

KANSAS FARMER

ESTABLISHED IN 1863.
VOL. XXXVII. NO. 24.

TOPEKA, KANSAS, THURSDAY, JUNE 15, 1899.

SIXTEEN TO TWENTY
PAGES—\$1.00 A YEAR.

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Agricultural Matters.

DISCUSSION ON ALFALFA.

At the last annual meeting of the Kansas State Board of Agriculture, a remarkably valuable paper on alfalfa, by Mr. D. H. Watson, of Kearney, Neb., was read. The paper was published in the Kansas Farmer soon after its delivery. The following is the stenographic report of the discussion which took place:

A Delegate—I will say that I have five acres of alfalfa and I intend to sow twenty acres more in the spring. I consider that five acres of alfalfa the best feed I have on my place, and last year it made me not less than seven tons to the acre. I consider it great stuff.

E. Harrington—I am from Brown County, and I will say that we have talked and retalked alfalfa in our county institute until now it is very unpopular for a man to get up at one of our institutes and attempt to talk about growing alfalfa; they consider him as fooling his time away to do it. We can raise blue-grass to beat Kentucky, we can raise timothy and clover to beat the West, and we can raise corn to feed the world, but we seem unable to grow alfalfa.

J. W. Robison—We are raising alfalfa to a very considerable extent in Butler County. We are about thirty miles from the south line of the State, and we have about all the varieties of soil there are in Kansas except that kind which won't grow alfalfa. We grow it on the uplands and on the bottoms. Alfalfa grown on the uplands is like sorghum to some extent, in being more nutritious and less watery than that grown on the bottom lands. Some gentlemen have said they can not succeed with alfalfa if pastured; that is the trouble—it is pastured to death; that is not the fault of the alfalfa; it can't grow and maintain the strength of root it should when every lung, which is its leaf, is eaten off the morning it opens up. It breathes through the leaves, and maintains health just as any other plant, and it can be starved to death by overpasturing, just the same as any other plant. And when the ground is imperfectly prepared, and unfavorable conditions come on, that, of course, is not the fault of the alfalfa either. We can't get a stand under these conditions. One main fault with alfalfa is that it won't catch as easily as corn, oats, or wheat; it needs to have the ground prepared in the very best way; although we have not practiced so elaborate a method as the paper read claims is necessary, yet we have tried enough to know that the soil must be well prepared. If you intend to sow alfalfa, you ought to especially prepare the ground the year before; yes, even two years before would be better, so that it will be an aid in keeping the weeds down. The paper read gives fall plowing as an absolute necessity in Nebraska; I don't believe in fall plowing with us, in our black gumbo, heavy soil, because it mellow all up, resembling fine clay soil.

I begin in the spring and prepare my soil and sow alfalfa seed just as fast as I can after plowing. I started to plow one fall, but other work interfered and I didn't finish it up; the next spring I went in there again and plowed the whole piece up, that which had been and that which had not been plowed in the fall, and I want to say that my experience has been just the opposite to that of the gentleman from Nebraska. I harrowed that land very carefully and put it in first-class condition, but it failed to catch on fall plowing. I want to plow my land in the spring and harrow it right down and put my seed in with a press drill. Roll and press the soil down and put it in good condition before drilling in. When I speak of the press drill, I mean the machine that has the press drills running right after the seeder runner or disk. I find it the most successful way to get a good stand, taking the years as an average. I have seen alfalfa sown in this way with a press drill come up inside of four days and show up green. When it first comes up and the two little first leaves come out it is very tender, and sensitive to the whipping winds, the insects, and frosts, and if those two little leaves are broken off during the first twenty-four or forty-eight hours of their growth it will probably kill the plant entirely, but after what we term the secondary or rough leaves come on it is not so susceptible to the winds and frosts and insects; it is much like a bean, only I think it is more hardy. Frosts, dry weather, insects, and so on may do this plant a good deal of harm until it reaches the state where it has roots well grounded. Dry weather affects it very little after it is well rooted. I find that one good rain after we have cut alfalfa will insure the next crop, but a more frequent distribution of rain will make a better crop. A dry spell at any time in from one month to six weeks after it is sown is liable to kill it.

We sow twenty pounds of seed to the acre. There is said to be enough seed in a bushel of alfalfa seed to plant twenty

acres, but many of these little fine seeds get down between the clods, and the air gets to the young, tender plants and kills the tender shoots, and so it is a good deal a matter of chance to tell how many of these little shoots are going to live. If the plants are too thick it won't make so much hay or nearly so much pasturage as if thinner and evenly distributed. I think that harrowing is one of the most essential things to the good of alfalfa; you needn't be fearful of the harrow injuring it after two or more years seeded; it will do it good; harrow alfalfa and inside of four days you will be surprised at its growth. I learned this fact by having one spring to cross my alfalfa-field to where I wanted to do a little harrowing. I dragged the harrow across the field, and inside of four days that harrowed streak looked as if it had been fertilized. It was a great surprise to me; that little strip outgrew the rest and looked like a different piece of alfalfa.

The paper read said that the writer had traced a root for six feet, which had grown in one season. That is not an exceptional case. In cases where the soil was good and conditions favorable, I have known of roots running to a depth of twelve feet the first season. I have known of the alfalfa growing three inches in twenty-four hours; that isn't an average growth, but it will grow a full crop in twenty-six to twenty-seven days, and in favorable conditions I have known it to grow two tons of hay per acre in that time; and with the richness of it, and the quantity of fertilizing matter, and the nutriment there is in it for the farm animals, as has been told you here to-day, this is something wonderful. Think of it, two tons to the acre in less than a month!

Our best alfalfa is in the bottom lands, of course, where there is a black gumbo and rich, loamy soil. This black gumbo land is soft and waxy at any time of the year within one or two inches of the surface. It is wet enough to be made up into marbles, and the boys could use it for marbles because they wouldn't break. This soil will pack closely to the little fine seeds, but we must have that ground clean, and plow it up and put it in first-class condition and sow it with a press drill. Another advantage with the press drill, especially on uplands: we sometimes have a little too much wind, and that press drill running over the ground behind the seeder's runners packs the soil in the furrows after the seed is dropped and the wind does not blow that packed earth away, and, if alfalfa can get three or four weeks growth, it will be rooted so that the wind can not disturb it.

We usually cut our alfalfa four times in a season. It will stop growing if not cut. After it reaches a certain stage of growth it will start out new shoots and commence a second growth at the crowns. It should be cut at the proper time, whether there is half a ton or two tons to the acre. We think it best to cut our alfalfa when it fairly comes out into bloom. We think it is more nutritious than at any other stage of growth. We have to cut it just whenever we can, especially in a year like last, when it rained so often. I have 500 acres, part of which is pasture and the rest is mowing land. It excels all other plants for hog and horse pasture. We do not cut our alfalfa with the dew on, but immediately after the dew goes off, letting it cure thoroughly, and rake it into windrows, sometimes leaving it over night, and the next day put it up as rapidly as we can. We really ought to put some kind of a device on top of the stack or rick to keep the water from running in; cattle will eat the hay anyway, even though it does get wet. One of my neighbors, who lives on a farm a little lower than mine, had his hay wet by there being a flood. The water came up and ran up into his ricks about two or three feet; it didn't stay there to exceed two or three hours and he thought that that part of his ricks was spoiled, but when he turned his cattle into those ricks, as we generally do that way down there—let the cattle in and eat the hay right out of the ricks in the field—those cattle commenced at the top of where that water had been and ate that hay right down to the ground, but as to how nutritious it was, I can't say. The most of the alfalfa-growers in our part of the State just rick their hay up in ricks about twenty feet across, and run the ricks up as high as they can pitch it with stacking machinery. We prefer the large ricks to the small ones. Of course, alfalfa should be cured enough so that it won't mow-burn. It is something like but not quite so bad as clover in that respect.

As to the seed crop, we generally take the late crop for the seed. We find that the first crop is not a good one for seed. It might be as this gentleman said this morning, that the insects and bees get more numerous later in the season and help to fertilize the bloom; anyway, we take the later crop and find it the best for seed.

Ruminating animals ought never to be turned on green alfalfa; they might graze on it in dry weather for weeks without serious danger or injury, and in a change



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of thirty minutes in the weather you might lose a very large portion of a herd in the same field. It is as much worse in causing bloat than red clover as red clover is worse than blue-grass, and our experience is that we can't afford to put ruminants on alfalfa. I have known of cattle turned onto alfalfa, and they didn't get ten rods from the entrance until they bloated and died. But alfalfa hay is all right for stock that is not on the move; it is dangerous, though, for stock cattle while they are on the drive. We should not feed it to stock one day and attempt to drive them the next. I had a neighbor who had to drive his cattle twenty miles to his pasture. He fed them alfalfa hay, and the next day started with them, and had to leave several of them along the road because they bloated. Now that gentleman withholds the alfalfa hay from his cattle two days before he starts with them to his pasture or ships them. But we feed alfalfa hay to our work horses the year around and with good results.

Alfalfa doesn't seem to generate that mold that clover did in the East, and there is more nutriment to the stomachful of it than there is in clover. In talking of the experiments being made at our institutions, I would say, that in looking over our alfalfa-fields we can see stalks only a foot high, others two feet high, and others away up and beyond the rest. We can see a great many different types of the plant, and it has occurred to me that we might by selection from those different types of plants propagate and grow a very superior variety of alfalfa in a few generations that would be entirely different from what we now have and much more productive. I know nothing of its possibilities only as we compare it with improvement in other plants. As to the type, I certainly prefer that which produces the greatest quantity of hay. If in the dairying business I would run my alfalfa through a cutting machine, mix it with my other feeds, and sprinkle it with a little water so as to help start fermentation.

A Delegate—How deep do you cover the seed?

J. W. Robison—Just as shallow as I can and cover the seed thoroughly. I use the press drill to press the soil down firmly about the seeds. One of my neighbors sent to Ohio for a kind of combination disk harrow and roller, which is a very good machine for this purpose. In speaking of seed I would say, that this last year we have raised comparatively no seed at all; we are going to be short; I think that there is not to exceed 1,500 or 2,000 bushels of seed in Butler County. Last year we could buy all the seed we wanted at from \$2.50 to \$3 a bushel, but I offered \$5 a bushel the other day and couldn't get it; there is one man down there who has seed, but he is holding it.

A Delegate—We will furnish you all you want at \$3.

J. W. Robison—You can sell a car-load of seed down there for \$5 a bushel.

F. P. Maguire—What do you think of rolling the ground?

J. W. Robison—Rolling is a good preparation, but if you don't do something else with it pretty quick the winds will blow the top soil away.

The Corn Wire-Worm.

This pest (*Melanotus cribulosus*) is without doubt the most destructive insect attacking the young germinating corn in this State. For the past few years there have been more or less complaints of its ravages. This spring it has again made its appearance, and in some instances its injuries have been so extensive as to necessitate a second planting.

The damage is done by a worm about three-fourths of an inch in length, with a very hard shining skin of a light brown color. In badly infested fields, the worms may be found from one to half dozen in each hill. The worms burrow into the soft grains of corn, and in some instances completely devour them. When the plants are several inches high, the worms seem to prefer the tender roots, thus weakening, and in some instances eventually destroying, the plants. Not infrequently the worms kill the corn by channeling into the lower parts of the stalks.

Under ordinary conditions the wire-worms live upon the roots of grass, where, as a rule, their work is scarcely apparent. But should an infested plot of grass be plowed under and sown to corn, the injuries to the corn from this pest are often very serious, as the number of plants to support the worms is comparatively few as compared with the grass land. The worms

are present from one to two years after the sod has been plowed under.

This pest is an exceedingly difficult one to combat. When the first planting has been destroyed, replant, sowing the seed between the rows of the first planting. As long as the worms are able to find food in the hills of the first planting, there is a good chance for the second planting to mature. When necessary, for the sake of proper cultivation, the first stand should be plowed under.

Late plowing in the fall, by which the pupal cases of the adults are broken up, will doubtless materially aid in reducing the numbers of the pest. In addition to these remedies, Professor Garbes suggests a rotation of crops by which "clover follows along upon grass, and is itself followed by corn." * * * "The clover should be allowed to stand a second year, with the positive assurance that the wire-worms originally in the sod would by that time have entirely disappeared."

PERCY J. PARROTT.

Kansas Experiment Station

Excellent Hog Feed.

Editor Kansas Farmer:—For a quick-growing feed and where a patch of green stuff is needed to mow and throw to hogs in confinement, I believe that the Dwarf Essex rape is going to be a great acquisition. I have a small orchard of about one acre near my hog-barn. Every spring for a period so long I have forgotten, I have sown in clover; it flourishes for a while but by fall it is all gone.

About the middle of last April I sowed four pounds of rape and a peck of alfalfa on this patch, scratched in with a harrow without breaking up the ground; in a few days it came up with the alfalfa thick with weeds. But the rape now predominates and is about to get away with weeds. With one swipe of the scythe a bushel basket can be filled. Hogs eat it ravenously, cows are crazy for it.

If it had been put in the ground in proper shape instead of "hogged" in, it would have been immense, and even as it is, it is immense. This would be a great crop to sow on land after the wheat comes off or at the last plowing of corn, even up to September, as then there is time yet to sow. I wish others would try it and report. The experiment doesn't cost much. I paid 10 cents a pound for seed, and it is recommended to sow from three to five pounds of seed per acre. This would make a most excellent sheep feed if sown among the corn after it is laid by, or a hog feed also if you have high-tight fences. I would be afraid to turn cattle on it. From the way my cows eat it, I believe they would burst themselves in a half hour.

M. F. TATMAN.

Rossville, June 8, 1899.

Deafness Cannot Be Cured

by local applications, as they can not 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 is 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.

We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that can not be cured by Hall's Catarrh Cure. Send for circulars, free.

F. J. CHENEY & CO., Toledo, O.

Sold by Druggists, 75c.



AMERICAN SCALE CO.
U.S. STANDARD
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KANSAS CITY, MISSOURI, EAST 12TH ST.
OFFICE 1109
5 TON WAGON SCALE
\$35.00

SCALES SENT ON TRIAL TO RESPONSIBLE PARTIES
CATALOGUES FREE; DROP US A POSTAL.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

NOVEMBER 1—W. T. Clay, Plattsburg, Mo., Short-horns.

MODIFYING CHARACTERISTICS OF FARM ANIMALS.

Abstract of paper by President G. E. Morrow, Oklahoma Agricultural and Mechanical College.

The wild animal has two great purposes, to live and to reproduce its kind. It is well fitted for these purposes. Animals as well as plants show great ability in adapting themselves to the various conditions of life. By natural selection those best fitted for the environment in which they are placed survive and their descendants, more or less rapidly, are able to thrive well, even if the climate and food be very different from those enjoyed by the original stock.

Man is not content with animals in their natural condition. In order to be of use for labor or be convenient for many of the other productions, they must be domesticated. He wants the sheep to produce more wool than is comfortable for it; the cow to produce more milk than is needed for her calf; he wants to use the horses for a great variety of purposes, and wishes to modify them so that they shall be divided into several classes which will fit them for more than one use. Making use of the law of heredity and that of variation, man produces a change in his animals by selection and by modifying the conditions of life. The results have been most astonishing. Among the most notable is that in securing the early-maturing. Compare the pig or lamb or calf 1 year old with the wild yearling of like classes. Again, in many cases there has been large increase in size. While, when fully matured, the unimproved ox or hog or sheep sometimes reached a large size in the past, the maximum weight was not nearly what is now possible; certainly not at the age at which they are now usually marketed.

Wise, intelligent breeders, more especially in the last half century, have been aiming to secure a good degree of likeness in essentials in the breeds of animals designed for like purposes. Admit the difference in color, marking, horns, and form in some parts, is it not true that the great beef-producing breeds more closely resemble each other than, for instance, do the Scotch-bred Shorthorns of to-day resemble the Bates Shorthorns of one-half a century ago? The middle-wool producing sheep are becoming more and more alike. The two leading breeds of hogs are much more alike in all really important particulars. The standard for the good draft horse is much the same in essentials, whether it be a Shire, Clydesdale, a Percheron, or a Suffolk.

In dairy cattle there is more marked difference, because these have been bred for one or two comparatively distinct objects.

If one will compare the best Merino sheep of seventy-five years ago, with the bare face, belly and legs, and short, light-weight fleece, with what is known as the American Merino—wool to its nose and its toes, covered with folds and wrinkles, with its enormous fleece of wool and grease—he has a direct illustration of what man can do. Now place beside this a specimen of the French Merino and one of the comparative large-framed, smooth-skinned American Merino, and the contrast is heightened.

Thirty years ago I looked at the prize-winning hogs at a great fair, as shown by one of the leading breeders of Poland-Chinas. They varied much in color, had large, coarse ears, relatively long noses, and the contemptuous description "pumpkin-seed shape" was not inapplicable. While I protest in theory against giving much weight to purely fancy points, I found myself last week selecting one of a pair of Poland-China hogs because the other had a white spot on its thigh. Foolish, of course, but it illustrates that color and markings are being fixed in this breed almost as firmly as with the Berkshires.

The breed of hogs illustrates the falsity of the claim that "it is all in the feed." The statement is as incorrect as the opposing one, that "it is all in the breed." Those who claim that we can produce a model bacon hog simply by modifying the food of a litter of Poland-Chinas are mistaken. Feeding and selecting with reference to the desired end for a few generations would produce Poland-Chinas resembling the Tamworth or the Yorkshire in form.

Just now very strong efforts are being made to modify the high-stepping Hackney horse so as to increase its size while it retains its other characteristics. If these efforts be not pushed too rapidly they can be successful and the popularity of the breed thereby increased.

It is notable that, with but very few exceptions, the American farmer or livestock user in any form does not give the preference to the smaller size breeds; the

exceptions can be counted on the fingers of one's hand.

And, notwithstanding the persistent arguments of some extremists, the general tendency is the development of animals of most classes which possess great merit for more than one purpose. The demand for the special-purpose animals continues and is to continue. We are to continue to breed and probably increase the size of the distinctive draft horse, as we are to continue to try to develop greater speed in the trotter or pacer, but the various breeds of coach horses have a value for more than one purpose and their popularity is increasing. It remains true, as I believe it always will, that the largest number of cattle breeders on the farms of the United States would prefer cattle of great merit both as beef and milk-producers. There will remain a demand for the special dairy cow of one or the other of the two classes, as there will for the special beef cow.

The wise breeders of mutton sheep are paying attention to the culture of weight of fleece. The Dorset breeders will increase the popularity and excellence of breeds by still further improving its form and increasing its fleece. It appears to me that the largest demand for and best profit from the Merino will come from increasing its average size and improving its form for meat-production without seriously modifying the character of its fleece.

Even in poultry, with one or two exceptions, the most popular breeds are those well adapted for both egg-laying and meat-making—breeds of good size.

Comparatively recent experiments emphasize the truth that it is dangerous to seek to develop any one quality to its maximum. Other important characteristics are apt to be neglected. A dozen years ago before a national swine breeders' association I was vigorously denounced for suggesting that we were lowering the vitality of our important breeds of hogs. Few experienced men deny the truth of the statement now. Unquestionably some of our largest dairy breeds have been injured, and I believe it is also true in some families of our beef breeds, the injury coming through inbreeding or from keeping breeding stock in excessively high flesh without sufficient exercise.

We have had an absurd and harmful boom with certain families of Poland-Chinas. History repeats itself, and we are seeing a tendency to like mistakes in regard to some other breeds. Let us make up our minds that no one animal or any one family possesses all of the good in any well-distributed breed. Let us be careful in needlessly multiplying fashionable points as characteristics of breeds. The color craze with different breeds of animals is a good illustration of this. I would not reduce the distinctive characteristics of different breeds when they have once become well established, but those who introduce new points not valuable in themselves, and insist upon these as a test of merit or fashion, do harm.

It seems almost inconceivable that there shall be as great improvement in the future as there has been in the past. In many cases the great work before the practical breeders of to-day is to prevent deterioration—to maintain the high standard already secured.

A Good Beef Animal.

It was not until within recent years that the heavy, inordinately fat, or rough and patchy bullock, became unpopular to such an extent as practically to drive his class from the market and to banish the type from the breeding herds. It is well that this was done; for the modern type makes beef at decidedly more profit and economy to both producer and the butcher and furnishes the consumer a far superior article. The parts furnishing the high-priced cuts must be thickly and evenly covered with firm yet mellow flesh of uniform good quality and alike free from hard rolls and blubbery patches. Coarse, harsh, and gaudy animals will no longer be tolerated, much less those that are bony and bare of flesh on the back and ribs. The men who buy our cattle and fix the market value are shrewd enough to know almost at a glance how much and just what kind of meat a steer or car-load of steers will cut out, and if the producer overlooks any of the essential points he is compelled to bear the loss.

