begins to bear. You can't keep company satisfactorily with an apple that you don't know the name of, any better than you can an unknown man.

The best place to keep these family apples is in a dug-out, in the side of a bank if possible, at all events good and deep, with the door at the north, and a good blow-hole in the south end. I don't know much about soils or location. I found myself in possession of some Kaw River timbered hills, clay soil carrying some sand; not good for much else; so I planted them—tops, sides and draws—with apple trees, which have done well on the tops of the hills, sides of the hills, and in the valleys between the hills. Am inclined to suspect there is a great deal of gammon written about "slope" and "expanse" for orchards. My conclusion is that that is a good slope which you may happen to have. Trees growing in the Kaw bottoms themselves, I observe, thrive and bear. The only cultivation I have ever given trees has been such as they got by being component parts of a corn field, except that I have mainly given the tree rows extra cultivation, keeping them clean of grass and weeds. My orchards are now seeded to clover; clover is not valuable for its own sake, among trees, but the trees thrive with it. Its greatest use, so far as I can see, is to make you mow the orchard where it is twice during the season. I prefer to stop cultivation in orchards when they are six years old.

I have no knowledge of wind-breaks, but I have had a great deal of "mechanical destruction" done by borers and rabbits. Both these pests are good "mechanics" in their way and willing to work. I have the borers hunted spring and fall. Small trees I have protected from rabbits by stalks, paper, or veneering. Rabbits are not hard to head off, but they won't let a case go by default. Some people depend upon traps, dogs, guns, poison, cats, washes, wagon grease and liver to keep the rabbits away. I have known all of these to fail, but I have never known a tree well tied up with cornstalks to suffer from "mechanical destruction" via the rabbit route, unless the string broke. There is no law against having a good string. The only pruning I have ever done has been to take out water sprouts. I don't know whether it paid or not. But I like the looks of a tree better without the pompadour effect a top full of sprouts gives it. Never have thinned apples; orchards here are self-thinners. By picking time the fruit is fully half on the ground and commonly not too much on the trees. Have never used manure or any fertilizer on apple trees. I never pastured an orchard but once. One trial cured me. I judge that one trial is nearly always enough. It is not advisable to pasture orchards, not even with hogs. The greatest pest we have is the apple worm—son, I am told, of the codling-moth. Have made no effort to check it by spraying, or otherwise.

I pick apples by hand; drop them into a sack hung over the shoulder; when the sack is full, it is emptied onto a sorting table. Make two classes of fruit: No. 1 and culls. Have never used any package

but the barrel. Prefer the full-sized flour barrel. Fill barrel full enough to prevent rattling, when head is pressed in; mark faced head with variety, quality, and my name and address. Have never sold crop in orchard; often sell culls there. Have never sold a greater amount than one carload at one time; have sold as little as one peck. The best market is sometimes at one place, sometimes at another. Minneapolis is the most distant market I have ever tried. Have mostly put my apples in cold storage. About one time out of three they have kept well. The fault was not in the apples; cold storage is either not understood or frequently mismanaged. Cold storage people should be made to guarantee their work!—should not be paid for apples that are not delivered in the spring. Cold storage rates (50 cents per barrel) are absurdly high. I use male help, young and old, good and bad. Help commonly hard to get here in the fall. Wages ordinarily \$1 per day, without board.

C. D. Martindale, Scranton, Osage County: I have been on this place thirteen years, and since coming here have set every tree now on it. Trees that I set out in the spring of 1885 measure 6 to 10 inches in diameter. In 1895 I put out 350 apple trees; in 1896 I planted 250 more, part of them were three- and four-year-old, when set. I lost only 13 out of the 600. A few of the Missouri Pippins bore fruit last year. I consider the following varieties, in the order named, best for commercial orchard: Ben Davis, Jonathan, Winesap, Grimes's Golden Pippin; and for family use I would add Maiden's Blush, Cooper's Early White, Missouri Pippin and Rawle's Janet. I have tried and discarded Smith's Cider and Lowell, as they blight too much. I prefer bottom land if it is properly drained, as it is apt to be richer and the trees will not suffer as much in a dry season—black loam, with porous subsoil, to let the surplus water soak away. I think a northern slope best, as the trees do not suffer as much from the sun on hot summer days. Apple trees have done best for me on a black loam underlaid with a porous subsoil that will take the surplus water and still hold moisture in summer.

I plant by plowing light furrows (34 feet apart) across the lay of the ground, then plowing two or four furrows together up and down the slope 34 feet apart, and run a lister in this big furrow, breaking up the ground as deeply as possible. I dip the roots of my trees in lye water, using 1 pound carbonate of lye to 8 gallons of water. Then fill in with a spade around the roots, being careful not to leave any holes for mice to nest in. Two- or three-year-old trees, with roots and top well balanced, no forks to split down when the tree gets older, bark smooth and good color, I consider best. I prefer piece-root to whole-root grafts. My experience is that we get better trees on piece roots, as the union is lower down in the ground and the scion throws out roots, which makes the trees healthy and not wholly dependent on seedling roots. I cultivate my orchard till ten or twelve years old, and keep all weeds and grass away, using an 8-inch plow with one horse next to the trees and backfurrow to every other row; then use two horses and 14-inch plow for the middles. The next year I backfurrow to the rows left the year before; in this way we have no large back or dead furrows, but keep the ground level. In cultivating I use a 14-tooth Peerless harrow each side of the row, and cultivate the rest with two-horse cultivator; then use a good sharp hoe close to the trees. Corn is the best crop to raise among young trees, as it acts as a wind-break and a partial shade. After an orchard gets to bearing, seed to red clover.

I would change from corn to clover eight or nine years after setting.

Wind-breaks are essential. I would have them on the south and west sides of the orchard, at least. I would make them of evergreen, Osage orange, or mulberry. I would not plant black walnut, cottonwood, or maple, as they are injurious to apple trees. Plant peach trees between the apple trees; they grow fast, and protect the apple until large enough to stand the winds. The best thing I have found to keep rabbits, mice, etc., off the trees is a protector made of five lath 2 feet long, woven with wire; they can be left on summer and winter, as sunlight and air can pass through to the bark and keep it healthy and keep the sun from scalding the bark; it also keeps the borers and the whippetree from doing much damage; they can be left on until the trees outgrow them. I cut out all limbs that are liable to rub each other at any future time, and all limbs that are liable to split down as the tree gets older; I also trim high enough to let a small horse walk under the limbs. I take off the back pad while working among the trees,

so it will not be catching on the limbs; I think that it pays, and is beneficial. I have not thinned the fruit while on the trees. My trees are planted in alternate rows of different kinds, so I cannot tell what is best, blocks or mixed. I use all the barnyard litter broadcast that I can get, and wish I had more. I shall plow under a good crop of red clover about every other year, and seed again the same year to clover, as I think it beneficial; I would do the same on all lands that I have yet tried. I do not let horses or cattle over 1 year old pasture in the orchard. I let calves and small pigs have access to the orchard, as they will eat up a great many wormy apples that drop, and help keep down the weeds. I think it advisable to pasture with young stock, and that it pays.

My apple trees are troubled with canker-worm, twig-borer, and leaf-crumpler. The codling-moth troubled my apples some last year. I have not tried spraying as yet. I have found borers in a few trees that were out in the grass near the fence. I pick my apples by hand; using step-ladders for the lower limbs, and longer ladders, wide at the bottom and very narrow at the top, for the upper limbs. While picking in the inside of a tree, I use a half-bushel sack made to hang on a limb, and so arranged that it can be let to the ground and emptied without getting out of the tree. I make three grades of my apples: First, good size, smooth, free from worms, and good calyx; second, apples under size, a little specked and wormy; third, culls. I have been sorting from the pile, but think I shall use a table made with the back end the higher, and the top made of heavy canvas without end, and passing over rollers at each end, so the apples can be brought in reach without handling them; then I would arrange my barrels so that the apples can be placed in them without bruising. I prefer the 3-bushel barrel to ship in; but for handling I want a 1-bushel box with hand-holes in the ends. I would pack the barrels as tight as possible, and then mark the name of the variety, grade and name of grower on it. I would ship them by fast freight or express.

Sometimes I sell in the orchard. I have generally sold by retail and peddled, as I have a good set of customers. I can do as well to sell direct to the consumer as to sell at wholesale. I sell second grade to anyone that will buy. I feed the culls to cattle and hogs, and let the hens have all they want. I have had a market near home for all I have grown; may have to look farther when all my trees bear. I have not tried distant markets. What I have tried took all the profits. I do not think it pays to dry apples, unless on an extensive scale. I store my apples for winter market in a dry cellar. I pack in both barrels and boxes while in the cellar; prefer boxes, as they are easier to handle and sort from. I have not been as successful as I would like, but think I have done as well as many apple growers have with the number of trees I have. The Ben Davis, Winesap and Janet have kept the best for me. I have not tried artificial cold storage. If apples are held any length of time, I repack, so as to be sure they are up to grade. I do not lose over 2 per cent. In the fall apples sold at about 30 cents per bushel, and through the winter 50 to 80 cents per bushel. I employ careful men to pick and handle my fruit. I pay from \$15 to \$18 a month and board.

