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BREEDERS' DIRECTORY.

Cards of four lines or less will be inserted in the Breeder's Directory for \$15 per year or \$3.00 for six months; each additional line, \$2.50 per year. A copy of the paper will be sent to the advertiser during the continuance of the card.

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and B. P. Rock chickens of the choicest strains. Butler's Darkness No. 6846 S. and Ideal U. S. Nemo at head of swine herd. Only choice stock shipped on order. Sows bred and a few extra good young boars for sale. Write your wants. Satisfaction guaranteed. Sixth Annual Clearance Sale, Sept. 17, 1895. BERT WISE, Reserve, Brown Co., Kas.

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WILKES, FREE TRADE and U. S. BLOOD. Everything reserved for Public Sale, October 30, 1895. Catalogues ready in September. L. N. KENNEDY, Nevada, Mo.

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For first choice pigs from stock producing winners of seven prizes World's Fair. Darkness Quality 2d and Ideal U. S. by Ideal Black U. S. head the herd. Both first-prize winners Kansas State fair 1894. Come or write your wants. Willis E. Gresham, Burrton, Kas. Secretary Kansas Swine Breeders' Association

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GARNETT, KAS., (Anderson Co.)

Walter Latimer, Prop'r.

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STANDARD POLAND-CHINA HERD.

CHAS. A. CANNON, Proprietor, HARRISONVILLE, CLASS COUNTY, MISSOURI Breeder and shipper of registered Poland-China swine of the best strains. Herd headed by Chow Chow 9903 S., assisted by a Black U. S. son of Imitation 27185 O., also a son of Tecumseh Jr. 10207 O. 220 head in herd. Young boars and gilts yet on farm. Write or come and visit me.

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200 head of Poland-China hogs, headed by Long-fellow 29985 O. (who has the best Columbian record west of the Mississippi), J. H. Sanders Jr., Hadley Jr. 27505, Sir Charles Corwin. We also combine the blood of Black U. S., Ideal U. S. and Wilkes. 100 head of brood sows. Also 100 head of Berkshires, headed by the well-known boar, Major Lee 31139. We have 25 gilts bred by him to General Lee of Gentry breeding and Royal Peerless the Great. We have one of the largest herds of hogs in the United States. Why not come to the fountain head for brood sows? 200 head of fashionably bred Herefords. H. L. LEIBFRIED, Manager.

(Breeder's Directory continued on page 16.)

Agricultural Matters.

WEEDS, AND HOW TO KILL THEM.

Investigations of Lyster H. Dewey, Assistant Botanist, United States Department of Agriculture.

(Continued from last week.)

HORSE NETTLE (*Solanum carolinense*).

The horse nettle is native in the southeastern part of the United States, as its specific name indicates. It is now found in nearly all of the States east of the Missouri river, and is slowly increasing its territory. As the seeds are seldom found as impurities in commercial seeds, and as they have no special adaptation to aid in distribution except that the berries are sometimes eaten by birds, the horse nettle spreads rather slowly. When it has once obtained a foothold, however, it ranks among the worst weeds of this country as regards difficulty of eradication.

It is closely related to the common potato, which it much resembles in its white or purple flowers and yellow berries. The plants are six to twenty inches in height, loosely branching, rough, with short, stiff hairs, and armed with yellow prickles. The leaves are oblong and irregularly lobed like those of the white oak. The midrib and larger veins bear prickles like those of the stem, but smaller. The plant is reproduced by the seeds, which are borne in the berries, and it is abundantly propagated, also, by slender perennial rootstocks.

The horse nettle is not eaten by any kind of farm stock, even when dried and made into hay, being avoided on account of its sharp prickles and rough pubescent foliage. Ordinary cultivation has comparatively little effect on it, often tending to multiply and improve its growth rather than to subdue it. It is more or less troublesome in nearly all crops and in all soils, but is worst in sandy or loose, friable soils, which are easily penetrated by the long rootstocks.

The production of seed may be prevented by keeping the plants mown. The rootstocks must be killed, however, and this task is about as difficult as killing the rootstock of the Canada thistle; in fact, the methods which are most successful in destroying the Canada thistle may be used with advantage in destroying the horse nettle. Clean cultivation and grubbing or spudding sufficient to prevent any development above ground will starve out the rootstocks. Oats, barley or millet sown thickly on well-tilled land will weaken the rootstocks, preventing much growth above ground. Immediately after these crops are harvested the land may be plowed and harrowed frequently until time for sowing crimson clover or winter rye. This will induce the germination of weed seeds, and at the same time expose some of the rootstocks to be killed by the sun. Crimson clover, hairy vetch, rye or winter oats may be sown to choke down the growth of horse nettle and other weeds during the fall and early spring, to furnish winter pasturage, and then to be plowed under as a green fertilizer. A hoed crop following, if kept well cultivated, will clear out most of the remaining weeds. The plowshare used in these operations should be kept sharp, so as to cut a clean furrow, otherwise the rootstocks are likely to be dragged and scattered about the field.

BUFFALO BUR (*Solanum rostratum*).

This plant is also a native in this country, originally growing on the Western plains, close to the mountains, from Mexico northward. It was doubtless spread to some extent by the buffaloes, as it has been found along the buffalo wallows. While the horse nettle has been slowly traveling westward the buffalo bur has been working eastward, until it is now found in many of the States east of the Mississippi river, and has even crossed the ocean, threatening to become a troublesome weed in Germany. It is related to the potato, and closely resembles the horse nettle, but its spines are stouter and more abundant and its flowers are yellow. Instead of the smooth, yellow berries of the horse nettle and potato, moreover, it has spiny burs, somewhat resembling those of the burdock at

first, but developing at maturity into nearly spherical spiny balls, filled with black, irregular seeds. These burs, becoming attached to passing animals, are readily scattered. The plant has a lighter, more bushy habit than the horse nettle, and is often blown about as a tumble-weed in the prairie region.

It is an annual, easily subdued by preventing the production of seeds. This may be done by mowing as often as the yellow blossoms appear. The seeds are less abundant than those of most of the bad annual weeds, and they are not often ripe, at least in the northern part of its range, until after the hurrying work of harvest is over. The buffalo bur is seldom troublesome in fields where thorough cultivation is practiced. The seeds may be expected as impurities in alfalfa and clover seed grown in the West. So far as known, however, in the East this weed has appeared in waste places in cities and towns and has spread thence to the surrounding farms.

In this respect the buffalo bur is typical of a large number of introduced weeds, which are neglected on the waste land in villages and cities where they do no direct and manifest injury. The Canada thistle and spiny amaranth are growing on many vacant lots in Washington. The prickly lettuce first became abundant in Michigan and Ohio in the cities of Detroit and Toledo. The Russian thistle is now growing unchecked, save by the occasional botanical collector, in many localities in and about Chicago. Similar instances might be multiplied; in fact, probably the majority of cities and towns of this country are harboring noxious weeds which should be destroyed in simple justice to the farming communities, which aid most directly in supporting the prosperity of these towns.

The spiny amaranth, or prickly careless weed, as it is often called, is native in tropical America, and seems to have been first introduced into this country along the southeastern coast. It is now more or less abundant in most of the States south of the Potomac and Ohio rivers, and is spreading with considerable rapidity. It resembles the common tumble-weed (*Amaranthus albus*) and other amaranths or careless weeds of the neglected corn field and garden. It is an annual with a succulent stem, branching profusely throughout and attaining a height of fifteen to thirty inches. The leaves are dark-green, lance-ovate, smooth, about one and one-half inches long. At the base of the leaf stalk in most cases are two slender sharp spines, one-fourth to one-half inch long. The small, green flowers are crowded in slender spikes at the ends of the branches and in dense clusters in the axils of the leaves. The seeds, borne singly in the flowers, but aggregating several thousand on an average plant, are black and shining, round or slightly flattened, and about one twenty-fourth of an inch in diameter. They might be found in clover seed, millet, or grass seeds. The plant grows in broken ground like other amaranths, but unlike most of them, it also grows and even spreads aggressively in strong blue grass sod. No farm stock will eat it, at least after the spines begin to develop.

Like other annuals it may be subdued by preventing the production of seed. It would readily succumb to thorough cultivation, as it grows rather slowly at first and does not produce seed until midsummer or later. Mowing or grubbing up the plant before the flower spikes develop is probably the best method of eradication in permanent pastures. Potato land and corn stubble may be plowed or thoroughly disked after the crop is harvested and a winter crop sown which will keep down the weeds.

SPINY COCKLEBUR (*Xanthium spinosum*).

This plant, often called daggar cocklebur and well deserving that name as one of the most spiny of American weeds, is a native of tropical America. It has been introduced into many parts of this country, in some places doubtless having been spared, or possibly even been cultivated, at first, for the striking effect produced by its shiny, dark green foliage and its slender,

bright yellow spines. The stem branches from the base and grows to the height of one to three feet, bearing many narrowly ovate leaves about one and one-half inches long, sometimes slightly toothed near the base, rather thick in texture, the upper surface dark green with a whitish midrib and the lower white with woolly pubescence. At the base of the leaf stem on one side is a three-pronged spine about an inch long. On the other side is an inconspicuous flower, followed by an oblong, spiny bur like those of the common native cockleburs, but smaller, about one-half inch long. Each bur contains two seeds.

The seeds are therefore less abundant than those of most troublesome annuals, but this apparent defect is counterbalanced by the fact that they retain their vitality many years and that the hooked spines on the burs provide for their wide distribution by passing animals. As they remain inclosed in the hard, spiny bur, they are seldom found in commercial seeds. Although this weed is an annual, it is most troublesome in pastures and meadows, spreading even in strong sod.

Its growth at first is slow, and, as it needs light and room to develop into a robust plant, it may be choked down by any quick-growing crop that will crowd and shade it. In permanent pastures and waste places, where it flourishes best, it could doubtless be eradicated in time by mowing the plants about twice each year, in August and September, or by cutting them up with a hoe or spud in May and June. As the seeds often lie dormant in the thick-walled bur several years before germinating, it might require a like period to exterminate a patch by this method; but the plants would be continually growing less in number, and the labor correspondingly lighter.

(To be continued.)

Destroying the Hessian Fly.

Under date July 17, 1895, Bulletin No. 11, Purdue University Agricultural Experiment Station, of Indiana, says: "Owing to the prevalence and destructiveness of the Hessian fly this year, concerted efforts should be put forth to prevent a recurrence of its ravages upon the next wheat crop. In order to prevent a serious attack of the fly, the following measures should be adopted: (1) Thoroughly burn all fly-infested wheat stubble in which there is not a stand of young clover or grass. (2) Prepare very early a border, one or two rods wide, around each field of wheat, and sow the same to wheat in August. (3) Turn this border under very late, using a jointer, following with roll and harrow, and then sow the entire field. By taking this course many of the insects which escape the fire will be buried when the early-sown border is turned under, and the late sowing of the general crop will avoid the earlier attacks of any remaining fly. If these precautions are carefully and generally observed by the farmers the Hessian fly will not seriously damage the next wheat crop. United effort is necessary to be effective.

"Fall sowing of clover seed.—The intense drought has quite generally destroyed the spring seeding of grass and clover. Unless a 'catch' of grass is secured this season the crop rotation will be thrown out of joint, the supply of hay and pasture next year cut short, and soil fertility may be lost through leaving the ground bare. The following suggestions are made in the full belief that under average weather conditions a 'fall catch' of clover and grass seed may be secured: (1) Burn the stubble to destroy all rubbish that would interfere with the perfect preparation of the seed-bed. (2) Harrow repeatedly with a disc or spading harrow until the soil is thoroughly loosened to the depth of two or three inches. (3) Pulverize the soil very finely with a fine-tooth harrow. (4) As soon as the soil becomes thoroughly moistened, sow the clover seed, harrow it in lightly, and heavily roll the ground. The timothy or other grass seed may be sown later, say about the usual time of sowing wheat. If the work is well done at the proper time a 'catch' will be reasonably certain.

"The urgent need of combating the

Sick Headache Permanently Cured

"I was troubled, a long time, with sick headache. It was usually accompanied with severe pains in the temples and sickness at the stomach. I tried a good many remedies recommended for this complaint; but it was not until I began taking



AYER'S

Pills that I received anything like permanent benefit. A single box of these pills did the work for me, and I am now a well man."

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For the rapid cure of Constipation, Dyspepsia, Bilioussness, Nausea, and all disorders of Stomach, Liver, and Bowels, take

AYER'S

Cathartic Pills

Medal and Diploma at World's Fair.

Ask your druggist for Ayer's Sarsaparilla.

Hessian fly, and the value of the clover crop as a soil-renewer and forage plant, should induce the farmers to act promptly and unitedly in their efforts to repair the damage already sustained and prevent further loss."

Crops, Etc., in Kingman County.

EDITOR KANSAS FARMER:—I notice in your last issue an offer to send Mrs. E. M. Jones' book, "Dairying for Profit, or the Poor Man's Cow," for five 2-cent stamps, so find enclosed the amount for book, if not too late. "Dairying for profit" is pretty hard to do in Kansas, at 8 cents a pound for butter. We took butter to Kingman two weeks ago, before the creamery started. Merchants said butter was coming down in the market, and 8 cents a pound was really all they could pay. So we let a "had-been" farmer merchant have our butter at 8 cents in goods. It was nice, fresh, solid, yellow butter. I was in town again, about a week after, getting binder twine. The merchant who bought butter hails us: "Did you bring any butter in?" "No," we said, "we are bringing the milk to the creamery, eleven miles." He was awfully sorry; he would give us 10 cents a pound for butter and take it every week; no trouble to sell good butter; he used some himself and knew it was good. Now, 10 cents a pound in groceries or dry goods, when, perhaps we did not need them! Wasn't he generous? "No," we said, "when the creamery started we took our milk, and get 60 cents per hundred and get our pay in United States currency, then we can buy where we please and what we most urgently need, instead of stale dry goods and groceries."

Well, Kansas is humping herself in the corn fields at present, since the rains started, but O, the wheat! I don't believe Kingman county will have enough for bread and seed if it is all left in the county. What little wheat was left from the drought the weeds have outgrown since the rain, so the headers have had to cut weeds to get wheat heads, consequently there will be lots of damaged wheat. I hear wheat is already rotting in the early-cut stacks. I am cutting mine with the binder and dumping it off loose in bunches. If the rains will let up so weeds can cure, I think it will do to put in stack.

Now, I don't want all you agricultural editors to make such a "blow" about Kansas corn this fall, as being mountains high all round the barns, and so forth, or the "bears" will say corn will sell for 10 cents a bushel, and the farmers must take it. Wheat prices have been so ridiculously low lately that we

ought to have fair prices for our corn to square us with the world for a new start.

A little about irrigation. It is not going to save the Kansas farmer. Firstly, it is too costly; next, a limited number only can avail themselves of it. The prices will not warrant the cost, then they will burst up before they learn how to irrigate. But the cheapest and best way for all Kansas farmers is to buy a good subsoil plow and make a reservoir under all their farms. I saw proof of my assertion at a neighbor's, a short while ago. He had a pipe sunk in the ground eighteen inches, from windmill to barn. The weeds were rank and luxuriant over the pipe, and away from it they were dead, during the dry spell before the last rains.

IRVING BELL,
Rago, Kingman Co., Kas.

Improvement in Hard Winter Wheat.

EDITOR KANSAS FARMER:—I have read with interest the recent articles on "Deterioration of Kansas Hard Wheat." Your Kansas City correspondent claims that it is not deteriorating, in which opinion I concur. At the same time, it is evident to every farmer living in this belt of the State, from east to west, that our Turkish or Russian wheat has undergone quite a change, both in appearance and the hardness of the berry. This change has not come in one season, but has been gradual, and in some particulars seems to be still in progress.

When we first began growing it, fifteen or twenty years ago, the berry was dark in color, shape long, and of a flinty hardness. Now, when well matured (and especially if sown on new land), the color is almost identical with Oregon, and in shape it also closely resembles Oregon, but considerably harder, although not nearly so hard as our old-time hard wheat.

Another change may be noted, and, in my opinion, it is in a great measure the result of those noted above—the favor with which it is received on the market. When first put on the market it brought from 5 to 10 cents per bushel less than our soft wheats and millers would not take it in exchange for flour. That margin of difference has been obliterated, and during the last six months has appeared on the other side of the line. Some will say that that is the result of different milling processes, which is no doubt the case to a considerable extent, but is more the result of the improvement in the grain. Now, I believe this bleaching and softening process is still going on, and whether it will continue until our hard wheat becomes identical in texture, as in appearance, with Oregon, or soft wheat, is a question that further trial will answer. It does not appear to have lost its power to withstand dry or cold winters. As when it first appeared, it was claimed to be as hardy as rye, and the past winter rye did not hold its own with our hard wheat in this vicinity.

Your Kansas City correspondent claims southern Kansas hard wheat is as dark and hard as fifteen years ago. If this be so, then I would say that that is not the wheat that has made the reputation for "Kansas hard wheat" that we now have in the markets of the world.

FARMER.
Claffin, Barton Co., Kas.

Inquiry About Corn Binders.

EDITOR KANSAS FARMER:—As the corn-cutting season is fast approaching, I want to inquire about corn harvesters. Let us hear from those that have given them a trial, as to cost of twine, draft, cost, durability, etc. Are they made to take more than one row at a time? Are the bundles left scattered over the field, or several together? Do not the bundles shrink in drying so much that the twine becomes loose? The way we cut corn here—two men on a sled—is a great improvement over the old-fashioned way with a corn-knife, but is heavy work and especially burdensome in hot weather.

Lorado, Kas. C. P. SLOCUM.

"The Farmer's Ready Reference, or Hand-Book of Diseases of Horses and Cattle." Descriptive circular free. Address S. C. Orr, V. S., Manhattan, Kas.

The Stock Interest.

THOROUGHbred STOCK SALES.

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

SEPTEMBER 6—Walter Latimer, Garnett, Kas., Poland-China swine.
SEPTEMBER 18—Martin Melsenheimer, Hiawatha, Kas., Poland-China swine.
OCTOBER 4—Winterscheidt Bros., Horton, Kas., Poland-China swine.
OCTOBER 9—Geo. W. Null, Odessa, Mo., Poland-China swine.
OCTOBER 10—J. R. Killough & Sons, Richmond, Kas., Poland-China swine.
OCTOBER 22—F. M. Lall, Marshall, Mo., Poland-China swine.
OCTOBER 23—C. G. Sparks, Mt. Leonard, Mo., and G. L. Davis, Elmwood, Mo., Poland-China swine.
OCTOBER 29—Chas. Cannon, Harrisonville, Mo., Poland-China swine.
OCTOBER 30—L. N. Kennedy, Nevada, Mo., Poland-China swine.

How to Feed Thoroughbred Hogs.

"I am a young farmer and have been raising Poland-China hogs for market ever since I could carry swill. I always used thoroughbred sires and the best sows in the herd. This spring I ordered a pair of pigs, and will try a few recorded pigs for breeders. They are of the best strains and guaranteed good individuals. I would like to have you tell me how to feed them for best results, especially the boar, from time received until time of service. I can make milk part of the ration. Any help will be appreciated."

Our correspondent has opened up a very large question, one that has been engaging the attention of the best swine breeders for many years and will for many years to come. How to feed for the best results can be learned only by actual experience and the oldest breeder will always be learning something new. We can, therefore, deal with the subject only in a general way.

The first and most important thing for the young breeder is to get a clear idea of the object in view. This is not the production of fat, but of vigor, thrift, of an early-maturing animal, and easily fattened, of fine form, style and finish, and a good looker.

The trouble with most beginners is that they are apt to think that nothing is too good for the pigs that have cost them large money, hence they often feed too much, and of food that fattens rather than promotes growth, and therefore, while their hogs are "just too sweet for anything," to use a feminine phrase, they are not profitable. Excessive fat and profitable fecundity are incompatible. The thoroughbred pigs should, therefore, have good care, but should not be pampered. Give them plenty of room and exercise and muscle-making rather than fattening food. Oats are likely to be abundant this year and we would give them plenty of them, all the grass they will eat, and all the exercise they will take. Make corn a part of the ration, and more of it in winter than in summer. When oats become too high, fall back on corn, but give about one-sixth as much oil meal as corn. If skim-milk is plenty balance the corn ration with the skim-milk.

When the boar is received, see that he is not too fat for vigor. Reduce him gradually, if too fat, by putting him in a clover pasture and feeding oats and pumpkins, if the latter are in season. Get him at least a month before you use him, and when you begin using him have him in the highest degree of vigor and gaining in flesh. During the season of service feed him largely on oats, with corn for variety. Keep him out of sight of sows except when in use and then put him back in his own pen. Visit some of the best breeders and note how they do it. The principles that govern are, after all, simple; experience alone will show how to apply them. It is all simple to the man that has the "know how," and this can be obtained only by the actual doing of it. The things to be avoided are, on the one hand, over-feeding and pampering, feeding for fat rather than for vigor and form, and, on the other hand, thinking that blood will do everything, and treating a thoroughbred as if he were a scrub. Improved hogs require improved conditions, plenty of feed and care and of the right kind. Our correspondent, having first learned to handle hogs for profit, has learned the first lesson. No man who has not thoroughly mastered this should un-

dertake the thoroughbred. Having mastered this and keeping in mind the different objects in view, he can easily modify his methods to meet the new requirements. Some of the best hogs are grown by men who seem careless in the methods; others who seem to give extra care fail, but it will be found that the men who succeed follow the methods outlined above in a general way. Good blood is essential, muscle-making food is equally essential; the rest is care, thoughtfulness, pains.—Wallace's Farm and Dairy.

