

# KANSAS FARMER

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## The Kansas Farmer.

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### Agriculture.

#### PROGRESSIVE AGRICULTURE.

First, Progressive agriculture does not consist in an expensive and commodious villa, costly and spacious out-buildings, expensive fences, elaborate ornamentation, and extensive rural embellishment, notwithstanding all such appliances are desirable, in their appropriate places. If one has excess to a treasury, on which he may draw, to defray all expenses, at any time, he may build, ornament and embellish at the same time when he is improving the fertility of the soil. But when one must depend solely upon the resources of his farm, it is necessary for him to forecast his plans and compute his expenses, and thus ascertain what can be done during one season towards improving the productivity of his lands. By judicious planning, work can be performed at the proper period, and much may be accomplished during the autumn and winter months, when labor is comparatively cheap.

Second, A farmer, who would be successful, should have his trade so well learned that he will make no mistakes in cultivation. He should know what kind of plows, harrows, cultivators, and other field implements, and hand tools, will be required.

As plowing is the grand means on which all farmers must rely for thorough pulverization of the soil, it will be found of far greater importance to be an expert plowman than a good cradler or mower.

A portion of the land may need draining. Relieving wet lands of the superabundant moisture constitutes the stepping stone to a successful system of progressive agriculture.

Third, In some soils, certain elements of fertility are wanting, while in others, the elements are there, though not in an available state to promote the growth of crops. The fertilizing atoms are so securely locked up in the soil, in the indurated particles, that nothing is required except the introduction of such a system of farm management as will develop the fertility. One of the most effective ways to do this is to plow, sub-soil and fertilize, in the most thorough manner; cultivate such crops as are adapted to the soil, work all of the refuse of the crops into manure and return it, without waste, to the fields. Plowing, subsoiling, harrowing and rolling will develop fertility. Vegetable growth and decay, the elements in rich stable manure, frost and showers, all operate harmoniously for the accomplishment of this great—developing fertility.

Fourth, There is a choice in plant food, while noxious seeds are so hardy they will thrive on almost any sort of soil or barren earth, useful plants must be provided with those elements which are deficient in the seed bed. One can make egregious mistakes in the choice of fertilizers. When domestic animals have been picking and gleaming the scarce atoms of phosphatic material in the grass for ages past, and the frames of herd and flock and flock after flock have been built up of the minutest particles of those elements that form bone, the tiller of the soil can scarcely make a mistake by piling bone dust on his land. Stable manure, that is made by horses and meat cattle, which consumes a generous amount of meal or grain, contains all the elements of fertility that almost any soil requires. Yet it would be a great mistake for a farmer to apply straw manure, which will yield little besides carbonaceous material, to a mucky, peaty soil, which requires inorganic or mineral, such as lime, potash or soda, and phosphate of lime. When there is already a supply of lime in the soil, it would be unwise to apply gypsum. When the ground is already so rich that crops fall down, if the soil is of a granitic character, the only fertilizer required, in many instances, is potash, or the silicates of potash, or of lime.

Fifth, Judicious management crowns almost everything with success. If a farmer is an unskillful, imprudent manager he will always need access to a treasury, from which he may draw supplies to pay the expenses, which should be supplied by the income of the farm. He must study his calling, as does the mechanic, the merchant, the lawyer or doctor; so that he will understand the most expeditious and economical way of performing every manual operation, so that if his employees are unskilled, he can show them how.

I shall continue this subject, and make the assertion that, with properly directed energy, there is no section of this country in which farming will pay better than in Kansas.

A. Cox.

—In Walnut Valley Times.

#### CUTTING SEED POTATOES.

The only disadvantage in cutting seed potatoes is, in dry seasons, where the eyes are cut out with very little potato attached, the eye may dry up instead of growing. The remedy for this is to press each piece firmly in the ground, with the foot, as it is dropped. Then cover about four inches with loose earth and every piece will grow. If wet, cold weather follows planting, freshly cut potatoes may rot in the ground. To prevent this, cut the seed

a week before planting and roll in plaster (gypsum) to keep from drying too much. The plaster will adhere to the moist surfaces, which will harden slightly, and the gypsum in contact with the potato will benefit the growth of the crop more than it used in any other way.

Cut potatoes are often burned or scorched in the sun, if dropped too long before being covered. Three or four hours' exposure in a cloudless May or June day is sufficient to destroy the crop. Probably the sun and wind evaporates so much moisture from the cut potato that not enough is left to furnish moisture to start the eyes. This is a matter of some importance where potatoes are planted in large quantities and covered by horse power. Some farmers in my neighborhood have lost one to three acres by leaving potatoes uncovered too long, and their experience may be valuable to others.—Country Gentleman.

#### PEA-NUT CULTURE.

We first get our land into best possible condition by ploughing and harrowing, finished with the smoothing harrow. Then we lay off rows with a marker drawn by two horses—the driver standing on the marker and driving to stakes, so as to lay a straight row. The marker makes two rows three feet apart, and attached to each runner is a small wheel, which makes a sign or mark at 16 to 18 inches apart. Hands follow immediately, dropping two kernels at every mark. Then follows a hand covering with a hoe, 1 to 1-3 inches deep, and pressing the back of the hoe down solid on the hill after covering. The plant will be up in six to twelve days. As soon as the row can be seen, we throw the dirt away with a turn-plough. When the plant is well up we work the ground around the plant with hoes and cultivate between rows with cultivators. The ground should be kept mellow and free from weeds by constant use of cultivator and hoe. Four hoeings are not too many. The plant should not be disturbed after the 1st of August. In this section we plant from May 10 to June 1. It is better to have all planted by the 22d of May. If crows or moles are troublesome, use tar on the seed, as you would for corn. Seed dug after heavy frost is not reliable. It will take about three bushels of seed to plant an acre. Great care should be taken in selecting seed, and none planted but smooth and plump kernels. Stiff soil will not produce a first-class nut. The soil should be a sandy loam, and well limed. Chocolate colored soil produces the most desirable colored nuts. If dug before frost, the vines make excellent fodder for cattle and horses, but the nuts are better filled and heavier if dug a few days after frost. To dig nuts, use a one-horse "Dixie Plough" with pea-nut blade attached. We run the plough deep enough under the plant, so as not to cut off the nuts—say five inches deep, using two horses to plough, and run one each side of the row. We let a hand follow, lifting the vines and shaking the dirt off. Each hand can shake two rows. We throw the vines into heaps as we shake them, placing them carefully one on top of the other for convenience in shocking. Six rows will make a heap-row, and eight heap-rows make a shock-row. In the shock-rows we drive stakes 7 feet long, sharpened at both ends, and put the stakes down firmly, laying a fence rail on each side of the stakes. A stick of cord wood will make the blocks for the rails to rest on. A twelve foot rail or pole is long enough for four shocks. Shocks should not touch each other. We let the hand that shocks them shake the vines again as he puts them up, round and round the stick, as high as he can reach, setting them well down, and putting on a cap of straw and hay—this is the best. As much as possible, the nuts should go next to the stick, and the vines should be so put on the shock as to shield the nuts from sun and rain. In about four weeks after digging, the nuts will be cured enough for hand picking.—Virginian in Country Gentleman.

#### A HINT TO FARMERS.

In some sections—and it would be a decided advance in thoughtfulness and kindness in all sections—farmers give each of their boys, and girls, too, a strip of land to raise whatever they choose upon it, and dispose of the product for their own benefit. It is a favor that they all appreciate, and it is a pleasant and serviceable employment for them in their leisure hours. They will vie with each other in their skill at raising their little crops and the proceeds applied to their own use, are frequently of some value; and the whole arrangement, while it instructs them in the cultivation of the soil, early implants in the children the idea of thrift and economy.

Sometimes, where a good many animals are raised, a pig, a lamb, a calf, up to even a colt, according to the age of the children, is given to each to rear and to keep or sell. Farmers, think of this; it will more than repay you in the happiness and confidence it will impart to your sons and daughters.—Germantown Tel.

The San Francisco Chronicle ventilates the Grangers' and Peoples' Union Emigrant Aid Society, J. Earl, general agent. It declares there is no such a society, and that Earl has been formally repudiated by the State Grange. He was also concerned in the Swamp Land frauds, for which he was censured by the Legislative Committee of Investigation.

#### HOW TO PACK BUTTER TO KEEP.

The following inquiry and reply by Prof. Arnold, the dairy correspondent of the New York Tribune, recently appeared in that paper:

"During the coming summer I wish to pack butter for the winter market. It will be put up in pound prints, covered neatly with a white cloth, and stored in new oak barrels. Please give me a recipe for making a liquid brine which will preserve the butter. In our market butter in pound prints, neatly put up, is more salable than in any other shape, at all seasons of the year. Do you see any objections to the plan I propose as to its insuring the keeping of the butter sweet and good eight or nine months, if the butter is properly made?"—R. D. Wells, El Paso County, Colorado.

Make a brine with a saturated solution of the purest salt you can get, using a pound of saltpetre to about twenty pounds of salt. Scald the brine by bringing it to a boiling heat, skim, and apply when sufficiently cool. The casks should be carefully prepared as well as the brine. If the gum and sap in the wood are not removed before the casks are used, they will work out into the brine and affect the butter. To remove the woody flavor from the casks, a thorough steaming with a high pressure is the quickest and best means. If soaked before the steam is applied, hot steam will cut the gum and sap in all out in a short time. If steam is not convenient, soak in brine a week or so, and then fill with boiling hot brine, and let it stand till it gets cold, and the woody flavor will be sufficiently removed. By keeping the butter under the brine, the casks full and in a cool place, the butter will keep safely. Some of the tin lined packages which have recently introduced, and which are easily hermetically sealed, would be much more convenient and probably full as cheap as the oak casks and brine, and are claimed to be equally efficient in preserving.

In reference to the use of unglazed jars in which to pack butter, a correspondent of the Tribune says:

"I have kept a dairy of fourteen to eighteen cows for some years, and find most persons prefer earthen jars to wood. Where I send the butter to families, these jars are returned each season to be refilled. We find it impossible to cleanse the inside of the cover if it is not glazed; it absorbs every taint or bad odor that may come in contact with it, and every such tainted cover is sure to spoil the contents of the jar. I have had jars of butter spoiled in forty-eight hours so they were not fit to use. My object in writing you is to call the attention of those who send butter in jars as well as those who make jars, to this defect. I think if the inside of the cover could be glazed, it would save much loss of butter packed in jars. I find many covers are tainted before the jars are filled, as many merchants keep their jars in cellars or near kerosene, or some other rank smelling substance. I have not seen this subject noticed in the discussions of dairymen, and I shall be much obliged if you will call attention to it.

### Horticulture.

#### FORAGE PLANTS IN KANSAS. NO. IV.

BY PROF. E. M. SHELTON.

##### RED CLOVER.

Any discussion of forage plants that excluded the subject of this article, even if the clover plant is of doubtful value to our own State, would certainly be very imperfect. Red clover is pre-eminently the crop of the good farmer, for, besides furnishing cattle food in abundance and of excellent quality, it furnishes manure. Indeed of all the means within the reach of the general farmer, the root of the clover plant is the cheapest for maintaining and increasing the fertility of his farm.

The action of the long and powerful tap root of the clover plant is not only mechanical but chemical; these long roots, besides loosening the soil and subsoil, absorb and bring to the surface the plant food that otherwise would be unavailable to the more shallow rooted cereals.

Moreover, clover hay has a manurial value that is unequalled by any other hay. This value of clover hay will be shown by a comparison of the common cattle foods as seen in the following table by Mr. J. B. Lawes, of England. The prices opposite the different articles are the value of manure from one ton of feed:

Indian corn,	\$6 55	Clover Hay,	9 64
Wheat,	7 08	Meadow Hay,	6 43
Barley,	6 33	Wheat straw,	2 98
Oats,	7 70	Oat straw,	2 90

It will be readily seen that this table, referring as it does to English prices, will be useful to us only so far as relative values are concerned.

The red clover ranks high for pasturing; although inferior for early and late feed to blue grass, for hay it not only yields largely, often two and one half tons, but when properly cured the quality is excellent, and it is recommended particularly for sheep and cattle. For horses, timothy is usually preferred, as the dust which so often accompanies clover hay tends to aggravate laryngeal and bronchial weaknesses. But whatever may be the value

of clover for pasture hay, its chief value will be its worth as a fertilizer of the soil. For this reason it has not unsparingly been called the "sheet anchor of American farming." Whether red clover will have the same value for Kansas that it has for eastern States, is at best an open question. In this as in so many agricultural questions, we are in need of carefully conducted experiments. It is certain that a plant which, like the red clover, has had such a wonderful influence upon improved methods of farming everywhere, is well worthy a persistent trial from our farmers. Upon the college farm seven acres were seeded to this plant three years ago. Last year fully one ton per acre was cut from this land. At the present time, notwithstanding drought and grasshoppers, one-half of this piece promises a fair crop, and over the entire piece a thick crop of young plants are growing from the seed.

In this latitude the clover plant will succeed best when seeded in the spring. In New England, it is commonly sowed upon the wheat fields during March and April. It may also be sowed to good advantage with barley or oats, and if the harrow be allowed to pass over the ground once after seeding it is a decided advantage. Eight quarts is the usual amount sowed per acre.

In concluding this article the writer wishes to call attention to the following partial list of forage plants, now the subject of experiment on the college farm.

The botanical names have been omitted, as it is believed the plants will be more easily recognized by the general reader through their common names.

