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THE KANSAS FARMER.

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Variety of Crops.

People coming to Kansas wish to go into the best paying crops. A great many who are emigrating to Kansas are men of various trades, who on account of the great depression in business in the east have failed to make their occupation yield them sufficient for family expenses. Or, if they are making a living they are not laying up anything for a rainy day—for a time when they will be unable to swing a hammer, or measure a yard of calico, or perhaps they have a boy or girl they wish to leave a home for. They start for the free homes of the west, take up a farm and go to work with a persevering will to succeed. Wheat is 70 or 80 cents per bushel, so he will put all his land in wheat. Next season Kansas will not be as favorable for wheat; it is too dry or rains are too frequent about harvest, and his crop is badly damaged; the price of wheat is low, so his profits which he counted so large has fallen to a very low figure. What he thinks is a very poor and uncertain crop in Kansas. He must try something that will pay better, so he puts his farm all into corn. That does some better, as it is a very certain crop, but the price is so low it will never pay. He then tries broom corn, but there is so much labor to secure it in a good condition, and when raised the price is so low he must keep it for a better price or sell at a loss. He then tries stock, sells everything he can spare and puts his money in cattle. He does not know the nature of cattle or how much hay they require for the winter, or if he knows this, disease may get among them, or a severe winter use up his hay, and he is soon discouraged with this enterprise, so he sells again and tries sheep, then horses. He puts his hand to everything in a farmer's line, and at last thinks what a fool he was to leave a good trade for such an uncertain calling as the farmer's is. The first mistake he made was to invest all his time, labor and money in one kind of a crop, and the second to give up at the first failure.

It is true that farming is an uncertain business, and all occupations are uncertain in a greater or less degree—but perseverance is the key to success. If a certain crop fails one year it may bring a double yield the next. Of course there are certain crops suitable to some locations that will not grow well in other places. A person should take notice when coming to a new place what crops are doing the best but not to put all his land into one particular crop. Wheat has failed to return fair profits with the large wheat raisers that have a thousand, and some, more acres. It may yield a large profit some years, but to average it for ten years, their profits are small. It is not a good plan to put in too many varieties of crops, especially those that have to be harvested at the same time. Where broom corn is raised the same year as sugar cane and wheat are sown, the care of each will come about the same time, which will cost a great deal in hiring extra help or in the partial loss of one or all of the crops. A farmer to be sure of some income each year, whether it is a wet season or a dry one, a season in which diseases and insects prevail, or one blessed by plenty, should have a variety. If it is a good location for wheat put in just what can be attended to with other crops; have some corn, potatoes, oats, a few pigs, cows, &c. He is then sure of having something to profit from, and if a crop should fail it is folly to abandon it forever after as a failure. This is a world of disappointments, but by perseverance and good management we will always succeed. T. W. HEY.
Russell County.

Tomatoes as Food.

Tomatoes contain neither cancers nor cancer-producing matter. Cancers are composed of animal matter, not vegetable, and therefore cannot be directly derived from the vegetable kingdom. Tomatoes are not without some defects as an article of food. They are not, like milk, a perfect diet of themselves, and besides, like most other articles of food, they obtain some obnoxious qualities. But they need not be thrown aside on that account. Nature has provided us with such sufficient excretory organs that obnoxious matter in our food, if in moderate amount, is readily cast out, and the body is protected against any material injury. Were it not so, we should be obliged to throw out of our dietary many kinds of food now eaten, not only with impunity but with advantage. Thus, red cabbage, cherries and peaches contain Prussic acid, which is a deadly poison when taken in

sufficient quantity. The very small amount of the poisoning acid these vegetables contain is cast out of the system without any material injury to the person using them. A positive good may actually be derived from the use of food containing some such foreign matter by way of increased activity and strength to the excretory organs from their exercise in casting such foreign matter from our bodies, provided the quantity is not so great as to overburden them. Since we are all the time liable to take in our food substances, the tendency of which is harmful, a good development of efficiency in our excretory organs is necessary to protect us against the pernicious effects which might otherwise occur. Almost every kind of grain and fruit in use contains more or less of things, which, if in larger amounts, would prove hurtful. Unless we closely study our food, we are taking them in when we little suspect it. A Frenchman, not many years ago, discovered a substance in wheat bran, which, under the high heat used in baking, dissolved out and spread over the crumbs of bread, of which bran forms a part, and discolored it, and hence the brown stain peculiar to Graham bread. But from this discovery such bread has not been rejected, but continues to be accounted among the most wholesome kinds of food. Rye is seldom used without containing more or less ergot, but rye bread is also reckoned among the most healthful. Tea contains tannic acid, apples contain malic acid, lemons and oranges citric acid, neither of which is used either in nutrition or respiration, but they only become objectionable when used excessively.

Tomatoes, in common with most other fruits, contain some poisonous matter. They, and the eggplant, Jerusalem cherry, bitter-sweet, deadly night shade, and the common potato plant, all belong to the same genus—*solanum*—the fruit of every species of which is more or less poisonous, but none of them very much so. The fruit of the deadly night shade and of the potato (potato balls) are probably the most poisonous. But even these are not very hurtful. The smaller amount contained in tomatoes allows of their being classed with the excellent fruits, but there is nevertheless enough to give them a peculiar flavor not apt to be relished by unaccustomed palates, but which use soon renders agreeable. Used very largely, tomatoes would doubtless develop specific results peculiar to the fruit of the genus to which they belong, especially with feeble persons and those who, from their peculiar constitutions, are susceptible to such influences. But when moderately used by persons in fair health, there is no more reason for rejecting them than there would be in rejecting lettuce for the opium it contains.

Pie-plant stands in similar relations. Its prominent characteristic and flavor are the result of oxalic acid, which is a powerful poison. For persons not having sufficient vigor to dispose of such a strong acid, and for those whose systems there is already an excess of acid, such highly acid food would be objectionable. But its moderate use by people in common health is no more objectionable than any other acids in daily use, and regarded as healthful.—L. B. Arnold, in N. Y. Tribune.

Future of the Nursery Business.

Thomas Meshan, the noted nurseryman of Philadelphia, in an impromptu address before the National Nurserymen's Convention, spoke as follows of the nursery business in the west.

In regard to the future prospects of the nursery trade, his impression was, that too much was made of the mere fruit tree department of the nursery business; his impression was that probably not one-third of that \$40,000,000 was from fruit tree sales, and that this proportion would be continually growing less, as the country increased in wealth and refinement. Eastern nurserymen were already experiencing this change and profit accordingly. Their best sales were from ornamental trees, plants and flowers. This was the natural tendency of civilization as exemplified in European nurseries. The fruit tree department became in time a very small portion of their business. It would be wise in Western nurserymen to make this change, and govern themselves accordingly. But this branch of the business required a higher order of intelligence. The art of adornment should be understood; that an acquaintance be formed with those trees, plants and flowers that would aid in adornment. A nurseryman, in fact, must be an educator of the community as well as a nurseryman; his own place should be a model of landscape gardening, and he should have specimens of all varieties to be obtained, as well as specimens of skillful growth, so that those in his vicinity could learn their value for their own purposes.

Good examples were always catching, and he illustrated in various ways how communities had been rendered industrious by the introduction of articles for the cultivation of taste and luxury in the neighborhood. He said that at present Western nurserymen make but little interest outside of fruit trees, but with the increase of wealth and refinement in the general community they will find that assistants in this direction have much to learn. Even the cultivation of a few flowers assists in this direction, and yet as a general thing, nurserymen and horticultural societies acted as if flower culture was but a trifling occupation, fit only for women and children; but it was soon found that from flower culture the taste for high branches of gardening followed, until it had at last culminated in fine public gardens and private grounds, in which the most expensive, most valuable results of the landscape gardener found a home.

A Reclaimed Swamp.

The prospective wealth wrapped up in old swamps in this country, now considered almost worthless, is very great. This is illustrated by the following account of a successful experiment with some bogs in the town of Chester, N. Y., the particulars of which are of considerable interest:

It seems that, when the Erie railroad was being constructed, the engineers encountered a vast morass in Chester, covering nearly five hundred acres and filled with treacherous quagmires and springs that were almost bottomless. To construct a foundation for the road-bed of the railway across this great swamp required the driving of piles to the depth of one hundred feet, and the use of hundreds of thousands of loads of stones and dirt. The building of the mile of road necessary to cross the swamp, called for a greater outlay of money than any five miles of the road between Pierpont and Jersey City. The tract of swamp was not considered worth the nominal tax collected from its owners, and for twenty years after the road was built remained in its noisome condition, the home of malaria and deadly fevers.

Twenty years ago a farmer conceived the idea of draining a portion of the tract and making it tillable soil. By ditching, he reclaimed sixty acres. The first year he bought cost him one dollar. When it was found that the draining left as a soil the finest of black muck, composed almost entirely of vegetable mold, the price advanced to seventeen dollars an acre. After the sixty acres were reclaimed, the price still further increased, until to-day as high as one thousand dollars has been paid for the reclaimed land. The ruling price is five hundred dollars an acre. The great value of the land is owing to its extraordinary adaptability to the culture of onions. A crop of eight hundred bushels to the acre is not uncommon, and the Greyhound onion meadows are celebrated throughout the country. About three hundred acres are under cultivation this year, and the success of the onion business in the meadows has led to the reclaiming of similar lands in other parts of the county, and it is believed that the onion crop of Orange county will amount to fully 500,000 bushels this year. The average price received by onion raisers is one dollar a bushel. The average yield is three hundred bushels to the acre. The crop is almost invariably sold for cash as soon as it is ready for market, and as it matures early in the season, the farmer is allowed abundant time to keep his land in the condition necessary to its productiveness.