In addition to securing the general beef form and make-up, together with good backs, ribs, and loins, there is a certain quality, character, style, and finish that constitute an important factor in determining the value of beef cattle. One of the first indications of this is to be found in the skin and coat. A good feeding animal should have a soft, mellow touch and a soft but thick and heavy coat. A harsh, unyielding skin is an indication of a sluggish circulation and low digestive powers. The character and finish exemplified by a clear, prominent yet placid eye, clean-cut features, fine horn, and clean, firm bone, all go to indicate good feeding quality and a

capacity to take on a finish of the highest excellence, and consequently to command top prices. Coarse-boned, rough animals are almost invariably slow feeders and hard to finish properly. A certain amount of size is necessary, but it should be obtained without coarseness. The present demand exacts quality and finish rather than size. Besides these qualities, and above all, it is necessary to have vigor and constitution. We find evidence of these in a wide forehead, a prominent brisket, broad chest, well-sprung ribs, full heart girth, and general robust appearance; and without these other excellence will not have its highest significance.—C. F. CURTIS, in Report of Bureau of Animal Industry.

Alfalfa With Grain for Fattening.

W. L. Henderson, in "The Modern Sheep."

The risk in fattening sheep is very slight. They may be fattened in from ninety to one hundred and twenty days. The money invested can be quickly turned over. In fact, it is possible to fatten two lots of sheep in succession in the same yard during one winter and spring.

To illustrate how this may be done, I will have to relate some of my personal experience. Last season I secured 300 wethers from a range sheepman in the early winter months; they were ready for market in March. I disposed of them and bought again the first of April. Instead of putting them on hay and corn I fenced off an alfalfa lot of about five acres. At that season the alfalfa had just started growing. I fed my flock corn three times a day. By so doing the sheep never grew hungry and never ate the green alfalfa to excess, and thus avoided any trouble from bloat. I found they thrived much faster than they did on dry feed, and by the first of June I sheared them and sold them for as good a price as I did those in March, and had my wool to sell at wool instead of mutton prices.

Here are a few points that deserve passing notice. The alfalfa-grazed sheep only consumed about two-thirds as much corn as the dry-hay-fed sheep, and two-thirds as much time put them in better condition than those fed on hay. I saved the expense of handling and cutting the hay and avoided the accumulation of litter, etc., that it would have required labor to remove. I was told before I turned the sheep on the green alfalfa that I wouldn't do it but once, on account of the loss by bloat. But by keeping them in the field night and day and giving them all the corn they would eat I avoided the trouble, and expect this coming spring to feed a bunch in the same way.

To those who are disposed to try this way of feeding, I will sound a warning of danger. If you should, by neglect or other cause, allow your sheep to get hungry, and then turn them out to graze, you will be

"The Mill Cannot Grind with Water That's Past."

This is what a fagged out, tearful little woman said in telling her cares and weaknesses. Her friend encouraged by telling of a relative who had just such troubles and was cured by Hood's Sarsaparilla.

The little woman now has tears of joy, for she took Hood's, which put her blood in prime order, and she lives on the strength of the present instead of worrying about that of the past.

Neuralgia—"I had dreadful neuralgia, miserable for months. Neighbors told me to use Hood's Sarsaparilla; it cured me perfectly." Mrs. FRED TURNER, Barre, Vt.

Erysipelas—"My little girl is now fat and healthy on account of Hood's Sarsaparilla curing her of erysipelas and eczema." Mrs. H. O. WHEATLEY, Port Chester, N. Y.

Hood's Sarsaparilla
Never Disappoints

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

liable to lose your profits in less than an hour. The idea of sheep getting used to grazing on alfalfa is absurd. If they gorge themselves they will bloat and die, no matter how long they may have been grazing. Use judgment and care and you will succeed.

Any one figuring on feeding a bunch of sheep in the winter will be safe in allowing 400 pounds of hay and 120 pounds of corn to each sheep fed. The hay should be fed in racks about three feet wide, with an opening in each to allow the head of the sheep to pass through to the shoulders. The corn should be fed in flat-bottom troughs elevated about twelve inches; a V-shaped trough is not desirable as it allows the more greedy sheep to get too much corn at one feed and thus causes the sheep to be "off their feed" for a week at a time. With careful feeding, a bunch of sheep can be put on full feed in two weeks; most writers put the time at four weeks, which perhaps is the safer plan. Have salt in reach all the time; it acts as an appetizer and compels the sheep to drink plenty of fresh water, which should be given to them twice each day. Feed regularly at the same time every day; be quiet in everything you do around them; never be in a hurry; don't allow anything to disturb them, and success is assured.

The Nichols-Shepard Separator

The essential points in a Separator are capacity, thoroughness of separation, and simplicity and durability of construction. On each of these points the Nichols-Shepard Separator has great advantage over all other threshing machines. Any one of the nine sizes will thresh more and save more grain than the corresponding size of any other separator. The Nichols-Shepard



This shows the Nichols-Shepard Separator loaded and ready for the road.

Separator is as strongly, simply, yet perfectly made as a separator can be. The work of separation is done without the aid of pickers, riddles, forks, or other complicated parts that in other machines cause continual bother and expense by breaking or wearing out.

Write for large free catalogue that pictures and explains every part of the Nichols-Shepard Separator and the Nichols-Shepard

TRACTION ENGINE.

NICHOLS & SHEPARD CO.,
Battle Creek, Mich.

Branch House at
KANSAS CITY, MISSOURI,
with full stock of machines and extra.

Gossip About Stock.

O. P. Updegraff, of Topeka, is in Denver, Colo., in the capacity of starter for the annual races being held this month.

H. W. Cheney, of North Topeka, Kans., has gone to Des Moines, Iowa, to attend the annual meeting of the Iowa Swine Breeders' Association, to be held this week.

The Hickory Grove Stock Farm of Shorthorn cattle is one of the creditable herds of the State, and is owned by D. Tennyson, of Frankfort, Marshall County. The herd sire, bred by J. Barr & Son, is Bon Ton 124372 by Imperial Knight 119069, now owned by S. S. Benedict, Benedict, Kans. Mr. Tennyson has stock for sale at all times.

Do you want a good Shorthorn bull about 2 years old? If so, consult the new advertisement of B. W. Gowdy, of Garnett, Kans., who has two such that are very desirable. Mr. Gowdy has a large herd of Bates and Cruickshank strains of cattle that are worth going to see. Next week

lin Bros. claim that they prefer to sell direct to the farmers and breeders, and at lower prices than they will be able to buy horses of same quality elsewhere.

Geo. Channon, breeder of Shorthorn cattle and Poland-China hogs, Hope, Kans., reports a very large surplus of rain in that vicinity, and everything growing out of sight. He has about forty young Shorthorn bulls on hand for sale, and the thirty bull calves this spring show up Glendower as a splendid breeder. Mr. Ross, of Alden, Kans., purchased two of Glendower's best sons last week.

The recent dispersion sale of the Linden Grove Herd of Jersey cattle, owned by T. S. Cooper, Coopersburg, Pa., was a significant success. Ninety-four head averaged about \$200. The herd bull, Pedro Royal Marjoram 28560, sold to A. B. Darling, Ramsey, N. J., for \$1,100. The average for three stock bulls was \$900; thirty-six cows, \$270.28; twenty-three heifers, \$176.08; young bulls, \$152; and eighteen unweaned calves, \$78.23.

W. K. Palmer, of Marion County, Kans.,

prepared for infants and adults alike, and it is likely that the formula is especially adapted to diseases of the bowels in the animal kingdom. At any rate, those who have tried the medicine say that they have never seen any medicine or prescription that acts like it when given to young calves troubled with scours. If the medicine will effect a cure in even the majority of cases it is worth thousands of dollars to stockmen to find it out. The remedy can be had at any drug store, and for a young calf from a day to a week old give one-half to one teaspoonful to a dose every two hours, the frequency and size of the dose depending upon the age and strength of the calf and the violence of the disease. It should be given as a drench in half a gill of water. This medicine is equally valuable for scours in colts.

Sir Bredwell, the \$5,000 champion son of Mr. Sotham's Corrector, left Weavergrace, on Monday last, for his new home in Texas. At the time of Mr. Sotham's sale, Col. C. C. Slaughter, of Dallas, Tex., who purchased him, arranged to have Sir Bredwell return

Horse Owners! Use

GOMBAULT'S

Caustic
Balsam

A Safe Speedy and Positive Cure
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland, O.

is a fact that some men have been buying sick hogs and curing them with this remedy. This looks like stating it very strongly, but it seems to be a fact. If you can protect your hogs with this remedy, then you should lose no time in writing the Dr. J. H. Snod-



The great Saddle Mare, Miss Rex, by Rex Denmark, one of the greatest performers of high school movements in this country. Ridden and trained by Thomas Bass, who will exhibit her at the Topeka Horse Show, June 20-25, 1899. For program, address F. H. Foster, Secretary, Topeka.

the Farmer will contain a report of a visit by our representative.

The Ridgewood Farm Herd of Herefords, at Ruble, Leavenworth County, Kansas, now numbers 277, besides ninety-nine spring calves. The herd is headed by the imported bull, Randolph 76053. This herd is owned by Chas. N. Whitman, of Denver, Colo., but R. W. Bromell is manager of the herd at Ruble, Kans. They have stock of both sexes and all ages for sale.

Our readers will regret to learn of the death of Allen Thomas, proprietor of the Blue Mound herd of Berkshire swine, at Blue Mound, Kans. Mr. Thomas died on May 28, of typhoid fever and kidney trouble. He was a member of the Kansas Improved Stock Breeders' Association. He came to Kansas in 1873, and lived on the same farm, in Linn county, from that time until his decease.

McLaughlin Bros., importers of French Coach and Percheron horses, Columbus, O., write the Farmer that their first consignment of this year's importation has arrived in good form and without any loss. Other importers have offered them \$100 advance on each animal over the price paid in France, which offer was refused. McLaugh-

lin writes to the Breeder's Gazette of a simple device to prevent cows sucking themselves. He says: "I have a remedy that I think good, and it is certainly simple. I have a fine dairy cow, and, through neglect on my part, she began sucking herself. I tried everything to stop her, but did not succeed. As a last resort I took a horse collar and put it on her neck and she has never sucked herself since. It does not bother her in fighting flies."

SCOURS.—From the Kimball (S. D.) Graphic: "John Byrne and W. H. Ochsen both say that Chamberlain's Colic, Cholera and Diarrhoea Remedy will cure the scours in young calves when everything else fails. They both tried the remedy last spring on calves given up for dead, so far gone that they could not stand, and saved every one of them. It is possible, and most likely, that there are cases when nothing will prevent death, but the stockmen mentioned have the greatest faith in the medicine mentioned. Chamberlain's Cholera Remedy is one of the best known family medicines sold, and as such has been advertised in the Graphic for years. As a remedy for the disease for which it is intended it is recognized as being unequalled. It is perfectly harmless properly administered,

to Weavergrace until the grass should grow in the Panhandle, it being necessary to walk Sir Bredwell overland about 100 miles from Bovina, Tex., the end of his railroad journey. Tuesday and Wednesday last Sir Bredwell was on exhibition in front of the Exchange Building, at the Stock Yards, Kansas City, where he attracted the attention of thousands of visitors, it being the week of the Woodmen's convention. Arrangements were made to have Sir Bredwell's tour to Texas made by easy stages in daylight, so that the stockmen in southern Kansas, Oklahoma, and the Panhandle of Texas could all have a fair opportunity to see him.

We call the attention of our readers to the advertisement of the Dr. J. H. Snoddy Remedy Co., Alton, Ill. We ask our readers to investigate this remedy. From what we have been able to learn of it, it will be time well spent learning the facts about it. It now seems to be a fact beyond doubt that men are curing cholera hogs with this remedy. Those who have used it have great faith in it. We don't think there will ever be a remedy put on the market that every man who uses it will succeed with, but we find very few who do not make a success with this remedy. It

dy Remedy Co., Alton, Ill., for their new book on hog cholera. This book fully explains the disease, preventive, and cure and will be mailed free to everyone who writes for it.

Coming Stock Sales.

AUGUST 10—N. H. Gentry, Berkshires, Sedalia, Mo.
SEPTEMBER 27—Hamp B. Watts, Herefords, Fayette, Mo.
OCTOBER 17—George Bothwell, Shorthorns, Kansas City, Mo.
OCTOBER 18—H. C. Duncan, Shorthorns, Kansas City, Mo.
OCTOBER 19—Thos. W. Ragsdale, Shorthorns, Kansas City, Mo.
OCTOBER 20—John Burrus, Shorthorns, Kansas City, Mo.
OCTOBER 28—E. E. Axline, Poland-Chinas, Oak Grove, Mo.
NOVEMBER 1—W. T. Clay, Shorthorns, Kansas City, Mo.

"Isn't your husband a bit dyspeptic?" "I rather think he is; I know he always disagrees with his meals."—Indianapolis Journal.

Brashley—"Oh, I say, the little one you introduced me to a little while ago is a regular high-stepper, you know." Hostess—"Oh, you have discovered it? She does have a way of putting her foot down on some persons."—Philadelphia North American.

WEEKLY WEATHER-CROP BULLETIN.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending June 12, 1899, prepared by T. B. Jennings, Section Director:

GENERAL CONDITIONS.

With the temperature slightly below the normal, the week has been rainy, the rainfall for the week being heavy over nearly the entire State and very heavy in the Arkansas Valley east of Hamilton, amounting to seven inches in Ford and eight inches in Barton.

RESULTS.

EASTERN DIVISION.

The wet weather has stopped work in the fields, and weeds have grown very rapidly in consequence. Corn has grown rapidly and generally is in good condition, though weeds are gaining on it now. It has turned yellow in some low fields. Wheat is ripening south; in Bourbon it is very uneven, some being in the dough and some in bloom. Wheat is rusting some in Jackson, Jefferson, Marshall, and Wyandotte. Flax is in bloom in Coffey and beginning to bloom in Atchison. Oats are heading in Jefferson. Clover and timothy are ready to cut along the Kaw River. Alfalfa haying was stopped by the rains in Chase, Greenwood, Marshall, and Pottawatomie and much hay damaged.

Allen County.—All crops but oats are suffering from too much moisture; considerable damage by washing.

Anderson.—Too wet for crops or field work; corn-fields getting grassy; wheat rank, and lodged in some fields; potatoes suffering.

Atchison.—Crops all growing; too wet to work corn; flax beginning to bloom; corn on wheat ground being taken by bugs; early cherries ripe, but half a crop.

Bourbon.—Wet, retarding cultivation, corn getting very weedy; oats in fine condition; wheat looks better but will mature unevenly.

Chase.—Some alfalfa hay lost by wet weather; too wet to work corn; apples look very well.

Chautauque.—Too much rain; corn not doing well except on high ground; wheat harvest nearing but ground entirely too soft.

Cherokee.—Corn becoming weedy; wheat improving.

Coffey.—Rain every day; corn getting weedy and grassy; flax blooming and bowl-

weedy and yellow in many fields; too wet to cut clover; pastures fine and stock in good condition; difficult to get a stand of Kafir-corn.

MIDDLE DIVISION.

Corn has grown rapidly, but is getting weedy; much of it was washed out or drowned in Barber, Butler, Cowley, McPherson, Ottawa, and Sedgwick. Wheat generally, is much improved; it is filling in Cloud, Ottawa, Reno, and Russell. Rush also makes an encouraging report. Wheat is rusting some in Cowley and Sedgwick; it is ripening in Dickinson, and in Sedgwick early wheat is ready to cut but the ground is too wet. Cherries are ripening in the central counties. Apples are falling in Ottawa. Alfalfa is ready to cut in Republic and is cut in Phillips. Alfalfa-cutting was stopped by rains in Barton, Edwards, and Saline, and much of it spoiled in Saline.

Barber.—The rain on the 8th destroyed hundreds of acres of corn, cane, Kafir-corn and gardens in the bottoms; grass growing finely and cattle doing well.

Barton.—Alfalfa-cutting stopped by the rains; corn growing rapidly.

Butler.—Nearly eight inches of rain this week; all bottom fields are under water; grass doing fairly well; apples looking well.

Cloud.—Wet weather interfering with haying and field work; corn growing finely; everything has grown rapidly; wheat filling nicely; cherries about half crop; weeds have ruined wheat in some sections.

Cowley.—Crops being injured by excessive rainfall; streams out of banks and all low ground under water; wheat rusting and falling.

Dickinson.—Wheat commencing to ripen; corn making good growth; some potatoes large enough for market; pastures fine.

Edwards.—Corn, oats, potatoes, and barley growing well, but too wet for alfalfa-haying or field work.

Harper.—Wheat all headed and improved; general condition of all crops good.

Jewell.—Plenty of rain; corn generally clean; alfalfa-cutting commenced and a good crop; oats and potatoes doing well.

Kingman.—Too wet for farm work; corn growing rapidly; oats doing well; wheat also doing well but some fear rust.

McPherson.—Too wet to cultivate; some corn washed out; some wheat-fields promise well, others taken by weeds; oats the same; some cherries, not much other fruit; grass fine.

Marion.—Fine growing week; ground is very wet; corn weedy but doing well; oats and wheat improving; grass fine.

rapidly; wheat improving some but will be short and weedy; alfalfa-cutting begun, a fair crop.

Ford.—Rains too late for wheat and in time to injure first crop of alfalfa, which was down; corn and all fodder crops greatly improved.

Grant.—Ground in fine condition for planting, but little of which has been done yet.

Gray.—Alfalfa-cutting delayed by rains; cherries ripe.

Greeley.—Seed has laid in the ground without germinating, too dry; buffalo grass now greening up, with the ground wet down five inches.

Hamilton.—Cutting alfalfa but it is very short; nothing growing.

Haskell.—Some crops looking well, some being replanted.

Kearny.—Good rains all over the county; corn looking well.

Morton.—Passing showers encourage some planting for fodder; grass will improve now.

Ness.—Too wet to plow; from a quarter to half of small grain saved; grass getting green; stock doing well; corn and cane look well; gardens improved.

Norton.—Corn clean and a fine stand; alfalfa half a crop, now being cut; potatoes and pastures good; not much fruit; no rain this week.

Rawlins.—Showery since the 7th; winter wheat about gone, spring wheat fair.

Scott.—All crops looking better; grass growing finely.

Thomas.—These fine rains will make wheat where it was almost given up; corn doing well; potatoes growing nicely; grass is coming out again.

Trego.—Condition of all crops materially improved; some corn washed out.

Ireland's Many Names.

Few countries have suffered so many changes as Ireland. In the time of Ptolemy the island was known as Scotia; Diodorus Siculus calls the island Iris, or Irisi; in the De Mundo, credited by some scholars to Aristotle, it is called Irenne; in the Araganautica of Orpheus it appears as Irinus; Strabo called it Irene; Caesar, Tacitus, and Pliny mentioned it as Hibernia; Mela called it Juverna. The native names in Celtic are Ir, Eri, or Erin. Plutarch mentions it under the name of Ogygai. The name Ireland is no doubt derived from the native Ir or Eri, but when it came into general use is a question concerning which scholars are much at variance.—Waverly Magazine.



Carried Down Stream.

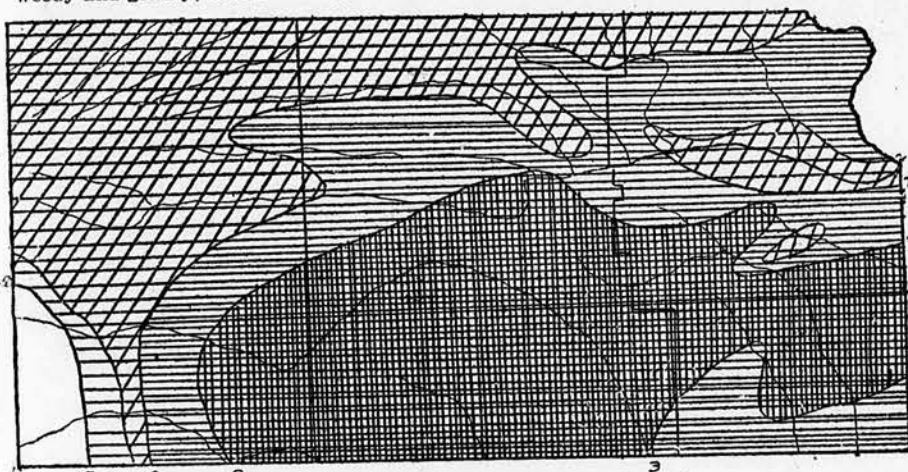
When a man crossing some difficult place in his working career; spurring all his energies to accomplish some critical passage in his business journey, suddenly finds his health giving way and feels himself swept out of the saddle by the swift-running current of disease—then is the time when the

marvelous rejuvenating properties of Dr. Pierce's Golden Medical Discovery will prove an unfailing means of rescue and restoration.

It is a very simple though eminently scientific medicine. It is not a mere stimulant like so many malt extracts. It restores healthy power by reviving the innermost sources of vitality in the nutritive system. It enables the digestive and blood-making organism to manufacture good blood abundantly and rapidly, so that the immense waste of tissue and nerve fiber entailed by hard labor is offset by a speedy upbuilding of fresh energy and strength.