Selecting the Young Brood Sow.

A Wisconsin breeder, writing to the *American Swineherd*, says:

"Three years ago I was having lots of trouble with my young sows farrowing very small litters, and great difficulty in farrowing these. I sought the advice of a breeder who had the benefit of much experience, and who had met with excellent success. His first remark was: 'You have been picking out the style of pig that pleased the eye, instead of giving due consideration to other necessary requirements of a good brood sow.' Continuing, he said: 'Some would call these sows bred too fine, but it is in reality in the training through improper feeding; too great a preponderance of corn, a fat-forming food, was given them while raising them, causing them to be fat, small, smooth and plump, instead of growing and developing good frames. Milk is a first-class growing food; so is bran, shorts, oats, linseed cake (old process) and the various grasses. Good pasture and exercise in gathering it is of great importance. Corn should be used sparingly and only in connection with the other named foods. These gilts that are raised on the foods giving growth of form with strong bone, great vitality, broad across the hips, may not be quite so pretty and 'rosebuddish' to the eye, but when they farrow you will be pleased and profited with good-sized litters of strong pigs. But, young man, your mistake is not an exceptional one, but a very general one.' Two years have proved the truth of this advice, and I give it for the benefit of other young breeders who have made the same mistake. The information has been of great value to me."

How I Feed and Manage Pigs Up to Six Months of Age.

By Wm. Roberts, read before the Iowa Swine Breeders' Association.

If the topic would allow of it, I would like to take a run and go, before I jump, say about two weeks before the pigs see daylight. I do not know but that to get at the subject just right, one would need to go back a good ways and come up to the topic. I will only take up your time for a brief period. For two weeks before farrowing I feed as near the kind of food as possible I intend to feed afterwards. I have well arranged, roomy breeding pens, with good fenders, in which I put the sow a day before farrowing time. When the time is up for her to travail, I am on hand, but to tell you just what I do I will not attempt, for my doings are various, to suit the case. One may need no attention; another may need all the skill of a breeder. I put water in a clean trough a few hours after the sow has farrowed; that is all the first day. The next day all the feed I give her is a handful of shorts in water, and increase from day to day until she has had shorts five days. I then take mother and pigs to a one-eighth acre lot of grass in which there is a nice house, eight by seven feet, dirt floor. Now is a critical time, and no iron-clad rule will do; of a dozen sows, no two are exactly alike, hence the necessity of having them in lots to themselves. One may have a voracious appetite and will need holding in, or you will soon have a patient on your hands with dyspepsia. Another may have but little appetite, generally occasioned by fever in bag. She will need close attention. I bathe the belly with cold water, and have a bottle of flaxseed oil with a little carbolic acid in it, and with a turkey feather put this over her teats. The washing with water cleans off all the dirt and allays fever; the oil and acid preserves the

Nervous Prostration

Cured by Dr. Miles' Nervine.

Prolonged derangement of the nervous system not only affects the brain and mental powers, but develops disease in some of the vital organs. The most dangerous of these indirect results is when the heart is affected. This was the case of the Rev. N. F. Surface, Fawn River, Mich., who writes under date of Feb. 14, 1895:



"Fourteen years ago I had a slight stroke of paralysis. Overwork brought on nervous prostration. I was exceedingly nervous and the exertion of public speaking caused heart palpitation that threatened my life. I used two bottles of Dr. Miles' New Heart Cure for my heart trouble, and two of Dr. Miles' Restorative Nervine for my nervousness and feel better than I ever expected to feel again. I can speak for hours without tiring or having my heart flutter as it formerly did, and I have you to thank that I am alive today."

On sale by all druggists. Dr. Miles' Book on Heart and Nervous Disorders FREE by mail. Dr. Miles Medical Co., Elkhart, Ind.

Dr. Miles' Remedies Restore Health.

pigs from sore mouths. I try to coax up an appetite sometimes with little scraps of meat, milk, mush, etc. I now, if they have good appetites, increase the feed, clear fresh water, shorts and a little oil meal mixed, as feed, and give all they will eat up clean. At this time I commence on one-half ear of dry corn, increase from day to day until on a full feed. I keep on in this way. At about three weeks old the pigs will begin to come up to the trough. It is fixed low so they can eat all they will. Then soak oats and corn and put it in a shut-off corner. Stand and look at them eat and grow, and feel happy. At five weeks of age I open the doors of each pen or lot, and have the sows, from six to eight, come up to a common feeding place. Of course the pigs come, too. Toll the pigs into a clean-floored house and feed slop as heretofore, and soaked oats and corn, all they will clean up—always sweet. At eight or nine weeks old I turn the sows in back pasture and leave the pigs in their pasture and keep right on giving same feed and care. When fair time comes we select what we want to exhibit. After the round-up of the fairs we separate the sexes, castrate what males appear to be below the standard, put them with such of the sow pigs as we do not want to retain either in our own herd or to ship for breeders, push these as fast as possible and try and have them in Chicago before the first of February, at from 200 to 250 pounds. After selecting what I want to retain, I try to have the rest in other hands by the time they are six months old.

This year I have had the personal care and oversight of 130 pigs. There has not been a single case of scours, but one case of thumps and only three or four with sore mouths. There is not an unhealthy-looking pig in the bunch. They are in five groups and kept separate. If I could so arrange it, I would prefer smaller groups. I would give you all a personal invitation to come and see my pig town.

Union Pacific Route.

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

Irrigation.

PERTINENT POINTS ON IRRIGATION.

By F. J. Fogg, read before the Ferris, Cal., Horticultural Club.

How shall the best results be obtained? A concise reply would be, by applying the water intelligently. A statement from good authority at our farmers' institute warned us against the use of water when it was too cold, or colder than the soil, especially on citrus trees. A point like this once gained should not be forgotten. The grain, the grass, the vegetables, trees, may each call for its application in separate ways. Different soils call for different application, different quantities at an application, and different spaces of time between applications. If your soil is loose, you may use a larger quantity at a time and less length of time. If your soil is compact, or your land falls off rapidly, you will get far better results by using just water enough to keep the entire length of furrow absorbing water, and continue the stream twenty-four or forty-eight hours. If you are irrigating vegetables, less time will suffice, than if you are to force the water down to tree roots. At the same time you must allow for exhaustion by evaporation sooner, even under good cultivation, than when forced deeply into the soil. By actual test I have proved that trees made far better growth, even in loose soil, where water was run twenty-four hours slowly, after the soil is first wet, than where it was abundantly applied for a few hours. In sinking a hole where water had run for twenty-four hours a week previous, I found the soil quite wet to a depth of four feet. I know not how much farther down it was moist.

I think it was Prof. Cook who stated that plants feed only on soluble soil, showing the necessity of abundant moisture at the feeding section of the roots.

I believe that cultivation is a twin sister to irrigation. Neither can do all the work properly, but unitedly it may be accomplished. When to cultivate, how deep and how often, are questions well worth considering.

I would guard against too much surface irrigation on clay or heavy soil where alfalfa or anything equally tender is seeded, that cannot be properly cultivated. Just how much they will stand, or need, requires exercise of judgment. A heavy rain prevents grain from springing up; a flooded surface would naturally act worse on smaller seeds.

I believe that there are specific times to irrigate individual plants and fruits to greatly increase their production. I am informed that a heavy rainfall in November or December will insure a heavy yield of grapes in the north and middle of this State where they do not irrigate. Also, that an abundance of water applied in October or November will almost insure a heavy budding for fruit of the prune, thereby laying a foundation for a coming crop. The practical fruit-grower can go farther and state when and how much water to use to mature different fruits to the best advantage. The growing of alfalfa seems simple, yet no two fields produce the same amount. The soil differs, but no more than the minds of the owners. It is no trick to grow from two to three tons per acre on light soil by using sufficient water after cutting. Heavier soil will make a good yield on less water than light, but it is safe after your field is well rooted to use all the water you can get, and your profits will be greatly increased thereby.

Arizona, with but a scant rainfall, is dependent on irrigation. Her broad rivers are turned from their courses to water her fertile soil. Her system of distributing the water is crude—with level land and abundance of water it is flooded from ditches. What results from it? She has not only heavy fields of alfalfa, but of barley and wheat for hay, and to-day she is selling bright barley hay for \$10 per ton. Deducting freight and baling, the producer will not receive half of this price, and yet they are satisfied, willing to compete

with the dry ranching of our State, their yield being so much heavier per acre.

Those who have made a practical test of irrigation for growing hay crops in our vicinity are satisfied with the results. Another link closely connected with tree and shrub irrigation where cultivation is inconvenient or too laborious, is mulching with material that is well rotted, if possible. By test I am convinced that a limited amount of water will do double service under mulching, besides saving much labor with the hoe or spade.

Experiments in South Dakota.

EDITOR KANSAS FARMER:—It is not generally known that there is being conducted at this point a series of experiments that will solve once for all the question of irrigation, and will also determine which varieties of the different kinds of cereals, grasses, vegetables, trees, etc., are best suited to the soil and climate of the Northwestern country. The Hunter farm comprises 800 acres, every foot of which can be irrigated. The artesian well on this farm is 1,065 feet deep, six inches in diameter, and has a pressure of 165 pounds to the square inch. The flow from this well is sufficient to cover five acres of ground with eight inches of water every twenty-four hours. The John A. Salzer Seed Company, of La Crosse, Wis., has an experimental plat of twenty acres on this farm, on which is growing 3,500 varieties of vegetables, cereals, grasses, forage plants and trees that can be raised in this climate. There is also a United States sub-experimental station located on the farm, and a weather record is kept. These are under the supervision of the State Agricultural college, of Brookings. On the State experimental plat the same varieties of vegetables, cereals, grasses, etc., will be planted as on the Salzer plat, and they will receive the same treatment in every way except that they will get no water whatever other than rain. These plats being side by side, it will be possible to determine at a glance what irrigation will accomplish. H. F. Hunter and the Salzer Seed Company have a 212-acre patch of potatoes on this farm, in which is planted scores of varieties, and this will also be an interesting test. A complete record will be kept of the climatic conditions, time of germination and condition during growth of everything until its maturity.

B. W. MOORE.

Mellette, S. D., July 15, 1895.

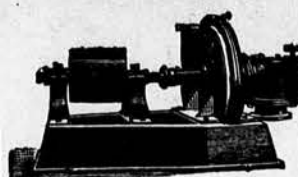
Irrigation at the State Soldiers' Home.

EDITOR KANSAS FARMER:—During the last session of the Legislature an appropriation of \$500 was made for the purpose of putting in an irrigation plant at the State Soldiers' Home, at Fort Dodge, near Dodge City.

A centrifugal pump, No. 3, capacity 650 gallons per minute, manufactured at Syracuse, N. Y., by Irvin Van Wie, was agreed upon by the Board of Managers. A six-inch iron pipe was sunk to the depth of thirty-one feet. A point of the same diameter and eight feet in length, made of galvanized iron and perforated with a cold chisel from inside, and then bent into a cylinder or tube with a wooden plug in the bottom and attached to the lower end of the six-inch piping, constituted the well. To the top of this a pump was fastened and a six horse-power steam engine was hitched on and set in motion. The perforated galvanized point, of course, let in fine sand at first, but in a short time it was thrown out with the water, leaving such gravel and sand as was too coarse to go through, on the outside. The water became clear, as above stated, and has so remained ever since.

Two such pipes and points were sunk at different places on the Home farm. The pump can readily be detached from one well and moved to the other. The engine being mounted on trucks, is also movable, so that with one pump and one engine several wells may be made to supply water on different parts of the farm without the expense of making long and expensive ditches.

There is no patent on the sort of point used, that I am aware of. It is made by A. G. Gonder, of Sterling, Kas.,



IRRIGATION MACHINERY.

If you want the most practical, efficient and cheapest irrigation pumping machinery, write for catalogue of Centrifugal and Triplex Pumps, Engines, Boilers, Gasoline Engines, etc., to

IRVIN VAN WIE,

717-726 W. Fayette St., SYRACUSE, N. Y.



through whom we purchased the pump, piping and point.

This plant is situated on the Arkansas river bottom land, and in that locality solves the matter of obtaining water cheaply and rapidly for irrigating purposes. As to the supply of water there is no indication of any scarcity. Of course, when the time arrives that several thousand plants are put in active operation, elevating to the surface and spreading out this underflow of water, no one can yet demonstrate what the result will be. Quite a number are already at work, but if the water supply holds out ten to twenty thousand plants will be at work between Pueblo and Arkansas City inside of five years. Sufficient proof has been furnished to demonstrate beyond all doubt that enormous quantities of all manner of farm produce peculiar to this climate and latitude can be raised in this valley if an abundant supply of water is at hand when needed for growing crops.

The kind of pump in use at the home can be run by horse-power, but whether or not it will be cheaper to do so is a matter that we did not test. There are but four teams kept on the farm at present, and they are constantly engaged at other work. Several farmers might own a pump and an eight horse-power, such as are used in running corn-shellers or threshers, and move the power and pump from one well to another, as is done at the Home, the only difference being horse-power instead of steam power. G. BOHRER.

About Over-Irrigation.

Moisture and not water is the demand of all vegetation. Where an abundance of water is not to be had there is no danger from over-irrigation. Many times a good crop is lost by irrigating at the wrong time and applying water at too frequent intervals. Corn will soon show the effects of excessive irrigation by turning yellow. Inspection of the roots of a corn stalk irrigated too much will show all clustered together, as if trying to escape from the drowning of over-friendly farmers. Fruit trees will either shed their leaves or the foliage will turn yellow because of too much water. Alkaline lands will show excess of moisture by the poison rising to the surface.

In every irrigated locality the effects of over-irrigation are clearly visible in orchards, fields and gardens. The soil that has too much water poured upon it becomes lifeless and of no value for growing crops. If a ditch or lateral carries a volume of water for two hours the soil is completely saturated and the excess begins to percolate through the hard-pan or surface soil, where it forms a sheet of pent-up mud. This under-lake of lifeless water will soon rob the soil of its loamy attributes and destroy the fertility by causing it to form in clods or mud-stones.

A few years of such irrigation will convert good farming land into worthless meadows and make a swamp of what ought to be well-drained fields. The history of irrigation has demonstrated these facts, which stand out as warnings to the farmers of the present against following in the footsteps of their former friends. Too much water on the surface causes a rank growth of crab grass, sand burs and other water plants. Double the cultivation is necessary where over-irrigation is practiced. The cultivated plants are crowded out by wild grasses springing up where too much moisture abounds. Useless cultivation disturbs the roots of growing crops too frequently and the result is that the production is decreased.—Joel Shomaker.

Benefits of Irrigation.

The science of irrigation solves the mystery of modern farming. In every section of the United States irrigation will become practicable because of its necessity and superior advantages. The farmer who depends on rainfall cannot produce as large crops nor improve the quality of his cereals or fruits except through expensive fertilizing methods. Irrigation is a fertilizer of great value and of but little cost. The successful agriculturist or horticulturist of the future will be he who adopts systematic irrigation even in the rain belt sections. The irrigation farmer is independent of droughts and is not damaged by excessive wet seasons. He has no occasion to growl about the weather but controls the soil, moisture and atmospheric temperature on his own domain.

Irrigation saves the fruit trees from the death blight caused by drought because it furnishes moisture at the proper time. A proper use of water by irrigation prevents grasses and cereals from dying and insures a permanent measurement of annual results. The surplus pools of stagnant water are carried away by the irrigation ditches, and an artificial drainage is thereby effected. No miasma ever spreads in an irrigated country. The motion of the water destroys the poisonous effects of decaying vegetation and the atmosphere is purified. The evil effects of droughts are unknown where water is applied by artificial means to the growing crops. Irrigation is nature's scavenger and the physician of prosperity.

In sections of the country where the rainfall is great irrigation canals can be used for carrying away surplus water. The laterals used for irrigating meadows will keep the field drained and crops will not suffer from excessive water. The roads can be drained of mud pools by proper grading and the construction of irrigation mains. Artificial ponds may be built to catch the waste water from the fields in summer and be used for ice ponds in winter. These pools can be surrounded by thrifty trees and will make splendid private summer fishing and picnic resorts. They will act as shelter and shade for cattle and thereby save extra feed and barns.

The benefits of irrigation are so many that every farmer should have some system in vogue upon his premises. A windmill to raise water from wells, cisterns, springs, creeks, ponds or other places and distribute it over the land. Furrow irrigation is the best method and will accomplish the most good. If streams are near at hand ditches can be constructed on proper grades from the creek or river and used for carrying water over the land. It matters not how wet the season may be the ditches should be kept clean and water made to flow through them. People who have laughed at irrigation, should try it one season and learn its benefits. A trial will convince the most skeptical that the benefits of irrigation have not all been explained in this short article.—Joel Shomaker, in Western America.

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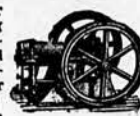
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IRRIGATION.

WEBER GASOLINE ENGINE

For use in any place or for any purpose requiring power. Only a few minutes' attention required each day. Guaranteed cost of operation one cent per horsepower per hour. The simplest, most economical and best power. Send for circular. Address Weber Gas & Gasoline Engine Co., 459 Southwest Boulevard, Kansas City, Mo.



Gossip About Stock.

Our advertiser, James Qurollo, Moscow, Mo., reports a nice lot of English Berkshire swine, as well as choice Brown Leghorns, now ready for sale.

Shropshire sheep and Poland-China swine are the specialties of the re-arranged breeding farm of Kirkpatrick & Son, of Connors, Leavenworth county, Kansas. The farm consists of 320 acres, adjoining the village and station, one-half upland and the other bottom land. Twenty acres of alfalfa are doing nicely for the Poland-China pigs. Notice the special offer on Shropshire rams now for sale.

W. S. Hanna, of Ottawa, Kas., reports the following sales and shipments from his herd of Poland-Chinas: "W. L. Delano, Ottawa, Kas., one World's Fair boar; C. H. Nasbaum, Worden, Kas., one Corwin U. S. boar, \$15; O. S. Stockton, Belvidere, Kas., one Tecumseh boar, \$15; Charles Wilkinson, Dunlap, Kas., one Wilkes boar, \$15; W. Behrns, Globe, Kas., one Young America sow, bred, \$25; Rev. J. Perdue, Michigan, Kas., one pair of pigs, \$35."

DR. ORR'S BOOK.—Readers of the KANSAS FARMER will be pleased to know that arrangements have been made whereby they can obtain this concise and well nigh invaluable "Farmer's Ready Reference or Handbook of Diseases of Horses and Cattle" in combination with this paper at a slight saving in cost.

The separate prices of these are:

Dr. Orr's Book.....\$1.25
KANSAS FARMER, one year.....1.00

Total.....\$2.25

Two dollars sent either to the Kansas Farmer Co., Topeka, or to Dr. S. C. Orr, Manhattan, will secure both, making a saving of 25 cents.

George Topping, Cedar Point, Kas., writes: "The prospects for corn the best I have ever seen, also oats was a good crop. I have a fine litter of pigs now ready to ship from my grand show sow, Romford's Pride, pigs sired by my old herd boar, Model King, he by Director, he by Long-fellow (Gentry's). This boar is a royally-bred fellow, carrying the blood of the great Model Duke on his dam's side, she being by Model Duke. She was Stumpy Lady IV. Herd in good health. I have several litters, all sired by the famous boar, Model King. This fellow is of the low-down, compact kind, strong loin, best of back and feet, very full around heart, strong bone, in fact, a great hog and one of the best of feeders. His weight at 2 years was upwards of 600 pounds and not in extra heavy flesh. Having the kind of pigs the farmer likes, I would be pleased to correspond with parties wanting extra bargains in my line."

A. W. Themanson, Wathena, Kas., writes: "I am a graduate of Coin's Financial School—Poland-China department. I am in favor of the free and unlimited coinage of Poland-China pigs 16 to 1—that is, sixteen good points to one bad, sired by Graceful F. Sanders 13095 S., a son of Columbian prize-winners on both sides, also Early Sisson 11993, my aged male, who has been working, just simply for his board and keep, for me nearly four years, and U. S. Wise 13188 S., a son of A. A. 2d., and whose dam was the \$275 Lizer's Nemo. U. S. Wise weighed 400 pounds when twelve months old and had been in active service while making that growth. I am not a 'gold bug.' I will accept silver dollars at par in exchange for Poland-China pigs. The more I study the financial question, the greater grows my desire to add to my collection of silver dollars that I am getting together. Any date will do. Send in your silver and your orders. Trade is good. Sold five pigs the past week."

The KANSAS FARMER takes pleasure in presenting to its readers two of Bourbon county's most successful young farmers, T. E. Martin & Brother, who, two years ago, laid the foundation of an excellent herd of pedigreed Poland-China swine, that now consists of eighty head, headed by the very excellent harem king, Royal Perfection 13159 S., a son of the noted King Perfection 11315 S., that won second in class and sweepstakes best boar any age at the St. Louis fair in 1894. His dam was Tecumseh Model 30859 S., by Perfection 10723 S., and out of Norcatar Star 25082 S. He was farrowed May 6, 1894, and is now in his yearling form. Those acquainted with his sire at once recognize in the son a complete "chip of the old block" and at once begin to consider whether or not the "old man" has to his credit among the scores and scores of sons another one the equal of Royal Perfection. In his conformation he is growthy, smooth, rangy and compact, an out and out all over and up to date standard Poland-China. Among others secured when the herd was founded were five very choice young females from the Tower Hill herd, bred and owned by the very successful breeder, B. R. Adamson, whose herd and farm lie near the city of Fort Scott. These females and others were sired by Black Dandy 8809 S. and Black Stop 10550 S. Both sires, especially the latter, are grand good ones. The visitor will find on looking

over the twenty-one April pigs sired by Royal Perfection that they are a very even lot of broad-backed, deep-hammed youngsters, and demonstrate beyond a chance for a doubt that it pays to secure the best, both as to sire and dam. A more evenly typed lot of youngsters has not been seen by the writer in the past twelve months. The younger ones are just as good, and if the Messrs. Martin have as good success "nicking" in the future, the reputation of the Clover Hill herd will extend to the confines of the Poland-China breeders' field. The Martin boys have the aid, 'tis true, of Martin senior's forty years experience in swine husbandry, and having the 240-acre farm, with its tame grasses and range, ought to grow pigs. These opportunities, with their starting right, has already brought good results and demonstrates what may be done if one but tries. The eleven harem queens are a choice lot and worthy more attention than the "new man's" herd generally receives until that merited recognition is forced by common consent of the swine breeding public.