##### GRASSES.

Creeping bent	Tall smooth panic
Italian rye	Shroeder's brome
Sweet scented vernal	Large brome
Wood meadow	Vallet
Orchard	Sheep's Fescue
Rough-stalked meadow	Hard Fescue
Meadow soft	Darnel Spiked Fescue
Finger spiked wood	Meadow Fescue
Taller meadow	Purple Fescue
Blue	Crested Dog's Tail
Rhode Island bent	German Millet

##### VALUE OF ORCHARD FRUIT CULTURE.

There are no definite statements giving the actual values of fruit products yet published. Michigan is the only state that has given an approximate estimate, and from her statement with the barren records of the Agricultural Department we have to make up an approximate estimate. Say of the

N. E. States.....	\$5,000,000	New York.....	\$7,000,000
New Jersey.....	2,000,000	Delaware.....	1,000,000
Pennsylvania.....	1,000,000	Indiana.....	3,000,000
Ohio.....	4,000,000	Michigan.....	3,800,000
Illinois.....	200,000	Iowa.....	150,000
Wisconsin.....	30,000	Missouri.....	1,500,000
Kansas.....	1,200,000	North Carolina.....	100,000
Virginia.....	30,000	Alabama.....	25,000
South Carolina.....	25,000	Mississippi.....	30,000
Florida.....	25,000	Louisiana.....	75,000
Arkansas.....	30,000	Kentucky.....	60,000
Texas.....	10,000	Minnesota.....	16,000
Nebraska.....	200,000	California.....	6,000,000
Oregon.....	200,000		

Figuring this up at a loose estimate, with the best of knowledge we can gather, we have to day nearly forty-seven millions dollars of value in the fruit crop, aside from that which is used by the orchard or farming fruit growers, and the amateur or private orchards of suburbanists, who never give any record or acknowledgment of the number of trees or bushes of fruit that they grow, consume or give away.

F. R. ELLIOTT.

FORESTS IN GERMANY.—Few people have any idea of the extent of forest land in Germany, and most imagine that of the Black Forest little is left except a tradition and a conventional bluster of woodland, so named. On the contrary, in Hanover alone there are 900,000 acres of wood under state management, while nearly one-fourth part of the area of Prussia is in forest, although half of that is in private hands. As is well-known, the forest administration in particular districts has long been famous, especially in Thuringia and the Harz mountains. In North Germany generally the responsibilities are allotted in districts among a carefully organized body of officers presided over by a forest director.—The (London) Garden.

##### HEN LICE.

One of the difficulties in the way of successful poultry-keeping is to head off the lice. Careful painstaking people are not much annoyed by these pests; but where the vermin are not looked after and kept in check, they become very troublesome and hurtful to fowls. We have known them to kill not only young chicks, but even hens on the nest while hatching. Generally a hen will leave her nest and allow her eggs to spoil rather than let the vermin destroy her. This practice on the part of the hen is often a matter of complaint, the owner not knowing what is the cause of her leaving the nest.

A hen should never be allowed to sit in an old nest until it has been cleaned and renovated. The boxes should always be cleaned out and whitewashed, before setting the hen, and there should be a dusting of sulphur put into the whitewash, and into the nest when the hen is set. This will prevent all annoyance on the score of her lice to the hen and her owner.

### Farm Stock.

#### NEEDED REFORM IN THE CARE OF STOCK.

The department of Agriculture Report for March concludes an article on the gain or loss by weight in wintering stock as follows:

"In years of unusual severity the losses of farm animals are appalling. The merciful policy of good food and shelter will yet be found the most profitable.

Our March returns afford unwelcome evidence of the fact that American farmers, as a rule, calculate their farm animals, with the exception of working stock, milch cows, and animals, shall come out of winter quarters reduced in weight and depressed in condition. Numerous exceptions are found in older states where the higher economies of farming have begun to enforce attention, but these exceptional cases constitute a minority even in their own sections. A few farmers in the West and South illustrate this general policy of depletion by its extreme but legitimate results. The care of stock, cattle and sheep, and often of milch cows, is a responsibility which they calmly cast back upon Providence, caring very little for the suffering inflicted upon their brute dependents, whose gaunt frames and uncomplaining misery awaken no sentiments of pity or compunction of conscience. Their shriveled carcasses are allowed to rot upon the range, or are hastily removed from the field without even suggesting the idea of personal responsibility for this waste of animal life. The number of such farmers, in whom a blind and stupid greed has paralyzed the sentiments of humanity, is happily small, and growing smaller as the true principles of production become better understood.

But leaving out of view such extreme cases, the facts elicited by our March returns give considerable ground for sundry sharp criticisms by foreigners upon this branch of American farming, criticisms which one of our leading writers is compelled to acknowledge as just. The general disposition to allow farm animals to decline in weight and condition during winter feeding, spring from inconsideration and neglect rather than from any lack of human feeling. It is based upon a false economy. The food necessary to keep up the standard of condition during winter will be much less than that which will be required to restore the depleted carcass in the spring. A very considerable proportion of the loss of weight of animals during winter, results from wasteful feeding and lack of shelter. The drafts upon the animal heat and vitality of unsheltered beasts amount to a third or a half more of feeding material than would keep them in good condition under cover. But few, if any, of the farmers who expose their animals to the inclemency of the season, make an extra provision of food; they seem rather to diminish the feeding in proportion to the exposure. Even the pittance doled out to the animals wintered in the field is largely wasted by improper management.

The great reform suggested by our returns is the enlargement of the stock of winter food by the increased production of hay and other feeding material. It is true economy to utilize straw, fodder, and other vegetable matters upon the farm, but these are generally deficient in some of the elements of nutrition, and need be supplemented with hay or grain. Our grass crops present but small returns for the surface they cover and the capital and labor invested. The state of New York, for example, scarcely averages a ton of hay per acre; yet few of her farmers would think of entering a crop for competition at any agricultural fair of less than two or three tons per acre. With the same acreage, then, it is possible to double or triple our hay crop by bringing up the practice to what has been shown to be practicable. Our pastures, which are more than double the area of our meadows, should be stocked with a better class of grasses. Experiments should be made with our indigenous grasses, especially with reference to the curing of hay for winter. It is believed that intelligent effort will yet make two spears of grass grow where one grows now. With such an enlarged basis of vegetable matter, it will be easy to supply our farm animals with the amount of food necessary, not only to keep up their standard weight during winter, but also to increase it.

But other reforms must be inaugurated. It is necessary to administer the food provided for animals with intelligent reference to its nutritive qualities and to their peculiar wants. Experiments should be made under scientific authority, showing the specific value of different kinds of food, and the result carefully gathered and compared, should be placed within the reach of all our farmers. Farmers should carefully follow the directions for feeding founded upon the latest experiments of the government agricultural stations. Some such scientific authority is pressing needed to direct the practice of American farmers.

Finally, the cruel and wasteful policy of exposing farm animals to the inclemency of the winter, should be abandoned, even in our southern climates. These reforms are demanded not only by the spirit of humanity, but also by the intelligent economy in production. Our farmers are called upon to furnish the markets with higher grades of animals and animal products. To meet this demand, the



hap-hazard, wasteful methods which characterize extensive regions of our country, must be superseded, and more intelligent and effective processes introduced."

#### MEASLES ON PIGS AND CALVES.

The *Agricultural Gazette*, London, England, publishes the following under this head: Among parasitic diseases, "measles" take an important place, not so much on account of the effects which are produced on the health of the infected animal as from the danger which is likely to arise to those who eat the meat of such animals.

It is scarcely necessary at the outset to explain that the disease, which is known as measles in pigs and calves, is not in any way allied to the disease of that name which attacks human beings. On the contrary, the latter is quite unconnected with parasites, being a febrile disease of a decidedly infectious nature, attended with a characteristic eruption, while the infection described as measles in the pig and calf is simply a spotted state of the flesh due to the presence of small hydatid cysts which contain the immature or larval forms of two species of tapeworms proper to man—the so called *Tania solium* and the *Tania mediocanellata*.

The hydatid of the first worm is the *Cysticercus cellulosus*, which causes the measles so commonly found in pork, and the swallowing of which, while eating underdone pork, is the cause of the existence of the *Tania solium* in the intestines of man. Swine affected with measles do not suffer apparently from the invasion; at least they manifest no symptoms of pain or disturbance, but in well marked cases it is said that an expert examiner may detect the small hydatid cysts, by feeling with his finger along the side of the animal's tongue, close to its junction with the membrane of the mouth. Admitting that the cysts are present in the position indicated, the fact is not worth much because it would be impossible to examine all the pigs which are brought to market, and there are no signs which might direct attention to any particular animals, and induce the intending purchaser to have recourse to a somewhat rash method of testing the correctness of his suspicions.

When an infected pig has been slaughtered and cut up, there is no difficulty in detecting the disease. No artificial aids are required in the inspection, as some of the hydatid cysts will be as large as a horse bean, looking like small bladders filled with a clear fluid. If the cysts be carefully ruptured, and the larval worm removed, a white spot will be seen at one part of its circumference. This, if carefully manipulated, will show the head of a tapeworm identical in all respects with that of a solitary tapeworm of man. Immediately extending from the head will be seen the long slender neck, and then the vesicle, or water bladder, composed of a fine, transparent membrane having a ringed appearance if viewed sideways. When the parasite obtains an entrance into the digestive organs of man, the vesicle is dissolved away, and the tapeworm segments grow from the neck. Obviously the hydatid is conveyed to the muscles of the pig by the mature segments of the tapeworm which are voided by the human bearer, the eggs from which are picked up by voracious pigs in their wanderings in search of food.

It is difficult to determine which was first affected, swine or men; but it will be more satisfactory to humanity to assume that the hydatid cysts somehow were first developed in the pig, and from the consumption of the flesh of the animal man became subject to the tapeworm, the eggs of which being expelled, are swallowed by pigs, and shortly develop into hydatids, ready to furnish a new generation of tapeworms when introduced into the digestive organs of the human subject.

Probably the popular prejudice against underdone pork in any shape is due to the recognition of the fact that larval forms of parasites are often present in this meat; at any rate, it is satisfactory to be able to state that infected pig's flesh is rendered harmless as food if the cooking process be effectually carried out.

#### FEEDING FARM HORSES.

During a discussion on farm horses at a club in Aberdeenshire, Scotland, the following paper was read by a member:

The feeding of horses is an important point in their management. Many have erroneous notions, that the more grain their horses get, the fatter they must be, and instances are not uncommon where more than six bushels of grain a week are given to a single pair. Too much grain indisposes horses for eating other provender, and occasionally subjects them to serious diseases. Four bushels of good, sound oats weekly, with a few Swedish turnips or other roots, and plenty of good straw, will keep a pair of healthy farm horses in good order through the winter, even though they be pretty hard wrought. If, then, such an allowance be sufficient for a pair, it is folly and waste to give them more. Hay may have to be substituted for straw, but no more corn will be necessary to sustain them, even when they have to go "their ten hours" in the busy spring season. Some horses are nice feeders and need to be coaxed to eat. A careful horse-man will keep his eye on such, and will, by giving small and oft repeated handfuls, constrain them to eat enough to keep themselves in good order; whereas, a careless one, by inundation would soon let them run down to skin and bone. Horses that are greedy feeders, or that swallow their corn whole, should have it bruised or ground. A little chaff mixed with grain helps to make horses chew it—and well chewed is of more importance than many think. Unless it be well ground, and mixed with saliva in their mouths, it is but imperfectly digested in their stomachs, and without perfect digestion there its full benefit is not obtained. A full drink of water immediately after being fed should never be allowed to horses. When water is drunk by them the bulk of it goes directly to their large intestines, and a little of it is retained in their stomachs. In passing through them, however, the water carries considerable quantities of their contents, where it lodges in the intestines. If, then, the contents of horses' stomachs are washed out of them before they are digested, they are in a manner lost, no nourishment being derived from them. Colics in horses frequently arise from this cause, and to it the appearance of corn entire among the dung is often due.

From the *Irish Farmer's Gazette*, of May 15th, we take the following extract from the leading editorial urging upon Irish Farmers the necessity of breeding a higher grade of horses. When our most natural and direct trade shall have been established with Europe via Galveston, profitable markets will be found for many of the products of the west.

He thinks it is a great mistake to suppose that the difficulties in the way of transporting

horses long distances by sea for the ordinary supply of a market are by any means insuperable, and he states the case as follows:

"Horses can be profitably transported by the 'car-load' from Omaha to New York—a distance of fourteen to fifteen hundred miles according to the route, for less than \$2, the emigrant fare between the two places being \$4 48. 8d.; while the emigrant fare from Liverpool to New York is \$2. If they could be transported by sea at a price corresponding with that by land, should be sent from Omaha to Liverpool for a total cost in transportation of \$3 10s. each. But assume that the emigrant fare between New York and Liverpool is too low, and that the \$2 48. 8d. rate formerly charged is a fair one, then, if each horse cost less than half as much as each man, as in the case by rail, horses could be transported from Omaha to Liverpool for \$5; and I see no valid reason why the proportionate cost, as between men and horses, should be very different at sea from that upon land."

In support of the last statement, he argues that, although horses require more space per head than that allotted to emigrants, the food which the law requires to be provided for passengers by sea is much more expensive than that needed by horses; besides, although steamers carry full cargoes of goods and passengers from Great Britain to America, they return with half cargoes and a few passengers; so that the transportation of horses from America would not compete with ordinary traffic; and the writer estimates that the extra cost to the owners of the steamers would certainly be less than 30c; per horse for the voyage from any Atlantic or gulf port of North America. Even when a full return cargo is offered, and space becomes an essential element in the calculation of cost, "it is probable that most of the American steamers could take a limited number of horses on their return voyage for \$3 to \$5 a head, at a fair profit, providing always that the requirements of the traffic were thoroughly understood."

The states which the writer points out as those where horses best adapted for the English market are bred are Kentucky, Tennessee, and Illinois. The Kentucky horses are noted throughout America, and a large number of horses are annually exported from Kentucky and Tennessee to other parts of North America. "For good to first-rate cobs, hacks, and chasers, these States would afford to the English dealer the best combination of quality, number and price. The typical American horse is a roadster. Fast roadsters are to be found in almost every petty township in the more settled parts of America, and trotting time under 2.50 is made at almost every one of the local fairs (shows), of which there are many hundreds held every year. The number of horses that can spin along finely with a substantial weight behind them is very large, and is continually on the increase. The Norman horses, for heavy draught, are being extensively bred in Illinois and some other states."

