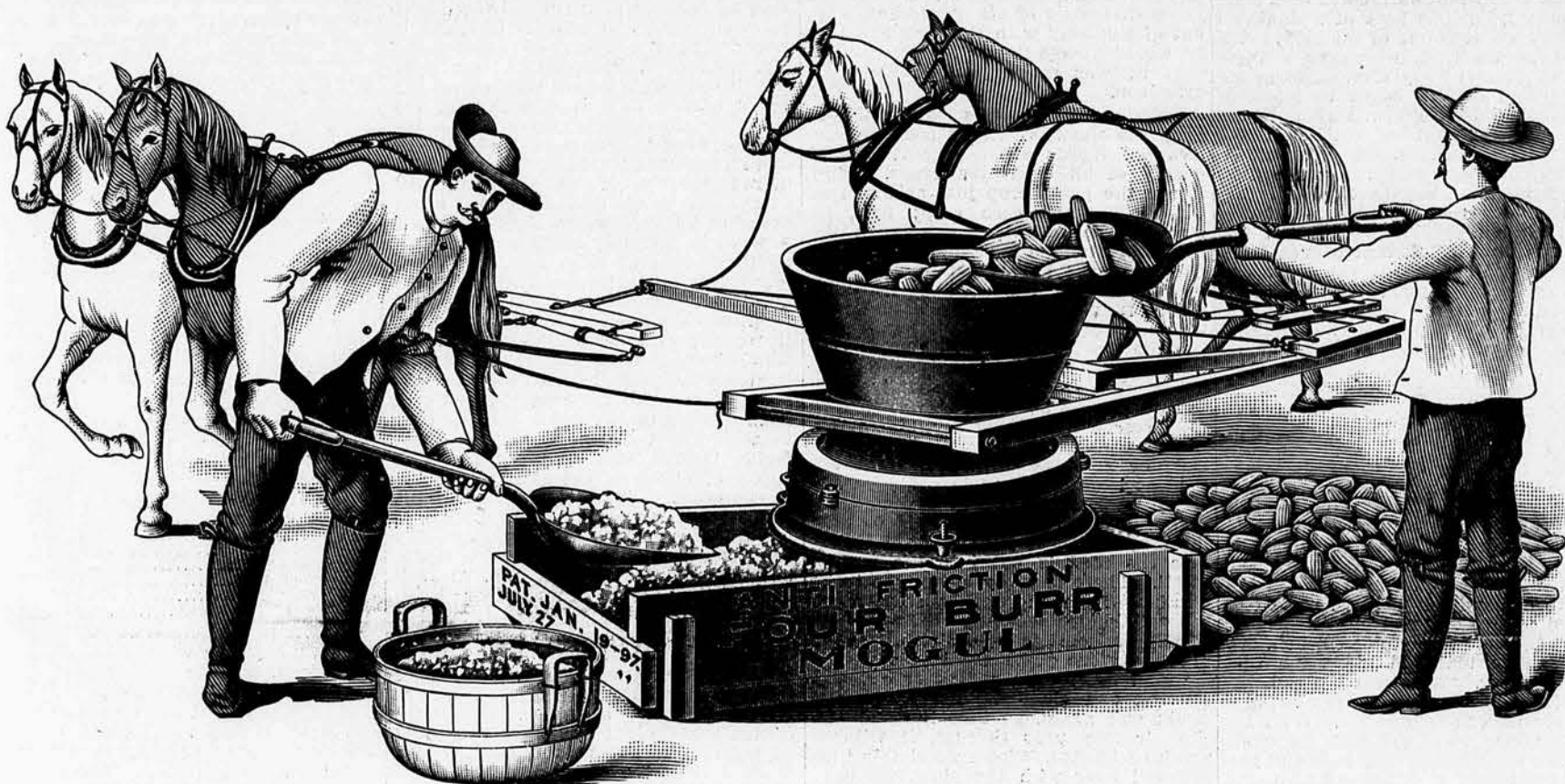


# KANSAS FARMER

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TOPEKA, KANSAS, THURSDAY, OCTOBER 26, 1899.

SIXTEEN TO TWENTY  
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MISSOURI'S BLACK CHIEF, the champion aged boar of Illinois State Fair, at head of herd. Inspection of Stock Solicited. Watch for announcement of my great sow sale.

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Pigs sired by Chief Tecumseh, Hadley I Know, and Lone Tree Chief. Fowls and eggs from famous Black Langshans. Farm five miles north and two west of city. Correspondence solicited.

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Thirty-five Serviceable Boars and 45 Gilts for ready sale at reasonable prices; quality, style, and breeding considered. Most of these hogs are by the splendid herd boar Black Chief 42357, he by Black Joe out of Betty Risk, and are out of such sows as B. nner's Pride (108706), Worldbeaten Beauty (9484), Black Bessie (104224), and Darkness Model (104868). Address HIRAM SMITH, Colwich, Kans.

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ONE PRICE. BLACK U. S.

FOR SALE—My herd boar, Sixteen to One 41627 O., sired by Welch's Black U. S. 33521 O., dam Nina One Price 81852 O., she by old One Price 18639 O. He is a good individual and sure breeder; no better bred boar anywhere. Two boars of spring farrow, sired by Priceless 30169 O. by One Price and out of Nellie One Price 81796 O. by One Price. Write for prices and description.

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Growthy, strong-boned pigs. Tecumseh, U. S., Model, and Darkness families. Herd boars, Moorish King 25513 O., Tecumseh I Am 21595, and Darkness U. S., by Darkness Model, a grandson of Klever's Model. Write or call.

A. O. NORTHRUP, Boyle, Jefferson Co., Kans.

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.

## THE WILKES QUALITY HERD OF POLAND-CHINA SWINE.

Thos. Symms, Prop., Hutchinson, Kas.

Herd boars, Darkness Quality and Reno Wilkes. For ready sale 45 very choice pigs out of Bessie Wilkes, Beauty Sedom, Chief I Know, Standard Wilkes, Ideal Black U. S. and Chief Tecumseh 2d sows. Farm one mile west of Hutchinson, near Star Salt works

## SUNNYSIDE HERD POLAND-CHINAS

Corwin, Black Bess, Black U. S., Sanders, and Short-stop Strains.

I have for the season's trade, about fifty head of pigs, sired by Sanders of Sunnyside, and Corwin Black Stop, at prices from \$10 and upwards, according to quality. Correspondence solicited.

M. L. SOMERS, Altoona, Kans.

## Dietrich & Spaulding, Franklin Co. Richmond, Kas.

We have some extra good Poland-China boars at prices to sell you. Two very fine yearlings, good enough to head any herd; breeding unsurpassed; good head and ears; good bone and feet; good back and heart girth. Some extra good spring boars. Write for prices if you need a boar, we guarantee them to be as represented.

## RIDGEVIEW FARM... OF BERKSHIRES

Buy your Berkshires from our winning herd and get your money's worth. Fine stock of either sex at reasonable prices. Breeding and prices furnished upon application.

MANWARING BROS., Laice, Kans.

### SWINE.

## DUROC-JERSEY HOGS—Registered Stock.

Send for catalogue of my Closing-out Sale, November 29, 1899.

J. M. STONEBRAKER, Panola, Ill.

RIVERDALE HERD of 10 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.

## "SHADY BROOK STOCK FARM"

Located four miles north of Topeka. Devoted exclusively to producing high-class

## POLAND-CHINAS.

Prices low. Write for them to H. W. CHENEY, Station A, Topeka, Kansas.

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200 head. Twenty good spring boars, good bone, large and growthy. Also twenty "Fall of '98" boars; a few very fancy. Thirty yearling sows and spring gilts, bred or unbred; good ones. We can furnish males and females, not related, of any of the fashionable and prize-winning strains.

WAIT & EAST, Altoona, Wilson Co., Kans.

## The Blood of Chief Tecumseh 2d

Is found perhaps more strongly in

## MEADOW BROOK POLAND-CHINAS

Than in any other herd of eastern Kansas. A thoroughly good lot of young boars for sale; also gilts and bred sows.

J. R. KILLOUGH & SONS, Farm one mile north of Ottawa, Kans.

## R. S. COOK, Wichita, Kans., BREEDER OF.....

## POLAND-CHINA SWINE.

The Prize-Winning Herd of the Great West. Seven prizes at the World's Fair; eleven firsts at the Kansas District Fair, 1893; twelve firsts at Kansas State Fair, 1894; ten firsts and seven seconds at Kansas State Fair, 1895. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 23441, Black Joe 23603, 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.



## Agricultural Matters.

### SEEDING TO GRASS.

H. W. Collingwood, before the "New York Farmers."

There is one thing about grass that we must not forget. It is and ever has been, and always will be, the foundation of agriculture—and hence the foundation of society. It comes creeping into waste places, healing scars on nature's face, holding the earth together and conserving fertility. Truly, "all flesh is grass," for grass is nature's great middleman, and through its slender stems and leaves pass and repass the forms of life that are built up and broken down in endless variety. How foolish is the proud man whose very nose goes up into the air at the sight of common things. The scientist who investigates the possible pedigree of that nose might quickly take his pride away. The very bone of that proud nose may have been nourished by a beefsteak. The animal that made the beefsteak obtained its strength from the grass, and the grass in turn may have grown and developed through the bone and muscle that form the most ridiculous part of a donkey's ears. To me it is one of the most beautiful thoughts that, whenever a vegetable or animal body dies, at once minute forms of life begin to make it available so that grass may preserve the elements contained in it, and send them moving on again and again, through countless higher forms of life. Thus it is that I say that grass is nature's great middleman, standing between animal and vegetable life, the great connecting link that prevents the loss of useful matter. Grass is nature's great middleman, and all middlemen are alike in one thing.

I learned when a little boy something of the true character of the middleman. In a little Massachusetts village, where I lived, was a country cider-mill. The owner of the cider-mill was a shrewd Yankee; and he told three of us boys that, if we would pick up the seedling apples under the trees along the road, and put them into the hopper, we could have all the cider we could suck through a straw. That was inducement enough to make any little country boy work like a slave. We picked up the apples; but when we came to demand our pay we were told that we could not go inside of the mill to suck the cider. You don't beat a boy with Yankee blood in his veins that way, however. We went around the side of the building and there found a knot-hole near the cider vat. With the longest straw we could find, we could push this through the knot-hole and just touch the cider; and that was all that was necessary for a growing boy. The owner of the mill, however, came around and caught us at it, and, with half a dozen old boards and two rails, he built a fence around that knot-hole, so that we could not work our straw game. But what were Yankee brains made for if not to overcome a little obstacle of that kind? The smallest boy dug down under the fence like a woodchuck and got up close to that knot-hole with two straws. One he ran through to the cider vat, with the end in one side of his mouth, and then he put another on the other side of his mouth and ran it out through the crack between two boards. Then it was push and pull, and pull and push, with the other boys on the outside taking advantage of this suction cider pump. I learned then, and I have been learning ever since, that with the average middleman placed in this situation his first ambition is to fill himself up with cider and after that he loses all interest in his job and refuses to send it along. We had to take that boy down to the spring and make him drink water until it ran out of his mouth before we could trust him inside at the end of that straw, and then we took him out and ran him around the cider-mill, that he, too, might enjoy his share of the cider.

The great object of hay culture is: to induce the grass to absorb all the moisture it can, for it can not grow unless the moisture be present. Then the object is to drive the moisture out of the grass as quickly as we possibly can. As we all know common grass grows wild and produces a fair crop without cultivation; hence it is sometimes argued that it will not respond to cultivation or manuring, and the farmer crowds his manure and tillage upon some other crop, like corn or potatoes, leaving grass to pick up what it can of the leavings and develop as best it may. It is one of the wisest provisions of nature that grass will grow and thrive even when neglected; yet this very toughness of habit makes it all the more valuable when it may take ad-

vantage of the culture and the food which it deserves. Many farmers fail for the reason that they look upon grass as able to take care of itself, without help. The truth is that there is probably no crop in creation that will so surely show its appreciation of great care.

The three most common failures in grass culture are:

First—Lack of preparation of the soil before seeding.

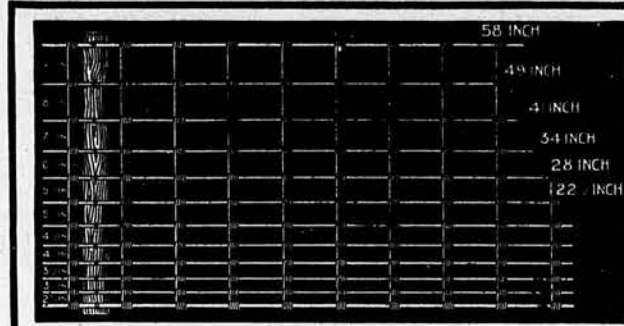
Second—Seeding with a grain crop, and not using enough seed.

Third—The use of stable manure as a mulch and fertilizer.

I am aware that these statements are contrary to the usages of many good farmers. There are still many farmers who till the soil just exactly as their grandfathers did. I have heard men tell me that grandfather was a good Christian man, a deacon of the church, thoroughly upright in all his dealings; consequently, whatever he did, was right—so that there is no use in some young sprout of an agricultural college graduate coming up to tell grandfather that he did not know how to take care of the soil. Many of us, however, believe that if this wise and good grandfather were alive to-day he would be enough of a business man to realize and know that some of his old methods were out of harmony with the age, and that he would change them at once, showing that he was really younger than his grandson.

With corn or potatoes we are able to keep the weeds down by constant cultivation. Weeds are the great natural enemy of all cultivated crops. They injure the grass crop just as much as they injure the corn crop; first, by stealing the fertility away from the useful plants, and next, by injuring the quality of the hay, when they are cut with the grass. We can keep the cultivators running among the corn or potatoes through the season, and thus kill the weeds. Not so with the grass. For when that is once seeded, we can not break it up again, successfully, without destroying it; nor can we successfully reseed it, without breaking it up. Let us consider that in three years of corn or potatoes we would work the land at least 15 times in ordinary cultivation. Now, the only way to cultivate the grass crop which is to hold the crop for three years is to do it before the seed is put into the ground at all. There is every advantage to be obtained from thoroughly stirring up the soil before seeding to grass. I think the old plan of plowing the ground before grass seeding is wrong. I would rather use a disk or cutaway harrow, and chop and turn the soil again and again, so that the sun and the air may pass through it without much resistance. Where we simply turn the soil over with the plow, we bury weed seed, grass, trash, and everything else, out of sight. It makes a beautiful job when fully harrowed down; but, though lost to sight, the weed seed are dear to our pocketbook. They are simply put out of sight, and it is only a question of months or years before they will come to the front again and largely take possession of the ground. The disk or cutaway harrow, instead of covering the grass and weeds out of sight, throws them to the surface, which is just where they ought to be if you expect to kill them. My judgment is that time would be well spent in working an average piece of ground at least 15 times with a disk or cutaway before the seed is put in, and I would prefer to harrow five or six times more with the light harrow, after the seed had been scattered.

There are two chief objections to the plan of seeding grass with grain. I know that many people say that the grass needs a nurse crop. Possibly that is true. I regard rye or wheat put in with grass a curse rather than a nurse. We are apt to consider the ground properly fitted when it is in suitable condition for wheat or rye. In other words, we put in two crops together. Much like the old herders of the western ranches, we try to feed cattle and sheep on the same ranch. The comparatively large seed of the grain will thrive and grow in soil far too coarse for the little grass seed. Should there be a dry fall, the quick-growing grain plants will steal all the moisture and leave the little grass plants to struggle along as best they can. Western ranchmen understand that sheep will crop the grass so close that the cattle can not bite it off. Here, the larger wheat plant will, under certain conditions, crowd out the weaker grass plant. At the end of the first year grain plants die out and each leaves a bare spot, nearly as large as, or larger than, the palm of one's hand. No valuable grass grows on these bare spaces; and the result is that nearly half the field is unoccupied, except by weeds or useless plants. Darwin found



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A true friend every day—every season—the one absolutely satisfactory fence—

### THE AMERICAN FIELD AND HOG FENCE,

made of large, strong wires, absolutely immovable, thoroughly galvanized and nicely woven. A genuine money saving fence. Sold by dealers everywhere. If you can't find it, write direct to us for catalogue.

AMERICAN STEEL & WIRE CO., Chicago or New York.

357 little weeds growing in a meadow space of three by two feet. And these weeds come crowding in where the wheat plants have died out, especially when the ground was not properly fitted before seeding. What would be thought of a corn- or potato-grower who left half the space of the field to such crops, with only weeds to come in and fill its place? I believe in a very heavy seeding of grass seed. Mr. George M. Clarke, of Connecticut, who has, I think, grown the largest hay crops of any one in this part of the country, after thoroughly fitting the ground, used 14 quarts each of timothy and redtop seed per acre, and six quarts of red clover seed. Darwin found that of the 357 weeds that grew in a space of ground three by two feet, 295 died. A weed is naturally much tougher than plants of timothy or redtop, and therefore we must see the necessity of heavy seeding in order to start the entire field in grass. We must obtain a thick stand if we expect a heavy yield of grass. The object of using the redtop is that it grows successfully in the spaces unoccupied by the timothy. It will add from one ton to one and a half per acre to the weight of grass, without interfering in the least with timothy. The object of clover is not so much to add to the grass yield as to aid the ground. This clover, as we all know, strengthens the ground by obtaining a quantity of nitrogen from the air. Its roots run down deep into the soil, and, as they decay, they leave tunnels or holes through which the roots of the other grasses may work lower than they otherwise would. I object to the use of stable manure on grass, because I think it kills out many plants where it lies in thick hard clumps. Our older farmers recognized this when they used to send boys out in the spring with mallets to strike and scatter the hard clumps of manure that were left in pasturing the hay field. This sort of work gave us about as good exercise as the modern game of golf, and was probably as productive of practical results. The manure also brings too many weed seeds into the soil. In fact, ordinary stable manure contains more weed seed than anything else we can put on the land. I have heard farmers argue that because stable manure is largely made of grass, therefore it follows that it is by far the best thing with which to grow more grass. This may be upon the principle followed by the woman who fed her husband on bird-seed tea so that he might become a better singer. It is the same principle, too, that is followed by the cat that ate up the canary, so that it might improve its voice. My opinion is that the very best food for grass lands is contained in chemical fertilizer. I would always use stable manure on crops like corn or potatoes, that are to be hoed or cultivated, because in this way we can more thoroughly distribute the stable manure, and also keep down the weeds. One advantage of chemical fertilizers on grass is that they are easily distributed, so that each grass plant will receive its little share. The grass is required to make its growth in a remarkably short time, and it must have its food soluble and close at hand. I remember once hearing of a lame Indian agent who went out to the reservation to feed a lot of wild Indians. He found that whenever he turned a beef steer into a ten-acre lot, with an Indian, he had done all that was required of him. The Indian would chase the steer down and enjoy the fun of doing so, and, in a shorter time than I like to tell, the steer would be turned into Indian. With the lame agent, however, it was different. He could not get about and chase his food, so that it had to be brought up close to him, within reach of his hands. Reasoning in this way, it seems to be most desirable to let long-rooted and long-growing crops like corn and potatoes take care of our stable manure,

while the short-rooted and quick-growing crops are to be fed on our soluble fertilizers.

### The Development of the Potato.

The Vermont Experiment Station has made observations for some years upon the time and rate of development of the potato tuber. It is just bringing the investigations of the present season to a close, and although the full results are not yet obtainable, their general teaching is plain enough.

The plan in this work has been to plant about the middle of May vigorous late potatoes, White Star and Delaware being the varieties chosen. These are sprayed carefully to protect them fully against insects and blight. Digging is begun August first and continued upon adjacent plots at intervals of ten days through the remainder of the season. In this way the rate of tuber development for each ten-day period during August and September is determined.

The results are surprising and of much practical significance. The results thus far secured this year averaged with those of two previous years are given below. These figures show the approximate dates of digging and yields to the acre of marketable potatoes for the three seasons:

August 2 .....	65 bushels
August 12 .....	103 bushels
August 22 .....	148 bushels
September 2 .....	222 bushels
September 12 .....	240 bushels
September 22 .....	283 bushels
October 1 .....	301 bushels

Of course the details of such development vary greatly with soil and climatic conditions, but the main features have been similar in all cases. The most rapid development has occurred during the last two weeks of August, when the surprising average growth of seven bushels a day is shown. The most important fact, however, is the continued growth during September. One-half of the total crop has been produced in all of these experimental fields after August 24, and nearly one-third of it on the average during September. It must be borne in mind that all these plants were sprayed with Bordeaux-Paris-green mixture and thus kept in vigorous growth. Adjoining plots not sprayed began dying in August and in some cases were entirely dead early in September, whereas the sprayed plants remained comparatively vigorous until cut down by the frost.

The great importance of protecting the plants so as to secure their full development is evident. It has amounted for several years past to an average gain of over 100 bushels an acre in the total yield of marketable potatoes.

### TO CURE LA GRIFFE IN TWO DAYS

Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. E. W. Grove's signature is on each box. 25 cents.

"Well, gentlemen," remarked the president of the club, "motions are in order. It has been suggested that we have a banquet. What shall be done?" "Mr. President," spoke up the man-who-was-seldom-heard-from, "I move we dispose of it by laying it on the table." The motion was carried.—Philadelphia North American.

### To Clean Straw Hats.

A nice straw or leghorn hat may be cleaned at home, and made to look like new. Fill a pail half full of warm suds—a tablespoonful of Gold Dust Washing Powder will make the right kind of suds and whiten the straw. Immerse the straw, moving it up and down until every fiber is wet; then lift it from the water, lay it upon a board or table, and brush it with a stiff brush thoroughly. After all the soil is removed, rinse in clean warm water; let it drip a few moments, then iron it, with a thin cloth between; press the crown over a bowl or pail upside down, ironing on the wrong side to make it stiffer.



## The Stock Interest.

### THOROUGHbred STOCK SALES.

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

OCTOBER 28—E. E. Axline, Poland-Chinas, Oak Grove, Mo.  
NOVEMBER 1-2—W. T. Clay and T. J. Young, Short-horns, Kansas City, Mo.  
NOVEMBER 16—W. F. Harned, Shorthorns, Vermont, Mo.  
NOVEMBER 22—Geo. Allen, Shropshire sheep, Allerton, Ill.  
DECEMBER 6-7—Armour, Funkhouser, Sparks, Herefords, Kansas City, Mo.