## Concerning the Evolution of a Prairie Sod.

For the study of the evolution of plant communities, it seems to the writer that no field offers more promising results than the prairies of the great plains of western Oklahoma, Kansas, Nebraska, and eastern Colorado. The driving out of the bison and the advent of civilized man have furnished conditions for rapid changes in the flora of this vast area. At present these changes may be observed in progress. The grass flora of this region is the most interesting and characteristic feature of the vegetation. Buffalo grass (*Buchloe dactyloides*, Engelm.), once covered the great plains from the foot of the Rocky Mountains to the bluffs of the Missouri River, almost to the exclusion of the tall grasses now so common in the eastern part of this section. The conditions conducive to the thrift of buffalo grass are the presence of vast herds of hoofed animals to tramp the ground and graze the vegetation close to the earth, and periods of excessive drought accompanied by hot winds. Buffalo grass cannot endure the shade of tall vegetation, while tramping seems to cause it to stool out and form a more compact sod. The writer knows of no other grass that will thrive under as much tramping and abuse as buffalo grass.

Though this territory is commonly known as the "Great Plains," all the inhabitants of the region are perfectly familiar with the fact that limited areas of rough, stony or broken land may be occa-

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WAITS RIVER, VT.

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Dear Sir:—I have used your Elixir on one of the worst spavins that I ever saw on a horse, and it entirely cured the lameness. I also used it for rheumatism in my family, with just as good a result, and will cheerfully recommend it to any one in want of a liniment.

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sionally found throughout the whole region. These areas are frequently protected by contour or position from the hot winds and drought, and from the tramping of animals. It is upon these protected spots that the blue-stems (*Andropogons*) and the gramma grasses (*Boutelouas*) have led a precarious life through the past ages. As soon as the bison were driven out of the country, conditions began to change. The dead vegetation accumulated as a thick coating upon the earth, and acted as a mulch to prevent rapid evaporation. The soil, consequently, became more moist than in former years and this moisture stimulated the growth of tall vegetation. The tall grasses at once began to extend themselves into the regions previously occupied exclusively by the buffalo grass. Little blue-stem (*Andropogon scoparius*, Michx.), was the pioneer in this movement. It took possession at first in bunches, and by means of its shade killed out the buffalo grass. Big blue-stem (*Andropogon furcatus*, Muhl.) and other tall grasses soon followed, filling in the spaces between the bunches. This transition may be seen to-day in Rooks County, Kansas, in process of completion, while in Rawlins County, a hundred miles farther west, it has only begun. When in process of formation, a sod of this kind is very bunched and uneven and not fit to mow as a meadow. At this stage of development the herbage is very coarse and woody, the grasses seeming inclined to throw up an excess of fruiting stems. If not grazed too severely, the occasional presence of hoofed animals upon this forming sod tends to level the bunches of the little blue-stem down so that a mowing machine may be run over the ground. After the mower has once conquered, every subsequent mowing tends to cause the sod to grow thicker, firmer and less bunched. The little blue-stem now seldom heads out, and farmers, not being able to recognize the difference in the blue-stems by their leaves, speak of the departure of the little blue-stem and of its place being filled by the big blue-stem. The fact is, however, that in every wild grass meadow in eastern Kansas, especially on the high prairies, *Andropogon scoparius* can be found to-day as one of the principal species, if not the chief.

The question may be asked with propriety: "Is it possible that the Western prairies were once inhabited with enough bison to keep the grasses constantly grazed down close to the ground over hundreds of thousands of square miles of territory?" Every interview that the writer has had with the old settlers of the region, and all the present evidences of active evolution, answer this question in the affirmative.

GEO. L. CLOTHIER.

The service of the Nickel Plate Road to New York City and Boston is a demonstrated success. The demands of the traveling public are met by providing three peerless fast express trains in each direction daily. These trains are composed of modern first-class day coaches, elegant vestibuled sleeping cars between Chicago, New York and Boston, and unexcelled dining cars. Solid through trains between Chicago and New York have uniformed colored porters in charge of day coaches, whose services are placed at the disposal of passengers. If you want to travel comfortably, economically and safely, see that your ticket is routed via the Nickel Plate Road. (1)

CANDY CATHARTIC  
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REGULATE THE LIVER



**Horticulture.**

**PEDIGREES.**

Editor Kansas Farmer:—I noticed an article in a Missouri farm paper, a few days ago, about strawberry pedigree, giving cuts of the razor-back and Poland-China hogs to demonstrate the writer's idea. The said article is attracting some attention among the berry growers' fraternity. That a person in this enlightened age should try to establish a thing not in accordance with the rules of pedigree records is simply an illustration of cheek, without any foundation for the facts. If such a thing as strawberry plant pedigree had been feasible, or even reasonable, the botanist would have given the truth of it to the world hundreds of years ago. Hence, pedigree does not apply to the vegetable kingdom. It is applied to the human family, and man has applied it to pure-bred animals. Recorded pedigrees are kept of valuable animals, going back to the beginning, or foundation blood of some famous ancestors. Jersey with pure Jersey blood, Holstein with Holstein, Hereford with Hereford, etc. A register of genealogies on pedigree was kept by the great Jewish families in Bible times. The standing order of the House of Lords in 1767 required that before any peer should be allowed to take his seat, the Gartering-of-arms was to deliver at the table of the House of Lords a pedigree of his family, to be verified by the committee of privileges and eventually preserved in the records of the House.

Now, the razor-back hog that is so well illustrated in the article referred to, is still a razor-back in Arkansas. The fine cut shown of the improved swine is a Poland-China product, that was originated in Ohio about thirty-five years ago. The parentage of this race of animals was a cross of the China and Poland hogs. Of course, they have been somewhat improved by selection. So the razor-back can be improved by crossing, but he will only be a grade razor-back. But what do these hog pictures and hog talk have to do with strawberry pedigree? A little animal show for attraction, that's all.

Now, can the pedigree advocate tell anything about the parentage of the old Wilson, Crescent, Captain Jack, Charles Downing, Sharpless or Warfield strawberry? Does he know anything about their origin back of the time when they were discovered by the men who gave them to the berry growers? To have a pedigree, these or any other strawberries should have a written record showing what sorts they came from clear back to the native Virginia seedling, or some variety imported from Europe. Now there is no question but that the strawberries we grow now are an improvement over the old native seedling that we used to find in the old fields and along rail fences, but there has been no record kept from whence they came. The writer remembers the history of many of the varieties we grow now. Peter Henderson, the great seedsman, who died some five or six years ago, wrote me that the Wilson was a chance seedling found by a Mr. Wilson, near Albany, N. Y., so he called it Wilson's Albany. It was the great commercial strawberry of the country for thirty years. The Crescent was a chance seedling found in Connecticut by Mr. Parmelee, about 1877-78. Samuel Miller, of Missouri, the old horticultural veteran of the St. Louis Rural World, wrote me, a few years ago, that he found the seedling that he named Captain Jack near the roadway on his farm in 1873. This, the firmest of all strawberries, and widely known in the West, is as large and perfect in form and productive in fruit and plant growth as it was nineteen years ago when the writer began to grow it. So the Mitchell, Sharpless, Bederwood and many others of the best varieties were chance seedlings.

The Crescent, Captain Jack and Charles Downing have had nineteen years test on our soil. The Miner, Windsor Chief, Gandy, Warfield, Robinson, Edgar Queen, Saunders and Woolverson and others from ten to fifteen years trial. These varieties are all as productive as they ever were when all the conditions of soil, cultivation, sunshine and showers are favorable. The writer has kept each sort so separated in their culture, that Crescents are propagated by Crescent-runners, Warfield by Warfield runners, and all other sorts are so managed that the stock is kept pure. Now, if the writer had the cheek, all these varieties might be called pedigree plants. For the pedigree advocate has no record of the antecedents of any of those sorts mentioned, or any other variety grown in the country.

Now, all this stir about pedigree plants is moonshine. As pure and good plants as

ever grew out of the soil are grown in Kansas, Missouri, Illinois or Indiana. The purity of all sorts of strawberry plants will be a certainty when the runners of the different sorts are not allowed to become mixed. Doubtless some new, unthoughtful young beginners in berry culture will be hypnotized with the novel idea of plant pedigree, but not many veteran berry growers will be caught biting at the bait, for they know it is a hook to catch suckers.

Lawrence, Kans. B. F. SMITH.

**REMARKS.**

Doubtless some readers of the Kansas Farmer will take issue with Mr. B. F. Smith as to the possibility as well as to the fact of plant pedigree. The Garton Brothers, of Newton-le-Willows, England, have controlled and kept records of the parentage of wheat, oats and grasses for near twenty generations of these plants. A pedigree of thoroughbred live stock rarely is given for more than seven generations. Luther Burbank, of Santa Rosa, Cal., has made both fame and fortune by controlling plant parentage—especially fruits and flowers—and his records, though they may show, for some of his productions, very humble ancestry on one or both sides, constitute pedigrees in the strictest sense. Of a new and valuable plant which Mr. Burbank has produced, he says: "The flesh is remarkably firm and solid, fragrant, subacid or sweet, dark crimson, beautifully clouded and shaded with light pink, salmon and light yellow, showing in the fruit a curious combination of ancestral dynamics."