There are seventeen thousand acres of swamp land in the Walkill valley which will eventually be converted into this muck soil, which is the best in the world for vegetable raising. The land, after draining, is tilled with the slightest labor. Onion seed is sown by a hand drill, and the greatest labor is in keeping down the weeds after the plant begins to grow. This work is done by boys and girls. Hundreds of these may be seen in the growing season on their hands and knees between the onion rows, pulling up the weeds that the rich soil calls rapidly into existence. The weeding requires skill and care, and the soil is so loose that there is constant danger of tearing up the young and tender plants by their roots or removing their covering of earth. The red onion is the variety grown most successfully, as the dark muck gives the white onion a dirty hue which injures its marketable value. When the onion tops are at the height of their growth, their odor fills the air for great distances around.

Rye.

If you have the corn, sow rye and clover at the last working, sowing each before the culti-

vator, so that the seeds will be covered thereby. On moist low ground, which is not too wet, it is a good plan to sow turnip seed and cover them with the cultivator when you work the seed the last time.

If rye is to be sown on fallow ground, or after another crop has been removed, we say we would plow the land deep, harrow it well, and sow 1 to 1½ bushels of seed, and harrow it in well. From the first of December until the first of April it will yield fine green feed for sheep, colts and young calves without detriment, perhaps with profit, to the farmer and a fine crop of grain could be expected in June. This is one of the advantages of this heretofore much under-rated crop. It is looked upon as a "good-for-nothing,"—put on the poorest land, treated badly from the time it is sown until it is harvested, and then abused for a poor crop. Good land, good culture, some manure, early sowing, and grazed only by small animals, as the conditions precedent, then there is not its equal in profit-yielding among the small grain crops. Its straw is almost as valuable per ton as hay of the best grades, if threshed by flails and tied in bundles, and its grain will yield in money very nearly as much as wheat on similar soil. If sheep husbandry is to be ever encouraged this crop will then be fully appreciated.—*Haying Farmer.*

Changing Feed—Quality of Meats.

Men who have, for a series of years, been accustomed to feeding and grazing cattle, understand pretty well how changes in feed, going from green feed in the fall to dry, and again in the spring from dry to green, affect fattening animals. After being a short time on green grass in the spring, before the hard frosts set in, and the flies get in their work, cattle will gain very rapidly, but it will not be good shipping flesh. On the contrary this fatty accumulation, all the tissues being diluted, so to speak, with the superabundant water which prevails in early, rank growing grass, will be very transitory, and if animals so fed up be made to fast twenty-four hours, whether in process of shipping or not, a rapid shrinkage will be observed to take place.

The flesh from a beast rapidly fattened will be far more tender and juicy than from one a long time under the feeding process, the flesh of the latter being, so to speak, dry and unseasoned. As all the parts of an aged animal are firmer, in common language tougher than in young animals, so the tissue—adipose and others—added by a long course of feeding becomes firm, somewhat solidified, and not so juicy and tender when put upon the plate, as that which has been rapidly produced by the feeding process. This was demonstrated by the slaughter of some of the steers that were exhibited at the fat cattle show at Chicago last December. These steers had been kept in a high state of fatness for two or three years, and as must inevitably be the case under like circumstances, the flesh did not possess that juicy tenderness so much admired in all meats, when prepared for the table.

Therefore, for shipping long distances, or for curing for long keeping, the flesh which has been a long time fattened will put in appearance in the market in better shape than that which has been rapidly fed up, though for domestic use—leaving the matter of shipping out of the question—the latter will please the majority of states the best. These views, however, should not be construed as having any reference to the feeding of young growing animals. Under no circumstances should a calf be kept on spare diet, or in any way neglected. If this course is taken during the first six months of its life it will hardly recover from this neglect afterwards. Not, at any rate, without extraordinary care.—*Farm and Live Stock Journal.*

Notes From the Agricultural Press.

The annual meeting of the Farmers' Alliance will be held in Syracuse next month. This meeting will have great importance to the farmers of this state, inasmuch as the subject of railway discriminations will be considered, with a view of devising means by which the abuse shall be prevented in the future. It would seem hardly necessary to press this matter to the notice of farmers, since their own interests are so directly involved; but unfortunately they have a habit of delegating the adjustment of such questions to selected representatives who have marvelous capacity for betraying them, and it is therefore proper to urge farmers to attend to their own interests. The Farmers' Alliance is a body not allied with any political party—it is the true representation

of farmers themselves; hence the necessity of strengthening it by the fullest membership comprising the most able, independent, and efficient men, whose interests are based on agriculture. The special work now in hand is of vast importance to all the business interests of this state. A strict adjustment of the rights of transportation companies is to be attempted. This question will certainly have paramount importance in the next legislature, and it is therefore the imperative duty of every person interested to take his share in positive action designed to aid the solution of a problem that interferes very much with the general prosperity so anxiously sought by all classes.—*Husbandman.*

If you want to get rid of sprouts, briars, bushes, shrubs, young trees, etc., that are in the pastures, and meadows on the farm, go at them now with all your force. Clean them out thoroughly, and you will get rid of them. From the middle of July to the middle of August is the best time to do effective work against such obstructions and eye-sores on the farm. Every field on the farm ought to be freed from all obstructions to mowing and reaping machines. Now when the fields are cleared of their crops is a good time to clean them up thoroughly. If pastures are cleaned, the mowing machines can be run over them to cut down dog fennel, iron weeds and other weeds that are a great injury to the pastures. Nearly all the pastures in the west could be made to carry double the stock they now do, by thicker seeding, and keeping weeds, briars and brush cleaned out of them.—*Oleman's Rural.*

The appendage to the common branches, in the shape of impractical or ornamental studies, to say nothing of the tomfoolery in some of our schools, being a part of the whole, we pronounce the whole system imperfect. The common school, even if the teaching of the "higher branches" were always thorough—which it is not—should be especially devoted to thoroughly training the boy and girl for the active duties of life, and the course of study should be made to conform to that. What little Greek or Latin a boy who intends to be a farmer, and who gets nothing but a common school education, can get in a common school, would be about as much use to him, as would a knowledge of the size of the apple that Adam ate in the Garden of Eden. If he had a thorough knowledge of it, perhaps it might afford him some pleasure, but it never would help him grow a crop or to harvest it. But the desire to get a little of everything into the heads of our children, and still not anything, has led to what we may term the embellishments of the common school course of study, until it is as superficial as our college courses.—*Western Rural.*

The care of farm teams in haying time is a matter of no small importance. Most farmers are apt, we think, to give their horses less care then than at any other time. Horses are worked more hours and harder at this season of the year than at any other, and too often on nothing but green food with but little grain. If nights, they should have four quarts or more of oats, if they are turned out as they should be, but we should feed them no grain in the morning, as they are usually full enough to work without any more feed. They ought to have water before noon, and be fed four quarts or more of oats after watering. For hot weather there is no grain so good for horses as oats. Feed and meal are said to be heating and we are certain that many horses are lost by feeding the last in hot weather. Horses should not be worked over four or five hours without feed and water. Their stomach being smaller than that of oxen, they digest their food quicker. Instead of using the curry-comb and brush extensively we should treat them to a bath of water if the brook or pond is near. They soon get to enjoy it and it does them good.—*Connecticut Farmer.*

WHERE CLOVER SEED IS GROWN.—The Michigan Farmer has looked up the clover seed statistics of this country, and gives them as follows. Clover seed is grown in nearly all of the states, but the largest producers are Pennsylvania, 200,679 bushels; Ohio, 102,355; New York, 98,837; Indiana, 61,168; Michigan, 49,918; Maryland, 35,040; New Jersey, 26,306; Virginia, 11,367; Illinois, 10,468; Tennessee, 8,564; South Carolina, 5,830; Maine, 5,255; West Virginia, 3,930; Wisconsin, 2,994; and the other still less quantities. The chief exports are to England, Germany and Scotland, half the entire shipments going to the former. It is used abroad for raising the grass to be cut green for feeding, to be cut with oats for feeding draft horses, and to be ploughed in for manure.

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Farm Stock.

Medium Grade Sheep.

Col. F. D. Curtis, on medium grades, says in the N. Y. Tribune what is coming to be more appreciated among farmers than formerly. The dog bagaboo frightens the majority of farmers from raising sheep, which is really an insignificant matter if proper attention and care is given the flock.

"Farmers begin to appreciate the value of mutton more than they have for a change from pork, and as a healthful food. They can produce it cheaper than beef, as the fleece and manure derived from a sheep will actually pay for the cost of rearing, so that a farmer's mutton costs him nothing. Not so with the pig. The important factor of fleece in the estimate of cost is wanting, so that a pound of pork probably costs as much as a pound of mutton, and there is no comparison between them for food. Mutton can be used so many ways as food, and all of them be conducive to good health and good digestion, while pork is pork. The American people will never allow the great woolen industries of this country to be stricken down. They are too closely allied with every section of country and our manufacturing interests. The South want sheep to utilize their immense barrens, where the wools now grown in South America and South Africa may be produced; The West want sheep to convert the plains into profit and to turn the arid wastes into usefulness; while the North and East want sheep to help restore fertility to deteriorated lands and to add an important part to their incomes. New England, with its vast capital invested in woolen factories, will always be a friend too sheep, for no greater calamity could happen to it than to be entirely dependent upon foreign wool growers.

It is evident from the universal and combined interest the people of this country have in wool growing and in woolen manufacturing, that they never will be at the mercy of other nations for their clothes. With these assurances, we may justly regard sheep husbandry as established on a permanent basis, with steady and certain profits to be derived from it. These profits will be enhanced as the demand for mutton is increased. This will be the case whenever farmers keep sheep to have good lambs, as good lambs make good sheep. This double axiom goes further and has an additional significance, in that good mutton sheep produce the best wool. The broadcloth days for farmers are over. They have found, like the English people, that coarser fabrics wear better; and under the stimulus of this sound sense, and the necessities of the times, fashion has changed, and the substantial cloths of the medium and coarse wools are taking the lead. The long staple fine wools sell at the highest prices for delaines and other fancy goods, but the short and fine wool Merinos drop below the best mutton breeds. The long and glossy staples of Cotswold and Leicesters sell high for worsteds, but this kind of wool is limited in production. It takes turnips and oil cake to make this lustrous wool with a length sufficient to come up to the standard.