### BREEDING, REARING AND TRAINING HORSES.

W. B. Dickerman, before the "New York Farmers."

At the present time, when these sewing-machine companies are filling the street with a class of vehicles that are called automobiles, etc., there does not seem to be much use in breeding or in even talking about the horse. The old enthusiasm with which we used to discuss this magnificent quadruped seems to have died out. We all want to buy a few shares of stock in one of these new companies. Still, I stick to the horse and intend to continue to do so. I have reached the age when I think they will do me as long as I live, if I can only breed those that suit me for driving.

What the mother is to the man, the dam is to the horse; and at the very outset I shall speak of the brood mare. There is no use in attempting to breed fine horses from scrubs. If you wish to breed colts that will satisfy you when they are small as well as when you come to drive them, you must select a mare of the kind you want to own. Now, how do we select such a mare? I think breeders are very indifferent in the selection of those they put in their studs. They buy a mare here and another there because they are recommended on account of certain blood lines, without going to see them, without knowing anything of their conformation, without knowing anything of their qualities. If you want a good brood mare, go yourself and look her over. Have her led out, stand in front of her, see the contour of her head, see that she has nice, long, pointed, lively ears, bright, intelligent eyes, good nostrils, that she stands up proudly before you. Then step to her side and inspect her, beginning with her face. The line of it should be straight, perhaps indented a little in the muzzle. The Roman nose is certainly very objectionable, and very coarse and very ugly. It does not denote intelligence. Then look at the neck and see how it is placed in relation to the head. See that the throat is wide, giving the mare plenty of room to breathe; that the neck is long and fine and well set on the shoulders; that the shoulders themselves are not what are called muttany, but have the stamp of high breeding. Follow the shoulder along down to the elbow, and look at the forward legs carefully; see that they are flat and clean, that the joints are well placed and strong, and that the mare stands with her feet truly under her. She must not point her toes out or in. In the one case she would be a knee-banger and in the other case she would be a paddler. Then look at her body. See that she is deep through the heart; that her back is not too long and not too short; that it is not too hollow, and, on the other hand, that it is not a roach back. That is ugly. Underneath she should be long, from her forward legs to her hind legs. See that the coupling is strong; that the hips are smooth, the tail well set, not too low, like the old Canucks, not too high, so as to give a coarse appearance. You all know just what I mean. You have seen many of those that drop off behind. The appearance is certainly one of coarseness. It denotes ill-breeding. Now follow down the hind legs. See that the gaskins are strong, that the thighs are muscular, that the hock is clean, that the tendons are strong, that the leg is flat like a knife-blade. Have your mare led up and down; and if she shows animation, vitality, strength, courage, there is your brood mare, and that is the place to begin to raise the foal. When you have secured such a mare, no one would ever think of breeding her to a scrub stallion.

Now, if you want to breed a mare to a stallion that is really good, go and look at him well. Do not read the sporting newspapers. Do not read the advertisements of horses that pay \$500 a year for an inch of space. They are all written up for business. Look the horse over yourself. He must be as good as the brood mare. The same qualities that I have pointed out as necessary in the mare are absolutely essential in the sire. When you have mated two such animals your chances are good for getting a good foal. Of course, there is always this question of heredity that

is coming in, this harking back, as it is described by the writers upon the horse. You may get an animal that resembles an ancestor three or four generations back. A mare may produce one such. He may be a coarse, ungaily, ugly brute, and the following foal partake of her own appearance and that of the sire. I have known such a case in my own experience. But, after all, that is something that does not frequently happen. It does occasionally happen, however.

You have your foal now, and what are you going to do with him? I am not speaking of the rearing of a horse in Kentucky, or in the far West, but I am dealing with the climate as we have it here. Your mare and foal must be provided with the best pasturage you can give them, with running water, and of the purest kind. Do not allow the mare to drink water that has collected in a mud-hole. Do not give the mare water that you would not yourself drink. After the foal is 2 or 3 months old some additional food should be given to the mare. She should be brought up during the heat of the days. I am supposing now that the foal is dropped at the usual time, along in the spring. By the time it is 2 or 3 months old, the days are getting hot and the pasturage is possibly a little short. The mare then can be brought into the barn, put into a box stall and fed a small feed of oats, and the colt will in that way learn to eat oats with his dam, at a very early period. After he is 3 or 4 months old, it is a very good plan to have a pen, say for half a dozen foals, half as large as this room, with a bar high enough up for the foals to run under without injuring themselves, and low enough down so that the mares can not get under. Fill the box there with oats and let the colts run in and out at will. They will go into it perhaps a dozen times a day, and the more they eat, the better. It will not hurt them, provided they have plenty of exercise, plenty of fresh air, space to run in, and plenty of good water.

When the foal is 5 months old, it is time to separate him from his dam. He has learned to eat oats, by this time, like an old horse. He can be taken away from his mother. He will thrive just as well as he did before. The foals after they are taken off, after they have learned to take grain in that way, go right on, without any falling off whatever.

We have now reached the stage in the development of the foal, when we have to look at something beside the growth—the halter breaking: for he must be halter broken by this time. We have also to look after his feet. I suppose more horses are ruined by the lack of care of the feet when they are young than from almost any other cause. The pedal or cannon bones of the horse's foot must be properly adjusted at all times so that the weight will fall as nature designed it. If the toe is allowed to grow long, it turns the foot up, tilts the cannon bone back and brings a severe strain upon the tendon and the navicular bone. It is a very simple matter to obviate any difficulty of this sort, if once a month the foal's foot is trimmed to its natural position, and that course be steadily adhered to until the time comes to shoe him. When our foals are past yearlings—that is, in the autumn—we begin to break them. I remember, when I was a boy, seeing young horses being turned out in a lot with a breaking harness on them, and allowed to spend three or four hours in the effort to kick it off. That is the way to make ugly brutes. If you want to master a foal, teach him to understand that when he has straps on him he is on his good behavior. Put him in the box stall, put a bridle on him, put a girth around him, go slowly with him. When he gets accustomed to a few straps, put a crupper on him. Stand by him all the time. If he is afraid, pat him. He soon gets accustomed to all these things, and he is very quick to learn whether or not he is going to be hurt; in other words, whether the man who is doing this work is his friend or enemy. If he is treated with kindness, no matter how high tempered he may be he will very soon become docile. Then he can be taken out and led around with these straps on.

Lead him around for a little time, and then take him back into his box stall. Take the straps off and pat him and he finds out that he is not hurt. The next time it is an easy matter, and it is easier still after that.

Now, when he is accustomed to all the gear, drive him around with the reins. Keep that up until he is perfectly broken, until he will back and obey the words "Whoa," and "Go on," etc. Your colt is now ready to be put between the shafts, or, as some prefer, to be driven by the side of another horse. He is a broken horse. In a few

days he is safe for any one to drive. I do not claim to be a very expert horseman, and I am getting too old to get in behind horses that I think will pitch me out and break my neck; but I drive the yearlings at home, when I have time. When sleighing is good, I go out and take them either singly or in pairs, and there are no happier days in my life than when I can drive those little colts that are broken horses.

What I have said in regard to the breeding and rearing of the horse applies to every kind of horse. It applies to the thoroughbred, it applies to the trotter, it applies to the carriage horse—the selection of proper dams and proper sires, care in handling, care as to their feed, and the kindness with which they must be handled, in order that they may become tractable and safe for any one to use or drive. When it comes to the question of what is to be done with them after that, you all have various tastes. I see those here who like to get in behind trotters; and none go too fast for them. I see others here who like to get in behind beautiful carriage horses, horses that parade in the park, and are grand in appearance. There are others here who are fond of the thoroughbred, the most magnificent horse of all; and yet the only horse that has my affection is the American trotter.

### Shall We Have Cheap Beef Again in the United States?

Wm. Adams, Jeffersonville, Ind., in the Cincinnati Price Current.

The following are figures from the reports on agriculture, from Washington:

	Milk cows, number.	Value per head.	Other cattle, number.	Value per head.
1877.....	11,200,000	\$17,956,000	17,956,000	\$17,956,000
1880.....	12,027,000	23.27	21,231,000	16.10
1892.....	16,424,000	21.40	37,651,000	15.16
1899.....	15,960,000	29.66	27,994,000	22.79

The above figures should be of interest to all farmers and stock-raisers.

The fifteen years previous to 1892 our beef cattle more than doubled with an average of 14,000,000 cows to breed from and a declining price, with everything unfavorable for an increase in numbers.

Since 1892 our loss on beef cattle is 10,000,000, decreasing from 37,000,000 to 27,000,000, yet we had 16,000,000 of cows to breed from, and an increase in price of almost \$8 per head and everything favorable for an increase. This has happened under the management of 5,000,000 farmers, while the increase was made with 4,000,000 farmers. Our average annual loss since 1892 is within a fraction of the average gain of twelve years, from 1880 to 1892, being 1,260,000 cattle.

Thus, if we have exchanged an annual gain for annual loss of 1,260,000, it makes a difference of 2,520,000 in our annual progress on beef cattle. There seems to be no letting up on the alarming decline, as the last year was as much as the average seven years' loss, being 1,269,972.

Only Kansas and California escaped this seven-year shortage. Texas was the greatest loser; of the 10,000,000 loss, Texas lost 2,500,000, or 25 per cent of the whole. Even Cuba is heavily in the decreasing business. Of 860,000 in 1895, Cuba now has only 25,000 cattle. It seems that 30 per cent advance in price last year had no effect on the decrease.

Even if we are able only to arrest the decrease, in 1910 our population would be 90,000,000 and our beef cattle 27,000,000, we would have only 300 cattle for each 1,000 persons, against 559 in 1892. Should our population be 90,000,000 in 1910, we should have 50,000,000 of beef cattle to be in proportion to 1892.

The probabilities are that our population will reach 95,000,000 or 100,000,000 in 1910. Five years of a continued annual loss of 1,260,000 and we will be on a basis of France and Germany on cattle. We can offer no satisfactory theory for this annual loss of cattle. In our own State (Indiana) we have more acres of grass, an increase of price, and yet we have 349,000 less cattle than in 1890, while wheat and corn, with a declining price, have increased their average. Corn has increased 700,000 acres in Indiana since 1890.

From these statements we conclude that many years will elapse before beef cattle will be cheaper than now.

Our assessors' late bulletin of Clark County shows 348 less cattle on April 1, 1899, than on April 1, 1898. So it still goes on. Also on hogs of all kinds, 3,421 less than a year ago, or about 16 per cent of a loss.

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

Please mention Kansas Farmer when writing our advertisers.

## "You Never Miss the Water Till the Well Runs Dry."

So it is with health; we never realize its value until it is gone. When old time strength and vigor are wanting it is the best to look at once to the blood. Purify it by taking Hood's Sarsaparilla, and restored appetite, perfect digestion, steady nerves and even temper will prove that it is bringing back the glow of perfect health.

**Hood's Sarsaparilla**  
Never Disappoints

Hood's Pills cure liver ills; the non-irritating and only cathartic to take with Hood's Sarsaparilla.

### A View of European Farming.

A citizen of the United States who is familiar with their agricultural methods can not visit the farming region of western continental Europe without being impressed with the feeling that he is where toy farming is being done by children, the fields are so small. This is particularly true of Belgium, of southern Germany, and of France. They are all great agricultural regions. In the aggregate their productions are enormous, but fields everywhere suggest playing at farming so far as size is concerned; but when quality of farming is noticed then one is assured that master hands are at work. In Belgium a 10-acre farm is a big one, 5 acres a good one, and often an acre must support a family. Hence it is not uncommon to see a harvested wheat- or rye-field contained in one row of shocks only a few rods long. But what shocks they are for size, and astonishingly close together! One wonders if so much straw could have grown on so little land. Potato crops are so dense that at a little distance they look like a clover-field of unusual luxuriance. Every inch of land is cultivated, and little bare patches show where a crop has already been harvested and another one planted. It is needless to say that weeds have no abiding place here. The stubble of grain reveals no green thing, except it be the red clover used in the scheme of rotation that must be scrupulously practiced if the family of the owner is to live. No stock is seen at pasture, but the little stables under the same roofs that cover the human habitations, and the neatly piled heaps of manure outside show that stock is kept, and in the most economical manner possible, and that the manure is a treasure to be carefully guarded and skillfully used.

The homes and lives of these people are humble, and we do not want to see them duplicated in our country, and can not for many years to come, for Belgium, for instance, contains more than thirty times our population per square mile, yet the visitor to these fields and homes can not help thinking how much more luxurious the American farm-home might become if to the grand natural opportunities of the American farmer there be added some of the methods that the farmers of Belgium must practice if they are to live. The visitor is also impressed with the amazing capacity of Mother Earth to produce for her children when necessity compels heavy drafts to be made upon her; and he can but smile at the conclusions of those who are arraying statistics to prove (?) that the world has about reached the limit of its production of human food. Let the United States alone produce relatively to Belgium, and it is possible for them to do more, for their soil averages better, and they could feed twice the whole world's present population.—S. M. OWEN, in Farm, Stock and Home.

All girls don't make sailors, but they make excellent mates. A henpecked man has no sayso in this world. It is only when he is dying he can use his will.—New York World.

### \$3.00 MEN'S SHOES \$1.50.

We make this Shoe, and it retails for \$3.00. Buying of the manufacturer, you secure a pair for \$1.50. Made of genuine satin oil, coin toe, medium round last with tips, medium weight soles, low broad heels, smooth inner soles free from nails, threads, tacks and all imperfections. 100,000 other bargains equally as cheap are contained in our General Catalogue of everything to Eat, Wear and Use, which costs us 69c, but is mailed free to you. Address this way:

**JULIUS HINES & SON,**  
BALTIMORE, MD. Dept. 216.



## Falk's Poland-China Sale.

Geo. W. Falk, Richmond, Ray County, Missouri, holds his annual Poland-China sale at Richmond, Saturday, November 4. This will be one of the important sales of the year, by reason of the high quality of the offerings and the reputation of the herd. The record of this herd was made at many of the leading fairs of the West, several years ago, and since retiring from the show ring, the standard of the hogs has been kept up to the old-time show yard excellence. The special points aimed at in the herd are size, style, bone, finish and easy feeding qualities. The chief stock boar is oker Wilkes 9445. He was sired by Roy Wilkes, he by Guy Wilkes 2d, and his dam was a Black U. S. bred sow. The dam of Joker Wilkes was Fanny Joker 4th by Short Stop. Fanny Joker 4th was the greatest show sow of her day; she won first at the World's Fair, and won first and sweepstakes at nearly all the leading State and district fairs in the West. She was a sow that weighed 800 pounds, and yet did not show coarseness. Joker Wilkes has been a great success as a sire. Many of his sons and daughters are to be found in good herds, one of his sons, Corwin George, being assistant to Chief I Know in the Risk & Gabbert herd, and it is with his daughters that Chief I Know is making some of his greatest successes. The assistant to Joker Wilkes is Chief's Look, a son of Chief I Am out of a dam by Look Me Over. He is a hog of great scale, quality, and finish, and as a sire is proving very satisfactory. The entire offering is sired by Joker Wilkes and Chief's Look, and the 50 head to be sold are the tops of the entire crop of spring pigs. There will be 30 boars and 20 sows, and for size, style, finish, quality, and good legs and feet they are unsurpassed. Those wanting herd-heads or sows to strengthen herds can make no mistake by attending this sale. Those who can not attend and desire to buy can entrust their bids with H. A. Heath, live stock representative and advertising manager of the Kansas Farmer. Write for the catalogue and any particulars concerning the stock, to Geo. W. Falk, Richmond, Mo.

## Gossip About Stock.

F. H. Schooler, of Rockport, Mo., held a sale of 60 Poland-China pigs at his farm last week, making an average of \$20.65.

Mr. Sam W. Hill, one of the good breeders of Poland-Chinas, will hold his annual sale at Hutchinson, Kans., on November 9, 1899. The offering will please those who see it. He will sell 35 boars and 25 sows, of spring farrow, and 5 sows with litters. Send for catalogue.

Parties attending sale of M. Waltmire & Son will be met at the trains at Carbondale, on day of sale, and returned free of charge to depot after the sale. Waltmire & Son will provide plenty of carriages to convey all who come from a distance. Notice the sale advertisement on another page.

J. D. Marshall, of Walton, has sold over 50 young boars and gilts this fall, sending 9 head to Illinois. A boar pig to M. A. Palmer, of Leon, Butler County, a young boar to W. C. Wilson, of Murdock, Kans., and a 6-months-old boar to Duncan McFarland, of Treusdale, Harvey County, are some of his last sales.

F. P. Maguire, breeder of Poland-Chinas, Haven, Kans., reports that his advertisement is now bringing him splendid results. He has on hand for ready sale about 15 serviceable boars and 5 gilts by the herd boar, U. S. Tecumseh 23028. He wishes to sell this valuable sire as his gilts must now be bred to a different male.

W. S. Combs, of Yukon, Oklahoma, a breeder of Poland-Chinas has a "hot foot" after the editor of Home, Field and Forum, for claiming to own the only son of Tecumseh 2d in the Territory. Mr. Combs shows paid check and certificate from E. E. Axline, of Missouri, to the effect that he purchased a Tecumseh 2d boar from him.

Platt Bros., of Kansas City, Mo., have a card of special interest to many of our readers in this issue, of Shropshire, Cotswold, Hampshire, and Rambouillet bucks, which they sell at reasonable prices. Recently they sold 40 bucks to L. M. Beeby, of Norwich, Kans., and 10 head to J. S. Butts, Beaumont, Kans. Get their prices at once.

Every stockman is now interested in the matter of a strictly first-class feed mill, such as is advertised in this issue by A. G. Ecdwell, of Kansas City, Mo. Mr. Ecdwell is one of the prominent business men of Kansas City and is having a wonderfully satisfactory trade with his line of feed mills. Orders by mail or a call at his office when in Kansas City will be appreciated.

F. C. Kingsley, of Dover, began building up a Shorthorn herd eight years ago. From three heifers bought at that time he has produced 45 head. His calves for some years were nearly all heifers, which accounts for the large increase. His herd is rich in Cruickshank blood. The buyer will find 5 young bulls now ready for service. The herd is headed by the Twentieth Earl of Valley Grove, out of Lord Mayor. This fine 4-year-old is now for exchange, having been used as long as possible.

We learn through reliable sources that Mr. Frank Stickney, of Woodhull, Ill., has tried the Snoddy hog cholera cure that is manufactured at Alton, Ill., and advertised in this issue, and finds it so easy to cure hog cholera with that he is now buying all the stock hogs in his county that he can get at half price and is curing them with this wonderful remedy. So far he has had

fine success and made a large profit on them. He is building a large ranch and fixing to handle 500 or 600 head. He is a wealthy and reliable farmer and any of our readers can learn the facts by writing him, or the manufacturers, at Alton, Ill. We have watched the success of this remedy in several cases and have great confidence in its final success.

The forthcoming dispersion sale of the entire herd of Shorthorn cattle, the property of the late Peter Sim, of Wakarusa, Kans., on November 16, 1899, is an event of considerable interest to the Shorthorn breeding fraternity, as Mr. Sim, at the time of his death, had the reputation of having one of the best bred show herds in the State. His wife, the administratrix, has concluded not to continue the business but to dispose of the entire herd at auction. It is a splendid offering of grandly bred Shorthorns, including the famous Bates sire and show bull, Royal Bates 123675. The cows are unusually well bred and consist mainly of Floras, Netherbys, Blossoms, Rose tribes, all pedigrees nicely topped with Bates or Cruickshank crosses. It is the most desirable Kansas offering of Shorthorns of the year. Breeders who wish to add to their breeding herds will do well to be present at this dispersion sale of richly bred Shorthorns. Notice the advertisement in this issue and ask for catalogue.

Let ye forget the sale of Kirkpatrick & Son, of Connor, Kans., at Tonganoxie, Kans., we say it will be one of the greatest sale events of the season for Kansas. The produce of five Chief Tecumseh 2d, four Klever's Model, ten Hadley Jr., three Chief I Know, Look Me Over, Black U. S. and Black Chief's Rival sows are to be sold. They are sired by Chief Tecumseh 2d, Missouri's Black Chief, Hadley Jr., Perfect I Know, and Combination F. F. We ask breeders to consider this array of top breeding and whether they can afford to forget this sale. Catalogues are ready for mailing and will be sent on application only. Tonganoxie can be reached by rail from all directions. Where can you find as many Chief Tecumseh 2d, Missouri's Black Chief, Hadley Jr., and Perfect I Know pigs in one sale? J. W. Ferguson, of Vinewood Park Farm, Topeka, Kans., writes them under date of October 12: "I own what I think is the greatest brood sow in the State, sired by the old hog, Hadley Jr. The breeders of Kansas as well as yourselves sustained a serious loss when Hadley Jr. died." If too late to send for catalogue go to the sale and get one.

The well-known and successful Shorthorn breeder, Mr. W. P. Harned, will hold his fourth annual public sale at his farm known as Idlewild farm adjoining Vermont, Cooper County, Mo. on Thursday, November 16, when he will offer 50 head, 20 bulls and 30 females, mostly yearlings. This draft has been selected out of the herd of 225 head and Mr. Harned believes that it is, all things considered, the best bred and individual lot that he has yet offered at public sale. Among the bull offering are eight out of straight bred Cruickshank dams and are sons of the premier herd bull, Banker 110861, that won at the Ohio and Indiana State fairs eleven consecutive first premiums and was considered the best beef animal in the aforementioned States. Among these young fellows is the 13-months-old Orange Duke 3d by Banker and out of Orange Lady by Scottish Lad 115723, bred by Bellows. Here is an all-round extra good one, growthy, deep fleshed, sappy, a solid red, good style and possesses plenty of "breed character." Such is his individuality that he will doubtless be the plum of the sale. It was first intended that a reserved bid would be placed on this bull, but since decided to let everything go without any reserve whatever. One of the next best ones is a nice roan 12 months old, a son of Banker and out of the old matron Victoria of Hazelbridge, she by Prince of Athelstane 13th 40371. His gradam was Linwood Victoria, said to be the best Cruickshank ever dropped on Colonel Harris's farm. She was sold in dull times for \$1,005 at a Kansas City sale. Individually this youngster is one of the sappy, growthy kind, and while not in high flesh he is a bull of much promise. For further details it will be necessary to consult the sale catalogue, which will be sent on application.