Our own Agricultural College has entered upon a course of plant breeding in which accurate records are kept of the parentage of every plant. In this way have been made the beginnings of pedigrees of strains of the world-famous Kansas hard winter wheat, with fine prospect of accentuating and intensifying its excellencies, until to be well fed, John Bull and other epicures shall require, at whatever cost, the loaf from Kansas hard winter wheat flour. In this way, too, Kansas corn is likely by the breeder's art to be increased in its feeding value and its yield. Every variety of plant that grows is susceptible of improvement at the hands of man, improvement as marked as that which has produced from the wild hog of ancient times the mass of animated meat known as the Poland-China of to-day.

If, as suggested by Mr. Smith, some are parading common scrub plants as "pedigreed" and excellent, the public should be warned against them as against any fraud.—Editor.

**Evergreen Trees.**

Editor Kansas Farmer:—The successful planter of evergreen trees is the man who buys trees that have been transplanted not less than three times. You might buy seeds from evergreen trees and plant them in the shade, and let the trees grow there until they are large enough to set out on the place, and most of them will die, as the trees have only a tap-root and some side roots which will not keep the tree alive, as they lack the small fibrous roots that the transplanted tree has. Transplanting retards the growth of the tap, and also induces the growth of the small fibrous roots, which are necessary to keep the tree alive until it is established in its new home. In the West, many red cedar trees are planted. They are fine trees, but not as fine as the arbor vitae, which is of the cedar family. It is called American or white cedar by some. It is a hardier tree than the red cedar. It grows like a weed. Very rarely any of the arbor vitae die when transplanted. The flat, soft foliage is so much pleasanter to the touch than the harsh, prickly foliage of the red cedar. The Scotch pine is a hardy tree, very rapid in its growth, and grows well even on the poorest soils. It does well in the western part of Kansas. A neighbor of ours planted 12 Scotch pines in his yard, eight years ago, not in rows, but hit and miss, as trees grow in forests. They are now 14 to 16 feet in height. They would add \$500 to the selling price of his farm, not to mention the pleasure the owner derives from seeing them grow.

A. W. THEMANSON.

Wathena, Kans.

**Enthusiastic Over Its Use.**

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My stock of old and the cream of the new Strawberries for 1899 is first-class. Also Raspberries, Blackberries, Gooseberries and Pear Trees. Send for price list.

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Strawberry. Immensely productive and earlier than Hoffman. A seedling of Wilson, pollenized by Hoffman plant and fruit both showing larger and finer than Wilson. Seventy other varieties. Columbian Asparagus roots, Peach, Apple and Pear trees. Write for Catalogue. Harrison's Nurseries, Berlin, Md.

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Largest Seed POTATO growers in America. The "Kural New-Yorker" gives Salzer's Earliest a yield of 464 bus. per acre—ripe in 88 days. See Catalogue for prices. Our great Seed Book, 10 Farm Seed Samples, worth \$1.00 to get started, for 10c. postage. JOHN A. SALZER SEED CO., Lawrence, Mo.

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We offer a large and fine stock of every description of Fruit and Ornamental Trees, Shrubs, Roses, Vines, Small Fruits, Hedge Plants, Greenhouse and Bedding Plants. Priced Catalogue Mailed Free. Established 1852. PHOENIX NURSERY COMPANY, 180 N. Park St., Bloomington, Ill. Please mention this paper.

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CHEAP DURABLE AND HANDSOME. Never sags or gets loose. Our Stock Fence also has no equal. Send for Catalogue. (Can give exclusive agency.) KILMER WIRE MFG. CO., CHICAGO, ILL.

**DROUTH BEATING CORN.**

A recent writer in this paper asked: "Why don't Kansas farmers raise more early sorts of corn? The early varieties made twenty-five to thirty bushels per acre in Kansas in 1888, along side native corn that made less than five bushels." This is so in Kansas, as a rule. One-hundred-day well-bred corn from Illinois matures its ears fifteen to twenty-five days before drouth or hot winds catches and ruins Kansas native corn. I have many testimonials affirming this. One below. Mr. J. D. Cowan, Austin, Kans., writes: "Your C. W. Pearl Corn made forty-two bushels fine corn per acre three weeks before drouth caught my native corn, which made very light yield of poor quality." C. W. Pearl Corn has made big yields in Kansas for fifteen years. It is very white No. 1 milling corn. Matures in 100 days. Price: Three pounds, postpaid, 75 cents; by fast freight, one-half bushel, 75 cents; one bushel, \$1.40; two bushels, \$2.55; five bushels \$6.00; ten bushels, \$11.50. Golden Beauty, St. Charles White, Imp. Learning and Hickory King Corn, in ten bushel lots, \$1.15 per bushel; thirty bushel lots, \$1 per bushel. Artichokes, forage and many other farm seeds. My special treatise on how to raise big crops from Illinois-grown seed corn in Kansas in drouthy years, abundant profit and my new catalogue of corn and other field seeds sent free if you cut out and send this advertisement and three addresses of wide-awake land owners. I refer to editor of this paper. Or send money to First National Bank, Bement, Ill., to be paid over to me if they know me to be reliable.



ADDRESS.....J. C. SUFFERN, SEED GROWER, VOORHIES, ILLINOIS. QUICKLY

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## In the Dairy.

Conducted by D. H. OTIS, Assistant in Dairying, Kansas Experiment Station, Manhattan, Kans., to whom all correspondence with this department should be addressed.

### NEEDED EDUCATION IN THE CREAMERY AND ON THE FARM.

By Senator G. W. Hanna, before Kansas State Dairy Association, Topeka, November 17, 1898.

Mr. President, Ladies and Gentlemen: Education is at the foundation of either a successful creameryman or dairyman. Tact and skill are always at a premium, and a man at the weigh can who has the tact, can, in my judgment, do more to educate the farmer in the way of delivering milk sweet and wholesome than many creamerymen think. The creameryman should interest the patron in the matter of test by educating him along the lines of delivering sweet, wholesome milk, which will show a better oil test than if tainted and sour. We all need to learn more regarding the test system, and I hope to see the day—not far distant—when all creameries in the State of Kansas will be under the control of a dairy commissioner, and all testing will be done under his supervision. Then, and not till then, will the test in Jones's territory be taken on the same basis as it is in Smith's territory.

Why, Mr. President, in Kansas to-day we have in one county that I know of creameries that have paid the same month prices ranging from 16 to 20 cents per pound for butter fat, when they have all sold their butter on practically the same Elgin basis. We creamerymen need education on this line to know how Jones pays 20 cents for butter fat while Smith pays but 16 cents, both getting practically the same money for their butter. Is it done, Mr. President, simply by different test reading or method of delivery of milk in different territories?

I find some of my men who can handle a patron who has a dirty can and invariably sour milk in the summer time, with a telling effect by setting his can by the side of a patron's clean can and telling him that Snyder always keeps his milk over Sunday and never has a can of sour milk. He will want to know the reason, when he will tell him that Snyder always empties his skim-milk as soon as he gets home, scalds his cans with boiling water and then sets them in the sun to air. This patron mentioned does not use tank nor water, using 5-gallon cans and setting them, after milking, during the summer nights, on a raised platform to cool.

I note with considerable pleasure the experiment made by Prof. Cottrell, of the State Agricultural College, in a bulletin he can furnish any of our creamerymen, along the line of milk delivered during the summer months to the Manhattan creamery, and I advise every creameryman to see these bulletins are distributed in his territory, as, in my judgment, the delivery of milk and testing of same are two of the most important questions we creamerymen have to meet at this time, and in it all we can but repeat that "Cleanliness is next to godliness."

In passing, I wish to state that I am in hearty sympathy with the work that is being done by Prof. Cottrell and his aides at the State Agricultural College, in furnishing bulletins regarding feeds, rations and dairy work. He, together with Hon. F. D. Coburn, in my opinion, are doing a great work for the dairy interests of Kansas at this time.

In an experience of fifteen years I find that great losses are sustained by the average dairyman in Kansas every year as a result of careless, slipshod methods with which they handle their cattle, both as regards breeding and feeding; and I notice but very little improvement, if any, to-day. The truth is, a large majority of our Kansas dairymen are milking as a mere side issue, and have never considered it worthy of serious study. When the crop fails, it becomes convenient, and sometimes necessary, to milk the cows. We always find, with good crops, that dairying cannot stand prosperity. At least, it is low tide this year over 1897.

No State offers greater opportunities than Kansas for producing milk during the fall and winter months at a good profit to farmers, as we have generally plenty of rough feeds and mill stuffs, yet a large per cent of cows are allowed to go dry in the fall for want of proper care and feeding. The Kansas dairy cow has as a rule two starving spells during the year. She starves between grass and corn stalks in the fall, and between corn stalks and grass in the spring. While the cow is starving the creameryman is also suffering from short supplies, and cost of production is so great that the returns to the patrons are not as large as they should be. It is one of the most difficult tasks to teach the patron that this question of supply is one of the most impor-

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At the World's Fair, Chicago, in 1893, the De Laval Cream Separators were solely selected by the Official Committee of Experts and Experiment Station Representatives for use in the Practical Working Dairy of the Great Fair, where their work received the highest possible commendation. And in the Exhibition Department they received exceptional honors in being awarded the only Medal and Diploma regularly given to centrifugal creaming apparatus.

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The only important exposition competitive exhibits of cream separators during 1898 were at Munich, Bavaria, Luxemburg, Germany, and Vienna, Austria. In each instance the Highest Award went to the "Alpha" De Laval machines.

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tant factors at a milk station, and one in which every patron is vitally interested.