Stock Fountain.

Note the contents of letter from August Post, one of Iowa's heaviest stock breeders, and especially of Poland-China pigs. He is also Secretary of National Farmers' Alliance and Iowa Farmers' Alliance. Mr. Post is the farmers' and stockmen's friend, and would not likely misdirect any farmer or stock dealer to purchase an article that is not as represented. Any one interested should write him:

MOULTON, IOWA, March 4, 1895.

Stock Fountain Co., Lake City, Iowa:

GENTLEMEN:—Enter my order for immediate shipment for two dozen automatic fountains for tanks. I am using the improved fountain you sent me sample of recently, and it is a daisy, sure. All objections that could have been urged against the old one are overcome. I am using a dozen of the old ones now, and they give satisfaction, but the new ones seem so superior that it seems no improvement could be made. While at the State fair last fall, I saw one I thought I would like better than the "Lake City," but discarded it after trial, for reason it was like all others from Sterling, "a float." Part of this order is for neighbors who have seen mine. There is no fountain on the market that I could recommend, but the Lake City Automatic Stock Fountain. It is very strong, durable, and never gets out of order, while all other fountains soon play out, especially floats and springs. Very truly,

AUGUST POST.

A BOON FOR WOMEN.

Dr. Hartman's Great Remedy as a Prescription for Worn-out Women.

It has been a well-known fact for years that the United States contains thousands and tens of thousands of tired, nervous, fretful women. They are not actually sick, but so languid and frail and haggard that life seems to have lost all of its pleasures for them, and those who live with them are sometimes worried into the same condition by hearing their incessant complaints. But it seems to the poor sufferers that nothing goes right; that everybody they come in contact with is opposed to them, and, as a consequence, they are fretful and irritable. It is to such women as this that Pe-ru-na comes as a blessing in a time of the greatest need. By making a thorough trial of this prince of remedies they will soon be made to realize its great worth and will never be without it again. It will bring back to their wasted cheeks the plumpness and bright color of perfect health, remove from their faded minds all of the prejudices and worries with which they have been suffering, and give them a buoyancy of step and sparkle of eye that only the best of health ever brings.

Send for free copy of new "Ills of Life." Address The Pe-ru-na Drug Manufacturing Company, of Columbus, Ohio.

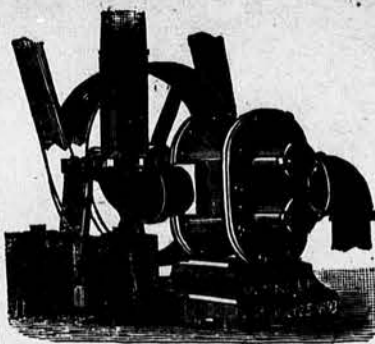
For free book on cancer address Dr. Hartman, Columbus, Ohio.

Does He Chew or Smoke?

If so, it is only a question of time when bright eyes grow dim, manly steps lose firmness, and the vigor and vitality so enjoyable now will be destroyed forever. Get a book, titled "Don't Tobacco Spit or Smoke Your Life Away," and learn how No-To-Bac, without physical or financial risk, cures the tobacco habit, brings back the vigorous vitality that will make you both happy. No-To-Bac sold and guaranteed to cure by Druggists everywhere. Book free. Address Sterling Remedy Co., New York city or Chicago.

Special Service to Cleveland.

The fast train on the Nickel Plate Road, leaving Chicago at 1:30 p. m., arriving Cleveland 11:30 p. m., is the best day train between Chicago and Cleveland. Give it a trial and be convinced. Uniformed colored porters in charge of day coaches. Lowest rates to all points. For further information address J. Y. Calahan, General Agent, 111 Adams St., Chicago.



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FOR IRRIGATION PURPOSES.

Now in successful use throughout the West. For full particulars address the

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306 W. 8th St., Kansas City, Mo.

Publishers' Paragraphs.

The twice-a-week Commercial Gazette, of Cincinnati, O., is now clubbed with the KANSAS FARMER, both papers one year for only \$1.65. Send us your order.

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

FARM RECORD.—Our "Farm Records" have been such a splendid seller because of their practical value that our supply is now quite limited. We have a number of the best binding only, which the KANSAS FARMER will deliver to any address for only one dollar.

Mr. A. B. Dille, who has so long had a breeder's card in the KANSAS FARMER, has retired from that line of business and organized the firm of A. B. Dille & Co., Wellsville, Kas., and the new firm will contract and build creameries and cheese factories for any localities desiring the same.

THE DOLL-BRIDE.—The new paper doll, issued by the J. C. Ayer Co., Lowell, Mass., is certainly a beauty. Its pretty face and many changes of fashionable clothing and hats, make it a favorite in every doll family to which it goes. The small sum of 12 cents, in stamps, brings this doll-ride to any little girl who wants the very prettiest and sweetest of dolls.

W. F. Schell, of Fort Scott, has, by recent purchase of an interest, assumed the management of the Hart Pioneer Nurseries, with which he has been so long connected as Kansas representative. This nursery is well and favorably known to the fruit-growers of the West, and under Mr. Schell's management the business will be extended.

MITCHELL MACHINE CO.—If you are going to cook food for stock or poultry, or boil sap or make soap or heat water for scalding hogs, you can save time and money by using a device specially adapted to these purposes. We know of nothing before the public to-day that comes nearer filling these requirements than the "Dalley" Stock Food Boiler, manufactured by the Mitchell Machine Co., Kendallville, Ind., an advertisement of which appears in this issue. The boiler is constructed of heavy iron and steel, either japanned or galvanized, to suit the wishes of the purchaser, and the capacity is three and one-half barrels for No. 1 and four and one-half barrels for No. 2. The fire-box, 23x25 or 25x29 inches, is cast from pig-iron and is adapted to the use of any fuel at hand. The top is provided with a hinged cover that admits of easily opening either end or removing the whole cover.

Paint.

We have had many inquiries as to which is the best paint, and have had circulars sent us of this and that "ready mixed" paint, with the inquiry as to whether we thought them good, etc. In talking with men of experience and good judgment in such matters, we have come to believe that pure lead and pure linseed oil make the very best paint, and that many kinds of "ready mixed" paints are more or less adulterated with cheap materials, or mixed with cheap (fish?) oil. Discussing paint with a couple of poultrymen a few days ago, one said, "I have used three different kinds, and neither one of them was worth the time and brush wear to put them on. I'm done with cheap paints." "That is just my fix," said No. 2. "I haven't used three different makes, but I painted one building twice within three years with a mixed paint the dealer said was 'just as good,' and cheaper, and it washes off like fun in every shower. The next time I paint it will be with lead and linseed oil, then I'll know what I've got!"

This is very much the writer's experience. Becoming acquainted in a business way with a paint manufacturer some years ago, we listened confidingly to his eloquent representations of the merit of a particular brand of his paint, and when we had buildings to paint went to his company and bought the brand he extolled so highly. The old gentleman is some years dead, and the company some time ago failed, and the business was wound up—so we are injuring no one in saying the paint we so confidingly

invested in is "N. G." and the money paid for it was, practically, thrown away.

We, also, have decided that hereafter we will use lead and oil only. Talking with Mr. Andrus, who recently visited several Massachusetts poultry farms in the interest of some government schools in the Province of Quebec, he said there was no doubt in his mind that lead and oil was by all odds the best and cheapest paint, and, he said, "If you tell your readers to use raw linseed oil for all outside work they will find that it makes a harder and more lasting surface. Raw oil takes some longer to dry, but that is of no consequence on outside work, and it wears splendidly."

We visited Latham a few days ago, to talk "scratching shed," houses, etc., and incidentally the subject of paint came up. "There is no doubt in my mind," said he, "that lead and oil is the stuff to wear, and for outside work if 20 to 25 per cent. of cheap flour (or fancy middlings, or 'Red Dog') is mixed into the paint it will dry into a splendid, hard, metallic surface, that will wear like iron." This we had never heard of before, but he said he had seen it tested and proved that there was something in the gluten of the flour or middlings that, combining with the lead and oil, made that "hard" surface so desirable in outside work. This is important, if true, as the addition of that quantity of flour (or fancy middlings) would somewhat reduce the cost of the paint at the same time we were getting the hard surface.

If the united testimony of these experienced men is to be relied upon, lead and linseed oil would seem to be the paint for us to use. The question would come up, "what lead?" and we have, fortunately, the answer of the associated manufacturers called the National Lead Co., which gives the "brands" of twenty-two manufacturers which are guaranteed to be pure white lead. We do not say that other makes of lead are adulterated, but we do believe these brands of lead are pure lead, hence we shall look out to get a reliable make when we are buying. With the "tinting colors," which they also manufacture, any desired shade (or tint) can be made—and we shall then be certain that we have got "the best."—Farm-Poultry, July 1.

Valuable Books Cheap.

By a special arrangement with the publishers, we are able to offer to subscribers any of the following named books at 10 per cent. less than the list price. These are new, fresh books, right up to the time, as is sufficiently guaranteed when it is known that they are put out by W. Atlee Burpee & Co., the famous Philadelphia seedsmen. Here is the list:

	Price, postpaid.
"The Beautiful Flower Garden." A delightful book by an artist.....	.50
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"Selection in Seed Growing".....	.10
"Onions for Profit." A hand-book based on modern methods.....	.50
"Manures: How to Make and How to Use Them".....	.50
"Celery for Profit." An expose of modern methods in growing Celery.....	.30
"All About Sweet Peas." Revised and enlarged edition.....	.20
"How and What to Grow in a Kitchen Garden of One Acre".....	.50
"The Poultry Yard: How to Furnish and Manage It".....	.50
"How to Grow Cabbages and Cauliflowers".....	.30
"Root Crops for Stock Feeding, and How to Grow Them".....	.30
"How to Grow Melons for Market." Compiled from Prize Essays.....	.30
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THE BEST RESULTS ARE WHAT YOU WANT. WHAT YOU WILL GET. BY ATTENDING THE EMPORIA OR HUTCHINSON BUSINESS COLLEGE. AND INSTITUTE OF SHORTHAND AND TELEGRAPHY. TO BE CONVINCED, GET OUR ILLUSTRATED "COLD FACTS" ALSO OUR "BUSINESS COURSE" WRITE "TO-DAY" MENTION THIS PAPER + ADDRESS + PARKER & GOLDEN EMPORIA - KANSAS - OR HUTCHINSON - KANSAS.

Get up a club for the FARMER.

The Home Circle.

To Correspondents.

The matter for the HOME CIRCLE is selected Wednesday of the week before the paper is printed. Manuscript received after that almost invariably goes over to the next week, unless it is very short and very good. Correspondents will govern themselves accordingly.

HE LOVED KANSAS.

'Twas a pilgrim who had lived and loved
Among the sunny hills,
Where rippling sings the river Kaw
And the wildbird sweetly trills.

A printer, of the genial class;
He had wandered far and long,
And he had friends in many lands
Among the artist throng.

But his once bright eyes were growing dim;
He could no longer roam,
So he turned toward that dearest place
On earth—a Kansas home.

He longed to spend the twilight hours
Of that life so wild and free,
Where the scented breezes softly sigh
Round the home that used to be.

Then to lay his weary limbs to rest
Where that summer—years ago—
They laid his wife and little one,
Where the flower-sweet breezes blow.

His last fond hope, his dying wish,
By cruel fate denied,
With a longing look toward the setting sun
And these parting words, he died:

"Here's a ring, a curl, and a printer's rule,
I shall carry them no more;
Like a mirage clear I see appear
The angel-peopled shore.

"The ring—ah, once I had a wife.
She is free from toil and care.
The curl is from our baby girl,
Who passed the portals fair.

"Like voices from the better land,
Like spirit voices sweet,
The ring and curl to my listening soul
Those loving tones repeat.

"I see again the birds and flowers
Of the June-times long ago.
I hear again a baby's coo
And that singing soft and low.

"The rule—a friend, and tried and true;
And it will ever be
To all who love the noble art,
What it has been to me.

"O, let me lie in that loved land
Its equal earth ne'er saw—
Where the courting sunbeams kiss the waves
Of the rippling river Kaw.

"I've seen the sunrise on the Alps,
The castled river Rhine,
And many a land that's known to fame,
But none is fair as mine.

"I've stood 'mid scenery grand, sublime,
Of which the poets sing—
Beside the Kaw the thrushes build,
And flowers make glad the spring.

"O, Kansas, sunny, Kansas;
I know, when making you,
God used for plan the summer land
Beyond the distant blue.

"I'm dying now—my last request:
Near that home where love was law,
In that land of sweet and happy homes,
Please bury me by the Kaw.

"A swaying sunflower at my head,
At my feet let a wild rose grow,
And prairie grass make green my grave,
Where the winged winds whisper low."

Then the pilgrim printer passed away,
His long earth journey o'er;
He took his "card" and sought the clime
Where sorrow comes no more.
Wetmore, Nemaha Co., Kas. W. A. B.

A FORCE IN EDUCATION.

Abstract of graduating thesis of Ada Rice, of Manhattan, at Agricultural college commencement, 1895.

"Education," says John Stuart Mill, "includes everything that brings us nearer the perfection of our natures." By that we mean, not only the intellect, but the development, the unfolding of man's mental, moral and physical nature.

There are many forces that enter into our education and mould our characters for good or ill. Among these we include the influences of the church, the school, society, and that almost unrecognized force, the inspiration received from a single individual, which awakens in the child right ambitions and high ideals. But the force which I consider the most potent is that of the home. Without the co-operation of the home, the school is controlled with difficulty and the church works to equal disadvantage. Here the foundation stones of good citizenship are laid—the habits of obedience and self-control.

If you wish to educate a child for ideal citizenship you would not place him in a home of squalor, neglect and ignorance, but in a home of comfort, love and intelligence, a home that is a school for his development.

One of the most charming examples of that a home school could be found in Pestalozzi's "Leonard and Gertrude." Gertrude was the wife of a poor mechanic in Switzerland, but was industrious, wise and good. She instituted a home school for her children, taught them home industries, hymns, maxims, prayers, and courtesy and

cleanliness. The influence of this home radiated in all directions—to the organization of the village school, to the preacher of the village; interested its best citizens in questions of higher education, until even the royal cabinet studied Bonnal and decided to imitate this little hamlet in the larger reforms of state.

In the home school, the habit of observation, that most important acquirement—can be taught better than elsewhere. A child need not go to school to study nature's lessons, for they are all about him. He should be taught to observe trees and plants, press and name specimens. Every well-regulated home should have one room set apart for the children's work-room, where all specimens in botany, geology, entomology, etc., could be brought, studied and mounted. But in still another way can the home assert an influence, and that is in the cultivation of the love for good books, and to this end the home library should be chosen with care. But the influence which is perhaps stronger in home life than all others, is that of religious teaching. In this day of scientific division of labor, this part of home life, as well as most others, is left to other tutors.

As a rule, the child follows the standard set by his parents. Especially is it true in religion. We have numerous examples in history of men and women who owed their great success in life to this part of their home training. Moses, the greatest leader of all time, received his early religious training from his Hebrew mother, and chose rather to be the leader of his people out of bondage than the prince and heir of a great nation. The greatest leader among women in this country, was reared in a home where religion was its ruling principle and where the intellect, body and soul, received equal attention. One need only mention the name of Frances Willard, to prove the force of home education.

When the homes of this country come to realize their whole duty, when the training there received tends to make boys and girls more sincere and sympathetic, observing and intelligent, imbued with right ambitions and high ideals of life; when we remember that "out of the heart are the issues of life," and that the "conscience is the real citadel of a nation," then will our ideal citizen be no longer a theoretical existence, but a living, powerful, reality.

The World's Religions.

Abstract of graduating thesis of Geo. W. Fryhofer, of Randolph, at Agricultural college commencement, 1896.

From the dawn of history man's mind has reached out towards his Creator. Apparently the only creature that worships at times his god is human; or, lower still, he deifies the sun or that which is hoary with age; then he believes in many gods; and last, he turns to one Supreme Being, Father of a common brotherhood, maker of everything.

Religion has had more influence on the world's civilization than any other one thing. It has moulded the lives of millions and caused nations to stand and fall. It has been the monument of many bloody battles. It has taught man that he is sinful. In it he finds atonement. It has honored virtuous woman. It has made man pure; here he finds hope beyond.

Among the early leaders of religious thought stands Confucius, a pious, devoted student. To an unknown, sacred, mysterious power, behind and above all things, he addressed his prayer for the abuses in society. How vague and indefinite!

Brahmanism, the Hindoo's religion, is an acute philosophy. Their reasoning is, "There is nothing but God."

There is nothing without God, and yet authorities cannot agree as to whether the worship is to one God or many.

In Buddhism, its monastic life, its string of beads, chanting prayers, image of the virgin—queen of heaven—and the cross, ally it to Romanism. Its monks take vows of celibacy, poverty and obedience. Eternal life is obtained by compliance with divine laws. This is a religion which recognizes neither a creature nor a Creator. Nirvana, the final state of bliss, is very mysterious and is thought by some to mean annihilation.

Of Egyptians, with their high and wonderful civilization, Herodotus says: "They were most excessively attentive to the worship of the gods." Separation from sin could be obtained by an open-faced denial. The body was the central idea. Animals were worshiped, and it was almost impossible to slay a beast, lest it be a sacred one.

The religion of Greece did not guide nor restrain, it only stimulated. In Rome the religion must serve the state. Gods multiplied so rapidly, that it was almost impossible to know which one to call upon.

The Jews believed in a holy and a terrible God, the Maker of all things. Their ambition was to keep the whole law. Sin was atoned for by sacrifice. God's chosen people were the Jews. In Abraham he planted the seed of faith; David was his obedient soldier, statesman and poet. Solomon was wiser than any man. Christ was a Jew, and yet when he came to his own they received him not. From this rejection

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

Royal Baking Powder

ABSOLUTELY PURE

sprang Christianity. From twelve faithful disciples has come our great religion. It has stood the test of time. Tempered by the fires of the middle ages, it is the life of the nineteenth century. It says to rich and poor: "Come unto me and find rest." To literature, science and art: "These are my jewels." Christianity that purifies the heart; Christianity that exalts womanhood; Christianity that teaches man to think and act, that throws off superstition; Christianity that fosters love and reverence for a God.

TO REMOVE IRON RUST.

A Process Which Does Not Injure the Most Delicate Fabric.

To remove iron mold, or rust, from any white cotton, linen or other vegetable fiber, the following process is the best, as it does not injure the fabric: The spots are stretched over an earthen plate and moistened. Salts of lemon are then strewn over the marks and rubbed in with a bone or wooden spatula until the stain is removed, afterwards thoroughly rinsing in warm water to remove the acid. Nearly all stains and dyes will be discharged by oxalic acid; therefore, careful usage is necessary. Salts of lemon, salts of sorrel, oxalic acid, etc., is a very dangerous poison, and should be used with due caution.

Mildew is removed by first brushing off any loose mildew. Then a little common salt should be rubbed in, afterwards liberally sprinkled with powdered chalk, and thoroughly moistened with clean cold water. After this the articles should be slowly dried in the open air, and then rinsed, and if the marks are not removed the treatment should be repeated, possibly several times, but in the end the mildew will be removed.

Taken all together, curtain dressing is not hard work, and may well be done at home in the majority of households, as what is most required is patience sufficient to secure careful manipulation. It is certain, also, that curtains carefully treated in cleaning and getting up have their durability much increased; indeed some lace curtains have passed through my hands annually for the past ten years, and are now sound and good, but they have never been framed.—St. Louis Republic.

How to Wash Embroideries.

In washing embroideries done with crewels on a foundation of linen or crash, the first time bran water should always be used to set the colors. To prepare the water pour a gallon boiling hot over a pound of bran. Let the bran soak in the water a day, stirring it occasionally, then strain it well. Put the article to be washed in the water when it is lukewarm, pressing and squeezing it through the water until clean. Do not think of wringing dry, but press out all the moisture possible and dry in a warm place without exposure to sunlight. When it is still damp, lay the right side on a flannel and press on the wrong side. Use only the best crewels if you expect them to wash well.—St. Louis Globe-Democrat.

Invitations to Church Weddings.

There is a good deal of dispute in regard to the etiquette of acknowledgment of a card for a church wedding. Some high authorities assert that the invitation is so general and means so little particular attention that no notice need be taken of it, except in the regular line of future visits to the bride and to the bride's mother. But Mrs. John Sherwood, who is, probably, our American social oracle, declares that a card is obligatory at the hour of the wedding, if one cannot attend, and that if the house address is unknown, his card should be sent to the church. If this is necessary, most people err woefully, for few non-attendants send the card.

Agents wanted for Gearhart's Family Knitter. For particulars address J. E. Gearhart, Clearfield, Pa.