Don't overlook the sale extraordinary by Higgins, of 75 Poland-Chinas, the biggest sale of the year, at Hope, Kans. Notice advertisement and send for catalogue. The offering is a select draft from the herd. His herd boars are Wren 16974 by Rosa Nell's Sensation 15894, and out of Duchess May; Eberly's Model 20854 by Iowa Trader 20850, and out of Gladys 49421, and Duke of Weston 16974 by Hosier Boy 7830 and out of the famous brood sow, Black Beauty 2d by Grover Cleveland. Black Beauty 2d was the dam of Chief We Know and We Know Chief, both winners at several State fairs. The three stock boars mentioned have done good service, and are now represented in the herd by numerous progeny, and the 75 head to be sold are nearly all sired by them. Among the dams of the sale stock, that are highly prized, may be mentioned Matchless B. 51182 by the Duke of Weston, Low Tecumseh 48317 by Low Down Tecumseh 17658, May Tecumseh 47061 by Jubilee, April Lady 41400 by Corwin King 15413, Hadley White Face 15029, Short Stockings 2d 37728 by King Wilkes. In the forthcoming sale will be listed 47 head of spring pigs, about equally divided as to sex. Nine 2-year-old boars, 11 yearling boars, 11 sows with litters, and 13 matured sows, part of which will be bred to Perfect We Know, the young boar lately added to the herd. He was by Perfect I Know out of Quintessence by Chief Tecumseh 2d, and was winner of first in class and first at head of herd at late Illinois State fair. The yearling and the 2-year-old boars are a strong, vigorous lot and farmers and others needing boars for heavy service can find just what they want here. Those who prefer something younger can be suited with spring pigs, and in the female line the opportunity for selection is very wide. The sale will be held at farm one mile south of town in comfortable shelter.

The home of Missouri's Black Chief and the herd of which he is the head and chiefest jewel, although hitherto well known, has been given a special interest through the record made by this great boar at the Illinois State fair. At this show, the most important one in the United States this year, Missouri's Black Chief was entered in a ring of 13 boars, representing herds in 6 States. Ten of these boars were driven

out, but by the decision of the judges, against which there was no protest the boar of our story won first prize. This was the first, and will probably be the last, appearance of Missouri's Black Chief in a show ring. Although he attended to the sows of his four owners the past summer uninterrupted by his simple preparation for exhibition, Mr. J. R. Young, who now owns a three-fourths interest in him, is ready to turn to something more substantial than blue ribbons. This boar was widely known as a wonderful youngster and there was little surprise when Young, Turley, Adamson and Hornaday bought it for \$700. As Missouri's Black Chief approached maturity and surrounded himself by an exceptionally fine and even lot of sons and daughters, Mr. Young decided he should have a chance to compare points with the best in the land. The victory at Springfield resulted and a market was at once created for the get of the victor which will become even more popular as the quality of the young stuff becomes known. Missouri's Black Chief boars will be scarce this fall, for Mr. Young is a Spartan and would not brook the low prices brought on by the breeders of scalawag stuff. Out of 50, 35 fine young fellows felt the knife and 5 of the remaining 15 select have lately gone to head herds. For sows conditions have been better, and Mr. Young has a fine lot he intends soon to put up at auction. The Kansas Farmer takes pleasure this week in presenting Mr. Young's card to its readers and asks all interested to watch for the announcement of his sale, which will be made in a few weeks.

## Farmers' Institutes.

Representatives of the Kansas State Agricultural College will attend farmers' institutes as follows:

- October 27, Saltville; Otis and Parrott.
- October 28, Green Mound, Otis and Parrott.
- October 30, Asherville, Otis and Westgate.
- October 31, Scottsville; Otis and Westgate.
- November 1, Mayview; Otis and Westgate.
- November 1, Richmond, Nickerson; Cottrell and Sisson.
- November 2, Beloit; Otis and Westgate.
- November 2, Geneseo, Lyons; Cottrell and Sisson.
- November 3, Sterling, Pekin; Cottrell and Sisson.
- November 4, Sylvia, Hutchinson; Cottrell and Sisson.
- November 6, Burdette, Garfield; Cottrell and Haney.
- November 7, Kinsley, Offerle; Cottrell and Haney.
- November 8, Windhorst; Cottrell and Haney.
- November 9, St. John; Lockwood and Dickens.
- November 9 and 10, Burlingame; Lockwood and Dickens.
- November 10, Gage, Pretty Prairie; Cottrell and Haney.
- November 11, Alma; Lockwood and Dickens.
- November 11, Kingman; Cottrell and Haney.
- November 13, Andale; Cottrell and Conover.
- November 14, Inman, Arlington; Cottrell and Conover.
- November 15, Hutchinson; Cottrell and Conover.
- November 16 and 17, Washington; Hitchcock and Willard.
- December 5, Kipp; Haney and Westgate.
- December 6, Cottonwood Falls; Haney and Westgate.
- December 7 and 8, Whitewater; Haney and Westgate.
- December 9, Bodarc; Haney and Westgate.
- December 11, Wichita; Haney and Westgate.
- December 12, Cunningham; Haney and Westgate.
- December 13, Perry; Popenoe and Willard.
- December 14 and 15, Indian Creek School House; Cottrell and Clothier.
- December 14, Dighton; Fischer and Boyd.
- December 14 and 15, Wellsville; Howell, Popenoe, Willard.
- December 16, McCracken; Fischer and Boyd.
- December 16, Kincaid; Popenoe and Willard.
- December 18, Hackney; Fischer and Boyd.
- December 19, Arkansas City; Fischer and Boyd.
- December 20, South Haven; Fischer and Boyd.
- December 22, Medicine Lodge; Fischer and Boyd.

## Publishers' Paragraphs.

Kansas Farmer is indebted to Home Realm for loan of engraving on page 6, the picture of Wallahia.

As a matter of health the feet should be kept dry and comfortable. To people ex-

## More Money per Pound



Catalogue No. 19.

The Sharples Co.,  
Canal & Washington Sts.,  
CHICAGO.

The advantages of a farm separator are not alone in the increased amount of butter produced from the same milk, but also in its improved quality, which brings the extra few cents per pound. The Little Giant Separator produces these results surely, every time, everywhere. It makes the dairy business pay. Isn't that what you want? Send for

P. M. SHARPLES,  
West Chester, Pa.  
U. S. A.

posed there is no protection equal to the "Ball-Band" Knit Boots, Overs, and Rubber boots, the most comfortable and most durable made, and possessing superior advantages. Every dealer has the "Ball-Band" goods or can get them, if you insist.

In McClure's Magazine for November, Mr. A. H. Ford, who has lately returned from China, will describe the miracle in railroad construction that Russia is working in completing the Chinese Eastern—the last section of her great trans-continental line; and tell of the invaluable service rendered her by American invention, skill and enterprise. The article will be fully illustrated from photographs secured by the author in his journey.

The Freeland Mfg. Co., of Niles, Mich., makes its announcement for the fall and winter seasons in this issue of our paper. The advertisement will be found on another page. As will be observed from the advertisement this company is making a drive on its galvanized steel tanks, feed cookers, and tank heaters. This company shows a disposition to deal fairly with the public, as it says in the advertisement in bold type—"Shipped subject to inspection." Nobody need buy any of these goods, therefore, without knowing exactly what he is getting. Address the company for circulars, prices, and terms to agents.

THE ROCK ISLAND Playing Cards are the slickest you ever handled. One pack will be sent by mail on receipt of 15 cents in stamps. A money order or draft for 50 cents or same in stamps will secure 4 packs, and they will be sent by express, charges prepaid. Address, JOHN SEBASTIAN, G. P. A., C. R. I. & P., Chicago.

## ADMINISTRATOR'S SALE OF REAL ESTATE.

The following real estate belonging to the estate of David R. Youngs, deceased, in sections 26 and 27, township 12, range 15, Shawnee County, Kansas, is offered for sale upon the following terms and conditions:

1. The "Home" place, containing about 161 1-3 acres with good house and barn and other improvements too numerous to mention. A first-class farm. Price, \$6,700.00.
2. Eighty acres first-class land; about one-half plow land and balance good prairie-hay land. Price, \$3,000.00.
3. About 101 acres pasture land, well fenced and watered. Price, \$18.00 per acre.
4. About 101 acres first-class prairie-hay land. Not for sale until tract No. 1 is sold. For sale with No. 1, at \$25.00 per acre. For sale separately after sale of No. 1 at \$25.00 per acre, or with tract No. 3 at \$21.00 per acre for both.
5. All of the above land, amounting to about 443 acres and lying contiguous and constituting a large, complete and well improved crop, fruit and stock farm, situated about seven miles southwest of Topeka near the Burlingame road, for \$13,800.

TERMS OF SALE—One-third cash, one-third in two years and balance on long time. Interest on deferred payments at 6 per cent per annum, secured by mortgage. Possession given March 1, 1900, if sold before January 1, 1900.

COMMISSION ON SALES—To any one making a sale I will pay a commission of 5 per cent on any amount not exceeding \$5,000.00, and 3 per cent on any amount in excess of \$5,000.00 derived from any sale. Sales must, however, be made and reported by December 30, 1899.

CHAS. F. SPENCER,  
Administrator, with will annexed,  
Bank of Topeka Building, Topeka, Kans.

## WINCHESTER

## Factory Loaded Shotgun Shells.

"LEADER" loaded with Smokeless powder and "NEW RIVAL" loaded with Black powder. Superior to all other brands for

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

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Col. J. W. SPARKS,  
Auctioneer.

GEO. W. FALK, Richmond, Mo.

## MAINS' SIXTH ANNUAL PUBLIC SALE OF POLAND-CHINAS!

On my farm, two and a half miles southeast of

OSKALOOSA, KANS., SATURDAY, OCTOBER 28, 1899.

One hundred head, all classes, consisting of Chief Tecumseh 2d, Klever's Model, Moorish King, Chief I Know, and U. S. Model strains. In this offering there will be eighteen fall and early winter boars that are growthy and heavy-boned and in prime breeding condition (not fat); a fine lot of sows with pigs at their side; also some to farrow soon; a number of proven sows just weaning their pigs; winter and spring gilts unbred, and extra spring and summer boars, all from sows of the very best breeding. The boars and many of the sows were sired by Model Combination (a grandson of Klever's Model on sire's side, also of Chief Tecumseh 2d on dam's side) and One Price Chief. Herd in fine condition and health and of up-to-date breeding. Send for catalogue.

COL. J. N. HARSHBERGER, Auctioneer.

JAMES MAINS.

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To be Held at the Farm, 10 Miles Southeast of Hutchinson, Near Yoder Station, on the Missouri Pacific Ry.

The Crescent Herd of Poland-Chinas offers at this annual sale, 35 boars and 20 gilts of early spring farrow; also 5 sows with litters. Pigs are sired by Guy Darkness 18893 and Best Nims 18612. The stock represents good breeding, individual excellence and splendid condition. Come to Hutchinson and take Missouri Pacific morning train to Yoder Station where you will be taken to the farm. Ask for Catalogue.

J. P. McCormick, Auctioneer.

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## Ten Shropshire Ram Lambs,

80 to 100 pounds each, well marked, low and blocky, and with magnificent quality of fleece. These ram lambs are the result of the eighth top cross of registered Shropshire rams on ewes from a Merino topped Cotswold cross. Price, \$10 and \$12 crated and delivered at Moran, Kans. Missouri Pacific and M., K. & T. Cash must accompany order.

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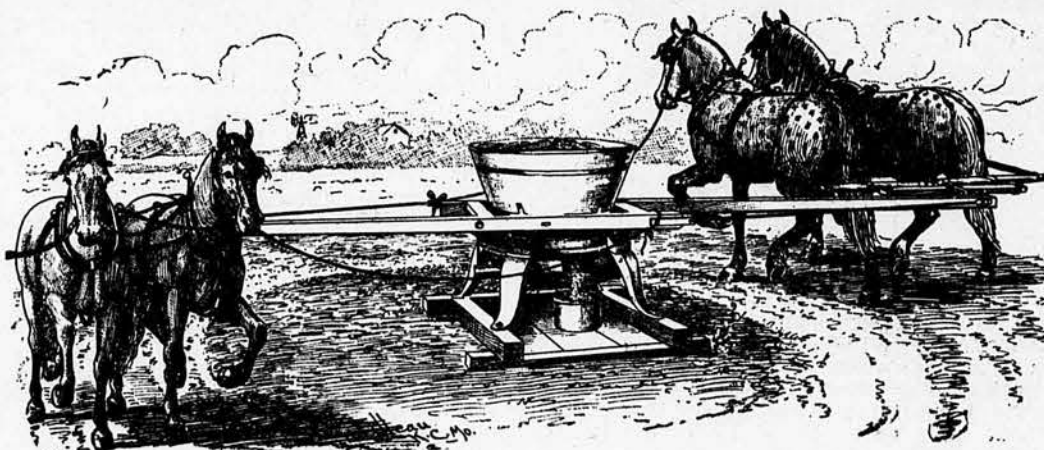
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## The Home Circle.

### OCTOBER DAYS.

Push back the curtains and fling wide the door,  
Shut not away the light nor the sweet air.  
Let chequered sunbeams play upon the floor,  
And on my head low-bowed, and on my hair.

Would I could sing in words of melody,  
The hazy sweetness of this wondrous time!

Low would I pitch my voice; the song should be  
A soft, low chant, set to a dreamy rhyme.

No loud, high notes for tender days like these,  
No trumpet tones, no swelling words of pride,  
Beneath these skies, so like dim summer seas,  
Where hazy ships of cloud at anchor ride.

At peace are earth and sky, where softly fall  
The brown leaves at my feet. A holy palm  
Rests in a benediction over all.  
O silent peace! O days of silent calm!

And passion, like the winds, lies hushed and still;  
A throng of gentle thoughts, sweet, calm and pure,  
Knock at my door and lightly cross the sill,  
Would that their feet might stay, their reign endure!

But storms will come. The haze upon the hills  
Will yield to blinding gusts of sleet and snow.

And, for this peace that all my being fills,  
The tides of battle shall surge to and fro.  
—Mrs. Ellen P. Allerton.

### FLOODING.

Wings for the angels, but feet for men;  
We may borrow the wings to find the way—  
We may hope, and resolve, and aspire, and pray;  
But our feet must rise, or we fell again.  
—J. G. Holland.

### THE STARS WILL FALL IN NOVEMBER.

If the predictions of astronomers prove to be correct the heavens on the evenings of the 14th and 15th of November will present an inspiring and dazzling display of meteors. Astronomers are looking forward to the event with great interest, and many preparations are being made in the observatories of the world with a view to securing more complete knowledge of this periodical phenomena. By means of careful telescopic observations and elaborate photographic records to be made in various locations, it is hoped that we may learn many new things about these strange celestial visitors from the unknown realms of space into the atmosphere of the planet in which we live. No such display as is expected in November has been seen since 1866. In view of this amazing natural phenomenon the following article will prove particularly interesting. It was prepared especially for the St. Louis Globe-Democrat by J. K. Rees, professor of astronomy in Cornell University, New York.

#### SHOOTING STARS.

All persons who watch the heavens and gaze in admiring wonder on the glittering stars see frequently apparent runaway stars dashing among their fixed fellows, leaving trails of light behind, and then, usually, in a second or two, disappearing completely. These stars seem to have been shot out from a previous fixed position by some tremendous force which makes the watcher think of the action of a great cannon, and hence the name of "shooting stars" is given.

The astronomer knows that these "shooting stars" are not really stars. Real stars are giant and distant suns shining by their own light. These are cold, dark bodies, which become hot and visible when they strike the air surrounding the earth. The velocity of their motion is, on the average, about twenty-five miles a second, and so when they dash into the earth's atmosphere the friction of the air produces a temperature of many thousand degrees. The result is that, as these bodies are usually very small, they are completely evaporated and dissipated. Sometimes quite large bodies are able to resist this tremendous frictional heating and then the residues reach the earth. Such bodies when found are called meteorites, meteoric stones, aerolites (air stones) or uroliths (heaven stones).

#### GROUPS OF METEORS.

Some consist of nearly pure iron with nickel, others are stony, and still others are mainly stony with grains and globules of iron. Comparatively very few meteors have been seen to fall. Their chemical and mineralogical is such that they can be identified as meteors, it is supposed, without any

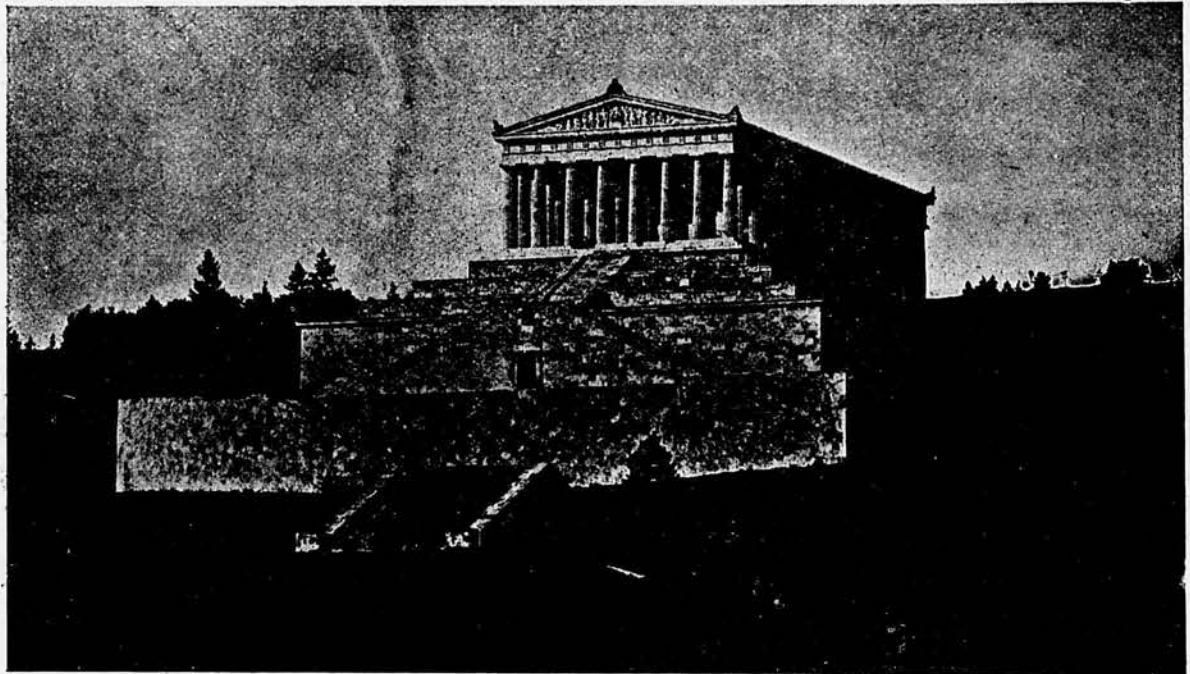
one seeing them fall. The number of shooting stars visible to the naked eye is far greater than one would imagine who only glances at the sky now and then. A single observer can see, on the average, about five an hour. But such a group of watchers can observe, ordinarily, only those stars which shoot within 200 or 300 miles of their observing station. If, therefore, the whole earth were covered with observers enough to see all the heavens, it has been calculated by the late Prof. Newton, of Yale University, that the number of visible daily would be between 15,000,000 and 20,000,000. When, to this number, we add those which are too faint to be seen by the naked eye, we reach a total which may run up to 100,000,000. We are, therefore, forced to the conclusion that interplanetary spaces are quite rich in such bodies. Investigations show that these shooting stars are of a gregarious temperament. Millions travel together in the same swarm or group. They have plenty of room; the separate bodies frequently being miles apart.

The terrestrial inhabitant is hence treated to a most awe-inspiring and dazzling display when the earth encounters such a group.

#### NOVEMBER FOURTEENTH AND FIFTEENTH.

Astronomers expect to see such an encounter next November, about the 14th or 15th. If their calculations be correct, watchers all over the earth may at the time named see a splendid display of the heaven's fireworks. Clouded skies can cut out any view, and as the moon will be very nearly

On the memorable evening I was engaged in my usual duty, at that time, of observing nebula with Lord Rosse's great reflecting telescope (at Parsons-town, Ireland). I was, of course, aware that a shower of meteors had been predicted, but nothing that I had heard prepared me for the splendid spectacle so soon to be unfolded. It was about 10 o'clock at night when an exclamation from an attendant, by my side, made me look up from the telescope, just in time to see a fine meteor dash across the sky. It was presently followed by another, and then again by others in twos and threes which showed that the prediction of a great shower was likely to be verified. At this time the Earl of Rosse (then Lord Oxmantown) joined me at the telescope, and, after a brief interval, we decided to cease our observations of the nebula and ascend to the top of the wall of the great telescope, from whence a clear view of the whole hemisphere of the heavens could be obtained. There for the next two or three hours we witnessed a spectacle which can never fade from my memory. The shooting stars gradually increased in numbers until sometimes several were seen at once. Sometimes they swept over our heads, sometimes to the right, sometimes to the left, but they all diverged from the east. As the night wore on the constellation of Leo ascended above the horizon, and then the remarkable character of the shower was disclosed. All the tracks of the meteors radiated from Leo. Occasionally luminous trains would linger on for many minutes after the meteor had flashed across, but the



THE VALHALLA.

full on November 15 (full moon occurs on November 17) her light will certainly obscure the faint trails of many shooting stars.

The best time to observe is between midnight and the sunrise twilight. We are then on the advancing front of the earth and will see those meteors we catch up with or meet. During the hours previous to midnight we see only those shooting stars which overtake us on the earth. Riding on the cowcatcher of a locomotive engine in the midst of a downpour of rain, we are certain to get wetter than if we sat on the platform of the rear car. The illustration is only suggestive.

#### STORY OF THE NOVEMBER METEORS.

The "story of the November meteors" is most interesting and instructive. The astronomers have been able to work out the life history of these meteors from the observations made. In 1799 S. Humboldt saw from the Andes Mountains a grand star shower, and in 1833 there was another great meteoric display. Many thousands fell in the course of a few hours. Prof. Newton, of New Haven, investigated the matter, looked up old records of star showers and showed that there had been a great number of star showers occurring about thirty-three years apart and coming in the fall of the year. He prophesied that the next return would be seen November 13-14, 1866. The shower came, as was predicted.