The average price per head of horses three years old and upwards in the three states mentioned is about \$82, or say \$16, and cash buyers would get them much under these rates. In Texas a small breed of horses, very tough, hardy, and mettlesome, descendants of Arab stock of good blood these Texas horses make most serviceable animals.

There were, it appears, upwards of 9½ millions of horses in the United States in 1874, and over 1½ millions of mules; enormous numbers as compared with England, and in several of the western states horse breeding is as yet in its infancy. If there existed sufficient facilities of transportation, the Americans could flood the English market, and scarcely cause a check to their own rapid rate of increase. It may, perhaps, be supposed that it is impossible to expect any large supply of horses from America; but it is hard to say what difficulties commercial enterprise stimulated by the prospects of high profits, will not affect. At the present moment, it appears, there is a steamer at sea with a cargo of cattle from Galveston, Texas, and this may be the beginning of a large and lucrative trade. But, even supposing this venture should not prove in all respects successful, we are not therefore to infer that the importation of horses from America is an impracticable scheme. Details will become more perfect with each trial, and considering that the steamers between Great Britain and North America now make about 1,200 round trips in the year, and that they often make the return voyage with the 'tween decks nearly empty, it may reasonably be supposed that the owners will turn their attention to the fitting up of their vessels for the accommodation of a trade which would give them a full return cargo, once they are convinced this can be done at a fair profit. This point has, of course, to be decided, and the problem of a profitable traffic in American horses for the supply of the English market practically solved; but English enterprise is quite sufficient to test the merits of the question, and probably the solution of the problem is not so distant an event as may be supposed.

#### THE BARN-YARD.

The barn-yard may be taken as the index of the character of the farmer, says the *American Agriculturist*. As is the barn-yard, so is the farm and the farmer. It is well that all of us should remember that in this case it is no figure of speech to say that straws show which way the wind blows. The arrangements of the barn-yard are not for show altogether. The profits of the farm depend to a great extent upon it. It is in the yard and the barns that the produce of the farm that is not sold outright, is converted into beef, pork, mutton, wool, or milk and butter, articles that may be more profitably sold. It is in the yard also that the manure is made and kept. The barn and barn-yard are the manufactory of the farm, and if they are not arranged with a view to economy a large waste results that reduces the farmer's profit. The majority of farmers in this country from necessity begin business with small means, and do the best they can with the materials at their disposal.

The excellence of farm buildings does not consist so much in the materials of which they are built as in the use made of those materials. Useful buildings may be made of logs or prairie sods or poles and coarse hay; and these, by skillful arrangement, may be made to serve as useful a purpose as dressed lumber and paint or pressed brick. The main points are warmth, dryness and ventilation; for food is wasted when an animal shivers in its stable or when its health is injured by damp, filth or bad air. A farmer who is thoughtful about such things as this (although more important than it appears) may be taken to be a careful, thrifty man, who, by and by, will be able to build a barn with all the improvements, and to build it properly, too. The old proverb, "Take care of the small things and the large ones will take care of themselves," is applicable to matters about farms and barn-yards especially. When the small things are well watched large ones are not forgotten.

#### COATES BROS PHILADELPHIA WOOL CIRCULAR.

The condition of general business throughout the country continues very unsatisfactory, the trade in manufactured goods having been, for some time past, quite unremunerative. This state of affairs has released a large amount of capital, which is now seeking profitable employment, thus making the rates of money extremely low to undoubted parties; but, notwithstanding the abundance of funds, merchantile houses, on an average, are decidedly weaker than a year ago, many merchants as well as manufacturers not having made expenses, much less any addition to their real working capital in business, while the number of actual failures, for sometime past, has been unusually large, and must so continue until the various branches of industry can safely give employment to the large amount of labor now idle.

The trade in wool, in this market, during the past month, has been quite fair for April and the stock here is now reduced to a very low point, the comparatively small quantities on hand having enabled commission houses in some cases to sell at owner's limits while which had been held above previous market rates, so that extreme prices have been realized medium grades being disposed of at 58 for clothing and as high as 72½ for combing, while unwashed brought 44 and 50 respectively. The early wools from Maryland, Virginia and Kentucky, which will begin to arrive during the present month, will reach us on a bare market, and although the demand for wool is not large, at present, yet the clips of these states will probably find ready purchasers if judiciously bought from the growers.

We also note considerable inquiry for Colorado wools at full price, but they are now at most out of stock.

The sales for the month of Domestic Wools foot up about 1,700,000 pounds, and the receipts are stated at 800,000 pounds.

#### THE WAY TO JUDGE OF WOOL ON A LIVE SHEEP.

The finest and softest wool is always found on the shoulders of a sheep. But not one person in 10,000 is aware of this fact. Let us watch an expert when he is about to pass judgement on a sheep concerning the value of the animal for producing wool, and it will be seen that he always looks at the wool on the shoulders first. A writer of extensive experience in rearing fine-wooled sheep and in handling wool, communicates the following suggestions for selecting a good woolled sheep:

"Always assuming that the wool to be inspected is really a fine wool, we first examine the shoulders at the part where the finest and best wool is usually found. This we take as the standard, and compare it with the wool from the ribs, the thigh and the rump and the shoulder parts, and the nearer the wool from the various portions of the animal approaches the standard the better. First we scrutinize the fineness, and if the result is satisfactory, we pronounce the fleece in respect of fineness very 'even.' Next we inquire into the length of the staple, and if we find that the wool on the ribs, thigh and back approximates reasonably in length to that of our standard, we again declare the sheep, as regards length of staple, true and even. We next desire to satisfy ourselves of the density of the fleece, and if we do this by closing the hand upon a portion of the rump, and of the loin wool, the fleece at these points being usually the thickest and faultiest, and if this again gives satisfaction, we signifiy the fact by designating the wool 'even' as respects density. Now to summarize these separate examinations: If you find the fleece of nearly equal fineness from the shoulder to the thigh, of nearly equal length on shoulder, rib, thigh and back, and density on shoulder and across the loins, you may conclude that you have a perfect sheep for producing valuable wool. Selecting sheep for valuable feeders is quite another thing."—*Trade Journal*.

#### FEEDING PENS.

Feeding pens for young chickens should always be provided. Where the feed is thrown out to old and young together, the grown ones get more than their share while the young ones do not get enough. They not only do not get enough food, but are run over and knocked about by the older ones and sometimes severely injured. We have seen instances where the chicks would stand back and not attempt to get any food for fear of being hurt.

Our plan is to use a feeding coop made of lath, large enough to allow most all of the chicks to enter and feed by themselves, while the older ones cannot get in to cheat and abuse them. Any one can make such a feeding pen in an hour or two, and every one who is humane and desirous of giving the young things a fair chance, should do so. A trough may be put into this pen and feed of various kinds in it so that the chicks may help themselves when the feed like it.

#### CROSSING OF SWINE.

In the states of Illinois and Iowa, crosses of the Berkshire and Poland Chins have been tried with very gratifying results, far as obtaining choice animals for feeding is concerned. But it will not do to select boars so bred for breeding purposes. The *Journal* has often expressed the opinion that general farmers, who make the production of pork their main object, cannot afford to make the necessary effort, or give the necessary time and attention to bring their herds up to that high standard which will render it safe to select breeding stock from it. They can better afford to let the professional breeders do this, and then buy boars from them at such intervals as will enable them to keep their herds up to the best producing standard. The importance of selecting boars of the very best types cannot be too strongly urged upon the attention of the farmer, and the better the quality of his stock, the more care should be exercised in the selection of new crosses.—*National Live Stock Journal*.

#### COLORADO POTATO-BUG.

BY PROF. J. S. WHITMAN.

These beetles are making their appearance, and, notwithstanding their eighteen or twenty insect enemies, may become troublesome in some parts of the State. Of the numerous preventives and cures recommended, hand-picking, sun-burning, and Paris-green, seem to be the simplest and most effective. I am assured by good authority that picking the insects and removing the eggs when the vines are five or six inches in height, and again in ten or fifteen days afterwards, is all the attention they require in an ordinary season. Sun-burning is performed in the middle of a clear hot day, by taking a short handled broom and striking the vines with a lateral motion first

on one side and then on the other, which will scatter the beetles and their larvae between the rows where they soon perish from the heat of the sun and earth. But the best remedy for leaf-eating insects, as far as human agency is concerned, is the application of Paris green, the arsenite of copper, to the moist foliage of the plants. The potato-bug, blister beetles, and striped cucumber beetles suffer equally from its effects. Before using the Paris green, mix it with from five to ten times its bulk of flour and apply it to the plants with a sifter or gauze bag attached to a handle three or four feet in length; this must be done while the plants are wet with rain or dew. The handling of this poison must never be entrusted to children.

I see no good reason why the white arsenic of commerce, which is much cheaper, could not be substituted for the Paris green. Will some lover of the melon, cucumber or squash, try it on the stupid beetle and report.

#### AGES OF BEES.

The queen passes about three days in the egg and five in the worm; the workers then close her cell and she immediately begins to spin her cocoon, which takes her from twenty to twenty-four hours. On the tenth and eleventh days and perhaps a part of the twelfth day, she seems to be exhausted by her hard labor. She now remains in an almost complete repose; she then passes four or five days as a nympha, and on the fifteenth to the sixteenth a perfect queen is attained. Much depends on the strength of the colony and the heat of the season, which will vary it from one to two days.

#### THE DRONE.

The drone passes three days in the egg and about six in the worm, and changes into a perfect insect on the twenty-fourth day after the egg is laid. Much depends on the strength and heat of the colony, which should be about 70° Fah., for their speedy development. They lay in rather a dilatory state for several days after they hatch, before taking wing.

#### THE WORKER BEE.

The worker bee spins its cocoon in thirty-six hours. After passing three days in the egg in this state of preparation for a new life, it gradually undergoes a great change, and becomes armed with a firmer body with scales of a brownish color, and somewhat fringed with light hairs. On its belly it has six rings or scales. After it has reached the twenty-first day of existence—reckoning from the egg—it comes forth from the cell on the twenty-first to the twenty-second day, a perfect insect, and is termed an imago. This is the simple stage of the worker bee, as it is fully developed when it comes forth, except in size, it soon becomes a sportive inhabitant of the air, and ready to enter upon the duties of gaining a livelihood, which varies from six to eight days from its birth, then all seems to be business the remainder of their existence.

A. F. MOON.

In Practical Farmer.

#### ALCOHOL—ITS ACTION AND ITS USES.

The *Journal of Chemistry*, in giving a review of a lecture by Dr. Richardson, on the above subject says:

"The flush seen on the cheek during the first stage of alcoholic excitation is commonly presumed to extend merely to the parts exposed to view. It cannot, however, be too forcibly impressed that the condition is universal in the body. If the lungs could be seen, they too would be found with their vessels injected; if the brain and spinal cord could be laid open to view, they would be discovered in the same condition, and so on. Dr. Richardson said he had witnessed this vascular condition of the lungs of an animal killed suddenly when under the influence of alcohol. He once had the opportunity of observing the same phenomenon in the brain structure of a man who, in a paroxysm of alcoholic frenzy, had his brains dashed out by the wheel of a railway carriage. The brain, entire, was examined three minutes after death. It exhibited the odor of spirit; its membranes and minute structure were vascular in the extreme. 'It looked as if it had been injected with vermilion.' The white matter of the cerebrum could scarcely be distinguished, and the pia mater, the internal vascular membrane covering the brain, resembled a delicate web of coagulated red blood.

The function of the spinal cord is influenced by the continued use of alcohol. This is the seat of automatic mechanical acts, and these pure automatic acts cease, under the influence of alcohol, to be carried on, the nervous control of certain of the muscles is lost, and the nervous stimulus is enfeebled. Then come in swift succession the impaired condition of the brain centres, and the will and judgment suffer shipwreck; the rational part of man abdicates, the emotional or organic reigns. Happy is it for the inebriate that the brain falls before the heart, which to the last remains faithful to its duty. When once the circulation dies, the tragedy is finished.

#### PERSONALS.

The Tichborne affair has been put into a play in Paris.

Miss Harriet Martineau is busy writing her autobiography. She is seventy-two years old.

The Belgian journals deny the report that the ex-Empress Carlotta is dangerously ill.

Heaven being kind to him and his, Mr. Sartoris will return to England with his family in September.

It is announced that the Marquis of Lorne and his wife, the Princess Louise, will make an extended tour through the United States this summer.

Apes, of an intelligent breed, are used as slaves in the Malay Peninsula, and seem to take to labor as naturally as the earlier developed Anglo-Saxon.

Mrs. Senator Sumner that was, is about to enter into conjugal relations with a party by the name of Jones. She says: "I'm tired of marrying for greatness—a woman wants something else besides that."

Since Edwin Forrest closed his engagement with old Manager Time, the wife that gave him so much trouble in his life has received her last cent of his estate. She is Mrs. Sinclair now, and lives in a New York hotel.

Whoever may be absent from the Brooklyn trial, Mrs. Beecher is almost always on hand. She wants to see the thing settled, and no wife will blame her for the interest she takes. It is rumored that she has said that she intends to determine herself, by the testimony, what the verdict should be.

Miss Braddon is about to write a novel in which the hero and heroine elope across the English Channel in Capt. Boyton's life dress, while the enraged papa, following behind with a pair of cork floats, becomes exhausted, and is taken on board by the happy pair, whom he then and there forgives and blesses.

## Scientific Miscellany.

### THE SCIENCE OF ADULTERATION.

BY S. P. SHARPLES, STATE ASSAYER.

The moment that a man stops doing a thing for himself, and employs another to do it, he generally finds that he has to watch sharply or he will be cheated in some way or other. The spice business is no exception to this rule. In old times, when every one brought spices whole, and ground them at home, they were pretty certain of being what they were called; now they may or may not.