BASIS OF MARRIAGE.

Without Love There Can Be No Happiness in Times of Trial.

One girl who wrote to me recently said: "Wouldn't a marriage based on friendship, on good comradeship, and on thorough respect be a happy one?" I don't know. It might be a placid one, it might be a respectable one, but a marriage without love cannot be the one for which you or I were intended, writes Ruth Ashmore in Ladies' Home Journal. Comradeship and respect and a thorough liking might be all that were necessary during the sunshiny days, but what would they amount to when the gloomy days came?

And do you think if a man were trying to solve some great question, were trying to drive from his soul the demon of unbelief, that he would turn to the good comrade for help? No; he would go to the woman who loved him, and whom he knew knelt down every night of her life and said a prayer for him.

When people are suffering, mentally or physically, they do not turn for help or sympathy to that one whose speech is brilliant and witty and whose brain is strong, but they reach out, like a little child, to that one who loves them best, and whose heart is overflowing with sympathy and pity. Friendship is a great blessing, but it cannot take the place of love. And, if either a man or a woman marry, believing that a friendly feeling will be sufficient in their united lives, they surely in time will realize only too sadly the possibility of love coming to them, and the dread of a tragedy if he should be greeted with joy. Therefore I say to you, my girl, in building up your life you need as foundation for its shelter the corner-stone of love and no other will answer. If in its place you put friendship, mental sympathy, or good comradeship, the house will topple over when the wind of misery comes, for its foundation stone will drift away, carried along into the sands of indifference, and you will stand alone, weeping for that one who is not, and having around you only friendship and its kindness, while you long for love and its sympathy.

EFFECTUAL.—Charles J. Booth, Olive-wood, Cal., says: "I have used Ayer's Pills in my family for several years, and have always found them most effectual in the relief of ailments arising from a disordered stomach, torpid liver, and constipated bowels."

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The best organ manufactured, at a reasonable price. Guaranteed for six years. Easy terms.

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Write for catalogue and prices.

You Can't
take too much of

HIRES'

Rootbeer

It quenches your thirst
That's the best of it.

Improves your health
That's the rest of it.

A 25 cent package makes 5 gallons. Sold everywhere. Made only by The Chas. E. Hires Co., Phila.

The Young Folks.

THE SUMMER.

The beautiful summer is almost done,
Though long it seemed when the noon-tide sun
Of jubilant June streamed clear and high
Through the vast expanse of the soft blue sky.
The fair fields smiled in their vivid green,
The rivulet sparkled and danced between
Its emerald edges, with merry song;
And I said, Oh, the summer is blithe and long!

The beautiful summer is almost gone.
It seemed not so when July came on;
When the sun, with a heightened splendor shone,
When the rivulet hummed in a drowsy tone,
When blade and bud fast waxed complete
Neath the brilliant beams and the fostering
heat;
When the grain fields teemed with a mighty
thrang.
And I said, Oh, the summer is bright and long!

The beautiful summer is almost o'er.
The rivulet sleeps, and it sings no more;
The heart of the universe pulses strong
Through the hidden arteries vast and long,
The ripened seeds in their cells expand,
The golden grain waits the harvest hand,
Neath the glowing gleams of the August sun.
And I sigh! Oh, the summer is almost done!

Summers of life, how ye come and go!
But whence or whither, what soul may know?
For ye flee away, as the shadows pass
Like a silent wave o'er the growing grass.
Ye burn in the vigor of manhood's prime,
Ye burn with an energy sublime;
But ye wane, and ye darken, your warmth is
gone,
And the winter, the winter comes surely on!

O, glorious center of living flame!
O, radiant source whence existence came!
Withdraw not thy luster of loving light,
Lest I shudder and perish in chill and night!
Let my spirit within thine effulgence float;
Upborne aloft to thy spheres remote;
Let it pulse and soar through realms of day,
Unshadowed, unshirking, away, away!
—New York Weekly.

PERFORMING GOATS.

Mr. Matthews Tells How He Trained the Bearded Acrobats.

Piebald horses who have learned the multiplication tables; sportive dogs who can play cards; pugilistic kangaroos who can box in a most scientific manner; mice and fleas who can draw the chariot to which they are harnessed—these and a dozen other animal performances we are used to and meet with at frequent intervals. But it must be admitted that goats who can perform gymnastic tricks, dance a tight rope, leap hurdles in a circus horse fashion, play see-saw, walk on a ball, and feel quite at home on a rolling barrel, are a novelty and are worth seeing.

I intimated that I should like to be introduced to Prof. Matthews, the trainer and owner of these wonderful goats at the London Aquarium, and in due course the professor was introduced to me. I found him to be very affable, and he was by no means dismayed when I informed him that whatever he



BILLY WALKING ON A BALL. told me would be taken down in writing and might be used in evidence against him.

"Don't call me professor, please. I prefer plain Mr., only professor looks better on the bills."

"Very well, Mr. Matthews, I will remember that. Will you tell me what countryman you are?"

"I'm an American; but I have traveled all over the world with performing animals, horses and ponies, dogs and others, but now I keep to goats."

"Why?" I asked.

"Because I am alone. I have no opposition. Although goats are very intelligent animals they are very difficult to train, and there are hygienic reasons against their public appearance in places of amusement. But I have adopted a system of deodorization which I find most effective and which is entirely my own secret."

"Do you have much trouble to train them?" I asked.

"Yes, it requires a lot of patience and perseverance. I use just the same things when practicing as I do on the stage. I find this is the only way. You saw them all standing on tubs? Once I thought it would be better and more convenient if I had tin cans made. They would be lighter and more easy to pack. Well, I had them made and painted very nicely, and thought I had achieved a great success. I was very proud of them. When the curtain rose and the goats mounted on to the bottoms of the cans, they yielded under their feet with the noise which tin makes, and the goats leaped off just as if they had been shot. The people laughed, thought it was part of the performance. But it was no laughing matter to me. I tried them over and over again, but it was no use. They wouldn't stand still, and I had to give up the performance that night."

"I suppose you find the ladies—the Nanny goats—more tractable than the bearded gentlemen?"

"Oh, dear, no," said Mr. Matthews, with a smile. "I can do nothing at all with them. All my performers are Billies. The Nannies are too frolicsome. I can do nothing whatever with them."

"How do you train these goats? Do you use the whip?"

"No, I never use the whip at all. I carry one in my hand on the stage, but it is a mere form. The goats are all trained with the 'lunge'—a kind of bridle. They are taught just one trick at the time, and their reward for correct performance is a 'feed.' It takes about eighteen months to train them perfectly, and they live about twelve years."

"What do you feed them on?"

"They have hay morning and evening, and at midday they have a mixture, and I always manage to keep them in good condition."

"Only one more question. Do you have to keep telling the goats what to do—do you talk to them?"

"No. They know just what to do, and they go through their performances as a matter of course, if they are in the right humor for it. But they are regular trade unionists. If the black fellow does not feel inclined to work—if he goes off into the corner sulking, then I know I am going to have trouble. He is on strike, and the others won't work. But I generally manage to get him into good humor, and then all goes well."

Then Mr. Matthews said good night, and hurried off to keep an engagement to amuse the people at the east end of London.—Pall Mall Budget.

The Largest Chestnut Tree.

According to Dr. George Russell, of Hartford, Conn., the largest chestnut tree now growing on American soil is one standing in the town of Mansfield, in the above named state, on the land of a Mr. Whipple Green. It is in an open pasture, about three-quarters of a mile east of Mansfield station. The circumference of the tree at the height of 4 feet from the ground (which is sufficiently high to be clear of the gnarled roots at the buttressed base) is 28 feet 8 inches. It is heavily buttressed with exposed roots of enormous size, which would make the actual circumference at the base not less than 5 feet.

Benny's Cheerful Gift.

"Here, Benny," said Mr. Bloombumper to his young son, as the latter started to church, "is a five-cent piece and a quarter. You can put which you please into the contribution box."

Benny thanked his papa and went to church. Curious to know which coin Benny had given, his papa asked him when he returned, and Benny replied:

"Well, papa, it was this way: The preacher said the Lord loved a cheerful giver, and I knew I could give a nickel a good deal more cheerfully than I could give a quarter, so I put the nickel in."—Golden Days.

Very Queer Arithmetic.

Master—Be quick, my boy, and reckon up how many head of cattle there are in that herd.

Pupil—Seventy-six.

Master—How do you make it out?

Pupil—I counted their feet and divided by four.

Master—You gave yourself unnecessary trouble, my lad. Next time you must count the horns and divide by two.

CLAIRETTE SOAP.



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HER SOLOQUY.



I love my little brother:
He's a cunning, rosy elf;
But I wish—somehow or other—
That he could rock himself!
—Fred B. Oppen, in St. Nicholas.

A Cat's Wonderful Leap.

During a fire in the tenement district of New York city, a large black cat, with shiny, yellow eyes, appeared on a window sill of the fifth story. Back of it a dull-red glow and an occasional puff of smoke gave warning that the flames were rapidly approaching. Puss understood, and, after a short walk on the sill, launched herself into space. The flight through the air was like that of a squirrel, the paws being perfect, and the legs spread out as widely as possible. The cat descended in a long, graceful curve, and when it struck the pavement, the feet were quickly bunched together and there was no "dull thud." For a single instant the cat paused, as if to recover from the shock, and then, with a long-drawn meow and every hair on end, dashed along the street and disappeared in the darkness.

WORKING FOR A TIP.

This Busy Waiter Can Be Drawn with One Stroke of the Pencil.

Boys will be interested in this fellow who appears so much in a hurry. His customer is evidently calling for the lemonade he ordered fifteen minutes ago. Our waiter's eyes fairly bulge in his great endeavor to meet the demand of the thirsty diner. But really the interesting thing about this picture is that it may be made—napkin, glass, pompadour and all—without taking the



pencil from the paper after it has been begun until it is finished. Begin at the eye. The shading under the feet is, of course, not in the picture proper.—Young Men's Era.

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

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

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

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

Address all orders—
KANSAS FARMER CO., Topeka, Kas.KANSAS FARMER and Semi-Weekly *World* (N. Y.), you can have for \$1.65 one year.If you want one of the finest magazines published, send us \$2.25 for KANSAS FARMER and *Cosmopolitan*.

The wheat market at Kansas City closed 2 to 3 cents higher on Saturday than on the Monday of last week.

If you want KANSAS FARMER and Semi-Weekly *Capital*, send us \$1.50. Or, KANSAS FARMER and *Topeka Advocate*, send \$1.50.

Reports from wheat threshing throughout the country are rather disappointing as to the quality of the grain. This is due in the South and Southwest in many cases to excessive rains.

The New York stock market—that is the market for corporation shares and bonds—appears to be in a condition of uncertainty. Even "bull" writers intimate that there are likely to be "bear" attacks and that they will succeed in depressing prices.

Any of our subscribers who are about to renew subscription will find something interesting by reading the advertisement of "Samantha at Saratoga." If you have already renewed your subscription it will tell you how to get the book at the reduced rate.

The Shawnee County Horticultural Society will meet at Mr. Scott Kelsey's home, near Oakland, on Wednesday, July 31. All friends of horticulture are invited. It was voted at the last meeting that refreshments would be provided in the nature of a basket dinner.

"Dairying for Profit, or the Poor Man's Cow," by Mrs. E. M. Jones, is a most valuable book for every farmer's wife, that has had a large sale at 25 cents per copy. We have a number on hand which we will close out at a very low price to our readers, viz., 10 cents, or five 2-cent stamps. First come, first served. Order quick.

Some of the old Kansas friends of Henry Wallace, formerly editor of the *Iowa Homestead*, will doubtless like an opportunity to continue to read the emanations from his able pen. He is now editing *Wallace's Farm and Dairy*. By special arrangement we are able to send KANSAS FARMER and *Farm and Dairy* for one year for \$1.25.

It is impossible for the patriotic American citizen to pride himself greatly on the recent record of the United States Treasury Department. There is reported a deficit of nearly \$46,000,000, and an increase of our interest-bearing indebtedness of \$162,328,500. And yet the Secretary who "managed" these operations is set forth as an authority on finance and has been "instructing" the people by speeches.

SPOILS.

The KANSAS FARMER's showing of some "spoils of office" has brought out the suggestion that the pocketing of compensation for which neither service nor expenditure had been rendered, is only a mild form of plundering the people and is really legitimate and harmless in comparison with some other things which are done. The unfortunate fact about this is that it is true that worse things are done and that men of "character" think it no harm to profit at the State's expense, and that this is a "mild form" of speculation which should not be too severely condemned.

The writer had recently an opportunity to inquire, of an American cadet who was in China at the time of the Japan-China war, in what the superiority of the Japanese consists that they were able to win every engagement almost regardless of disparity of numbers. His reply was that corruption in the Chinese army is universal and that this is the cause of its weakness. Instancing his observations in the lowest ranks of the army, he said that enlistment was under officers who were each commissioned to enlist, command and pay several hundred men—usually about 500. The 500 men were reported and pay for them drawn by the officer on an actual enlistment of 250 to 300. These men were not paid the amount allowed by the government but such sums as were agreed upon by the officer. There was, therefore, no such thing as patriotism in the army, but the only motive was the mercenary one. In such a company there were no second officers to take command at the death of the enlisting officer and no one to pay the soldiers, so that, at every reverse, they were ready to throw away their uniforms and run away, claiming to be citizens and not soldiers.

The difference between the mercenary spirit and organization which sapped the efficiency of the Chinese army, and which, until corrected, must lay that nation open as a prey to any valiant aggressor, and the spirit of speculation which charges for services not rendered and for expenses not incurred, is only in degree and not in kind. The experience of the Chinese in their late war adds seriousness to the evil of official speculation and illustrates the fact that it is worse than theft and partakes also of the nature of treason. There ought to be no "spoils of office" to tempt men from the paths of rectitude and to become an incentive to political activity of a demoralizing kind.

CAN WE SAVE THE RUNAWAY WATER?

By a calculation, on June 19, the KANSAS FARMER found that the Kaw river was then carrying out of the State of the water precipitated upon our lands sufficient each day to irrigate 1,000,000 acres, giving to each acre an amount equal to three inches spread all over it. In almost any part of Kansas this, applied at such time as to do the most good, would so supplement the rainfall as to assure a corn crop or a wheat crop, as the case might be. This flood of wealth has continued to leave the State ever since about the middle of June and it cannot subside before the end of July. Indeed it is safe to say that for full fifty days there is running off from the drainage area of the Kansas river every day water enough to irrigate 1,000,000 acres.

It is possible that irrigation is not what is needed in this case—certainly it is not the only need. If this water could be stored in the soil and subsoil, within reach of plant roots, possibly irrigation would be little needed.

Cadet Holsinger, of Rosedale, Kas., in speaking of farming in Ceylon, mentioned that the tops of the mountains are bare rocks; but as high as soil is found it is made into terraces with borders on the outer edges several inches high, thus forming level troughs of soil running around the mountains. In places these are not more than a step, in other places several rods wide. When it rains the water from the bare rocks above the upper terrace is caught and retained until, with that which falls upon this terrace, it is several inches

deep. When the soil of the upper terrace is sufficiently soaked, or the water is likely to overflow the border, it is let down to the next, and so on until it is all taken up by the soil or until all has been thoroughly wet. This work is done with hand tools and yet it is found profitable.

The gentle slopes of western Kansas, and the great depth of fertile soil upon them, if in Ceylon, would doubtless be seized upon as presenting the most favorable opportunity for thus storing a supply of water against future needs, from the excesses of such floods as are now running away unused.

It is possibly not necessary that the work of terracing be done here to accomplish much in the direction of saving the run-off water. Were the lister furrows run in such curves as to always have only a slight fall, so that, instead of rushing rapidly down hill, the run-off water were compelled to be a long time in leaving the land, much of it would be taken into the subsoils which, under natural conditions, are never wet. The amount stored and the rapidity with which it is taken up would also be greatly improved if the subsoil were loosened to a considerable depth.

This kind of contour farming is not new in this country. In the days "before the war" some of the plantations of the South were carefully surveyed by competent engineers and provided with hillside ditches and the rows of cotton and corn were made nearly parallel with these in such a way as to allow the water to leave the land without acquiring sufficient current to wash away the soil. Perhaps we may learn from the orient and from the "old South" some things to our profit in Kansas at the close of the nineteenth century.

MISSOURI VALLEY HORTICULTURAL SOCIETY.

The July meeting of the Missouri Valley Horticultural Society was held last Saturday, at the fine suburban residence of Major Frank Holsinger, at Rosedale, Kas. Major Holsinger's farms are some two miles away, and his elegant home, with its ample lawn, might be that of a prosperous banker or merchant or manufacturer, but it is that of a prosperous and jolly farmer who has surrounded himself with the evidences and requirements of taste and intelligence. The heavy rain of the early morning would have made a lawn in many localities unfit for use, but here the drainage is good, the trees trimmed up so that the air gets in easily and the soil—the loess left when the age of ice was past—was soon in condition for children to roll over the grass.

The Missouri Valley Horticultural Society has long held a leading place, on account of the strength of its membership and the value of the papers presented and of the discussions. Its program is made out for an entire year in advance and its monthly meetings never fail of either attendance or interest.

By the middle of the forenoon people with baskets began to arrive. Tables upon the lawn had been prepared, and while the proper committee was arranging the picnic dinner, there was a general social exchange of greetings, enlivened by the general jollity of the host, who knows everybody and takes care that everybody about his place has a good time. Presently, above the hum of conversation, the loud voice of the Major summoned to dinner. It was soon in evidence that in the households of the horticulturists there are cooks who know how to prepare the things needful for a dinner like this. The large tables were twice filled and a small army might still have been well fed on such fare as an army never sees.

The program was taken up after dinner, the first paper being by a son of the host, who had recently resigned from the United States navy, after having made a trip to Ceylon, Corea, Japan and China. His paper treated of horticulture and agriculture in these countries. It will be given in full to our readers next week. The second paper was on "Horticulture a Proper Business for Women," by Miss Annie Espenlaub, of Rosedale. In it

she treated the several branches of horticulture and showed how they may be conducted by women, calling attention to the independence which women may attain in the pursuit of this industry. She said, however, that the responsibilities and management of horticultural operations have generally been monopolized by men, and concluded with the remark that she was willing that this monopoly should continue in the future as it has been in the past.

In discussing Miss Espenlaub's paper, a quaint old horticulturist, whose name escaped the writer, commended most of the positions taken but objected to the concluding remark, which he suggested should to be amended so as to make the young lady say that the independence of the horticulturist is one of its great attractions, that its cares and responsibilities have their compensations and amounts to but little when properly divided, and that she was ready to share them with some suitable young man. The KANSAS FARMER man found only one fault with the paper or its author, and that was that she would not consent to its publication.

Standing committees' reports followed. Committee on Orchards reported apple crop good in places and scattering in others, but that a fair crop is now in prospect in the valley. President Evans supplemented this with the statement that the apple crop of the country will be made mostly west of the Mississippi river, that buyers from New York State are now contracting the apple crop in Missouri as rapidly as possible, and suggested that those who have good winter apples need not, in his judgment, take less than \$1.50 per barrel for them.

Considerable discussion arose on an inquiry as to an experience with strawberries, in which, after blooming profusely, the berries only formed buttons and failed to make merchantable fruit as promised. Last fall's drought was by some thought to be the cause, while others thought that watering this spring would have remedied the trouble.

Grapes were reported as doing fairly well but rotting some.

The next meeting will occur August 17, at the residence of G. F. Espenlaub, Rosedale, and the following program is announced: "Grapes—Best Varieties for Success and Money," Prof. C. S. Mason, Manhattan, Kas.; "Good Looking People," Lizzie Espenlaub, Rosedale, Kas.; "The Use of Fertilizers in Fruit and Vegetable-Growing," Senator Edwin Taylor, Edwardsville, Kas.; "Lawn Planting—Best Shrubs and Plants," L. A. Goodman, Westport, Mo.

Every farmer in Kansas, and especially the breeders and stock-raisers, should have the greatest live stock journal in the world, the *Breeder's Gazette*, of Chicago, price \$2 a year. We make a special offer of it and the KANSAS FARMER, both papers one year, for only \$2. Subscribe now through this office.

A Maine Experiment Station bulletin says a milking cow belonging to certain breeds that produce thin milk cannot have Jersey quality fed into her milk any more than one can feed brains into a Digger Indian. That quality must come into an animal of those breeds—if it comes at all—through a process of selection and persistent good feeding, and will be attained only after several generations, perhaps not then.

The announcement is now made that Funk & Wagnalls, of New York, will soon issue a new series of educational books. The excellence of their "Standard Dictionary," the completeness and accuracy of which is the more surprising the longer the dictionary is used, leads us to expect that in the new educational series the needs of the age will be met as never before. The books now soon to appear are: "The Student's Dictionary," "The Students' Standard Synonyms," "The Students' Standard Speller," "The Standard First Reader," "The Standard Second Reader," "The Standard Third Reader," "The Standard Fourth Reader," "Standard Fifth Reader."

Thayer's Berry Bulletin for August.

A berry plant in yielding its fruit, maturing its seed and producing new growth, is much exhausted. In fact, the life of each bud, stem and cane, is given in this effort. The maturity of fruit buds on new canes, comes after this exhausting work, and unless good care is continued to develop and perfect the same, the succeeding crop is greatly impaired. The natural moisture, too, is much less at this season, and must be retained in the soil by frequent shallow cultivation. The strong canes must be stimulated by the removal of the weak ones and all surplus growth cut away.