A prominent and venerable Illinois physician, D. W. Vowles, M. D., of Fowler, Adams Co., writing to Dr. Pierce, says: "I send herewith thirty-one (31) cents in stamps for 'The People's Common Sense Medical Adviser' in cloth binding. With thisittance for so valuable a work (truly a gift to the public), I must express my high appreciation of the vast amount of good that you have rendered the public. A correct measure of your usefulness never has been, and never will be estimated by the public; no, not even by the multitude of afflicted humanity that has been relieved and cured by your medicines. Wherever I go or have been in the United States, I find persons who have used, and are using Dr. Pierce's medicines with satisfaction, for all conditions for which they are recommended. Never has one spoken disparagingly of their action, and from having seen so often their good effects, I am also enthused with confidence in their action in cases and conditions for which they are recommended. It is not common for regular physicians to endorse and recommend proprietary medicines, but in this case I have no equivocation or hesitancy in so doing."

The quick constipation-cure—Doctor Pierce's Pleasant Pellets. Never gripe.



ACTUAL RAINFALL FOR WEEK ENDING JUNE 10, 1899.

ing out finely; much Kafir-corn had to be replanted; prospects generally better than usual for all crops.

Doniphan.—Very unfavorable week for corn, too wet to work and corn getting weedy; early cherries ripe; pastures fine.

Elk.—Wet weather stopped work and corn is getting weedy.

Franklin.—Most fields too wet to cultivate; corn looks fine, but some is becoming weedy; pastures in good condition; hay improving.

Greenwood.—Alfalfa harvest started but stopped by rains; tree growth rapid; corn growing well and generally clean; wheat in fair condition; grass very good; cattle doing very well.

Jackson.—Wet; corn growing rapidly but getting weedy; oats short, weedy, and beginning to head; some little wheat but it is rusting; pastures fine.

Jefferson.—Corn on low ground being drowned out; wheat rusting; oats heading; pastures good.

Johnson.—Corn looks fine, but getting weedy; other crops in good condition; too wet to work.

Labette.—Oats very fine; corn being rapidly cultivated; apples looking well but generally thin on the trees; pastures good and stock doing well; bee crop good but honey crop still short.

Lyon.—Too wet for farm work.

Marshall.—Too wet to work corn; oats, grass, and wheat doing very well; some alfalfa spoiled by rain; corn weedy and backward; some rust in wheat.

Miami.—Corn growing well, but too wet to work it.

Morris.—Wet, cloudy, week; corn doing very well; some apples and plums dropping; grapes growing finely; alfalfa making a good second growth.

Nemaha.—Too wet for corn but it still has a good color; other grain is in good condition; fall wheat in bloom; early cherries ripe; home-grown potatoes on market.

Osage.—Ground too wet to work well; corn growing rapidly but getting weedy; early potatoes and cherries on market; gardens and pastures in fine condition.

Pottawatomie.—Wet week; first crop of alfalfa spoiled; corn growing rapidly; cattle fattening on pasture.

Riley.—Kafir corn being replanted; alfalfa making a fine growth; corn getting weedy.

Shawnee.—Corn growing rapidly; chinch-bugs have damaged wheat and rye, now leaving wheat for corn-fields; pastures and cattle in good condition; some apples falling; clover about ready to cut.

Wilson.—Too wet, corn turning yellow in low places; wheat ripening; rye ready to cut.

Woodson.—Corn doing well, most fields clean; clover and timothy ready to cut.

Wyandotte.—Wheat rusting; corn very

Mitchell.—Fine growing week and everything in good condition.

Ottawa.—Corn and Kafir-corn have made good growth, though in southwest part upland corn has been washed out and bottom land corn drowned out; wheat filling well; oats heading very short; cherries ripe; apples falling.

Pawnee.—Everything revived; look for a partial crop of oats and barley; corn fair; pastures improving.

Phillips.—Wet week; wheat heading, a good crop; corn a good stand and comparatively clean; first crop of alfalfa cut, a good crop; fruit not doing so well.

Pratt.—Wheat, oats, and barley, not weedy, much improved; corn and Kafir doing finely.

Reno.—Wheat filling plump; oats fair; corn growing rapidly; low lands flooded.

Republic.—Ground is in good condition; wheat headed and doing well; alfalfa ready to cut; corn growing rapidly.

Rush.—One hundred and fifty-eight thousand acres sown to wheat last fall; much of the wheat destroyed or injured this spring; wheat greatly improved and indications now are that five or six bushels per acre on the total acreage sown will be realized.

Russell.—Corn a good stand but getting weedy; wheat is filling and growing taller; grass excellent.

Saline.—Corn and wheat growing; corn getting weedy; much alfalfa spoiled; cherries ripe and a good crop.

Sedgwick.—Field work stopped by rains; crops ruined in many places; wheat rusting some; early wheat ready to cut but ground too wet; oats in fair condition; some late wheat, and oats, falling; alfalfa fine; potatoes damaged.

Stafford.—All crops greatly improved, also pastures; too wet for field work.

Sumner.—Too wet for farm work; corn growing rapidly.

Washington.—Wheat all headed; corn growing slowly; small grain doing finely.

WESTERN DIVISION.

The condition of all growing crops has been improved by the rains, and the range grass is changing from brown to green. Alfalfa is being cut in Decatur, Hamilton, and Norton; alfalfa-cutting was delayed by the rains in Clark and Gray, while in Ford much of it was down and injured by the wet weather. In Greeley the ground has remained so dry that the seed would not germinate; it is now wet down 5 inches. In Grant the ground is in good condition for planting for the first time this spring. In Morton they are encouraged to plant fodder crops.

Clark.—Abundant rains have helped the pastures and fodder crops; too wet for cutting alfalfa, or plowing.

Decatur.—Corn fine but weeds growing

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The Home Circle.

MY SHIP.

Down to the wharves as the sun goes
down,
And the daylight's tumult and dust and
din
Are dying away in the busy town
I go to see if my ship comes in.

I gaze far over the quiet sea,
Rosy with sunset like mellow wine,
Where ships like lilies lie tranquilly,
Many and far—but I see not mine.

I question the sailors every night,
Who over the bulwarks idly lean,
Noting the sails as they come in sight,
"Have you seen my beautiful ship come
in?"

"Whence does she come?" they ask of me,
"Who was her master? and what her
name?"
And they smile upon me pityingly
When my answer is ever and ever the
same.

Oh! mine was a vessel of strength and
truth;
Her sails as white as a young lamb's
fleece,
She sailed long since from the port of
Youth;
Her master was Love, her name was
Peace.

And, like all beloved and beauteous things,
She faded in distance and doubt away;
With only a tremble of snowy wings,
She floated swan-like down the bay.

Carrying with her a precious freight,
All I had gathered by years of pain—
A tempting prize to the pirate Fate;
And still I watch for her back again.

Watch from the earliest morning light
Till the pale stars grieve o'er the dying
day,
To catch the gleam of the canvas white
Among the islands which gem the bay.

But she comes not yet; she will never come
To gladden my eyes and spirit more;
And my heart grows hopeless and faint
and dumb,
As I wait and wait on the lonesome shore,

Knowing that tempest and time and storm
Have wrecked and shattered my beau-
teous bark;
Rank sea-weeds cover her wasting form,
And her sails are tattered and stained
and dark.

But the tide comes up and the tide goes
down,
And the daylight follows the night's
eclipse;
And still with the sailors tanned and
brown,
I wait on the wharves and watch the
ships.

And still with a patience that is not hope,
For vain and empty it long hath been,
I sit on the rough shore's rocky slope,
And watch to see if my ship comes in.
—Elizabeth Akers Allen.

ANNIVERSARY FOR THE GREAT JOACHIM.

[Published in Topeka Sunday Capital, May
21, 1899.]

A truly royal welcome greeted this famous and much-beloved man, who bears the title of "King of Violinists," when he made his appearance in the Philharmonie on the evening of April 22, which occasion celebrated the sixtieth anniversary of Herr Dr. Prof. Joseph Joachim's first appearance upon the concert stage. Sixty years ago this great artist, who stands today unequalled, appeared as a "wunderkind," at the age of 7 years, astounding the musical world, and it predicted the marvelous career which has been his. He says his only remembrance now of his debut is the great pride with which he wore his new, light blue coat trimmed with mother-of-pearl buttons.

This was a musical feast such as Berlin seldom witnesses, with an orchestra the brilliancy of which has scarcely ever been equaled, numbering many famous artists from all parts of the world. The stringed instruments were in the hands of Joachim's former and present pupils and those who have come under his direction, either in the quartette rehearsals or in the orchestra of the Royal Hochschule of Music. To equal this strength of strings the rest of the orchestra was made up from the Berlin Philharmonic and Royal orchestras and the Royal Meiningen orchestra; also from Meiningen came Generalmusikdirector Fritz Steinbach, one of Germany's most famous conductors, to wield the baton for this powerful artist company, numbering 200 players, brought together to celebrate and honor the anniversary of this great artist and teacher.

As a banquet was to follow the concert, it was announced to commence at 6.30, but when the doors opened an hour earlier already many enthusiastic music lovers were gathered; but the hour slipped by very quickly in watching the audience arrive, noting the many celebrities so rarely seen except before the footlights, and the beautiful toilettes of the ladies who were to remain for the banquet, which gave a very festive appearance to the scene. A handsome arm chair, of cut leather, presented to Joachim by his pupils, all wreathed in flowers, was carried in and placed in the center aisle, which seat of honor he occupied during the evening.

After the audience was seated and the immense orchestra arranged, the trumpeters

and kettle-drummers of the Garde-Dräger-Regiments, arrayed in their brilliant uniforms, entered, taking their places on the last and highest tiers of the stage, making a striking background as they stood with trumpets raised to give the salute of welcome upon Joachim's arrival. These men were from the Dräger-Regiments of "the Queen of Great Britain and Ireland," of "the Empress Alexandria of Russia," and from the Royal Hochschule of Music.

It was a very exciting moment as every one expectantly awaited the entrance of the great artist to whom all were present to pay homage. As his venerable gray head came into view the entire audience arose and, after the salute of the trumpets, there was wild applause—the orchestra waving violin bows and kerchiefs. As he passed before the boxes, princes and diplomats, decorated with sashes and medals, stooped over to grasp the hand of the man who had earned his own title. Before he reached his chair of honor four salutes had been blown, the pauses between being filled with cheers from the audience. Never have I witnessed such an outburst of enthusiasm in a German gathering. It almost equaled our true "American explosiveness."

Fraulein Rosa Poppe, Berlin's favorite actress from the Royal Theater, read the prologue, which was written for the occasion by Prof. Herman Grimm, of the Berlin University, who has been a friend of Joachim since boyhood and is a descendant of the popular fairy-tale Grimm. It spoke touchingly of the time, sixty years ago, when a child with light golden locks stood for the first time upon the stage and saw many hundred eyes looking upon him; but they only seemed to nod him courage as he tucked his little violin under his chin and drew his bow across the strings. Further, it spoke of his association with Mendelssohn in Leipzig, when, at the age of twelve, he was taken there to enter the conservatory; but when Mendelssohn heard him play he said that he needed no longer a violin instructor, but that he himself would play often with him, and indeed it seems that only quiet study and experience were needed to bring this young genius to the summit of art—which is usually so steep and difficult of ascent, so full of thorns and rich in privations.

It told of friendship with Schumann and Brahms and later of his association with Liszt and von Bulow in Weimar. But with all these rich memories it asked that on this evening his thoughts should only be for the friends and pupils who surrounded him, to sing his praises and show the result of his teaching.

The last word of this beautiful prologue was a signal for the orchestra to commence the overture to Weber's "Euryanthe." Never was it more beautifully played—what could equal the quality of tone from violins in the hands of an orchestra made up entirely of Joachim's pupils!

Amid the burst of applause which greeted this, Joachim approached the stage to thank the conductor and orchestra, at which Director Steinbach leaned across the railing of his stand and kissed the hand which was held to him in congratulation.

Joachim now appeared upon the program as a composer—his variations for violin and orchestra being admirably played by Herr Petri, first violinist of the Royal Dresden Orchestra, which are said to contain difficulties greater than anything before written for the violin. This was followed by the overtures of Schumann's "Genoveva" and Mendelssohn's "Summer-night's Dream," and the Brahms C Minor symphony; it seemed all so appropriate for Joachim, who had been a close friend of Schumann, pupil of Mendelssohn, and the one who has done more to incite an appreciation and recognition of Brahms' compositions than any other artist.

But the climax of the concert was still to be reached; instead of the Bach concerto, which was to close the program, we heard the accompaniment for that greatest of all violin concertos, the Beethoven. It was not announced on the program, but I had heard it whispered in the Hochschule that they were going to try to tempt Joachim to play; but that seemed too good to be true, as last season he had played this concerto in a big charity concert and said then that it was the last time he should play it publicly.

But his friends could not let it be so. All eyes were now eagerly fixed on this great master, who sat calmly in his chair with no violin, but two young ladies, who are numbered among his best pupils, stepped from the orchestra, one carrying her violin bow and the other her Stradivarius, and joined the group of imploring friends who had gathered about his chair; but he only shook his head and said it was impossible.

Breaking off his accompaniment, the director left his stand to add his persuasions. The orchestra and audience stood and applauded, until finally he accepted the violin and, making his way to the stage, said in a voice broken with emotion,

that he had thought he had played for the last time this concerto in public and that aside from not having touched the violin for three days, he had almost wounded his hands clapping on this happy occasion for the work which had been done by this fine orchestra. But as his friends wished it, he would try.

No one but a Joachim would have dared undertake this great work under such circumstances. As he stood waiting while the orchestra again began the accompaniment, I wondered if his thoughts could be traveling back over the triumphs of his long career to the time when, as a boy of 13 years, he had played this same concerto for the first time, under the direction of Mendelssohn in London. At that time also, he had written his own Cadenza for it, which later developed into the difficult Cadenza which it is the ambition of all violinists to master. For a half century now his interpretation of this great concerto has stood without a rival and has been an inspiration to thousands.

Removing the band of decorations and medals which hung around his neck he raised his violin and the rich tones poured forth, which once heard would never be forgotten. Now he seemed to forget that he was the "jubilant" (guest of honor); friends and pupils were forgotten for the violin; in fact, I quite lost myself in the heavenly music of the second movement, which so completely carries one away. As the last notes died away, again the entire audience arose and the orchestra, after several salutes, also stood and joined in the applause and "bravos" which rang with true appreciation and only subsided when Joachim took the baton in hand to direct the last number, which was a Bach concerto for three violins, three violas, and three violoncellos, accompanied by sixty-six violins, fifty-four violas, twenty-four cellos, and twenty basses. The orchestra remained standing during this performance in recognition of their beloved master, who has proved himself so great as a composer and director—greater as a teacher and greatest of all as a soloist.

A note on the program requested the audience not to linger in the seale, as it was to be used for the banquet which was to be given for Joachim's personal friends, pupils, and students of the Royal Hochschule of Music. But the audience showed no signs of diminishing until Joachim had many times acknowledged his appreciation and the ushers began to remove the rows of chairs.

Those remaining for the banquet made their way to the promenade, to discuss the concert and view the celebrities and gowns. In the usual slow German fashion it was over an hour before we were allowed to return to the saale—but what a transformation had taken place! Instead of the chairs which occupy this largest and finest of Berlin's numerous concert halls, were rows of tables extending over the entire length of the hall—there being about 800 people who held cards for this dinner party.

The stage was entirely screened with enormous palms and garlands of flowers; directly in front of this was the table at which Joachim presided, on his right being the Princess Reuss, beautifully gowned and jeweled; on his left was the handsome bride of Herr von Mendelssohn, who also sat among Joachim's friends, resting on the laurels of his great ancestor, Felix Mendelssohn. He is merely a wealthy banker but one of Berlin's most generous patrons of music. Near by also was the Prince Reuss, who composes in a princely fashion and whose "Quartette" played by the Joachim quartette last season, received the approval due to a prince.

Opposite were Professor Heinrich Barth, the head of the Royal Hochschule, and the other Royal Hochschule professors. Ministerialdirector von — gave the first toast, which was followed by many more, recounting some of the great events in Joachim's life—special mention being made of the founding of the Royal Hochschule of Music in 1869 under Emperor William I, at which time Joachim was called to direct it, which post he has filled for thirty years, and in which time he has made it the great institution which it stands to-day.

After each toast every one stood with raised glasses and gave the cheer of "Hoch! Hoch! Hoch!" and sang the favorite German toast song "Hoch sollen sie leben; Hoch, drei mal hoch!" (High [happy] shall you live; high! three times high!) It was 4 o'clock when this festive occasion was brought to a close, and as we paid our parting compliments, I had a chance to get a better look at the handsome decorations which this honored man wore.

On inquiring about them, he very kindly told me that for this evening he had chosen especially one presented by the Duke of Meiningen, in honor of his royal director, Steinbach; another was from King Maximilian of Bavaria. But among the many that he treasures is the "Pour le Merite," which has recently been bestowed upon him. It was an order founded by Frederick the Great for soldiers; there being only

sixty members, and whenever one of them dies his decoration is bestowed upon some one else, who has been an honor to Germany. William I added to it, and allowed it to be given to artists as well. It is said that at that time it was offered to Joachim, who refused to accept it, saying it should be given to Brahms; but since the death of Brahms it has again been tendered to Joachim in recognition of the sixty years of his successful artist's life, which has just been so memorably celebrated.

CELIA STE NELLIS.

Berlin, April 26, 1899.

Written for Kansas Farmer.

Good Advice to John.

The accompanying extract from the Christian Endeavor World, of June 2, seems so to bear on the subject that "X. Y. Z," of Junction City, wrote to me about, a few weeks ago, that I enclose it, thinking perhaps some young man might get an idea from it. Personally I am not in favor of following the plan of the historic "Priscilla."

"AN OPEN LETTER TO JOHN."

"My Dear John:—Why don't you speak for yourself? I do not doubt that you have reasons that seem to you sufficient, but I am wondering whether you would be willing to tell us what they are. You see, you are rather provoking, John. You begin to show attention to a girl who, perhaps, in the first place does not care for you at all. You make yourself so agreeable to her, and do so many things to please her, and give her so much reason to believe that you care for her, that at last she finds that she does care for you very much. This goes on for a year or two years, or more; but you never seem to get any further. Why, John, I think it very probable that at this moment you are calling on Priscilla, as you have called very often before, and you really are making love to her; there is no mistake about it. Now, why don't you tell her in words what you have already told her in every other way? Why don't you speak for yourself, John?"

"I can think of several reasons that you might give, but I should like you to state them yourself. If you really do not want her, then you have no right to make her believe that you do. If you are too diffident to ask her, then I am just a little bit ashamed of you, and I almost hope she will in some way tell you 'No,' and decline to give you a chance to ask her."

"Remember, John, that 'faint heart never won fair lady,' and speak quickly and ask her, before she gives you that mitten that I am advising her to knit for you."

"It may be that you are poor, and that she is living in comfort, and you think your salary will not support her as her father is supporting her now; and so you do not like to ask her to share a little home with you."

"Why, John, if she is the right kind of a girl, she does not care about the house; it is you she cares for, and she would just love to help you make that little home, and she will be glad to do without many things for your sake."

"At any rate, if that is the only thing in the way, she has a right to decide that part of the question for herself, and you have no right to decide for her, that she is too selfish to do it."

Phoebe Parmelee gave some advice on this point, too, a few weeks ago, in story form. While following such a course as she pointed out might bring about a certain result, I can not think it just the very best way, as it is just possible it might in some cases bring about a breach, which might cause pain to both. Of course, it may be the wisest plan in some cases.

I do not feel particularly curious about Phoebe Parmelee's personality, as I think I know. At any rate, whether 21 or 45, her writings are both helpful and inspiring.

ENGLISHWOMAN

Written for Kansas Farmer.

Needed Caution to the Busy Wife.

Having had some very dear friends move to the far West—in fact, go out as young wives to seek their fortune with their husbands, I knew something of the difficulty to get help, especially on the farms. What I want to say is, that every device that helps the overworked, tired, delicate housekeeper, is a boon, and should be caught hold of at once. And as sweeping is one of the most laborious, hardest duties a woman has to contend with, perhaps this easier method may benefit you as it did myself and others. To be able to sweep less, is the idea, and this way releases you from the daily sweeping of rooms. The dust was always hard on my throat, and the sweeping gave me a pain in my side, yet a fastidious, neat housekeeper must get rid of the dust and dirt.

The way is this, and an excellent manager taught me the method: Fill a pail full of warm water, dip your broom into it, first having put enough washing soda into it to make a good suds. Your broom must

first be clean (a new one to start with is better); take a width at a time, sweep hard until it looks new and bright, and after all the dust is out renew your pail of water, putting the washing soda in again, and sweep until the carpet looks as if it had been taken up and shaken. It is just wonderful how it renews and brightens it up, besides the dust is allayed. If you are not strong enough to sweep it hard and over and over, get a man or strong woman to do it the first time. After that it will not need sweeping for a week or more, so it saves much sweeping and dust. Take one room a day until you get through. You will feel like you have had your spring cleaning. It is the woman's friend, and surely costs but little. It saves the broom, also keeps it clean. When you have so much to do, try this simple method, and if you hear of any other helpful way to lessen your work, adopt it at once. It's your duty. Every wife and mother needs recreation and encouragement. S. H. H.

The Young Folks.

HELP THAT COMES TOO LATE.