#### HOW THEY APPEAR.

Sir Robert S. Ball, of England, has described his view as follows:

"The night was fine; the moon was absent. The meteors were distinguished not only by their enormous multitude, but by their intrinsic magnificence. I shall never forget that night.

great majority of the trains in this shower were evanescent. It would be impossible to say how many thousands of meteors were seen, each one of which was bright enough to have elicited a note of admiration on any ordinary night."

#### DIMENSIONS OF THE NOVEMBER GROUP.

This shower was best seen in Europe in 1866, but in 1867 it was repeated and the observers in the United States were treated to a magnificent spectacle. The researches of Prof. Newton, of New Haven, and of Prof. Adams, of Cambridge, England, and others, have demonstrated that there is moving about the sun, as a center of attraction, a great bunch or group of meteors. This group takes thirty-three and one-quarter years to make a complete circuit. Its orbit plane is inclined to the earth's orbit and so related to it that the meteor group crosses the earth's orbit at that place where the earth comes about November 13-15. The enormous stream has a small breadth in comparison with its length. Dr. Storey has calculated that, if we represent the orbit of the meteors by an ellipse whose length is 7 feet, then the meteor stream will be represented by a thread of the finest sewing silk, about  $1\frac{1}{2}$  or 2 feet long, creeping along the orbit.

In the heavens this ellipse has an axis over 1,800,000,000 miles in length. At aphelion the meteor group goes out beyond the orbit of the planet Uranus. The real breadth of the stream can not be less than 100,000 miles, and is probably 300,000 miles. In 1866 the earth took five hours to go through, moving at the rate of about eighteen miles a second. In 1867, when the earth returned to the cross roads, the meteor stream was still going by, and America, especially, had a splendid view. Even



In 1868 the stream had not gone by completely. There are meteors scattered all along the orbit path of the group, but there appears to be only one group or bunch. We therefore see meteors every year about November 13-15, but the grand shower comes only when we strike into the bunched stream.

#### DRAWN FROM THEIR PATH BY URANUS.

The calculations of the great French astronomer, Le Verrier, appear to indicate that in 126 A. D., the Leonids (as the swarm is called, because the meteors seem to radiate from Leo) were moving in an orderly manner around a great orbit which would take them past the earth's orbit out almost to Jupiter, in their nearest approach to the sun, and then they would recede, never to be seen again in the solar system. But in that year (126 A. D.,)

the planet Uranus was near the swarm as they passed his orbit, and he, by the power of his perturbing attraction, pulled them back and caused them to pursue a smaller orbit, the present path. Uranus captured for the solar system this interesting group of meteors. The group is subject now, in its motion around the sun, to disturbing effects of pulls from the other planets, Jupiter, Saturn and the earth. These pulls make the accurate calculations difficult, and produce a little uncertainty as to the times of the showers.

#### COMETS AND METEORS.

A few weeks after the 1866 shower of Leonids the Astronomer Schiaparelli, of Milan, published a paper on the August meteors (or Perseids, because



#### Mothers! Mothers!! Mothers!!!

Mrs. Winslow's SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEETHING, with PERFECT SUCCESS. IT SOOTHES the CHILD, SOFTENS the GUMS, ALLAYS all PAIN; CURES WIND COLIC, and is the best remedy for DIARRHOEA. Sold by druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.





## The Young Folks.

### INCIDENT OF THE FRENCH CAMP.

#### I.

You know we French stormed Ratisbon;  
A mile or so away,  
On a little mound, Napoleon  
Stood on our storming day;  
With neck out-thrust, you fancy how,  
Legs wide, arms locked behind,  
As if to balance the prone brow,  
Oppressive with its mind.

#### II.

Just as perhaps he mused, "My plans  
That soar, to earth may fall,  
Let once my army-leader Lannes  
Waver at yonder wall,"—  
Out 'twixt the battery-smokes there flew  
A rider, bound on bound  
Full-galloping; nor bridle drew  
Until he reached the mound.

#### III.

Then off there flung in smiling joy,  
And held himself erect  
By just his horse's mane, a boy;  
You hardly could suspect,  
(So tight he kept his lips compressed,  
Scarce any blood came through.)  
You looked twice ere you saw his breast  
Was all but shot in two.

#### IV.

"Well," cried he, "Emperor, by God's grace  
We've got you Ratisbon!  
The marshal's in the market-place,  
And you'll be there anon.  
To see your flag-bird flap his vans  
Where I, to heart's desire,  
Perched him!" The chief's eye flashed; his plans  
Soared up again like fire.

#### V.

The chief's eye flashed; but presently  
Softened itself, as sheathes  
A film the mother-eagle's eye  
When her bruised eaglet breathes:  
"You're wounded!" "Nay," his soldier's  
pride  
Touched to the quick, he said:  
"I'm killed, sire!" And, his chief beside,  
Smiling, the boy fell dead.  
—Robert Browning.

### THE WALHALLA.

BY ANNA MARIE NELLIS.

NUMBER 72

Many volumes and sermons have been written on the subject of "Election;" not election of President or road overseer, but concerning those "elected to be saved" in heaven. Good Christians have argued on the subject during many centuries past, but they have not the chance to claim originality in the idea. The ancient pagan Germans, long before the Christian era, believed in a future paradise, which they called "the Walhalla"—the "Hall of the Elect." It was situated upon some high mountain—away off—they knew not where. The principal attendants in this Valhalla were able-bodied females with wings on their shoulders, whose duty it was to fly over the earth and fetch the souls of the elect, when they departed physical life, and bring them to the "Hall of the Elect." These servants or angels were called Valkures or Walkyries.

Germany has had many great men; and has had a King in one of its provinces, Bavaria, who thought it proper that these great men should be honored in one huge monument on some high German hill. He concluded to adopt the ancient German pagan idea and build a Walhalla, and place in it the mementoes of all those great ones whom he considered worthy to be among "the elect." He did so, and selected a high point above the banks of the Danube at Donaustauf, about six miles below Regensburg. That King was Ludwig I, and he began the Walhalla in 1830, finishing it in 1842, the year the Befreiungshalle was begun. The cost of the Walhalla was \$1,200,000.

We wanted to see the Walhalla, and that was our principal reason for coming to Ratisbon. On our second day in the city, we crossed the Danube to the steamer landing and began another most delightful excursion on the beautiful river.

We watched the shining steeples of the city until we "rounded a bend" in the river; and then, facing about, we kept our eyes directed to the great white marble hall on the top of a hill a few miles in front of us. Was it pretty? Yes, the sun was shining bright, and I considered the Walhalla the finest architectural object I ever looked upon. It stands boldly out upon the high hill, above the river, and is surrounded by beautiful green forest trees.

All the guide-books, and every writer who has ever undertaken to describe this handsome building, have mentioned one fact which I will repeat. "It is a fine example of the purest Doric order, closely resembling the Parthenon at Athens." Well, I recognized the resemblance at once, though I never have been in Athens. I am sure I could easily distinguish the one from the

other if they were accidentally to be set "side by side." The Parthenon is old and a ruin; the Walhalla is comparatively new and in excellent repair. The Parthenon is 226 feet long, the Walhalla 218 feet; the former is 102 feet wide the latter one inch wider, and both are nearly 61 feet in height of pediment. I do not give the exact measurements, but it is near enough to convey a general idea.

From the steamer we took the path to the right of the little village of Donaustauf, and walked direct to the base of the steps leading up to the entrance. There are 250 of those stone steps, and it is a bit of labor to walk up. We went to the first "landing," and while resting turned to look at the beautiful river. We thought the view very charming, indeed. We ascended to the second platform, and upon turning for another view, we thought the sight from the first landing had been very ordinary in comparison. Our delight was increased in proportion as we reached the third and fourth resting places, and then at the topmost stage we took one long look at the glorious valley beneath us.

We now turn to look at the items of the building itself. There are fifty-two ornamented columns which support the roof and pediments. In the south pediment, facing the River Danube, is a fine group of sculptured marble, representing "Germania regaining her liberty after the battle of Leipzig." This group, as well as the beautiful one in the north, was the work of the famous sculptor, Schwanthaler.

We entered into the place of "the elect" and found an elegant hall 180 feet long, 50 feet wide, and 56 feet high. The floor is of marble mosaic. The beams of the ceiling are supported by fourteen Walkyries, and around the walls are representations of the history of the German race. Above the cornice are sixty-four marble plates bearing the names of famous Germans who never had a photograph taken or of whom no portrait could be obtained.

On entering we had been politely requested by an attendant to put on the large felt slippers which are provided for all visitors, so that we might not scratch the floor with the nails in our shoes. We shuffled along all right, and certainly enjoyed being in this representative of the place of the elect. The Caryatides which support the ceiling are intended to represent the warrior angels of the ancient German Paradise. They are richly colored, "their hair is brown, flesh like ivory, bear skins gilt, tunics violet, upper drapery white with gilt and red edges." That is their description, and, like the measurements, I take it "second hand."

We wished to know who were the "elect," from Ludwig's point of view. We looked and saw a hundred and more busts of illustrious personages, on shelves, all properly labelled, and from different countries, but mostly from Germany or of German descent. Of busts and names on tablets, there were represented Hengist and Horsa, who never were in the Clydesdale business, but invaded England some 1,200 years ago. There were Alfred the Great and Egbert of Britain, Charlemagne and Pepin of the Franks. There were Frederick Barbarossa, Henry the Fowler, Rudolph of Hapsburg of the old Roman-German empire, and of more modern warriors were Frederick the Great, Blucher, and Wallenstein.

Writing the name of Wallenstein reminds me of a fact which I learned after I had visited Prague. In that city I had been shown the spot where the great general had been assassinated in his own palace. I have learned that it is quite easy for a guide to identify almost any locality with an historical fact concerning some other spot entirely. Wallenstein was killed at a place called Eger, in southwest Bohemia, and not in the city of Prague.

But kings and warriors are not the only ones who are among the "elect;" the poets are well represented, Schiller and Goethe occupying quite prominent shelves. Humboldt and others represent the men of science, Mozart and Beethoven are among the musicians.

Ludwig I. was a Catholic, and he would not admit Dr. Martin Luther into his heaven, but after Ludwig's death the "great German Doctor" was represented on the shelves of the chosen ones.

A German King took a German pagan idea, and embodying it in pagan Grecian marble, made a receptacle for modern Christian monuments. Possibly that is consistent. I don't know. If it is satisfactory to "the elect," why should I object?

There is no furniture in this immense hall except four beautifully carved chairs; but in the farther end from the entrance, in a wonderfully decorated chair of state, sits the life-size figure of King Ludwig I., who superintended the erection of this heaven himself. He is

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now represented there by the gift of his people, who contributed to the cost of his life-like monument in the Walhalla he originated.

To be in heaven and then voluntarily to leave it, may not be wise, but we came out of the Walhalla to look again upon the grand view from its portals. To the right, were the tall spires of Ratisbon Cathedral looming up above the high hills; to the left, in the distance, was a spur of the Alps; below us, the most charming of rivers. There certainly can be no more beautiful view in all this grand world of ours.

The ride back to Regensburg was delightful, but we sat where we could keep our eyes continually on the beautiful Walhalla, the place of the German elect.

#### THE RATHHOUSE.

Again in the city of Ratisbon, we visited the old Rathhouse, which dates from the year 1350. In this building the Imperial Diet met occasionally from 1663 to 1806. In the "Imperial Hall" we were shown what is said to be the throne of the old German empire, but in appearance it suggests a badly worn article for sale in a "second-hand" furniture store. In the "Nebenzimmer," under the Imperial Hall, we saw many old flags, and some that were carried in the army of Gustavus Adolphus during the "Thirty Years' War." Down below are the dungeons and "torture chamber," in which are exhibited horrid instruments similar to those we had seen in Nuremberg. We did not examine them closely, for one view will last a lifetime.

One of the ships which were sunk in Manila bay last year, was named "Don Juan de Austria." I mention this well known fact because we were shown a large medallion portrait on the outside of a huge tower and were told that it represented the gentleman, Don Juan de Austria, who was born at Ratisbon 353 years ago. He is dead now. He was the son of Emperor Charles V., and his ma was Barbara Blumberger.

From the Rathhouse our party proceeded to inspect the old Benedictine Abbey, which dates back to 650 A. D., and was suppressed in 1803.

Our printed description of it called it Romanesque in style. It has two choirs and a crypt which was dug about 1030. The principal altar piece is a painting by the artist Sandart, and it represents the "Martyrdom of St. Emmerman." The sacristan showed us the relics of this saint—his bones in a handsome sarcophagus. In this abbey is an ancient stone seat in which Emperor "Henry the Fowler," used to sit when holding his court. We all sat down.

The old cloister buildings are surrounded by the wings of the abbey, and this has been the palace of the Princes of Thurn and Taxis since 1812. The family were away at their summer palace on the Danube, but we were not allowed to see any of the rooms they occupy when at home.

But we did see the chapel which is the center of the cloisters. It has beautifully stained glass windows, a fine statue of Christ by Donnecher, which fills the small choir and it is surrounded, of course, by candles, which were lighted when we saw them.

In the center of this little royal chapel is a large open space in the floor and we could look through the

grating into the crypt beneath. We saw the rich coffins with velvet covers, of the princely royal family, as this has been their burial vault for many centuries. Our guide was fat and lazy and lame from rheumatism, and he could scarcely toddle along. He said it was impossible to go underneath, and explained that at a royal funeral, the coffin was brought after the service, and lowered through this opening. We all got down on our knees and peered all around the vault below. We could see the many different coffins which were immense, in size and looked like gold. I presume, however, they are not what they glitter to be.

We had an unknown friend in one who was too stiff to bemean himself by getting down on his knees to see, but was determined to have a view anyway. He tried the persuasive influence which seems effectual everywhere. He gave the guide some silver and the old man's joints were immediately loosened. He found a way to open the iron door which permitted us all to file down the stone steps to the vault beneath. The guide looked uneasily around and begged us not to step on the red velvet rugs. He pointed out the various Princes of Thurn and told us bits of their history. In one group were a Prince, his wife and three little Princes, who had long since gone to spiritual Walhalla. Then there was a little Princess of Thurn whose coffin was guarded by several very fine silver angels. He showed us the "grossvater" of the present Prince of Thurn and even his "ungrossvater." Then there was a little white coffin on a velvet covered table, draped with violet wreathes, which the old man said, with tears in his eyes, was the little Prince who died three years ago.

The old man insisted that the last Princess who was placed here was a sister of the late Empress of Austria, and I guess he was right, for I remember reading that Emperor Franz Josef was once engaged to a Bavarian Countess, but was captivated by her younger sister and married the latter, while the other became the wife of the Prince of Thurn and Taxis.

But the one I was most interested in was the Prince who threw out of the window the Emperor's ambassadors at Prague. I went to his coffin, touched it and said: "I hope the Great Umpire in the Walhalla above commended your pitching."

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# KANSAS FARMER

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The great Hereford show and sale will call many to Kansas City this week.

Money is reported easier in New York and speculation is responding to the more favorable condition.

The famous Twentieth Kansas and General Funston will probably reach Topeka some time next week.

The war in South Africa is raging fiercely. The ultimate domination of that country by Great Britain seems to be a certainty.

The drought which is at this writing a considerable inconvenience to farmers is affecting the manufacturers of paper very seriously. The streams in many of the paper-making regions are said to have dried up. Much water is required in the production of paper. The makers of the paper on which the *Kansas Farmer* is printed report that they are utterly unable to fill orders. Fortunately this office got in a car-load just before the shut-down.

## FOR THE PARIS EXPOSITION.

Prof. B. T. Galloway, who has charge of such matters in the United States Department of Agriculture, at Washington, D. C., writes to the secretary of the Kansas State Board of Agriculture that he is getting together a collection of cereals and other grains for the purpose of making an exhibit at the Paris Exposition, to consist of wheat, corn, oats, millet, Kafir-corn, Jerusalem corn, rice corn, milo maize, which it is desired to have as nearly representative as possible.

In the main it is planned to have about four quarts of each kind. Persons having any of these which they think suitable for exhibition purposes should at once notify Prof. Galloway, who will furnish free bags, franked shipping tags, and directions for forwarding the material.

The time for doing all this work is quite limited, and it is desirable that interested parties take the matter up at once and correspond with Prof. Galloway.

## BLOCKS OF THREE.

The season is now here when many subscribers are renewing their subscriptions to the *Kansas Farmer*. The publishers are anxious to have every subscriber assist in extending the circulation of the "old reliable." To make this interesting on both sides we renew our "blocks of three" proposition which was so well received last year. Every present subscriber for *Kansas Farmer* who sends in two new subscribers and \$2 may have his own subscription extended one year without additional cost. Blocks of three—one old and two new subscribers for \$2. This offer is made for the purpose of still farther enlarging the *Kansas Farmer's* subscription list, and is confined strictly to the proposition as stated. It is an easy matter for any old subscriber to get two new ones, and it is almost certain that after reading the "old reliable" for a whole year they, too, will become permanent members of the *Kansas Farmer* family. This is

to the publishers the business end of the blocks of three proposition—one old with two new subscribers—all for \$2.

## STATISTICS OF THE MEAT TRADE.

The statistical showing of severe reductions in the numbers of cattle in the United States, especially of those cattle classed as "other cattle," that is, other than milch cows, has been brought into service in various attempts to account for the advancing prices of beef. A similar condition prevails as to swine. The reports of the United States Department of Agriculture for the last twenty years show as follows:

### CATTLE AND HOGS IN THE UNITED STATES.

	Other Cattle.	Swine.
1879.....	21,403,100	34,766,200
1884.....	29,046,101	44,200,893
1889.....	35,032,417	50,301,592
1890.....	37,651,239	50,602,780
1892.....	36,608,168	45,206,498
1894.....	27,994,225	38,651,631

Swine reached the maximum in 1890, and have suffered a reduction of nearly 12,000,000 in numbers, while "other cattle" reached the maximum in 1892 and have suffered a reduction of nearly 13,000,000.

The statistics of animals slaughtered each year are interesting for their contrast with the above. We have before us the record only as far back as 1887.

### CATTLE AND HOGS SLAUGHTERED IN THE UNITED STATES.

	Cattle.	Swine.
1887.....	2,048,000	11,680,000
1888.....	2,362,000	10,610,000
1889.....	2,688,000	12,690,000
1890.....	3,373,000	16,980,000
1891.....	3,386,000	15,180,000
1892.....	3,911,000	13,750,000
1893.....	4,104,000	11,080,000
1894.....	3,959,000	15,265,000
1895.....	3,590,000	15,285,000
1896.....	3,627,000	16,230,000
1897.....	3,711,000	19,640,000
1898.....	3,800,000	23,510,000

The slaughtering of cattle reached a maximum in 1892-3-4, but was not greatly below this maximum last year. The slaughtering of hogs reached a maximum in 1890, declined until 1893, since which it has steadily advanced and was greater last year than ever before.

Doubtless the rapid slaughtering during recent years has had much to do with the great reductions in numbers of both cattle and hogs. That this is especially true of cattle is shown by the fact that the numbers of milch cows has decreased comparatively little. The number of milch cows reached a maximum in 1895, since which time the decrease was gradual until last year, as shown by the following table:

### MILCH COWS IN THE UNITED STATES.

1879.....	11,826,400
1884.....	13,501,206
1889.....	14,298,625
1894.....	16,437,400
1895.....	16,504,629
1896.....	16,137,586
1897.....	15,941,727
1898.....	15,840,886
1899.....	15,930,115

A comparison of the number of milch cows in the United States with the number slaughtered annually shows a disparity which certainly points to a very great incompleteness in the official statistics of animals slaughtered. The nearly 16,000,000 of milch cows must have given birth to nearly 12,000,000 of calves annually. If half of these were reserved for milch cows, and never slaughtered, there should be more than 4,000,000 of "other cattle" whose only use is for slaughter. It is not true, however, that all of the heifers are reserved for milch cows. Many are fattened and slaughtered so that correct statistics of animals slaughtered each year should show a still larger proportion to the number of milch cows. Evidently the collection of live stock statistics is a good deal short of perfection.

But the general showing of reduction of numbers of beef cattle is not inconsistent with the facts even though the numbers slaughtered each year show no corresponding rapidity of reduction. Breeders of cattle have been among the most successful improvers of live stock. They have aimed to produce early maturity. In this, as in other directions, their successes have been cumulative—like compound interest—showing much more rapidly during the last few years than formerly. When a beef animal had to be kept until 4 or 5 years old before going to market it took twice as many "other cattle" to yield an annual crop of 1,000 beefs as after the selling age had been reduced to 2 or 2½ years. Not many years ago the average age of beef animals was 3 years. If it is now 2 years only two-thirds as many animals need be kept as then to yield a given number for the shambles.

While the reduced numbers of other cattle is a rational cause for cheerfulness on the part of the producer it is probable that the real reduction may be more accurately measured by the re-

duction in the number of milch cows than by the reduction in "other cattle."

It is not to be forgotten in this connection that the reduction in available beef supplies is accompanied by a sturdy increase in the number of beef-eaters. So far as reliable information can be gained from statistics it points to continued strong demand and high prices for beef but the analysis does not justify the boom predicted in some quarters.

## SERIES OF SHORTHORN SALES.

The four days' public sales of Shorthorn cattle, held at Kansas City, October 17-20, were, all things considered, a very gratifying success to the Shorthorn breeding fraternity. Every animal in good condition that had individual excellence and good breeding sold at splendid prices, and at the same time shrewd buyers managed to secure a number of animals at bargain figures.

The consignments consisted of over 200 head of pure-bred Shorthorns from the well-known herds of H. C. and Joseph Duncan, of Osborn, Mo.; Geo. Bothwell, Nettleton, Mo.; Thos. W. Ragsdale & Son, Paris, Mo., and the closing-out sale of John Burruss, Miami, Mo.

### H. C. DUNCAN'S MAPLE HILL SHORTHORNS.

The draft sold from the Maple Hill Herd of Shorthorns, owned by H. C. Duncan, Osborn, Mo., consisted of 4 bulls and 22 cows and heifers. The bulls averaged \$312.50, and the females \$232.27, making a general average for 26 head of \$244.61. He topped the sale of the series in the sale of Harman's Athene, Vol. 40, a 5-year-old cow, which went to J. W. Smith & Son, Allerton, Iowa, for \$725. The 4 bull sales were as follows:

Gallahad's Pride 139803, calved September 14, 1898, to T. Weldon Ragsdale, Paris, Mo., for \$365.