The first change from the old fashion of selling whole spices was selling ground spices in bulk. But all articles of which the value depends on an essential oil rapidly deteriorate after grinding, if exposed to the air; so the trade was soon forced to put them into tin boxes, bottles, or other close packages. This gives rise to several kinds of frauds. The article may be genuine and of good quality, but short in weight, the box, spice, and all weighing but little, if any, more than the spice alone should weigh. The packers urge, and with some show of reason, that they must be paid for the expense of boxes and boxing, and that this is the easiest way of collecting the money.

The second fraud is selling as a first class article one that is of poor quality or has been damaged before grinding. The purchaser has no chance of examining the article before purchasing, and must take what he can get. In this connection we have heard much complaint of various herbs that are put up for kitchen use, the users declaring that it took a whole boxful to give any taste to the meat.

But the grinders do not stop with putting up inferior articles; there is a great deal of adulteration beyond this.

Mustard is a favorite article with these gentlemen. Ground mustard has much too pungent a taste to be agreeable if used pure, and as wheat flour is much cheaper, they often get mixed. But this makes it too white, so turmeric is added to color it. Both of these adulterations may be detected by the microscope. Sometimes the manufacturer forgets to put any mustard in, and uses pepper instead. Horehound is another similar article that is hard to obtain pure, turpentine being the grinder's most profitable crop. Pepper, both black and red, is not always what it purports to be, sawdust colored with Venetian red being made to do duty for cayenne pepper, while rice, flour, talc, and similar substances stand for the black or white. Ginger is regularly prepared in two grades, one of them being largely mixed with turmeric.

A great deal of the adulteration of ground spices is said to have arisen from the practice of certain wholesale dealers demanding the same weight of spice from the mills as was sent to be ground. There is always some waste from dust, husks, and the like, and the millers therefore make up the weight by adding various cheap articles.

The only means that amounts to much in the analysis and detection of adulteration in this class of goods is the free use of the microscope, the samples being thus compared with those known to be genuine. Various authors, chief among whom is Dr. A. H. Hassall, give drawings made with the camera lucida of both the genuine article and the adulterations. These are a great help in the work. In examining these articles with the microscope, it is best generally to moisten them with a little water, and then cover with a thin cover. In this way the structure is usually much better brought out than when the substances are examined dry. Polarized light will also frequently be found to be of value in this examination.—*Journal of Chemistry*.

### HOW BAR-ROOM LIQUORS ARE MADE.

There may be seen daily, on Chestnut street, says the *Philadelphia Bulletin*, a man dressed in faultless apparel, with a great diamond upon his breast, vainly endeavoring to out-glint the magnificent solitaire on his finger. In a German university he learned chemistry, and not even Liebig knows it better. His occupation is the mixing and the adulteration of liquors. Give him a dozen casks of deodorized alcohol, and the next day each of them will represent the same of a genuine wine or a popular spirit. He enters a wholesale drug store, bearing a large basket upon his arm. Five pounds of Iceland moss are weighed out to him. To raw liquors this imparts a degree of smoothness and olaginousness that gives to imitation brandy the glossiness of that which is most insured. An astringent called catechu, that would almost close the mouth of a glass tumbler, is next in order. A couple of ounces of strychnine, next called for, are quickly conveyed to the vest pocket, and a pound of white vitriol is as silently placed in the bottom of the basket. The oil of cognac, the sulphuric acid, and other articles that give fire and body to the liquid poison, are always kept in store. The mixer buys these things in various quarters. They are staples of the art.

### TREATING THE WRONG DISEASE.

Many times women call upon their family physicians, one with dyspepsia, one with palpitation, another with trouble of the breast, another with pain here and there, and in this way they all present alike to themselves and their easy-going and indifferent doctors, separate and distinct diseases, for which he prescribes his pills and potions, assuming them to be such, when, in reality, they are all symptoms caused by some uterine disorder; and while they are only able perhaps to palliate for a time, they are ignorant of the cause, and encourage their practice until large bills are made, when the suffering patients are no better in the end, but probably worse for the delay, treatment, and other complications made, and which a proper medicine directed to the cause would have entirely removed, thereby instituting health and comfort instead of prolonged misery.

From Miss Lorinda E. St. Clair, Shade, Athens Co., Ohio:

"Dr. R. V. Pierce, Buffalo N. Y.—Your Favorite Prescription is working almost like a miracle on me. I am better already than I have been for over two years."

From Ella A. Schaefer, Zanesville, Ind.: "Dr. Pierce—I received the medicine you sent me and began using it immediately. As a result of the treatment I feel better than I have for three years."

From Mrs. John K. Hamlin, Odell, Ill.: "Dr. Pierce—The Favorite Prescription has done me good, which I am very thankful for."

Dr. Pierce's Favorite Prescription is sold by dealers in medicines.

### THE BEST FAMILY JOURNAL IN THE WEST.

The KANSAS FARMER will be sent the balance of the year 1875, for \$1.00.



KANSAS STATE HORTICULTURAL SOCIETY.

Proceedings of the Fifth Semi-Annual Meeting, held at Ft. Scott, June 24 and 25, 1875.

The society convened at McDonald Hall, at 10 o'clock, a. m., Wednesday, and was called to order by the President Prof. E. Gale. The exercises were opened with prayer by Rev. Warner, of the Congregational Church.

The following gentlemen were appointed a committee to arrange the order of exercises for the meeting:

Messrs. Robt. Milliken, of Emporia, A. Shinn, of Ft. Scott, Judge Fred. Wellhouse of Leavenworth.

By request, the Secretary read the Constitution and an opportunity was given for persons to become members of the society.

On motion, Messrs. J. D. Manlove, M. M. York and J. B. Saxe were appointed a committee to solicit membership.

The following communication, received from Dr. Wm. Howsley, was read by the President:

Leavenworth, Kansas, May 31, 1875.

Prof. E. Gale and Members of the State Horticultural Society:

I regret, exceedingly, that circumstances which are beyond my control, will prevent my attendance at the Fifth Semi-Annual meeting of our society. I regret it the more because it will be the first time that I have failed to attend any of the meetings since its organization.

I regret that it will not be my pleasure to meet and mingle with those Horticultural Friends with whom I have on so many former occasions had many pleasant interchanges of views and feelings, and from whom I have received so many valuable lessons of instruction. However, I feel cheered with the hope that my life and health may be spared and that circumstances may be more propitious to enable me to attend the annual meeting at Manhattan in December next.

Hoping that you may have an interesting meeting and one which will prove valuable to the science of Horticulture and the public, I subscribe myself as ever,

Yours truly, Wm. M. HOWSLEY.

The committee on order of exercises made the following report:

Hours of meeting each day to be Morning Session to open at 9 o'clock, Afternoon Session to open at 2 o'clock, Evening Session to open at 8 o'clock. Opening exercises. Prayer, followed with music.

WEDNESDAY MORNING, JUNE 2.

Essay, "Grape Rot and Mildew of the Leaf," by Dr. Wm. M. Howsley, Leavenworth.

Discussion on the subject.

WEDNESDAY AFTERNOON.

Essay, "Small Fruits," by J. B. Saxe, Ft. Scott.

Discussion on the subject.

A paper by D. B. Skeels, Galesburg.

WEDNESDAY EVENING.

Address of welcome by Gen. C. W. Blair and J. D. Manlove, Ft. Scott.

Response by G. Y. Johnson, Lawrence.

Semi-Annual address by President.

On motion the report was adopted.

On motion of the Secretary, the President was instructed to appoint a Chairman for the department of vineyards, and Dr. J. M. DeBall, of Paola, Miami county, received the appointment.

On motion of Judge Wellhouse, the following committee on Constitution was appointed:

F. Wellhouse, H. E. Van Deman and Geo. Y. Johnson and was instructed to report at the next annual meeting an amendment to Art. III, admitting ladies to membership without fee.

The Secretary read a paper contributed by Dr. Wm. M. Howsley, of Leavenworth, as follows:

THE ROT OF THE GRAPE AND MILDEW OF THE LEAVES—THEIR CAUSE AND PREVENTION.

There are no two questions in the whole range of Horticultural science which call forth more conflicting answers than those at the head of this article. And yet it seems to us that there are none more easy of satisfactory solutions.

To us it seems strange that the learned should overlook all the facts and analogies, which are so palpable while investigating these questions.

The author of our being and of the world has, in his wisdom, so arranged the animal, vegetable and inorganic kingdoms of the earth that each is dependent upon the other for the perpetuation of its form and functions.

The inorganic matters which lie bedded in the earth and float through the atmosphere are so disintegrated as to be readily appropriated by the vegetable kingdom for its production, growth and maturity, while the vegetable becomes mainly the food of other animals, as well as man, and having performed their functions in building up the animal system, are returned again as effete matter, to the bosom of the earth, there to undergo again the same transformation as at first. Thus the whole system of organic and inorganic nature perform an endless round of composition and decomposition, growth and waste. What the one gains the other loses and what one loses the other gains, so that the equilibrium is unbroken from the beginning to the end of the world.

Furthermore there is nothing lost. These kingdoms put together and run by such matchless wisdom, has each of its individual organized members so constructed that

there must be a systematic harmony in the functions of all its organs to produce sound health. A break in this harmonious action results both in disorder and disease, and often in death.

It is a want of due consideration of this necessary harmony in organic action that originates so many and such discordant views when treating of "Grape Rot and Mildew of the Leaf," by almost any one who treats of these subjects.

If, as is now almost universally conceded, the roots of plants perform analogous functions for the plant that the stomach does for an animal, and that the leaves perform in great part for the plant what the lungs do for the animal, then it is evident that a broken balance between these two vital organs must of necessity produce disease and ultimately the death of the individual. If the analogy here assumed is correct, then, to our mind at least, it is conclusive that the murderous system of pruning, so generally practiced in the vineyard, is the cause of so much disease upon both fruit and vine, as is now so much dreaded and complained of. Those grape-growers who go on, year after year, cutting away the top of the vine, keeping it always pretty nearly the same size, while the root, as best it can, goes on enlarging, furnishing every year an additional amount of sap thrown upon a diminished amount of leaves, are the authors of their own misfortunes. Thus are the leaves, with a diminished ability, required to perform an additional amount of labor which they are unable to perform. This broken balance between the root and leaf surface or, to put it more plainly, this broken balance between the stomach and lungs of the plant must, of necessity, produce disease and the ultimate death of the vine.

It would seem these plain Physiological illustrations ought to convince anyone that it is not incongeniality of soil or of want of varieties to either climate or soil half so much as our own want of judgment in their treatment.

It has been, in our judgment, this injudicious and blind system of pruning that has driven the Catawba grape, once the grape of the million, almost entirely out of cultivation. As an illustration of this theory, we refer to the practice of Dr. Schroeder, of Illinois, who renews his vineyard every few years by layering his vines so that the roots and tops are kept somewhat in proportion to each other. We know of another cultivator of the grape who thinks he has found the remedy of grape rot and mildew of the leaf; which is to cut off all the surface roots. This is a step in the right direction, but is, nevertheless, practicing upon a false philosophy, supposing that because they are surface roots, they are therefore the cause of the disease. It is because he has lessened the disproportion between the root and the top, that good results seem to follow. Dr. Hull, a distinguished fruit-grower of Alton, Ill., attributes rot and mildew to incongeniality of soil, and yet he admits that years ago he had no difficulty in raising fine grapes while his vines were young. He now attributes the failure to the causes above named rather than to excessive pruning.

Why, we would respectfully ask, is it that we see nothing of rot and mildew in the wild vines of the woods? They are never pruned, and yet they grow to the size sometimes suitable for fence poles or rails and live to an age perhaps reaching one hundred years, or more. This injudicious system of pruning has driven the Catawba, the Isabella and the Clinton pretty well out of cultivation. And yet, by the scientist, in case of the Clinton especially, the Phylloxera is charged with all this mischief. The presence of the Phylloxera is but the necessary result of the diseased condition of the vine induced by their merciless pruning. And why, we would ask again, is this supposed insect enemy so prone to prey upon the roots of the Clinton vines in preference to almost any other? Simply because the Clinton is a more rampant grower than any of the finer varieties and is consequently more impatient of restraint and is more easily diseased by this savage pruning. Hence the diseased condition of the Clinton root induces the presence of the Phylloxera and not the presence of that insect produces disease. Most of these supposed insect enemies are scavengers, rather than depredators.

Upon a calm, Physiological investigation of this question, what other results could we look for from this broken balance between the roots and top of the vine, than rot of the fruit and mildew of the leaf. The disproportion between the amount of sap furnished by an increasing root and stationary or diseased leaf surface renders the latter wholly unable to either throw off the superabundance of sap sent to it, or to vitalize any portion of it for the healthy action in the vine. Moreover, it is said that the thin leaved kinds suffer soonest and most. Why? Because their delicate tissues do not bear the same amount of turbulence that the thicker leaves do and consequently are more easily ruptured with the same amount of distention. To illustrate, take a Delaware vine and a Concord vine pruned after the usual fashion, with a very small top and a very large root. These under very flourishing circumstances may seem to do well for a while, but let there come a spell of close, cloudy, warm weather near the maturity of the fruit, when the root sends not only an abundance but a superabundance of sap to each of these leaves, and the consequences are very apparent and easily accounted for. The weather being damp and warm, the sap accumulates in the leaf while the leaf is unable, because of the surrounding dampness to throw off as fast as it receives, the sap becomes, in consequence, distended to its utmost capacity. In this condition of the leaf let the sun suddenly shine and the work of destruction to the leaves is complete. A diseased vine consequently follows—all from a disproportion between the feeding capacity of the root and vitalizing capacity of the leaves, induced by too much pruning; to the Delaware first, the Concord last.