'Tis a wearisome world, this world of ours,
With its tangles small and great,
Its weeds that smother the springing flowers,
And its hapless strifes with fate;
And the darkest day of its desolate days
Sees the help that comes too late.

Ah, woe for the word that is never said
Till the ear is too deaf to hear,
And woe for the lack to the fainting head
Of the ringing shout of cheer;
Ah! woe for the lagging feet that tread
In the mournful wake of the bier.

What booteth help when the heart is numb?
What booteth a broken spar
Of love thrown out when the lips are dumb
And life's bark drifteth far—
Oh! far and fast from the alien past
Over the moaning bar?

A pitiful thing the gift to-day
That is dross and nothing worth,
Though if it had come but yesterday
It had brimmed with sweet the earth—
A fading rose in a death-cold hand
That perished in want and dearth.

Who fain would help in this world of ours,
Where sorrowful steps must fall,
Bring help in time to the waning powers,
Ere the bier is spread with the pall;
Nor send reserves when the flags are furled
And the dead beyond recall.

For baffling most in this weary world,
With its tangles small and great,
Its lonesome nights and its weary days,
And its struggles forlorn with fate,
Is that bitterest grief, too deep for tears,
Of the help that comes too late.

—Margaret E. Sangster.

BURIED HEARTS.

"What a strange title for an article!" most readers will be tempted to exclaim. Even so. Yet the title expresses a fact, that it was once the fashion to direct the body to be buried in one place and the heart in another. The quaint conceit which underlay this practice is sufficiently obvious. The heart was regarded as the seat of the affections, of tenderness and pity, and as having a sort of claim to be buried in some spot especially endeared to it. Hence the great lights of the world often gave definite instructions before death that their hearts should be removed from their bodies and placed within an urn preparatory to interment in a receptacle specially selected beforehand. Such was the case with Voltaire, who, having found in Geneva that consolation and welcome which were denied him in his native land, gave proof of his appreciation of it by bequeathing his heart to the citizens.

Similarly with John Howard, the great philanthropist, and Graham, of Montrose. The latter's heart was preserved for some years in a steel case made of his own sword-blade, and enclosed in a silver casket, now no more. The heart of the second Duke of Brunswick, who died in 1788, rests on his coffin, while that of Charles Edward the Pretender, who died in the same year, was deposited in the Cathedral of Fieschi, inscribed with a few expressive lines by the Abbate Felice. Many Englishmen of note had their hearts buried in localities apart from their bodies. Only recently readers of the ubiquitous pressman of a fact long well known to antiquaries and lovers of London lore, that a famous city royalist, named Sir Nicholas Crispe, who died in the year 1665, left orders by will that his heart should be embalmed and placed in a small urn on a pillar near his pew in the parish church of St. Paul Hammersmith. The urn is still to be seen in the new parish church, whither it was removed on the demolition of the old one.

Sir Nicholas, soon after the restoration, erected in the southeast corner near the pulpit a monument of black and white marble, eight feet high and two broad, upon which was placed a bust of the king. Underneath on a pedestal of black marble the urn enclosing his heart was

placed. "Lay my body," he said when dying, to his grandson, "as I have directed, in the family vault in the parish church of St. Mildred, in Bread Street, but let my heart be placed in an urn at my master's feet. The ultra-loyal knight bequeathed a sum of money in order that the heart might annually be refreshed with a glass of wine, and the strange admonition was fulfilled for upwards of a century, when, for obvious reasons, it was discontinued. The heart of Gustavus Adolphus, King of Sweden, has rested at Stockholm since 1632, and that of Cardinal Mazarin at the church of the Theatins Order, in Paris, since 1661. Paul Whitehead, the poet-laureate, at his death, in 1774, bequeathed his heart to Sir Francis Dashwood, Lord Le Despenser, while the Duc de Lamagnois, by a chemical process, reduced the heart of his wife, whom he loved very dearly, to a sort of small stone, which he set in a ring that he constantly wore.

Lord Lauderdale's heart lies in an urn in St. Mary's Church, Haddington, and that of James the Second of England, existed in an urn in the Church of St. Marie de Chaillot, near Paris, and doubtless would have been there still but for the French Revolution, which caused its destruction. The heart of Lord Kinloss was found in a chased oval silver case in the wall of an ancient ruined church of Culross. Henry the Second's heart was buried at Fontevault, and Richard the Lion-Hearted ordered his to be preserved in a casket in Rouen Cathedral. There it remained until 1738, when the shrine was demolished. In 1838, however, the heart was discovered in its old place and again buried. At a later date it was exhumed for exhibition in the museum at Rouen, but in 1869 it was decided to re-inter the heart, and it now rests in the Cathedral beneath a leaden plate inscribed

allowed, although the heart was removed from the body and placed in a silver vase filled with spirits. The site of the spot where the heart of General Kellermann, Duke of Valmy, rests, is still pointed out near the hill of Valmy, in the northwest of France. General Moreau's heart rests in the cemetery of the Chartreuses in Bordeaux, within a cenotaph inscribed with the words: "The heart which loved France so well—1813."

Dr. Richard Rawlinson's heart rests in a beautiful marble urn at St. John's College, Oxford, and that of James, Earl of Wemyss, who died in 1756, rests at Norton Church, in the county of Durham. Francis de la Peyronie, surgeon to the French King, had his heart buried at St. Come, Paris, where the College of Surgeons erected a monument over it in 1747.

In the columbarium, under the mausoleum of the Earls of Aylesbury, at Maulden, in Bedfordshire, two urns containing the hearts of Thomas, Earl of Aylesbury, and Charlotte, his wife, can still be seen. The heart of Prince Henri Jules de Conde was enshrined in the Church of St. Louis, at Paris, and that of William the Third rests in his coffin, enclosed in silver covered with purple velvet, in Westminster Abbey. In the same place, and in the same style, rests the heart of "the Merry Monarch."

Sir William Temple's heart was placed in a silver box under a favorite sun-dial in his garden at Moor Park, in Surrey, on his death, in 1699.

Numerous buried hearts have been accidentally discovered of late years. One was found in the church at Chatham, in Kent, and another at Edinburgh by some workmen under the foundations of St. Cuthbert's Kirk. Eleanor of Castile's heart was buried in 1290 in the Church

of the Black Friars, in London, where a chapel was subsequently erected over it. The heart of Francis de Sales, Bishop of Geneva, was carried to the monastery of the Visitation, at Bellecourt, in 1622.—Household Words.

Robert Burns.

It may surprise some readers to have it recalled that even Burns, who has been designated par excellence, the "Bard of Nature," neither in his poetry nor his letters shows any appreciation of the picturesque in nature. From his farm at Moss-giel he commanded one of the finest views in Scotland, embracing Ben-Lomond, Ben-Venue, and the other mountains keeping watch around Loch Lomond and Loch Katrine, and the exquisite Firth of Clyde, with its numerous lochs winding away northward among the lonely pastoral hills of Argyshire. Above all, Arran, with its grandly romantic mountain farms, was daily before his eyes, as well as the giant mass of Ailsa, rising sentinel-like, sheer and solitary out of the water where the firth merges into the Irish Sea. Yet not once will you find him making mention of this noble land and seascape so constantly in his view. In his Northern tour he traversed for twenty-two days some of the grandest scenery in the Highlands, yet nowhere do his writings testify to any adequate appreciation of it.—J. Hunter, in March Lippincott's.

Rosa Bonheur.

The death of Rosa Bonheur removes one of the world's great benefactors. Anybody who does good work is a benefactor. She was a hard and faithful worker, and a recognized master in her chosen line of work. As a painter of animals her power was wonderful. As a child she had a great knowledge and love of animals, and early was able to make pictures that attracted the attention of good judges. When very young she lived for a while with a farmer. Her recreation was painting the horses, cows, sheep, and pigs about the place. One of her first pictures was of the farmer's family cow. A collector chanced to see it, and offered her the equivalent of \$75 for it. She went to the farmer and told him about it, asking his advice. He crossed himself, cautioned her to get her hands on the money quick and not say a word, as the cow herself wasn't worth more than \$40. There are a great many people with money that we all know who would value an old cow more highly than a great picture of it. Rosa Bonheur always dressed in masculine attire because she found skirts and petticoats a nuisance in getting about among the animals she loved so well. She owned a beautiful home with large grounds at Fontainebleau, where it was difficult for her to keep away from people who wanted to see the great painter. She was the recipient of all kinds of animals, enormous French cart horses, African lions, and even wild West specimens of the American bronco. She attempted to keep her animals on the place, but it was not only a great expense, but the wild animals were a menace to the peace of the neighborhood, and she had to adopt the plan of turning over her presents to the public zoological gardens.

Demoralized.

A funny story is current about Gen. Sir Henry Brackenbury, the director-general of ordnance in England. Somebody had invented a field gun intended to be fired from horseback. The experiment took place at Woolwich, the horse's head being tied to a post, and the muzzle of the gun being directed toward an earthen butt. The General and his staff stood on the other side of the animal to watch the result.

The gun was loaded, and in order to afford time a slow-burning fuse was used to fire it off. Unfortunately, the animal was only fastened by the head. The result was that when it heard the fizzing of the fuse on its back it became uneasy and commenced prancing around the post, so that the gun, instead of pointing at the butt, was directed straight at the heads of Sir Henry and of the body of gorgeously attired generals and staff officers with him, who had assembled to watch the experiment.

Not a moment was to be lost. Down they all went flat on their stomachs in the mud. Then the gun went off, the recoil knocking over the horse, which was found at some distance from the post on its back.

It was a miracle that no harm was done by the projectile. None of the officers received any injury, except to their uniforms. Indeed, they presented a rather demoralized appearance when the experiment was over, and under the circumstances it is not astounding that they should have reported strongly against the adoption of the gun.

dined at the HOTEL WHITTON, 221, N. WABASH, by virtue of his office, presided at the board. The first course was clams, of which the councilman is passionately fond. Deftly impaling one of the toothsome bivalves upon a fork he lost no time in transferring it to his mouth. His teeth closed heavily upon his favorite delicacy, and the equanimity of the table was the next moment startled by a smothered ejaculation. All eyes were upon the city father, as, clapping his hand to his lips, he removed a hard, shining object, which, imbedded in the body of the clam, had nearly cost him a tooth or two.

The lustre of the substance he had bitten upon aroused the curiosity of the distinguished company. It was recognized at once as a jewel, and was passed rapidly from hand to hand. Councilman John Lang, of the twenty-fourth ward, also a committeeman, who is a recognized expert on precious stones, at once pronounced it to be a pearl, and one of great price. Subsequent developments have proven it to be so.

A happy inspiration seized Captain Coughlan when the verdict was passed by Mr. Lang:

"Allow me to christen your find," he said to Mr. McAllister. "Hereafter let it be known as the Raleigh pearl," and the Raleigh pearl it has become, which is the primary reason why patriotic McAllister solemnly affirms that he will never consent to part with it.

In shape the pearl is oval, one-eighth of an inch in diameter. At first it was of a peculiar light brown color, but since it has been treated to sun baths and other arts of the trade this has given way to a most dazzling whiteness of a peculiarly pellucid tone. Experts have estimated its value at \$5,000. Lieutenant Commander Phelps, of the Raleigh, who is an ardent enthusiast on the subject of precious stones, and quite a collector of the same, admits that the "Raleigh pearl" is the finest which has ever come under his observation. Mr. McAllister has contracted to have the pearl encircled by sixteen small diamonds and mounted as a scarf-pin.—Philadelphia Times.

Excursion to Cleveland, O.

One fare for the round trip via Nickel Plate Road, on June 25th and 26th. Tickets good returning to and including June 29th, 1899. Chicago depot, Van Buren St. and Pacific Ave. Address, General Agent, 111 Adams St., Chicago. (11)

A \$5 Genuine Meerschaum or French Briar Pipe for 15 Cents.

This is no lottery, gift enterprise or scheme of any kind, but a square proposition and a chance for every pipe smoker to get a splendid pipe for a mere song. Send 2-cent stamp for particulars. B. F. Kirtland, The Pipe Man, Trade Building, Chicago.

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 DIARRHEA. 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.

Free Samples of

WRIGHT'S CONDENSED SMOKE.

Send us 10 cents in stamps (to pay postage) and the names of ten or twenty of your neighbors that cure their own meats and we will send you a sample of WRIGHT'S CONDENSED SMOKE, the great meat preservative, the great time, money and labor saver. Address, E. H. Wright & Co., 915 Mulberry street, Kansas City, Mo. In writing, mention KANSAS FARMER.

HAIR SWITCH 65 CENTS.

WE SELL HUMAN HAIR SWITCHES to match any hair at from 65c to \$3.25, the equal of switches that retail at \$2.00 to \$5.00.

OUR OFFER: Cut this ad out and send to us, inclose a good sized sample of the exact shade wanted, and cut it out as near the roots as possible, inclose our special price quoted and 5 cents extra to pay postage, and we will make the switch to match your hair exact, and send to you by mail, postpaid, and if you are not perfectly satisfied, return it and we will immediately refund your money.

Our Special Offer Price as follows: 2-oz. switch 50-in. long, long stem, 65c; short stem, 90c; 3-oz. 22-in. long, short stem, \$1.25; 3-oz. 22-in. long, short stem, \$1.50; 3-oz. 24-in. long, short stem, \$2.25; 3 1/2-oz. 28-in. long, short stem, \$3.25. WE GUARANTEE OUR WORK the highest grade on the market. Order at once and get these special prices. Your money returned if you are not pleased. Write for Free Catalogue of Hair Goods. Address,

ROBERTS SPECIALTY CO., 114 Dearborn St., Chicago.

OFFICE:
No. 116 West Sixth Avenue.

SUBSCRIPTION PRICE: ONE DOLLAR A YEAR.

H. B. COWGILL, Editor.
H. A. HEATH, Advertising Manager.

ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).
Special reading notices, 25 cents per line.
Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per line for one year.
Annual cards in the *Breeders' Directory*, consisting of four lines or less, for \$16.00 per year, including a copy of *KANSAS FARMER* free.
Electro must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.
To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.
All advertising intended for the current week should reach this office not later than Monday.
Every advertiser will receive a copy of the paper free during the publication of the advertisement.
Address all orders—
KANSAS FARMER CO., Topeka, Kans.

While looking through the shops at the Agricultural College, last week, the writer was pleased to examine a new lathe for working metals. It was built by the college shops, largely with student labor, and is a part of the equipment in course of construction to meet the enlarged demands for instruction and practice in this line of industry. The cost of such a lathe, if purchased in the market, is about \$300. The total cost for materials and labor, including a proper allowance for cost of patterns, was \$96. Professor Harper proposes to construct a large portion of the equipment, for which the last legislature granted an appropriation, on this advantageous scale of prices.

Commercial transactions of the people of the United States with those of foreign countries were such that, during ten months ending with April, 1898, the imports of gold to this country amounted to \$103,738,951. For the ten months ending with April, 1899, the imports of gold amounted to \$82,778,652, showing a decline of about one-fifth of the former amount. The decline for the month of April is more marked than that for the ten months. For April, 1898, our imports of gold amounted to \$32,579,858. For April, 1899, they were \$2,482,871, a reduction of about fifteen-sixteenths of the former amount. Reports for May, 1899, are not at hand, but last week the financiers of the country were startled by the export of gold to the amount of \$5,500,000. This is the largest export shipment of gold made since July, 1897. The tone of financial writers indicates that a change is to be expected from the exultation experienced from the constant flow of specie to this country. This change does not betoken calamity, but it may well be taken as a precautionary signal to those contemplating the assumption of financial obligations in anticipations of the future.

Editor Kansas Farmer:—I have been a reader of your valuable paper for a number of years. I want to ask a favor of you, which may be the means of saving some of my fellow farmers from being swindled of their hard-earned money. There are agents traveling over different parts of this State taking orders for groceries for the Bean Commission Co., of Kansas City. Are they frauds? There are a lot of farmers here who seem to think so. The farmers requested me to ask you to warn your readers about these men who travel about to solicit orders. Please have other papers copy so that all will find them out. I can furnish plenty of proof if it is necessary. As to my responsibility, I refer you to any of the banks or business men of the town.

ADAM DILLER.

Clay Center, Kans.

We do not know anything about the firm mentioned by Adam Diller, nor have we any means of knowing whether the traveling men have authority to solicit orders for them. In all cases, however, it is best for a farmer to know that he is ordering from reliable people before parting with cash.

"A new river has been discovered in Africa," said mamma, who had been reading. "Oh," replied little Frances, "I am so glad I am done studying Africa in my geography. If I hadn't I should have to learn that river."—Pittsburg Chronicle-Telegraph.

AT THE AGRICULTURAL COLLEGE.

The regents of the Kansas State Agricultural College, at their June meeting, which began early last week and continued over into the present week, found a large amount of business awaiting their attention. It is not news in Kansas to state that the present regents are somewhat out of harmony with the president of the college, and most of them are new to the work. They were, therefore, necessarily somewhat deliberate in reaching conclusions.

Ever since the results of the last general election became known, it has been expected that as soon as a change should be effected in a majority of the regents the headman's ax would be used, but to what extent was not stated. There are seven regents. At the beginning of the present year there was one vacancy. Two more places soon became vacant through the expiration of terms. Two others became vacant by the removal of the incumbents. The filling of all these places left the board five to two. There is still pending some litigation as to two places, but the de facto board stands five to two.

By resolution adopted by the regents last Saturday afternoon, the places of President Thos. E. Will, Prof. E. W. Bemis, Prof. Frank Parsons, Prof. D. J. Ward, and Prof. W. H. Phipps were declared vacant. The place of Superintendent Chas. S. Davis, of the printing department, will become vacant July 1 by expiration of term, and it is understood that he will not be re-elected. Other changes of minor importance will probably be made, but it is understood that the heavy part of the headman's work has been accomplished.

It will be interesting to note the branches which have been taught by the several decapitated professors. President Will was professor of economics and philosophy; Professor Bemis, of economic science; Professor Parsons, of history and political science; Prof. Ward, of English language and literature; Prof. Phipps, of book-keeping, commercial law, and accounts.

Much uncertainty exists as to the filling of these vacancies. Very likely considerable reduction will be made in the amount of instruction in economics and political science, so that there will not be so many men employed in this work.

The most difficult place to fill is that of president of the college. The salary of the place has been \$2,600 per year, and house rent. This is less than is paid for such services in most colleges. It is, therefore, not possible to induce any man who has established a reputation for ability as an agricultural college president to resign his present position to come here. Further, it is feared abroad that Kansas has entered upon an era of political reprisals at the college. Men of discernment regard it as evidence of a lack of wisdom to sacrifice even a lower position in some secure place to take chances in the political storm center in which our Agricultural College is reputed to be. True, there are applications for the presidency. Some old men have been recommended. Some young men have aspired to the position. The work is arduous. It is not suited for an old man as a pastime during the evening of his days. It requires tact and experience and is not suited to a young man in his early exuberant expectation of rapid conquest in conquering the world. Under the circumstances and requirements of the case, the regents will be fortunate if they shall discover a proper person who is so situated that he can afford to accept the position.

The Kansas Farmer has looked over the field with some care and has suggested to the regents its observations. In appointing the new board, Governor Stanley selected one professional educator, namely, Prof. E. T. Fairchild, of Ellsworth. Professor Fairchild turns out to be an exceptionally strong man, who has, for several years, been doing exceptionally good work. He was at once recognized by the other members of the board as a leader, and was elected president of the board. He proves to be a man of rare culture, of fine education, of powerful energy, of discernment and tact, of contagious enthusiasm—a man who recognizes and appreciates these qualities in his fellow workers, and whose generous support of worthy efforts of those around him constitutes a powerful incentive and inspiration to efficient action. Professor Fairchild received most of his collegiate education at Delaware, Ohio, the alma mater of many great men. He is an attendant upon the Presbyterian church; is 44 years old, and has been for fourteen years at the head of the schools of Ellsworth. He is acquainted with Kansas affairs and will be invaluable in promoting a good understanding between the college and the people of the State. He is fully in sympathy with the work of the college and knows its peculiar needs.

The greatest obstacle to the appointment of Professor Fairchild to the presidency is the fact that he is a regent. His own delicacy disinclines him to make it possible for his fellow regents to elect him. The view of the Kansas Farmer is that no such

feeling of delicacy ought to be allowed to stand before the interests of the young people of Kansas.

The Kansas State Agricultural College is the largest institution of its kind in the world. Notwithstanding the fears of the friends and predictions of the enemies of the last administration, each of the last two years showed good growth. It must now, very soon, be realized that liberal education is not for the few but for the many. The many hundreds who attended during the year just closed, will in the near future be replaced by as many thousands. The State must awake to the fact that it has on hands a large undertaking which must be taken care of in a large way. The young men and young women who receive the eminently practical education of the Agricultural College become such a potent force in the progress of the State that the investment is immediately repaid many fold.

In rearranging the course of study at the college, agriculture and other studies having direct application to practical existence and to industry have been given more prominence than ever before.

The experiment station, which is to some extent a distinct institution and maintained by entirely distinct funds appropriated by Congress for the exclusive purpose of carrying on agricultural experiments, is entering a field of greater usefulness than was formerly thought to exist.