More attention should be given on the farm to the breeding and raising of the dairy cow. It takes as much attention and skill to breed and develop a first-class cow as it does to breed and train a trotting horse. To-day good milch cows are worth \$50 each and scarce at that figure, while fair and medium milkers can be bought for \$30. There is \$20 worth of skill in the one case; in the other, it is just a butcher's price, and the \$30 dairy cow of to-day seldom makes money for anyone but the butcher.

We need education on the farm along dairy lines, that we may know how to care for and feed the heifer calves. Many a heifer calf for the dairy is ruined in the first year of her life, either by being allowed all the mother's milk, becoming hog-fat, or being fed cold sour skim-milk, and is made a pot-bellied runt. Skill sells to-day for a high price in well-bred, well-raised dairy heifers. Skill is applied knowledge and means study and work.

The study of feed for dairy cows is an important one in Kansas, as it is different from what it is in Iowa, Illinois or New York. Our growing season is of longer duration. At this date (November 17) cows are doing finely on volunteer oat pasture, where forethought has been shown in providing for same. We should study to produce on the farm all or nearly all of the cow feed. At present (where dairymen feed) the miller gets more than his share of our earnings for bran, and the preacher does not get enough for his gospel. A rye pasture in the fall and spring in Kansas cuts down the bill for mill feed. All I am sorry for is that not enough of our farmers take this into consideration. If we grow alfalfa, millet, sorghums, Kaffir corn and plenty of oats, we can give the miller the cold shoulder ten months in the year.

As regards the breeds for dairymen, you may settle the question for yourselves. It is somewhat a question of locality. In north-central Kansas we usually have an abundance of roughness, and the beef question cuts quite a figure. If there is a cow of good size expected to calve, there are a dozen men waiting to rush in and offer the owner from \$6 to \$10 for the calf, to be taken when three days old. In the selection of dairy cows it will be well for you to study the question, consider your surroundings, and remember that whatever kind you raise there will be blanks as well as prizes, and perhaps about an equal number of blanks in each dairy breed of cattle.

In central Kansas, the question of grass is quite a problem. We have waited twenty years for a variety to take the place of the native grass. We are waiting still. Alfalfa cannot be depended

upon, bluegrass burns up in July, timothy and clover are a back number. In the 70's we were green enough to break up the green grass on a thousand hills; now these knobs are brown and bare. We are waiting for some Green Mountain man, or any other man, who will find a grass that will again cover these bare places as of yore. We need, not so much some professor to make two blades grow where only one grew before, but we want someone to tell us how to make one grow.

Again, touching on the subject of winter dairying, we want someone to educate us how to produce more milk in winter months; how to build cheap, warm, convenient cow stables; how to get a maximum of convenience and healthfulness at a low cost. Education is a power everywhere. On the farm it is gained by

## Gilt-Edge Butter

is the only money-making kind. But to make it, and the most of it, you must use the latest improved machinery. It is just this sort of product that has built up the demand for our



Empire  
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They get all the cream from the milk and leave it in the best condition for churning. Lightest running and simplest in construction. Our catalogue will tell you why.

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patient, plodding perseverance; in the creamery, we get it much too often through costly experience. I assure you that the creameries in Kansas cannot hope for great success until the farmers study and solve some of the problems noted.

### TO CURE A COLD IN ONE DAY

Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. 25c. The genuine has L. B. Q. on each tablet.

### Finest Honey in the World

Is gathered by bees from alfalfa bloom, so say best judges. Send direct to the Arkansas Valley Apiaries for prices of honey delivered at your station, in any quantity, at from 6 cents per pound up. I refer to the Kansas Farmer concerning the excellent quality of this honey, and for fair dealings of Oliver Foster, proprietor, Las Animas, Bent Co., Colo.

### BUTTER COLOR NEEDED NOW.

ONLY BUTTER OF RICH, JUNE COLOR BRINGS HIGHEST PRICES.

W., R. & C.'s Improved Butter Color Used by the Best Buttermakers Everywhere.

To have butter sell well and at a good price, it must have a rich, June color the year round, and this can only be gotten by using Wells, Richardson & Co.'s Improved Butter Color. The prize winners at the National and State Dairy Conventions almost invariably use and recommend this Color. It is endorsed by leading pure-food authorities and dairy experts as the only natural color that can be added.

This Improved Butter Color is much stronger than any other color sold, and hence is the most economical. Only a very little is needed to give the required shade.

If you are not using our color, send 4 cents for postage on a free sample to the manufacturers, WELLS, RICHARDSON & CO., Burlington, Vt.

### THERE IS MONEY IN THE DAIRY BUSINESS IF YOU USE THE

### Improved U. S. Triple Current Separator.

With it a better grade of butter is possible, and there is no loss of cream. It also is simple, durable, easy to operate and clean.

U. S. Butter Brings 5 cents above Market Price.

CARNES, IOWA, Nov. 24, 1898.

Have used a No. 6 Improved U. S. Separator about one and one-half years, and must say I am more than pleased with it. We have no trouble to sell our butter to regular customers for about five cents above market price, and sometimes more. We are milking only five cows at present, but would not think of doing without the separator. Every farmer should have an Improved U. S. Separator.

H. PAULSON.

Write for special catalogues. Vt. Farm Machine Co., Bellows Falls, Vt.





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

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

FOR SALE—Good fresh Red Wethersfield Onion Seed, 65 cents per pound. Yellow Bottom Onion Sets \$2.50 per bushel. Address the Capital Produce Co., 307 Kansas avenue, Topeka, Kans.

5,000 GENTS' CUFF BUTTONS TO BE GIVEN away free. Send 4 cents in stamps to pay postage on buttons. F. Quinn, Lakeside Building, Room 60, Chicago, Ill.

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LIGHT BRAHMA EGGS \$3 PER 100. COCKERELS \$1 each. Mrs. N. Van Buskirk, Blue Mound, Kans.

NICE RESIDENCE IN MINNEAPOLIS, MINN., valued at \$4,500, to exchange for a sheep ranch in southwestern Kansas. Address W. M. Hollister, Box 605, Grand Forks, N. D.

LIGHT BRAHMAS, PURE-BRED—Eggs \$1 per 15, \$1.50 per 30. A. L. Palmer, Thayer, Kans.

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EGGS FOR SALE—Barre and White P. Rocks, S. C. B. Leghorns, Indian Game, Buff Cochins, Black Langshan, White Guineas. One dollar per fifteen. Mrs. W. H. Williams, Toronto, Kans.

FOR SALE—Barred and White Plymouth Rock cockerels, \$1 each; Mammoth Bronze Turkeys, \$2 each; peacocks, \$2.50 each. Barred and White Plymouth Rock eggs, \$1 per 15. S. F. Glass, Marion, Kans.

FOR SALE—Russian artichokes for hogs. Yield enormously. Fifty cents per bushel, sacked and put on cars here. Order at once. F. W. Truesdell, Lyons, Rice County, Kans.

WANTED—Kitchen help, able to cook and wash. Thirteen dollars per month. J. H. Taylor, Rhinehart, Kans.

STALLION FOR SALE—Imported registered Percheron-Norman, Black, weight 1,800 pounds. Address Joseph McCoy, Eskridge, Kans.

FOR SALE—One registered Poland-China sow and several hundred service (or Juneberry) and Crandall tree currant bushes. J. W. Vining, Wiley, Kans.

WANTED—A sheep farm. Address W. M. Hollister, Box 605, Grand Forks, N. D.

FOR SALE—Buff Cochins Bantam eggs, \$1 for 13. A. T. Cooley, Jewell City, Kans.

FOR SALE—Poland-Chinas and Duroc-Jerseys, all sizes. Barred Plymouth Rocks and Single Comb Brown Leghorns. Eggs \$1 per 15. Write D. Trott, Abilene, Kans.

EGGS—Handsome Barred Plymouth Rocks at \$1.50 per 15. John Saggau, Marion, Kans.

WANTED—To sell or trade for a large jack, one imported English Coach stallion, a good specimen of his class, weighs 1,400 pounds. J. C. Pontius, Larned, Kans.

FOR SALE—160 acre farm near Larkin, Kans.; improvements in perfect condition. Write Edmund Burr, Leavenworth, Kans.

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CANE SEED FOR SALE—Greatest forage plant on earth. Buy Iowa grown cane seed and seed corn. Write for our seed book. It is a money-saver and money-maker. Address A. A. Berry Seed Co., Drawer L, Clarinda, Iowa.

STRAWBERRY, BLACKBERRY, RASPBERRY plants. Get prices of J. C. Banta, Lawrence, Kans.

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FOR SALE—Four large black jacks. Address, J. P. Wilson, Wellsville, Mo.

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WRITE TO ALEX RICHTER—Hollywood, Kas how to sub-irrigate a garden, etc., and cost of same. Send him the size or dimensions of your garden, and he will give full information.

MAMMOTH WHITE ARTICHOKEs, F. O. B. AT Kansas City, price 60 cents per bushel. Address F. A. Heller, Bonner Springs, Kans.

HEREFORD BULLS FOR SALE—One carload of very high-grades, some unregistered, from 10 to 14 months old; also 12 head of registered bulls, same age as above, all in good condition or fat. John Drennan, Blue Rapids, Kans.

I HAVE A THOROUGHbred 2-YEAR-OLD Holstein bull for sale or exchange for another Holstein bull. Correspondence solicited. G. J. Coleman, Box 204, Mound Valley, Kans.