Americans do not practice this sort of feeding, and consequently do not produce much combing wool. It is grown in Canada extensively by the farmers who have learned the old country system of feeding. A few breeding flocks of Cotswolds and Leicesters produce combing wool, but the style of wool, soon runs out when the same sheep are subjected to ordinary care and feeding. Messrs. Wolcott and Campbell, New York Mills, a few years ago imported a number of Lincolns from England, with an idea of introducing a superior combing woolled sheep, but the breed has not spread, and by this time has doubtless run out. They sold out their flock of the purest Leicesters in this country to make room for the Lincolns, as a harder and more profitable breed. Their old flock of Leicesters are all gone, gradually running down until they became worthless. The climate was unsuited to them. A close-wooled medium sheep is the most valuable, and they may be had by crossing a Southdown buck upon the Merino or other breeds, and selecting the best ewe lambs. The best ewe lambs should always be saved, as this is the right way to make a good flock.

Poultry.

Farmers as Poulterers.

It is a singular fact that so few of our American farmers are inclined to give any, or at the best but a small share, of their attention to the raising of good poultry. The mode adopted by farmers, generally speaking, to produce chickens is not the most profitable to them, and is rarely the right way to manage for the welfare of their fowl stock.

Hens are kept, if at all, in but small numbers. They are usually permitted to prow about the farmer's place uncared for and unprotected. They lay their eggs anywhere and nowhere. When they want to sit they steal their nests in some out-of-the-way corner, and squat upon twice as many eggs as they hatch.

When the hen leaves the nest with her chicks she drags them through the wet grass home, and, as the careless farmer has no fitting accommodations for them, he "can't be bothered with chickens;" it is "too much trouble to look after these small things," "there's no money in hens," he contends, and he lets them run. They die or live as the chance favors them.

It cannot be wondered at, under these loose and ill-chosen conditions, that farmers "don't find chicken raising profitable." Few birds

can in this shiftless manner be reared, and none that will ever be good for much for any purpose. And it never should be a surprise to such people that they find no profit in chicken raising.

On the other hand, when in these days of poultry improvement and so much is being done, in a paying way, among the amateurs and fanciers of good fowl stock all over the country, it seems to our view that of all men engaged in this work, our farmers should make the most of this undertaking. And they can do this, if they will attend to the business intelligently. It has been proven amply and satisfactorily by the few agriculturists who have stepped aside from their work on the old runs, and gone about fowl cultivating sensibly and judiciously.

Farmers have plenty of room and land to spare upon which fowls may be kept to advantage. Cheap houses can be built on their premises to shelter a hundred or two birds, that will give them fresh eggs in abundance—to use in the household or to sell for cash—in the right season. There is very little labor to be performed in the proper care of a few scores of nice fowls during the breeding season.

And a very large per centage upon the cost and keeping. All told, is the natural and certain return that may be realized to any farmer anywhere, on a small or larger scale, where this business is conducted as it should be. Why, then, should not American farmers avail themselves of this plainly remunerative adjunct upon their premises?

There is more money in good poultry raising, considering its cost, by one-half, to be had annually, than can be realized from the pigs or the sheep on a farm. And yet the latter are fed and housed and bred everywhere, to the entire neglect almost of fowl stock.

Our farmers will do well to look into the merits of this thing. Good fowls of any of the improved breeds may now be had at a reasonable price. And we seriously recommend this matter to the careful consideration of those who have the facilities at hand to rear good poultry at a remunerative rate, but who have neglected this well-paying branch of rural economy.

IN THE HOT JULY DAYS, and into the month of August, young fowls, as well as the adult stock, are inclined to seek the shade during the middle of the day whenever the sun shines. If they have an open range to roam about in, the trees and shrubbery afford them shelter. If not, provision should be made for them, where they can retire from the excessive heat.

This is as much a necessity at this time of the year as it is to afford them the sunlight and warmth they so greatly enjoy, through the glazed panes of the hen house at an earlier period in the season. If there be no trees, vines or bushes among which they may find retreat in mid-day, a few boards nailed together against the fence, barn or other out-building, away from the hot hen-house, with a slant to throw off the rain—will answer the purpose. They will gather beneath this shadow, in this sultry season, when they really suffer if compelled to stand about in the hot sun, without shelter from its piercing rays.

—Poultry, Y. and, on August 1st, 1879.

Kerosene for Chicken Cholera.

A New England poultry keeper tells in the Poultry World how he saved his flock by a prompt use of kerosene. Over a hundred of his fowls were violently sick, purging, cramping up and refusing to eat. He says:—"I took a pailful of dry corn meal and another pailful of bran, into which I mixed two heaping table-spoonfuls of cayenne pepper. This I rubbed thoroughly together and then poured a pint of raw kerosene upon the whole mixture, which I subsequently kneaded through the mass. I then poured a kettle of boiling water upon the mixture, and when all was carefully mingled and cooled I fed every fowl in my twenty pens with it—all they would eat. There were many that would not touch it. These I watched and crammed with it—as I did also every sick, failing or dying bird upon my premises. I followed up this style of feeding and cramping twice a day for three days, without giving the fowls anything else, and from the beginning of this treatment I did not lose a single bird. I continued it a whole week. This much made them thirsty. I put into their drink cayenne pepper or tincture of iron, and compelled them to take this or go without water. No doubt this helped them some. But with the combination I have above described—the kerosene oil and pepper, forced upon them in every instance—I stamped out the disease upon my premises and stopped it then and there, effectually."

Dust for Vermin.

No medicine is such a complete specific for insects and other parasites on animals and fowls as the dust, and finest dust that can be procured, coal ashes being excellent for the purpose. Nothing is more preservative of the health of animals than dust, and in summer, when it can be procured by them without the aid of man, they always do best. It should be well sprinkled and freely scattered from the head to the tail, along the backbone, using an abundance of this most excellent and cheapest of all cattle medicine.

Apiary.

Management of Bees in August.

In many places but little honey is gathered this month, but in others the main summer supply is laid away. Of course different management applies according to location. If honey abounds, continue treatment as in July—keep-

ing each hive supplied with boxes, or extracting frequently. Where dark buckwheat is plentiful we advise giving frames of foundation in exchange for sealed combs, which should be set away for winter. We advise this especially where bees can be gotten in the fall from neighbors who "take up" their bees, and where aster, golden-rod, smartweed, or other fall-flowers abound, which produce good honey. This can be saved and the less salable buckwheat honey be substituted for winter, or used for filling hives from bees gotten from neighbors.

This is the best month for Italianizing if it is done by purchasing queens, because they are cheaper than at any other time of the year; the hives are not necessarily disturbed during their previous work, and they go into winter quarters just right to turn out good Italian workers for the next season. Be careful always to have brood reared plentifully this month and next, even if feeding is necessary, because hives strong with young bees in the fall, winter much better, and develop much more rapidly in the spring than those that cease rearing brood at this season of the year. Whenever no good honey harvest is expected after this, care should be promptly taken to see that empty cells are in the center of the hive for broodrearing, and that there is a full amount of supplies given for winter.

During the honey drought in this month, or whenever the bees cease to find honey in the fields, they are much more difficult to handle and much more given to robbing than at any other season. In opening or removing boxes be as gentle as possible, and always smoke well before opening a hive. Keep all stocks strong. If any seem weak build it up by inserting from one able to spare it, a comb or two of hatching brood. Keep the entrances contracted so as to prevent robbing. Leave no sweets or bits of comb exposed.

If box honey is placed in a cool, dry cellar there is less danger from hatching worms, and less yet if the combs are set on the shelf an inch or two apart, so as to permit the free circulation of air around them.—Bee-keeper's Text-Book.

The Honey Bee.

The following is from a little volume recently published, entitled "Locusts and Wild Honey."

It is the making of the wax that costs with the bee. As with the poet, the form, the receptacle, give him more trouble than the sweet that fills it, though, to be sure, there is always more or less empty comb in both cases. The honey he can have for the gathering, but the wax he must make himself—must evolve from his own inner consciousness. When wax is to be made the wax-makers fill themselves with honey and retire into their chambers for private meditation; it is like some solemn religious rite; they take hold of hands or hook themselves together in long lines that hang in festoons from the top of the hive, and wait for the miracle to transpire.

"After about twenty-four hours their patience is rewarded, the honey is turned into wax, minute scales of which are secreted from between the rings of the abdomen of each bee; this is taken off and from it the comb is built up. It is calculated that about twenty-five pounds of honey are used in elaborating one pound of comb, to say nothing of the time that is lost. Hence the importance, in an economical point of view, of a recent device by which the honey is extracted and the comb returned intact to the bees. But honey without the comb is the perfume without the rose—it is sweet merely, and soon degenerates into candy. Half of the delicatessen is in breaking down these frail and exquisite walls yourself, and tasting the nectar before it has lost its freshness by contact with the air. Then the comb is a sort of shield or foil that prevents the tongue from being overwhelmed by the first shock of the sweet."

Horticulture.

Remarkable Array of New Fruits.