The work before the college is such that energy and ability will be demanded in large consignments. If any of the many applicants for positions imagines a place of respectable indolence, he will, if by any mischance he shall get in, find that it is not that kind of an asylum. This will be notably and especially true if the State shall secure in the president's chair the services of the present head of the board of regents.

A BIG PIONIO.

The annual picnic at Stahl's grove, on the line between Osage and Shawnee counties, has become one of the institutions of eastern Kansas. The Old Prairie Center and Red Pepper Picnic Association is twenty years old, strong and healthy, with a good prospect of a long life. With its twentieth meeting it changes its name and is now the Shawnee and Osage County Sunday School and Temperance Union. It is now working under a charter, with a president, secretary, treasurer, and a board of twenty directors. The purpose is the same as in the past—to work along temperance lines; to strengthen the sentiment in favor of the prohibitory law; to help the cause of law and order; to help make the home better; to fit our boys and girls for active, earnest, intelligent, temperance workers; to make the world better while we pass through; to have such a good time that our memories of what we saw, heard, said, and did (as we take a look backward) will be pleasant ones. The picnic is being held to-day at Stahl's grove, on the Shawnee and Osage county line, eight miles north of Burlingame and three and one-half miles southwest of Auburn. The principal speakers of the day are Judge Garver and Hon Harry Larimer, of Topeka.

BREEDERS' ANNUAL REPORT.

The Kansas Improved Stock Breeders' Association has just issued from the press of the Kansas Farmer its first published Annual Report in book form. It contains an introduction by Secretary Coburn, a history of the live stock organizations in Kansas by Secretary H. A. Heath, the full proceedings of the ninth annual meeting of the Kansas Improved Stock Breeders' Association, and the consolidation of the other live stock organizations of the State with it, together with the addresses, papers, and discussions as to the various branches of the animal industry of Kansas and live stock husbandry in general.

It is the first distinctive live stock report ever issued for Kansas and is a veritable live stock manual for the State. The Report also contains the Association's Kansas Breeders' Directory for 1899. As the Association receives no State aid, but is supported entirely by its membership fee of \$1 per year, it has been decided to charge a nominal price for the annual report, as follows: Single copy, 25 cents; 10 copies, \$1.50; or 100 copies, \$10. Address all orders, or applications for membership to H. A. Heath, Secretary Kansas Improved Stock Breeders' Association, Topeka, Kans.

Young Folks in the Old Country.

The first of this series of letters written by Miss Anna Marie Nellis, was published in Kansas Farmer of August 19, 1897, and number 61 appeared in the issue of June 8, 1899. These sixty-one letters, together with four others written by Miss Celeste Nellis and published in Topeka Capital, have been printed in book form by Kansas Farmer Company.

The book is printed on heavy calendered paper and is 10½ inches long by 7½ inches wide and contains 220 pages, twenty-four of which are page pictures. There are forty-nine illustrations in all. Only twenty of the illustrations appeared in Kansas Farmer, as the plates were made for the book after the letters illustrated had been printed.

The book has been bound by Crane & Co. The edition is only 250 copies, 100 of which will be reserved for Miss Nellis, and 150 will be offered for sale. The binding is in red cloth, in same style as Crane's edition of "Ironquill's" poems, for half the edition, while the other half is bound in imitation morocco.

Anyone desiring a copy can be accommodated until the edition is sold, by writing to Kansas Farmer Company.

The price of red cloth binding is \$1, while the other binding, being costlier, will be placed at \$1.25. If desired to be sent by mail, add 15 cents for postage.

Are You Going to Los Angeles?

Only \$52 for round trip via Great Rock Island Route. The Kansas and Oklahoma delegations have decided to start on Thursday, July 6. Train leaves Topeka 1 p. m., arriving Colorado Springs 7:35 a. m., Friday. One day will be spent in this beautiful city. The route of this personally conducted excursion is via Great Rock Island Route, Royal Gorge, Tennessee Pass, Canon of the Grande, Glenwood Springs, and Salt Lake City, where we remain Sunday. Persons anticipating this trip should make their applications for sleeping car reservations as early as possible. Pullman's latest designed tourist sleeping cars have been assigned for this business. Only \$5 for double berth to Los Angeles, Cal. Double berth will accommodate two persons. For further information write E. W. Thompson, A. G. P. & T. A., Topeka, Kans., who will send you a guide and souvenir of the trip.

RETURNS TO HIS OLD POSITION.

By action of the regents of the Agricultural College, last Monday, Prof. E. A. Popenoe, of Berryton, was elected to the chair of horticulture and entomology. Prof. Popenoe held this chair for many years. Later it was divided and his assistant, Professor Mason, was given horticulture and Professor Popenoe retained entomology. Two years ago both of these gentlemen were displaced. Professor Mason was later elected to the chair of horticulture, at Berea, Ky., and Professor Popenoe went to the farm at Berryton, Kans. At the Agricultural College the chairs of horticulture and entomology were united and placed in charge of Prof. E. E. Faville, with P. J. Parrott and W. L. Hall as assistants. Last winter, Professor Faville was called to the presidency of a newly-established agricultural and industrial college at Doylestown, Pa. This institution is under the care and is endowed by wealthy Jews in this country. At the Kansas Agricultural College the work of the department was efficiently and energetically continued by Messrs. Parrott and Hall.

In returning to his old place at the college, Prof. Popenoe takes with him two years of rich experience with the rough knocks of the world. He is thoroughly informed in the work to which he returns and his friends will expect him to make a brilliant record.

Bella—"So you're engaged to Mr. Groosum. How on earth did he ever propose?" Stella—"Well, he took me for a walk in the cemetery, and when we came to their family lot he asked me how I'd like to be buried there some day with his name engraved on a stone above me."—Catholic Standard Times.

KANSAS CROPS OFFICIALLY.

The State Board of Agriculture issues a bulletin on crop conditions in Kansas June 3, based on reports from its correspondents in every neighborhood, special attention having been given to ascertaining the condition of the growing winter wheat, and the changes in it for better or worse since the last investigation, closing April 10. Of the total acreage sown, the estimate at that time was that 26 per cent was so injured by the unfavorable winter and spring as to be a failure; a continuation of the same causes results in an estimate now that 39 per cent of the wheat ground has been given over to other crops, or left to the weeds. The condition of the then remaining 74 per cent of acreage was rated as 68; the condition of the 61 per cent now standing shows a condition of 55, or 13 points less. In the principal wheat-growing territory, cool, moist weather for some time has been and continues quite favorable for the grain's growth and filling, but unquestionably the vitality of much was so weakened previously that a normal stooling, height or heading became impossible thereafter, however favorable the later circumstances. Old-crop chinch-bugs have begun their usual demonstrations in various localities, but as a rule they have not for their business found this a prosperous season. No mention is made of rust, anywhere. Harvey, Sheridan, Wilson, Woodson, Jefferson, Wyandotte, Allen and Anderson counties are highest as to condition, ranging from 70 to 76, and 37 counties have a condition of 60 or above. The following table shows, by counties, the percentage of their area sown to winter wheat which failed or has been plowed up, the present condition of the remainder, the condition of the somewhat larger remainder as it was reported April 19, and likewise the present condition of corn. The counties are given in the order of their rank in area sown to wheat:

Counties.	Wheat plowed up.	Condi- tion of remainder.	Condi- tion of April 19.	Condi- tion of corn.
Sumner	37	57	58	90
Barton	39	49	67	82
McPherson	26	60	67	92
Rush	34	52	76	81
Rice	43	54	68	88
Ellis	31	45	78	75
Pawnee	63	35	55	80
Sedgwick	31	56	62	70
Russell	31	52	72	87
Stafford	44	35	66	84
Saline	30	63	72	89
Mitchell	36	56	66	87
Ellsworth	34	56	66	87
Harper	37	53	64	98
Reno	23	56	78	92
Dickinson	35	60	75	90
Marion	30	65	62	90
Cowley	32	55	62	84
Lincoln	24	70	71	96
Harvey	30	67	90	82
Rooks	55	64	63	100
Pratt	48	48	54	90
Kingman	41	51	46	70
Labette	34	54	79	92
Osborne	36	39	58	96
Ottawa	67	48	62	80
Thomas	29	63	60	59
Montgomery	46	38	74	40
Ness	45	63	65	90
Cloud	78	51	55	35
Brown	47	53	69	89
Jewell	55	46	74	90
Edwards	32	67	70	95
Douglas	35	53	80	95
Rawlins	30	60	62	92
Trego	36	64	67	91
Doniphan	28	62	75	97
Marshall	30	55	48	93
Washington	35	72	87	100
Sheridan	19	59	89	93
Decatur	33	59	44	61
Clay	45	45	55	61
Cherokee	47	46	61	74
Crawford	28	36	79	84
Ford	42	45	86	88
Logan	43	64	64	90
Leavenworth	24	61	88	91
Phillips	41	51	75	89
Graham	51	61	66	79
Neosho	69	57	57	87
Barber	25	41	90	38
Lane	49	51	70	90
Johnson	45	60	79	100
Norton	59	49	67	85
Atchison	20	45	78	80
Wichita	43	57	75	85
Gove	57	47	87	85
Hodgeman	19	55	63	71
Chautauqua	39	67	77	93
Butler	36	67	70	92
Coffey	22	71	79	92
Wilson	64	54	55	89
Nemaha	34	62	73	90
Geary	52	60	62	94
Republic	29	48	68	97
Kiowa	29	75	68	86
Jefferson	42	57	83	76
Sherman	33	46	79	75
Scott	13	73	85	92
Wyandotte	37	58	78	98
Linn	45	56	75	97
Miami	28	64	71	80
Elk	47	66	78	89
Wabaunsee	45	51	75	92
Pottawatomie	62	37	69	93
Franklin	20	60	52	40
Gray	34	77	68	96
Lyon	62	53	100	78
Meade	25	76	60	91
Allen	54	62	78	98
Riley	80	52	100	96
Cheyenne	38	53	91	91
Chase	49	40	84	87
Shawnee	31	74	62	95
Woodson	50	61	83	86
Osage	34	65	83	98
Bourbon	38	75	87	98
Greenwood	30	75	89	98
Anderson	53	61	61	93
Jackson	65	41	79	82
Kearny	25	65	76	90
Wallace	41	65	80	92
Morris	39	43	70	60
Haskell	32	16	70	66
Finney	66	42	50	100
Comanche	28	50	78	88
Greeley	61	18	75	77
Clark				

Counties.	Wheat plowed up.	Condi- tion of remainder.	Condi- tion of April 19.	Condi- tion of corn.
Morton	75	50	97	50
Seward	71	63	62	75
Hamilton	80	11	100	60
Stanton	25	45	91	50
Stevens	100	...	92	50
Grant	100	...	94	65

CORN.

In most of the properly corn territory, or the eastern three-fifths of the State, the situation and prospects are very encouraging and an increased acreage is reported. About the only present drawback is a surplus of moisture, leaving water standing in the deep listed furrows, or retarding urgently needed cultivation and aiding the weeds in a most aggressive growth. The condition for the entire State is slightly above 90, being 11 points higher than at the same date one year ago, and 5 higher than at this time two years ago. In the twenty-six counties which had 53 per cent of the corn acreage and produced 52 per cent of the total yield in 1898, the condition is 93.5, in detail as follows: Jewell 99, Marshall 91, Republic 94, Reno 98, Nemaha 89, Smith 97, Washington 93, Sedgwick 89, Phillips 91, Butler 91, Cloud 90, Osage 95, Pottawatomie 92, Jackson 93, Clay 88, Brown 95, Cowley 90, Lyon 96, Norton 100, Greenwood 98, Coffey 93, Mitchell 89, Jefferson 88, Miami 97, Decatur 93 and Marion 90.

OATS.

Average condition 67; most of the counties having the largest acreages sown report the best condition. Counties leading in condition are: Brown 92, Cowley 93, Doniphan 90, Jefferson 91, Labette 94, Leavenworth 95, and Montgomery and Sumner 90. Sedgwick, Clay, Washington and Marion, counties having the big oats acreages of last year, report a condition of 86, 70, 74 and 62, respectively.

SORGHUMS.

Returns show a growing interest in the various sorghums for forage and grain in all parts of the State, and a considerably larger planting than ever before. It is too early to report on these with much definiteness, but the condition figures as 84.

ALFALFA.

The situation with reference to this crop is very similar to that of the sorghums, mentioned above, except that harvesting of the first cutting is now going on and greatly interfered with by frequent rains. General condition, 86. Several counties report a condition of 100, and Cowley, 107.

OTHER CROPS.

Spring wheat condition, 60; rye, 78; potatoes, 87; broom corn, 80; flax, 89; barley, 67; castor beans, 87; tame grasses, 92; apples, 66; peaches, 18; grapes, 68; cherries, 57.

LIVE STOCK.

With very rare exceptions, all kinds of live stock are reported healthy, although here and there a little hog cholera is found. Pastures are good, except in some parts of the west or range country, where rains have been infrequent.

Publishers' Paragraphs.

The Sure Hatch Incubator Co., Clay Center, Neb., sold some 1,500 incubators this season. They are putting up a large new factory, to be completed about July 1. In a recent letter to the Farmer they say: "We will go after the business next season with an improved machine, which will be made good and nice. We want to do a lot of business in Kansas, and expect to attend some of the fairs and big doings in your State."

Modern surgery is carried to a high degree of perfection at Dr. Coe's Sanitarium. Here hundreds of the most difficult operations are annually performed with success. With his modern improvements nearly every cavity of the body is entered and tumors and growths are removed with safety. His surgeons are constantly performing operations for the cure of hare lip, club feet, tumors, cancers, cataract, strabismus (cross eyes), inverted nails, wens, and deformities of the human body. Piles, fistulae, and other disease affecting the lower bowels are treated with wonderful success. The worst cases of pile tumors are permanently cured in from fifteen to twenty days. If you are afflicted, look up Dr. Coe's address in this issue. It may interest you.

In the Future.

Professor Wetthedust (a few years hence)—"Good morning, Mr. Tiller. Anything in my line to-day? I have brought my balloons and explosives along."

Mr. Tiller (American farmer)—"Well, I dunno. What's the price of rain now?"—New York Weekly.

"A woman," read Mr. Meekton from the newspaper, "may argue, but she won't reason." "Yes," answered his wife, "and a man, as a rule, doesn't do either."—Washington Star.

WALTHAM WATCHES

The best and most reliable timekeepers made in this country or in any other.

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For sale by all jewelers.

The Everyday Life of the Roman Populace.

Here in the Forum were the soldiers lounging in groups or advancing with measured tread among the unordered throngs, pushing all authoritatively aside and preserving order. Here, too, gathered all those people without any occupation, who appeared every week at the storehouses on the Tiber for grain, who fought for lottery tickets to the circus, who spent their nights in rickety houses in districts beyond the river, their sunny, warm days under covered porticoes, and in foul eating houses of the Suburra, on the Milvian bridge, or before the "insulae" of the great, where from time to time the remnants from the tables of slaves were thrown out to them. Last of all, portions of these always took advantage of that custom of the Roman nobles, who desired to shine as patrons of the public, to make themselves hangers-on. It must be remembered that in those days a patron's nobility was measured by the number of clients who mustered in the morning and saluted him at his first appearance on the balcony of his house. Thereafter they lounged for the remainder of the day in the temples and porticoes of the Forum. They whiled away the lagging hours which separated them from the hoped-for invitation to dine with their patron by scratching rude verses and coarse jests on the walls or pillars against which they leaned, or by tracing on the pavements gaming tables whereon to play dice.

Here, then, and in places partaking of a similar atmosphere, were scratched those "graffiti" which come under the first or pagan subdivision of the new science. Did the crowd open from time to time before the litter of some famous senator or some renowned beauty, an idler might trace the features of the occupant or write some ribald remarks for his own sarcastic beguilement. Did a few soldiers or loungers agree to gamble, they would trace on the stone pavement their square, marking on each side their gains or losses. Sometimes, as in the illustration of the gambling "graffiti," the victor would heap sarcasm upon the departing loser by writing, as was done in this one, "Vanquished; get thee gone; thou knowest not how to play; give thy place to one who does." In another place, some loungeer dangling his legs comfortably over the side of a temple portico, no doubt would idly sketch things which he had seen. What these might have been is well illustrated by the "graffiti" found on the temple of Antoninus and Faustina. One such, as shown by the sketch, was a military bust, possibly intended to represent some dignitary of the time known to the artist. Another was a rude drawing of a gladiator fighting with a lion, which the artist had probably seen at the amphitheater. A third was a conception of Hercules and his club. Perhaps the two concentric circles were drawn to show some one a pious in an argument concerning the Coliseum. Others from the same place leave food for strange pondering on the thoughts of the individual who scratched them there—"the graffito of Victory," and that of the individual with the horn of plenty.

"Continuing my examination," said Signor Marucchi, "I came some time since upon a little drawing, fifteen inches by eight. It was on the walls of a room in the soldiers' quarters in the House of Tiberius. The lines in it were almost completely obliterated. Nevertheless, by the aid of powerful glasses I thought I discerned a

pictorial reproduction of some striking event. There seemed to be two crosses with ladders leaning against them. On one of these a soldier was mounting, carrying something like a tablet. Above the transverse bar of this same cross was another soldier with a hammer. Beneath was a figure dragging another toward the cross. Yet another figure was raising a ladder to the second cross, and on a third ladder a soldier was mounting. Two ropes hang from the cross-beams which unite the crosses. Names are written near the figures. One is Pilatus or Pileus (written Pileus). High above the drawing is a word resembling Crestus, and near it is a hammer, which, as is known, was the emblem of the crucifixion.

"All the circumstances brought me to imagine for a moment that I might be in the presence of a picture of the crucifixion of our Savior, and possibly even drawn by soldiers who had assisted at the event. Many others were of the same opinion, though there were competent authorities who read in it a different signification. They suggested, for instance, the launching of a ship, or the representation of an acrobatic performance. One thing is now clear, the large inscription over the drawing can be no part of the idea therein represented. It is the work of many hands, written at various periods, and composed almost exclusively of libertine expressions.

"The chief spots on the Palatine Hill where 'graffiti' inscriptions are found, are the House of Tiberius, the neighborhood of the Stadium, and the so-called Pedagogium," said Signor Marucchi. "This last was a military school for the youths destined to become members of the emperor's body-guard. Here in 1857 was made the discovery of the caricature of Christian worship. It represented a figure in the traditional act of worship, before a man with an ass's head attached to a cross. These words formed a part of it—'Alexamanos sebete Theon'—'Alexander adores his god.' It was immediately recognized that this was a satire by a pagan soldier on a Christian comrade named Alexander.

"It is an established fact, though the precise motive is not clear, that the pagans were in the habit of calling the Christian adorers of an ass's head. The 'graffiti' has all the internal evidence of dating from the beginning of the third century, probably from the days of Septimius Severus. It was detached from the wall where it was found, and is now in the museum of the Roman College. Near this spot several 'graffiti' names are found, and I myself, examining the locality, came upon one inscription with what appears to be a phrase of Christian origin. It seems to be a pious ejaculation to the effect that trust is to be placed in the protection of God. If this interpretation is correct, the phrase might be regarded as a reply by Alexander or by another Christian soldier in his name, to the preceding insult. The matter, however, still requires study."—Theodore Dreiser, in Ainslee's for June.

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

Aunt Hanna—"The trouble was that you didn't know your own mind when you married that woman." The Unhappy One—"I think it was because I didn't know her mind."—Boston Transcript.

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DO YOU WANT A FARM OR A RANCH? 7,000,000 acres Ranch land—1,000,000 acres Farm land, located in NEBRASKA, KANSAS, COLORADO, WYOMING and UTAH. For sale by the UNION PACIFIC RAILROAD COMPANY at greatly REDUCED PRICES on ten years' time and only 6 percent interest. LIBERAL DISCOUNT FOR CASH. Please refer to this paper when answering advt. B. A. McALLISTER, Land Commissioner, U. P. R. CO., Omaha, Neb.

Horticulture.

KANSAS EXPERIENCE IN ORCHARDING.