Cultivators now days seem to follow the example of the boy who killed the goose that laid the golden egg; they kill their vines for a few choice clusters for the present, thereby depriving themselves of a future blessing for the sake of a present enjoyment. It seems to us that a very large part of the insect world are made the scape goats for our sins. They are charged with more than they can do. Having thus at some length argued the question of cause of rot and mildew of the grape, it now becomes necessary to speak of its prevention, for a cure in such a case is as hopeless as in a case of tuberculous consumption in man. Now will come in all the appliances usually called remedies. First, healthy vines to begin with. Secondly, adaptation of soil, climate and location, since all parts have their peculiar preferences for these conditions. Thirdly, most soils, however well suited in other respects, are usually much improved by under draining, either partially or thoroughly. The importance of this last requirement can hardly be too greatly magnified since a surplus of water, lying among the roots, not being in active employment in carrying food to them, becomes a source of incipient disease. This evil under draining remedies by holding the surplus water in reserve, to be furnished to the roots, as it may be needed during the growing season by the attraction of the sun, and by keeping it below the roots during winter. All of these do much toward preventing these diseases. As a prevention, we believe that neither trellises or stakes have any applicable influence. Supposing then that you now have your vineyard set with healthy young vines in suitable soil and congenial climate, your land well drained, naturally or artificially, and your vines staked or trellised; you are now ready for its further management. Pruning it now the first thing that claims your attention, and the very first thought that presents itself upon this branch of the subject is whether the pruning shall be done while the vine is in a torpid state or whether it may be done while the vine is in an active, growing state as well as while torpid. That vines, as well as all fruit or flower bearing plants, need a certain amount of pruning for a specific purpose, few will question, but as to the proper time when, and the extent to which this process shall be carried, there is much diversity of opinion. The prevailing opinion and practice, however, seems to be to prune heavily while the vines are at rest, and moderately during its active growth and fruiting. From this practice of both winter and summer pruning, we beg leave to enter our decided protest, for the following reasons: First, because, as before remarked, this heavy pruning at whatever time performed, is the principle cause of rot and mildew. Secondly, because if persisted in will ultimately cause the death of every vine so treated. But such pruning done in winter, or later, as will remove the late unripened growth and so much of the ripened wood as will give the roots a preponderance sufficient to set and ripen a reasonable crop of fruit is all that is necessary in the way of pruning, and if strictly carried out will be an effectual preventative to the disease. Withhold your hand from summer pruning or picking. If summer pruning is to be practiced at all, let it be by thinning the fruit and not the wood and leaves. If you must have fine fruit, produce it by lessening the number of clusters, but not by lessening the wood or leaf surface.

In addition to the foregoing directions, should crowd each other too much, it is far better to remove a vine, root and branch, than to destroy the due proportion between the root and top of your vines. A vineyard thus treated will continue in health and fruitfulness for many long years. If, by this practice, you lessen the number of vines, you nevertheless retain the same amount of bearing surface to the vines as though they were more in number.

Light pruning in winter and none in summer, with good cultivation of the ground and removing a vine occasionally, and the result of the great grape crop will bring joy and gladness to the heart of every such cultivator.

In conclusion: As an effectual preventative to these deplorable maladies,—rot and mildew,—you have a choice of two courses; either to thin out your fruit and vines when necessary, or to renew your vineyards with young, healthy vines every few years before the old ones become badly diseased. By either of these courses grape-growing can be made to bring the richest rewards in money and unmixed pleasure to every lover of this delicious fruit. Among all of the cultivated fruits, for the enjoyment of man, none stands so deservedly high as a luxury, as the luscious fruit of the vine.

Discussion following:

Dr. Stayman:—I regret that Dr. Howsley is not present to defend the theories advanced in this paper. The vinyardist will find such a system impracticable. I have about one hundred Clinton vines that are ten years old and were never pruned, yet the fruit rots and the leaves mildew; I have Concord which have been treated in the manner recommended by the essayist, and they, too, suffer from rot and mildew. In my opinion, the cause of the diseased condition of our vineyards, is the want of a proper preparation of the ground for them. The soil should be reversed, the surface being the most fertile with plant food, should be placed below, which will induce the roots to strike deep and thus avoid the development of surface roots which are so much and seriously affected by the extreme heat and cold, drouth and rainfall, which must affect the tops.

J. D. Manlove:—In some respects I approve of the system recommended in the paper just read, but believe in pruning; many vines in this vicinity, not trimmed, have failed, those pruned are healthy.

F. Wellhouse:—Some of the suggestions contained in the essay are good. If we do not prune, the bearing wood will, each year be formed further from the main stem and the vines will become burdened with un-

productive wood, and the amount of space required, over which to extend the unchecked vine, would soon render grape-culture unprofitable. The renewal of the vines, as recommended, I believe a safe system, whether we prune, or not.

The meeting adjourned.

WEDNESDAY AFTERNOON.

At the appointed hour, the members re-assembled and came to order with the President in the chair.

The exercises were opened by an Essay on "Small Fruits," as follows, by J. B. Saxe, Ft. Scott:

CULTIVATION OF SMALL FRUIT.

A class of fruits, which includes the grape, the king of all fruits, is so important as to justify any efforts to overcome the difficulties of cultivation. The obstacles peculiar to our State, and which apply also to other classes, are mostly due to climate conditions. We have a continental, as distinguished from an insular climate, the chief features of which are great extremes of temperature and moisture. The grape, it is true, is well able to bear these conditions, if they are properly adjusted to the growing season of the vine.

The American grape is less sensitive than the Eastern, but partakes of its general nature or character. Both seem more sensitive to vicissitudes of moisture than of temperature. The European vine seems to flourish in inverse proportion to the amount of rainfall during its growing season; so that in California, where there is absolutely none, it reaches its highest perfection. In New England, the native home of the Concord—the ancient *vin-land* of the early Scandinavian discoveries—the greatest amount of moisture occurs from melted snows in the Spring, as in the case of the Winter rains of California before the growth of the vine commences. But here the conditions are reversed. Our principal rainfall occurs in early Summer, precisely during the most active growth of the vine. This is unnatural to it, and the main obstacle to be overcome. Give it proper conditions of moisture, and it cares nothing for cold, being at home in a Massachusetts' winter.

What can we do to obviate the effects of this excessive wetness of season? It is obvious that we must depend mainly on drainage. Unless the land is naturally under-drained—and I know of none suitable for the grape in this vicinity—it must be thoroughly drained by a system of tiling, or some substitute for it, to the depth of three or four feet, and then sub-soil. I believe this to be, here, the most important of all considerations; and that the permanent success of a vine yard is impossible by any other means. When I first came to Kansas, I thought the dry, rocky lands, so abundant in this vicinity, would be just the place for vine-yards; but now regard them as worthless for this, or almost any other purpose. The soil is so thin, and the rocks so tight beneath, that the roots cannot penetrate to any proper depth; and when the dry seasons come, as come they surely will, the moisture will be exhausted and the vine die, or be rendered worthless. And the older the vine gets, the more it will suffer in such a situation. On the other hand, if you put your vine-yard on deep soil, under-drained, it will be so full of water in early Summer, that the roots cannot go down, as it is natural for the roots of the vine to do, and when the drouth comes they will be in the same condition as the vines on the rocks. Or if the roots do chance to work down in a favorable season, they will become diseased by growing in the water the next wet season, and the vine become sickly or die.

Mr. Wm. Bright, of Philadelphia, a few years ago, published a book to controvert the system of deep trenching, advocated by Downing and others, and to advocate shallow plowing as a preparation for planting vine-yards; but he also advocated close pruning, after the European style, and admitted that it might be advisable in a few years to renew the vine by layering. However, this system might work for a few years at the East, it surely is not the proper method for us. It is natural for the roots of the vine to go down, and go down they must, if it is to remain permanently healthy and productive; and for them to go down, the land must be freed from superabundant water during the growing season. At other times it would do no harm.

Of course, a young vine-yard might do tolerably well for a few years almost anywhere; but no old, healthy, productive vines need be looked for here, except on deeply drained land, either naturally or artificially.

Other small fruits are not naturally so deep rooted, and are, therefore, less sensitive to superabundant wet in the growing season. The main thing is to protect them from the effects of excessive drouths. This may indeed best be done by draining and sub-soiling, but may also be done by thorough cultivation, and mulching. For strawberries, discard the Wilson, and take some deeper rooting varieties. For raspberries, depend mostly on the black caps; and, for blackberries, on the Kittatiny. Thoroughly cultivate in the early part of the season, and mulch when the dry weather comes; and then remove the mulching, after the rains are again abundant. If you keep the mulching on all the time, the roots will come to the surface, and when the next drouth comes, the plant will be in a worse condition to bear it than before. In this way we may have abundance of strawberries, raspberries and blackberries, generally; but if the drouth is excessive early in the season, strawberries will have to be irrigated to amount to much.

To ensure a crop of red raspberries, the vines must be laid down and covered up in the Fall, as there are no varieties, not even the Philadelphia, which are hardy enough to bear, the cold and winds of our winters, following the enfeebling effects of such dry Summer as the last one.

Van Deman:—Small fruits require an even temperature around the roots to enable the plant to mature the fruit buds. Mulching will aid much in accomplishing

this result. Extremes in the weather are the causes of debility.

Dr. Stayman:—We should aim to keep the roots down in the cool soil; by cutting off the surface ones, and by having the soil reversed, rich soil will attract the developing roots.

M. M. York:—I do not mulch at all. Thorough culture, with even a double shovel plow, will do more good than all the mulching you can give the plants. Such has been the results during even the drouth of the past Summer. I have kept up a good growth, no matter how severe the drouth, by constant and frequent stirring of the ground. Mulching prevents the ground absorbing the moisture in the atmosphere. Good culture facilitates that work.

Robt. Milliken:—Thorough culture has averted the calamities of severe drouth with me. Mulching is quite a help sometimes.

Dr. Stayman:—Underdraining gives moisture in drouths, and carries away surplus water in rainy seasons.

J. D. Manlove:—The heaviest crops of strawberries I ever raised were grown by plants heavily mulched in Autumn, and allowed to remain until after the fruit had ripened.

Robt. Milliken:—I have trenched for the strawberry, and can see no difference in crop results, and such has been my observations. Kansas soil, generally, will be much improved by underdraining. Holes for trees should never be dug below drainage. I have lost heavily by water settling into such places.

Dr. DeBall:—This discussion reminds me of the old lady's recipe for good indigo. Good indigo will either sink or swim. Did not know which. I believe the grape will succeed upon the soil along the streams in Kansas, but not upon the flat prairie soil. Some soils will produce good grapes. A sandy or porous sub-soil needs no artificial drainage. Fruits will succeed in our State, as well as in any other, if care is used in properly selecting locations. It is useless to plant upon every character of soil and situation, and the safest guide is in selecting such a condition of soil and location as is found successful in your immediate vicinity, or the nearest to you.

Discussions upon the subject of the Essay closed, and Mr. D. B. Skeels read the following paper:

[Mr. Skeels' paper will appear next week.—Ed.]

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## Literary and Domestic.

EDITED BY MRS. M. W. HUDSON.

## A CHAPTER ON VISITING.

Why do we visit? We are actuated by different motives. Our object should be threefold. We should endeavor to give pleasure, receive pleasure, and be mutually benefited. How many of us make this our principal aim? but few I am afraid. If we did why should we be annoyed if a neighbor happens to find our house out of order. Was it our house our visitor came to see, or ourselves? If it was our house, or to see what kind of a housekeeper we were, then an apology or explanation would be due; but if it was for mutual pleasure and benefit, then the visitor is wronged.

Not long ago I made the acquaintance of some ladies who had recently come into the neighborhood. They were pleasant, agreeable, and intelligent; they would be quite an addition to our society, I thought, and hastened to extend the courtesy due from an old resident to a new one.

My first call changed my opinion of them. They were living in a small house, and had not bought much furniture yet. Their first and last greetings were apologies. They apologized all the time I was there, and for each deficiency separately. "If they were only in their new house they could entertain me." "They were so sorry," so was I. I went away, if I say disappointed, I use a very mild word to express my feelings. Had they not better have been agreeable and entertaining, and in that way have drawn attention from rather than to their surroundings.

Another incident presents itself to my mind. I was going to town one day and a friend requested me to carry a message to, and bring back an answer from Mr. I. I agreed to do so with pleasure, as I had been long acquainted with his family. As I rode along I indulged in pleasant reminiscence, and made up my mind to hurry up my business and spend an hour or two in talking over old times.

As I stepped up to one door I saw a figure in a wrapper and dusting cap vanish through another; I took in the situation at a glance; they were cleaning house, my visit was untimely, my mind was soon made up, I would deliver my message and leave, with a promise to call again. Mr. T. came to the door, I inquired after his family, and then made my business known. To enable him to give a definite answer it was necessary for him to consult his partner. He asked me to be seated while he stepped across the street to see him. I went in and sat down, he then went into an adjoining room and talked in a low voice to some one, presently the voice of a woman in decided tones reached my ear saying, "I won't do it, I will not see any one, I am ashamed of the house."

I left thinking that she had more reason to be ashamed of herself than her house and concluded that Burns might be correct in saying that "a man's a man for all that," but the same would not apply to women generally, for so many depend so much on dress, surroundings, and appearance. It looks as if they set a very low estimate on themselves, viewed in the right light, it shows a lack of self-respect.

If you had a few hours to spend in reading, how long would an elegant binding recompense you for the lack of good reading, or if the reading was good, how long would it be until you would forget all about the binding.

I do not wish any one to think that I consider appearance of no consequence, but that they are of secondary importance. It is due to ourselves and our friends that we appear well, but if we cannot do as we wish let us do the best we can, and if we should appear at a disadvantage let us accept the situation, and make the most of it and not make matters worse by worrying and being ill at ease. It is trying to have to entertain persons from whom you can derive neither pleasure nor benefit, as those living in new settlements often have to do, where persons of different tastes and habits are necessarily thrown together and compelled to interchange civilities without regard to congeniality.

I was sorely tried when this was the frontier and sparsely settled. We were dependent on each other for neighborly favors, but for our intimate friends we often had to go a long way. We usually met a number of our friends at a monthly basket meeting, the smallest portion of the feast for me being contained in the basket, each meeting forming an era, as it were, in my life. Seeing and exchanging thoughts with congenial friends strengthened and enabled me to bear patiently the privations to which I was unaccustomed. Besides the minister understood human nature, and so distributed the bread of life that each one received a portion suited to their needs, a necessity which many ministers do not understand, or at least fail to do.