Violet's Gallahad 139816, calved October 3, 1898, to W. E. Robinson, Fairport, Mo., for \$475.

Chief Elector 124346, calved October 30, 1898, to Jule Gunter, Gainesville, Texas, for \$240.

Violet's Baron Dudding 139815, calved November 1, 1898, to John Smith, Wellsville, Kans., for \$170.

The other leading sales of females were as follows:

Violet of Maple Hill 8th, Vol. 45, 2 years old, to J. W. Smith & Son, Allerton, Iowa, \$500.

Violet of Maple Hill 5th, Vol. 42, 2 years old, to J. W. Smith & Son, \$425.

Broundale Blossom 2d, Vol. 42, 2 years old, to J. W. Smith & Son, \$500.

Pansy Blossom, Vol. 49, H. T. Metcalf, Indianola, Iowa, \$430.

27th Nellie Bly of Maple Hill, Vol. 42, 2 years old, the heifer donated to the Convention Hall at Kansas City, sold to J. W. Smith & Son, Allerton, Iowa.

The other purchasers of Maple Hill females were: G. W. Brown, Indianola, Iowa; John Smith, Wellsville, Kans.; F. M. Marshall, Blackwater, Mo.; C. F. Wolf & Son, Ottawa, Kans.; H. F. Brown, Minneapolis, Minn.; G. D. Stratton & Son, Walton, Kans.; T. J. Wornall, Mosby, Mo.; E. L. Knapp, Maple Hill, Kans.; W. F. Wilkins, Stewartville, Mo.; E. H. Frisbey, Bethany, Mo.; Geo. T. Neff, Bethany, Mo.; W. R. Barnett, Gallatin, Mo.; I. D. Blevins, Lisle, Mo., and T. K. Tomson & Son, Dover, Kans.

### JOSEPH DUNCAN'S ELM GROVE SHORTHORNS.

Joseph Duncan, owner of the Elm Grove Herd of Shorthorns, sold a draft of 24 head at an average of \$169.40; 2 bulls averaged \$332.50 and 22 females averaged \$154.54. The top price of his offering was \$525 for the 2-year-old bull, Headlight 134219, got by Grand Victor 4th 122694, sold to H. T. Metcalf, Indianola, Iowa. The females sold at a range of prices from \$95 to \$230. The purchasers of his consignment were: W. H. McCoy, Allerton, Iowa; E. L. Knapp, Maple Hill, Kans.; H. F. Brown, Minneapolis, Minn.; N. R. Burnett, Gallatin, Mo.; J. A. Hodgkinson, Elm, Mo.; C. F. Wolf & Son; E. H. Frisbey, Bethany, Mo.; G. W. Brown, Indianola, Iowa; Jno. Morris, Chillicothe, Mo.; Jno. McCoy, Sabetha, Kans.; Geo. T. Neff, Bethany, Mo.; J. W. Smith & Son, Allerton, Iowa; Walter Hudson, Gainesville, Texas.

### GEO. BOTHWELL'S CLOVER BLOSSOM SHORTHORNS.

The consignment of 37 head from the Clover Blossom Herd of Shorthorns, owned by Geo. Bothwell, Nettleton, Mo., made a general average of \$173.40; 15 bulls averaged \$156 and 22 cows and heifers averaged \$185.23. The range of prices on the bulls was from \$100 to \$200, and the females from \$100 to \$335; the latter, the top price of his offering, was paid by H. F. Brown, of Minneapolis, Minn., for Beauty 26th of Maine Valley, Vol. 39, a straight-bred Scotch cow by the imported bull, Lauderdale 99020.

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Mr. Brown also paid \$300 for the 3-year-old cow, Grand Blossom.

The other purchasers of the Bothwell consignment were: N. G. Gwynne, Kansas City; Jno. Marsh, Chillicothe, Mo.; H. T. Metcalf, Indianola, Iowa; Geo. T. Neff, and E. H. Frisbey, Bethany, Mo.; T. W. Ragsdale, Paris, Mo.; F. G. Bates & Son, Odessa, Mo.; Jno. Sparks, Reno, Nev.; Robt. McGuire, Chillicothe, Mo.; Jule Gunter, Gainesville, Texas; G. W. Brown, Indianola, Iowa; D. W. Johnson, Lexington, Mo.; Henry Haupt, Whiting, Kans.; C. F. Wolf & Son, Ottawa, Kans.; F. A. Wall, Jamieson, Mo.; B. O. Cowan, New Point, Mo.; G. D. Stratton, Walton, Kans.; E. L. Knapp, Maple Hill, Kans.; J. A. Ditmar, Cameron, Mo.; R. H. Chandler, Creighton, Mo.; B. Thomas, Eudora, Kans.; Johnson Bros., Fort Worth, Texas; H. P. Hanson, Morganville, Kans.; N. S. Byrne, Saxton, Mo., and Alex. Frazer, Kansas City, Mo.

### RAGSDALE & SON'S OAKLAND SHORTHORNS.

Thos. W. Ragsdale & Son, of Paris, Mo., had catalogued 44 head from their Oakland Herd of Shorthorns, but sold only 36 head, 9 bulls and 27 females. Mr. Ragsdale expected to realize about \$1,000 more than the proceeds of the sale made. The 9 bulls averaged \$82.22 and 27 females \$93.52. His consignment brought only \$3,360, a general average of \$93.33. The highest price realized from this consignment was \$205 for the Scotch-bred bull, Baron King 132352, which went to John McCoy, Sabetha, Kans. The highest priced female was No. 20, Queen, sold to F. M. Marshall, Blackwater, Mo., for \$200. The range of prices for the females was from \$40 to \$200, and for the bulls, \$55 to \$205.

The purchasers of Oakland Herd females were: F. M. Marshall; J. D. Douglass, Oakdale, Mo.; Geo. T. Neff, Bethany, Mo.; T. B. Rankin, Tarkio, Mo.; A. W. Muldrow, Shelbyville, Mo.; R. H. Sampson, Winter, Kans.; Jno. Morris, Chillicothe, Mo.; J. T. Ragsdale, Paris, Mo.; Dr. C. M. Coe, Kansas City, Mo.; W. J. Snodgrass, Gordon, Kans.; Nevins Bros., Chiles, Kans.; H. C. Duncan, Osborn, Mo.; C. F. Wolf & Son, Ottawa, Kans.

The buyers of the Oakland bulls were: Jno. Sparks, Reno, Nev.; Jas. Hook, Sweet Springs, Mo.; J. D. Douglass; Johnson Bros., Ft. Worth, Texas; Jno. McCoy, Sabetha, Kans., and J. M. Ortel, Lone Tree, Mo.

### JOHN BURRUSS' CLOSING OUT SALE.

The last day of the Kansas City series of 4 days' sales was occupied by John Burruss, of Miami, Mo., who had catalogued 6 bulls and 56 females as a closing-out offering of his herd of 62 head, which sold for \$8,365, an average of \$135. The 6 bulls averaged \$153.33 and 56 females, 9 of which had calves at foot, averaged \$133.

The Burruss consignment was substantially a Bates offering. The yearling bull, Barrington Duke 138593, sold to G. W. Hammond, Fayette, Mo., for \$260. The herd bull, Sangamon Duke of Airdrie 125174, 5 years old, sold for \$260 to F. M. Marshall, Blackwater, Mo. The best cows of the Barringtons and Loudon Duchess families met with a spirited demand at prices ranging from \$200 to \$400. The result of the day's sale was very satisfactory to buyers and seller.

The list of purchasers at this sale were: W. A. Wiley, Quenemo, Kans.;



Thos. Bryant, jr., Palmyra, Mo.; Chenaull Todd, Fayette, Mo.; F. M. Marshall, Blackwater, Mo.; G. D. Stratton & Son, Walton, Kans.; E. W. Hawkins, Fairville, Mo.; G. W. Johnson, Lexington, Mo.; T. J. Wornall, Mosby, Mo.; H. H. Grimes, Belton, Mo.; H. D. Burduss, Carrollton, Mo.; Dr. C. M. Coe, Kansas City, Mo.; W. E. Thomas, Bogart, Mo.; G. D. Stratton & Son, Walton, Kans.; H. C. Duncan, Osborn, Mo.; M. Waltmire & Son, Carbondale, Kans.; Jno. Sparks, Reno, Nev.; T. B. Rankin, Tarkio, Mo.; L. B. Lindsay, Gainesville, Texas; C. F. Wolf & Son, Ottawa, Kans.; W. J. Snodgrass, Gordon, Kans.; E. L. Case, Kansas City, Mo.; Jno. Morris, Chillicothe, Mo.; Brown Bros., Ottawa, Kans.; B. W. Cunningham, Knob Noster, Mo.; T. L. Blevins, Lisle, Mo.

#### KANSAS BUYERS.

During the 4 days' sale Kansas breeders were very much in evidence and secured 5 bulls and 44 females. C. F. Wolf & Son, Ottawa, bought 12 females; G. D. Stratton & Son, Walton, bought 11 females; E. L. Knapp, Maple Hill, 4 females and 1 bull; Henry Haub, Whiting, 2 females; Waltmire & Son, Carbondale, 1 bull and 1 cow; Jno. McCoy, Sabetha, 1 bull and 1 cow; Nevins Bros., Chiles, 3 females; W. A. Wiley, Quenemo, 2 females; W. J. Snodgrass, Winter, 3 females; Brown Bros., Ottawa, 2 females; R. H. Sampson, Winter, 1 cow; T. K. Tomson & Son, Dover, 1 cow; Jno. Smith, Wellsville, 1 bull; B. Thomas, Eudora, 1 bull; H. P. Hanson, Morganville, 1 bull.

#### Alfalfa a Kansas Favorite.

The assessors' returns for this year to the Board of Agriculture reveal much expansion sentiment as to the sowing of alfalfa in Kansas. The number of acres reported for the year ending March 1 is 278,477, a net increase of 46,929 acres or 20 per cent over last year. Every county in the State except Haskell and Stevens reports an acreage.

Seventy-three counties show a gain of 51,604 acres, and 30 a decrease of 4,675 acres. Of the 105 counties of the State 21 have each 5,000 and more acres in alfalfa, led by Jewell with 14,260 acres; Butler next with 13,743, Finney 11,541, Norton 10,761, Lyon 9,811, Greenwood 9,251, Mitchell 8,522, Wabunsee 7,619, Saline 7,353, Marion 7,101, Phillips 6,989, Sedgwick 6,865, Republic 6,632, Cloud 6,589, Osborne 6,512, Ford 6,011, Cowley 6,003, Pottawatomie 5,956, Kearny 5,663, McPherson 5,558 and Reno 5,160.

Although 60 per cent of the alfalfa is in these counties it is grown in all parts of the State. The largest increases this year were principally in the northern half of the State between the 96th and 100th meridians of longitude.

The widespread interest taken in this crop by growers of all kinds of live stock is indicated by the fact that the area has increased from 34,384 acres in 1891 to 278,477 in 1899, making a total gain of 244,093 acres, or 709 per cent.

#### A Hot Week in Wichita.

The street fair held all of last week in Wichita was the liveliest affair of recent years. The merchants made a most creditable display. The show of farm and orchard products was the best made in the State this year. The "Frisco" and "Santa Fe" each had a special display that attracted unusual attention. "Old King Corn" of the Santa Fe display, which was shown at the Atchison corn carnival, and has been holding forth at leading fairs, was very much in evidence, and will close up the season at Guthrie, Oklahoma, this week.

The Associated Fanciers of the Arkansas Valley also made quite a show of poultry that was in every way creditable both as to the number and quality of birds shown.

The breeders of live stock have usually fared so badly at the hands of Wichita fair management that this department was not a strong feature of the street fair, especially in view of the fact that so many good herds are owned in that part of the State; however, Robt. S. Cook, of Wichita, and Iram Smith, of Colwich, Kans., made very creditable display of Poland-Chinas, dividing honors about equally, excepting that Mr. Smith made the stronger show of boars.

#### Sunflower Seed.

Editor Kansas Farmer:—Do you or any of your subscribers know where I can find the best market for Russian sunflower seed? Probably some of your subscribers have had some experience with same. I remember reading an article in your paper stating that we had to import sunflower seed to make certain oil. I would like the best information

you can give. I am a regular reader of your paper.

W. U. LANGHART.

Wheaton, Kans.

No doubt our correspondent will hear from some of the enterprising seed-dealers who regularly read the Kansas Farmer. It is always a good proposition to write to the seedmen who advertise in the "old reliable."

#### Kansas City Mules for Africa.

Twenty-five car-loads of mules were shipped out in one train from Kansas City last week. The Drovers' Telegram says it comprises the biggest shipment of mules ever made out of Kansas City at one time. There were 28 mules in each car, making 700 in all, and they were consigned to Major H. J. Strobell, of New Orleans, for the use of the British Government. The train was decorated from engine to caboose, and each car bore a banner on either side of which was painted the inscription: "Kansas City Mules Bound for Africa."

The upper line was painted in red and the lower line in blue, on a white background. The train left over the Kansas City, Fort Scott & Memphis railroad for New Orleans. From there they will go direct to the Transvaal in South Africa.

These mules are part of 1,200 head for which contracts are held by the Spark Bros. Mule and Horse Co. Both contracts were secured by the firm mentioned but four firms contributed to filling the order. These four firms, which are among the largest in Kansas City, are: Spark Bros. Mule and Horse Co., Conway Bros., Guyton & Harrington, and Cottingham Bros. Each firm put in an equal number.

#### To Shorthorn Breeders.

Editor Kansas Farmer:—At the semi-annual meeting of the Missouri and Kansas Shorthorn Breeders' Association held August 22 and 23, 1899, it was decided that the best interests of the Shorthorn breeding fraternity of this country could be better promoted by changing the name to Central Shorthorn Breeders' Association and extending a cordial invitation for membership to all, regardless of location, thereby making the association national in its character and usefulness.

Among other matters passed upon and adopted were the following resolutions:

Resolved, That this association request the American Shorthorn Breeders' Association to make a liberal appropriation for Shorthorns at the leading fairs of the country, provided that said fair associations give at least an equal amount to Shorthorns.

Resolved, That a liberal appropriation be made for the purpose of utilizing the live stock and agricultural papers of the country in securing their support in presenting the merits of Shorthorn cattle to the general farmers of the country so that the history and value of that grand breed of cattle may be duly and fully made known and appreciated by the general public.

Resolved, That an appropriation of not less than \$5,000 be made for the purpose of holding an annual national show and sale to be held at Kansas City.

The following named breeders and members of the association, C. E. Leonard, Bell Air, Mo.; Geo. W. Glick, Atchison, Kans.; H. C. Duncan, Osborn, Mo.; and N. H. Gentry, Sedalia, Mo., were appointed as the committee to present the foregoing resolutions and urge their adoption at the annual meeting, of the American Shorthorn Breeders' Association, to be held at the Auditorium Hotel, Chicago, November 22, 1899.

The last meeting of the Central association was attended by over 250 breeders, who unitedly extend a cordial invitation to all interested in Shorthorn cattle to become members with a view of having the largest and most enthusiastic meeting next February ever held in this country in the interest of the "Reds and Roans." Send your application with \$1 for annual membership to the secretary and receive by return mail a certificate of membership for the year 1900.

W. P. BRUSH, Secretary,  
Station "A," Kansas City, Mo.  
N. H. GENTRY, President  
Sedalia, Mo.

#### Shorthorn Breeders Act.

The secretary of the Central Shorthorn Breeders' Association reports that one hundred or more of the prominent improved live stock breeders who were in attendance on the four days' sale of registered Shorthorns met October 18, at the Midland Hotel, Kansas City. The assembly was called to order by W. P.

Brush, secretary of the Central Shorthorn Breeders' Association. Mr. N. H. Gentry, of Sedalia, Mo., president of the Central association, was called to the chair.

The object of the meeting was stated to be to further consider action concerning a show and sale to be held at Kansas City during the fall of 1900, and to take immediate steps to hold a fat stock show at Kansas City some time during the coming year. After a general discussion, participated in by Messrs. C. E. Leonard, Bell Air, Mo.; H. C. Duncan, Osborn; George Bellows, Maryville; John Morris, Chillicothe; N. H. Gentry, Sedalia; R. E. Edmonson, Kansas City; J. F. True, Newman, Kans.; H. A. Heath, Topeka, and a score of others, it was decided that George W. Glick, of Atchison, Kans.; N. H. Gentry, Sedalia, Mo., and H. C. Duncan, Osborn, be added to the committee consisting of Col. W. A. Harris, Linwood, Kans., and C. E. Leonard, Bell Air, and that this committee present the question of a Shorthorn show and sale to be held at Kansas City to the American Shorthorn Breeders' Association at the time of its annual meeting, November 22, 1899, at Chicago.

The chair was instructed to appoint a committee of one each for the several beef breeds, such committee to confer with the management of the Kansas City Stock Yards Company and with the members of the exchange concerning a fat stock show. The names of such committee will be given later to the public through the press.

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Hood's Pills are gentle, yet effective. 25 cents.

#### Anti-Horsethief Association.

The annual meeting of the Anti-Horsethief Association of Kansas and the Indian Territory adjourned October 16, 1899, at Vinita, I. T. Reports show an increase of membership of about 1,000. Next year's meeting will be held at Wichita. J. B. Culbertson, of Sterling, Kans., was elected president for the coming year, and John W. Wall, of Parsons, secretary-treasurer. Delegates were also chosen to attend the supreme lodge at Chanute, Kans., next year.

#### Deafness Cannot be Cured

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

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F. W. Parkhurst, the Boston publisher, says that if any one afflicted with rheumatism in any form, or neuralgia, will send their address to him at Box 1501, Boston, Mass., he will direct them to a perfect cure. He has nothing to sell or give, only tells you how he was cured. Hundreds have tested it with success.

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## Horticulture.

### SEED AND PLANT INTRODUCTION.

The act of Congress making appropriations for the U. S. Department of Agriculture for the fiscal year 1899 provided for the expenditure of \$20,000 for the collection, purchase, test, propagation, and distribution of rare and valuable seeds, bulbs, trees, shrubs, vines, cuttings, and plants from foreign countries for experiments with reference to their introduction into this country.

In accordance with this provision of the act, a Section of Seed and Plant Introduction has been established by Secretary Wilson in the Division of Botany, and several agricultural explorers have been sent to foreign countries to make examinations of the value and manner of propagating various trees, plants, vines, etc., and collect the necessary material for the experiments.

Mr. W. T. Swingle, who went to Europe as one of these agricultural explorers, has returned and has made a report to Secretary Wilson of the results of his trip to the countries along the Mediterranean.

The following extracts from the report show some of the more important results of Mr. Swingle's investigations:

**DATE PALMS.**—An important work which Secretary Wilson has under way is the introduction of the finer sorts of date palms from the old world into the arid or semi-arid Southwest.

The date palm must have a very hot and very dry climate to ripen good fruit, and yet can stand considerable frost in winter. It produces the best fruit on the sandiest, and for other crops the poorest, soils, and it thrives on all soils, even those white with alkali. An abundant water supply is, however, necessary. Realizing the great importance of the date palm to the Southwest, the Secretary directed Mr. Swingle to visit the Algerian date palm plantations and study the methods of culture followed there, and especially to secure plants of the true Degletnoor and other superior varieties. This has been done, and the first shipment has reached the experiment station in Arizona, and others will arrive later.

Investigations made at the Arizona Experiment Station show that the date will succeed in Arizona. The Arabs propagate the plant by removing and planting the suckers which appear at the base of the stem, since the varieties do not come true from seed. These suckers are what Mr. Swingle obtained from half a dozen oases in the Sahara Desert.

**CAPRIFICATION OF THE FIG.**—While pursuing his investigations, Mr. Swingle secured large numbers of the Blastophaga insect for the caprification of the fig. Caprification is a process practiced in the countries about the Mediterranean from the earliest times, and still considered essential by the growers of Smyrna figs. To insure caprification, the peasants suspend so-called caprifigs in the branches of the common fig-tree, just as the young figs are forming. From two to six of the caprifigs, which look exactly like small, hard, green figs, are threaded on a rush and the chaplet is then thrown into the branches. From twenty to thirty caprifigs suffice for a large tree. These caprifigs are the fruit of the male form of the species of which the ordinary fig-tree is the female. The caprifig-tree does not bear edible figs, but, instead, small, tough fruits filled with little galls, from which issue minute, black, wasp-like insects—the Blastophagas. These fig insects, in forcing their way out of the caprifigs, become coated with pollen; then if they enter the ordinary, or female fig, just developing at this season (July), they rub off the pollen on the flowers inside the fig, which thus become fertilized and ripens good seeds—an action beneficial to the fig-growers in two ways, first in preventing the figs from dropping off when half grown, and, second, from the rich nutty flavor which the seeds give to the fruit.

Not all varieties of figs require caprification, and, indeed, there are already many sorts which have for a century fruited abundantly in the South and Southwest. It is, however, absolutely necessary to caprify the best sorts of figs for drying. The only figs which are to be compared with the finer imported Smyrnas are a few pounds produced in California every year by the laborious process of hand pollination.

Secretary Wilson in 1897 assured the California State Board of Horticulture that he would endeavor to introduce the insect during the fiscal year 1898-1899. Partly with this end in view, Dr. Howard, Entomologist of the Department, visited California in the spring of 1898. Mr. Swingle, then studying in Naples, Italy, fortunately hit upon a new

method of shipment which rendered it easy to send the insects to California in good condition. This was by wrapping the winter form of caprifig in tin-foil and sending by mail. This simple expedient rendered it possible to secure as many Blastophagas as were wanted. In the spring of 1899 Mr. Swingle, under instructions from the Department, again sent numbers of the insects from Naples, and also from the fig regions in the mountains of Algeria. He also visited the fig-growing regions of Algeria, Italy, Greece, and Asia Minor, and learned the methods of culture pursued, and also the conditions necessary to the life of the insect. The insect has begun to breed in California and it is hoped that it will succeed in passing the winter and becoming permanently established. It will, however, be necessary to plant small orchards of caprifigs in various regions, so that in case the insects should be killed out in one locality by a freeze or other causes, they could be replaced without the expense and delay of importing them from abroad. We may now confidently expect to see the dried-fruit industry established shortly, not only in California, but also in Arizona and in all regions in the South and Southwest where there are no frosts severe enough to kill the orange-tree, and where the weather is dry during August and September.