The year 1878, it appears, has been rendered memorable to American pomologists by reason of the large number of new native fruits which were originated or introduced during that time. The list of peaches especially has been greatly increased. In a paper read before the Western N. Y. Horticultural Society by William C. Barry, descriptions of thirty peach seedlings never before described were enumerated as having come to the notice of this well-known nurseryman, while many more were fruited which are not yet made known to the public. According to Mr. Barry the state of New York offers several candidates for popular favor. From the great metropolis, even, come two new varieties which apparently possess many valuable qualities. In western New York there are several seedlings which will undoubtedly prove desirable. One of them is believed to be the largest and earliest of all the very early peaches. Several excellent early and late varieties have originated in Ohio. Passing over a vast extent of country are found a number of new kinds in Missouri, Kansas and Nebraska. From Kansas comes the information that the whole list of early peaches known to the public, so far as fruited in Kansas in 1878, is surpassed both in earliness and size by at least fifty new seedlings of Kansas origin, many of which bore their first fruit that year. At the south, too, many promising new sorts are mentioned. Thus as if by magic, during the same year and in various sections of country new peaches have sprung up in such numbers as to astonish and almost perplex the fruit culturist.—N. Y. World.

Whence Plants Obtain Their Supplies of Food.

Plants get part of their food from the air, through their leaves and other green parts, the rest from the soil through their roots. This is proven by a vast amount of laborious and accurate experimenting, carried on for the most part in the European experiment stations, for the purpose of discovering the laws of plant nutrition and growth.

Water.—Plants have the power of absorbing water through their leaves, but the bulk of their supply comes, and must come, from the atmosphere to the soil, and thence to the plant through its roots. The carbon of plants is taken from the atmosphere. The leaves absorb carbonic acid, and with the aid of light wrest its carbon and oxygen asunder, setting oxygen free, and thus purifying the air, while they retain the carbon. Carbon unites with hydrogen, oxygen and nitrogen, to make up the various tissues of the plant, the root, stem, leaf, and seed, the wood and bark, the gluten, starch, sugar, and so on. The atmosphere supplies carbon far in excess of the demands of plants. The best experiments indicate that the carbon is all, or nearly all, obtained from the air. The source of the oxygen and hydrogen is not definitely settled. It is very probable that the water absorbed through the roots is the main, if not the entire source of supply.

Our cultivated plants get the bulk of their nitrogen from the soil, through their roots. Many years of labor of the best investigators, and many thousands of dollars have been devoted to the study of the sources of the nitrogen of plant-food. The theory that plants avail themselves of the free nitrogen of the air, of which there are thousands of tons over every farm, must be regarded as wrong. The theory that plants in general, and the "large-leaved" plants in particular, as clover, turnips, corn, etc., obtain a good deal of combined nitrogen (ammonia and nitrogen) from the air by their leaves, is hardly tenable. The gain of nitrogen from this source, seems to be very small indeed. The most of the nitrogen of our crops is got from the soil through the roots. The soil gathers some nitrogen compounds from the air, however, and it is extremely probable that it assimilates free nitrogen, and thus, in two ways, stores up atmospheric nitrogen for plant-food. The nitrates in the soil, formed mostly from the decay of vegetable and animal matter, are the chief natural sources of the nitrogen of plant-food. Ammonia, which, like nitric acid, comes from vegetable debris and from manures, as well as from the air, is also used by plants. Other compounds of nitrogen, no one yet knows just what or how many, can also be assimilated by plants.

The mineral ingredients of plants are derived exclusively from the soil. Of these, potash, lime, magnesia, iron, phosphoric acid, and sulphuric acid, must be furnished to all agricultural plants, through their roots and by the soil, in order to their growth. If the available soil-supply of any one of these is deficient, the whole crop must suffer. As regards soda, silica, and chlorine, the experimental evidence is not so decisive. A small quantity of chlorine has been proven necessary for the perfection of some plants. Soda is needed in very minute quantities, if at all, by crops. A little of silica is probably necessary to the perfect blossoming and ripening of grain.

To sum up in a few words: "Air and water together yield the materials out of which fully ninety to ninety-eight per cent. of crops is built up. The soil has to give for their nourishment only the two to eight per cent. of mineral matters, which remain as ashes when they are burned, and the one-half to two per cent. of nitrogen which they also contain."—American Agriculturist.

A Good Bean Cultivator

is thus described by a correspondent in Ohio Farmer.

The common one-horse cultivator is not suitable for cultivating beans, so the manufacturer of implements will make various bean cultivators and urge us to buy a new tool for each separate piece of work we have to do. But that is oftentimes as useless as it would be in this case, for let a farmer take off the two rear cultivator teeth (one from each side), and instead insert four good drag teeth, two on a side, placing one before and one behind where this rear tooth was removed, then adjust it to the proper gauge, he will have one of the best bean cultivators that the market affords; also a good tool to use the last time in corn, for it will leave a smooth and level surface.

When to Cut Sorghum.

As good a time to cut sorghum as any is before it is entirely ripe. After you have cut it and the tops cut off—which should be cut off at about the upper joint—tie the cane in small bundles, for convenience in handling; take it to your barn, or any place well to where it will not get wet, and cross-pile it to dry, and if the weather is not too warm it can lie there several weeks before it will sour. The object in drying it is to get as much of the green juice out of it as possible. The green juice is in parts of the leaves left on after being stripped, and in the bark. If you press the cane as soon as cut the juice will have an ugly green color. If you let it lie several weeks the juice when first pressed will be almost white.—Cor. Practical Farmer.

Sweet Potatoes.

If the vines have pretty well covered the

ground, they should not be disturbed by plowing, as this favors their rooting in the middles, giving rise to small tubers at the expense of the main crop. But if any grass or weeds are present, they should be removed by hand—the presence of grass late in the season is very prejudicial to the crop.—Southern Live Stock Journal.

Tomatoes.

The American Grocer estimates from carefully selected statistics that the number of packages of tomatoes put up in the United States last year reached the great total of 19,668,000—Maryland leading off with 8,550,000; New Jersey, 5,592,000; Delaware, 1,884,000; New York, 1,680,000; Massachusetts, 960,000; Pennsylvania, 192,000; Pacific Coast, 1,200,000; Western and other States, 1,320,000. The value of this industry to the trade is given at \$1,600,000. Yet many of the present generation can recall the time when the tomato was regarded as only a curiosity.

A lady correspondent of *Vick's Monthly* has repeatedly cleared her plants of plant lice, by the use of a teaspoonful of coal oil to a gallon of water, kept mixed by stirring, and applied with a garden-syringe, hand-broom or watering-pot.

Dairy.

Dairy Product of the U. S.

"An Englishman" writing from London to the *Western Rural* gives the following account of the dairy business in this country, his facts being gathered from statistics furnished by Victor Drummond, Secretary of the British Legation at Washington, to his government. Speaking from estimates made early in 1878, he gives the number of milch cows in the United States as 11,300,000, and the value of the cows (averaging \$23.20 each) and of the land especially devoted to their support is reckoned at \$1,300,000,000. The annual production of cheese is estimated at more than 300,000,000 lbs., and that of butter at more than 1,000,000,000 lbs., their combined value at more than \$300,000,000. This production has increased 33 per cent. over that of the preceding year, and since the introduction of the American factory system in the manufacture of these articles they have become important items of export, the foreign sale amounting in the preceding season to \$13,000,000 for butter, and \$14,000,000 for cheese. The exportations of the year paid more than \$1,000,000 freight, or enough to support a weekly line of steamers to Europe, and paid \$5,000,000 freight to the railroads of the United States and milk pays nearly as much more. There are now important dairy districts in all parts of the south, and there are indications that the northern cities will soon be supplied with fresh grass butter throughout the winter, from Mississippi, Tennessee, and other regions, where, before the war, the profitable growth of grass was regarded as an impossibility. The introduction and wide-spread distribution of Jersey cattle have done this. The old system of setting milk for the raising of cream in shallow pans is now practically denounced in the United States, and the deep canned system has gained the approval of the leading dairymen of the country. Under the Cooley system the milk is strained into cans twenty inches deep and eight inches in diameter, each covered with a small inverted pan, and the pans are packed in a closed box which is then filled with cold water, and constant cold stream passing through the box or ice used to keep the water cool and the pans keeping the water out of the milk on the principle of the diving bell. It is found that all the cream rises within twelve hours, and, owing to the temperature of the water being kept below fifty degrees, the skimmed milk is perfectly sweet and useful for cheese-making and other purposes. In churning, the cream is now put into an oblong box, which is arranged to vibrate longitudinally, the cream being dashed first against one end then against the other, the swirl of the cream keeping the walls of the churn always washed down, so that the entire contents are subjected to uniform agitation. Dashers, cleats, and beaters are done away with."

This mode of churning is not anything like universal. Probably not one pound of the butter in a hundred manufactured in the United States is made in the no-dash churns, and the Cooley system is only in its infancy. The proprietors claim but 4,000 dairies using their system, as yet. The statistics of butter exported to England, do not show, we apprehend, one-tenth of the butter manufactured in this country. There are millions of pounds made which are little better than common grease, much of it going into the slush pots and soap vats. The appliances for keeping milk among small butter makers are so poor, and the art of butter making so imperfectly understood, that tons of milk virtually go to waste among farmers all over the country. Let any one who feels skeptical on this matter, make an investigation among the village groceries and country stores of the western states, that deal largely in farm products, and he will find in many of those stores frequently a ton of butter at one time, and not one pound of the whole lot really fit to be eaten. If every farm house had a complete dairy establishment in which the milk, cream and butter could be preserved and kept as they should be, and an effort made by the proprietors to perfect themselves in the art of manufacturing butter and cheese, the dairy product would be reckoned by billions instead of millions as at present. Much more butter would be used in the country if a No. 1 article could always be obtained.

T. F. OAKES, Gen'l Superintendent
KANSAS CITY, MO.

RAILWAY.

Lands! Lands! KANSAS TO THE FRONT!

The Leading Wheat State in the Union
In 1878, and the Fourth Corn State—The Great Kansas Harvest of 1878 was Sold for the Golden Belt.

The celebrated Grain Belt of Kansas, in the lime-stone section of Central Kansas, traversed by the Kansas Pacific.

The following statements are taken from the report of the Kansas State Board of Agriculture for 1878:

WHEAT!