Just as we were ready to start, I saw Mr. and Mrs. W. coming to spend the day; we

must stay and entertain them, there was no help for it, according to the custom of the country it would have been an unpardonable offense to have asked to be excused.

I leave the reader to imagine my disappointment which will be an easy matter when I tell you what uninteresting people they were; their thoughts never reached above or beyond the farm or kitchen; they not only did not reach, but they had a contempt for "book larnin." They were narrow minded and bigoted. I can gain nothing from such people, I thought, neither information nor pleasure. I had about concluded to ask them to excuse me and take the consequences (which would have been their everlasting ill will,) but presently when conscience was aroused, and suggested thoughts like these, "are you the only one whose comfort and pleasure is to be considered, have not they claims that hospitality forbid you to disregard, doubtless kind feelings prompted them to come, and if you return rudeness for civility, where is your boasted superiority?" better feelings and a sense of right and justice gained the ascendancy; so removing all traces of agitation, I went in and bade them welcome.

Now don't think hypocrite, for I did not act in that spirit, I had conquered self, and you know Solomon says that, "Greater is he that hath rule over his own spirit, than he that taketh a city."

In looking back I can see that much more real good to myself resulted from it than would have been likely to result from many basket meetings.

I sometimes wonder why we commit so many acts of selfishness, or thoughtlessness. How often we do a kind act or speak a sympathizing word which would give pleasure and cost us nothing, our neglect to do so is not the result of unkindness, as often as it is the want of thought.

A great mistake is often made (with the kindest intention) in visiting the sick. I can make my meaning plainer by illustration, so I will illustrate an incident in my own experience, and I think there are many who can call to mind similar cases.

I had intermitting fever, on Sunday one of our neighbors (as was their custom) came one and all to see the sick, thinking evidently, that they were showing great kindness. Mrs. ——— said to me, "I just heard that you were sick and I thought we must come and see you, although we had intended to go to see another sick friend to-day, but as the days are long, I thought we could go both places; we will go there this afternoon." They had their children with them; we could not get a girl, our children were small but they had been doing the work and helping take care of mamma; tasks which they performed very cheerfully when alone, but now that they had company there was no restraining them, so for the sake of quiet they were all sent to play.

Then dinner had to be cooked, and the visitors had to cook it. (Our own family could have done with a lunch.) There was no one to tell what to do or where to find anything but myself. I thought no witness in court was ever asked more questions than I was while dinner was being cooked. Where was the soda and lard? Where was the salt and pepper? Should they make tea or coffee? They asked questions about everything they did; they seemed to be actuated by kind feelings and a wish to please, but what a trial to aching head and quivering nerves.

If it is true that new kings make new laws, it is equally true that new cooks do the same, especially if the new cook is a child.

I could not see the kitchen, but I had an unpleasant impression that it resembled the bachelors' hall, whose "cupboard was a store house of comical oddities, such as niver was neighbors before."

The fact of its being in such a plight, and being seen by strangers who might be inconsiderate enough to take it as a specimen of my housekeeping, and go away and make remarks about it did not tend to lesson my fever.

Finally the meal was over and our neighbors left feeling no doubt that they had fulfilled the scriptural injunction, "visit the sick," so they had to the letter.

Presently another neighbor came in with a wrapper on; she said to me, "I got dinner early to-day, and left the children to wash the dishes and take care of baby, while I came to see if I could do something for you." "Shall I not give you a sponge bath," she said, "it will cool your fever;" an offer which I gladly accepted. How it calmed and cooled me. She then let down the blinds and said, "now try to sleep while I put things to rights in the kitchen. She may not have been any better at heart than the other neighbor, but how much more sensibly she acted, since then I always try to do something for the sick when I visit them.

There is another point of which I wish to speak, that is profuse apologies at the table; some will declare that they have nothing fit to eat, when they know it is all

very good. Sometimes an explanation seems necessary, but when it has been made do not refer to it again, for useless apologies are tiresome to most people. Many a merited reproof has been administered; one occurred within my knowledge which amused me. A lady who was famed for and prided herself on baking good mince pies usually disparaged them that particular attention might be drawn to them.

One day an elderly gentleman was eating dinner at her table; she passed him a piece of pie saying, "will you have a piece of mince pie, I don't know that it is fit to eat." "No thank you" he replied, handing the pie back, "if it is not fit to eat I do not want it." After that she let people judge for themselves as to the quality of her pies.

I once ate dinner with a lady whose plain quaker style pleased me. When we had sat down to the table she said, "we have not a very bounteous meal, but it is more than we give heartfelt thanks for to the Giver of all good."

In looking back over my life I see that I made many mistakes, committed many errors, and received many lessons before I arrived at my present view of the subject. Although I still make mistakes I get along much better than I used to, I now claim an aunt's privilege of advising her nieces. I would have been glad in my younger days to have had an Aunt Mary, or any other person who had not forgotten her early trials to advise me.

When I married I left my home and friends in the east to commence the new life in a new country, that is why I had to learn so many lessons in that dear school experience.

I will say as a parting injunction, do not fight against fate, if you cannot better your situation, accept it and make the best of it.

AUNT MARY.

Highland, Kan., April 9th, 1875.

## EVENING.

BY MRS. C. S. NOURSE.

One by one the roses falling,  
Strew with withered leaves the way;  
One by one the gleams of sunlight  
Faded from out the autumn day.

Hour by hour the sun declineth,  
Day by day the sunlight dies,—  
Feebler grow the weary footsteps,  
Dim with tears the fading eyes.

But still upward, upward, climbing  
From the valley's smooth expanse;  
Upward o'er the barren mountain—  
Steady keep the upward glance.

All the blossoms left behind thee—  
Naught beyond thee but the snow,  
Falter not, still pressing onward,  
Cast no ling'ring look behind.

In the valleys lie the shadows,  
But the peaks are bathed in light—  
In the splendor of the sunset;  
Blessed harbinger of night!

Rest thee, rest thee, weary pilgrim,  
From the dangers of the way,—  
For behold the night is coming,  
And beyond the night the day.

## THE TRAINING OF GIRLS.

In the core of the human heart, whether that heart throbs in a masculine or a feminine bosom, is the love of home; and in the centre of home, its soul and light is woman. These are fundamental truths, bottom facts, which underlie the framework of society, and on which it rests.

There has been a great deal said and written about enlarging the sphere of woman, opening new avenues to her ambition, industry, success, which is all very well; but the wise ones who talk of these matters do not propose to effect what cannot, in the nature of things, be done—change the sphere of woman. God has marked the boundaries in a manner unmistakable. She is the mother, the wife, the home-keeper, and however widely her influence may radiate, however large the circumference she may illuminate, its central point is the hearthstone, the cradle, the home.

If we take the social relations in their natural order, we find that the duties of wife come first, and afterwards, growing out of these, the love and duties of the mother. The wife, by Divine appointment, is the guardian of her husband's honor, the joy of his fire-side, his "helpmeet" in all the varied labors of life. This surely does not mean that she is to sit idly by and simply enjoy the rewards of his toil, that she is only to adorn as a figure-head the establishment at the head of which he places her, and wear honors gracefully she has done nothing to earn. Yet how many young ladies look for just this in marriage and nothing more; how many mothers covet no other wedlock for their daughters than this; how many men look on women with this idea of their usefulness. But how can a girl be trained with special reference to becoming a wife and mother, and yet be made capable of supporting herself independently of circumstances demand of her? The problem is being worked out in ten thousand quiet American homes where the troublesome question of kitchen help has not yet disturbed the domestic peace, where the boys and girls, as they increase in strength and knowledge, are taught to do their part, at first small, but ever growing larger, in the labors of the household. It was this home-training that made New-England women of the last generation so wonderfully efficient, and able to turn their hand to almost anything required of them. Mothers are apt to feel that if their children are not poring over school books their education is being neglected; but a child who is taught how to perform stated tasks of every-day requirement, with fidelity, with diligence, with patience, with cheerfulness, is being as really educated in what is necessary to suc-

cess in life as one kept constantly drudging over arithmetic and geography.

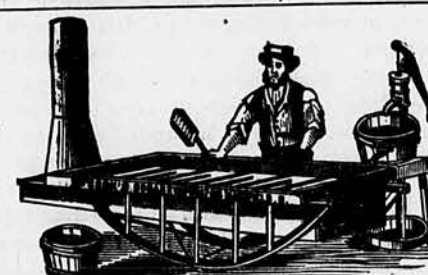
The great masses of young and middle-aged women now clamoring for something to do by which they can earn bread were not taught in their girlhood to do anything useful—to make bread, wash dishes, sweep floors, or do their own sewing—and their judgment has never been developed in the practical affairs of life; they have learned few lessons of self-control; they have no power of routine work, no adaptability to the requirements of their circumstances, and no wonder they clamor for another and wider sphere. The sphere they really want is exactly that for the duties of which they have not been trained. The fault of all this lies largely with mother, who, remembering the struggles and narrowness and poverty of their early married lives, wish to shield their daughters from what themselves have suffered, as if pain and poverty and suffering and struggle were not God's chosen means of developing whatever is noblest and sweetest and grandest in the human soul. The Divine one, in his earthly career, had but one crown, and that was a crown of thorns.

To many an intelligent and far seeing mother the truth has been unfolded that by diligent training of her daughters in gracious household ways while yet they are in girlhood, such power of mind, such mastery of self, such maturity and balance of judgment and faculty may be developed in them as will prepare them, in a manner, for whatever may be before them; to adorn a high position with honor or to fill a humble one with fidelity. It is not too much to say that if the time of girls, between the ages of twelve and twenty, that is frittered away in the acquisition of empty accomplishments, which serve only to gild with fleeting brightness the few months or years that elapse between leaving school and getting a husband, were sedulously devoted to mastering some one trade, art or valuable accomplishment, there would be few women in the next decade that would complain of having no way of making a living. The wife who knows all her husband's business, and who is his partner in everything, often becomes capable, by reason of her very companionship with him, should death remove him from her side, of taking up the broken thread, and carrying on to completion the plans he laid, and realizing for her children the hopes he cherished. Especially is this true when, in early life, under the training of a judicious and not too fond mother, she has learned to exercise the virtues of self-denial, obedience and careful submission to the daily requirements of duty. Enlargement of the sphere of woman must come from within and not from without. By so much as she becomes wiser, nobler, more helpful in the relations of wife, mother, daughter, sister, by so much will her power for success be increased and her resources be multiplied.—*New York Tribune.*

## REINSTEADLER

IF YOU WANT PLOWS AND FARM MACHINERY at reduced prices, send for circular to H. Reinsteader, wholesale dealer in Farming Implements, 6 N. Main Street, St. Louis, Mo.

St. Louis, Mo.



THE ONLY RECOGNIZED STANDARDS IN CANE MACHINERY are the  
**Cook Evaporator** and  
**Victor Cane Mill.**

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The Sargo Hand-Book and Price-List sent Free. **BLYMER MANUFACTURING CO.,** 664 to 694 West Eighth St., CINCINNATI, O., Manufacturers of Cane Machinery, Steam Engines, Shaker Threshers, Wood-sawing Machines, Corn and Cob Crushers, Farm, School, and Church Bells

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Pays for the FARMER for the balance of 1875

## ADVERTISEMENTS.

In answering an Advertisement found in these columns you will confer a favor by stating you saw it in the KANSAS FARMER.

## THE KANSAS STATE Agricultural College

NOW furnishes a THOROUGH and DIRECT EDUCATION to those who intend to be FARMERS, MECHANICS, or to follow other Industrial Pursuits.

THE FOUR COURSES OF INSTRUCTION, FARMERS, MECHANICS, BUSINESS and WOMEN, are prepared with express reference to these things:

1. What the student knows when received;
  2. The time he will remain;
  3. The use which is really made of a given science in his proposed occupation, the studies being so arranged that, at the close of each year, he will have gained that knowledge which is of most value in his business.
- The FIRST OBJECT in each course is to make every student a Master of the English Language, and an Expert in its use; and also, skillful in Mathematics as employed in every day life, including Book Keeping, Business Law and Industrial Drawing.

In addition the special object of the

## FARMERS COURSE

is to give him a practical knowledge of the Structure, Growth and value of Plants; of Light, Heat and Moisture, and of Inorganic, Organic, Analytical and Agricultural Chemistry, as these are related to Plant and Animal Growth; of Economic Zoology, and particularly of Practical

AGRICULTURE AND HORTICULTURE, including such Instruction and Drill in the Field, in the Handling of Stock, in the Nursery and in the Wood and Iron Shops as will enable the graduate to Perform Readily each of the varied operations of Actual Farm Life.

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SUPERIOR ADVANTAGES are offered to students of Higher Chemistry, to Mineralogists, Druggists, Operators and Workers in Metals.

Full collections of the Plants, Insects and Birds of Kansas are being made as rapidly as possible.

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1. CARPENTER.
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## THE COURSE FOR WOMEN

is Liberal and Practical, including Instrumental Music. Each student is required to take not less than one Industrial and three Literary studies.

TUITION ABSOLUTELY FREE, and no contingent fees, except for use of pianos and organs.

Boarding ranges from \$3.75 to \$4 per week. Students PAID FOR LABOR on the Farm and in the Shops, which is not educational, and which the Institution needs performed.

The NEXT TERM begins August 20, 1874, when New Classes will be formed.

For further information apply to **J. A. ANDERSON, President,** Manhattan, Kansas.

## The Patrons Mutual Insurance Association.

OFFICERS—BOARD OF DIRECTORS: M. E. Hudson, Master of State Grange; Wm. Sims, Overseer; W. P. Popenoe, F. H. Dumbauld, J. S. Shaeffer, Executive Committee; A. Washburne, Treasurer; S. H. Downs, Secretary.

RATES.—The printed by laws and articles of association give the plan and rates. Our plan is to insure farm property belonging to Patrons. Our rates are based upon the experience of the Michigan Farmers' Mutual Insurance Association.