FOR SALE—At Wyndon Place, 10 miles southwest of Topeka, on Alma road, four registered Short-horn calves, 8 to 12 months old. Postoffice address, J. W. Sheldon, southeast corner Sixth and Van Buren, Topeka, Kans.

FIVE-ACRE TRUCK FARM ON KAW RIVER bottom, near Grover Station, in Douglas County; also \$30 worth of personal property, team, cow, household goods, feed, etc. Four hundred dollars spot cash takes it with quietclaim deed. No trade wanted. Address H. C. Allen, Big Springs, Kans.

STRAWBERRY PLANTS—Parker Earle, Mitchell's Crescent, Bubach, Good, well-rooted plants, true to name. Correspondence invited. J. Baies, Lawrence, Kans.

ARTICHOKEs, MAMMOTH WHITE FRENCH—To farmers and others interested in hog raising, I will fill orders for seed artichokes of the best improved variety, "T.M." per sack of two bushels on cash terms here. J. W. Gebr, Crab Orchard, Neb.

WANTED—Alfalfa, cane and millet seed; also a limited quantity of Jerusalem corn seed. Correspond with F. Barteldes & Co., Lawrence, Kas.

BERKSHIRE SOWS BRED—To farrow in March and April. Choice of individuality and breeding, at \$20. Rutger Farms, Russell, Kans.

LEAVENWORTH COUNTY JACK FARM—Twelve jacks for sale. O. J. Corson, Potter, Kans.

SHORT-HORNS FOR SALE—Forty-six cows and heifers, Crutcherbank, Young Marys, Rose of Sharon and others; an extra lot. Nearly all were shared by that Grand Crutcherbank, Royal Prince 100646. Six bulls ready for service, sired by Young Mary bull, Glendon 119371. Theodore Saxon, 222 West Eighth St., Topeka, Kas.

WANTED—Millet, Sorghum seed, Kafir corn (red field) and white, Alfalfa. Send samples, give quantity field seed orders solicited. Kansas City Grain and Seed Co., Kansas City, Mo.

HEREFORD CATTLE—Breeding stock for sale. Archibald cattle a specialty. Visitors welcome. J. C. Curry, proprietor "Greenacres Farm," Quenemo, Osage Co., Kas.

FOR SALE—Pure-bred Polands and Berkshires from weanlings up, at very low prices. O. P. Udeggraf, North Topeka, Kas.

BERKSHIRE-ANGUS BULLS—Three individuals A of serviceable ages; registered. Wm. B. Sutton & Son, Russell, Kas.

WANTED TO EXCHANGE—The pure-bred Crutcherbank bull, My Lord 116563, bred by Col. Harris; sire Imp. Spartan Hero 77332; dam Imp. Lady of the Meadow (Vol. 30, p. 615), for a pure-bred Crutcherbank bull—can't use him any longer in my herd. H. W. McAfee, Topeka, Kas.

THE BEST VARIETIES OF CHOICE EARLY SEED potatoes. Extra Early Six Weeks potatoes, 90 cents per bushel; Early Ohio potatoes, 60 cents per bushel; Early Rose potatoes, 60 cents per bushel; Early Harvest potatoes, 65 cents per bushel; Northern Early Ohio and Early Rose potatoes, 80 cents per bushel. Packed in barrels or sacks and delivered to railroad depot here. Address Calvin Hayes, 307 Kansas avenue, Topeka, Kans.

IMPROVE YOUR SEED CORN, IT WILL PAY you. Try Mortgage Lifter Corn. Last year, where our native Kansas corn only made 20 and 30 bushels to the acre, this averaged 60 bushels to the acre. A beautiful yellow corn. Also Early Yellow Rose and Kloudye varieties. One dollar per bushel, 15 cents for sacks, delivered in St. Marys, Kans. Orders of \$10 and over, sacks free. Theodore Saxon, 222 West Eighth street, Topeka, Kans.

FOR SALE—A farm consisting of 240 acres, all fenced and cross-fenced. Eighty acres in Walnut River bottom, 155 acres under cultivation, 13 acres of apple, peach, pear and cherry orchard, all bearing, one-fourth acre of grapes. A good three-room frame house with cellar, good barn for five horses, driveway, granary, room for 2,500 bushels, hayloft, granary 1,200 bushels, two good wells. 1 1/2 acre hog lot with spring, 85 acres pasture and meadow. One-half mile from school, 3 1/2 miles from town, 14 miles from county seat. There are 110 acres in wheat and the price is \$5,000, or \$4,800 and one-third of wheat reserved at machine. Easy terms. Come, and if we trade care is deducted. Give possession at any time. H. L. Coleman, Rock, Cowley County, Kans.

TOO LATE TO CLASSIFY. FRENCH POULTRY YARDS—FLORENCE, KANS. Houdans, \$1 per sitting of 13. E. FIRMIN, Proprietor.

KAW VALLEY HERD OF POLAND-CHINAS—1892 pigs from the following prize-winning boars: Perfect 1 Know, Chief 1 Am, Gem's U. S. Chief and Dick Wainwright. M. F. Tatman, Rossville, Kans.

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Do You See That Bag? It is our Registered Trade Mark and means that our STERLING GRADES OF SEEDS are unconditionally the best that money can buy. Write now for our 1899 Catalogue of IMPROVED FARM SEEDS, TESTED VEGETABLE SEEDS and choice FLOWER SEEDS. It is mailed free on application. Our seeds are sold by leading merchants. NORTHROP, KING & CO., SEED GROWERS, MINNEAPOLIS, MINN.

FEED MILLS We make over 50 sizes and styles of Buhr Stone Mills, 2 horse power and up. It has been our specialty for nearly fifty years. A buhr stone mill is the best and only mill suitable for all kinds of grinding on the farm. Easiest kept in order, lasts a lifetime, large capacity, less power. Get our new book on Mills before you buy. It will pay you. NORDYKE & MARMON CO., Flour Mill Builders, 285 Day St., Indianapolis, Ind.

Don't Pay Three Profits If you are going to pay for a carriage why not pay the least you can for the best vehicle? Get all you can in material and workmanship—pay as little as you can for handling and "extras." You save the jobber's commission and the retailer's profit when you buy direct from the factory. You pay the cost of making with one moderate profit added. We are not agents, but manufacturers of buggies, carriages, surreys, phaetons, wagons, harness and horse accessories. Everything guaranteed. With our illustrated catalogue you can order easily and safely. If what you order does not suit, send it back and we will pay the freight both ways. First, get the catalogue. You are welcome to a copy. THE COLUMBUS CARRIAGE & HARNESS COMPANY, COLUMBUS, O.

Iron Age Crops From seed time to harvest, you will find use every day for the Iron Age Implements. The Iron Age Double Wheel Hoe weeds, plows and cultivates. Simple, strongest. Every ounce of "push" on the Iron Age Double Wheel Hoe goes direct to the work. No power is lost. It wins the battle with weeds and saves a hired man's wages. Like all the famous IRON AGE implements it has been perfected by 63 years of constant study and successful manufacture of farm and garden implements. Farmers without it cannot compete with those who use it. The handsome Iron Age Book for '99 describes them all. We will send it free. Distributing points conveniently located. Bateman Mfg. Co., Box 117, Greenloch, N.J.

SEND ONE DOLLAR CUT THIS AD OUT and send to live within 700 miles of Chicago, we will send you this TOP BUGGY by freight C.O.D. subject to examination. You can examine it at your freight depot, and if found PERFECTLY SATISFACTORY, EXACTLY AS REPRESENTED, EQUAL TO BUGGIES THAT RETAIL AT \$60.00 TO \$75.00 and the BRANDEST BARGAIN YOU EVER SAW, pay the freight against OUR SPECIAL PRICE, \$38.90, and freight charges, less the \$1.00 sent with order. WE MAKE THIS TOP BUGGY IN OUR OWN FACTORY IN CHICAGO, from better material than most makers put in \$75.00 buggies. Latest style for 1899. Body, 24x54 from the Best Seasoned Wood. Gear, Best That Money Can Build. End Springs, as illustrated, or Brewster Side Bar. Wheels, High Grade Screwed Rim Sarven's Patent. Top, 24 ounce, Daily Rubber Heavily lined, full side and back curtains. Painting, guaranteed equal to any \$150.00 buggy work. Body black; Gear, dark green or red. Upholstering, heavy green French body cloth or Evan's Leather. \$38.90 IS OUR SPECIAL PRICE for top buggy complete, wide or narrow track, full length side and back curtains, storm apron, carpet, trench, and shafts. GUARANTEED TWO YEARS or less a lifetime. For Buggies at \$15.95 and up, WRITE FOR FREE BUGGY CATALOGUE. YOU CAN MAKE \$500.00 This Year Selling OUR \$38.90 BUGGIES. ORDER ONE TO DAY, YOU CAN SELL IT FOR \$60.00. DON'T DELAY. Address, SEARS, ROEBUCK & CO. (Inc.), CHICAGO, ILL.

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CYCLONE FENCE MACHINE Builds 100 RODS of strongest fence a day, 27 to 60 inches high, 7 to 12 cables. [Easy to Build and Cheap.] Thousands in use. Fence material at wholesale prices. Write for catalogue. CYCLONE FENCE CO., HOLLY, MICH. Branches: Waukegan, Ill., Cleveland, Ohio, Toronto, Can., Melbourne, Australia. LUMP JAW NOW CURABLE. Surely, quickly and for good. Fleming Bros., Chemists, Union Stock Yards, Chicago, have a remedy that quickly cures the most obstinate cases. Supplied by mail under a positive guarantee. Price, \$3.00. Valuable information and full particulars FREE.