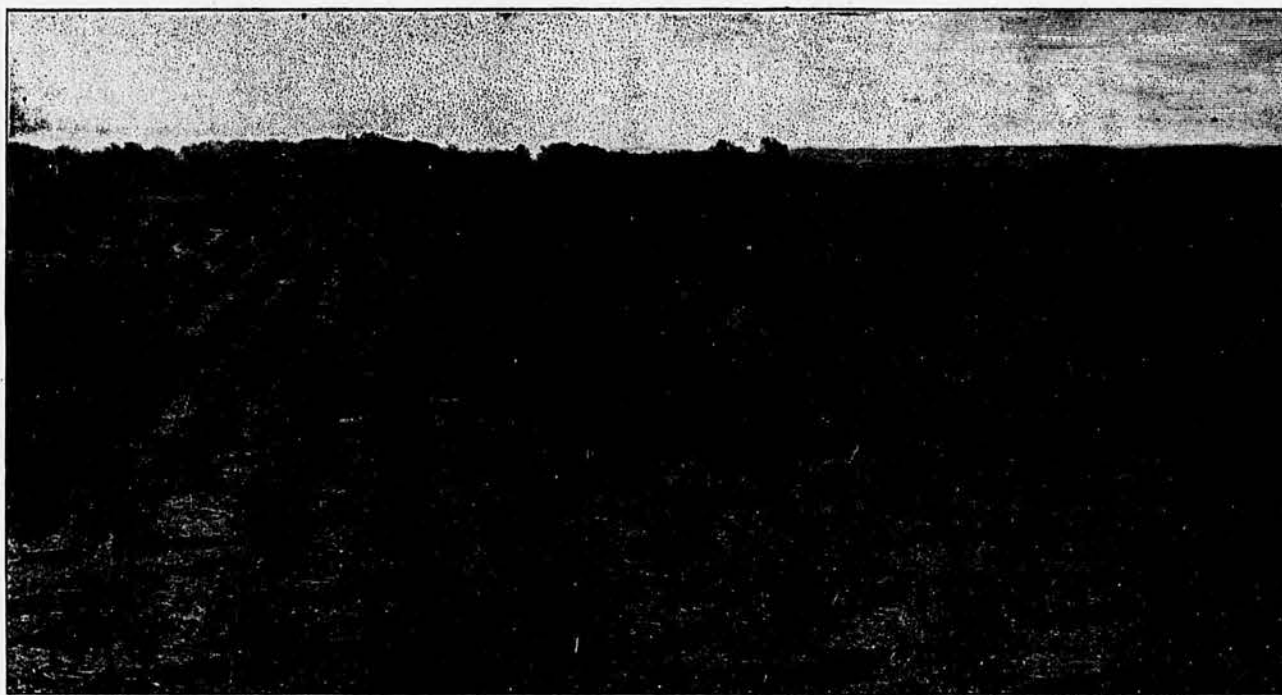
From "The Kansas Apple."

W. D. Kern, Baldwin, Douglas County: I have resided in Kansas thirty-nine years. Have an apple orchard of 775 trees four years old. For market I prefer Missouri Pippin, Ben Davis, and Willow Twig, and for family orchard Yellow Transparent, Maiden's Blush, and Jonathan. I prefer a loose, porous subsoil on a north slope. I prefer one or two-year-old trees, set twenty-two feet apart north and south and thirty-three feet east and west. I plant my orchard to corn, potatoes, and clover, and keep up the cultivation until they are bearing well, using a diamond plow and one-horse cultivator. I never cease cropping. Wind-breaks are not essential, but if they were I should make them of four or five rows of maple or some quick-growing trees, on the south and west sides of the orchard. For rabbits I use wooden tree wrappers, and dig the borers out. I prune to give the tree shape and let in the sun; I think it pays, as it keeps the tree from over-bearing. I do not thin the fruit while on the trees, but think it would pay. I fertilize my orchard with barnyard litter, and would advise it on all soils when it needs it. I pasture my orchard with hogs; I think it advisable, and that it pays. My trees are troubled with cankerworms, tent caterpillars, borers, tree hoppers, and leaf rollers, and my apples with codling moth and curculio. I do not spray. I hand-

any kind of stock. Am troubled with cankerworm, tent caterpillar, flathead borer, woolly aphis, twig borer, fall webworm, leaf roller, leaf crumbler, and codling moth. Spray regularly with London purple; can not say it has reduced the codling moth any; for borers I keep my trees thrifty by constant cultivation. We pick in candy pails, but find it bruises the fruit too much. I sort by hand in three classes—commercial size, Nos. 1 and 2, and culls. I pack in three-bushel barrels, stenciled with name of variety and grower, and ship by freight. Sell any way I can; have never sold in the orchard; sell culls for apple-butter, and make some cider; have marketed at good prices at Pueblo, Colo.; have never dried any for market. I store some for winter in boxes, barrels, and in bulk in a cellar, and find that Ben Davis and Missouri Pippin keep best. I usually have to sort over those kept through, and lose perhaps one-fifth. Have never irrigated. My average returns are about 50 cents per bushel. For help I use men at \$1 per day.

James Wilson, Assaria, Saline County: Lived in Kansas twenty years; has an orchard of five acres, twenty-three years planted. For commerce he uses Ben Davis, Missouri Pippin, and Jonathan, and for family use would add Maiden's Blush, Grimes' Golden Pippin, and Rawle's Janet. Has discarded Rambo as too shy a bearer. Prefers light soil, with a heavy subsoil in the bottom, with a southern slope. Plants thirty feet apart each way. Grows no crop in orchard, and cultivates with stirring plow and cultivator until the trees completely shade the ground. Believes wind-

harrow—plow shallow; plant the young orchard to potatoes, beans, vines, and sometimes corn, using a one-horse diamond plow, and am careful to harrow afterward. I cease cropping six or seven years after setting, and plant a bearing orchard to red clover. I think wind-breaks are essential; would make them of most any kind of rapid-growing trees planted in groves on the east and south sides of the orchard. For rabbits, I wrap the trees, and dig the borers out. I prune with a penknife to keep the trees in good shape. It pays if properly done, and is not too severe. I have thinned my fruit by hand when of the size of hickorynuts. Think trees do best in mixed plantings. I fertilize my orchard with barn-yard litter and ashes; I think it beneficial, and would advise its use on all soils. I pasture my orchard with hogs part of a day at a time when the apples fall badly. Don't let them in at will. I think it pays and is advisable, for they destroy the moth. My trees are troubled with both round- and flathead borers, and my apples with codling-moth. I spray, using a hand sprayer, with Bordeaux mixture and London purple, when the blossom falls, for codling-moth and curculio. It has not been beneficial. I burn the [tent] caterpillars. I pick my apples by hand in a sack over the shoulder, and sort into three classes—first, finest; second, fair; third, culls. I sort from the ground or a table. I sell apples in the orchard, wholesale and retail, and have no trouble in selling my first-grade apples. I sell and make cider of the second and third grades, and also dry some of them. Feed the culls to hogs or other stock. My best market is at home. We dry some in a common dry-house,



A section of the Summit Place Orchard, Tonganoxie, Kans., of 400 acres, planted in 1894; now bearing its first crop of apples. Owned by Judge F. Wellhouse, Topeka, Kansas.

pick my apples into buckets and sacks from step-ladders. I sell my apples in the orchard at wholesale. I sell the best to shippers, and the second and third grades the best way I can. I sell or feed the culls to the stock. Never tried distant markets. I do not dry any. Some years I am successful in storing apples in barrels and boxes in a cellar. Winesap and Missouri Pippin keep best. I never tried artificial cold storage. I have to repack stored apples before marketing, losing about one-fourth of them. I do not irrigate. Prices have been from 60 cents to \$1 per eleven-peck barrel. I employ men at 10 cents per hour.

James Sharp, Morris County: Have been in Kansas twenty-eight years. Have an orchard in Morris County of 8,000 trees, planted from two to thirteen years. I grow for market Ben Davis, Missouri Pippin, Jonathan, and York Imperial; would add for family Early Harvest, Maiden's Blush, and Winesap. Have tried and discarded Yellow Bellflower, Lawver, Willow Twig, and Smith's Cider; the former is barren, the others blight. I prefer second bottom with northeast slope; soil loose, black loam, with red clay subsoil. I plant in furrows each way, sixteen by thirty feet, running a subsoiler in the furrows, and use straight, smooth, two-year-old trees. Have tried root grafts, but they need nursery care at first. I cultivate at all ages, while young with plow, and old orchard with reversible disk. I grow corn in young orchard, and after five or six years keep the ground bare with the disk. I think wind-breaks essential, and use Osage orange, elm, ash, Austrian pine, and cedars. Catch the rabbits; and cultivate well as a protection from borers. Do not prune much; take out a little brush if necessary to more readily reach the fruit. Never have thinned apples. Have never fertilized, and am decidedly opposed to pasturing orchards with

breaks necessary, and would plant boxelder, three feet apart, in rows three feet apart, so as to shut out all wind. Binds with corn-stalks to protect against rabbits. Prunes by cutting off lower limbs and thinning center; says it is beneficial, and makes fruit larger and of better color. Thins apples on trees when the size of marbles, and believes it pays. On pollination he says: "I had one tree that stood alone, and never bore fruit until I got honey bees; then it bore all right." Uses no fertilizers. Allows no live stock in the orchard. Has sprayed just after the blossom fell, with London purple and Bordeaux mixture, for the last five years, and it has reduced codling moth. Uses knife and soap-suds for borers. Picks and sorts into three classes—sound and big, medium and affected, and culls. Sells in orchard and in Salina; makes vinegar and hog feed of culls. Never shipped any apples. Stores for winter by burying in bulk, and is successful. The Missouri Pippin and Rawle's Janet keep best. Prices from 50 to 75 cents per bushel. Uses boys from 14 to 20 years of age for help, and pays 50 cents to \$1 per day with board.

J. W. Williams, Holton, Jackson County: I have lived in the State forty years; have an apple orchard of 225 trees of various ages, the oldest being thirty-nine years. For market I prefer Ben Davis, Missouri Pippin, Winesap, and Jonathan; and for a family orchard Red Astrachan, Early Harvest, Dominie, Lowell, and Winesap. Have tried thirty varieties and discarded all excepting the above-mentioned. I prefer a rich soil with a porous subsoil and a north slope; can see little difference between hill-top and bottom orchards. I prefer 2-year-old trees, with symmetrical form, for setting; when planting I trim all affected roots and prune lightly; set them inclined to the southwest. I cultivate my orchard as long as it lives with a plow and

which is very satisfactory; after they are dry we put them into sacks to keep from millers; we find a market for them, but it does not pay well. I am fairly successful in storing apples on shallow shelves in the cellar; Winesap and Rawle's Janet keep best. I do not irrigate. Apples have been about 50 cents per bushel, and dried apples 3 to 5 cents per pound.

Andrew Swanson, Dwight, Morris County: I have resided in Kansas seventeen years, and have an apple orchard of 1,800 trees eight years old, eight to ten feet tall. For market I prefer Winesap, Ben Davis, and Missouri Pippin; and for family orchard would add Jonathan and Maiden's Blush. I have tried and discarded Rome Beauty, Huntsman's Favorite, and Minkler. I do not like them. I have upland, with a poor soil and a gumbo subsoil, with a north and east aspect. I prefer 2-year-old trees, set thirty feet apart each way. I cultivate my orchard with a stirring-plow, and intend to keep it up as long as I live; plant corn or any cultivated crop in the young orchard, and cease when there is no room; plant nothing in the bearing orchard. I think a hedge fence all around the orchard as a wind-break would be beneficial. For rabbits, I wrap the trees with wire screening, and leave it on. I prune my trees every winter, or when I have time, to thin the top and to give shape; I think it pays, and is very beneficial. I do not thin my fruit—the wind does that for me. I fertilize my orchard, and think it beneficial, and would advise it on all soils. I do not pasture my orchard; it is not advisable and does not pay. My trees are troubled with leaf-rollers and other insects. I give the culls to hogs. I am successful in storing apples in bulk in an arched cellar; Winesap, Ben Davis, and Missouri Pippin keep best. I never tried artificial cold storage. I do not irrigate. Price has been 75 cents per bushel; dried apples 8 to 10 cents per pound.

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I will pay \$100 reward for any case of colic, horse ail, curbs, splints, knotted cords, or similar trouble, that



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will not cure. It is the Used and endorsed by the Adams Ex. Co. age, and every stable should have a bottle always on hand. Locates lameness when applied by remaining moist on the part affected.

FRIEND HANSON: BALTIMORE, Md., Nov. 2, 1895. I wish you would order me one case of Tuttle's Elixir. Tell Dr. Tuttle that where I have used it on my fast horses it has done all that is claimed; in fact, so far as my experience is concerned, I have failed to find anything to equal it. Yours truly, EUGENE LEWIS, Secretary Riverport Live Stock Co.

Tuttle's Family Elixir cures Rheumatism, Sprains, Bruises, Pains, etc. Samples of either Elixir mailed free for three-cent stamps for postage. Fifty cents buys either Elixir of any druggist, or it will be sent direct on receipt of price. Particulars free.

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

Cultivate the Orchard.

May and June are the months when the farmer is most likely to lose control of his orchard. The corn-field and the garden make heavy demands at this time and it is too common a custom to give all the labor to these and let the orchard go. The weeds come and take control. They appropriate the water and food elements of the soil. They cause the ground to become hard and packed. By July the worst possible evaporation conditions prevail—a dry, hot atmosphere, a heavy, drawing crop of weeds, a hard, baked soil. The horticultural department of the Kansas Experiment Station says: "Do not allow the orchard to suffer under these conditions. Give it thorough cultivation. Keep a mulch of loose soil on the surface to retard evaporation and do not let the weeds grow. If the soil lacks vegetable mold supply it by plowing under an occasional crop of rye, cow-peas, or soy-beans. The latter two are nitrogen-fixers and will increase the available nitrogen as well as supply humus."

The Trouble Located.

Wagstaff, Kans., June 1, 1899.—The nursing child of Mrs. L. J. Whitaker, of this place, when 5 months old, broke out with little pimples. The doctor decided that the mother had humor in her blood and advised her to take Hood's Sarsaparilla, which she did, and the baby's health soon improved. When 7 months old he was all right.

One Fare for Round Trip

to Cleveland, O., via Nickel Plate Road, on June 25th and 26th, with return limit of June 29th, 1899. Three through trains daily. Chicago depot, Van Buren St. and Pacific Ave., on Elevated Loop. For further information, write General Agent, 111 Adams St., Chicago. (12)

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THE "KATY" FLYER.

DON'T!

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Don't think that constant repair bills are a necessity just because some one with a complicated separator has to pay them.

Don't think that some other farm separator is as good as the SHARPLES because an agent for the other condemns the SHARPLES. Send for Catalogue No. 19.

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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.

Care of Steam Boilers and Pipes in Connection With Creameries.

By J. H. Snavely, Jarbalo, for Kansas State Dairy Association.

In response to the W. D. Halstead Oil Company's offer, and by the request of the Kansas Dairy Association, I will endeavor to give my views on care of boilers and pipes in connection with creameries. There is no part of creamery machinery which needs to be more thoroughly understood and properly cared for than boiler and connections. Neither is there any part where carelessness or misunderstanding costs more.

In the first place, the furnace should be of proper construction to give the required draft for the protection of the boiler shell or crown-sheet, as the case may be, so as to distribute the flames evenly over the bottom of the boiler and as far back through the flues as possible for the saving of fuel and danger of burning shell.

The flues should be cleaned once every day, and oftener if necessary, to obtain a good draught, much depending on kind of coal used.

The boiler should be kept clean by washing out once in two weeks, or oftener if water used contains much lime or other sediment.

It is necessary in using most water to use a good boiler compound, one especially prepared for creamery use, to keep off scale and sediment which collect, but it must be kept off, for the protection of boiler and economy of fuel.

In firing up after the boiler has been allowed to cool, a slow fire should be started, so as to give the boiler and pipes plenty of time to expand. Too quick and hot a fire is apt to spring or warp the flues. A valve should be opened in some pipe leading from the boiler when getting up steam after the boiler has been standing without steam, to allow the air to pass out.

The safety-valve should be examined every day to see that it works freely, and that there is no lime or sediment to prevent its proper working. The steam-gauge should be tested at least once in six months, or at any time there is doubt of its accuracy, which can be determined to some extent by the safety-valve.

The pipes leading from boiler to water-column should be tested every day, by opening the foot valve to see if water passes freely from boiler to water-glass. The drain-cock at the bottom of water-glass should be opened every day to prevent lime and sediment forming at the bottom, preventing the water entering freely in the glass.

The water-cocks should be used to de-

termine the amount of water in boiler, and not depend wholly on the water-glass.

All leaks should be attended to at the earliest opportunity.

Pipes conveying live steam should be protected from cold draughts by a covering, either with that provided for that purpose or by wrapping with asbestos or mineral wool, otherwise the expansion of heat and the contraction of cooling too rapidly is more or less apt to cause leaks or burst pipes.

All pipes that are not covered should be painted with some good heat-proof paint to keep them from rusting.

All pipes leading from boiler should have an incline to the boiler, so, when cooling, the condensed steam will pass back into the boiler, thus preventing the water from standing in the pipes, causing them to rust or in cold weather to burst by water freezing.

The lead pipes from boiler to engine should be provided with drain-cock just above the throttle-valve, which should always be opened before opening throttle, to allow the water that has accumulated in the pipes to pass out. The appliance for feeding water into the boiler should be kept in perfect working order and so as to feed just the supply of steam used up, thereby saving fuel.

From one and one-half to two and one-half inches of water over the flues and crown-sheet is sufficient and perfectly safe, and allows more steam room, thus furnishing dry steam for the engine, which is essential for steady and strong power.

The lubricator for the valve should be kept in perfect working order and the engine never run with the valve dry.

All soot, dust, and grit should be kept off all working parts of the engine.

All connections should be properly adjusted and all working parts should take oil properly.

The engine should never be allowed to "pound."

Never leave the boiler, or in fact any part of the machinery, at night until you know everything is ready for work next morning.

A Year at the Agricultural College Dairy.

One hundred and fifteen students have been enrolled in the agricultural classes during the past year. These have received instruction in agricultural history and literature, farm physics, tillage and fertility, bacteriology, dairying, seed breeding, crop production, farm machinery and buildings, breeds and breeding, and stock feeding.

During the summer of 1898, a cheap milk-room, costing about \$5, was constructed over a well for the purpose of carrying on experiments in keeping milk. With water at 62° F. (6° higher than most well water) milk was cooled and kept sweet from thirty-six to forty-eight hours in the hottest weather. Many farmers are unable to keep their Saturday night's and Sunday morning's milk sweet so as to deliver to the creamery Monday morning, thus losing one-seventh of the entire product. Some even have trouble in keeping milk twelve hours. This little experiment at the college, under conditions inferior to those found on many farms, prove that any Kansas farmer can not only save the loss of sour milk, but save his calves from scouring by feeding their milk sweet.

A year's record of the college herd of common cows shows an average income of \$45.44 per head for butter fat and skim-milk, the best cow making \$73.17 and the poorest \$26.22. The best cow produced \$40.37 above cost of feed, and the poorest 43 cents below cost of feed. This experiment shows that with proper feed and care large profits can be realized from common cows. It also shows that a man will run himself in debt by feeding poor cows. Individual records are a necessary factor in profitable dairying, in order to weed out the poor cows and keep the best.

An investigation of eighty-two patrons of the Meriden Creamery Company was made in August, 1898. It was found that the average annual income, including milk, calf, and skim-milk fed to pigs, was only \$32.86 per cow. The average annual income from the college scrub herd, not including the value of calf, was \$45.44, a difference of \$12.58 per cow. This shows what can be and what should be done with the Kansas dairy cow.

The college dairy has been represented in forty-five dairy institutes that have been held in various parts of the State. Its representatives have also been on the programs of the Kansas State Dairy Association, the Missouri State Dairy Association, and the Kansas Improved Stock Breeders' Association.

An interesting and valuable calf experiment is now in progress, testing the value of hand separator and sterilized creamery skim-milk for calves. In both lots are calves that are gaining between two and three pounds per day per head. If any one doubts that good calves can be raised on skim-milk let him call at the college barn and look at the herd of thirteen skim-milk

"ALPHA-DISC"
CREAM SEPARATORS

The improved "Alpha" disc or divided milk-strata system is used in the De Laval separators only. Strong patents prevent its use in any other machines. The "disc" system makes the De Laval machines as superior to other separators as such other separators are to setting systems. It reduces necessary speed one-half, reduces size of revolving bowl, saves labor and power, enables simplicity and durability, skimming cold milk, running cream of any desired thickness, and insures absolute thoroughness of separation under practical use conditions, which is not possible with any other separator or creaming system.

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THE DE LAVAL SEPARATOR CO.

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NEW YORK.

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PHILADELPHIA.

calves. In connection with the calf experiment the college has discovered that Kaffir-corn meal is an excellent grain for calves. Calves will eat it when 10 days to 2 weeks old. The meal is constipating and checks the tendency to scours. We have also found that sterilizing the skim-milk produces chemical changes that help to prevent scours.

Since the 28th of July, 1898, the responsibility of editing the dairy page of the Kansas Farmer has rested with, and much of the matter presented has been written by, those connected with the college dairy. D. H. O.

Keeping Records.

"Haven't got time to keep records," did you say? Why! you haven't got time not to keep them. "Man does not live by bread alone." Would you get the most satisfaction from your business, would you know what you are doing—keep records. There's that cow of your's, old "Brindle;" she gives bucketfuls of milk and beats anything in your herd. "Spot" and "Daisy" don't begin to give so much. You have about decided to sell them and get some more "old Brindles." Behold, that neighbor over there has about the same kind of cows you have, and he has been keeping a record of their performance at the pail. Let us see how they stand. His old cow, his best one, gave 1,000 pounds of milk in thirty-one days. Surely that was good for a scrub cow. But the test only 2.8—or 28 pounds butter fat from all that milk. There is another cow that just about equals your "Spot." Her record is 775 pounds, testing 4.5, or 33.8 pounds of butter fat, 5.8 pounds better than the one that gave the most milk. This illustration is given merely to show that things are not always what they seem. No wide-awake dairyman should think of keeping

a herd and not knowing what every cow is doing—her yield in milk and butter fat and the feed she consumes.