Kansas rises from the Eleventh Wheat State in 1877 to the FIRST WHEAT STATE in the Union in 1878, producing **26,618,953** bushels winter wheat, and 5,766,403 bushels spring wheat; total,

32,315,361

Bushels Wheat, with only one-eighth of the state under cultivation. The organized counties lying in the Golden Wheat Belt of the Kansas Pacific produced 11,585,334 bushels, or over 45 per cent. of the entire crop, exporting values July 1st, **14,000,000** bushels, or 45 per cent. of the entire yield of wheat in the state, averaging 24 bushels to the acre, while the average for the state was 17 bushels per acre.

CORN!

Kansas, the Fourth Corn State in 1877, produced 33,241,971 bushels of corn, of which the Golden Grain Belt counties produced **37,399,055** bushels, or 31 per cent., nearly one-third of the entire yield of the state, with an equally grand showing in all other departments of agriculture.

The foregoing facts show conclusively why

- 25 per cent of the increase of population in the State during the past four years; and
- 40 per cent of the increase in population during the past year; and
- 45 per cent. of the increased acreage of wheat in the state in 1878, belonged to the "Golden Belt."

A FARM FOR EVERYBODY.—62,500 farms—5,000,000 acres—for sale by KANSAS PACIFIC—the Best Land in America, at from \$2 to \$5 per acre—one-quarter of the cash, or on 6 or 11 years credit at 7 per cent. interest. It doesn't take much money to buy a farm on the Kansas Pacific; \$3 to \$50 will secure 80 acres on credit, or \$100 to \$300 will buy it outright.

Send to S. J. Gilmore, Land Commissioner, Salina, Kas., for the "Kansas Pacific Homestead," a publication that tells all about Lands, Homesteads, Pre-emption, Stock, Climate, Stock Raising, Schools, Wages, Land Explorers' Tickets, Rates, etc. It is mailed free to all applicants.

But you can get rather about Kansas, and when you decide to start, be sure and start right by locating along the KANSAS PACIFIC RAILWAY.

T. F. OAKES, Gen'l Superintendent,
KANSAS CITY, MO.

Destroy the Yellow Butterflies.

We have had warning that three hundred Indians had broken over the lines and were coming through this place, or near here. Two Indian scouts were in town nearly two weeks ago, saying they were going to Fort Hayes for soldiers. We are not at all prepared for a raid.

MRS. J. T. HUMMELL.

From Jewell County.

July 28th.—About all we can do in Jewell now is to dodge the frequent showers or deluges we are getting about every three days. The clerk of the weather seems determined to get rid of the present stock of rain at any cost. Wheat and oats are being damaged very much as there is but very little of either in stock. Harvesting about all done. Wheat will fall 50 per cent. below last year's crop, and will be more damaged by rain than even last year. The oat crop is the best I have seen, in my ten years' residence in Kansas. The corn crop will be immense. There was a larger acreage of timothy put out this year than usual.

Will some one explain why the United States imports millions of bushels of barley yearly, and we can only get from 15 to 50 cents per bushel for very good barley of home production? There were hundreds of bushels sold here last year for 14 cents, consequently there was but very little sold here this year.

The chintz bugs, but for our frequent heavy rains, would have damaged small grain much, and did so to some extent.

We are going to have the "kears" Maj. Downs put another side-track through Jewell City, Jewell Centre, and the town of Burr Oak. All he asks in return is pocket change to the amount of fifty thousand dollars. S. J. S.

Not Deserving of Pity.

Beggared spendthrifts, to whom money has no exchange value but pleasure.

Persons who will persist in dying by inches with dyspepsia and liver diseases, when Dr. Pierce's Golden Medical Discovery and Pleasant Purgative Pellets are unfailing remedies for these maladies.

People who spare the rod and ruin the child. Fast young men and women are generally spoiled children to begin with.

People who suffer from catarrh, when Dr. Sage's Catarrh Remedy is a safe, reliable, and well tested remedy for this troublesome disease.

People who marry for money, and find too late that the golden glitter is all moonshine.

Women who suffer death every day of their lives, when Dr. Pierce's Favorite Prescription will effectually remove those painful weaknesses and impart a healthy tone and strength to the whole system.

People who live beyond their means, and find that style and pride, like everything else in this world, unless placed upon a secure foundation, are subject to the law of gravitation.

Invalids who do more toward fostering disease by living and sleeping in the low, unventilated rooms of the ordinary house, than the best medicines can accomplish toward recovery, when at a moderate expense they can secure all the hygienic and sanitary advantages of the Invalid's Hotel at Buffalo, N. Y. Every physician knows how much recovery depends upon good nursing and the hygienic conditions of the sick room. Chronic diseases are especially subject to these conditions.

Mrs. Byram's Sale.

One of the rarest opportunities for the purchase of elegant short-horns that has been offered to lovers of pure stock in many a day, is the public sale of Mrs. E. J. Byram, at Abingdon, Illinois, on August 20th. It is not a "weeding out" sale, but the disposal of the natural increased stock of one of the most carefully bred and best selected herds in the west.

Among the offerings are found Young Phyllis, Mazurka, Victoria, (Alexander's sort), Young Mary, Princess, Louisa, etc., comprising the best families of the day.

We feel sure that none of our Short-horn friends can fail to find something worth having at this sale. The animals are splendid individuals; their pedigrees are irreproachable, and everything will be found as represented.

For particulars see advertisement in another column. Send to Mrs. Byram or Mr. J. L. Campbell, Abingdon, for catalogue.

Mrs. Partington Says:

Don't take any of the quack nostrums, as they are detrimental to the human system; but put your trust in Hop Bitters, which will cure general dilapidation, costive habits and all comic diseases. They saved Isaac from a severe extract of tripod fever. They are the *pluimum* of medicines.

Shawnee County Fair

We desire to call the attention of our citizens to the fact that membership coupon tickets, entitling the purchaser, his lady, and all members of his family under fifteen years of age to admission to the grounds during the fair of the Shawnee County Agricultural Society to be held September 30, October 1, 2, and 3, to compete for premiums, are on sale at one dollar each. Such tickets can be purchased of

T. L. Stringham, Secretary, Topeka, and of H. H. Stanton, Director, First Ward, Topeka;

J. A. Polley, Director, Second Ward, Topeka;

C. P. Bolmar, Director, Third Ward, Topeka;

A. C. Sherman, Vice-President, Rossville;

W. S. Curry, Treasurer, Topeka Township;

W. D. Alexander, Director at large, Topeka Township;

George Ludington, Director, Topeka Township;

B. F. VanHorn, Director, Silver Lake Township;

S. J. Oliver, Director, Rossville Township;

Golden Silvers, Director, Soldier Township;

J. B. Miller, Director, Tecumseh Township;

J. S. Jordan, Director, Williamsport Township;

S. J. Yager, Director, Auburn Township;

L. J. Young, Director, Dover Township;

Thomas White, Director, Mission Township;

W. P. Popenoe, Director, Monmouth Township;

By direction of the Board no coupon tickets will be sold after August 15. The Directors have sought to so arrange the price of admission as to meet the demand of the public, and we trust our citizens generally will avail themselves of the opportunity offered and procure a family ticket, on or before August 15, and thereby secure not only cheap admission, but assure the success of our fair. Our premium list is now out, and can be had of any of the above named officers.

WM. SIMMS.

T. L. STRINGHAM, Sec'y.

TOPEKA, KAN., July 24, 1879.

What Will Compound Oxygen Cure?

Most remarkable cures have been made in consumption, asthma, catarrh, bronchitis, dyspepsia, headache, rheumatism, neuralgia, ozema, paralysis, and in a large class of chronic and nervous diseases which have for years baffled the skill of our best physicians. Send

for our "Treatise on Compound Oxygen." It will give you the amplest information and the most conclusive testimonials. Sent free. Drs. Starkey & Palen, 112 Girard St., Phila., Pa.

Two Organs.

Regulate first the stomach, second the liver; especially the first, so as to perform their functions perfectly, and you will remove at least nineteen-twentieths of all the ills that mankind is heir to, in this or any other climate. Hop Bitters is the only thing that will give perfectly healthy natural action to these two organs.

The Only Way.

The only way to cure catarrh is by the use of a cleansing and healing lotion, applied to the inflamed and diseased membrane. Snuffs and fumigations, while affording temporary relief, irritate the affected parts and excite a more extended inflammation. Besides, no outward application alone can cure catarrh. The disease originates in a vitiated state of the blood, and a thorough alternative course of treatment is necessary to remove it from the system. Dr. Sage's Catarrh Remedy has long been known as an efficient standard remedy for this disease, but, to insure a radical and permanent cure, it should be used in conjunction with Dr. Pierce's Golden Medical Discovery, the best vegetable alternative yet discovered. The Discovery cleanses the vitiated blood, while the Catarrh Remedy allays the inflammation and heals the diseased tissues.

8 and 9

Eight and nine per cent. interest on farm loans in Shawnee county.

Ten per cent. on city property.

All good bonds bought at sight.

For ready money and low interest, call on A. PRESCOTT & CO.

Chew Jackson's best Sweet Navy tobacco.

PRESCRIPTION FREE

For the speedy cure of Seminal Weakness, Loss of Manhood, and all disorders brought on by indiscretion or excess. Any Druggist has the ingredients. Address DAVIDSON & CO., 78 Nassau St., N. Y.

Markets.

New York Money Market.

NEW YORK, August 4, 1879.

GOVERNMENTS—Quiet.

RAILROAD BONDS—Less active.

STATE SECURITIES—Dull.

Chicago Live-Stock Market.

CHICAGO, August 4, 1879.

The Drovers' Journal this afternoon reports as follows:

HOGS—Receipts, 10,000; shipments, 5,000; market dull and slow, but prices firmer; mixed packing, \$3 10/16 to \$3 11/16; light, \$3 12/16 to \$3 13/16; heavy, \$3 14/16 to \$3 15/16; market closed weak; a good many heavy sold.