**THE CAROB-TREE.**—In the way of forage plants, two are commonly grown in Algeria which are of great promise for the warmer parts of America, viz., the carob and the thornless cactus. The carob, or St. John's bread, is a tree belonging to the Leguminosae, and like the beans, vetches, and other plants of this family, is able to draw its nourishment largely from the air through the medium of bacteria which grow in the little tubercles on the roots. It yields enormous quantities of pods, which are often eaten by man and are relished by stock. As much as one and one-half tons have been produced by a single tree in Spain, and full-grown trees frequently yield over half a ton.

Enormous quantities of carobs are produced on the islands of Cyprus, Crete, and Sicily, and the culture of the tree extends all around the Mediterranean. The single province of Syracuse, Sicily, exports more than twenty-five thousand tons, worth more than two hundred and fifty thousand dollars, while Sicily produced, on the average, ninety-five thousand tons in the years 1890-1894. It grows on arid soils where nothing else will—it dislikes a rich soil, preferring a rocky or calcareous soil near the sea. It makes excellent food for horses, cattle, and sheep, and is very nourishing, the pods containing over 40 per cent of sugar and over 8 per cent of protein. Over 75 per cent of the organic matter is digestible.

Although this tree grows on poor soil and can resist drought it is sensible to cold and can be grown only where the orange succeeds without shelter. It is also said to do poorly in very rainy regions. There are large areas in the Southwest where it should thrive, and it is deserving of careful trial in the Gulf States. Mr. Swingle secured for the Section of Seed and Plant Introduction some young grafted trees of the best sorts from Algeria and Italy. As soon as possible the best sorts of carobs from other regions will also be obtained and tried in America. Owing to the absence of nurseries in the countries where carobs are principally grown, it is a matter of great difficulty to get such small trees.

**THE THORNLESS CACTUS.**—Another forage plant of promise for the warmer regions, and especially for the arid section, is the thornless cactus. This is an Opuntia or prickly pear which yields enormous amounts of the so-called leaves or pads which are in reality flattened branches, some ten to fifteen tons per acre being often reported. The pads contain only from five to ten per cent of dry matter, but being a watery food it is adapted to stock in dry regions, especially where more concentrated food seed, as cottonseed, can be given as well. The best sorts are thornless, and can be cut for fodder if desired, though if this be done no fruit is produced. Messrs. Lathrop and Fairchild sent the Section of Seed and Plant Introduction an entirely smooth cactus used for fodder in Argentina, and Mr. Swingle, while studying the agriculture of the Mediterranean countries, sent the prickly pear of Sicily. This latter is thornless, but has minute prickles. Cattle, however, eat it readily, and it has the advantage of producing delicious fruit.

**GRAPES.**—The fine table and wine grapes of Europe belong to a species (*Vitis vinifera*) less hardy than in American forms from which were derived the varieties now in general cultivation in the eastern United States. But notwithstanding the great progress

made in the improvement of the native fruit, we have as yet nothing approaching in quality or market value the fancy European article.

Our imports of wines, currants, raisins, and fresh grapes aggregate over \$3,350,000 a year.

For the purpose of making a thorough study of all those branches of viticulture, with a view to their development in the United States, Mr. Swingle visited the principal table and wine grape regions in Germany, France, Algeria, Tunis, and Italy, also the currant and raisin producing regions in Greece and Turkey.

The great enemy of the European grapes in eastern United States has been the dreaded phylloxera. The French vineyards were ravaged by this scourge some twenty years ago, but a remedy was found in grafting the European vine on selected American sorts, which are almost proof against the attack of this insect. In this way the resistance of the American sorts is combined with the high quality of the *Vinifera* grapes. The French viticulturists have found that not only is the injury successfully prevented, but the vines actually yield more than they did before the phylloxera appeared—the American roots proving to be better and more vigorous stock than the European.

In coöperation with the Division of Pomology, the Section of Seed and Plant Introduction has secured 2,000 plants of 119 of the best varieties, all grafted on American stocks especially selected for vigor and disease-resisting qualities. The grafted vines are being given a thorough trial in various localities in North Carolina, Florida, Alabama, and Kansas, under the direction of the Division of Pomology, in order to ascertain which varieties are best suited to the local conditions of the different regions. It is confidently hoped that the European grape can be established in many parts of the South, and that table-grape culture can be greatly extended by the culture of the superior European sorts.

The West and Southwest will be interested in the studies made as to methods of currant culture in Greece, and the importation proposed for next winter of the best sorts of currants and of seedless raisins as well as of the fine table grapes of Algeria, Turkey in Asia, and Bulgaria. In addition to securing the best European varieties grafted on American roots, Mr. Swingle also secured a considerable number of the varieties of American grapes selected in France with especial reference to their resistance to phylloxera. These resistant stocks can be multiplied here, and shortly we can produce our own grafted vines.

Then, too, many new hybrids of the European and American grapes, the so-called Franco-American, were obtained, as they have the great advantage of not requiring grafting, since the resistance of the American parent is, to a certain extent, combined with the quality of the European parent in their hybrids.

**PRICKLY PEAR.**—The Opuntia, grown in Sicily, produce delicious fruits in great abundance, often ten tons per acre. In Almeria, Spain, as high as fifteen tons of fruit are sometimes produced. In Sicily the well-ripened prickly pears are really delicious, and these improved varieties should be tried in all the Southern and Southwestern States. Some of these best sorts have been obtained and will be distributed to the experiment stations for trial.

**PISTACHE.**—A nut likely to prove of great value to California and Arizona is the pistache, now entirely imported and used only for flavoring ice cream, etc. In the Mediterranean regions it is eaten and is considered the finest nut, and this, too, in countries where splendid almonds and walnuts are produced. The choice varieties are propagated by grafting, and Mr. Swingle arranged, when in Athens, to secure a few for next spring.

**EVERBEARING STRAWBERRIES.**—For the especial use of the suburbanite a large everbearing strawberry of France, bred in that country within recent years, has been imported. These plants produce fruit for months on the same plants. They are not likely to be of value to truckers, but are just what are needed to supply a family with table fruit. A small patch will yield berries all the season.

**MUSKMELONS.**—Mr. Swingle also obtained a very small quantity of authentic seed of the Kirk Agatch muskmelon,

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which grows in a place of that name near Smyrna.

**NEW VEGETABLES.**—Mr. Swingle also came across a number of new vegetables. The crosne, or stachys, is a Chinese and Japanese vegetable. It has white tubers two to four inches long, the size of a finger, and looks like a crowded string of large beads. It was imported into France and its value discovered by the late M. Pailleux, a gentleman of leisure, who devoted his grounds at Crosne, near Paris, to the culture of new and strange vegetables from all part of the world. The plant is perfectly hardy and grown on all soils, and will yield as much as five tons to the acre. It is one of the most delicious vegetables known. Tuberous-rooted Chervile and tuberous-rooted Nasturtium (the Magna of Chile) are also tubers of delicate flavor much esteemed in Paris.

Among other vegetables of great merit are two species of asparagus new to America, one from Algeria, the other from Naples—asparagus kale and the fine cos lettuces of Italy and Turkey.

**ARTICHOKE.**—The name artichoke is commonly applied in America to a tuber resembling the potato, now grown extensively in some localities for stock feed and for distilling alcohol, but not generally popular as food for human beings. These are properly the Jerusalem artichokes, while the real artichokes are the unopened heads of a thistle-like plant. These are a delicious vegetable prized by rich and poor alike in Europe and produced by millions in France and Italy. The plant is a perennial, and the fine varieties are propagated by suckers from the roots of the old plants, as are pineapples, and do not come true from seed.

In order to introduce the culture of this much neglected vegetable, carefully potted suckers of several of the best varieties were imported. In spite of all precaution many died, still enough lived to provide a stock which can soon be multiplied indefinitely. The New York market is supplied now from Europe, principally from Naples. Artichokes have long been prized in New Orleans, and are grown there extensively for the local market and for canning.

It is confidently expected that the culture of this delicious vegetable will prove remunerative in the South, and that they can be introduced into other markets besides those of New Orleans and New York.

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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.

### FEEDING STANDARDS.

Last week we published a table giving the digestible nutrients contained in 100 pounds of common Kansas feed stuffs. In order to use this table we must know how much of the nutrients, protein, carbohydrates, and fat, are required by the animal system. To ascertain this point a large number of feeding experiments have been carried on and the averages of the best results have been taken as a basis of what are known as "feeding standards." We publish this week feeding standards for dairy animals, taken from Mentzel and Lengerke's *Laudw. Kalender* or 1898 and published in Professor Henry's book on "Feeds and Feeding." It will be noticed in this standard that the proportion of nutrients for milk cows varies in accordance with the yield of milk. In much of the college work we have taken nearly an average of these figures and maintained that the dairy cow of 1,000 pounds live weight, in order to do her best, required daily 2.5 pounds of protein, 12.5 pounds carbohydrates and 4 pound fat. For one who is just learning to figure a balanced ration this is probably the best way, but by this time the feeding question has been sufficiently agitated that there are a good many feeders who can figure a balanced ration with ease and are now ready to study individuality. Such men can use the accompanying standard to advantage. It should be borne in mind that no standard is absolute; being the result of averages, it is to be used as a guide or index. There are great differences in individuals, and the intelligent feeder will use his judgment and vary the feeds to meet the animal's needs. For instance, we found at the college that the heifer calves from beef cows have a tendency to lay on too much fat for dairy stock and so we feed them more protein than is called for by the standard. Knowing the nutritive elements in our feeds and the requirements of our animals we are now ready to figure and mete out to our animals what they require. D. H. O.

Date.	Number of hours set.	Per cent of fat in whole milk.	Pounds of milk.	Temperature.	Pounds of water.	Temperature.	Temperature when skimmed.	Per cent of fat in skim-milk.	Pounds of milk.	Temperature.	Pounds of water.	Temperature.	Temperature when skimmed.	Per cent of fat in skim-milk.
July 6.	14	3.50	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 7.	15	3.41	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 8.	15	3.39	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 9.	17	3.39	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 10.	17	3.39	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 11.	16	3.36	30	62	30	53	72	1.00	30	62	30	53	72	1.00
July 12.	16	3.36	30	62	30	53	72	1.00	30	62	30	53	72	1.00

MIXED HERD WITH MANY OF THE COWS NEARLY DRY.

Wheeler's Gravity Cream Separator.

Hunt's Improved Ventilated Separator.

Cooley Creamer.

Alfalfa Rations.

Bulletin 81, Kansas Experiment Station.

The figures indicate pounds, each ration is for twenty-four hours feed for a cow in full milk. If the cow is fed twice a day, use one-half of the ration at each feed:

1. Alfalfa 25, corn fodder 9 or sorghum hay 7 or millet hay 6.

2. Alfalfa 25, corn fodder 5, Kaffir-corn 2.
3. Alfalfa 25, corn 3½ or Kaffir-corn 4.
4. Alfalfa 20, corn 7 or Kaffir-corn 8.
5. Alfalfa 20, corn 6 or Kaffir-corn 7, oats 2.
6. Alfalfa 20, corn 4, Kaffir-corn 4.
7. Alfalfa 20, fodder corn 15.
8. Alfalfa 20, corn fodder 8, corn 4.
9. Alfalfa 20, millet 5, corn 4.
10. Alfalfa 20, sorghum hay 8, corn 3.
11. Alfalfa 20, prairie hay 5, Kaffir-corn 5.
12. Alfalfa 20, mangels 20, corn 5½.
13. Alfalfa 20, corn ensilage 15, Kaffir-corn 5.
14. Alfalfa 15, corn fodder 10, corn 5, soy-bean meal 1½.
15. Alfalfa 15, millet 5, Kaffir-corn 7, soy-bean meal 1.
16. Alfalfa 15, sorghum hay 4, Kaffir-corn 8, soy-bean meal 1.
17. Alfalfa 15, prairie hay 5, corn 6, soy-bean meal 2.
18. Alfalfa 15, mangels 10, corn fodder 5, corn 3, Kaffir-corn 3, bran 2.
19. Alfalfa 15, corn ensilage 20, corn 4, bran 3.
20. Alfalfa 10, corn fodder 15, corn 4½, linseed-meal (o. p.) 3.
21. Alfalfa 10, millet 10, corn 3, soy-bean meal 1½, bran 3.
22. Alfalfa 10, sorghum hay 10, corn 1½, oats 5, Chicago gluten-meal 2.
23. Alfalfa 10, prairie hay 10, Kaffir-corn 5 or corn 4½, soy-bean meal 3.
24. Alfalfa 10, mangels 10, corn fodder 15, Kaffir-corn 3, soy-bean meal 2, bran 2.
25. Alfalfa 10, corn ensilage 30, corn 5, soy-bean meal 3.
26. Alfalfa 5, corn fodder 15, corn 6, cottonseed-meal 3, bran 1.
27. Alfalfa 5, millet 15, bran 5, cottonseed-meal 2.
28. Alfalfa 5, sorghum hay 15, corn 4, bran 2½, cottonseed 3.
29. Alfalfa 5, prairie hay 13, corn 4, soy-bean meal 3, bran 3.
30. Alfalfa 5, ensilage 40, corn 3, oats 3, cottonseed-meal 1, linseed-meal (o. p.) 2.

### Dilution Alias "Delusion" Separator.

For the past few years there has appeared upon the market a variety of so-called "separators" consisting of a tin can with a faucet at the bottom and one or more strips of window glass on the side. They are known by a variety of names, as the "Aquatic separator," the "Hydraulic separator," the "Dilution separator," and two or three more. The principle in all of them is the same; viz., the diluting of the milk with water which, it is claimed, causes the cream to separate more quickly and also more thoroughly.

The term, separator, as understood by all dairymen, has reference to a machine which uses centrifugal force, acting on the milk in a rapidly revolving bowl or cylinder. It is possible to apply the term to any vessel in which milk is placed to allow the cream to rise, but it is certainly misleading to call anything a separator except the centrifugal machine.

A number of our experiment stations, Cornell, Illinois, Vermont, and others, have tried these so-called separators or the dilution process of raising cream, and all agree that as good results can be obtained by using either the shallow pan or the deep-setting systems. Bulletin 151 of Cornell University gives some valuable information on the gravity or dilution separator, and the following table from this publication will help to show the inefficiency of these machines:

### FEEDING STANDARDS FOR DAIRY ANIMALS.

Animal.	Protein.	Carbo-hydrates.	Fat.	Nutritive Ratio L.
1.—Milk cows, when yielding daily—				
11.0 pounds of milk...	1.6	10.0	0.3	6.7
16.6 pounds of milk...	2.0	11.0	0.4	6.0
22.0 pounds of milk...	2.5	13.0	0.5	5.7
27.5 pounds of milk...	3.3	13.0	0.8	3.5
2.—Young stock.				
Age in months. Av. live wt. per head, lbs.				
2-3 150.....	4.0	13.0	2.0	4.5
3-6 300.....	2.0	12.8	1.0	5.1
6-12 500.....	2.0	12.5	0.5	6.8
12-18 700.....	1.8	12.5	0.4	7.5
18-24 900.....	1.5	12.0	0.3	8.5

Another table shows the results of milk from cows comparatively fresh, and in this table the Cooley can is away ahead; the average is as follows: Wheeler's, .79; Hunt's, .93; and Cooley's, .53. When we remember that the centrifugal separators leave only .1 of 1 per cent of butter fat in the milk and

## WANTED—AGENTS FOR CREAM SEPARATORS

During the next six months—in conjunction with the introduction of the improved "NEW CENTURY" De Laval Cream Separators—we shall thoroughly reorganize our system of Dairy or "Baby" separator local agencies. Out of 2,000 existing agencies and sub-agencies 1,500 will be changed, and as many additional new ones created. 1900 promises to be the greatest of separator years. Centrifugal separation and clarification must soon become universal. Machines may be sold in every township. The conceded superiority of the "Alpha" De Laval machines should give them 85 per cent. of the total trade. But live aggressive agents are equally essential to getting it. We have the machines and require more good agents. Successful separator agents are confined to no particular class. Applications should give full details.

Mention This Paper In Writing.

### THE DE LAVAL SEPARATOR CO.

Western Offices: RANDOLPH & CANAL STS. CHICAGO. GENERAL OFFICES: 74 CORTLANDT STREET, NEW YORK. Branch Offices: 1102 ARCH STREET, PHILADELPHIA.

oftentimes it is less, we see how inefficient these machines are.

The conclusions arrived at in the bulletins are these: "Gravity or dilution separators are merely tin cans in which the separation of cream by gravity process is claimed to be aided by dilution with water."

Under ordinary conditions the dilution is of no benefit. It may be of some use when milk is all from "stripper" cows, or when the temperature of melting ice can not be secured.

"These cans are not separators in the usually accepted sense of the term and can not rank in efficiency with them."

"They are even less efficient than the best forms of deep-setting systems, such as the Cooley creamer."

"They are no more efficient than the old-fashioned shallow pan; but perhaps require less labor."

"In all probability they would give better results if used without dilution and immersed in as cold water as possible, preferably ice-water."

Prof. A. L. Haeckel, of Nebraska Dairy School, writing for the Nebraska Dairyman on this subject says: "When a farmer purchases such a separator he is getting nothing more than a tin can and the privilege of mixing water with his milk, which does more harm than good."

J. A. CONOVER.

Kansas Experiment Station.

We wish to call the attention of every dairy farmer to the following, from the Department of the Interior Census Office, Washington, and would suggest that such records be kept the coming year as will enable the farmer to answer all questions promptly and accurately:

### CENSUS OF DAIRY PRODUCTS.

The law requires the statistics for the Twelfth Census of dairy products (farm and factory) to be taken on separate schedules.

The Division of Agriculture will take the amount of milk and cream produced and sold, and the amount of money received from their sales; also the quantity and value of all the butter and cheese made on the farm.

On the manufacture schedule will be taken the quantity of butter and cheese

made in factories, cooperative and otherwise, together with the quantity and cost of raw materials (milk and cream), cost of labor, capital invested, character and value of plants and machinery, etc.

After the two forms of schedules shall have been returned to the census of dairy products on each will be consolidated, and thus show, what never heretofore has been shown, the total yield of milk in the United States and the amounts and values of its several products.

This assertion is based on the assumption that the farmers shall furnish to the enumerators, fully and accurately, the information which the schedules may call for.

In some sections the record of cheese factory and creamery operations for the current year are destroyed, agreeably to previous vote of directors or patrons. For 1899 they should vote, instead, to have prepared and preserved for the use of the Census enumerators, who will appear on June 1, 1900, the statistics which the law says shall be gathered.

In many cases a failure to do this will prevent the enumerators from securing any returns, because new managers, or new secretaries, or new

## Make More Butter.

Increase each cow's profits at least \$10 a year. Others are doing it who use

The Kneeland Omega Cream Separator.

Easiest running, least cost to buy and for repairs, simple, durable, perfect. Sold under a positive guarantee to be as claimed or your money back. That's fair enough. Agents wanted where we have none. Free book, "Good Butter, and How to Make It," to every one who writes for it. Address,

The Kneeland Crystal Creamery Co., Concord St., Lansing, Mich.



Remember, when you are ready to buy a cream separator, that the

### IMPROVED U. S. SEPARATOR EXCELS ALL OTHERS IN

Thoroughness of separation,  
Little power required to operate,  
Little time required to clean,  
Simplicity, only three parts to the bowl,  
Durability, therefore smaller repair bills,

Consequently, is the one you will wish to buy, if you desire the best. Send for our latest illustrated catalogues.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



boards of control may be in charge on June 1, 1900, who will know nothing of the factory statistics of 1899—and the figures for 1899 are the ones which the law says shall be taken.

Farmers who keep no records of their transactions will find themselves in the same dilemma, on the arrival of the Census enumerator, as a factory which destroys its records. Therefore, Chief Statistician Powers is appealing to all of them to prepare in writing, while the necessary facts are fresh in mind, such a statement of milk, cream, butter and cheese products as will enable them to reply promptly and accurately to the inquiries which the law says the enumerators must make.

If they shall fail to do this, the statistics of dairy products in their county will be incomplete, and will compare unfavorably with those of counties wherein the returns are more accurate.

#### Secret of Success.

The secret of success is in doing one's best every day. Costly experience may be avoided by taking lessons from the practice and experience of others. When beginning the dairy or creamery business be content to be a learner. Study and imitate the best models, the most successful men. Begin at the foundation and begin in a small way. Let your growth in knowledge precede the expansion in your business. Bear in mind that there is more profit from five good cows skillfully managed than from ten fair cows handled unskillfully. Remember that there is no such thing as luck in dairy and creamery work. Success does not come by chance. It is only by patient, well directed effort, by the concentration of the faculties of the mind as well as the labor of the hands that success is obtained.

At the State school of agriculture is the best place for the farmer's son to spend the winter, and the farmer's daughter too, for that matter, if the board of regents have done their duty in providing a course in domestic science and other features of education suited to the training of young women for intelligent farmers' wives. Only intelligent men who have had special training in the principles and practice of agriculture can hope of success in the future. Besides, when Farmer John begins the race for honorable success in life he needs a trained running mate and not a handicap. Practical education is the best thing you can give your son or daughter.—Dairy and Creamery.

### BREEDER'S DIRECTORY.

(Continued from page 1.)

#### SWINE.

#### Queen City Hog and Poultry Farm

#### Improved Chester Whites and Poland-Chinas

Light Brahmas, Buff Cochins, Pekin ducks and White guineas. Stock for sale. Poland-Chinas at closing-out prices. Visitors welcome. A. E. Staley, Farm one-half mile north of town. | Ottawa, Kans.

#### Central Kansas Herd of Poland-Chinas

Of Chief Teumseh 2d, Guy Wilkes 2d, Lawrence Perfection, Black U. S., and King Butler blood. 100 head. A choice lot of spring boars; good bone, large and growthy. A few fall of '98 boars. A fine lot of yearling sows and spring gilts, bred or unbred. Can furnish males and females not related. Address C. S. SNODGRASS, Galt, Rice Co., Kans.

#### CATTLE.

CENTRAL KANSAS STOCK FARM.—F. W. ROSS, C. Alden, Rice Co., Kans., breeds pure-bred Shorthorns, Poland-Chinas and Barred Plymouth Rocks. Stock for sale.

ENGLISH RED POLLED CATTLE—PURE-BRED Young stock for sale. Your orders solicited. Address L. K. Haseltine, Dorchester, Green Co., Mo. Mention this paper when writing.