Remember, the care given fruit plants this season, practically determines the product next, both in quality and quantity. Never allow your interest in the fruit garden to lessen because the fruit is gone. Never neglect that spot from which you should receive more, for the labor performed, than any other portion of the farm. A fruit plant is as sensitive to good care as stock on the farm or members of the household, and should be treated as well.

Strawberry beds for the family, should be made as early as new plants from new beds can be obtained. Prepare for them now. Extra care is necessary for August setting. The good nurseryman will take extra care in digging and shipping plants, packing so they will not heat or roots become dry. When received, dip roots in a thick compost of dirt and manure water—not too strong—and set at once. Be particular to have moist dirt firmly pressed about the roots. Rake or hoe around plants often. As buds appear on new runners, cover them lightly with moist dirt—thus producing new plants. Continue this process until row is well filled, and you may then expect a nice lot of strawberries next season. August setting is not recommended for large acreage or careless growers.

Corn, Alfalfa, Irrigation.

Special correspondence KANSAS FARMER.

In my travel from Junction City, up the Republican valley, out so far as Jewell county, the only dry district I encountered was that about Concordia, and this, I was informed, extended northward, in a fan-like shape, over much of Republic and Washington counties, with conditions steadily growing worse going northward into Nebraska. With the exception of the Concordia district (and this may have its thirst quenched ere this), I found the corn plant all the way through to the western limit of Jewell county in exceptionally fine condition—a condition, it is said, which has never been surpassed at this date in the history of the section passed through. Jewell county had another two-inch rain last Saturday night, and the early corn, it is believed, has successfully run the July gauntlet and is now rejoicing and expanding its ears in a jubilant and surprising way. Much of the corn, however, in Jewell county, as elsewhere, is just now in the fertilization period, when the ear is yet in embryo—most critical period in its growth—and that dreaded gauntlet is yet to be run.

I need not say that during the intense heat of the last three days, when the thermometer registered 100 and more in the shade and the withering atmosphere was drinking up the moisture from the earth at a fearful rate, farmers, and, indeed, everybody, was exceedingly anxious as to the results. The corn, however, I observed, instead of showing the white flag, grew all the more vigorously and the more rapidly because of intense heat. So long as there is plenty of moisture at the roots plants will grow more rapidly as the heat increases—that is, up to a given point. The growth of corn in Jewell county last week, therefore, has been marvelous. Jewell county counts on being the banner corn county of the State this year, a distinction she had the honor of attaining some years ago.

Indications of the progress made along the new lines of agriculture—irrigation, subsoiling and alfalfa-growing—become more apparent as we go westward. In Jewell county alfalfa areas are larger, more subsoiling is done and

irrigation is more talked of than in Cloud county.

J. H. McIntyre, an old Osborne county friend, now living near Jewell City, related to me his experience in growing alfalfa, which is worthy of note. He and his neighbor on adjoining farms concluded last fall to sow alfalfa in the spring following. Mr. McIntyre plowed his ground for alfalfa in August and in the spring gave it most thorough surface cultivation, thus placing the seed-bed in the most favorable condition for germination of seed. He put in his alfalfa with drill, sowing about seventeen pounds to the acre. Mr. McIntyre's neighbor took no steps towards the preparation of his alfalfa ground in the fall. In the spring he cut up the soil to a good depth with the disc and gave the soil such additional cultivation as he deemed necessary. This man put in his alfalfa with same drill Mr. McIntyre used and on the day Mr. McIntyre finished his. Results: McIntyre has an excellent stand of alfalfa. His neighbor has a first-class failure. Reason: McIntyre did the necessary preliminary work in preparing the seed-bed. His neighbor did not.

As I said in previous article, there are men at Beloit who will guarantee a good stand of alfalfa, regardless of the character of the season, provided instructions are followed in the preparation of the soil and in the manner of planting or sowing the seed. Why this waste of thousands of dollars each year in the failure to secure a stand of alfalfa?

M. MOHLER.

Beloit, Kas.

Weekly Weather-Crop Bulletin.

Weekly Weather-Crop Bulletin of the Kansas Weather Service, for week ending July 22, 1895.—T. B. Jennings, Observer Weather Bureau, Director:

CONDITIONS.

The week opened very hot and sultry, with the air laden with moisture, which, with a slight cooling of the weather, was precipitated in showers, light from Ford to Ottawa and south of Osage, but generally very good rains, with decidedly heavy rains in Osage, Shawnee and Douglas.

RESULTS.

EASTERN DIVISION.

The light showers in the south half, with the warm days, have been very beneficial, permitting the ground to dry, threshing to resume and corn to mature. In the northern part the heavy rains have been beneficial to growing crops but delayed harvesting and threshing, yet more rain is needed in the extreme northern counties.

Allen county.—Crops fine; oats threshed from ten to thirty-six bushels, wheat from ten to thirty-nine; flax ready to thresh.

Brown.—Threshing in progress; oats yielding from thirty to forty bushels; corn and pastures need more rain; early potatoes a good crop, late very light.

Chase.—Corn fine.

Chautauqua.—Corn has made vigorous growth; haying has commenced.

Cherokee.—Getting dry enough to work; fully one-half the oats ruined, balance unmarketable; wheat badly damaged, also corn on low ground; flax harvest begun.

Coffey.—Threshing and haying in order; grain turning out much better than expected; hay good; corn fine; fruit of all kinds in abundance.

Doniphan.—Good growing week in southern, not so favorable in the northern part.

Douglas.—Crops are growing well with prospect of a big corn crop.

Elk.—Good week for maturing corn and for flax harvest; fruit plenty and of extra quality.

Franklin.—Corn doing finely.

Geary.—Vegetation more luxuriant than for some years; farmers feel sure of good crops of corn, melons, potatoes, etc.

Greenwood.—Corn, the sorghums, potatoes and fruits in fine condition.

Jackson.—Corn trying itself; poor week for haying; millet fine with a large acreage.

Labette.—Early potatoes rotting in the ground; ground still too soft to finish harvesting of oats; threshing from shock in full blast.

Leavenworth.—Early corn considered safe for a large yield; everything growing nicely.

Linn.—Oats all stacked; corn, apples and peaches very promising.

Lyon.—Splendid growing week; early corn about made; plowing for wheat begun.

Marshall.—All conditions favorable; corn has made a wonderful growth.

Miami.—Threshing in full blast; oats making fifty bushels per acre, wheat from ten to twenty, flax eight to twelve.

Montgomery.—Corn and pastures doing nicely; threshing begun again.

Morris.—Corn, millet, potatoes, pastures and apples are in excellent condition and promise an abundant yield.

Nemaha.—Corn and pastures slightly helped by the showers but we need rain to develop the corn.

Osage.—Corn crop in No. 1 condition and the yield promises to be large, as will the hay crop; pastures excellent.

Pottawatomie.—Corn silking and is in fine condition; plowing for wheat begun; second alfalfa crop cut; prairie grass better than for years.

Riley.—Cloudy weather and light rains have made excellent conditions for corn, grass and vegetables.

Shawnee.—Much damage to crops in the Wakarusa bottoms by the extraordinary rainfall of the 18th.

Wabaunsee.—Wild grass fine; early corn insured; threshing delayed.

Wilson.—Good week for maturing corn; early corn in roasting-ear, late tasseling; second crop alfalfa being cut; native grass fine; horn-fly very bad on cattle; tomatoes ripe, gardens fine.

MIDDLE DIVISION.

The hot winds the first of the week damaged corn in various parts of this division, but the fine weather following has largely repaired the damage. Fruit and meadows are generally in very good condition, but more rain is needed in some of the counties.

Barton.—The hot days first of week injured corn some, improved Kaffir corn especially, but these rains are changing appearances.

Barber.—Corn damaged very slightly on the 16th in some parts.

Butler.—All growing crops doing

Phillips.—Corn, potatoes, millet and pastures doing finely; harvest under headway.

Pratt.—The hot winds injured some corn by killing the tassel; wheat and oat harvest about finished.

Republic.—Fine rains last of week helped corn, gardens, etc., greatly.

Reno.—Corn needs rain very much and the rains last of week were very beneficial.

Rooks.—Corn and millet fine.

Rush.—Wheat going into stack in good shape; corn, sorghum and millet doing finely, but more rain needed.

Russell.—Hard week on corn but the rains last of week very beneficial.

Saline.—An immense corn crop is promised.

Sedgwick.—Corn maturing finely.

Smith.—Corn splendid; oats a light crop; potatoes good with a large acreage; sorghum and millet fine.

Stafford.—First days of the week very injurious, but the last days will make most of the corn safe.

Sumner.—Splendid growing weather and corn is fine.

Washington.—Early corn in bad condition on account of hot winds, late corn all right; oats yielding ten to thirty bushels.

WESTERN DIVISION.

The first part of the week was hot and brought the small grains forward for the harvest which is now on. The rains of the last days were needed, and as a result of the week's weather, all crops now generally in fine condition.

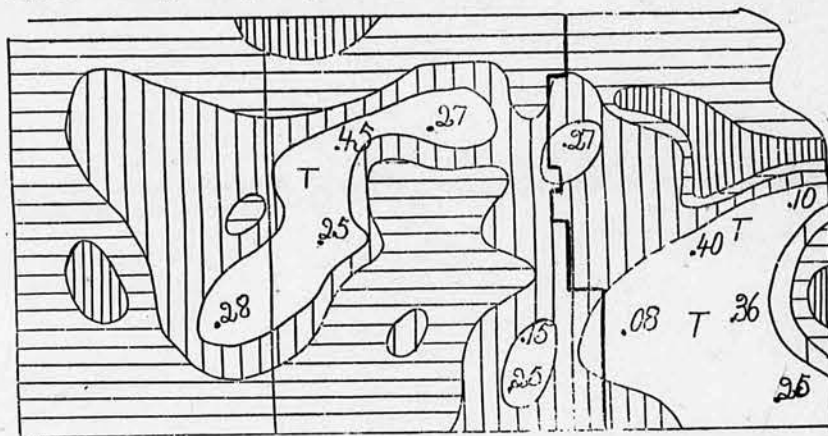
Clark.—Conditions favorable.

Decatur.—A great week for crops; wheat harvest began 15th.

Ford.—All crops in good shape; corn and oats never looked better; much wheat not cut yet.

Gove.—Good corn weather; wheat ripening.

Graham.—Crops continue in good condition.



Scale of shades less than 1/2 1/2 to 1 1 to 2 over 2 T Trac

ACTUAL RAINFALL FOR WEEK ENDING JULY 20.

well with finest kind of growing weather.

Clay.—Oats harvested in good condition; corn excellent, could not be better; grass and pastures good.

Cloud.—Hot winds on 16th; early corn in northern part of county badly injured, in southern it is all right; late corn all right.

Comanche.—Corn generally in roasting-ear; all spring crops in first-class condition; acreage large.

Cowley.—Good week for corn, potatoes, etc.; the last cutting of alfalfa better than the first.

Dickinson.—This rain has revived and put new life into a corn crop that was almost given up; some fields are dead, but the rain assures much of the early corn and gives the late another chance.

Ellsworth.—The hot days first of week wilted corn, but the rains have placed it in best possible condition.

Harper.—Elegant week on growing crops; corn, cane, millet, etc., are in best of condition; too wet for small grains in stack.

Harvey.—Cane and grass never better at this time of year; fruit of all kinds in abundance.

Kingman.—Hot winds first of week were telling on crops but the rains following are making crops and people feel good, though oats have rusted some.

Kiowa.—No hot winds; corn and the canes doing well, with best prospect we ever had for corn.

Lincoln.—Early corn doing well, late corn needs rain.

Marion.—Good growing week; corn crop never better.

Mitchell.—All crops making rapid progress in northern part but needing rain in southern part of the county.

Osborne.—Hot first of week, cooler and wet last days; excellent for corn.

Ottawa.—Corn in good condition generally, late corn will soon need rain.

Gray.—All kinds of crops are growing well; harvest in full blast.

Kearney.—All crops doing remarkably well; market well supplied with home-grown fruits.

Lane.—Good growing week; corn doing well; harvest just beginning.

Logan.—Small grain ripening, harvest begun.

Meade.—Corn never was better; a little wet for harvesting.

Ness.—Harvest progressing satisfactorily; corn and other spring crops excellent.

Norton.—Crops generally good.

Rawlins.—Corn fine, early planting in silk; harvest will commence next week.

Seward.—Crop prospects very encouraging.

Sheridan.—Winter wheat is ripe; spring grains filling out fine; corn, potatoes, broomcorn, sorghum and millet excellent.

Stanton.—Late rains have developed some wheat thought to be a failure; late crops in fine condition.

Thomas.—Fine growing week; corn beginning to tassel; harvest has begun.

Trego.—Late crops of corn and cane making rapid growth; potatoes and cabbage yielding well.

Wallace.—Harvest is on; wheat turning out better than expected; oats and barley good berry; corn, potatoes and gardens needing rain.

Wichita.—Crops need rain.

"Among the Ozarks,"

the Land of Big Red Apples, is an attractive and interesting book, handsomely illustrated with views of south Missouri scenery including the famous Olden fruit farm of 3,000 acres in Howell county. It pertains to fruit-raising in that great fruit belt of America, the southern slope of the Ozarks and will prove of great value, not only to fruit-growers, but to every farmer and home-seeker looking for a farm and a home. Mailed free. Address,

J. E. Lockwood, Kansas City, Mo.

Horticulture.

BRINGING FRUIT TREES INTO BEARING.

Joseph Meehan, of Pennsylvania, discusses the subject of bringing fruit trees into bearing in the following common-sense way:

"It is a provoking thing to have a fruit tree of large size which does not bear fruit. It sometimes happens this way when a tree is growing in exceedingly fertile soil. It rejoices in the enrichment it finds, and makes a prodigious wood growth, but sets no flower buds. There is a time for this growth to stop, and if it does not do so man is justified in interfering and using his knowledge to bring about the desired object. It is not at all uncommon to find persons surprised when told that their fruit trees are growing too freely to fruit well. They cannot understand that a young tree growing freely has not at its command the wherewithal to make both strong growth and bear fruit. Young trees set in rich soil will be longer coming into bearing than similar trees in poor soil. The general impression is that trees are better conditioned and longer lived when in soil of moderate fertility, and this impression is probably correct. The growth is then moderate and fruit-bearing comes at the proper time, neither too early nor too late.

"When it happens that fruit trees are certainly beyond the age and size at which fruit might reasonably be looked for, and no signs of it are visible, it is as well to take them in hand to bring about fruitfulness. As too rapid a growth is the cause of the trouble, to check this growth must be the object, and this is done by root-pruning. I have seen the Seckel pear, a notoriously slow sort to come into bearing, made to flower profusely by root-pruning. If we take a Bartlett pear tree as an illustration, a tree growing fairly well should commence to bear in four years. A few pears are generally borne by that time. After this a few more appear every year, until at eight to ten years we get trees bearing perhaps a bushel of pears each. If this kind of tree should grow strongly for eight years with no signs of blossoms, I should be much inclined to give it a hint to commence. This is done in this way: A trench is commenced to be dug around the tree and continued until two or three strong roots are met with. These are cut in two. It would be better to cut one on opposite sides of the tree if practicable, but it is not important. This cutting of the roots lessens the supply of sap, and following the regular law the checking of the growing force throws the tree into the production of flowers. In my younger days I have seen gardeners recognize the rule and apply it the other way. My first year in the garden was when a boy of twelve years of age. The gardener was an enthusiastic grower of fuchsias for exhibition. Left to themselves, after a certain amount of growth was made, they would form and expand flower buds. If these buds appeared before the time set for exhibition, they were pinched out as fast as seen. As the plants are thus thwarted in flowering, they set to work to make more growth, to produce more buds. In this way my old preceptor got larger plants than he would have done had he not pinched off the flower buds. When once the principle is understood, it is not impossible to have the flowering and fruiting of plants and trees somewhat under control.

"I do not know that it matters much at which season of the year we cut the roots, spring or fall. I would not do it in the midst of its growth.

"While on the topic of the fruiting of trees let me add that I have seen many trees ruined by bearing too early. Many a time have I seen apple trees which perhaps were set in poor soil, and which, as a consequence, bore early, killed outright by being permitted to bear large crops of fruit. It is evidence of starvation in some form when a very small tree is loaded down with fruit. Sometimes it is poor soil, sometimes some injury to them by being barked, or it may be infested by

borers. Any of these causes checks growth and brings about flowering and fruiting. What should be done in this case is to pick off the fruit, all or nearly all of it, and set to work to remedy the poor growth. If it seems to be the soil which is to blame, enrich it. Heap on manure. Fork it in about the roots and let some lie on top as a mulch. Should the bark have been knocked off, paint the wound that rot of the wood may not set in.

"Borers often cause early fruiting, they so weaken the tree by their work. Hunt for them until they are found and killed, and afterwards, twice a year, in June and September, go over the trees and see that no more have found lodgment.

"What has been said so far in this article must be understood as applying to standard trees. Dwarf trees are, of course, dwarfed in order to get fruit earlier, and in this part of the country, at least, the dwarf is planted to give fruit until the standard comes on a little later. Hence, the dwarf is generally let bear as soon as it will. Both the dwarf apple and the dwarf pear need great watching. The borer is their great enemy and very soon makes an end of their lives if not closely watched."

Bordeaux Mixture for Grasshoppers.

The question of how to deal with the native grasshopper is a serious one at times. It is stated that some disease is now taking them off, but their presence in large numbers has been sufficiently recent to maintain a lively interest in any means for preventing their ravages. It seems practicable to protect at least gardens, truck patches and orchards by spraying. The Vermont Experiment Station reports as to potatoes as follows:

"Applications of Bordeaux mixture were given to the potato plants, but owing to the dry season but little disease was noticed. There were, however, severe ravages of grasshoppers and flea beetles. The use of the usual insecticides seemed to have little effect, but it was noticed that those plants which had been sprayed with Bordeaux mixture escaped serious injury. From the treated plants an increased yield over the check plots was secured, due no doubt to the combined fungicidal and insecticidal effect of the Bordeaux mixture. The author thinks he is warranted in recommending the use of Bordeaux mixture on either early or late varieties of potatoes during either a wet or dry season. Paris green may be added to the mixture for the destruction of the Colorado beetle."

Prevention of Potato Scab.

In a recent bulletin of the New Jersey Experiment Station is described a series of experiments with potatoes, an effort being made to prevent scab by the use of different strengths and methods of application of corrosive sublimate and Bordeaux mixture. In the cultural belts the plants were sprayed for the prevention of leaf diseases, but so little disease was present on the checks as to render these experiments of little value. At harvest the tubers were weighed and the weight of sound and scabbed potatoes ascertained. The author's conclusions as to the value of the treatment, as shown by his experiments are, as follows:

"Potatoes soaked in, and sprayed in the open rows with, quarter-strength corrosive sublimate gave a larger yield and a lower per cent. of scab than did either of the belts treated with half and full-strength solutions of the same compound. Similar results followed the treatment of seed potatoes with quarter-strength Bordeaux mixture.

"Although there was but little apparent difference in value between corrosive sublimate and Bordeaux mixture, on account of its being more easily prepared, and as it is of a uniform strength throughout admits of a much greater quantity of potatoes being treated at one time than does the Bordeaux mixture, which soon settles unless stirred.

"The cutting of the 'seed' before soaking in Bordeaux mixture, showed very emphatically the importance of

"THE ONLY SUCCESS."

The McCormick Corn Binder

LIGHT DRAFT—CLEAN WORK—SQUARE-BUTTED BUNDLES



Chas. McKissick, Supt. "Mayville Farm," Mayville, N. Dakota, says:

"It solves the question of handling corn."

Wm. E. Dana, East Avon, N. Y., says:

"I cut 2 1/2 acres of corn ranging in height from 3 to 14 feet."

P. F. Huntley Jr., Le Roy, Minn., says:

"Just what is wanted in corn districts."

A. S. Cotton, Manager "Sanitarium Farm," Clifton Springs, N. Y., says:

"Cuts and binds all corn—slightly lodged and tangled, as well as standing. Have tried many corn harvesters. The McCormick is the only success."

N. H. Leonard, Spring Valley, Minn., says:

"Binds the corn in great shape, with nice square butts for shocking."

Levi Wambaugh, Waterloo, Iowa, says:

"It works well and to my entire satisfaction."

J. R. McCullough, Solomon City, Kan., says:

"Two men and two horses can cut, bind and shock 12 acres a day."

John L. Taylor, Owego, N. Y., says:

"I cut 50 acres of ensilage corn (some of it very heavy). It is a machine which all ensilage growers must have."

Manufactured by McCORMICK HARVESTING MACHINE CO., CHICAGO.

applying the fungicide to the uncut potatoes and preparing them afterwards for planting."

Benton county, Arkansas, will hold its first annual fruit fair, at Siloam Springs, on August 15, at which time there is to be a reunion of Kansas and Nebraska settlers.

The Missouri State Horticultural Society has decided to make a grand showing of fruits at St. Louis this fall in the exposition building, commencing September 3 and continuing to October 9.

Hon. J. B. McAfee, who has a fine orchard near Topeka, from which he has for many years realized profitable returns, furnishes the following as the list he would select if he were planting a new orchard of 1,000 trees: 100 Lowell, 100 Grimes' Golden Pippin, 100 Jonathan, 200 Rawle's Genet, 50 Wine-sap, 50 Striped Sweet Pippin, 150 Ben Davis, 50 Maiden's Blush, 50 Red Romanite, 100 Missouri Pippin, 50 Red June.

A Matter of Economy.