CATTLE—Receipts, 3,100; shipments, 1,200; enough to make a market; exports, \$3 50/100; shipping, slow \$4 7/8 to \$5; butchers' quiet, weak and prices steady; western, \$2 50/100 to \$2 51/100; Texas, \$2 40/100 to \$2 41/100.

SHEEP—Common to good, \$2 75/100 to \$2 80/100; prime, \$4 75/100.

St. Louis Produce Market.

ST. LOUIS, August 4, 1879.

FLOUR—A shade heavier, owing to advance on eastern freight, but not in quantity lower.

WHEAT—Lower and irregular, but closed better and firm; No. 2 red, 94 1/2¢ cash; 93 1/2¢ August; closing at 94 1/2¢; No. 3, 92 1/2¢; No. 4, 91 1/2¢; No. 5, 90 1/2¢; No. 6, 89 1/2¢; No. 7, 88 1/2¢; No. 8, 87 1/2¢; No. 9, 86 1/2¢; No. 10, 85 1/2¢; No. 11, 84 1/2¢; No. 12, 83 1/2¢; No. 13, 82 1/2¢; No. 14, 81 1/2¢; No. 15, 80 1/2¢; No. 16, 79 1/2¢; No. 17, 78 1/2¢; No. 18, 77 1/2¢; No. 19, 76 1/2¢; No. 20, 75 1/2¢; No. 21, 74 1/2¢; No. 22, 73 1/2¢; No. 23, 72 1/2¢; No. 24, 71 1/2¢; No. 25, 70 1/2¢; No. 26, 69 1/2¢; No. 27, 68 1/2¢; No. 28, 67 1/2¢; No. 29, 66 1/2¢; No. 30, 65 1/2¢; No. 31, 64 1/2¢; No. 32, 63 1/2¢; No. 33, 62 1/2¢; No. 34, 61 1/2¢; No. 35, 60 1/2¢; No. 36, 59 1/2¢; No. 37, 58 1/2¢; No. 38, 57 1/2¢; No. 39, 56 1/2¢; No. 40, 55 1/2¢; No. 41, 54 1/2¢; No. 42, 53 1/2¢; No. 43, 52 1/2¢; No. 44, 51 1/2¢; No. 45, 50 1/2¢; No. 46, 49 1/2¢; No. 47, 48 1/2¢; No. 48, 47 1/2¢; No. 49, 46 1/2¢; No. 50, 45 1/2¢; No. 51, 44 1/2¢; No. 52, 43 1/2¢; No. 53, 42 1/2¢; No. 54, 41 1/2¢; No. 55, 40 1/2¢; No. 56, 39 1/2¢; No. 57, 38 1/2¢; No. 58, 37 1/2¢; No. 59, 36 1/2¢; No. 60, 35 1/2¢; No. 61, 34 1/2¢; No. 62, 33 1/2¢; No. 63, 32 1/2¢; No. 64, 31 1/2¢; No. 65, 30 1/2¢; No. 66, 29 1/2¢; No. 67, 28 1/2¢; No. 68, 27 1/2¢; No. 69, 26 1/2¢; No. 70, 25 1/2¢; No. 71, 24 1/2¢; No. 72, 23 1/2¢; No. 73, 22 1/2¢; No. 74, 21 1/2¢; No. 75, 20 1/2¢; No. 76, 19 1/2¢; No. 77, 18 1/2¢; No. 78, 17 1/2¢; No. 79, 16 1/2¢; No. 80, 15 1/2¢; No. 81, 14 1/2¢; No. 82, 13 1/2¢; No. 83, 12 1/2¢; No. 84, 11 1/2¢; No. 85, 10 1/2¢; No. 86, 9 1/2¢; No. 87, 8 1/2¢; No. 88, 7 1/2¢; No. 89, 6 1/2¢; No. 90, 5 1/2¢; No. 91, 4 1/2¢; No. 92, 3 1/2¢; No. 93, 2 1/2¢; No. 94, 1 1/2¢; No. 95, 1/2¢; No. 96, 1/4¢; No. 97, 1/8¢; No. 98, 1/16¢; No. 99, 1/32¢; No. 100, 1/64¢; No. 101, 1/128¢; No. 102, 1/256¢; No. 103, 1/512¢; No. 104, 1/1024¢; No. 105, 1/2048¢; No. 106, 1/4096¢; No. 107, 1/8192¢; No. 108, 1/16384¢; No. 109, 1/32768¢; No. 110, 1/65536¢; No. 111, 1/131072¢; No. 112, 1/262144¢; No. 113, 1/524288¢; No. 114, 1/1048576¢; No. 115, 1/2097152¢; No. 116, 1/4194304¢; No. 117, 1/8388608¢; No. 118, 1/16777216¢; No. 119, 1/33554432¢; No. 120, 1/67108864¢; No. 121, 1/134217728¢; No. 122, 1/268435456¢; No. 123, 1/536870912¢; No. 124, 1/1073741824¢; No. 125, 1/2147483648¢; No. 126, 1/4294967296¢; No. 127, 1/8589934592¢; No. 128, 1/17179869184¢; No. 129, 1/34359738368¢; No. 130, 1/68719476736¢; No. 131, 1/137438953472¢; No. 132, 1/274877906944¢; No. 133, 1/549755813888¢; No. 134, 1/1099511627776¢; No. 135, 1/2199023255552¢; No. 136, 1/4398046511104¢; No. 137, 1/8796093022208¢; No. 138, 1/17592186044416¢; No. 139, 1/35184372088832¢; No. 140, 1/70368744177664¢; No. 141, 1/140737488355328¢; No. 142, 1/281474976710656¢; No. 143, 1/562949953421312¢; No. 144, 1/1125899906842624¢; No. 145, 1/2251799813685248¢; No. 146, 1/4503599627370496¢; No. 147, 1/9007199254740992¢; No. 148, 1/18014398509481984¢; No. 149, 1/36028797018963968¢; No. 150, 1/72057594037927936¢; No. 151, 1/144115188075855872¢; No. 152, 1/288230376151711744¢; 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Literary and Domestic.

One by One.

BY ADELIAE H. PROCTOR.

One by one the sands are flowing,
One by one the moments fall;
Some are coming, some are going,
Do not strive to grasp them all.

One by one thy duties wait thee,
Let thy whole strength go to each;
Let no future dream elude thee,
Learn thou first what these can teach.

One by one, bright gifts from Heaven,
Jays are sent thee here below,
Take them readily when given,
Ready, too, to let them go.

One by one thy griefs shall meet thee,
Do not fear an armed band,
One will fade as others reach thee,
Shadows passing through the land.

Do not look for life's long sorrow,
See how small each moment's pain;
God will help thee for to-morrow,
Every day begins again.

Every day that feels so slowly
Has its task to do, or bear,
Luminous the crown, and holy,
It thou set each gem with care.

Do you linger with regretting,
Or for passing hours despond,
Nor, the daily toll forgetting,
Look too eagerly beyond.

Hours are golden links, God's token,
Reaching Heaven, but one by one
Take them, lest the chain be broken
Ere the pilgrimage be done.

Two Kinds of Courage.

Not many years since the good ship Ponto sailed from Boston, bound to Samarra. She was commanded by Capt. Isaac Jacobs, a good seaman and a naturally good hearted man; but in his long career beneath the trident of Neptune he had imbibed many of those false ideas prevalent among seamen, and he had come to look upon the sailor's life as one which necessarily did away with those finer and warmer traits of character that mark the humane and generous landman. In this wise Isaac Jacobs sometimes lost sight of true merit where it actually existed.

Among the crew of the Ponto, on her present voyage, was a young man named Caleb Baker. He had shipped only three days before the ship sailed. He was a slender-framed man with a fair, prepossessing countenance, light blue eyes and light brown hair. Though light in his build, he was yet well stocked with muscle, and his motions were quick and energetic. His appearance was calculated to predispose beholders in his favor.

One day, shortly after the ship had left port, as Baker was busy about some matters of his own in one of the gangways, one of the men, a rough, uncouth fellow by the name of Bunkton, came along and gave the clothes-bag of Baker a kick out of his way, thereby scattering a number of things about the deck.

"I wish you'd be careful," said Baker, as he moved to gather up his things.

"Then keep your things out o' my way," gruffly returned Bunkton.

"They were not in your way."

"Do you mean to tell me I lie?"

"I said my things were not in your way."

"And I say they were. Now don't you dispute me again."

"Very well; have it your own way," calmly returned Baker, as he drew his bag closer in towards the bulwarks.

"And don't you be impudent, neither," provokingly added Bunkton.

"Look ye, Bunkton, if you've any business of your own, you'd better mind it."

"Eh, lubber? I'll show ye my business. Take that."

As Bunkton spoke, he struck the young man upon the face. The crew had most of them gathered about the place, and arrangements were quickly made for a fight.

"Just come forward—come forward, and I'll show ye my business," cried Bunkton, bristling about with his fists doubled up.

"A fight! a fight!" cried half a dozen of the men. "Don't stand that, Baker."

The young man's eyes had flashed as he received the blow, and there was a quick quivering of the muscles in his hands, but he made no motion to strike.

"Ain't you goin' to take it up?" asked Bunkton.

"No. I want nothing to do with you," returned Caleb.

"Then you are a coward!" uttered Bunkton, with a contemptuous tone and look.

Young Baker calmly replied to the taunt, and Bunkton became still more savage. Those who know anything about ocean life will understand the sentiments of the rough crew upon such matters as the present. They could comprehend but one kind of courage, and the moment that Baker refused to fight they set him down as an ardent coward. At first they had been prepossessed in his favor, for Bunkton was a quarrelsome fellow, and they hoped Caleb would flog him; but when they saw him quietly turn away and resume his work, they began to taunt him too.

"What's all this?" asked Captain Jacobs, who was attracted to the spot.