In order to be safe, the Association fixes the rate at one-fifth higher than the average rate of all the companies in Michigan. The difference in the construction of buildings, and danger from prairie fires, adds something to risks in Kansas as compared with Michigan.

We give the following as an illustration of the difference between our rates and joint stock companies.

Joint stock company lowest cash rate, per annum on \$1,000.....\$5.00  
On each \$1,000 for three years.....\$15.00  
A policy fee of.....2.00-17.00  
which amount is paid in advance.

The Patrons Association rates are:  
A membership fee of.....\$1.00  
On policy of \$1,000, first year's premium, 25 cents on each \$100.....2.50  
Total cash paid.....\$3.50

A policy is then issued for 3 years, and a premium note taken for the remaining 2 years of.....\$5.00  
Total cost of insurance for 3 years.....\$8.50  
The premium note is liable to assessment at any time to pay expenses and losses. On a policy of \$500 the cost is as follows:

Membership fee.....\$1.00  
Premium for first year.....\$2.50  
Total cash payment.....\$3.50  
Note for remaining two years.....2.50  
Total cost for three years.....\$8.50

Our rates are about one-half of the joint stock company rates, and only a small part of the premium required to be paid in cash.

Address S. H. DOWNS, Secretary, Topeka, Kan.

## The Kansas Farmer

## BOOK AND JOB PRINTING

ESTABLISHMENT,

Kansas Ave., bet. Sixth &amp; Seventh,

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**\$1. \$1. \$1. \$1. \$1. \$1. \$1.**

Pays for the FARMER for the balance of 1875.

CARDS, Bill Heads, Letter Heads, Statements etc., neatly and promptly printed at the KANSAS FARMER Book and Job Printing Office, Topeka, Kansas.



## SYNOPSIS OF THE STRAY LAW.

## How to Post a Stray, the Fees, Fines and Penalties for not Posting.

Broken animals can be taken up at any time in the year.

Unbroken animals can only be taken up between the 1st day of November and the 1st day of April, except when found in the lawful inclosure of the taker up.

No persons, except citizens and householders can take up a stray.

If an animal liable to be taken, shall come upon the premises of any person, and he fails for ten days, after being notified in writing of the fact, any other citizen and householder may take up the same.

Any person taking up a stray, must immediately advertise the same by posting three written notices in a variety of places in the township, giving a correct description of such stray.

If such stray is not proven up at the expiration of ten days the taker up shall go before any Justice of the Peace of the township, and file an affidavit, stating that such stray was taken up on his premises, that he did not drive nor cause it to be driven there, that he has advertised it for ten days, that the marks and brands have not been altered, and he shall give a full description of the same, and its cash value. He shall also give a bond to the State in double the value of the animal.

The Justice of the Peace shall within twenty days from the time such stray was taken up, (ten days after posting) make out a return to the County Clerk, a certified copy of the description and value of such stray.

If such stray shall be valued at more than ten dollars it shall be advertised in the KANSAS FARMER in three successive numbers.

The owner of any stray may within twelve months from the time of taking up prove the same by evidence before any Justice of the Peace of the county, having first notified the taker up of the time when, and the Justice before whom proof will be offered. The Justice shall be delivered to the owner, on the order of the Justice, and upon the payment of all charges and costs.

If the owner of a stray fails to prove ownership within twelve months after the time of taking, a complete title shall vest in the taker up.

At the end of a year after a stray is taken up, the Justice of the Peace shall issue a summons to the householder to appear and appraise such stray, summons to be served by the taker up, and appraisers, or two of them shall in all respects describe and truly value said stray, and make a sworn return of the same to the Justice.

They shall also make out a return of the same, and the benefits the taker up may have had, and report the same on their appraisement.

In all cases where the title vests in the taker up, he shall pay into the County Treasury, after deducting all costs of taking up, posting and taking care of, one half of the remainder of the value of such stray.

Any person who shall dispose of a stray, or take the same out of the state before the title shall have vested in him shall be guilty of a misdemeanor and shall forfeit double the value of such stray and be subject to a fine of twenty dollars.

Fees as follows:

To taker up, for each horse, mule, or ass, \$5.00

" " head of cattle, " .25

To County Clerk, for recording each certificate and forwarding to KANSAS FARMER, " .25

To Kansas FARMER for publication as above mentioned for each animal valued at more than \$10.00, " .50

Justice of the Peace, for each affidavit of taker up, " .25

" " for making out certificate of appraisement and all his services in connection therewith, " .35

For certified copy of all proceedings in any one case, " .40

" " The Justice's fees in any one case shall not be greater than, " 1.50

Appraisers shall be allowed no mileage, but for each case, " .50

## THE STRAY LIST

## Stray List for the week ending May 26.

Anderson County—E. A. Edwards, Clerk.

PONY—Taken up by J. J. Fairbanks, of Colony, Ozark Tp., one white pony mare, three years old, branded "M" on left shoulder, right eye white, saddle and harness marks. Appraised at \$15.

Atchison County—C. H. Krebs, Clerk.

PONY—Taken up by James Hartman, Kaplona Tp., May 6th, 1875, one brown mare pony, eight years old, some white on left hind leg, saddle marks, had small bell on. Appraised at \$25.

HORSE—Taken up by Wm. Dean, Shannon Tp., one grey horse, ten years old, 15 1/2 hands high. Appraised at \$40.

Bourbon County—J. H. Brown, Clerk.

MARE—Taken up by E. Kopley, Mill Creek Tp., a dark bay or brown mare, four years old, 13 1/2 hands high, small star in forehead, white blaze on face, saddle marks, had small bell on. Appraised at \$30.

Cherokee County—Ed. McPherson, Clerk.

MARE—Taken up by Geo. Neider, Shawnee Tp., April 24th, 1875, one bay mare, ten years old, 14 1/2 hands high, black main and tail, star in forehead, stripe on nose. Also one horse colt, medium size, two years old. Both appraised at \$40.

PONY—Taken up by B. F. Truxal, Shawnee Tp., April 7th, 1875, one roan mare pony, eight years old. Also one dun mare pony, four years old. Both appraised at \$35.

HORSE—Taken up by Geo. W. Hill, Cherokee Tp., May 10th, 1875, one bay horse, eight years old, 14 hands high, shod all round with spring shoes, right eye weak, saddle marks. Appraised at \$35.

MARE—Also one bay mare, five years old, 14 hands high, star in forehead, white stripe on nose, harness marks, right fore foot white. Appraised at \$35.

HORSE—Taken up by Geo. W. Quackenbush, Neosho Tp., June 1st, 1875, one horse, some white on hips, saddle marked, Mexican brand "H" on left hip, same on left shoulder, 12 years old. Value given.

Cowley County—M. B. G. Troup, Clerk.

MARE—Taken up by H. S. Barker, Highland Tp., one dark iron grey mare, twelve years old, 12 hands high, branded on left shoulder with "T S" on left hip with "B" and on right hip with two Spanish brands. Appraised at \$15.

Clay County—E. P. Huston, Clerk.

STEER—Taken up by Peter Young, Mulberry Tp., April 28th, 1875, one light brown steer, two years old, white spot on right hind leg, white spot in forehead, 200 lb. No other marks or brands. Appraised at \$14.

Crawford County—J. H. Waterman, Clerk.

COLT—Taken up by J. Timmerman, May 14th, 1875, one dark bay stallion colt, two years old. Appraised at \$30.

MARE—Taken up by Robert Reynolds, Jackson Tp., February 1st, 1875, one bay mare, four years old, 13 hands high, white in face, no other marks perceivable. Appraised at \$25.

COLT—Also one sorrel mare colt, one year old, white in face, no other marks perceivable. Appraised at \$15.

Doniphan County—Charles Rappelye, Clerk.

PONY—Taken up by Mrs. Elizabeth Whitson, Marion Tp., April 17th, 1875, one blue blazen gray pony, shod on front feet, six or seven years old. Appraised at \$20.

PONY—Taken up by Pat Philburn, Iowa Tp., May 11th, 1875, one sorrel or chestnut mare pony, ten or twelve years old, with three white feet and a white stripe in her face. Appraised at \$15.

Howard County—M. B. Light, Clerk.

MARE—Taken up by J. P. Johnson, Belleville Tp., May 3d, 1875, one dark brown mare pony, eight or nine years old, both hind feet white, a few white hairs on forehead, fourteen hands high, head halter and rope on. Appraised at \$25.

Jefferson County—D. B. Baker, Clerk.

MARE—Taken up by Adam Hattin, Kentucky Tp., April 26th, 1875, one bay mare, seven or eight years old, 14 hands high, left hind foot white, small stripe in forehead. Also one yearling mare colt which is of the same color and marks of mare above described. Appraised at \$20.

Johnson County—J. Martin, Clerk.

COW—Taken up by the Eastman, Ed. Aubry Tp., February 25th, 1875, one red muley cow, seven or eight years old, left ear cropped off, and white belly. Appraised at \$14.

MULE—Taken up by G. W. Arrasmith, Oxford Tp., November 19th, 1875, one bay mare mule, 13 hands high, four years old, lame in left hind hip. Appraised at \$20.

PONY—Taken up by Richard Lamsney, Gardner Tp., April 26th, 1875, one brown mare pony, 14 hands high, eight years old, branded on left hip "A A", white in forehead. Appraised at \$25.

La Bette County—L. C. Howard, Clerk.

MARE—Taken up by John Colson, Montana Tp., one sorrel mare, supposed to be three years old, 14 hands high, white star in forehead, white tip on nose. Appraised at \$30.

Lyon County—J. S. Craig, Clerk.

MARES—Taken up by Charles Telford, Jackson Tp., April 26th, 1875, two iron grey mares, five years old, 15 or 16 hands high, off mare has both forward feet white, also the left hind foot; no other brands or marks visible. Appraised at \$150.

Leavenworth County—O. Dieffendorf, Clerk.

MARE—Taken up by John Cullison, Sherman Tp., May 15th, 1875, one spotted strawberry roan horse, nine years old, 12 hands high, with blaze on face, has fresh harness marks. Appraised at \$30.

MARE—Also one bay mare, eight years old, 11 or 12 hands high, star in forehead, small white harness marks. Appraised at \$30.

MULE—Taken up by Joseph W. Ackley, Alexandria Tp., May 15th, 1875, one white horse mule, some harness marks, main and tail trimmed, 14 1/2 hands high, four years old. Appraised at \$30.

McPherson County—J. R. Wright, Clerk.

STEER—Also one red and white steer, three years old. Appraised at \$12.

STEER—Taken up by Isaac Oakes, Gypsum Creek Tp., one black steer, line back, yellow eyes, in right ear, crop of left, branded with the letter "M" on right hip, five years old. Appraised at \$35.

STEER—Also one red and white steer, right horn loped and point off, under crop of left ear, sawtoothed in right, branded "T" on left side, five years old. Appraised at \$25.

STEER—Also one black steer, broad long horns, under crop in left ear, sawtoothed in right, branded "K" on left hip, three years old. Appraised at \$14.

Morris County—H. W. Gilmeister, Clerk.

MARE—Taken up by A. J. Hann, Parker Tp., May 6th, 1875, one sorrel mare, three years old, 14 1/2 hands high, white star in forehead, small stripe in face, no brands. Appraised at \$40.

PONY—Also one dun pony, four years old, bob tail, color marks, branded "O O" on right shoulder. Appraised at \$25.

COLT—Also one bay horse colt, one year old, small eyes around his neck, and a sore on his left knee. Appraised at \$15.

Marshall County—J. G. McIntire, Clerk.

FILLEY—Taken up by Gerard Kock, Gultitt Tp., May 11th, 1875, one roan filley, three years old, 14 hands high, black main and tail, legs black up to knees. Appraised at \$20.

Montgomery County—J. A. Helphingstein, Clerk.

MARE—Taken up by Thomas Freese, Rutland Tp., April 28th, 1875, one bay mare, five years old, star in forehead, white stripe on nose, white hind feet. Appraised at \$20.

Mitchell County—L. J. Best, Clerk.

PONY—Taken up by Russell Skinner, Cawker Tp., one black pony, four years old, branded by the numbers "69" on left side. Appraised at \$25.

Miami County—C. H. Miller, Clerk.

MARE—Taken up by Henry Groves, Paola Tp., April 19th, one dark brown mare, three years old, white spot in forehead. Appraised at \$25.

PONY—Taken up by C. C. Cox, Paola Tp., April 9th, one black horse pony, eight or nine years old, branded on left shoulder, brand very dim. Appraised at \$30.

Neosho County—G. W. McMillin, Clerk.

MARE—Taken up by C. J. Morris, Grant Tp., one light gray mare, 13 hands high, four or five years old, light collar marks. Appraised at \$12.00.

Rice County—W. T. Nicholas, Clerk.

STEER—Taken up by Geo. B. Besse, Atlanta Tp., May 8th, 1875, one red and white Texas steer, brand on right hip, five years old. Appraised at \$7.

STEER—Also one bull and white, left ear cropped and slit, six years old. Appraised at \$10.

Wabunsee County—G. W. Watson, Clerk.

HORSES—Taken up by E. G. Gilmore, Wabunsee Tp., May 1st, 1875, one span of work horses, seven or eight years old, weight about 1100 each, one dark sorrel with white stripes in face and white hind feet, the other a black horse, both had halters on. Appraised at \$150.

Strays for the week ending May 12.

Lyon County—J. S. Craig, Clerk.

PONIES—Taken up by N. H. Kelly, living in Jackson Township, January 8th, 1875, two bay ponies. One heavy set, with white spot in forehead, supposed to be four years old. Appraised at \$17.00.

The other, slim built, spot in forehead, supposed to be four years old, branded on right side, just behind the shoulder but indistinct. Appraised at \$15.00.

Brown County—H. Isely, Clerk.

COLT—Taken up by Mrs. Margaret Myers, of Hamilton Tp., Nov. 31, 1874, one dark bay horse colt, little white in forehead, no marks or brands. Appraised at \$40.00.