It has come to our knowledge that the leading farmers and poultry-raisers of the country have adopted Neponset Red Rope Roofing Fabric as a means of great economy; it is so handy for emergencies, to repair a leak or shut out a draft. It is very much cheaper than shingles or clapboards. The makers, F. W. Bird & Son, East Walpole, Mass., will send a full line of samples free; all our readers should get the samples.

Homes for the Homeless.

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

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

Here's a Chance to Make Money!

I have worked hard all my life and never had a streak of good luck till the past year, and I think my experience may be beneficial to many others. I have cleared more than \$20 a day for over a year selling Climax Dish-washers, and I think any man or woman can do as well as I have, if they only will, as I had no experience. It don't take long to get rich clearing \$20 a day. Every family wants a dish-washer, and you can sell them at home; no canvassing. That is why a lady can do as well as a man. I put a notice in the papers, and people send after the washers. The Climax is far superior to any other dish-washer. Everybody knows of the Climax now. For particulars address the Climax Manufacturing Co., Columbus, O., and they will start you in business if you will only push.

A READER.

"Holdfasts."

The exhibition of "Holdfasts" by the Tie Co., of Unadilla, N. Y., at the recent Sportsmen's Exposition, at Madison Square Garden, New York, gave a new idea to tradesmen and the casual visitor. "Holdfasts" are to a string or rope what a buckle is to a strap. They tie automatically. The "Holdfast" may be

briefly described as a piece of steel wire so bent that when a string or rope is drawn through it is automatically fastened. It is a most ingenious and simple invention and the variety of its uses is almost limitless. It gives the farmer a practical corn binder of so little cost that it can be used on every shock, and they will last a lifetime. Shoe manufacturers putting it on a shoe must find an increased demand for their product. For hammocks, wash lines, shawl-carriers, filing papers, tent ropes, tennis nets, horses' tails, etc., it is unquestionably the best thing ever devised. All practical farmers should send to them for circulars. Address Tie Co., Unadilla, N. Y.

The Knights Templar Conclave will be held at Boston, Mass., during August, and it will be of interest to Sir Knights and their friends to note that arrangements have already been successfully accomplished by the Nickel Plate Road, providing for the sale of excursion tickets over direct lines going and returning or by circuitous routes, viz., going one line and returning by another. By so doing many of the following notable resorts may be visited without additional expense: Chautauqua Lake, Niagara Falls, Thousand Islands, Rapids of the St. Lawrence, Saratoga, Palisades of the Hudson, and the Hoosac Tunnel. The above arrangements will no doubt make the low-rate excursion tickets offered by the Nickel Plate road very popular. Call on or address J. Y. Calahan, General Agent, 111 Adams St., Chicago. 76

Invited to send for my latest price list of small fruits. Half million strawberry plants, 300,000 Progress, Kansas and Queen of West raspberry plants. B. F. Smith, Box 6, Lawrence, Kas. Mention this paper.

A. H. GRIESA, Prop'r Kansas Home Nurseries, Lawrence, Kas., grows trees for commercial and family orchards—the Kansas Raspberry, Blackberries, standard and new Strawberries—also shade and evergreen trees adapted to the West.

Grimson Clover. Western headquarters. The largest stock. Indiana grown seed. We have just printed an exhaustive treatise on this crop. Every farmer should read it. Sent free. J. A. Everett, Seedman, Indianapolis, Ind.

ESTABLISHED IN 1873.

WILLIS NURSERIES.

Offers for fall of 1895 large stock, best assortment. Prices low. Stock and packing the best.

We should be glad to employ a few reliable salesmen. Address

A. WILLIS, Ottawa, Kansas.

[When writing mention KANSAS FARMER.]

FRUIT EVAPORATOR
THE ZIMMERMAN
The Standard Machine
Different sizes and prices. Illustrations and full catalogue from THE BLYMHER IRON WORKS CO., Cincinnati, O.

In the Dairy.

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

For Manslaughter.

The trial of Dairyman Blackham, of Stamford, Conn., will be watched with more than ordinary interest by the public and milk-drinkers. Blackham washed his milk cans in water alive with typhoid fever microbes. Over 400 of his patrons were taken sick and twenty-one of them died. Typhoid epidemics due to similar causes have occurred recently at Springfield, Mass.; Waterbury, Conn.; Montclair, N. Y., and Somerville, Mass. Some 1,600 cases of the disease have resulted in consequence, 250 of them proving fatal.

"Overdoing the Dairy."

Here is a pointer for those farmers who fear to go into dairying for fear the business will be speedily overdone. Dairy products can be increased only as cows are increased. Multiplying creameries and cheese factories will not alone increase the output of butter and cheese; the cow must first be made or bought before the butter or cheese is forthcoming. We used to draw largely from Europe for dairy stock, in fact, nearly all our imports of cattle were for the dairy, but we have now almost entirely cut off that supply. In 1884 we imported 41,283 cattle; in 1892-3-4 we imported, all told, only 576! We are now depending upon ourselves alone to increase our dairy stock, and it will be no easy matter to increase it as fast as the probable growth of our population.

What He Would Do if He Were Young.

Waldo F. Brown, of Ohio, the well-known agricultural writer, tells in the following how he would manage if he was a young man on a dairy farm:

"If I were a young man and able to work hard, I should run as large a dairy as the farm would furnish rough feed for, and buy most of my grain, and I would try to dispose of the cream, or engage butter at paying prices so as to keep the milk at home to be fed to calves and pigs, and I am satisfied that I could double the profits from my farm and improve it rapidly, for we should have large quantities of the richest manure and could make all the land that we cultivate very rich. But it seems to me that a man of my age (63) out of debt, and able to live comfortably, with a reasonable degree of economy, owes it to himself not to be obliged to work hard every day and be tied up at home as I should be with a dairy, and so I am satisfied with moderate success on the farm, and to leave the young men the privilege of pushing out and showing what the farm is capable of even in hard times.

"There are so many specialties in farming nowadays that there is a place for energetic men on the farm, and a better chance for success than in most other callings. The farmer is not likely to become a rich man, but on the other hand he is in very little danger of bankruptcy."

The Defeat in Illinois.

Much to the disappointment of the friends of honest butter, the oleo bill failed to pass the Illinois Legislature. It passed the House by an overwhelming vote of 166 to 19, and went to the second reading in the Senate, but was finally killed by the duplicity of the manufacturers of bogus dairy products. Twenty-two of the States of the Union have enacted laws similar to the one which has been defeated in Illinois. So far as our memory serves us, the only States in which defeat in whole or in part has been met by the dairy forces, are those in which the manufacture of oleo is largely carried on—Illinois, Kansas and Missouri. While Missouri has enacted a law forbidding the sale of oleo colored to represent butter, yet with strange impropriety its manufacture is permitted.

The claim is made that the prohibition of coloring means practically a suspension of its manufacture, which at once discloses the character of the

fraud that is permitted. It seems to be pretty well settled that dairymen cannot compete with the fraud single-handed in the oleo-manufacturing States, as the methods resorted to by the combine for securing votes and using the best talent for lobbying will strangle any legislation that may be proposed. It has been done in Kansas, Illinois and Missouri this year, and they will continue to do so unless public sentiment can be awakened that will override any opposition.

Price of Butter in the World's Fair Dairy Test.

Considerable comment has been made in the Western States at the price at which butter was credited in the great World's Fair dairy tests. The scoring by which such butter was judged was done by three experts appointed by Chief Buchanan, and was as follows:

Flavor	55
Grain	25
Solidity	10
Color	10

Total..... 100

The prices for the butter were fixed by Chief Buchanan prior to the tests beginning, and were assented to by all the competing breeds. They were as follows:

That scoring from		
75 to 80 points.....	25	cents per pound.
80 to 85 "	30	" "
85 to 90 "	35	" "
90 to 95 "	40	" "
95 to 100 "	45	" "

These prices for butter were reached by Chief Buchanan after very considerable correspondence with the large handlers of butter in New York, Boston, Buffalo and Chicago, and were, according to his judgment, a fair average of the market prices in these cities.

In fixing the price of feed the same regard was given to values in localities, and in the prices reached by Chief Buchanan he took the average prices of the cities before named.

When we consider the character of the feed given the cows, the cleanliness of the stable and cows, the fact that the milk and cream were handled with the object of attaining a high standard, that expert butter-makers were employed in the making of the butter, and that everything that was possible was done to produce an A1 article of butter, I assert that the price of butter as fixed by the World's Fair was too low, not too high. There is too much poor butter on the market, and the object of these tests was as an educator, not only in the production from the cows and the handling of same, but in the making and quality of butter. Such an article as was produced by the World's Fair from seventy-five cows will always command a market at a price in excess of that fixed by Chief Buchanan.

But, granting that the price of butter was, from a Western standpoint, too high, so was the price of feed, and before any deductions can or should be made from the figures as agreed upon in the test a reduction must be made in the price of feed, if one is to be made in the price of butter. It is manifestly unfair that the price of butter should be fixed on a Western standard, unless the feed is also fixed from a like standpoint.—Valancey E. Fuller.

People who have never had the opportunity to eat really good cheese are very easily fooled with filled cheese and skim cheese. We believe in drastic legislation against filled cheese, but we also believe in making more good cheese.

Last winter Senator Manderson achieved unenviable notoriety by taking up the cudgels for oleomargarine. The Nebraska people determined that if he wished to work for oleomargarine it would not be as their official representative, and he will stay at home after this.

The majority of people prefer to feed the cows before milking, as it is found that a good belly full of food puts the animal in a good humor, and the first processes of digestion relax the entire milk-holding tissues, and thus cause a perfect and rapid flow of milk into and from the udder.

ARMSTRONG & McKELVY
Pittsburgh
ANCHOR, Cincinnati.
ATLANTIC, New York.
BEYMER-BAUMAN, Pittsburgh.
BRADLEY, New York.
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MISSOURI, St. Louis.
RED SEAL, St. Louis.
SALEM, Salem, Mass.
SHIPMAN, Chicago.
SOUTHERN, St. Louis and Chicago.
ULSTER, New York.
UNION, "

Quality of Cheese in the World's Fair Dairy Cheese Test.

"While the Jersey cows in the Chicago World's Fair Dairy tests exceeded the Guernseys and Short-horns, their competitors, in the quantity of milk and cheese produced per herd and per head," says Valancey E. Fuller, "it was a matter of surprise to many who were not familiar with this breed to learn of their ability to make a large quantity of cheese per hundred pounds of milk. This test at Chicago has pretty well settled the question as to the value of a milk rich in butter fat for cheese-making purposes, and has quite conclusively demonstrated 'that the solids follow the fat.' I think I was among the first to claim that the Jersey milk was, through its very richness in butter fat, the most desirable for the production of cheese, not only on account of the quality of the cheese produced therefrom, but also from the quantity; and it was especially gratifying to me to have the opinions which I expressed some years ago so amply demonstrated. The oft-told story of the yields of the breeds in milk and cheese has proved conclusively the great victory won by the Jerseys in the cheese test; and inasmuch as all the cheese was scored by experts and the value given by the quality, according to a scale of points fixed by Chief Buchanan, the figures below demonstrate that the quality of the Jersey cheese exceeded that of the other breeds, the average value per pound of cheese being as follows: Jerseys, 13.36 cents per pound; Short-horns, 13.01 per pound; Guernseys, 11.96 per pound."

Deafness Cannot be Cured

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

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

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

Sold by druggists, 75c.

Enclose a stamp to any agent of the Nickel Plate Road for an elaborately illustrated Art Souvenir, entitled "Summer Outings." Address J. Y. Calahan, General Agent, 111 Adams street, Chicago, Ill. 70

With the percentage of potash proportion of
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cheapest paint,
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best possible ba
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lower than ever
list genuine bra

Tint the White
tional Lead Co.'s Pure
for this purpose. Send
It is free.

NA

THE STRAY LIST.

FOR WEEK ENDING JULY 10, 1895.

Phillips county—I. D. Thornton, clerk.
MARE—Taken up by John Van Horn, in Rushville tp., (P. O. Powell), April 29, 1895, one light dun mare, sixteen hands high, weight 800 pounds, star in forehead, wire cut on front leg; valued at \$25.
Neosho county—W. P. Wright, clerk.
PONY—Taken up by Philip Shafer, in Lincoln tp., June 4, 1894, one gray pony mare, sheared, branded on left side and hip; valued at \$12.
Cherokee county—P. M. Humphrey, clerk.
MARE—Taken up by B. G. Jones, in Shawnee tp., June 15, 1895, one dark bay mare, sixteen hands high, 12 years old, both hind and one front foot shod, saddle and harness marks; valued at \$10.
Harvey county—T. P. Murphy, clerk.
MARE—Taken up by Charles Haering, Williams & Gardner's addition to Newton city, June 20, 1895, one black mare, 4 years old, scar on right fore foot, no other marks or brands; valued at \$25.
HORSE—Taken up by Maria D. Miller, of Walton tp., (P. O. Walton), June 5, 1895, one bay horse, collar marks on shoulders, no other marks or brands, MF about fifteen hands high, 9 years old; valued at \$15.

FOR WEEK ENDING JULY 17, 1895.

Miami county—Jas. E. Caton, clerk.
STEER—Taken up by Dr. D. V. Mott, of Fontana, one black three-year-old steer, white face, swallow fork in right ear and underslip in left ear; valued at \$15.
Cherokee county—P. M. Humphrey, clerk.
HORSE—Taken up by George W. Gleer, in Lowell tp., one bay horse, 8 years old, heavy mane and tail, saddle and collar marks; valued at \$20.
MARE—By same, one mare, 5 years old, right hind foot white, had on halter, shod all round, saddle marks; valued at \$20.
HORSE—Taken up by John Longdon, in Lowell tp., July 9, 1895, one yellow-dun gelding, branded B on left jaw, H.L. on left shoulder and H.A. on left hip, weight 1,100 pounds.
Crawford county—Peter McDonnell, clerk.
MULE—Taken up by Lyman Jones, of Pittsburg, June 25, 1895, one bay mare mule, 10 years old, branded O on right shoulder; valued at \$25.
MARE—Taken up by J. M. Richards, in Baker tp., May 20, 1895, one dark bay mare, fourteen hands high, 8 years old, star in forehead, branded O on left fore and right hind hoof; valued at \$20.
Johnson county—Jno. J. Lyons, clerk.
HORSE—Taken up by H. N. Hodges, in Gardner tp., May 30, 1895, one dark brown horse, fifteen and one-half hands high; valued at \$25.
MARE—Taken up by Darby O. Dar, in Shawnee tp., (P. O. Shawnee), June 29, 1895, one brown mare, fourteen hands and three inches high, white spot on face, branded O 8 on left shoulder; valued at \$20.
FOR WEEK ENDING JULY 24, 1894.
Doniphan county—W. H. Fornbrook, clerk.
STEER—Taken up by D. E. Hale, in Center tp., June 7, 1895, one light red one-year-old dehorned steer; valued at \$15.
Cheyenne county—G. A. Beukelman, clerk.
HORSE—Taken up by H. D. Bacon, in Jefferson tp., (P. O. Bird City), June 19, 1895, one bay gelding, 2 years old, white star in face; valued at \$15.
MARE—By same, one mouse-colored roan mare, 3 years old, no marks or brands; valued at \$15.
Linn county—Jno. J. Hawkins, clerk.
HORSE—Taken up by J. T. Tipton, in Lincoln tp., one dark bay horse, sixteen and a half hands high, left hind foot white, difficulty in left hip; valued at \$20.
Wallace county—Hugh Graham, clerk.
MARE—Taken up by C. F. Harris, in Wallace tp., (P. O. Sharon Springs), June 29, 1895, one bay mare, left hind foot white; valued at \$20.
MARE—By same, one bay mare, right hind foot white and white stripe in face, had halter on when taken up; valued at \$20.
MARE—By same, one bay mare, white stripe in face; valued at \$20.

HENRY W. ROBY, M. D., SURGEON.

Office 118 Sixth Ave. West, TOPEKA, KAS.

Patented
as a domestic self-regulating standard, w
others believe it would simply change the
standard from one metal to another. There
is no such uncertainty in regard to the fence
standard. The Coiled Spring remains the
universal unapproachable self-regulator, for
farm, railroad, and park purposes. If ELAS-
TICITY can do for the currency what it has
done for The Page, there'll be no opposition.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

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Apparatus and Supplies.

BUTTER PACKAGES of every kind.

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For Small
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Farmers.

Every farmer having six or more milch cows should have one of these machines—the saving of butter alone in a single year will pay for it. For information, prices, etc., address

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Department B.
Kansas City, Mo.

writer's special attention to two unique features of his order, which are as follows:

First.—Its beneficiary certificates cannot exceed \$2,000 on any one life. It cannot be made burdensome to a member or to the order. It takes in a man and his wife and unmarried daughters or sons over sixteen years of age for one membership fee; and where the beneficiary is divided into two or more parts, one assessment carries all the certificates.

Second.—It provides as well for everyday life and old age as well as for the widows and orphans or dependents at death, in this, that it provides for accident insurance of from \$500 to \$5,000, and indemnity from \$5 to \$25 per week; paying one-half of any accident or life certificate in case of total disability, while old age is carefully provided for, and the annoyance of never-ending assessments being prevented through the reserve fund, which is created by one-tenth of all moneys paid into the beneficiary fund, which, after fifteen years' accumulations of interest, etc., is used to pay the assessments of all members who have been in the life class fifteen or twenty years. In other words, each member gets a paid-up life policy at the end of fifteen or twenty years' continuous membership, his assessments being paid for him from this reserve fund, thus guaranteeing a perpetuity of the order.

The general offices of this order are at the Telephone building, Kansas City, Mo., where any information desired can be had by addressing Hon. S. H. Snider, the Secretary, who is well known throughout the West as late Commissioner of Insurance of the State of Kansas.

Education is the apprenticeship of life.—*Willmott.*

No Change to Chicago.

The through service offered the traveling public by the Union Pacific system and Chicago & Alton railroad is unsurpassed. The Perfect Passenger Service of the C. & A. with the well-known excellence of the service of the Union Pacific assures the traveling public that they "are in it" when they patronize this popular joint line from Denver to Chicago and intermediate points. Pullman Palace sleeping cars, dining cars and free reclining chair cars without change.

For all information apply at 525 Kansas Avenue. F. A. Lewis, City Agent, Topeka.

That Trip East

May be for business or pleasure, or both; but pleasure comes by making a business of traveling East over the Santa Fe Route as far as Chicago.

Thirty miles the shortest line between Missouri river and Chicago; that means quick time and sure connections.

Track is straight, rock-ballasted, with very few crossings at grade.

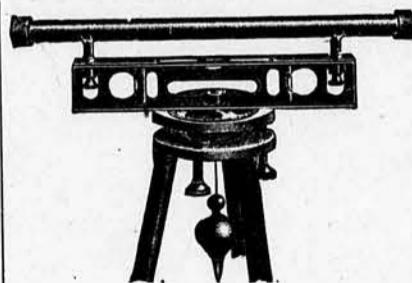
No prettier, cozier, or more comfortable trains enter Chicago than those over the Santa Fe. They are vestibuled limited expresses, with latest pattern Pullmans and free chair cars. Meals in dining cars served on plan of paying for what is ordered.

Inquire of nearest agent, or address G. T. Nicholson, G. P. A. Santa Fe Route Monadnock building, Chicago, or W. J. Black, A. G. P. A., Topeka, Kas.

One dollar and sixty-five cents will pay for the KANSAS FARMER and the twice-a-week New York World. Everybody should read.

Leveling Instrument.

In laying off land for irrigation, a matter of first importance is to determine the levels. The KANSAS FARMER has desired to offer its patrons a reliable, low-priced instrument for this purpose, and has finally secured the one herewith illustrated. It is



manufactured by L. S. Starrett, a well-known and reliable manufacturer of fine mechanical tools at Athol, Mass., who warrants it to be true in every respect.

The price of the instrument is \$12.50 at the factory. By a special arrangement we are able to furnish it to subscribers, together with a year's subscription to the KANSAS FARMER, delivered at any express office in Kansas, charges prepaid, at the manufacturer's price. Send orders with money to KANSAS FARMER Co., Topeka, Kas.

List of Kansas Fairs.

Following is a list of fairs to be held in Kansas during the present year, their dates, locations and Secretaries, as reported to the State Board of Agriculture and furnished to the public by Secretary F. D. Coburn:

Allen County Agricultural Society, O. L. Whitaker, Secretary, Iola, September 11-13.
Allen County Fair and Moran Driving Park Association, H. P. Smith, Moran, August 20-23.
Anderson County Fair Association, M. L. White, Ganett, September 3-6.
Brown County Exposition Association, C. H. Lawrence, Hiawatha, September 10-13.
Chase County Agricultural Association, J. P. Kuhl, Cottonwood Falls, September 10-13.
Clay County Fair Association, J. J. Marty, Clay Center, (no date set).
Coffey County Fair Association, J. E. Woodford, Burlington, September 9-13.
Cowley County Fair and Driving Park Association, A. C. Bangs, Winfield, September 24-27.
Crawford County Agricultural Society, John Viets, Girard, August 27-30.
Finney County Agricultural Society, D. A. Mims, Garden City, September 25-28.
Franklin County Agricultural Society, C. H. Ridgeway, Ottawa, September 17-20.
Franklin County District Fair Association, J. J. McCabe, Lane, (no date set).
Jackson County Agricultural and Fair Association, S. B. McGrew, Holton, September 30, October 4.
Jefferson County Agricultural and Mechanical Association, George A. Patterson, Oaklawn, October 11-13.
Johnson County Co-operative Fair Association, C. M. Dickson, Edger, on September 10-13.
Johnson County Fair Association, W. T. Pugh, Olathe, August 27-31.
Linn County Fair Association, Ed. R. Smith, Mound City, October 1-4.
Marion County Agricultural Society, Manly I. Hill, Peabody, September 25-27.
Miami County Agricultural and Mechanical Association, Geo. P. Leavitt, Paola, September 24-27.
Montgomery County Agricultural Society, D. W. Kingsley, Independence, September 17-20.
Morris County Exposition Company, E. J. Dill, Council Grove, September 24-27.
Nemaha Fair Association, John Stowell, Seneca, September 3-6.
Neosho County Agricultural Society, H. Lodge, Erie, September 3-6.
Neosho County—The Chanute Agricultural, Fair, Park and Driving Association, R. C. Rawlings, Chanute, August 18-16.
Ness County Fair Association, Sam G. Sheaffer, Ness City, October 10-13.
Osage County Fair Association, E. G. Pipp, Burlingame, (no date set).
Osborne County Fair Association, M. E. Smith, Osborne, September 24-27.
Riley County Agricultural Society, H. A. Ames, Riley, August 10-13.
Rooks County Fair Association, I. N. Pepper, Stockton, October 3-5.
Saline County Agricultural and Horticultural Association, Samuel Carlin, Salina, (no date set).
Sedgwick County—Kansas State Fair, W. R. Hewey, Secretary, Wichita, October 1-5.
Wilson County Agricultural Society, C. R. Cantrall, Fredonia, September 10-13.