The matter was explained to him.

"Didn't resent it?" uttered the captain, looking with mingled surprise and contempt upon Caleb.

"Why didn't you knock him down, Baker?"

"Because I don't want to fight with any man, and not resent it?"

"And will you allow yourself to be struck, and not resent it?"

"I will defend myself in case of danger, but I will not so abuse myself as to engage in a brutal fight when it can be possibly avoided. I have as yet done wrong to no man; but were

I to fight one of my shipmates I should wrong him and myself both."

"Then you will have yourself looked upon as one who can be struck with impunity."

A quick flash passed over the young man's face, as the captain thus spoke, but he was soon calm.

"I mean, sir," he returned, "to give no one occasion to strike me; yet Bunkton struck me, but you can see that he already suffers more than I do."

Bunkton gave Caleb the lie, and again tried to urge him into a fight, but the captain interfered, and quiet was restored.

From that time Caleb Baker was looked upon by the crew as a coward. At first they taunted him, but his uniform kindness soon put a stop to these outward manifestations, and the feelings of the crew were expressed by their looks. Bunkton took every occasion he could find to annoy the young man, for he had taken his oath that he would "have a fight out of the coward yet." The rest of the crew might have let the matter pass, had not Bunkton's continued behavior kept alive the idea of Baker's cowardice.

None save himself knew the great struggles that went on in the young man's bosom; but he had resolved that he would not fight, except in actual and necessary self defence, and he adhered to his principle. He performed his duties faithfully, and Captain Jacobs was forced to admit that though Baker was a coward, he was yet a good sailor.

Thus matters passed until the ship had doubled the Cape of Good Hope and entered the Indian Ocean. It was towards the close of a day that had been sultry and oppressive, that a fitful breeze sprang up from the southward. It came in quick, cool gusts, and the broad canvas only flapped before it.

"We are likely to have a blow soon," remarked the mate.

"Not much, I think," returned the captain, as he took a survey of the horizon. "This spitting will soon die away, and I think the wind will then come out from the westward. However, it may be well enough to shorten sail. You may take in the foretopsail and close reef the top'sails."

This order was quickly obeyed, and as the captain had predicted, the spitting gusts died away, but there was no wind came out from the westward. It grew dark, but no wind had come. About ten o'clock those who were on deck were startled by a sudden darkening of the stars, and they saw a great black cloud rolling up from the southward. It soon hung over the ship like a black pall, and the men began to be frightened. The captain was called, but before he came on deck there came a crash as though the very heavens had been rent asunder. The old ship trembled in every joint, and a huge ball of fire rolled down the mainmast. Another and another crashing of the lightning came, and at length the electric light began to play about the ship in wild, fantastic streams.

"The foremast is struck!" shouted one of the men. "See where its head is shivered!"

All eyes were turned to the spot, and by the next wild flash the men could see that a dangerous havoc had been made with the mainmast. The cap was shivered, the starboard cheek was nearly stripped off, and the trestle-trees were quivering. Of course the heavy topmast was only held in place by the dubious trestle-trees, and the main-top threatened every instant to come thundering upon the deck, with the long topmast and topgallantmast in its company. Such a catastrophe would surely prove fatal to the ship, and all knew it.

But while all hands were gazing at this, another danger arose. The low, rumbling sound that had been growing in the southward had escaped the notice of the crew, and ere they knew it, the rushing howling wind was upon them. The ship leaped like a frightened steed before the gale. The mate cut the maintop'sail sheets, and the sail was snapped into ribbons. The foretop'sail was clewed up, and the ship was got before the wind.

The lightning cloud was swept away, and it was dark as Ebreus. The wind howled fearfully, but there was one sound more fearful than that. It was the creaking of the shattered trestle-trees, as the fid of the topmast bore down upon them.

"O God!" ejaculated Captain Jacobs, "if the trestle-trees give way we are lost! Hark! Hear them labor!"

Away up aloft, in the impenetrable darkness, stood the giant topmast, and all felt it could not stand there long. The men crowded aft, and with painfully beating hearts they heard the mate labor.

"If we could bring the ship broadside to, said the mate, the weather rigging might be cut, and the mast would go overboard."

"True—true," returned the captain, "but who shall go aloft and do the job? There would be no foothold in the top, for that will go with a crash. The trestle-trees are already shattered."

"If you will port the helm, I will make the trial," cried a clear, strong voice, which was at once recognized as Caleb Baker's.

"It will be sure death," cried Jacobs.

"Then let it be so," returned Caleb. "If I succeed, the rest of you may be saved; but now we are all in danger. Port the helm, and I will go."

Caleb took the ax from the mizenmast, and soon his form was lost in the darkness, as he moved towards the starboard rigging. The helm was put a-port, and the ship gradually gave her starboard side to the gale. Soon the blow of an ax was heard—then another—and another. The ship heaved heavily over, then another blow was heard. There was a fearful straining and cracking—and then came the

crash. The heavy topmast had gone clear over the side! Fragments of the trestle and cross-trees came rattling upon the deck, but all eyes were strained painfully towards the mast-head. The dim outlines of the heroic man could be seen safely hanging by the mizen topmast stay!

The ship was once more got before the wind, and ere long Baker came safely to the deck. He staggered aft to the binnacle, and there he sank, fainting and bruised, upon the deck; but he was quickly conveyed to the cabin, and his wants were all met.

Caleb's bruises were none of them bad, and in a few days he was again at his duty. The men eyed him anxiously, and they seemed uneasy as they met his smiles. The captain, too, changed color, when he met the kind, noble look of the young man, but he soon overcame the false pride that actuated him, and stepping to the noble fellow's side, he took him by the hand.

"Caleb," said he, "if I have done wrong, I freely ask you to forgive me. I have called you a coward, but I did not know you."

"Think no more of it," said Caleb, with a beaming eye. "I once promised to one whom I loved better than life—my mother—that I would never do a deed of which I might afterwards be ashamed."

Bunkton pressed forward. "Caleb," he said, seizing the hand of the young man in his hard fist, "you must forgive me for what's passed. We'll be friends after this."

"Bless you, Bunkton, and friends we will be," returned Caleb.

"Yes," added Bunkton, "an' if you won't fight for yourself, I'll fight for you, if you ever stand in need of it."

"I tell you, my men," said the captain, "there's certainly two kinds of courage; and, after all, I don't know but that Caleb Baker's kind is the best. It takes a stronger and bigger heart to hold it, at all events."

Farmers' Wives.

Ladies should cultivate flowers as an invigorating and healthful exercise, both for the health of themselves and also for their children.

The desire to make one's home attractive and pleasant is prominent in the mind of every right thinking person, not merely for his or her own enjoyment, but more for the sake of their children.

Long before a boy or girl is able to do farm work they could be helping their father or mother in the kitchen or flower garden.

As a general thing, when you ask a farmer's wife why she don't have a nice flower garden, the answer is invariably, "I have no time."

Now the old adage is, "where there's a will there's a way," and every woman could spare say two hours a day. Make a start and you will find by the end of three months that your labor has not been in vain. What is more delightful when a lady friend calls on you, you invite her to see your flower garden, and see how much pleasanter the time passes away.

A beautiful garden tastefully laid out, and well kept, is a certain evidence of taste, refinement and culture.

It makes a lowly cottage attractive, and lends a charm to the stately palace.

An English writer lately visiting our country, writes:—

I can conceive of nothing more dreary than to live in the country and have no garden. To have no garden is to take the poetry and nearly all the charms away from country life. To have a garden is to have many friends continually near.

I have little faith in American women becoming farmers—holding the plough, wielding the spade or shovel, but I do know that all the rest of the work can be accomplished by women, if they have a love for the beautiful.

There lies the trouble—few of our children are taught to garden. If they possess a natural taste for the pursuit, sometimes it is gratified, but not always.

The first thing necessary after well preparing the soil, is to purchase garden tools, a small set, comprising a rake and hoe on one handle, a trowel and a spade are very essential. With their aid much light work can be accomplished.

A watering pot with a large nozzle, and a fine sprinkler is also required. With these implements every woman can be her own gardener, and not only raise all the flowers she may require; but also contribute a large share of the vegetables that are always welcomed at the table during both summer and winter.

Every morning dig one or two beds, according to size, and continue the work until all are cleared up. Then commence again, and this prevents the soil from becoming baked, and lets the air and moisture enter the earth and nourish the tender roots.

The next is the selection of seeds, which is a very important matter, and on the wisdom of the choice success or failure may depend.

Those who have had little experience should invest cautiously and in the more hardy and popular kinds, such as asters, balsams, stock, petunias, zinnias, etc., with a few of the more tender kind, just for trial. A half dozen of flowering plants well cultivated will give pleasure, when a hundred neglected or ill cultivated will be a source of pain.

Plant with care and kill all the weeds, and you will not regret the small investments required to commence and continue a garden, but will become more and more enamored with the occupation, and will yearly increase your stock and your pleasures.—Minneapolis Tribune.

The American Baby.

Save your pity for the unhappy little traveler, American born and white, who is abandoned to the tender mercies of nurses. He will be dressed too tightly, perhaps, drugged with soothing syrup (or worse), slapped if he cries, and left alone in the dark. He will ride in the carriage with the sun in his eyes, if it is sunny, and with arms and hands uncovered and half frozen, if it is cold. Flies will be allowed to tickle his fat little nose, and pins to stick into his tender little back. The strings of his absurd lace cap will choke him until he is black in the face, and he will nearly break his neck falling over the arm of Bridget when she wants to gossip with a crony. His troublesome clothes will be jerked down and twitched around, and he will be laid down, set up, turned over, and arranged any way most convenient to her. Above all, if he dares open his mouth to complain of any of these tortures, his delicate little body will be trotted on her hard knees till it will be nothing short of a miracle if his precious little life is not worried out of him.