W. H. McALL, COLLEGE VIEW, NEB. Two extra yearling Holstein-Friesian bulls, also cows and heifers. High milk and butter records. Special price on bulls next 30 days.

H. B. LITTLE, Hope, Dickinson county, Kans., head, breeder of Shorthorn cattle. Herd numbers 100 head.

FOR SALE: TWENTY-FIVE SHORTHORN BULLS OF SERVICEABLE AGE.

MEADOW BROOK SHORTHORNS—Headed by the Scotch bull, 20th Earl of Valley Grove 122381, a son of Lord Mayor. Breeding cows by such bulls as imported "Thistle Top" and "Earl of Gloster." A car lot of high grade cows for sale. F. C. KINGSLEY, Dover, Shawnee Co., Kans.

#### BONITA • SHORTHORNS.

BATES, BOOTH, and BEST AMERICAN strains. Baron Noxubi 127151, by Godwin, the sire at Linwood, heads our herd. Address WILLIAMS BROS., Bonita, Kans.

#### GEO. GROENMILLER & SON,

Centropolis, Franklin Co., Kans.

Breeders of RED POLLED CATTLE and COTSWOLD SHEEP. Buff and Partridge Cochins, Light Brahmas, Brown S. C. Leghorns, Golden Wyandottes. Only a few seven-eighths Red Polled bulls for sale.

#### CATTLE.

#### MAPLE GROVE HEREFORDS.

Selected from herds of Guggell & Simpson, Cross, Stannard, and Comstock. Headed by Garfield bull, Porter 48708. J. R. SMITH, Dunavant, Kans.

#### RED POLLED CATTLE

Largest Herd in America.

S. A. CONVERSE, Proprietor, Importer and Breeder.

Cresco, Howard County, Iowa.

#### Bulls For Ranch or Farm.

#### 40 HEAD OF Hardy Aberdeen Angus

6 Ages 6 months to 2 years. Ten are registerable and nearly all are full bloods. Prices that will sell them. Write or see L. H. PATTERSON, Keats, Kans. Ranch one-fourth mile from Rock Island depot.

#### CLOVER CLIFF FARM.

Registered Galloway Cattle. Also German Coach, Saddle and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion, Rosewood, a 16-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address BLACKSHERE BROS., Elmdale, Chase Co., Kans.

#### 40 Shorthorn Bulls For Sale.

I wish to sell as soon as possible 40 young bulls, 6 to 15 months old. Will also spare a few females to customers. Prices will be right. Address, GEORGE CHANNON, Proprietor Lockridge Stock Farm, Hope, Dickinson Co., Kans.

#### ROCKY • HILL • SHORTHORNS

Waterloo Duke of Hazelhurst 11th 130723 and the Linwood Golden Drop bull, Golden Victor Jr. 137875, head of herd. Thirty odd young bulls and a few heifers for sale. Two of the bulls cross bred Scotch and Bates are good enough to head herds.

J. F. TRUE & SON, Newman, Kans.

Newman is on Union Pacific R. R., twelve miles east of Topeka.

#### GALLOWAYS

Are the original

#### POLLED BEEF BREED

For full particulars write to FRANK B. HEARNE, Secretary American Galloway Cattle Breeders' Association, Independence, Mo. If you want to buy a Galloway he can give you the address of breeders.

#### H. M. Satzler,

Burlingame, Kansas,

...BREEDER OF...

#### HEREFORD CATTLE,

#### BERKSHIRE SWINE,

#### COTSWOLD SHEEP.

STOCK FOR SALE.

#### REGISTERED Galloways

#### FOR SALE!

IN LOTS TO SUIT. 12 2-year-old bulls, 20 yearling bulls, balance cows and heifers. Inspection desired. Call on or address, J. M. LOWE, 311 Mass. Bldg. Kansas City, Mo. J. R. LOWE, Blue Springs, Mo.

#### THE VINEWOOD HERD.

#### SHORTHORNS THAT ARE FEEDERS.

A herd of growthy, easy fattening Scotch and Scotch-topped cows headed by the Cruickshank bulls, Lavender King 4th 108682, from J. H. Potts & Sons' young herd of World's Fair prize-winners, and Gloster Vol. 44. Visit our herd.

D. K. KELLERMAN & SON, Mound City, Linn Co., Kans. Vinewood Farm one and a half miles north of Missouri Pacific depot.

#### SILVER CREEK HERD

#### SHORT-HORN CATTLE.

Scotch and Scotch-topped, with the richly-bred Cruickshank bulls, Champion's Best 114671 and Gwendoline's Prince 130913, in service. Also high-class DUROC-JERSEY SWINE. Can ship on Santa Fe, Frisco and Missouri Pacific railroads.

J. F. STODDER, Burden, Cowley Co., Kans.

#### BELVOIR HERD

#### HEREFORDS

OF THE VERY BEST BREEDING.

Herd bulls: Princeps 66683, Ben Butler 54079, and McKinley 68926. Ten yearling bulls and a few females for sale.

STEELE BROS., Belvoir, Douglas Co., Kans.

#### SUNFLOWER HERD

Scotch and Scotch-topped

#### SHORTHORN CATTLE.

#### POLAND-CHINA SWINE.

Herd bulls, Sir Knight 124403 and Violet Victor 137674. Herd boars, Black U. S. 2d 50606, and L's Sensation 2d 13906. Representative stock for sale. Address ANDREW PRINGLE, Harveyville, Kansas.

#### CATTLE.

#### HEREFORDS.

Top cattle only. Rich breeding. Five bulls out of my best cows for sale. T. H. PUGH, Carthage, Mo.

#### BREED THE HORNS OFF

By using a Red Polled bull.

CHAS. FOSTER & SON, ELDORADO, KANS.

Breeders of Red Polled cattle. Herd headed by Powerful 4582. Pure-bred and grades for sale. Also, prize-winning Light Brahmas.

Three miles "GREENACRES" One and a half miles N. of Quenemo on Santa Fe. | of Lomax on Missouri Pacific.

#### HEREFORD CATTLE.

Archibald 1st 39254 at head of herd. Young Archibald breeding stock always for sale. Herd always "at home." J. C. CURRY, Quenemo, Osage Co., Kans.

#### 30-HEREFORD BULLS-30

H. A. NABER, Wallula, Kans., breeder of pure-bred Hereford cattle, has for sale 30 pure-bred registered Hereford bulls, 6 to 15 months old, sired by Anxiety Grove 2d 60624. Also a lot of choice heifers bred to Grove Gentry 8th. Also some Cotswold rams. Railroad station is East Fairmount, Kans., on Santa Fe, 25 miles west of Kansas City. Change cars at Holiday.

#### ELDER LAWN HERD OF SHORTHORNS.

Herd headed by GALLANT KNIGHT 12466. The herd females are Scotch, Scotch-topped, Bates and American families. For ready sale, a few choice serviceable bulls, and bred cows and heifers. Address T. K. TOMSON & SON, Dover, Kans.

HERD BULLS FOR SALE

KANSAS LAD 134085, eighteen months old

sired by Duke of Kansas 123126, and tracing to Imp. Orin and Imp. Golden Galaxy. Also CONSTANCE DUKE 134083, twenty months old, by Duke of Kansas out of 5th Constance of Hillsdale by 60th Duke of Oxford 55734.

These two grand bulls should be herd-heads. Come and see them or address B. W. GOWDY, Garnett, Kansas.

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#### HORSES.

### PROSPECT FARM

H. W. McAFEE, Topeka, Kansas.



Breeder of PURE-BRED Clydesdale Horses and Scotch Shorthorn Cattle.

FOR SALE: Registered stallions and mares. Also the straight-bred Cruickshank herd bull, MY LORD 116563. VISITORS WELCOME.

#### POULTRY.

#### CHOICE BREEDING COCKS AND COCKERELS.

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. A. H. DUFF, Larned, Kans.

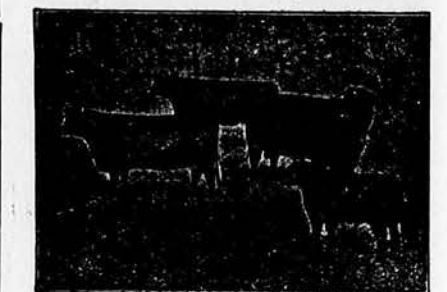
#### Barred and White Rock COCKERELS.

Ringlet and Empire Strains

Now is the time to buy, as I can sell you fine early hatched birds at \$1 each, which will, later on, command from \$3 to \$5 each. Finest lot of youngsters I ever had. Fullets, 75 cents. Order quick and get the best. T. E. LEFTWICH, Larned, Kans.

#### 200 BREEDERS—Also SPRING CHICKS.

Barred P. Rocks, White P. Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Langshans, Black Javas, Silver Wyandottes, White Wyandottes, S. S. Hamburgs, Brown Leghorns, White Leghorns, Pearl Guineas, and Pekin ducks. All our fine breeders of this season, and our earliest spring chicks will go at half price during summer. Write me your wants. Circular free. A. H. DUFF, Larned, Kans.



#### CEDAR HILL FARM.

Golden Knight 108086 by Craven Knight, out of or ton's Gold Drop, and Baron Ury 2d by Godoy, out of Mysie 50th, head the herd, which is composed of the leading families. Young bulls of fine quality for sale. C. W. TAYLOR, PEARL, DICKINSON CO., KANS.

#### NORWOOD STOCK FARM

#### BARGAINS

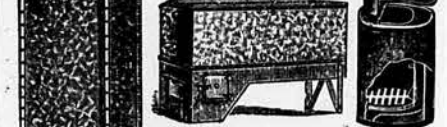
#### For Dairymen or Breeders.

I will dispose of my Herd Book and Cattle Club Jerseys at prices every dairymen can well afford to pay. Breeding the finest—individually all that could be asked. One bull, twenty-five cows and heifers. Address for particulars—E. A. SMITH, Lawrence, Kansas.

#### Galvanized Steel Tanks.

#### Feed Cooker.

#### Tank Heater.



Shipped Subject to Inspection.

It costs you one cent for a card to write us and you get full particulars. Agents wanted. FREELAND MANUFACTURING CO., NILES, MICH.

#### 300

#### Shropshire Rams

From choicest flocks of Canada and Michigan. Can sell you one crated or double-deck car-load. Also a few choice Hampshire and Cotswold, and 30 good Ramboulllets.

PLATT BROS., 1613-15 Genesee St., (Near Stock Yards), KANSAS CITY, MO.

### 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 breed 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.





## MARKET REPORTS.

## Kansas City Live Stock.

Kansas City, Oct. 23.—Cattle—Receipts since Saturday, 806; calves, 10,505; shipped Saturday, 1,368 cattle; 335 calves. The market was slow and unevenly lower. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
59.....	1,384 \$5.50	26.....	1,062 \$5.05
1.....	800 4.75		

WESTERN STEERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
64.....	1,207 4.70	23.....	1,215 4.50
21.....	1,003 3.70	80.....	913 3.65
70 can.....	630 2.95	18 can.....	597 2.95
48 can.....	800 2.85	19 can.....	642 2.85
54 can.....	628 2.70	50 can.....	612 2.70
74 can.....	579 2.70	68 can.....	587 2.70
72 can.....	580 2.70	79 can.....	571 2.70

TEXAS AND INDIAN STEERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
26.....	917 3.40	104.....	846 3.25
3.....	830 3.15	23.....	800 3.10
23.....	816 3.10	89 can.....	664 2.50

WESTERN COWS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
29.....	725 3.75	18.....	944 3.15
1 Tex.....	1,000 3.15	50.....	988 3.10
1.....	660 2.70	6 T. hf.....	728 2.85
10.....	957 2.75	54.....	686 2.55

TEXAS AND INDIAN COWS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
1 hf.....	1,180 4.25	1.....	1,000 3.50
31.....	718 3.05	27.....	755 3.05
59.....	779 3.05	25.....	855 2.85
80.....	658 2.50		

NATIVE HEIFERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
1.....	1,080 4.65	1.....	650 4.00
1.....	880 4.00	47.....	661 3.85
4.....	906 3.85	19.....	743 3.50

NATIVE COWS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
1.....	1,100 3.65	1.....	1,260 3.65
2.....	1,200 3.50	1.....	1,250 3.25
2.....	925 3.25	1.....	900 3.25
2.....	1,155 3.20	2.....	1,010 3.15
1.....	1,110 3.15	2.....	1,040 3.10
1.....	1,130 3.10	4.....	805 3.10
2.....	1,115 2.75	1.....	1,120 2.80

NATIVE STOCKERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
20.....	688 4.35	10.....	530 4.30
58.....	535 4.25	14.....	630 4.25
4.....	860 4.00		

STOCK COWS AND HEIFERS.		Ave. Price.	
No.	Ave. Price.	No.	Ave. Price.
11.....	472 3.85	3.....	838 3.75
5.....	566 3.75	1.....	780 3.60
2.....	810 3.50	1.....	880 3.50
1.....	670 3.50	1.....	730 3.40
2.....	475 3.50	1.....	770 3.40
1.....	700 3.20	2.....	755 3.25
2.....	610 3.10	1.....	1,160 3.05

Hogs—Receipts since Saturday, 4,242; shipped Saturday, 510. The market was steady to strong. The following are representative sales:

94.....	187 \$4.20	60.....	213 \$4.20	58.....	173 \$1.20
28.....	145 4.20	73.....	220 4.17½	75.....	205 4.17½
20.....	178 4.17½	74.....	253 4.17½	12.....	150 4.17½
61.....	216 4.17½	68.....	205 4.17½	79.....	219 4.17½
62.....	367 4.17½	74.....	243 4.17½	72.....	246 4.17½
67.....	282 4.17½	67.....	254 4.17½	24.....	244 4.17½
83.....	210 4.17½	1.....	400 4.17½	40.....	189 4.15
62.....	212 4.15	71.....	205 4.15	41.....	108 4.15
69.....	181 4.15	104.....	188 4.15	10.....	315 4.15
64.....	210 4.15	95.....	203 4.15	55.....	114 4.15
19.....	200 4.15	49.....	242 4.15	72.....	146 4.15
73.....	291 4.15	56.....	330 4.15	80.....	243 4.15
89.....	244 4.15	63.....	180 4.15	65.....	188 4.15
12.....	255 4.12½	4.....	297 4.12½	8.....	263 4.12½
6.....	226 4.12½	67.....	219 4.12½	14.....	117 4.10
16.....	77 4.00	1.....	380 4.00	4.....	305 4.00
2.....	210 4.00	7.....	285 3.90	1.....	420 3.90
1.....	500 3.75	2.....	215 3.75	2.....	150 3.70

Sheep—Receipts since Saturday, 5,299; shipped Saturday, none. The market was strong to 100 higher. The following are representative sales:

161 W. lbs.....	68 \$5.00	316 W. lbs.....	64 \$1.75
25 sw. lbs.....	62 4.60	20 sw. lbs.....	79 4.50
19 lambs.....	68 4.25	668 West.....	103 3.83
177 West.....	88 3.75	116 stk.....	87 3.00

## South Omaha Live Stock.

South Omaha, Neb., Oct. 23.—Cattle—Receipts, 1,000; market, beefs 5 and 10c lower, feeders steady; native beef steers, \$5.00@6.20; western steers, \$4.00@4.80; cows and heifers, \$2.50@4.50; canners, \$1.75@2.50; stockers and feeders, \$2.80@4.80; calves, \$4.00@6.50.

Hogs—Receipts, 2,600; market 2½ and 5c higher; heavy \$4.10@4.20; mixed, \$4.15@4.22½; light, 4.20@4.30; pigs, \$3.90@4.10; bulk of sales, \$3.15@4.17½.

Sheep—Receipts, 13,000; market, sheep steady, lambs 10c higher; western muttons, \$3.60@3.85; stock sheep, \$3.50@3.60; lambs, \$4.50@5.00.

## St. Louis Live Stock.

St. Louis, Oct. 23.—Cattle—Receipts, 4,000; market steady; native shipping and beef steers, \$3.20@6.35; stockers and feeders, \$2.65@5.00; cows and heifers, \$2.00@5.00; Texas and Indian steers, \$3.15@4.10.

Hogs—Receipts, 3,000; market steady; pigs and lights, \$4.25@4.35; packers, \$4.15@4.30; butchers, \$4.30@4.40.

Sheep—Receipts, 1,200; market strong; native muttons, \$3.90@4.25; lambs, \$4.00@5.50.

## Chicago Live Stock.

Chicago, Oct. 23.—Cattle—Receipts, 19,000; market steady; beefs, \$4.35@6.75; cows and heifers, \$1.75@5.10; stockers and feeders, \$3.00@4.75.

Hogs—Receipts, 30,000; market steady to 5c higher, active; mixed and butchers, \$4.10@4.50; good heavy, \$4.15@4.47½; rough heavy, \$3.85@4.05; light, \$4.10@4.45.

Sheep—Receipts, 16,000; market steady; sheep, \$3.00@4.60; western lambs, \$4.50@5.25; western sheep, \$3.00@4.00.

## Chicago Grain and Provisions.

	Oct. 23.	Opened	High'st	Lowest	Closing
Wh't—Oct.....	68½				
Dec.....	70	70½	70	70½	
May.....	74	74½	73½	74½	
Corn—Oct.....	81½	81½	81½	81½	
Dec.....	81	81½	80½	81½	
May.....	82½	83½	82½	83½	
Oats—Oct.....					22½
Dec.....	22½	22½	22½	22½	
May.....	24½	24½	24½	24½	
Pork—Oct.....					7 82½
Dec.....	7 90	7 95	7 90	7 92½	
Jan.....	9 40	9 47½	9 40	9 95	
Lard—Oct.....					5 15
Dec.....	5 17½	5 22½	5 17½	5 20	
Jan.....	5 35	5 37½	5 35	5 35	
Ribs—Oct.....					4 70
Dec.....	4 72½	4 72½	4 72½	4 72½	
Jan.....	4 92½	4 95	4 92½	4 92½	

## Kansas City Grain.

Kansas City, Oct. 23.—Wheat—Receipts here to-day were 300 cars; a week ago, 414 cars; a year ago, 609 cars. Sales by sample on track: Hard, No. 2, nominally \$3.00@4.00; No. 2 hard, 59½¢.

62¢; No. 4 hard, 58¢@61½¢; rejected hard, 53¢@60¢. Soft, No. 2, nominally 67¢; No. 3 red, nominally 63¢@66¢; No. 4 red, 57¢@60½¢; rejected red, 57½¢. Spring, No. 4, 64¢; No. 3 spring, 58¢@61½¢.

Corn—Receipts here to-day were 65 cars; a week ago, 48 cars; a year ago, 33 cars. Sales by sample on track: Mixed, No. 2, 29¢@29½¢; No. 3 mixed, nominally 28½¢; No. 4 mixed, nominally 27½¢@28¢; no grade, nominally 27¢. White, No. 2, 30¢; No. 3 white, 29½¢@29¢; No. 4 white, nominally 28¢@28½¢.

Oats—Receipts here to-day were 19 cars; a week ago, 15 cars; a year ago, 5 cars. Sales by sample on track: Mixed, No. 2, nominally 22½¢@23½¢; No. 3 mixed, nominally 22¢@23½¢; No. 4 mixed, nominally 21¢@21½¢. White, No. 2, 24½¢; No. 3 white, nominally 23¢@23½¢; No. 4 white, nominally 22¢@23½¢.

## THE STRAY LIST.

FOR WEEK ENDING OCTOBER 12, 1899.

Nemaha County—A. G. Sanborn, Clerk.

TWO HOGS—Taken up by J. W. Everhart, in Caploma tp. (P. O. Caploma), August 17, 1899, two black shoats with white feet (one has white face), 5 or 6 months old; valued at \$6 each.

FOR WEEK ENDING OCT. 19, 1899.

Elk County—J. A. Benson, Clerk.

MARE—Taken up by J. B. Mead, in Paw Paw tp., October 9, 1899, one dark bay mare, with saddle or harness marks; valued at \$30.

McINTOSH & PETERS COMMISSION CO.,  
Live Stock Commission Merchants.

Rooms 252-3-4 Exchange Building.  
KANSAS CITY STOCK YARDS.

Correspondence and Consignments Solicited. Market reports furnished to FEEDERS and SHIPPERS.

## REFERENCES:

National Bank of Commerce, Kansas City, Mo.  
Inter-State National Bank, Kansas City, Kans.  
Bank of Topeka, Topeka, Kans. Telephone 164  
Security Bank, Eskridge, Kans. Hickory.

## Hogs are Higher

They are going up daily. Get ready for the boom by breeding now. We send a sample pair of our

## FAMOUS O. I. C. HOGS

ON TIME, and allow you agency if you write promptly. Two of these famous hogs weighed 3,800 lbs. Write to-day.

L. B. SILVER CO.  
179 Grand Arcade Bldg., Cleveland, O.

**BRAND NEW TINNED STEEL ROOFING**

THESE ARE THE ONLY TOOLS YOU NEED

\$2.00 per Square of 10x10 feet, or 100 Square Feet.

WE CARRY A COMPLETE STOCK OF ALL KINDS OF MERCHANDISE AND MATERIAL BOUGHT AT SPECIALTY RECEIVERS AND TRUSTEES' SALES. YOU NEED

Write for Free Catalogue No. 61.  
Our Prices Are ¼ of Others.

CHICAGO HOUSE WRECKING CO.,  
WEST 35TH & IRON STS.,  
CHICAGO.

## THE ANTI-FRICTION 4-BURR MOGUL



Will actually grind 60 to 80 bushels per hour. Has four burrs, nearly three feet in diameter, grinding at once. Grinds four times as fast as other mills. Has no friction. All the pressure is on the grain. No gearing; no oil needed, and the lightest drafts known. The burrs are all independent and easily replaced. This mill is especially adapted to grinding ear corn, and is just what all large feeders are looking for. We make two sizes of this mill, for two and four horses. We manufacture the largest and best line of Feed Mills sold, including the famous Iowa Mill No. 2 for \$13. Agents wanted. Iowa Grinder & Steamer Works, 921 Commercial St., Waterloo, Iowa.

## 450 High Class Shropshires 450

200 registered rams, 150 registered ewes, also ram and ewe lambs. Sheep are true type, and square built beauties. Prices reasonable.