MARKET REPORTS.

Kansas City Live Stock. Kansas City, March 20.—Cattle—Receipts since Saturday, 4,380; calves, 110; shipped Saturday, cattle, 283; calves, 255. The market was steady to strong—Texans steady to 10c higher. The following were representative sales:

DRESSED BEEF AND SHIPPING STEERS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

WESTERN STEERS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

NATIVE HEIFERS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

NATIVE COWS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

NATIVE FEEDERS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

NATIVE STOCKERS. Table with columns: No., Ave. Price, No., Ave. Price. Rows include various lot numbers and prices.

Hogs—Receipts since Saturday, 5,81; shipped Saturday, 403. The market was weak to 5c lower. The following are representative sales:

Table with columns: No., Price, No., Price. Rows include various lot numbers and prices for hogs.

Sheep—Receipts since Saturday, 4,508; shipped Saturday, none. The market was steady. The following are representative sales:

Table with columns: No., Price, No., Price. Rows include various lot numbers and prices for sheep.

St. Louis Live Stock. St. Louis, March 20.—Cattle—Receipts 3,000; market steady to easy; native shipping and export steers, \$4.60@4.75; light and dressed beef and butcher steers, \$3.15 @ 5.15; stockers and feeders, 2.50@5.00; cows and heifers, 2.00@4.75; Texas and Indian steers, \$2.40@5.00; cows and heifers, 2.40@3.75.

Hogs—Receipts, 8,000; market 5c lower; pigs and lights, 3.65@3.75 packers, 3.70 @ 3.90; butchers, 3.80@3.87 1/2.

Sheep—Receipts, 4,000; market strong; native muttons, 4.00@4.55; lambs, \$4.50@5.25; Texas sheep, 4.10@4.25.

Chicago Live Stock. Chicago, March 21.—Cattle—Receipts, 17,500; market steady to lower; beefs, \$4.10@5.80; cows and heifers, \$1.75@4.65; Texas steers, \$3.50@4.60; stockers and feeders, \$3.00@4.70.

Hogs—Receipts, 39,000; market fairly active, lower, mixed and butchers, \$3.60@3.87 1/2; heavy, \$3.55@3.87 1/2; light, \$3.55@3.80.

Sheep—Receipts, 25,000; sheep easy, lambs lower; natives, 3.00@4.70; lambs, \$4.00@5.50.

Chicago Grain and Provisions. Table with columns: March 20, Opened, High'st, Low'st, Closing. Rows include Wheat, Corn, Oats, Pork, Lard, Ribs.

Kansas City Grain. Kansas City, March 20.—Wheat—Receipts here to-day were 70 cars; a week ago, 24 cars; 1 year ago, 77 cars. Sales by sample on track Hard, No. 2, 62 1/2@64; No. 3 hard, 69 1/2@71; No. 4 hard, 56 1/2@60 1/2; rejected hard, 56c. Soft No. 2 red, nominally 73@74c; No. 3 red, 72c; No. 4 red, scoured damaged, 60c. Spring, No. 2 nominally, 60@62c; No. 3 spring, 57@61 1/2c.

Corn—Receipts here to-day were 52 cars; a week ago, 32 cars; a year ago, 89 cars. Sales by sample on track: Mixed, No. 2, 32@33 1/2c; No. 3 mixed, 32c; No. 4 mixed, nominally 31 1/2c; no grade, nominally 31c. White, No. 2, 34 1/2@34 3/4c; No. 3 white, 33 1/2c; No. 4 white, nominally 32c.

Oats—Receipts here to-day were 10 cars; a week ago, 9 cars; a year ago, 28 cars. Sales by sample on track: Mixed, No. 2, nominally 27 1/2c; No. 3 mixed, nominally 27c; No. 4 mixed, nominally 26c. White, No. 2, 28 1/2@29 1/2c; No. 3 white, 28 1/2c; No. 4 white, nominally 27c.

Rye—No. 2, 53 1/2@54c; No. 3, 53c; No. 4, nominally 52c.

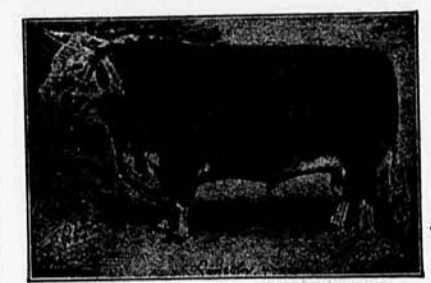
Hay—Receipts here to-day were 41 cars; a week ago, 23 cars; a year ago, 43 cars. Quotations are: Choice prairie, \$7.00@7.25; No. 1, \$6.25@6.75. Timothy, choice, \$7.00@7.50. Clover, pure, \$6.50@7.00. Alfalfa, \$7.00@7.50.

Chicago Cash Grain. Chicago, March 20.—Wheat—Cash, No. 2 red, 68@70c; No. 3 red, 65@68c; No. 2 hard, 63@64c; No. 3 hard, 61@63c; No. 1 northern spring, 67@69c; No. 2 northern spring, 66@67 1/2c; No. 1 northern spring, 67@67 1/2c.

St. Louis Cash Grain. St. Louis, March 20.—Wheat—Cash, No. 2 red, elevator, 70c; track, 71@71 1/2c; No. 2 hard, 64 1/2@65c. Corn—Cash, No. 2, 33c; track, 34@34 1/2c. Oats—Cash, No. 2, 27 1/2c; track, 28c; No. 1 white, 30@30 1/2c.

Kansas City Produce. Kansas City, March 20.—Eggs—Strictly fresh, 11c per doz. Butter—Extra fancy separator, 19c; firsts, 17c; seconds, 14c; dairy fancy, 15c; country roll, 11 1/2@12c; store packed, 10c; packing stock, 9c. Poultry—Hens, 8c; springs, 8 1/2c; old roosters, 15c each; young roosters, 20c; ducks, 7 1/2c; geese, 5@6c; turkeys, hens, 9 1/2c; young toms, 8 1/2c; old toms, 8c; pigeons, 50c per doz. Vegetables—Navy beans, \$1.35 per bu. Lima beans, 4 1/2c per lb. Onions, red globe, \$1.00 per bu.; white globe, \$1.25 per bu. Beets, home grown, 45c per bu. Turnips, home grown, 15@25c per bu. Lettuce, home grown, \$1.50 per bu. Pieplant, 60c per doz bunches. Potatoes—Mixed varieties, 70@75c.

SPRING VALLEY HEREFORDS. Lincoln 47095 by Beau Real and Klondike 42001, at the head of the herd. Young stock of fine quality and extra breeding for sale. Personal inspection invited. ALBERT DILLON, HOPE, KANS.



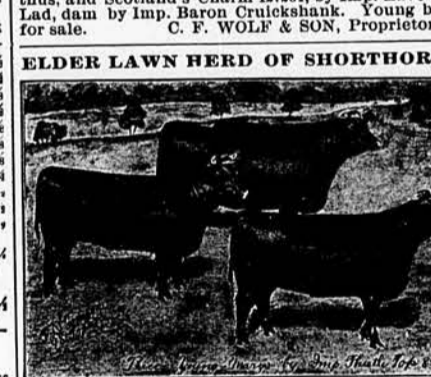
CEDAR HILL FARM. Golden Knight 108086 by Craven Knight, out of Norton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysle 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale; also offer a choice lot of grade bull and heifer Shorthorn spring calves. C. W. TAYLOR, PEARL, DICKINSON CO., KANS.



GLENDALE SHORTHORNS, OTTAWA, KANS. Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 119370, by Ambassador, dam Galanthus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale. C. F. WOLF & SON, PROPRIETORS.



ELDER LAWN HERD OF SHORTHORNS. THE HARRIS-BRED BULL, GALLANT KNIGHT 124466, a son of Gallahad, out of 8th Linwood Golden Drop, heads herd. Females by the Cruickshank bulls, Imp. Thistle Top 83876, Earl of Gloster 74523, etc. Size, color, constitution and feeding qualities the standard. A few good cows for sale now bred to Gallant Knight. Address [ ] T. K. TOMSON & SONS, DOVER, KANS.



SHORTHORN CATTLE. I have combined with my herd the Chambers Shorthorns and have the very best blood lines of the Bates and Cruickshank families. Herd headed by Baron Flower 114852 and Kirklevington Duke of Shannon 1111 12604. The Cruickshank Ambassador 110811 lately in service. Best of shipping facilities on the A. T. & S. F. and two branches of the Missouri Pacific Railways. Parties met by appointment. B. W. GOWDY, GARNETT, KANS.



THE AMERICAN GALLOWAY BREEDERS' ASSOCIATION

Has just issued an interesting pamphlet containing some well-written articles, which will be of interest to every stockman. They are for free distribution and you can get a copy by writing to FRANK B. HEARNE, Secretary, Independence, Mo.

R. S. COOK, WICHITA, KAS., Poland-China Swine BREEDER OF

The Prize-winning Herd of the Great West. Seven prizes at the World's Fair, eleven firsts at the Kansas District fair, 1898; twelve firsts at Kansas State fair, 1894; ten first and seven second at Kansas State fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 2841, Black Joe 2803, World Beater and King Hadley. For Sale, an extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra large, richly-bred sows. Inspection or correspondence invited.