A knowledge of these things is money in the pocket of the man who knows them, and it adds interest to work that otherwise may become drudgery. It takes but a moment to weigh each milking before emptying into the can, and a sample saved of eight consecutive milkings near the 15th and last of each month will give a fair test of the cow's product for the month. If there is not the time to weigh

A Reliable Butter Color.

W., R. & Co.'s Improved the Purest of All Colors.

Endorsed by Eminent Chemists and Food Experts.

Nothing else used in making butter has as many endorsements from chemists and food experts, as well as leading butter-makers, as Wells, Richardson & Co.'s Improved Butter Color. Prof. Witthaus, the eminent New York chemist, has made a thorough analysis of this color and endorses it in the highest terms, while chemists of various State dairy and food departments have also made exhaustive tests.

A trial is all that is needed to show how much superior this color is in natural shade and uniform strength to the old-fashioned, muddy colors that are still used by a few buttermakers. Over 90 per cent of the butter made in this country is colored with it.

If you are not using this color, send 4 cents for postage on a free sample, to the manufacturers, Wells, Richardson & Co., Burlington, Vt.

The U.S. Triple Current Separator
IS

Just as Recommended.

COLUMBIA FALLS, ME., April 24, 1899.
I am perfectly satisfied with the Improved U. S. Separator. It has proven to be just as recommended. Am thoroughly convinced that I am getting more cream from the same number of cows, hence can make more butter.
GEO. E. GRANT.

The Best Separator on the Market.

WEST HAVEN, VT., April 20, 1899.
I have used a No. 5 Improved U. S. Separator two years and I have found it to run easy and do good work. After two years' use less than one-half the weight of the handle will start the bowl. I consider the U. S. the best separator on the market, and cheerfully recommend it to any one wanting a first-class separator.
O. O. HITCHCOCK.

Write for illustrated catalogues with full particulars and hundreds of testimonials like the above.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



Mortgage Lifters.

That's what dairymen call our light running hand separators, because they increase the yield of butter about 25 per cent, and improve the quality, which means higher prices. We guarantee each and every

Empire
Cream
Separator

to fulfill every claim we make for them, and give perfect satisfaction to every purchaser, or your money back.

Send for catalogue of the most complete line of hand separators in America. Agents wanted.

U. S. Butter Extractor Co., Newark, N. J.

the feed for each individual cow, it can be measured or weighed in bulk and the amount divided equally among them, which will be very close to the truth.

Without records there is no basis of comparison for improvement in the coming months. If you knew that "Daisy" gave 750 pounds of milk of a certain test this year, set your mark at 1,000 or more for the next year. Watch her every milking and bring her up to it.

If your feed was too costly last month, figure a combination costing less. If some of the cows are not paying for their feed and have not done so since they were fresh, the records will tell you; fatten them for the block.

There is an endless amount of mental satisfaction in being able to point to your stock and say that this cow did so and so, that one did so much better than the year previous, and the standard of my herd has been raised 20 per cent since last season.

Keep records and see if this is not so.
ED. H. WEBSTER.

Water for Calves.

In order to determine how much water our herd of thirteen calves would drink, the water given them for a week was weighed, put in a barrel with an attachment for letting it out as fast as needed. In the seven days the thirteen calves drank 808 pounds of water, or an average of eight pounds a day. The weather during this time was warm for the first three days and cooler the last four days. In addition, the calves got an average of fourteen pounds of skim-milk, besides grain and hay.

The calves drank several times a day, not much at a time but often. I noticed several times that they only took one or two swallows. Oftentimes they would take a few mouthfuls of grain, go and get two or three sips of water, then back to their grain again. Even after their ration of milk they would take a few swallows of water.

This experiment shows that calves need water in addition to their milk ration. It also shows that they like it often and not so much at a time. Always see that it is fresh and clean.
J. A. CONOVER.

Does Education Pay?

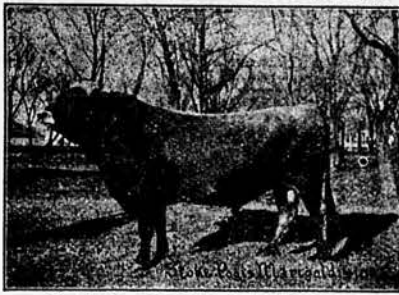
The agricultural college dairy finds that it does. Before the first of April, 1899, our herdsman was a man with no special training along agricultural lines. He was a good man to do what he was told, and to draw his salary, but there his interest ended. When asked how the recent snow-storm or change of feed affected the milk yield of his cows he didn't know, although he had weighed and recorded each milking. During this time the college was feeding four head of calves on skim-milk, and this herdsman made them gain at the rate of 33 pounds per month per head or 1.12 pounds per day.

On the 1st of April, a graduate of the college and a special student in dairying took up the work of the herdsman. He is a man that is constantly on the alert for new developments. When milking a fresh cow he can scarcely wait until the milk is weighed, in order to see if there is a gain or loss from previous milkings. When the calves are weighed, he wants to know immediately how much they gained. With the same feeds at his command, he made the four calves mentioned above gain an average of 53 pounds per head per month, or 1.8 pounds per day, an increase of 60 per cent. This was done by carefully watching the calves. The moment one of them began to scour, he saw it, reduced the supply of milk, gave a little castor-oil, and in various other ways sought to bring it back to normal condition. This was accomplished in about twenty-four hours, when the calf would keep on gaining at the rate of a pound and a half or two pounds per day.

Yet there are farmers who say that education don't pay, and that book learning is a farce. There is no profession in the universe that allows a greater display of intellect than farming, and nowhere is it needed more in order to increase the profits. The farmer is called upon to solve questions in soil physics, in chemistry, botany, entomology, bacteriology, veterinary science, mechanics, and, in fact, can call into play a knowledge of all the sciences and arts. To do this, he must be educated. This education not only makes him a better farmer but makes his work a pleasure. No one who has not experienced it can appreciate the satisfaction that comes from seeing a plant, an insect, a bird, or an animal of any kind, and be able to name it, tell something of its life history, and especially to know of its economic value to the farmer. Such an education helps the farmer to realize the dignity of his calling and helps to place his profession in the front rank of the world's industries, where it belongs.
D. H. O.

SAYDA POLO JERSEY FARM

TWO MILES SOUTH OF PARSONS.



STOKE POGIS MARIGOLD.

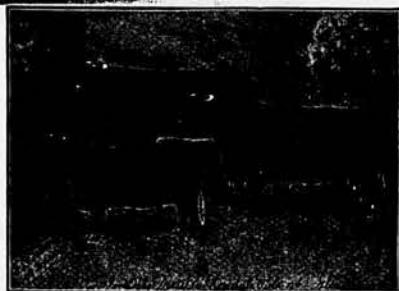
1500 lbs. at 2 years, 8 months. Full brother to Grace Marigold, 20 lbs. butter at 2 years old.

Sire—A son of Ida Marigold (sweepstakes World's Fair cow), 25 lbs., 2½ oz.; sired by a son of Ida of St. Lambert, 30 lbs. of butter in seven days.

Dam—Lady Grace of Upholm, 25 lbs., 5¼ oz. (an inbred St. Heller cow), dam of three cows with weekly tests of 20 lbs.

No State Has a Better Bred or Handsomer Bull. He is Better Than His Picture.

(See want "ad.") No Marigold heifers for sale.
W. C. MOORE, Junction City, Kans.



GLENDAL SHORTHORNS, Ottawa, Kans.

Leading Scotch and Scotch-topped American families compose the herd, headed by the Cruickshank bulls, Glendon 118870, by Ambassador, dam Galanthus, and Scotland's Charm 127264, by Imp. Lavender Lad, dam by Imp. Baron Cruickshank. Young bulls for sale.
C. F. WOLF & SON, Proprietors.



CEDAR HILL FARM.

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

ELDER LAWN HERD OF SHORTHORNS.



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



HERD BULLS FOR SALE

KANSAS LAD 134085, eighteen months old, sired by Duke of Kansas 123126, and tracing to Imp. Orlando 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-headers. Come and see them or address

B. W. GOWDY, Garnett, Kansas.



THE FASTEST "HOSS"

on the track may not be the "proudest looker." Don't bet until you know the pedigree and record. Page Fence has both.
PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

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CURE.

It is so plainly written that even a child can learn to know the two diseases. Free for the asking. Address the publishers,

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California Irrigated Fruit Lands for Sale in Small Tracts



IF YOU WANT TO BUY A TEN OR TWENTY-ACRE TRACT of No. 1 Fruit, Vegetable, or Alfalfa Hay land, we can furnish it to you on terms to suit you. This is your chance to take out an insurance policy against look-outs, financial depressions, ill-health, and want. Those desiring to go to California, the land of sunshine and flowers, health and happiness, will do well to consult us before going. Write for catalogue.

HOUGHTON & BARHAM, 414 Park Bldg., Pittsburg, Pa.

DR. COE'S SANITARIUM.

11th and Walnut Sts., KANSAS CITY, MO.

We use the X Rays in the Examination of Diseases.

Consultation Free, In Person or by Mail. Write for Catalogue.



THIS SANITARIUM

Is a private hospital—a quiet home for those afflicted with medical and surgical diseases, and is supplied with all the remedial means known to science and the latest instruments required in modern surgery.

50 ROOMS

For the accommodation of patients, together with our complete Brace-Making Department, make this the largest, oldest and the only thoroughly equipped Sanitarium in the west. We treat Spinal Curvature by means of a suspension carriage giving ease and comfort to the patient while this dreadful deformity is being successfully overcome. Club Feet, Bow Legs, Knock Knees, etc. are successfully treated.

DISEASES OF DIGESTION.

Dyspepsia, "Liver Complaint," Obstinate Constipation, Chronic Diarrhoea, Tapeworm and kindred affections are among these chronic diseases in the treatment of which we have attained great success.

DISEASES OF WOMEN.

Space will not permit us to enumerate the diseases peculiar to women. We pay special attention to all the diseases, and have every advantage and facility for their treatment and cure. We have comfortable and well furnished rooms and offer a quiet home during confinement. We have a neatly prepared treatise describing Diseases of Women which will be mailed free to any address.

IF YOU ARE AFFLICTED with any of the above diseases, or in any way in need of medical or surgical aid, and are thinking of going abroad for treatment, you are requested to call on the Editor of this Paper, who will give any information you may desire concerning the reliability of this Sanitarium. Address all communications to DR. C. M. COE, Kansas City, Mo.

PILES AND FISTULA.

There is nothing that so completely unfits a man for business as Piles. Many men and women suffer for life with this annoying disease. There is no cure so safe and permanent as a surgical operation. We have permanently cured hundreds of patients who have suffered for years, having tried all kinds of remedies without relief. We have published an illustrated book containing many testimonials from patients treated with entire satisfaction; will be mailed to you free.

VARICOCELE.

Varicocele is radically and permanently cured by our surgical operation in from five to fifteen days. No medicine or local application will ever cure this trouble. We annually cure hundreds of this class of patients, leaving them in a vigorous, healthy condition.

SURGICAL OPERATIONS

As a means of relief are only resorted to where such interference is indispensable. In such cases as Varicocele, Piles, Stricture, Fistula, Ruptures, Hernia, Cleft Palate, Cross Eyes, Tumors, etc. Although we have in the preceding made special mention of some of the ailments to which particular attention is given, the Sanitarium abounds in skill, facilities and apparatus for the successful treatment of all chronic ailments, whether requiring for its cure medical or surgical means. We have a neatly published book, illustrated throughout, showing the Sanitarium, with photographs of many patients, which will be mailed free to any address.

WHEN WRITING ANY OF OUR ADVERTISERS PLEASE MENTION KANSAS FARMER.

MARKET REPORTS.

Kansas City Live Stock.

Kansas City, June 12.—Cattle—Receipts since Saturday, 2,246; calves, 121; shipped Saturday, 125 cattle; 63 calves. The market was slow but generally steady. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.			
No.	Ave. Price.	No.	Ave. Price.
42.....	1,647 85.15	23.....	1,183 85.10
33.....	1,852 4.90	57.....	1,213 4.85
30.....	1,261 4.80	19.....	1,394 4.77½
28.....	1,190 4.70	3 Jer.....	693 8.75

WESTERN STEERS.					
22.....	1,085	\$4.65	21.....	1,204	\$4.70
1.....	930	4.25			

NATIVE HEIFERS.			
26.....	880	84.92½	39 s&h.....1,150 84.85
61 s&h.....	830	4.85	42 s&h..... 909 4.80
16 s&h.....	906	4.80	1..... 780 4.60
7.....	600	4.75	15..... 600 4.15

NATIVE COWS.					
3.....	913	\$4.20	28.....	926	\$4.10
2.....	1,240	3.85	14.....	1,042	3.75
3.....	1,030	3.50	3.....	1,056	3.25
5.....	854	3.00	1.....	760	1.75

5.....	854	5.00	1.....	100	1.00
NATIVE FEEDERS.					
48.....	1,113	84.70			

NATIVE STOCKERS.						
1.....	500	\$4.60	11.....	865	\$4.50	
2.....		865	4.40	2.....	485	4.30
2.....		630	4.25	1.....	550	4.00
1.....		500	3.75	1.....	730	3.25

Hogs—Receipts since Saturday, 6,948; shipped Saturday, 1,426. The market was 2½ to 5c lower. The following are representative sales:

50.....	304 83.72½	56.....	351 83.72½	64.....	302 83.72½
71.....	281 3.70	62.....	330 3.70	65.....	290 3.70
71.....	281 3.67½	84.....	260 3.65	87.....	275 3.65
59.....	273 3.65	82.....	292 3.65	78.....	256 3.65
60.....	230 3.62½	71.....	254 3.62½	54.....	233 3.62½
69.....	268 3.62½	78.....	224 3.62½	59.....	267 3.62½
84.....	225 3.60	68.....	237 3.60	55.....	213 3.60
61.....	206 3.60	69.....	225 3.60	25.....	254 3.60
100.....	191 3.57½	24.....	152 3.57½	98.....	189 3.57½
87.....	200 3.57½	86.....	181 3.57½	92.....	188 3.57½
63.....	226 3.55	19.....	140 3.55	12.....	157 3.55
50.....	200 3.55	84.....	207 3.55	116.....	135 3.55
5.....	148 3.52½	9.....	138 3.52½	11.....	135 3.52½
9.....	137 3.50	6.....	152 3.50	5.....	122 3.50
5.....	114 3.45	4.....	340 3.40	3.....	376 3.35
1.....	380 3.35	3.....	380 3.30	13.....	307 3.30
1.....	300 3.25	2.....	640 3.25	1.....	410 3.25
3.....	86 3.00	1.....	300 3.00	19.....	88 2.90

Sheep—Receipts since Saturday, 5,878; shipped Saturday, 2,101. The fed offerings were steady and grassers were weak to 10c lower. The following are representative sales:

87 spg. lbs.....	52 86.00	128 A. sp. lbs.....	54 85.50
6 lambs.....	76 5.25	12 sw. sp. lbs.....	53 5.15
183 sheep.....	82 4.45	14 sw.....	100 4.00
989 Cal ew.....	80 3.25	60 feeders.....	70 3.00

St. Louis Live Stock.

St. Louis, June 12.—Cattle—Receipts, 2,500; market steady to strong; fair to choice native shipping and export steers, \$4.50@5.30, with fancy worth up to \$5.50; dressed beef and butcher steers, \$4.25@5.15; steers under 1,000 pounds, \$4.00@4.80; stockers and feeders, \$3.25@4.75; cows and heifers, \$2.25@4.75; bulls, \$2.30@3.90; canners, \$1.50@2.85; Texas and Indian steers, \$3.25@5.00; cows and heifers, \$2.40@4.00.

Hogs—Receipts, 7,000; market 5c lower; pigs and light, \$3.65@3.75; packers, \$3.60@3.75; butchers, \$3.70@3.80.

Sheep—Receipts, 200; market steady; native muttons, \$3.75@4.25; spring lambs, \$4.00@6.40; culls and bucks, \$1.50@3.25; stockers, \$2.00@3.50.

Chicago Live Stock.

Chicago, June 12.—Cattle—Receipts, 16,000; market strong; beefs, \$4.50@5.50; cows and heifers, \$1.75@5.10; Texas steers, \$4.00@4.75; stockers and feeders, \$3.50@5.15.

Hogs—Receipts, 50,000; market about 5c lower; mixed and butchers, \$3.62½@3.80; good heavy, \$3.70@3.80; rough heavy, \$3.50@3.65; light, \$3.62½@3.82½.

Sheep—Receipts, 10,000; market a shade higher; sheep, \$3.00@5.00; lambs, \$4.75@6.75.

Chicago Grain and Provisions.

	June 12.	Opened	High'st	Lowest	Closing
Wh't—July.....	76½	76½	76½	75½	75½
Sept.....	77½	77½	77½	76½	76½
Corn—June.....	34	34	34	33½	33½
July.....	34	34	34	33½	33½
Sept.....	34½	34½	34½	33½	33½
Oats—June.....	23½	23½	23½	23½	23½
July.....	23½	23½	23½	23½	23½
Sept.....	20½	20½	20½	20½	20½
Pork—June.....	8 05	8 07½	8 05	8 07½	8 07½
July.....	8 20	8 25	8 20	8 25	8 25
Sept.....					
Lard—June.....		4 97½	4 95	4 97½	4 97½
July.....	5 07½	5 10	5 05	5 10	5 10
Sept.....					
Ribs—June.....	4 57½	4 62½	4 55	4 62½	4 62½
July.....	4 72½	4 75	4 70	4 75	4 75
Sept.....					

Kansas City Grain.

Kansas City, June 12.—Wheat—Receipts here to-day were 113 cars; a week ago, 196 cars; a year ago, 28 cars. Sales by sample on track: Hard, No. 2, 69@71½c; No. 3 hard, 66@69½c; No. 4 hard, 60@67c; rejected hard, 61@63c. Soft, No. 2, nominally 72@74c; No. 3 red, 67@69c; No. 4 red, 65½@68½c; rejected red, 62½c; no grade, 61½c. Spring, No. 2, 68½@70½c; No. 3 spring, 65@69½c; rejected spring, 60@65½c.

Corn—Receipts here to-day were 19 cars; a week ago, 63 cars; a year ago, 83 cars. Sales by sample on track: Mixed, No. 2, 32½@33c; No. 3 mixed, 32½@33c; No. 4 mixed, nominally 30½c; no grade, nominally 26@29c. White, No. 2, 33c; No. 3 white, 32c; No. 4 white, 30½c.

Oats—Receipts here to-day were 1 car; a week ago, 15 cars; a year ago, 25 cars. Sales by sample on track: Mixed, No. 2, 23½c; No. 3 mixed, 22c; No. 4 mixed, nominally 21c. White, No. 2, nominally 25½c; No. 3 white, 24½@25c.

Rye—No. 2, 57c; No. 3, 56½c; No. 4, nominally 56c.

Hay—Receipts here to-day were 22 cars; a week ago, 41 cars; a year ago, 24 cars. Quotations are: Choice prairie, \$7.50@7.75; No. 1, \$8.75@7.25. Timothy, choice, \$8.25@8.50. Clover, pure, \$8.25@8.50. Alfalfa, \$8.50@7.50.

Chicago Cash Grain.

Chicago, June 12.—Wheat—Cash, No. 2 red, 77½@78½c; No. 8 red, 74@76½c; No. 2 hard winter, 78½@79c; No. 3 hard winter, 71@73½c; No. 1 northern spring, 76@77½c; No. 2 northern spring, 75½@76½c; No. 3 northern spring, 71@73c.

Corn—Cash, No. 2, 33½@34c; No. 3, 33½@33½c. Oats—Cash, No. 2, 25@25½c; No. 3, 27½c.

St. Louis Cash Grain.

St. Louis, June 12.—Wheat—Cash, No. 2 red, elevator, 76c; track, 78½c; No. 2 hard, 72@73½c. Corn—Cash, No. 2, 32½c; track, 33½c. Oats—Cash, No. 2, 24½c; track, 25c; No. 3 white, 28@28½c.

Kansas City Produce.

Kansas City, June 12.—Eggs—Strictly fresh, 11c per doz.

Butter—Extra fancy separator, 16c; firsts, 14½c; seconds, 11c; dairy, fancy, 13c; store packed, 11c; packing stock, 10½c.

Poultry—Hens, 7½c; broilers, 15c; roosters, 20c each; ducks, 5c; young ducks, 15c; geese, 5c; turkeys, hens, 7c; young toms, 6c; old toms, 6c; pigeons, \$1.00 per doz.

Berries—Strawberries, choice to fancy, \$1.40@2.00 per 24-box crate; poor to fair, 75c@1.00. Blackberries, Arkansas, \$1.50@2.00 per crate.

Vegetables—Lettuce, home grown, 15@25c per bu. Pieplant, 10c per doz. bunches. Spinach, home grown, 25@30c per bu. Asparagus, home grown, 20@30c per doz. bunches. Radishes, 2½@5c per doz. bunches.