Foundation flocks a specialty.  
Come or write. Address  
W. J. BOYNTON, Breeder and Importer,  
Rochester, Minn.

## RAMS FOR SALE.

500 from the Champion Merino flock of the West. American, Delaine, and Rambouillet. Also forty Shropshire bucks. Address

E. D. KING,  
BURLINGTON, KANSAS.

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

## CANNON'S KILLS



Bed Bugs,  
Roaches,  
Flies,  
Lice, Ticks.

Non-Poisonous.

Antiseptic Disinfectant and Germicide.

PREVENTS CONTAGIOUS DISEASES.

25 and 50 Cent Bottles or in Gallon Lots by All Dealers.

## HEALS

Sores, Cuts,  
Burns,  
Stings,  
Bites.

Non-caustic.

## CANOLINE

"PASTEUR"  
BLACK LEG VACCINE.

The original, genuine, and successful preventive vaccine remedy for Blackleg. In powder form: "Single" application, \$1.50 per packet, (10 to 12 head); "Double" application, \$2.00 per double packet, (10 to 20 head). Also "BLACKLEGINE," Single application vaccine READY FOR IMMEDIATE USE: Ten head, \$1.50; twenty head, \$2.50; fifty head, \$3.50. Beware of substitutes for, or imitations of our well-known "Pasteur" Vaccines. Write for particulars and proofs of success during four

PASTEUR VACCINE CO.,  
CHICAGO. OMAHA. DENVER. FORT WORTH.

## The Kansas City Stock Yards.

FINEST EQUIPPED, MOST MODERN AND BEST FACILITIES.

The Kansas City market, owing to its central location, offers greater advantages than any other.

Twenty-Two Railroads Center at these Yards.

Largest Stocker and Feeder Market in the World.

Buyers From the.....

ARMOUR PACKING COMPANY,

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SCHWARZSCHILD & SULZBERGER CO.,

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GEO. FOWLER, SON & CO., Ltd.,

CUDAHY PACKING COMPANY.

Principal Buyers for Export and Domestic Markets in Constant Attendance.

	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1898 .....	1,846,233	3,672,909	980,303
Gold in Kansas City 1898 .....	1,757,163	3,596,828	815,580

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

## Sunny Slope Herefords.



100  
HEAD  
FOR  
SALE.

CONSISTING of 32 BULLS, from 12 to 18 months old, 21 2-year-old HEIFERS, the get of Wild Tom 51292, Kodax of Rockland 40781 and Stone Mason 13th 42397, and bred to such bulls as Wild Tom, Archibald V 54433, Imported Keep On 76016 and Sentinel 76063, Java 64046.

40 1-year-old HEIFERS and 7 COWS.

These cattle are as good individuals and as well bred as can be bought in this country.

Finding that 400 head and the prospective increase of my 240 breeding cows is beyond the capacity of my farm, I have decided to sell the above-mentioned cattle at private sale, and will make prices an object to prospective buyers.

Address C. A. STANNARD, Emporia, Kans.

1839. THE "CORRECTORS" ARE HERE. 1899. THE "IMPROVERS" ARE COMING.

## WEAVERGRACE BREEDING ESTABLISHMENT.

The

Weavergrace

Past is

Sealed

With the

Approval

Of

America's

Stockmen.





## The Apiary.

Conducted by A. H. DUFF, Larned, Kas., to whom inquiries relating to this department should be addressed.

### AUTUMN HONEY.

It is very desirable to have a good honey flow in autumn, but many seasons this does not occur and if so it follows that the bees are not in as good condition to go into winter quarters as otherwise. A honey flow in autumn not only fills the hives with a goodly amount of stores to carry the bees through the winter, but it produces a good force of young bees and strengthens up the colonies and as a result they winter much better and come out stronger in spring. Bees that do not get the benefit of a late honey flow, but have scarcely made a living since the honey harvest of early summer can not be expected to winter successfully, and if they survive the winter they will usually be found weak in numbers at the opening of spring.

There are many good honey-producing flowers that furnish honey in autumn months during the months of September, October, and if the weather is favorable as late as November. These plants chiefly consist of asters, goldenrod, heartsease, or knotweed, Spanish needle, wild bergamot, thoroughwort or borset, buckwheat, cleome or spider plant. There are none of the above troublesome weeds and they chiefly occupy waste places, and should not be destroyed but rather preserved and encouraged for they are not a nuisance but valuable honey plants.

Heartsease, or as it is largely known as smartweed, is a valuable autumn honey-producer. It occupies swamps and never grows on ground that is of value for cultivation. Ponds of water that form in the fore part of summer and dry up later are frequently taken possession of by this plant, and a heavy growth of it will thus be found. It produces a solid mass of beautiful pink blossoms, from which a first-class grade of honey is gathered, and also pollen, and frequently produces a good surplus, besides putting the bees in first-class shape for wintering.

### Putting Bees in Winter Shape.

It is a pretty hard matter to do much with bees towards getting them in good winter shape if we put off the work until we are notified by the first blizzard that comes along. Those who set up the claim that bees do not need any extra protection in winter in a climate like Kansas, got such a dose of their own medicine last winter that they are keeping extremely quiet now. We are very fortunate in having but few of this kind of beekeepers in the past, and hope now that we do not have any.

It is not too late to furnish chaff hives, or to put the bees in the cellar at the beginning of winter, but it is too late to feed the colonies that do not have enough stores to carry them through any liquid food to store in their combs, which is the only proper method of feeding if done in warm weather during autumn months. If we have frames of honey of the past season's gathering laid by for this purpose and every apiarist should keep a reserve supply of these—then we can on the first fine day supply the wants of the colonies in first-class order.

If colonies lack stores, and winter is on, and frames of honey not at hand, we can only resort to candy feeding, but to undertake to winter colonies exclusively on candy, having but little or no honey in their combs, is almost an impossibility. If we have ten or fifteen pounds of honey in the hive we can probably bridge them over if we promptly furnish them with candy at the start, and supply it at intervals during the winter when the supply is getting low. Chaff hives is an absolute necessity when candy is used, for it requires space above the cluster of bees in the hive for the candy, and then a heavy packing must be used over all to confine the heat of the bees. A slab of candy, perhaps one inch thick, twelve inches long, and eight inches wide, is the most convenient to place on the frames over the bees when the ordinary frame hive is used.

Twenty-five or thirty pounds of honey will winter a colony of bees ordinarily, and carry them up to the time they can gather honey in spring. But it depends upon the kind of honey flow during spring if this carries them up to the

CANDY CATHARTIC  
**Cascarets**  
REGULATE THE LIVER

principal honey harvest or takes them entirely out of danger. Bees frequently starve outright in spring time simply because they require considerable stores to feed their young brood, and the remark frequently made, that it takes more honey to spring a colony of bees than it takes to winter them, is very true. One of the greatest drawbacks in securing a good honey yield during the honey season is the shortage of honey to spring the bees, or to provide enough food at this time to feed the large force of young bees that are being reared. Brood-rearing is largely curtailed at this season of year by not having enough reserve stores in the hive, hence the importance of having the hives full of honey in going into winter quarters may easily be seen.

Good colonies in spring depends largely on fall management. We must have the hives well supplied with both honey and young bees in autumn if we expect strong colonies in spring. Bees consume much less stores in mild winters than in very cold ones, and of course come through stronger and in better condition generally. Weak colonies, such as late swarms with but few bees, are not worth putting in shape for winter, but are united together until enough are thus put together to make a good colony.

### Feeding Bees for Winter.

All colonies that now lack stores sufficient to carry them through the winter, and are not gathering at present a good supply from fall flowers, should be fed immediately. To furnish stores for winter it is thus necessary to feed early, and abundantly, and keep right at it until each colony is furnished with twenty-five or thirty pounds of stores.

The most simple and easiest way to feed bees—taking for granted they are in the common framed hives with good sound bottom boards in each—is to raise the front of hive by slipping a block under same, raising the entrance about one inch higher than back of hive, and pour the sirup in at the entrance and allow it to run back on the bottom board. You can thus pour in a pint at a feed without the loss of a drop, and do so without opening the hive or in any way placing yourself in way of stings or inconvenience. The bees will not drown in the sirup thus, and the one thing to remember and work to all times is, to feed only very late in the evening, the nearer dark it is, all the better. Feed granulated sugar as it is the best and cheapest, add some water and heat it thoroughly until well melted.

Prickly Ash Bitters cures diseases of the kidneys, cleanses and strengthens the liver, stomach, and bowels.

## Impoverished Blood

is the secret of half the diseases known to humanity—rheumatism, dropsy, scrofula, stomach and liver troubles may in a majority of cases be traced to the circulatory system. They can be avoided and they can be cured by the use of a remedy that supplies the necessary elements to enrich the blood.

### Dr. Williams' Pink Pills for Pale People

increase the red corpuscles in the blood and thereby give it new life and richness. They also tone up the nerves and are a specific for many serious disorders.

From the Journal, Cartersville, Mo.

Mrs. Joseph M. Evans, of Cartersville, Mo., says:

"Two years ago I had dropsy of the left limb so severely that my physicians said I could not recover—that it would be impossible to give me any treatment that would afford permanent relief. I had been sick about a year, and most of the time was bedfast. My husband spent over \$300 that year doctoring me, with the result that the treatment of the physicians did me no permanent good. I steadily grew worse.

"My brother insisted that I try Dr. Williams' Pink Pills for Pale People. I did so with some reluctance and without much hope that they would benefit me, but the effect was almost marvelous. The first box effected a change for the better in my condition, and I continued to improve steadily.

"I took about six months steady treatment, and kept them in the house and took them at intervals for a year or more afterward. The result is that I do not now feel a trace of my former ailments."

MRS. LUE EVANS.

Subscribed and sworn to before me, a Notary Public, this 12th day of October, 1898.

Wm. B. Wolcott, Notary Public.

Dr. Williams' Pink Pills for Pale People are sold by all dealers, or will be sent, postpaid, on receipt of price, 50c. a box or six boxes for \$2.50 (they are never sold in bulk or by the 100) by addressing Dr. Williams Medicine Company, Schenectady, N. Y.

### THE STARS WILL FALL IN NOVEMBER.

(Continued from page 6.)

their radiant spot in Perseus). He showed the wonderful fact that a bright comet was moving in the same path as the August meteors. A little later Prof. Oppolzer of Germany, published his orbit of Tempel's comet of 1866. Then it was seen that a remarkable coincidence existed between the orbits of the November meteors and Tempel's 1866 comet—the orbits were "practically identical." Several years later the meteoric shower radiating from Andromeda was shown to be following in the path of Biela's comet. Later yet the April meteors were found to be associated with a comet. Four such remarkable cases seem to prove a physical connection between comets and meteors. Many astronomers hold that these meteor swarms are simply the result of comets going to pieces under the action of the sun during their successive returns to perihelion. The earth's atmosphere, Ball remarks, acts in burning up the cometary pieces, like a screen in protecting us from bombardment. If the air were less dense and thinner many more meteors might get through to the earth. No meteorites have come to us from any of the great showers.

PREPARATIONS TO OBSERVE THE BRILLIANT EVENT.

Preparations are being made in many of the observatories of the world to observe the expected grand display. Some astronomers will try to photograph the group before we reach the cross-roads. The sunlight striking the group may illuminate the bunch sufficiently to be seen by the photographic eye before the earth's atmosphere converts the group into myriads of veritable sky rockets.

Observers will trace the heavens

THE IMPROVED  
**VICTOR Incubator**  
Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable, and cheapest first-class Hatcher in the market. Circulars FREE.  
GEO. ETEL CO., QUINCY, ILL.

### Italian Bees.

Full colonies shipped any time during summer and safe arrival guaranteed. It will pay you to try my stock of Italian bees in the Latest Improved Hives Nothing will double in value quicker.

A. H. DUFF, Larned, Kas.

### Save Hogs.

Prevent Hog Cholera by giving occasional doses of a remedy that has saved thousands. You can buy drugs and make it for 10 cents a pound. Fifteen years a success. Recipe and full directions, \$1.00. Sent to any address by H. D. RECORD, Kiowa, Kans.

**Farmer's Improved FEED COOKER**  
Is superior to all others in Safety, Durability and cheapness of cost and operation. Scientifically constructed. Heavy cast iron lining in furnace. Boiler of heavy galvanized steel. Stands high from the floor and can be put up in the barn or summer kitchen with safety. Made in 3 sizes. Every one guaranteed or money refunded. For descriptive book and prices send 2c stamp. Address, A. C. MFG. CO., Quincy, Ill.

**GRIND YOUR GRAIN**

SMALLEY MFG. CO., Sole Makers, Manitowoc, Wis.

### ROOF YOUR CORN CRIB WITH Corrugated Iron.

Cheapest, Best and Most Easily Applied.  
The Kansas City Roofing & Corrugating Co.,  
218 and 220 West Third St., KANSAS CITY, MO

### Throw Away Those Pans..

You are losing time, labor and DOLLARS every week that a "SHELDON" will save. Adds quantity and quality to your dairy product. None equals the "Sheldon" in simplicity, workmanship and finish. Write at once for our special offer to first buyers and agents. It will surprise you. DON'T WAIT. Address, SHELDON CREAM SEPARATOR CO., 434 Clark St., CHICAGO.



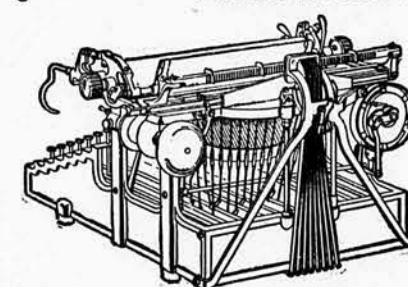
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and will trace, on prepared maps of the stars, the track of any well observed meteor. Many of these tracks being obtained, the radiant point can be determined. This is essential for a calculation of the orbit.

All who wish to see a wonderful sight should be on the watch. It might be well for those desiring to see the display to arrange with the telegraph or telephone companies, or with the night watchman, to waken them in case the shower appears.

#### SOME UNCERTAINTY THIS YEAR.

It may come a little earlier or later than November 14-15 and some unknown effect of the planetary pulls may so disturb the motion of the swarm that it may decline to put in an appearance at all this year. If so, the astronomer is quite certain that he will see the display in the last year of the present century—November, 1900. When one sees the grand shower the words of the Psalmist will come to mind:

"The heavens declare the glory of God and the firmament showeth his handiwork."

J. K. REES.

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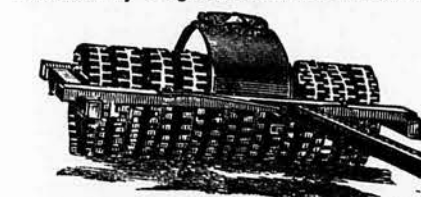
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Must be first class if it is to operate Feed Cutters, Grinding Mills, Wood Saws, or pump water successfully. We manufacture Engines—2, 4 & 8 horse power. Tread Powers for 1, 2 or 3 horses. Sweep or Lever Powers for 1 to 8 horses. Every machine fully warranted to generate maximum power at minimum of force exerted. Catalogue showing Smalley Line complete mailed free if you name this paper. **SMALLEY MFG. CO.,** Sole Makers, Manitowoc, Wis.

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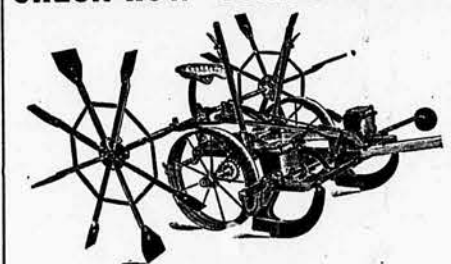


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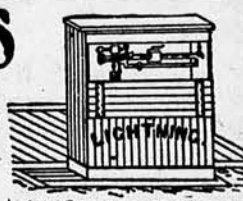
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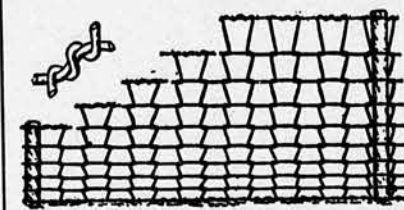
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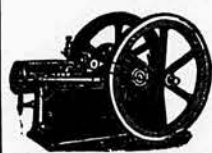
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PUBLIC SALE of . . . . .

# POLAND-CHINAS

At Tonganoxie, Kans., Thursday, November 2, 1899.

The usual liberal terms and guarantees will be given. Over 75 head must be sold. 500 of You are Invited. Catalogues sent only on application.

Kirkpatrick & Son, Connor, Kans.

## POLAND-CHINA SALE EXTRAORDINARY

Hope, Dickinson County, Kans., November 8, 1899.

Seventy-five Head from "Higgins's Hope Herd"—Consisting of 47 spring pigs, both boars and sows, 11 matured sows with pigs at side, 13 matured sows not bred, 9 2-year-old boars and 11 yearling boars, sired by the herd boars, Eberly's Model 20854, Wren 17172, and Duke of Weston 16974, and out of such sows as Matchless B. (51182) by Duke of Weston; Low Tecumseh (48317) by Low Down Tecumseh 17658; Sensation Girl by Wren; May Tecumseh (47061) by Jubilee; April Lady (41400) by Corwin King 15413; Hadley White Face (48319) by Hadley Chip 15029; Short Stockings 2d (37728) by King Wilkes, and other good sows. Wren, the herd boar, was sired by Rosa Nell's Sensation 15894 out of Duchess May; Eberly's Model was by Iowa Trader 20850 out of Gladys (49421), and Duke of Weston was by Hoosier Boy 7830 and his dam was the famous Black Beauty 2d by Grover Cleveland. These three sires are among the best in the West. I desire to call especial attention to the size, bone, quality, and general high character of this offering. No such opportunity was ever offered in Kansas to secure valuable breeding stock at your own price. Send for Catalogue.

Am offering at private treaty, 50 2- and 3-year-old native steers; also, 50 3-year old steers, 50 2-year-old steers, 30 1-year old steers, and 30 1-year-old heifers—Arizona cattle having good colors and good quality, and summered in Kansas.

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CLOVERS SEEDS  
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GRASS SEEDS.

## OUR ANNUAL POLAND-CHINA SALE

Will be Held at Olathe, Kans., 1 P. M., November 13, 1899.

The Attention of Farmers as well as Large and Small Breeders

Is especially called to this offering of growthy, plain-fed, young breeding animals, including 40 boars, 6 to 15 months; 25 gilts and 20 sows bred to Black Queens Chief, (weight, 900 pounds), Hadley I Know, and Tecumseh I Know. Write at once for Catalogue to  
Mention Kansas Farmer. W. P. GOODE & SONS, Lenexa, Kansas.

## TOM C. PONTING & SONS'



## 3d Annual Hereford Auction

AT HOMESTEAD FARM, MOWEAQUA, ILL.,  
Wednesday, November 8, 1899.

Sixty Head of Registered Herefords—Thirty Bulls, from 6 to 20 months' old; 30 Females, unbred, bred and some with calves at foot, will be sold to the highest bidder.  
Write for Catalogue. Sale will be held under cover; don't fail to attend.

Col. R. E. EDMONSON, Auctioneer, TOM C. PONTING & SONS, Moweaqua, Ill.  
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Moweaqua is 16 miles south of Decatur and 16 miles north of Pana on Illinois Central R. R. Good connections can be made so as to attend the Hereford sale of H. F. Pinnell, Paris, Ill., on the following day.

## Dispersion Sale Shorthorns at Auction

At the Farm of Peter Sim, near Wakarusa, Shawnee County, Kansas,  
Thursday, November 16, 1899

The entire herd is to be sold at auction, consisting of the noted show and herd bull, Royal Bates 123675, and 6 young bulls, and 23 cows and heifers of the very best Bates and Scotch-topped Bates families. This sale will be the breeders' opportunity of the year. Catalogues on application. Address

Col. J. N. HARSHBERGER, Mrs. PETER SIM, Administratrix,  
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## THE FARMER'S KIND AT AUCTION.

OCTOBER 30, 1899.

## Poland-China Hogs and Milking Shorthorns.

Seven sows with young pigs by side, sired by Hadley's Corwin; 43 spring pigs (boars and sows) by Jewel's Chief I Know and Hadley Model 2d. Also, 8 serviceable bulls, one by Lord Mayor and seven by Prince Thistletop. All stock registerable.

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## Public Sale of Shorthorns

Of Scotch and Bates Breeding.

On Saturday, promptly at 1.30 p. m., November 18th, at the stables of M. R. Diver, corner of Douglas Avenue and Waco Streets, in Wichita, Kans., I will sell to the highest bidder, registered Shorthorns as follows:

Eleven bull calves, from 5 to 11 months old; one bull, yearling past, and my herd bull, Iowa Lord, 2 years old last March. Also, 12 head of cows and heifers. TERMS:—Six months at 6 per cent interest; 5 per cent discount for cash.

Wm. H. RANSON,  
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340 Cows, Heifers and Steers  
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40 head of 2-year-old native steers at \$39.50. The Arizona and Colorado are well-bred cattle, of good colors, which we offer as follows:

Yearling steers at . . . . .	\$25 00
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3-year-old steers at . . . . .	35 00
Yearling heifers at . . . . .	22 00
2-year-old heifers at . . . . .	23 00
3-year-old heifers at . . . . .	26 00

These cattle are on good pasture for the season, and will be sold on easy terms to responsible buyers. Address,

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Prices very reasonable. Satisfaction guaranteed.

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At Kansas City Stock Yards Sale Barn, Wednesday and Thursday, Nov. 1 and 2, 1899,

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Straight Bred Cruickshanks and Cruickshank-Topped Bulls, Cows and Heifers.

For Catalogues both sales, apply to

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FROM THE IDLEWILD HERD.

## 50--Registered Shorthorn Cattle--50

To Be Held on the Farm, Adjoining Vermont, Cooper County, Mo., THURSDAY, NOVEMBER 16, 1899.

Consisting of 20 Serviceable Bulls, and 30 Females, mostly yearlings. Special attention is called to the breeding and quality of the bull of ferling, and useful character of the females. A good portion of the offering is by the two very successful sires, Banker 110861, that won 1 consecutive first prizes at the Ohio and Indiana State fairs, and by the noted Godoy, 115675. Eight of the bulls are out of pure Cruickshank cows. The show calf, Orange Duke 3d is included in the bull offering. Catalogues now ready. Write for one. Vermont is on Missouri Pacific Railway easy of access. Two trains each way daily. Address

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