Higgins' Hope Herd Registered Poland-China Hogs.

I am now offering a Choice Lot of Glts and Sows bred to my Herd Boar, Eberley's Model 20854. If you are looking for the right kind, drop me a line and get my list before buying.

J. W. Higgins, Jr., Hope, Kans.

VALLEY GROVE SHORT-HORNS.

THE SCOTCH BRED BULLS Lord Mayor 112727 and Laird of Linwood 127149 HEAD OF THE HERD.



LORD MAYOR was by the Baron Victor bull Baron Lavender 2d, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale. Address T. P. BABST, PROP., DOVER, SHAWNEE CO., KAS.

DON'T BE A— MIGHT HAVE BEEN,

But buy some Good Young Breeding Stock now—while prices are reasonable and opportunities great. For 25 Years the Leading Western Breeder of Percheron and Coach Horses.

I have now the finest collection of young Home-Bred Stallions and Mares ever owned in the State. Correspondence solicited. Visitors welcome. HENRY AVERY, WAKEFIELD, KANSAS.

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Room 220, Stock Yards Exchange Building, KANSAS CITY, MO., Have for sale at all times, singly or in car lots... Registered Herefords and Short-horns. Cross-bred Hereford Short-horns and grades of other breeds. Bulls and females of all ages. Stock on Sale at Stock Yards Sale Barn, Also at Farm Adjoining City.

N. B.—We have secured the services of John Gosling, well and favorably known as a practical and expert judge of beef cattle, who will in the future assist us in this branch of our business.

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Are the Finest Equipped, Most Modern in Construction and afford the Best Facilities for the handling of Live Stock of any in the World. The Kansas City Market, owing to its Central Location, its Immense Railroad System and its Financial Resources, offers greater advantages than any other. It is the Largest Stocker and Feeder Market in the World, while buyers for the great packing houses and export trade make Kansas City a market second to no other for every class of live stock.

Table with columns: Official Receipts for 1898, Sold in Kansas City 1898, Cattle and Calves, Hogs, Sheep. Rows show 1,846,233 Cattle and Calves, 3,672,909 Hogs, 980,305 Sheep for 1898; and 1,757,163 Cattle and Calves, 3,596,828 Hogs, 815,580 Sheep for 1898.

C. F. MORSE, E. E. RICHARDSON, H. P. CHILD, EUGENE RUST Vice Pres. and Gen. Mgr. Secy. and Treas. Asst. Gen. Mgr. Traffic Manager

THE SHAWNEE FIRE INSURANCE COMPANY,

Insures Against Fire, Lightning, Windstorms, Cyclones and Tornadoes. The only company in Kansas with a paid-up capital of \$100,000. It writes more business in Kansas than any other company. It has paid losses amounting to \$493,266.63. Call on your home agent or write the company



## The Poultry Yard

Conducted by C. B. TUTTLE, Excelstor Farm, Topeka, Kans., to whom all inquiries should be addressed. We cordially invite our readers to consult us on any point pertaining to the poultry industry on which they may desire fuller information, especially as to the diseases and their symptoms which poultry is heir to, and thus assist in making this one of the most interesting and beneficial departments of the KANSAS FARMER. All replies through this column are free. In writing be as explicit as possible, and if in regard to diseases, give symptoms in full, treatment, if any, to date, manner of caring for the flock, etc. Full name and postoffice address must be given in each instance to secure recognition.

### BRAHMAS.

The leading variety of the Asiatic class is the Light Brahma. This fowl has a history that would fill pages were it recorded. They are the fowls which caused the "hen fever" of the 50's, about which so much has been written in later years. Their early history is a matter of controversy, the best authorities differing as to their origin.

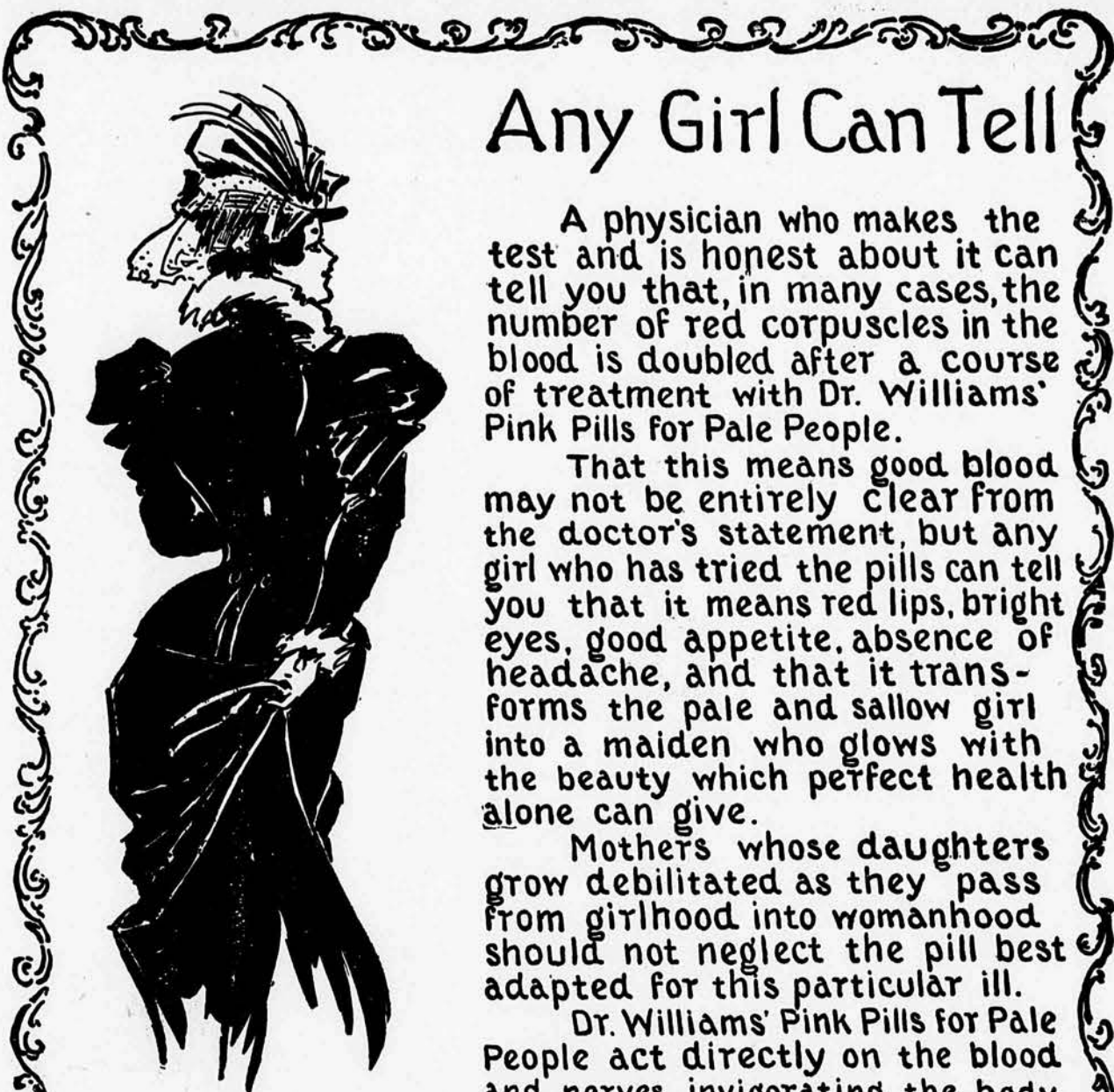
They were first known as the "Brahma Pootras," "Gray Shanghais," "Chittagongs," "Cochin Chinas," and what not. The early breeder named them according to his fancy for high-sounding and sensational names to sell his stock. Fabulous prices were paid for them when the craze for fine poultry was at its height, in the early days of the last half of the present century. The standard of the present Brahma fowl was fixed in 1869, and no deviation from the type adopted then has been made. It has stood high in popular favor since then without abatement. The vast number of breeders who are raising them fully attest their worth as a practical bird to the industry. The Brahma is a characteristic fowl; it is unlike other varieties, and it should not be confounded in shape with the Cochin.

The average Light Brahma male is in height 26 inches; back from the ground, 16 inches; keel from the ground, 8 inches; length of body, front of breast to rear of fluff, 14 inches; height of tail, a trifle over 21 inches; saddle hangers to rear of fluff, 2 1/4 inches; eye, from tip of beak, 2 1-6 inches; length of head and beak, 3 1/2 inches; breast to rear of a drop line from point of beak, 3/4 inch to 1 1/4 inches. As specimens depart from this proportion they become awkward and valueless as exhibition stock, and often also as egg-producers. In shape, oblong, with full, broad and round breast carried well forward. The fullness and oblong shape is typical of the Brahmans and is characteristic of prolific birds. The curves of neck and back are similar in shape to the outlines of an egg.

In plumage, the male is pure white, excepting hackle, tail and flights, which are black, and white striped with black. Any other color but white and black is against the standard-bred bird. The hackle is white, with a black stripe extending down the center of each feather and tapering to a point near the extremity. The tail feathers are black, and the sickles a glossy, greenish-black. The shanks are well feathered, with the feathering extending down the middle toe; the toe feathering may be white, or white sprinkled with black, pure white preferred. A small pea comb, broad crown, projects over the eyes; bright red face, wattles and ear-lobes are essential to a good head. The shanks and toes are bright yellow.