A friend out at Coronado, who undoubtedly is intensely in earnest on the question of temperance, writes to the KANSAS FARMER the following: "God was very angry with his people because they learned of the heathen to sacrifice their sons and daughters unto devils and to burn them unto idols. Yet they were not so bad as our American nation, which sacrifices its sons and daughters, soul and body, to the saloon god for 'revenue only.' Yet our authorities claim that they must have this blood money to make roads and sidewalks. Would it not be better to walk on the plain earth than on our children's blood?"

Interesting circulars sent to farmers. Send name to Bureau of Immigration, Spokane, Wash.

Summer Tours.

You can get more for your money in the sure return of health and enjoyment at any of the many resorts on the Union Pacific System than anywhere else on this continent. See your nearest Union Pacific agent. Summer tour tickets on sale to September 30.

F. A. Lewis, City Ticket Agent, Union Pacific System, 525 Kansas Avenue, Topeka, Kas.

A NEW BOOK FREE

It has 128 pages, is printed on fine book paper, it has hundreds of illustrations—wood cuts, zinc etchings. Its reading matter is interesting, as much so for a man as a woman, and the children also are not neglected.

The mere sitting down and writing for it will secure it for you FREE. Do you want it? If so, send your name and address to

EMERY, BIRD, THAYER & CO.

Successors to

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KANSAS CITY, MO.

Waterproof:

Vacuum Leather Oil, if freely applied. Get a can at a harness- or shoe-store, 25c a half-pint to \$1.25 a gallon; book "How to Take Care of Leather," and swab, both free; use enough to find out; if you don't like it, take the can back and get the whole of your money.

Sold only in cans, to make sure of fair dealing everywhere—handy cans. Best oil for farm machinery also. If you can't find it, write to

VACUUM OIL COMPANY, Rochester, N. Y.

A CHANCE TO MAKE MONEY.

I have berries, grapes and peaches a year old, fresh as when picked; I use the California cold process; do not heat or seal the fruit; just put it up cold; keeps perfectly fresh, and costs almost nothing; can put up a bushel in ten minutes; last week I sold directions to over 100 families; any one will pay \$1 for directions when they see the beautiful samples of fruits. As there are many poor people like myself, I consider it my duty to give my experience to such, and feel confident that any one can make \$100 or \$200 around home in a few days. I will mail sample of fruit in a case and complete directions to any of your readers for eighteen 2-cent stamps, which is only the actual cost of the samples, postage, etc., to me.

MRS. A. M. CURTIS, 606 Chestnut St., Englewood, Ill.

It is Not Paradise, But—

If you have some cash to spare and are willing to work, financial independence cannot be more surely secured than by buying a few acres of irrigated land in Salt River Valley.

This valley is in Southern Arizona, and is noted for its fine semi-tropical fruits and superior climate. Horticulturists say that greater profits can be realized here from oranges and grapes than in Florida or California. Physicians assert that the warm, dry, bracing climate excels in healing qualities Italy's balmy air. The great blizzard of 1895 did not blight the tenderest leaf in this protected spot.

To get there, take Santa Fe Route to Phoenix, A. T., via Prescott and the new line, S. F., P. & P. Ry. Address G. T. Nicholson, G. P. A., Monadnock Building, Chicago, for illustrated folders. They tersely tell the story of a remarkable country. Actual results are given—no guess-work or hear-say.

It is the Salt River Valley.

GET THE BEST

The best is none too good. DR. KAY'S RENOVATOR is the best, safest and most effective family medicine known for renovating and invigorating the whole body. It increases the appetite, promotes digestion, will make you gain in flesh, renew your blood and prevent your having a run of fever if you will take it in time. Delays are dangerous. If you would guard against fever, so prevalent at this time of year, take at once DR. KAY'S RENOVATOR. It removes the cause and you get fat and healthy, instead of languishing with fever. It cures dyspepsia, liver disease, constipation, etc. If your children's breath smells bad and they have a poor appetite, etc., it is unsafe to neglect them. Give at once the RENOVATOR, a part of a tablet half an hour before each meal, and it will restore them to health in a few days. Always keep it in the family and by its prompt use thousands of lives will be saved, and many a doctor's bill as well.

A

in flesh, renew your blood and prevent your having a run of fever if you will take it in time. Delays are dangerous. If you would guard against fever, so prevalent at this time of year, take at once DR. KAY'S RENOVATOR. It removes the cause and you get fat and healthy, instead of languishing with fever. It cures dyspepsia, liver disease, constipation, etc. If your children's breath smells bad and they have a poor appetite, etc., it is unsafe to neglect them. Give at once the RENOVATOR, a part of a tablet half an hour before each meal, and it will restore them to health in a few days. Always keep it in the family and by its prompt use thousands of lives will be saved, and many a doctor's bill as well.

A REMARKABLE CURE.

OMAHA, NEB., July 3, 1895.

Dr. B. J. Kay Medical Co., Omaha, Neb.: GENTS:—I had been feeling very bad for over a month, due, so my physicians said, to the change of life. I was all run down and all tired out; confined to my bed most of the time, terrible pain in my stomach and bowels which would seem to extend down into my limbs and feet. Several doctors said I had cancer of the stomach; I would bloat up and belch gas from the stomach which would leave a very bad taste in my mouth; I was terribly nervous and despondent; I had hot flashes and could not sleep nor eat and cared not whether I lived or died, as I longed to be at rest; I had severe pain in my right side and could not go to sleep on that side, but had to lie mostly on my back. I commenced taking your Dr. Kay's Renovator and I felt better right away. The cancer of the stomach has disappeared; I have no more belching of gas and no more bloat; am eating and sleeping well and feeling better than I have for years, and I feel that it is all due to your Dr. Kay's Renovator. It has done me more good than all the other medicines I have ever taken.

MRS. IDA GILMORE, Lorenzen Block, Second Floor.

Send for a circular. Sold by druggists or sent to any address on receipt of price. Trial size, 25 cents, for thirty-five doses, or \$1.00 for 180 doses. Address DR. B. J. KAY MEDICAL CO., 620 South Sixteenth St., OMAHA, NEB.

TANSY PILLS! ALL DRUG STORES. SAFE AND SURE. SEND 4c. FOR WOMAN'S SAFE GUARD. WILCOX SPECIFIC CO., PHILA., PA.

Modern Life Insurance.

For many years the "old line" life insurance companies have had their own way and have amassed a great amount of wealth and built up strong financial institutions because of the splendid margins put up by policy-holders, but since business in general has got down to a gold standard basis, the fraternal insurance companies, which insure at a living margin above actual cost, have become more popular and have greatly reduced the cost to policy-holders.

Among these late modern institutions is that of the Knights and Ladies of the Fireside, of which Mr. Ellsworth Magee is the Supreme President, who recently met a FARMER scribe and very graciously gave detailed information of the success of this fraternal beneficiary order and the cordial reception the order was meeting with everywhere it was introduced. Mr. Magee is an experienced and successful insurance man and gave up a lucrative position as State Agent for the Kansas Mutual Life Association to accept the Presidency of the Knights and Ladies of the Fireside. Supreme President Magee called the

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any information in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the KANSAS FARMER. Give age, color and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. Sometimes parties write us requesting a reply by mail, and then it ceases to be a public benefit. Such requests must be accompanied by a fee of one dollar. In order to receive a prompt reply, all letters for this department should be addressed direct to our Veterinary Editor, DR. S. C. ORR, Manhattan, Kas.

CHICKENS DYING.—Please tell me what to do for my chickens. They appear to get sick without cause and soon die. I can find no vermin on them. Slimy water ran from the mouth of one. They run at large and are not fed any grain. W. K. Delavan, Kas.

Answer.—As you give no symptoms it is impossible to say what the disease is. Your chickens may have cholera. Give a better description of the case.

LUMP IN TEAT.—One of my cows has a lump high up in one of her teats. She just calved four or five days ago and I can only milk the teat with great effort, and it is very painful to the cow. What can I do for it? L. L. Elk, Kas.

Answer.—When the cow is dry the lump can be removed by a surgical operation, but it is not advisable to attempt it while the cow is giving milk, as it would be almost impossible to get it to heal with the milk flowing through it.

DIABETES.—I have a horse that urinates six or seven times in half a day and in too great a quantity. He is a good feeder, drinks freely and keeps in good flesh. Is there anything the matter with him? D. T. Vidette, Kas.

Answer.—Your horse probably has diabetes in a mild form. Take iodine crystals, 1 ounce; iodide of potassium, 4 drachms; water, 12 ounces; mix. Give one ounce in a pint of water twice a day for two days, then give it once a day till done, unless the urine is checked sooner.

POLL-EVIL.—I have a four-year-old mare that has a swelling on top of her head. What can I do with it? El Dorado, Kas. C. F.

Answer.—Your description of your case is a good one but it is too lengthy to give in full. There is no doubt that your mare has the poll-evil, and I will give you a remedy that I have used for the last year and found the most successful as well as the most simple of any I have ever used. Take pure kerosene or coal oil and apply freely all over the enlargement twice a day for a few days, until the skin is sore, then once a day or just often enough to keep it sore. If you think there is pus in the lump, open it and then inject the coal oil into it every time you apply it on the outside. This may seem too simple a cure to be of any value, but I have tried it thoroughly and I believe it will cure any case that can be cured by any other treatment if it is continued long enough.

Chicago Horse Market.

Horse salesmen at Union stock yards report light receipts with a good inquiry for all the better grades of horses. The foreign trade is said now to be a very important feature of the market, a large number of horses being shipped to Europe weekly. Prices are not quite as high as they were in May and June, but decidedly better than they were before and immediately after July 4. Eleven hundred to 1,400 pound chunks, if good quality, and first-class heavy blocks are first in demand. Smooth, toppy drivers are sought for at fair prices, and common stock is ready sale but at rather low prices. They quote:

Expressers and heavy drafters.....\$ 80 to \$175
1,100 to 1,400-pound chunks..... 85 to 115
Streeters..... 85 to 85
900 to 1,100-pound chunks..... 80 to 80
Coachers and fast road horses..... 110 to 300
Ordinary drivers \$65 and upward.

These prices are for sound horses, 5 to 8 years old, well broken and in good flesh. They expect a brisk trade during the coming week.

"Have tried others, but like Ayer's best" is the statement made over and over again by those who testify to the benefit derived from the use of Ayer's Sarsaparilla. Disease never had a greater enemy than this powerful blood-purifier. It makes the weak strong.

MARKET REPORTS.

Kansas City Live Stock.
KANSAS CITY, July 22.—Cattle—Receipts since Saturday, 7,800; calves, 825; shipped Saturday, 1,147 cattle, 96 calves. The market was steady to a little lower. The following are representative sales:

DRESSED BEEF AND SHIPPING STEERS.
42.....1,506 \$5.37 1/2
20.....1,390 5.30
88.....1,359 4.75
4.....1,400 4.75
20.....1,205 4.60
43.....918 3.60

TEXAS AND INDIAN STEERS.
104.....1,061 \$3.80
7.....907 3.25
154.....950 3.20
85.....770 3.15

WESTERN STEERS.
60 grs.....1,084 \$3.65

COLORADO STEERS.
81.....1,312 \$4.90
41.....1,203 4.15

TEXAS AND INDIAN COWS.
65 half.....733 \$3.25
17.....812 2.55
2.....820 1.90
1.....770 1.90

COWS AND HEIFERS.
4.....1,205 \$3.25
3.....960 3.00
2.....1,180 2.85
1.....730 2.80

STOCKERS AND FEEDERS.
44.....1,156 \$4.30
2.....905 3.75
1.....980 2.65
3.....930 2.20

Hogs—Receipts since Saturday, 3,638; shipped Saturday, 975. The market was 5 to 10c lower.

The following are representative sales:

16.....150 \$5.10
43.....129 5.10
50.....201 5.07 1/2
31.....198 5.05
62.....188 5.00
21.....223 5.00
54.....223 5.00
46.....269 4.90
63.....216 4.90
83.....274 4.85
70.....207 4.85
52.....366 4.80

61.....183 \$5.10
10.....109 5.07 1/2
80.....210 5.05
67.....233 5.05
71.....191 5.00
81.....209 4.97 1/2
21.....214 4.91
29.....231 4.92
34.....264 4.90
29.....274 4.85
35.....324 4.80
31.....226 4.75

101.....274 \$5.10
77.....198 5.07 1/2
73.....202 5.05
78.....214 5.05
64.....193 5.02 1/2
8.....210 5.00
83.....234 4.95
70.....244 4.95
50.....274 4.91
60.....214 4.87 1/2
76.....235 4.85
30.....201 4.83
9.....301 4.40

Sheep—Receipts since Saturday, 2,623; shipped Saturday, 2,517. The market was fairly active and steady. The following are representative sales:

61 lambs.....\$1 \$4.30
705 U. w.....\$3 3.61

83 S. W. l.....\$1 \$3.75
23.....\$4 3.03

Horses—Receipts since Saturday, 82; shipped Saturday, 39. It was a quiet day at the horse and mule market, and the receipts were light.

The supply on hand is limited, but with light demand the trade is easily satisfied. There are a few outside buyers here looking around. The values remain steady.

Chicago Live Stock.

CHICAGO, July 22.—Cattle—Receipts, 14,070; market steady, common to medium weaker; fair to best beefs, \$3.50@3.85; stockers and feeders, \$2.25@3.90; mixed cows and bulls, \$1.75@3.85; Texas, \$2.65@4.00.

Hogs—Receipts, 31,000; market 10@15c lower; light, \$5.05@5.55; rough packing, \$4.80@5.00; mixed and butchers, \$5.15@5.40; heavy packing and shipping, \$5.10@5.40; pigs, \$3.60@5.00.

Sheep—Receipts, 17,000; market 10@25c lower; lambs steady; native, \$2.00@2.40; western, \$2.50@4.00; Texas, \$2.25@3.60; lambs, \$3.00@5.50.

St. Louis Live Stock.

ST. LOUIS, July 22.—Cattle—Receipts, 3,500; market steady; Texas steers, \$2.75@4.25; native steers, \$3.75@5.30; stockers and feeders, \$2.40@3.25.

Hogs—Receipts, 3,500; market 10c lower; heavy, \$5.00@5.40; mixed, \$4.90@5.40; light, \$5.30@5.40.

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

Chicago Grain and Provisions.

	July 22	Opened	High'st	Low'st	Closing
Wht.—July....	66 1/2	67 1/2	68 1/2	67 1/2	67 1/2
Sept....	67 1/2	68 1/2	69 1/2	68 1/2	68 1/2
Dec....	70 1/2	70 1/2	71 1/2	70 1/2	70 1/2
Corn—July....	44	45	46	44	45
Sept....	44	45 1/2	46 1/2	44 1/2	45 1/2
May....	35 1/2	35 1/2	36 1/2	35 1/2	35 1/2
Oats—July....	23 1/2	23 1/2	24 1/2	23 1/2	23 1/2
Sept....	22 1/2	22 1/2	23 1/2	22 1/2	22 1/2
May....	25 1/2	25 1/2	26 1/2	25 1/2	25 1/2
Pork—July....	11 10	11 10	11 10	11 00	11 00
Sept....	10 9 1/2	11 3/4	10 7 1/2	11 20	11 20
Jan....	10 7 1/2	11 00	10 7 1/2	11 00	11 00
Lard—July....	6 35	6 35	6 35	6 35	6 35
Sept....	6 40	6 40	6 37 1/2	6 42 1/2	6 42 1/2
Jan....	6 32 1/2	6 40	6 37 1/2	6 40	6 40
Ribs—July....	6 27 1/2	6 27 1/2	6 27 1/2	6 27 1/2	6 27 1/2
Sept....	6 27 1/2	6 27 1/2	6 30	6 30	6 30
Jan....	6 22 1/2	6 22 1/2	6 22 1/2	6 22 1/2	6 22 1/2

Kansas City Grain.

KANSAS CITY, July 22.—Nearly everyone expected over 100 cars of wheat here to-day. There were but 42 cars. There was no great urgency in the demand. Good samples of hard wheat were about 1/4 to 1/2 higher, but low grades did not command any better prices and in some cases seemed lower than on Saturday. Good soft wheat continues very scarce.

Receipts of wheat to-day, 42 cars; a year ago, 225 cars.

Sales of car lots by sample on track, Kansas City: No. 3 hard wheat, 8 cars 63c, 2 cars 62 1/2c; No. 3 hard, 2 cars 61c; No. 4 hard, 4 cars 57c; No. 3 red, new, nominally, 65@66c; old, nominally, 70@71c; No. 3 red, 1 car old 70c, 1 car 65c, 2 cars 63c, 2 cars 62c; No. 4 red, 1 car 59c, 2 cars 58c, 4 cars 57c, 4 cars 56 1/2c; rejected, 4 cars 56c, 2 cars 55c, 2 cars 54c, 2 cars 53c, 2 cars 51c.

Corn sold slowly and was 1/4 to 1/2 lower until near the close, when the market became strong and 38 1/2c was bid, both for spot and for corn to arrive.

Receipts of corn to-day, 46 cars; a year ago, 85 cars.

Sales by sample on track, Kansas City: No. 2 mixed corn, 5 cars 38 1/2c, 3 cars 38 1/4c, 6 cars 38 1/4c; No. 3 mixed, 1 car 38c; No. 4 mixed, 1 car 37c; No. 2 white, 6 cars 38 1/2c; No. 3 white, nominally, 38c.

Fertilizers containing a high percentage of potash produce the largest yields and best quality of

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and all winter crops.

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Good old oats were firmly held, but most of the offerings were new oats of very irregular quality and they sold at irregular prices.

Sales by sample on track, Kansas City: No. 2 mixed oats, 1 car, new, 23c; 2 cars 22 1/2c; No. 3 oats 1 car 21 1/2c 1 car 21c, 1 car 20 1/2c, 1 car 20c; No. 4, 1 car new 17c, 1 car 16c; rejected, nominally, 12@15c; no grade, 1 car 13c, 1 car 11c; No. 2 white oats, 2 cars 28c; No. 3 white oats, nominally, 25@26c.

Hay—Receipts, 160 cars; offerings were very large and the prices were fully a dollar lower; most of the timothy hay is arriving hot; old hay worth 50c above quotations. Timothy, choice, \$3.50; No. 1, \$3.00; No. 2, \$2.00@2.50; fancy prairie, \$2.00@2.50; choice, \$3.00@3.50; No. 1, \$2.50@3.50; No. 2, \$2.00@3.50; packing hay, \$2.00@3.00.

St. Louis Grain.

ST. LOUIS, July 22.—Receipts, wheat, 115,000 bu.; last year, 215,000 bu.; corn, 6,800 bu.; last year, 13,900 bu.; oats, 25,000 bu.; last year, 56,000 bu.; shipments, wheat, 7,000 bu.; corn, 2,018 bu.; oats, 5,733 bu. Closing prices: Wheat—Cash, 66 1/2c; July, 67 1/2c bid; September, 67 1/2c bid; December, 70 1/2c. Corn—Cash, 40c bid; July, 40c bid; September, 43c bid; December, 81 1/2c. Oats—Cash, 25c bid; July, 24c; September, 22 1/2c.

Kansas City Produce.

KANSAS CITY, July 22.—Butter—Receipts fair; creamery in heavy supply and market weak; extra fancy separator, heavy supply, 15c; fair, 13@14c; dairy fancy, firm, 13c; fair, 10c; store packed, fresh, 8c; off grades, 7c.

Eggs—Candled stock, 8 1/2c per doz.

Poultry—Springs were scarce to-day and the demand light; hens, 6 1/2c; springs, 1 1/4 lbs. and over, 9c; roosters, 15c. Turkeys, gobblers, 6c; hens, 7c. Ducks, 5 1/2c; springs, scarce and wanted, 10c. Geese, dull and wanted, 3 1/4@4c; springs, 10c. Pigeons, 75c per doz.

Fruits—Apples, market steady; fancy hand-picked, 35@50c per bu.; windfall, 25@35c per bu.; shipping stock, 35c per bu., \$1.50@2.00 per bbl.; shipped stock, 75c@1.25 per bbl.; old stock, fancy stand, \$3.00@7.00; common to choice varieties, \$2.00@4.00 per bbl. Wild goose plums, \$1.00 per bu., 40@50c per 1/2 bu., 20@35c per peck, blue plums, \$1.00 per crate; other varieties, 30@40c per crate. Peaches, shipped stock, freestones, 35@40c per 1/2 bu. box; baskets, 25c; clingstones, 25@35c.