Potatoes—Home grown, old, 35@40c per bu.; new, 60@70c per bu.

THE STRAY LIST.

FOR WEEK ENDING JUNE 1, 1899.

Stanton County—C. E. Van Meter, Clerk.

MARE—Taken up by J. G. Adams, in Stanton tp., three miles south and six miles east of Johnson City, May 6, 1899, one dapple-bay mare, 15 hands high, with black mane and tail and white spot in forehead, branded with diamond on left shoulder; valued at \$30.

Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by H. H. Michael, in Shawnee tp., April 28, 1899, one bay mare, 6 years old, 15 hands high, slit in left ear; valued at \$12.50.

HORSE—Taken up by C. W. Raymer, in Shawnee tp., May 20, 1899, one bay horse, 12 years old, 15 hands high, star in forehead, hind feet white from pasterns down; valued at \$15.

FOR WEEK ENDING JUNE 8, 1899.

Cloud County—A. R. Moore, Clerk.

MARE—Taken up by Wm. Barland, in Shirley tp. (P. O. St. Joseph), April 27, 1899, one bay mare about 4 years old, weight about 900 pounds, some white on left front foot and white star in forehead; valued at \$15.

Allen County—C. A. Fronk, Clerk.

COW—Taken up by E. E. Miner, in Marmaton tp. (P. O. Moran), April 29, 1899, one dark red cow, about 8 years old, left ear cropped and slice off of lower part of right ear, no horns.

Linn County—C. O. Hoag, Clerk.

STEER—Taken up by J. N. Hoover, in Stanton tp. (P. O. Mantey), May 3, 1899, one black steer, 1 year old, with horns, no marks or brands; valued at \$12.

FOR WEEK ENDING JUNE 15, 1899.

Crawford County—F. Cunningham, Clerk.

MARE—Taken up by W. H. Lundrigan, in Sherman tp., May 13, 1899, one black mare, with blaze face, blind in right eye, 15 hands high, about 5 years old.

MARE—By same, one black mare, split in left ear, 15 hands high, about 5 years old.

Stafford County—Geo. R. Shaffer, Clerk.

PONY—Taken up by F. A. Hare, in Richland tp. (P. O. St. John), May 6, 1899, one bright bay mare pony, saddle marks and lump on back part of right hip, small strip of white in face, 15 hands high; valued at \$24.

Cherokee County—S. W. Swinney, Clerk.

MARE—Taken up by A. A. Vickers, in Spring Valley tp., one gray mare, 9 years old; valued at \$15.

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NOTE NEW SCHEDULE:

Lv. Kansas City.....9:15 p. m. via Mo. Pac. Ry.
" Leavenworth.....10:17 p. m.
" St. Joseph.....8:05 p. m.
" Atchison.....11:10 p. m.
Ar. Omaha.....5:50 a. m.
Lv. Omaha.....6:10 a. m. via C., St. P., M. & O.
Ar. St. Paul.....6:50 p. m.

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Wool Commission House in the West.

We have the most extensive and best lighted loft. We have the best facilities for handling and showing stocks of wool. The manufacturer seeking a quantity of wool for any purpose comes to us because he knows we can supply him any grade of wool in any quantity he may desire.

We handle 15,000,000 lbs. of Wool per Year, and never peddle a pound of it on the street. We need not seek buyers; **THE BUYERS COME TO US.**

All these things are to the advantage of people who consign wool to us. **We Make Liberal Advances on Consignments,** and charge at the low rate of 5 per cent. per annum on same. We furnish sacks and sewing twine free to all who consign to us. We mail you **FREE, OUR CIRCULAR LETTER,** which keeps you fully informed on the wool situation. Let us know where you are and what you have.

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WOOL WANTED!

500,000 Pounds of Wool,

For which we will pay the highest market price in cash. Send us sample, giving number of fleeces. Place your name on sample, and on receipt of same we will quote you prices. For small lots you can send sample by mail. Address Oakland, Kans.; or you may ship direct to us and we will allow you all it is worth. For large clips send three or four fleeces by freight or express. We will furnish sacks or wool twine if desired. Address **TOPEKA WOOLEN MILL, Topeka, Kans.**

Higgins' Hope Herd Registered Poland-China Hogs.

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

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

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

LORD MAYOR was by the Baron Victor bull Baron Lavender 2d, 1st 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 and Laird of Linwood for sale. Also bred Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

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

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	Cattle and Calves.	Hogs.	Sheep.
Official Receipts for 1898	1,846,233	3,672,909	980,303
Sold 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.

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The Poultry Yard

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

WILL POULTRY THRIVE ON GRAIN ALONE?

CHEAP PROTEIN.

In feeding poultry, as in feeding other animals, and all plants, the nitrogenous compounds are the most expensive. We can economize in fertilizer-buying by selecting the brand or chemical whose composition proves it best and cheapest; in cattle-feeding the shifting prices of the various by-products allow us to discriminate to our advantage in the purchase of protein; and a still wider difference separates the cost of nitrogenous materials in the many poultry foods. Fowls and ducks naturally eat considerable animal matter as well as vegetable foods. Can we economize here? Is the cheap protein of pea-meal, oatmeal, wheat bran, or linseed-meal as efficient as that in the more expensive animal meal, dried blood, or fresh bone; or must we include some form of animal nitrogen in our rations to replace the grasshoppers and earth-worms of natural poultry life?

ANIMAL NITROGEN BEST.

Experiments made at the station with chicks, pullets, cockerels and ducklings seem to indicate conclusively that part of the protein must be drawn from animal sources if we are to get the best results; and, with ducklings in particular, some form of animal food in addition to skim-milk or curd, seems essential for the maintenance of health and vigor.

TESTS WITH CHICKS.

Two sets of trials were made with chicks. One lot in the first trial was carried from one-half week of age until 25 weeks old upon a grain mixture of corn-meal (12), wheat flour (4), ground oats (2), wheat bran (1), wheat middlings (1), pea-meal (1), and old process linseed-meal (1), with wheat, corn, animal meal, and fresh bone. The corresponding lot upon vegetable food received a grain mixture of pea-meal (6), old process linseed-meal (4), wheat bran (2), ground oats (2), high-grade gluten meal (2), wheat middlings (1), and corn-meal (1), with wheat, corn, and skim-milk or curd. The two rations were practically equivalent so far as amounts of protein are concerned, although the "animal meal" feed had a little wider nutritive ratio than the grain feed. The distinctive difference was that in the first ration about two-fifths of the protein came from animal sources, while in the other ration all came from grain except a little from skim-milk. In the second trial, the chicks were started at 6 weeks and carried for fourteen weeks, the contrasted rations being as in the first trial.

RESULTS WITH CHICKS.

In each trial more food was eaten by the lot receiving animal protein, the gain in weight was more rapid, and maturity was reached earlier, less food was required for each pound of gain, and the cost of gain was less.

During the first twelve weeks of the first trial the chicks on animal meal gained 56 per cent more than those on the vegetable diet, although they ate only 36 per cent more; they required half a pound less of dry matter to gain one pound, and each pound of gain cost only 4 1/4 cents as compared with 5 1-5 cents for the grain-fed birds.

During the next eight weeks the cost of gain was 7 1/2 cents and 11 1-5 cents, respectively. The animal meal chicks reached two pounds in weight more than five weeks before the others; they reached three pounds more than eight weeks sooner; and three pullets of the lot began laying four weeks earlier than any among the grain-fed birds.

With the second lot of chicks, starting at 6 weeks of age, the differences were in the same direction, though not quite so striking, thus showing that the great advantage of the animal nitrogen is in promoting quick, healthy growth and early maturity rather than increasing the tendency to fatten.

For the fourteen weeks of the second

test, the more important comparative figures are shown in the table below:

Comparative Gains of Chicks on Animal and Vegetable Food.

	Per pound gain.		Time.	
	Dry food required.	Cost of food.	First pound.	Second pound.
	Lbs.	Cts.	Days.	Days.
Meat meal ration.....	4.6	5.6	47	30
Grain ration.....	5.2	7.1	61	38

WITH COCKERELS.

Feeding of the cockerels was begun in September, when the birds were about 3 months old, and they were fed for twelve weeks. Satisfactory gains were made for about eight weeks, the advantage being still with the animal foods; as only 3 pounds of water-free food of the animal meal ration were required for a pound of gain against 3 4-5 pounds of the grains. After this time the gain was not made economically by either lot.

MEAT FOR DUCKS.

The results were most convincing, almost startling, in the case of ducklings fed the contrasted rations. The two lots of ducklings were fed, respectively, on the first grain mixture mentioned for the chicks, with corn-meal, ground oats, animal meal, and a little skim-milk and dried blood; and on the second mixture with wheat bran, corn-meal, ground oats, and skim-milk or curd. Both lots were fed green alfalfa; and sand and coarse grit were freely supplied. As before, the vegetable ration contained a little more protein—its nutritive ratio was slightly narrower—but so much more of the other ration was eaten that each meat-fed duckling received more protein. Of this nearly one-half was from animal sources.

Before the experiment had been long under way it was noticed that the "animal meal" birds were developing rapidly and evenly, but the grain-fed ducklings were becoming thin and uneven in size. It was sometimes almost pitiful to see the long-necked, scrawny, grain-fed birds, with troughs full of good, apparently wholesome food before them, standing on the alert and scrambling in hot haste after the unlucky grasshopper or fly which ventured into their pen; while the contented-looking meat-fed ducks lay lazily in the sun and paid no attention to the buzzing bee or crawling beetle. The thirty-two meat-fed birds lived and thrived, but the vegetable-food birds dropped off one by one, starved to death through lack of animal food, so that only twenty of the thirty-three were alive at the close of the fifteenth week of contrasted feeding. They were then fed for four weeks on the meat meal ration, and made nearly as rapid gains as the other lot at the same size, two months before, but they never quite overcame the disadvantage of their bad start on grains alone.

RESULTS WITH DUCKS.

Some of the comparative averages for ten weeks from birth, the period of profitable growth for the larger ducks, are shown below:

	Meat fed.	Grain fed.
Total weight attained.....	4.8 pounds.	15 pounds.
Cost of food per pound of gain.....	3.7 cents.	7.2 cents.
Dry matter in food for one pound of gain.....	3.1 pounds.	5.2 pounds.

MEAT BEST.

In conclusion, then, it may be said that rations in which from 40 to 50 per cent of the protein was supplied by animal food gave more economical results than rations drawing most of their protein from vegetable sources. The chief advantage was in the production of rapid growth, although the cost of production is also in its favor. While inferior palatability may have had something to do with the marked results, especially with the ducks, the whole bearing of these experiments and others not yet reported seems to indicate that the superiority of the one ration is due to the presence in it of animal food.—F. H. Hall, in Bulletin 149 (Popular Edition), N. Y. Agricultural Experiment Station.

Hens and Their Fruit.

P. H. Sprague, a Chicago poultry dealer, read a paper before the farmers' institute at Princeton, recently, in which he stated that the production of chickens in the United States last year reached 3,350,000,000 and of eggs, 13,000,000,000. The total value of chickens and eggs produced was \$290,000,000. Accepting these figures as approximately correct, we must conclude that the hen plays an important part in our American life; but we will better understand the relative importance of that part when we come to make some comparisons.

The value of our tobacco crop has rarely been as much as \$43,000,000. The value of our potato crop is less than \$80,000,000 on the average. The value of our barley crop is not often as much as \$30,000,000. An oat crop worth \$200,000,000 is unusual. Our annual output of pig iron has rarely exceeded \$130,000,000 in value. Coal, by far the most valuable of our mineral products, gives a total annual output of some \$200,000,000.

Raw cotton, wheat, hay, and corn are the only four products of our country that ex-

The Maid and the Miracle

Miss Lucy Tucker, the daughter of a prominent farmer of Versailles, Ind., was the victim of nervous prostration. Most of the time she was confined to bed, and was on the verge of St. Vitus' dance. It was a pitiful case which medical science failed to conquer. Finally a doctor prescribed Dr. Williams' Pink Pills for Pale People. Her father said:

"We began giving the pills at once, and the next day we could see a change for the better in her. We gave her one pill after each meal until she was entirely well. She has not been sick a day since. We think the cure almost miraculous."

FRANK TUCKER, Mrs. F. TUCKER.

Mr. & Mrs. Frank Tucker, being duly sworn, state that the foregoing is true in every particular.

HUGH JOHNSON,
Justice of the Peace.

—From the Republican, Versailles, Ind.

Dr. Williams' Pink Pills for Pale People contain, in a condensed form, all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are an unfailing specific for such diseases as locomotor ataxia, partial paralysis, St. Vitus' dance, sciatica, neuralgia, rheumatism, nervous headache, the after-effects of the grip, palpitation of the heart, pale and sallow complexions, and all forms of weakness either in male or female.

Dr. Williams' Pink Pills for Pale People are never sold by the dozen or hundred, but always in packages. At all druggists, or direct from the Dr. Williams Medicine Company, Schenectady, N. Y., 50 cents per box, 6 boxes \$2.50.

ceed in value hens and hens' eggs, according to the above estimate; and cotton sometimes follows the latter in the order of importance, the crop having exceeded \$290,000,000 in value only three times, and the highest having been not quite \$310,000,000. The wheat crop has ranged in value from \$213,000,000 to \$513,000,000, and the corn crop from about \$440,000,000 to \$783,000,000. The average value of the hay crop may be stated at about \$390,000,000. From this comparison the importance of the hen, especially in our agricultural economy, will be appreciated.

If Mr. Sprague stated the value of the egg product separately, the fact is not reported. It would be interesting to know the value of the egg output. Probably it exceeds the value of any mineral output, excepting coal, but not excepting pig iron. Probably, too, it exceeds the value of any farm crop except corn, wheat, hay, cotton, and oats, and it may even exceed oats. The hen is by no means to be despised.—Chicago Chronicle.

Farming in Colorado and New Mexico.

The Denver & Rio Grande railroad, "The Scenic Line of the World," has prepared an illustrated book upon the above subject, which will be sent free to farmers desiring to change their location. This publication gives valuable information in regard to the agricultural, horticultural and live stock interests of this section, and should be in the hands of everyone who desires to become acquainted with the methods of farming by irrigation. Write S. K. Hooper, G. P. & T. A., Denver, Colo.

Low Rates to the East.

Your attention is directed to the exceptionally low rates in effect this coming season to nearly every prominent point in the East.

Never before has such an excellent opportunity been afforded for a Summer Vacation Tour, or for visiting friends in the East. We mention below a few of the places to which greatly reduced rates have been made. The Union Pacific is the line that will give you the best service to any of these points.

St. Louis, Mo., June 20-23. Rate—One Fare, plus \$2.00, for the Round Trip.

Detroit, Mich., July 5-10. Rate—One Fare, plus \$2.00, for the Round Trip.

Richmond, Va., July 13-16. Rate—One Fare, plus \$2.00, for the Round Trip.

Indianapolis, Ind., July 20-23. Rate—One Fare, plus \$2.00, for the Round Trip.

For full information as to dates of sale and limits, on tickets, time of trains, etc., call on F. A. Lewis, city ticket agent, or J. C. Fulton, depot agent.

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Harnessing the Nile.

Engineering skill is to rearrange nature's surface on the Egyptian frontier, and pond back into Nubia a body of water a hundred and forty miles long, crossing the tropic of Cancer, and extending southward nearly to Korosko—a goodly step on the journey to Abu-Simbel and Wady-Halfa—by means of a great dam across the Nile at Assuan. The Pyramids and the Sphinx have borne testimony through the centuries to the grandeur and power of execution which dwelt within the Nile Valley; and what more fitting now than that the same valley be the theater of a gigantic engineering exploit, audacious perhaps, but certain of success, ministering to man's necessities, rather than to his vanity?

As a building achievement the scheme is on a scale worthy of a Rameses or a Pharaoh. To create in the heart of the African desert a lake having from two to three times the superficial area of Lake Geneva, in Switzerland, and control it with scientific precision, so that the impounded flood may be turned into distant channels at will, is a stupendous undertaking. But the engineers claim that their plans can be carried out to the letter; they have estimated the exact cost of the dam, computed almost to the gallon the volume of water that will be imprisoned, and figured the necessary resistance to be provided at every point of the masonry. In Cairo, the experts of the ministries of public works and finance, likewise, have calculated to a nicety the sum from taxation that will come into the public treasury through the country's augmented productiveness.

Subordinate to the great dam, a smaller one, not unlike the barrage at the apex of the delta, ten miles to the north of Cairo, is to be made at Assiut. Its function will be to give a sufficient head to the river to force the water into the system of irrigation canals that vein hundreds of thousands of acres between Assiut and Cairo. The completion of the Cairo barrage (it was begun by Mehemet Ali Pasha, from the plans of a French engineer, but not made effective until England took the country in hand) so developed cotton-culture as to add to the public revenue of the country at least \$10,000,000 annually. It may safely be concluded that the Assuan reservoir is but one of a series which will in time be constructed southward to the Victoria Nyanza. The re-establishment of Khedival authority at Khartoum will determine this.—Century.

"Earth Hunger" in Holland.

Holland has just entered upon a new career of "expansion."

She is draining the Zuyder Zee. This work will add to her domain 787 square miles of fertile soil. It will be populated by her own people and will add \$600,000,000 at least to her national wealth.

What a sordid "earth hunger" is this! How unromantic! How practical! How selfish! It is altogether for the benefit of Holland and Hollanders. It will cost less than \$50,000,000, not a cent of the money to go for guns, or ships, or battles, or barracks, or military hospitals and sanatoriums, or "glory."

To realize the feelings of the elevated statesmen of Holland, if any such have peradventure grown in that unfriendly soil and climate, picture a parallel case. Suppose that our "great" statesmen were refusing to go in for glory and taxes and military rule over a few square miles of remote island territory densely inhabited by turbulent blacks, yellows, and browns. Suppose that instead they were advocating the expenditure of less millions than an imperial army would cost upon the irrigation of our arid Western domain. This policy would add upward of 400,000 square miles to civilization—an empire that would soon be dotted with tens of thousands of comfortable homes of Americans.

Is not such a "come-down" horrifying even in imagination?—New York World.

National Educational Association Meeting.

For the meeting of the National Educational Association at Los Angeles, Cal., July 11-14, 1890, the Union Pacific will make the greatly reduced rate of one fare, plus \$2.00, for the round trip.

The excellent service given by the Union Pacific was commented on by all who had the pleasure of using it to the convention at Washington in 1898. This year our educational friends meet in Los Angeles, and members of the Association and others from points East should by all means take the Union Pacific.

The service of the Union Pacific via Omaha or Kansas City is unexcelled and consists of Palace Sleeping-Cars, Buffet Smoking and Library-Cars, Dining-Cars, meals a-la-carte, Free Reclining-Chair Cars and Ordinary Sleeping-Cars.

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We make Steel Windmills, Steel Towers and Feed Grinders and are selling them cheaper than the cheapest. Our productions are standards; are first-class in every respect and are sold on trial. Send us a postal and we will tell you all about them. **OURIE WINDMILL CO.,** Agents WANTED. Manhattan, Kas.

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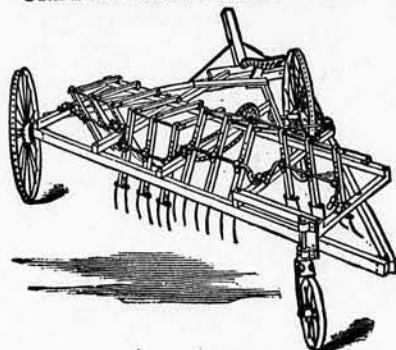
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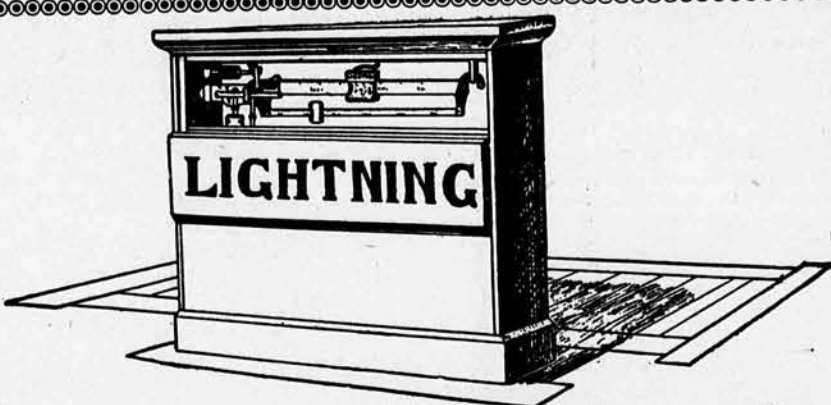
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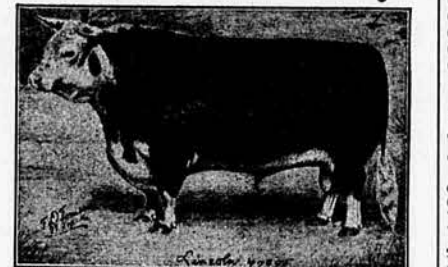
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