The Brahma female is much like the male in head qualities, having the broad crown, projecting well over the eyes, and small pea comb. The head of female should be masculine in appearance, indicating great control and will power. The head is white; hackle, white striped with black, as in male; cape, white and black, but is completely covered by hackle when the bird stands erect; tail, black, excepting the two highest main tail feathers, which may be edged with white; tail coverts, one or more rows distinctly covering a part of both sides of the main tail, two being preferable, are black edged with white.

The Light Brahma is a valuable bird for the farm. They have always been made to pay for their keep, and have seldom been set aside by any who have bred them. They are the largest of domestic poultry, and do as well in confinement in small runs as on free range. As layers, they will average from 12 to 13 dozen of eggs per year, and lay exceptionally well in winter. Their eggs are large, about seven to a pound, of a rich brown color and excellent flavor. For table purposes they are good. They do not mature as early as do the varieties of the American class, yet they are hardy, and can be raised with as much ease as any of the earlier-maturing varieties. As sitters and mothers they are fair. The standard weight of Light Brahma cocks is 12 pounds; hens, 9 1/2 pounds; cockerels, 10 pounds; pullets, 8 pounds.



## Any Girl Can Tell

A physician who makes the test and is honest about it can tell you that, in many cases, the number of red corpuscles in the blood is doubled after a course of treatment with Dr. Williams' Pink Pills for Pale People.

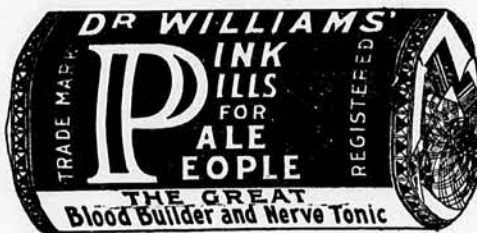
That this means good blood may not be entirely clear from the doctor's statement, but any girl who has tried the pills can tell you that it means red lips, bright eyes, good appetite, absence of headache, and that it transforms the pale and sallow girl into a maiden who glows with the beauty which perfect health alone can give.

Mothers whose daughters grow debilitated as they pass from girlhood into womanhood should not neglect the pill best adapted for this particular ill.

Dr. Williams' Pink Pills for Pale People act directly on the blood and nerves, invigorating the body, regulating the functions and restoring strength and health to the exhausted woman when every effort of the physician proves unavailing.

Frank B. Trout, of 103 Griswold Ave., Detroit, Mich., says: "At the age of fourteen we had to take our daughter from school on account of ill health. She weighed only 90 pounds, was pale and sallow and the doctors said she had anaemia. Finally we gave her Dr. Williams' Pink Pills for Pale People. When she had taken two boxes she was strong enough to leave her bed, and in less than six months was something like herself. To-day she is entirely cured, and is a big, strong, healthy girl, weighing 130 pounds, and has never had a sick day since."—Detroit Evening News.

The wrapper of the genuine package is printed in red ink on white paper and bears the full name.



Fifty cents per box at druggists or direct from Dr. Williams Medicine Co. Schenectady, N.Y. Book of cures free.

### Number of Ducks to One Drake.

Is one drake enough to run with a dozen ducks, and should they run with them all the time to have the eggs fertile? MRS. F. C. HOLCOMB.

Council Grove, Kans. Answer.—No; one drake is not enough for a dozen ducks. Better have three, and let drakes run with ducks all the time to insure fertility in the eggs. The usual rule among breeders is to allow one drake to every three or four ducks. After the breeding season is about over the number of drakes can be reduced.

### Eggs for Hatching

Instead of attempting to hatch chicks from eggs laid by all the hens of the flock, the better plan, Farm and Home sensibly advises, is to select ten or fifteen of the best hens and mate them with one or two good males. Ten hens with one male is a fair proportion. It will be necessary to have some place where the selected hens can be separated from the other members of the flock, but this expense will be balanced by the reduced number of males. It is entirely unnecessary to keep and maintain males that are of no use, for the hens will lay just as many eggs without their presence as when the males are with them.

The large majority of those who raise

### HATCH YOUR CHICKENS

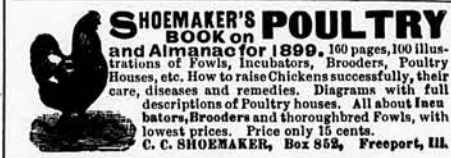
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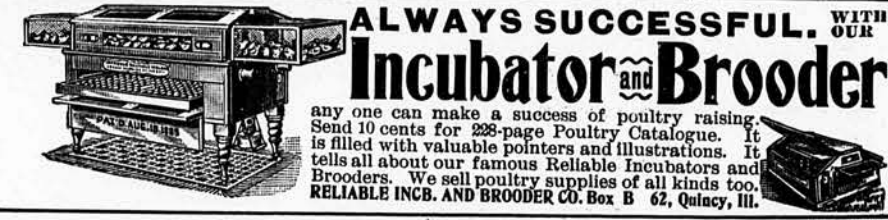


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icks by hatching from eggs taken from a general basket (in which all the eggs are placed when collected) cannot possibly improve their flocks, as they do not know which hens laid the eggs used for hatching. When a few hens are selected for the purpose of providing the pullets of next year, something will be known of the stock and what to expect of it, but when pullets are raised by using eggs from all manner of hens, much labor will be lost, owing to the large proportion of eggs that will be among the whole number hatched.

Some persons have difficulty in procuring a sufficient number of eggs for hatching unless they use eggs from all of the hens, as only a portion of the flock will lay during the cold weather.

This difficulty may be overcome by providing a place for storing the eggs until they are wanted for use. During the very warm days of summer fertile eggs rapidly become decomposed, but in the winter an egg can be kept for a month or six weeks placed in a box or on a rack and turned three times a week. The eggs should be kept in a cool (not cold) place, as it is important that they do not become frozen, for an egg will lose its vitality from extreme cold. About 40° is not too high. An egg freezes at 10° above zero, which is lower than the temperature required for water. The egg so kept will hatch if six weeks old, and in that time a large number can be secured, while a great portion will, of course, be much fresher near the time of using them.

**How to Hatch Chicks Under Hens Free From Lice.**

In one of the back numbers of the Southern Fancier we published a letter from Mr. L. S. McMullen, stating how he kept his sitting hens and little chicks free from lice and mites. Since that time his method has been adopted by a great many of our readers and with such success that we feel it our duty to again call attention to the matter.

Mr. McMullen says he experimented two years with various insecticides in search of a reliable remedy for the little red mites and the various species of the non body louse that infests the nests of sitting hens, but could find nothing effective till he tried camphor balls.

He says he has had hens leave the nest before the eggs were hatched, completely covered with these pests, and has taken off many broods of chicks when he would find a half dozen or more big white lice on their little heads, and this, too, after having dusted the hens and the nest well several times during the incubation with various kinds of insect powders.

The balls are perfectly harmless to the hen and chicks, and the hen with her brood of chicks will leave the nest absolutely free from lice.

Make your nest and put in your eggs, and at the same time place in the nest with the eggs one camphorated ball, which is sufficient for the entire incubation, and your hen and little chicks will leave the nest free from all kinds of vermin.

When you have placed the little ball in the nest, you need not bother any more. It will evaporate and get to be very small toward the latter part of the incubating; but never mind, it has done its work.

Mr. McMullen further states that since using the camphor ball he has not raised a single chick with scaly legs. It is a good idea to keep one of the balls in the nest where the hens lay as it keeps them from having scaly legs as well as keeping them free from vermin.

The camphorated ball is a little white ball, and can be had from any drug store.—Southern Fancier.

State of Ohio, City of Toledo, Lucas County, ss.

Frank J. Cheney makes oath that he is the senior partner of the firm of F. J. Cheney & Co., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of Catarrh that cannot be cured by the use of Hall's Catarrh Cure. FRANK J. CHENEY.

Sworn to before me and subscribed in my presence, this 6th day of December, A. D. 1886. A. W. GLEASON, Notary Public.


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Arrangements are being made for the erection of a tablet to the memory of Hadstone on the house in Rodney street, Liverpool, in which he was born. The work is being undertaken by the Historic Society of Lancaster and Cheshire, to whom the necessary permission has been granted by the possessor of the residence.

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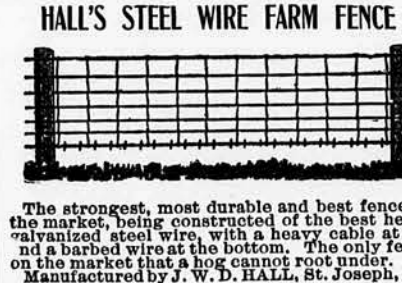


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 CAMBRIDGE LASS, the third prize winner at the Trans-Mississippi, will be in the sale with calf at side, besides others from my show herd and many more equally as good. There will be no culls or worn-out stuff and nothing over 5 years old. The cattle will be at South Omaha Sale Stables for inspection one week before the sale. All bids by mail or telegraph to the auctioneer, James W. Sparks, in our care will be honestly treated. Send for catalogue. TERMS—Six months at 8 per cent on approved note, or 4 per cent off for cash.  
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