FILLEY—Taken up by Sol. R. Myers, of Hamilton Tp., Nov. 21, 1874, one sorrel mare colt, 2 years old, white stripe in face, and white on end of the nose, left foot white, no marks or brands. Appraised at \$30.00.

Davis County—C. H. Frott, Clerk.

COW—Taken up by Gottlieb Heller, of Jackson Tp., on the 3d of November, 1874, a sorrel filley, thirteen hands high, no marks or brands. Appraised at \$25.00.

FILLEY—Taken up by Patrick Buckley, of Jackson Tp., on the 3d of November, 1874, a sorrel filley, thirteen hands high, no marks or brands. Appraised at \$25.00.

Douglas County—T. B. Smith, Clerk.

MARE—Taken up by James Gibson, of Endora Tp., April 19th, 1875, one sorrel mare, about 15 hands high, bald face, four white legs, brand on left shoulder, supposed to be the letter "B" above 15 years old, white on right hind foot. Appraised at \$40.00.

ALSO—Same date, one sorrel mare about 16 hands high, left hind foot white, spot on left shoulder, about 8 years old. Appraised at \$40.00.

Crawford County—J. H. Waterman, Clerk.

HORSE—Taken up by Charles Jones, April 6, 1875, one bay horse pony, 13 hands high, about six years old, branded on left hind foot, a little white on the right hind foot, and shod all around. Crawford Township.

Clay County—E. P. Huston, Clerk.

COLT—Taken up by Albert Eversoll, of Mulberry Tp., March 29, 1875, one roan horse colt, about 13 1/2 hands high, 2 years old, no other marks or brands. Appraised at \$25.00.

ALSO, by same, at same time, one sorrel horse colt, 12 hands high, supposed to be two years old, white hind legs, blaze face, no other marks or brands. Appraised at \$25.00.

Leavenworth County—O. Dieffendorf, Clerk.

MARE—Taken up by James McGaffrey, and before M. C. Harris, P. J. Palmer, on Dec. 10, 1873, one sorrel mare, about 14 1/2 hands high, four years old, blaze face, left hind foot white, saddle and collar marks, no brands to be seen. Appraised at \$30.00.

Miami County—C. H. Miller, Clerk.

COLT—Taken up by W. R. Hoover, of Paola Tp., April 6, 1875, one bay horse colt, two years old, no marks or brands visible. Appraised at \$15.00.

La Bette County—L. C. Howard, Clerk.

MARE—Taken up, April 7, 1875, by H. F. Stintnick, of Walden Tp., one Bay mare, five years old, about 14 hands high, six years old, few white hairs in forehead, harness marks on sides, split in right fore foot shod all around, nearly blind. Appraised at \$40.00.

Anderson County—E. A. Edwards, Clerk.

STEER—Taken up by J. M. Watt, Jackson Tp., one light roan steer, 3 years old, branded "H C" on the right horn. Appraised at \$20.

COW—Taken up by Jesse Day, Reeder Tp., one red cow, white spots on forehead and hind, branded "E" on left hip, 1 year old. Appraised at \$15.

COW—Taken up by Jas. Scott, Reeder Tp., Feb. 8, 1875, one red and white spotted cow, branded "E" on right hip, age not given. Appraised at \$15.

Brown County—Henry Isely, Clerk.

HORSE—Taken up by John Brannen, Walnut Tp., Mar. 31st, 1875, one sorrel pony, blaze face, 6 years old, 14 1/2 hands high, saddle and collar marks. Appraised at \$30.

PONY—Taken up by Jesse A. Worley, Padonia Tp., on April 1st, 1875, one roan mare pony, four years old, bald face, hind feet white, right fore foot white, leather halter on. Appraised at \$10.

Clay County—D. P. Huston, Clerk.

MARE—Taken up by Francis Robinson, Chapman Tp., April 10, 1875, one black mare, 4 years old, white feet, star in forehead, 15 hands high. Appraised at \$35.

Cherokee County—Ed. McPherson, Clerk.

HORSE—Taken up by James Jiles, Pleasant View Tp., on Dec. 1, 1874, one bay horse, branded "9" on right jaw, on left shoulder, 15 hands high, 4 years old. Appraised at \$25.

Marion County—Thos. W. Bown, Clerk.

COLT—Taken up by M. Johnson, March 4, 1875, one horse colt, 2 yrs old, bay, white spot in forehead, Appraised at \$20. Summit Tp.

Marshall County, J. G. McIntire, Clerk.

PONY—Taken up by Nicholas Koppas, Marysville Tp., April 17th, one day bay mare pony, star in forehead and white spot on nose, six years old. Appraised at \$22.50.

COW—Taken up by Wm Thornton, April 10th, Vermilion Tp., one large brown and white cow, 10 years old. Appraised at \$20.

Reno County, H. W. Beatty, Clerk.

PONY—Taken up by N. S. Riggs, Little River Tp., one sorrel mare pony, supposed to be 3 years old, white spot in forehead, no other marks. Appraised at \$30.

Wabunsee County—G. W. Watson, Clerk.

MARE—Taken up by S. L. Russell, Wabunsee Tp., Apr. 22, 1875, one red bay mare, about 14 1/2 hands high, an indistinct brand on left shoulder, supposed to be about 7 years old. Appraised at \$30.

ALSO—One light cream colored mare, black mane and tail, about 14 hands high, branded "K O" or circle on left shoulder, supposed to be 9 years old. Appraised at \$40.

## MONEY TO LOAN.

On WELL improved farms on five years time or less at a lower rate of interest than ever before charged in this State.

Address J. B. WATKINS & CO. Lawrence, Kansas.

Jersey Bulls For Sale.

One five years old, the other two years old, both registered in Herd Book. For sale, cheap, apply to CHARLES KEARNEY, Watheana, Kansas.

50 head of sheep for sale. Address CHARLES MOXLEY, Madison, Greenwood Co., Kan.

CATALOGUES, Pamphlets, Briefs, etc., printed in the finest style, and at lowest living prices at the KANSAS FARMER Book and Job Printing office, Topeka, Kansas.

SHEEP.

Offers for the spring trade of 1875 a full and complete assortment of general nursery stock, of unsurpassed quality and at lowest cash rates.

My stock of Apple, Pear, Cherry, Plum and Quince, together with a full and general assortment of small fruits is complete, and in quality fully equal to the standard of former years.

Parties desiring to buy for cash, will find it to their advantage to correspond with me, before purchasing.

C. H. TAYLOR, Lawrence, Kansas.



Bake better, burn less fuel, give better satisfaction, and are the standard Stoves of the day. Extension Top Stoves, with High or Low Down Reservoir.

EVERY STOVE WARRANTED. BUCK'S Guarantee.

For Coal or Wood, are the only Soft Coal Cooking Stoves that always give perfect satisfaction. They Bake, Broil and Roast equal to any Wood Stove, are fitted with our Patent Chilled Iron Linings, which last as long as any five sets of ordinary linings. Their operation is perfect.

Extension Top, with High or Low Down Reservoir. We also manufacture Enamelled Work of all kinds, Culinary and Plumber's Goods &c.

Buck & Wright, 720 and 722 Main Street, St. Louis. Manufacturers of varieties of Cooking and Heating Stoves. Sample Cards and Price Lists furnished on application.

GREAT JOINT PUBLIC SALE

JUNE 15, 1875.

Short-Horn Cattle,

125 Head Thoroughbred Registered Cattle.

Noted Bulls; Grand Airdrie 3696, S. H. R. Baron Sheffielder 13200, Counters-

part 24 13720, Imported.

55 HEAD HEIFERS & CALVES.

BALANCE COWS AND BULLS.

Nokomis is on the Indianapolis & St. Louis R. R. 13 miles west of Pana, the crossing of the Illinois Central R. R., and 28 miles east of Litchfield, the crossing of the Toledo, Wabash & Western R. R.

A credit of six months will be given on approved note. Six per cent. interest, or five per cent. off for cash.

Catalogues ready early in May on application, or on day of sale.

JOHN H. BEATTY, JOS. F. SCOTT.

Nokomis, Illinois.

PRAIRIE DELL FARM.

Stallion Season,

FOR 1875.

EVAN DUH.

Bay Horse; foaled 1870, bred by H. Mix, Townsda, Pa., sired by Ryedick's Hambletonian, dam by Young American Eagle, son of American Eagle, Duroc (791) grand dam by Young King Herod, son of King Herod. The get of this horse can be seen on the farm.

Patricia's Hambletonian is the sire of Dexter, Jay Gould, James A. Howell, Nettie, etc., etc., and the grand sire of Bodine, Huntress Rosalind, Gloster, Judge Fullerton, Goldsmith Maid and many others.

Chestnut Horse; foaled 1871, bred by S. Whitman, Orange county, N. Y. Sired by Major Edsall, (record 2:38) dam sister to Lady Whitman—record in the 3th heat of 2:14—by Seely's American Star, grand dam by Darland's Young Messenger Duroc.



## LET US SMILE.

One of the great causes of hard times, says that keen observer, Barnum, is "the number of soft hands waiting for light work and heavy pay."

A lady was telling a friend from the country of a very grand party she had given recently. "We had two generals, one judge, a popular author, and a play writer." "Yes," chimed in her wicked son, "and there was a deputy sheriff too, who said he wanted to see dad, and they went out before supper, and dad hasn't come back yet." When that youth went to school the next day with his head all tied up, he told the boys he had a dreadful toothache.

"No, I stayed to home and had a spell with the baby while my wife went, and the young one fished the hired girl and myself down fourteen times on 'colic,' and then we didn't get it right until Mrs. Gudd came home from the spelling school.—Independence Kansan.

In the office of one of the hotels recently a gentleman snapped his finger to a boot-black, and as he put his foot on the box he said: "You look like a good, smart boy." "See here, mister!" replied the boy as he rose up, a brush in either hand, "I've had that game played on me a dozen times, and now I want to know whether this is a cash shine or whether you're going to pat me on the head when I get through and tell me that I'll be Governor of Michigan some day!"—Detroit Free Press.

The following is one of the sweet little ditties of the Eastern spelling school:

O, lead my infant feet to walk  
Into the spelling school;  
Let other children sneer and laugh  
At orthographic rule.  
But me that better way still lead  
Till I perfectly spell;  
So may I shun the path that leads  
To where Josh Billings fell.

Jones gave a lawyer a bill to be collected to the amount of \$30. Calling for it, after awhile, he inquired if it had been collected. "Oh, yes," said the lawyer, "I have it all for you." "What charge for collecting?" "Oh," said the lawyer laughing, "I'm not going to charge you—why I have known you ever since you were a baby, and your father before you. \$20 will be about right," handing over \$10. "Well," said Jones, as he meditated upon the transaction, "it's darned lucky he didn't know my grandfather, or I shouldn't have got my thing!"

## VEGETABLE PLANTS

The largest quantity, best quality, greatest variety of plants in the West. Cabbage, Cauliflower, Lettuce, Tomatoes, Pepper, Egg Plants, Sweet Potato, Celery, Tobacco, Horse Radish, etc. Price list and circular free.

ATKINS & WINGERT,  
E. 18th Street, Kansas City, Mo.

## RAILWAY PITCHING APPARATUS.

Chapman's Best Fork and Conveyor in use. Unloads and carries Hay, Grain, etc., over deep snows, into sheds, barns, etc. Saves labor, time, money. Sent on trial. Circulars sent. Agents wanted.

G. B. Weeks & Co., Syracuse, N. Y.

## WM. B. GRIMES.

Tres Palacios

## Rendering &amp; Packing

HOUSE,

And Dealer in

## General Merchandise

Post Office Address, Box 20,

Indianola, Texas.

Self Propelled  
For Cripples

Can be easily  
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## PUBLIC SALE

## SHORT-HORN CATTLE

THE SUBSCRIBER WILL SELL,

Thursday, June 17th, 1875,

at 1 o'clock P. M., on the

St. Louis Fair Grounds, about 80 Head.

An excellent herd in every essential element, comprising Dutch, Rose of Sharon, Oxford, Devon, Ayrshire, Friesian, Young Mary, Young Phyllis, and Mrs. Mott's crosses.

Terms.—Four months' credit with six per cent. per annum, on approved notes. Catalogues sent on application to Geo. W. Rust & Co., Chicago, G. O. Kall, St. Louis, or to J. W. JUDY, Auctioneer, Col. J. W. JUDY, Auctioneer.

**TIN WIRE RINGS.**  
Will not make a Hog's Nose Ring.  
H. W. Hill & Co., Hardware Dealers sell them. Rings \$1; Tin Rings 100; 500; 1000; 2000; 3000; 4000; 5000; 6000; 7000; 8000; 9000; 10,000; 11,000; 12,000; 13,000; 14,000; 15,000; 16,000; 17,000; 18,000; 19,000; 20,000; 21,000; 22,000; 23,000; 24,000; 25,000; 26,000; 27,000; 28,000; 29,000; 30,000; 31,000; 32,000; 33,000; 34,000; 35,000; 36,000; 37,000; 38,000; 39,000; 40,000; 41,000; 42,000; 43,000; 44,000; 45,000; 46,000; 47,000; 48,000; 49,000; 50,000; 51,000; 52,000; 53,000; 54,000; 55,000; 56,000; 57,000; 58,000; 59,000; 60,000; 61,000; 62,000; 63,000; 64,000; 65,000; 66,000; 67,000; 68,000; 69,000; 70,000; 71,000; 72,000; 73,000; 74,000; 75,000; 76,000; 77,000; 78,000; 79,000; 80,000; 81,000; 82,000; 83,000; 84,000; 85,000; 86,000; 87,000; 88,000; 89,000; 90,000; 91,000; 92,000; 93,000; 94,000; 95,000; 96,000; 97,000; 98,000; 99,000; 100,000; 101,000; 102,000; 103,000; 104,000; 105,000; 106,000; 107,000; 108,000; 109,000; 110,000; 111,000; 112,000; 113,000; 114,000; 115,000; 116,000; 117,000; 118,000; 119,000; 120,000; 121,000; 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