Vegetables—Potatoes, new, supply light, 30@35c per bu. Cabbage, slow, home grown, 15@30c per doz. heads. Onions, new, 50@60c per bu.

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THE STRAY LIST.

FOR WEEK ENDING JULY 10, 1895.

Phillips county—I. D. Thornton, clerk.

MARE—Taken up by John Van Horn, in Rushville tp., (P. O. Powell), April 29, 1895, one light dun mare, sixteen hands high, weight 800 pounds, star in forehead, wire cut on front leg; valued at \$20.

Neosho county—W. P. Wright, clerk.

PONY—Taken up by Philip Shafer, in Lincoln tp., June 4, 1894, one gray pony mare, sheared, branded on left side and hip; valued at \$12.

Cherokee county—P. M. Humphrey, clerk.

MARE—Taken up by B. G. Jones, in Shawnee tp., June 15, 1895, one dark bay mare, sixteen hands high, 12 years old, both hind and one front foot shod, saddle and harness marks; valued at \$10.

Harvey county—T. P. Murphy, clerk.

MARE—Taken up by Charles Haering, Williams & Gardner's addition to Newton city, June 20, 1895, one black mare, 4 years old, scar on right fore foot, no other marks or brands; valued at \$25.

HORSE—Taken up by Maria D. Miller, of Walton tp., (P. O. Walton), June 5, 1895, one bay horse, collar marks on shoulders, no other marks or brands, about fifteen hands high, 9 years old; valued at \$15.

FOR WEEK ENDING JULY 17, 1895.

Miami county—Jas. E. Caton, clerk.

STEER—Taken up by Dr. D. V. Mott, of Fontana, one black three-year-old steer, white face, swallow fork in right ear and underlip in left ear; valued at \$10.

Cherokee county—P. M. Humphrey, clerk.

HORSE—Taken up by George W. Gleer, in Lowell tp., one bay horse, 8 years old, heavy mane and tail, saddle and collar marks; valued at \$20.

MARE—By same, one mare, 5 years old, right hind foot white, had on halter, shod all round, saddle marks; valued at \$20.

HORSE—Taken up by John Longdon, in Lowell tp., July 5, 1895, one yellow dun gelding, branded B on left jaw, H on left shoulder and HA on left hip, weight 1,100 pounds.

Crawford county—Peter McDonnell, clerk.

MULE—Taken up by Lyman Jones, of Pittsburg, June 28, 1895, one bay mare mule, 10 years old, branded O on right shoulder; valued at \$25.

MARE—Taken up by J. M. Richards, in Baker tp., May 20, 1895, one dark bay mare, fourteen hands high, 8 years old, star in forehead, branded O on left fore and right hind hoof; valued at \$20.

Johnson county—Jno. J. Lyons, clerk.

HORSE—Taken up by H. N. Hodges, in Gardner tp., May 30, 1895, one dark brown horse, fifteen and one-half hands high; valued at \$20.

MARE—Taken up by Darby O. Dar, in Shawnee tp., (P. O. Shawnee), June 29, 1895, one brown mare, fourteen hands and three inches high, white spot on face, branded O 8 on left shoulder; valued at \$20.

FOR WEEK ENDING JULY 24, 1894.

Doniphan county—W. H. Fornbrook, clerk.

STEER—Taken up by D. E. Hale, in Center tp., June 7, 1895, one light red one-year-old dehorned steer; valued at \$15.

Cheyenne county—G. A. Beukelman, clerk.

HORSE—Taken up by H. D. Bacon, in Jefferson tp., (P. O. Bird City), June 19, 1895, one bay gelding, 2 years old, white star in face; valued at \$15.

MARE—By same, one mouse-colored roan mare, 3 years old, no marks or brands; valued at \$15.

Linn county—Jno. J. Hawkins, clerk.

HORSE—Taken up by J. T. Tipton, in Lincoln tp., one dark bay horse, sixteen and a half hands high, left hind foot white, difficulty in left hip; valued at \$20.

Wallace county—Hugh Graham, clerk.

MARE—Taken up by C. F. Harris, in Wallace tp., (P. O. Sharon Springs), June 29, 1895, one bay mare, left hind foot white; valued at \$20.

MARE—By same, one bay mare, right hind foot white and white stripe in face, had halter on when taken up; valued at \$20.

MARE—By same, one bay mare, white stripe in face; valued at \$20.

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The Poultry Yard.

ABOUT GOOSE RAISING.

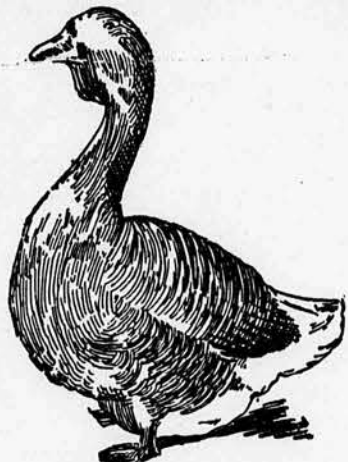
The Most Profitable Varieties and How to Rear and Fatten.

Geese as an article of food are more highly esteemed in Europe than in this country, where the turkey occupies first place in our affections. Nevertheless, the juicy meat is most toothsome, and a larger demand for it might readily be developed. Under suitable conditions these water fowl are very profitable. If given the range of a good pasture, with plenty of water, they need less care and attention than turkeys or chickens. They are hardy, easily raised and less subject to lice, while their food is less expensive. Their feathers should pay the expense of their keep, the returns from the birds themselves being clear profit.

The Toulouse and the Embden are the best known breeds of geese, and there is more money in raising them than in the small mongrel stock often seen, as they produce twice as much meat and feathers and fatten more readily for market. The Toulouse are the largest geese known. They have gray plumage and are quiet and gentle in disposition.

The Embdens are pure white, a circumstance which causes them to be preferred by many. They are somewhat smaller than the Toulouse and their plumage is more compact. A good cross for the market is a Toulouse gander and Embden goose.

Geese begin to lay when about a year old. The gander is best for breeding purposes after his second year, and he will remain in vigor for several seasons. Old geese make better mothers than young ones and should be kept for breeding and laying. When first commencing to lay, geese are apt to be irregular, but as they mature they will lay regularly and give a litter of fifteen or twenty eggs before attempting



PRIZE TOULOUSE GOOSE.

to sit. Geese average about forty-five eggs in a year, but occasionally run up to sixty, or even seventy. Breeding geese should be kept rather thin in flesh and have a free grass range. Newly hatched goslings do not require food for the first twenty-four hours. They should be fed on hard boiled eggs, chopped fine, stale bread soaked in milk, scalded meal, boiled potatoes, etc., and kept away from the water for the first fortnight and housed in a dry place until strong enough to run about well.

Geese require grass as much as cattle and should have it in abundance. They also feather out more quickly when permitted to run on green pasture and have plenty of water. Under these conditions they should produce a good crop of feathers every ten weeks. They should not be plucked while laying, as it is impossible for them to moult artificially and produce strong eggs at the same time. If the feathers are ripe they will come easily and are dry at the quill end. If soft and bloody, they must be left for some time longer.

Geese usually sell best at the Christmas holidays, and not at Thanksgiving, as many suppose. The demand for them is greater in the colder weather. The Irish and Germans are the largest consumers of geese in this country. Before marketing geese must be fattened. This process will occupy from two to three weeks. They should be put in a darkened room, with sufficient light for them to see to eat, and be given all the oats and cornmeal they can consume. They must

not be separated like fowls, as they are very sociable and pine away if kept in solitude. As soon as the desire for food slackens, they should be killed, as they are as fat as they will get and will lose flesh instead of gaining it.—N. Y. World.

Breed for Eggs or Meat.

Hens afford a profit from eggs and flesh, and yet they excel, according to the breed used, in either direction. He who wishes to make eggs a specialty should pay but very little attention to the market qualities of the breed, while those who wish to raise the best birds for the market should make eggs a secondary matter. It should be the aim to secure both, if possible, but no breed combines in itself all the requirements for eggs and flesh. If we secure a breed that comes up to such a standard it may be lacking in some other direction, perhaps tender when young and not hardy. Always, however, have a definite object in view.

Proper Food for Chickens.

Chickens fed on an exclusive corn diet will not make a satisfactory development, particularly of feathers. The bones of chickens fed on a nitrogenous ration are fifty per cent. stronger than those fed on a carbonaceous ration. Hens fed on corn, while not suffering in general health, become sluggish and deposit large masses of fat in the internal organs. The flesh of nitrogenous-fed fowls contains more albuminoids and less fat than those fed on a carbonaceous ration, is darker colored, juicier and tenderer.

Feeding Poultry in Summer.

Feeding too often is a serious mistake. If the hens are in good condition for laying, they will thrive much better if compelled to come off the roost in the morning and scratch for their breakfast than if they walk up to a feed-trough and fill their crops. The morning feed of grain and seeds may be scattered in the litter after they are on the roost at night, so that they can begin as early in the morning as they desire. Before going to roost at night they may be given all they can eat. They will digest all that the crop will hold before morning.—Farm and Fireside.

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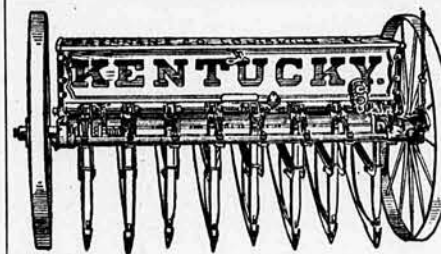
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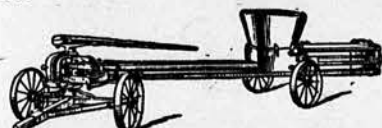
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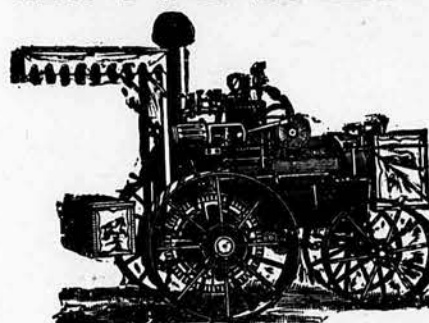
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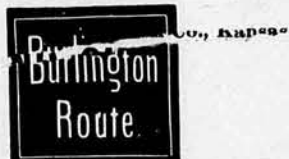
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46 brood sows in herd, headed by Black U. S. Nemo Vol. 9, Model Wilkes (Vol. 9), Sunset Chip (Vol. 9) and Billy Bundy (Vol. 9). Female lines: All Right, Short Stop, King L. X. L., Wilkes, Free Trade, Wamaker. Aged sows, bred gilts and fall pigs for sale.

R. S. COOK
Wichita, Kas.,
Breeder of
Poland - Chinas.

Won seven prizes at World's Fair—more than any single breeder west of Ohio.

E. E. AXLINE,
OAK GROVE, JACKSON CO., MO.

Breeder and shipper of
POLAND-CHINAS of the best strains.
Herd headed by Roy U. S. 24165 A. assisted by Western Wilkes 12846 S. Some extra fall pigs. Also winter pigs of both sexes at reasonable prices. Orders being booked for spring pigs. Write or come.

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IRWIN & DUNCAN,
Wichita, - Kansas,
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Breed and have for sale Bates and Bates-topped Short-horns—Waterloo, Kirlington and other fashionable families. Also breed and have for sale the best thoroughbred Poland-Chinas that can be obtained. Write or come and see.

1,309 POLAND-CHINAS

Shipped by express to eighteen States and Canada. Original Wilkes, Corwin, Tecumseh and World's Fair blood. Write for one to
W. S. HANNA, Box 218, Ottawa, Kansas.

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SHROPSHIRE RAMS!



Fifteen Registered Yearlings, got by our imported ram, Grand Delight 2d, and out of the choice ewes of our old flock. There are no better rams in the West. They are for sale at prices in keeping with market values of sheep. Now is the time to improve and increase your flocks. Prices will never be lower than now. Write.
KIRKPATRICK & SON, Connors, Kas.

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HIGHLAND KENNELS, TOPEKA, KAS.—Great Danes and Fox Terriers. The first prize and sweepstakes winner, Great Dane King William, in stud. Dogs boarded and treated for all diseases; also, remedies by mail. Correspondence solicited.

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THOS. B. SHILLINGLAW, Real Estate and Rental Agency, 115 East Fifth St., Topeka, Kas. Established in 1884. Calls and correspondence invited.

PILES Positively cured by our remedies (if directions are carefully followed) or money refunded. Send 75 cts. for a trial. Dr. W. T. Kirkpatrick, Lincoln, Ill.



Instantly and positively prevents flies, gnats and insects of every description from annoying horses and cattle. It improves the appearance of the coat, dispensing with fly-nets. Applied to cows it will give them perfect rest, thereby increasing the quantity of milk. It is also a positive insecticide for plants. We guarantee it pure, harmless and effective. Recommended by thousands using it. One gallon lasts four head an entire season. Price, including brush, quart cans, \$1.00; half-gallon, \$1.75; and one gallon, \$2.50. Beware of imitations. Made only by The Crescent Manufacturing Co., 2109 Indiana Avenue, Philadelphia.

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"For Sale," "Wanted," "For Exchange," and small advertisements for short time, will be charged two cents per word for each insertion. Initials or a number counted as one word. Cash with the order.
Special:—All orders received for this column from subscribers, for a limited time, will be accepted at one-half the above rates, cash with order. It will pay. Try it!

FOR EXCHANGE—An improved half section, five miles from county seat, for small farm suitable for fruit. S. L. Garritt, Lincoln, Kas.

FOR EXCHANGE—Seventy-five acres best of bottom land, except ten acres, which is choice second bottom; good three-room house and cellar; never-failing well soft water; good stabling and cribs; ten acres timber, mostly walnut; nice young orchard. Located two and a half miles from Topeka. Owner wants a ranch in central or western Kansas. John G. Howard, Topeka, Kas.

FOR SALE—Cotswold and Shropshire rams—2 years old, 1 year old and ram lambs. George B. Bell, Agent for Cooper's Sheep Dip, Tonganoxie, Kas.

TO RENT—For cash, 1,200 acres good land, well improved. Farm can be divided in three parts. Pedigreed Short-horn herd for sale; extra fine stock. Also some pedigreed Jerseys. Theodore Saxon, St. Clare, Pottawatomie Co., Kas.

KANSAS FARMERS WANT A FIRST-CLASS Corn Harvester. The best is made by the Blue Valley Foundry Company, of Manhattan, Kas. Single and double machines at lowest prices for successful work. Send for terms. Prices low.

HALLOO, FARMERS!—Save money by ordering a Duroc-Jersey or Poland-China now. Blue blood. Cheap. Trot's Big Bone 4607 and others. D. Trott, Abilene, Kas.

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SHORT-HORN BULLS—Five yearlings for sale. D. F. Norton, Council Grove, Kas.

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

FOR A GOOD HAND-SEWED BUCK, CALF OR kid glove or mitten, address Mrs. Ed. Warner, Lexington, Clark Co., Kas. Reference: KANSAS FARMER.

PET RABBITS—BLACK AND WHITE.—Fifty cents per pair. Can be sent by express to any point in Kansas or other State. Address Lucile McAfee, 314 West Fifth St., Topeka, Kas.

HOLSTEIN BULL—Three years old, of extra quality and breeding, for sale for much less than he is worth. H. B. Cowles, Topeka, Kas.

FOR ALFALFA SEED, DIRECT FROM THE grower, address E. G. Jones, Syracuse, Kas.

FOR SALE—Hereford bulls sired by a son of Mr. Funkhouser's celebrated Hesiod. Apply to Peter Sim, Wakarusa, Kas.

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

THE FINEST HONEY—Is gathered from alfalfa and clover blossoms. You can buy it of the bee-keeper, cheap and in any quantity, by freight, and know it is genuine. Address Oliver Foster, Las Animas, Colo.

FOR SALE—The tried and grand breeding boar, Kansas King 5811 S., sired by Dandy Jim 5442 S. and out of Broadback (1913). Weighs 700 pounds. He is a desirably-bred hog, extra good in conformation, having broad back and extra good ham. Sunny Slope Farm, Emporia, Kas.

THREE HOLSTEIN BULLS—A two-year-old, a yearling and one 6 months old. Registered and belong to the Korndyke family. For further particulars write H. L. Liebfried, Emporia, Kas.

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IRRIGATION PUMPS.—For prices of irrigation pumps used by the editor of KANSAS FARMER write to Prescott & Co., Topeka, Kas.

40 POLAND-CHINA FALL OF 1894 PIGS—Both sexes, for sale, sired by Riley Medium 12306 and Tecumseh J. Corwin 1074. Cannot well use the latter boar longer, hence will sell him. E. T. Warner, Princeton, Franklin Co., Kas.

WANTED—Buyers for Large English 33, kahires. One hundred pure-bred pigs, farrowed in March and April, are offered for sale at from \$10 to \$15 each. Farm two miles west of city. Riverside Stock Farm, North Topeka, Kas.

250 Farms for Sale—On eastern shore of Maryland and Virginia. Climate mild. Land cheap and productive. Send stamp for descriptive price list and map of peninsula. F. H. Dryden, Pocomoke City, Maryland.

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Devoted to the interests
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If you need anything in this line it will be to your advantage to get our prices before placing your order. A full line of Engines, Boilers and Pumps in stock.
If in the market send us your specifications and get our figures.

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1400-2 Union Avenue, CLOVERS
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GRASS SEEDS. **SEEDS**

Catalogues of Cherry Orchard Poland-Chinas

Will be ready for free distribution about June 1, that will show the breeding of about 120 spring pigs sired by the two highly-bred boars, Corwin Whiteface 9924 and Wren's Medium 12387, and out of as fine a lot of mated sows as can be found in any herd, East or West, and will be priced as low as their breeding and quality will allow. Correspondence and inspection invited.

W. H. WREN, Marion, Marion Co., Kansas.

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(Consolidated in 1865.) The largest live stock market in the world. The center of the business system from which the food products and manufactures of every department of the live stock industry is distributed.

Accommodating capacity: 50,000 cattle, 200,000 hogs, 30,000 sheep, 5,000 horses. The entire railway system of Middle and Western America center here, rendering the Union Stock Yards the most accessible point in the country. The capacity of the yards, the facilities for unloading, feeding and reshipping are unlimited. Packing houses located here, together with a large bank capital and some one hundred different commission firms, who have had years of experience in the business also an army of Eastern buyers, insure this to be the best market in the whole country. This is strictly a cash market. Each shipper or owner is furnished with a separate yard or pen for the safe keeping, feeding and watering of his stock, with but one charge of yardage during the entire time his stock remains on the market. Buyers from all parts of the country are continually in this market for the purchase of stock cattle, stock hogs and sheep. Shipper should ask commission firms for direct information concerning Chicago markets.

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The Kansas City Stock Yards

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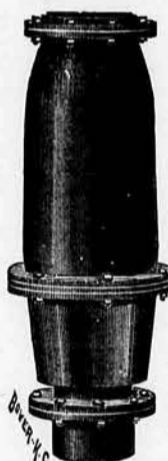
and second largest in the world! The entire railroad system of the West and Southwest centering at Kansas City has direct rail connection with these yards, with ample facilities for receiving and reshipping stock.

	Cattle and calves.	Hogs.	Sheep.	Horses and mules.	Cars.
Official Receipts, 1894.....	1,772,545	2,547,077	589,555	44,237	107,494
Slaughtered in Kansas City.....	869,646	2,060,784	387,670		
Sold to feeders.....	308,181	11,496	69,816		
Sold to shippers.....	409,965	468,616	45,730		
Total sold in Kansas City, 1894.....	1,677,792	2,530,896	503,116	28,903	

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

NO YARDAGE CHARGED UNLESS THE STOCK IS SOLD OR WEIGHED.
C. F. MORSE, General Manager. E. E. RICHARDSON, Secretary and Treasurer. H. P. CHILD, Assistant Gen. Manager. EUGENE RUST, Gen. Superintendent.

Irrigation Supplies



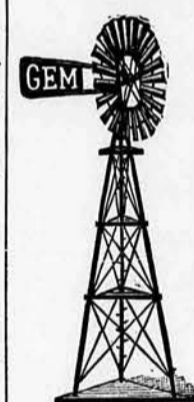
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"Prizell" Irrigation Cylinders.
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FOR IRRIGATION OR ANY OTHER USE.
Wooden and Steel Tanks,
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Engines and Boilers,
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Pipe, Fittings, Drive Points.

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Farmers, Spay Your Sows

Mares, Cows and Gips Dogs with Howsley's Spaying Mixtures. No knife, so no deaths. Easy to use and absolutely sure. Price, large bottle with syringe, \$3; small bottle \$1, syringe 25 cents extra. Large bottle spays thirty to fifty head of sows. Write us for testimonials and particulars. Corresponding office, New Orleans, La. Sole manufacturers
THE HOWSLEY SPAYING CO. L.T.D.,
Kansas City, Mo. New Orleans, La.

CENTROPOLIS HOTEL.

Fifth and Grand Ave., Kansas City, Mo.
A strictly first-class house at moderate rates. Central location. Half block from new million dollar court house and half million dollar city hall. On direct Fifth street cable line from Union depot and stock yards. 225 choice rooms, all newly decorated. Lighted by electricity. Rates, \$2 per day. Rooms with bath and parlors, \$2.50 per day.
E. K. CRILEY & CO., Proprietors.

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Special inducements to small or large parties.

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