The calm Oriental baby in his tray or basket; the Chinese baby in his cage; the baby of Burmah, naked or wrapped in silks, smoking at 2 and married at 10; the baby of the "cradle" and the Foundling Asylum of Paris; the Lima baby in his hammock; and the stolid Indian papoose on its boards—each and every one is happier and better off than our poor little mother-abandoned American baby left to ignorant and careless nurses.

The "mother-baby"—the happy little traveler who is not left to the mercies of a nurse, whose throne is his mother's arms, whose pillow is soft, and whose needs are wisely met, he is the happiest of all. Fair, fat and hearty, the sorrows of babyhood come not near him. He is the one "born with a silver spoon in his mouth."—St. Nicholas.

A Cheap Hanging Basket.

When you buy peaches do not throw away the stones, save them until you have a considerable quantity. Soak them in water a few hours to loosen the fruit remaining in the dents; then scrub them clean with an old tooth brush, and split them in two. Now take an old two-quart tin basin, punch three or more holes near the rim for suspending cords, and one at the center of the bottom for drainage. Paint the basin inside, or coat it with melted rosin, to prevent rust, and cover the outside of it with putty. Press the half peach-stones firmly into the putty on the outside—putting the largest ones on the bottom, and taking care not to cover the hole for drainage. Now cover the whole with a little asphaltum dissolved in spirits of turpentine. When the putty is dry you will have a very handsome and unique hanging basket, resembling carved work, handsome enough to repay you well for your trouble.—American Garden.

HOW TO FRAME PICTURES.—If you have any magazine engraving you wish to frame yourself, let a glazier or man who sets window glass cut you a glass a little larger than the picture, so as to show a white margin all around. Then purchase a sheet of fancy paper, such as is shiny on one side and white on the other—either black or red is pretty. Then, with a piece of pasteboard or old paper box, the size of your glass, and a bit of tape and some paste, you have all your materials. Cut strips of your paper about an inch wide. Lay down the pasteboard, place the picture on it, and the glass on the face of the picture. Then bind the edges of all together with your strips of paper, joining them as neatly as you can at the corners, having the paper binding about as wide as your little finger nail on the picture side. Then on the back, about two inches from the top and one inch from each side, paste on the little loops of tape. A piece of paper or cloth pasted over the bottom of these will make them firm. Lay away your picture until thoroughly dried, then put a cord through the loops and hang it up.

Boston Baked Beans.

First obtain a Boston bean-pot and some small white beans—the smallest are the best; put one quart of beans in soak in cold water at night; in the morning take them out of that water, and put them into a kettle and scald them. Do not let them boil; skim them out of that water, and put them into the bean-pot; on top of the beans place half a pound of salt pork, part fat and part lean, first having taken the rind off from the pork, and slashing the top of the pork in small squares, add one and one-half table spoonfuls of molasses, and fill up the pot with boiling water; bake twenty-four hours in a slow oven, and as the water cooks away fill up with boiling water.

Proper Way to Cook Eggs.

Butter a tin plate and break in your eggs; set in a steamer; place over a kettle of boiling water and steam until the whites are cooked. They are more ornamental when broken into patty tins, as they keep their form better. The whites of the eggs, when cooked in this manner, are tender and light, and not tough and leathery, as if cooked by any other process; they can be eaten by invalids, and they certainly are very much richer than by any other method. If cooked in the shell, they taste of the lime contained in them; and if broken into boiling water, it destroys their flavor.

A cruel Joke, at the expense of those ladies who are perpetually striving to gain a hearing in the press, has been going the round of the literary circles, to the effect that "they look much better in muslin than in print."

Do not paint your flower pots. It is necessary for the health of the plants that the pores should be open.

Advertisements.

In answering an advertisement found in these columns, our readers will confer on us a favor by stating that they saw the advertisement in the Kansas Farmer.

\$66 a week in your own town. Terms and \$5 outfit free. Address H. HALLITT & CO., Portland, Me.

\$77 a Month and expenses guaranteed to Agent. Outfit free. Shaw & Co., Augusta, Maine.

\$777 a Year and expenses to agents. Outfit free. Address P. O. VICKERY, Augusta, Maine.

\$12 A WEEK. \$12 a day at home easily made. Outfit free. TRIN & CO., Augusta, Me.

GLENDAL For History of this great Strawberry, send postal to originator. 20 plants for \$1.00. W. B. STORER, Akron, Ohio.

18 Elegant New Style Chromo Cards with name 10 postpaid. GEO. I. REED & CO., Nassau, N. Y.

ST. LOUIS LAW SCHOOL. Term opens October 15, 1879. Tuition, \$50 per year. No money. For circular address. HENRY HITCHCOCK, Pres.

AGENTS REAL ESTATE. We will pay Agents a Salary of \$100 per month and expenses, or allow a large commission, to sell our new and wonderful inventions. We mean what we say. Sample free. Address KENNEDY & CO., Marshall, Mich.

\$1050 profits on 30 days investment of \$100. Proportional returns every week on Stock Options of \$20, - \$50, - \$100, - \$500.

Official Reports and Circulars free. Address, T. POTTER WIGHT & CO., Bankers, 35 Wall St., N. Y.

IF YOU Want a FARM or HOME, with independence and plenty in your old age.

"The best Thing in the West," —IS THE—

ATCHISON, TOPEKA & SANTA FE R. R.

LANDS IN KANSAS.

11 years' credit with 7 per cent interest. 33 1/3 PER CENT DISCOUNT FOR CASH. Fare over A. T. & S. F. R. R. refunded to purchasers of Land. Circulars giving full information sent FREE. Address,

A. S. JOHNSON,

Act'g Land Com., Topeka, Kansas

ALL ABOUT KANSAS.

Parties wanting information about Kansas, should send to

ROSS & McCLINTOCK.

the old reliable Land Firm of Topeka, for information and papers. They buy and sell Real Estate, Place Loans, Rent Houses, Pay Taxes, Make Collections and take charge of property.

NO. 189 KANSAS AVENUE TOPEKA, KANSAS.

Refers for responsibility to any of the Banks or Business Houses of Topeka.

Local Agents for 100,000 Acres, of the Great Pottawatomie Reserve Lands.

Land! Land! Land!

HOMES FOR THE PEOPLE

350,000 ACRES

—IN—

Bourbon, Crawford & Cherokee CO'S, KANSAS,

Still owned and offered for sale by the

MISSOURI RIVER, FORT SCOTT AND GULF RAILROAD COMPANY

On Credit, running through ten years, at seven per cent. annual interest.

20 PER CENT DISCOUNT FOR CASH IN FULL AT DATE OF PURCHASE.

For Further Information Address

JOHN A. CLARK,

Fort Scott, Kansas LAND COMMISSIONER.

CHALLENGE FEED MILLS, to be run by water, wind, steam or horse power. CHALLENGE WIND MILLS for pumping water and all farm purposes. COYNE SHELLERS, FANING MILLS, HORSE TREAD POWERS, SWEEP POWERS, WOOD SAWES, Riding and Walking Cultivators, Horse Hay Rakes, etc., for Kas., Neb., & Minn. Circulars free. THOMAS SXOW, Batavia, Kane Co., Ill.

Live Responsible Agents Wanted.

MAKE HENS LAY.

An English Veterinary Surgeon and Chemist, now travelling in this country, says that most of the Horse and Cattle Powders sold here are worthless trash. He says that Sheridan's Condition Powders are absolutely pure and immensely valuable. Nothing on earth will make hens lay like Sheridan's Condition Powders. Dose one teaspoonful to one pint food. Sold everywhere, or sent by mail for eight letter stamps, J. S. JOHNSON & CO., Bangor, Me.

FRUIT TREES!

Parties in Kansas who wish reliable Fruit Trees adapted to the climate of Kansas will get them in condition to grow by ordering of me, direct. Apple, Elm, Box Elder, Green Ash, and Catalpa of small size, cheap, for Groves and Timber. Also Evergreens of all sizes of the best possible quality. All the new Strawberries. Send for Price List. Address D. B. WIER, Lacon, Marshall Co., Ill.

Apple Trees,

Hedge Plants, Grape Vines, Evergreens, and a general line of Nursery Stock at wholesale and retail. Order direct and save commissions. Price List, Free. KELSEY & CO., Vineland Nursery, St. Joseph, Mo.

Scott's Improved Sheep Dip.

Has been thoroughly tested for the last two years. We know that it will cure scab, and kill all insects that infest sheep. We are prepared to furnish customers with it on reasonable terms. Apply to A. Scott, Westmoreland, Pottawatomie Co., Kansas.

SAM JEWETT,

Breeder of registered AMERICAN MERINO. Specialties, Constitution, density of fleece, length of staple and heavy fleece. All animals ordered by letter guaranteed satisfactory to purchaser. Correspondence and examination of cut stock solicited. Sam'l Jewett Independence, Mo.

The Study of Entomology.

Mr. L. J. Templin, of Hutchinson, Kansas, contributes the following article on this subject to the *Kansas Farmer*. Mr. Templin is a practical, as well as a scientific man, and on all subjects relating to the orchard and farm he is good authority.

"The present age is remarkable for its devotion to matters of a strictly practical character. There is a growing conviction that an education that does not fit its possessor for the active duties of life is not worth acquiring. A large part of the higher education of the present, and more especially of the past, consists of a knowledge of the dead languages and the ancient classics. In a large majority of cases as soon as the individual graduates he lays all this aside as so much useless lumber, while he takes up those studies that have a direct bearing on the practical affairs of life. It is too frequently the case that graduates from our higher institutions of learning are thoroughly informed in regard to the loves, intrigues and debaucheries of the gods and goddesses of the ancient mythologies but comparatively ignorant of the scientific and literary subjects that have a practical bearing on every-day life. This is true especially of those branches of knowledge that lie at the very foundation of advanced agriculture. Geology, agricultural chemistry and entomology are certainly far more important branches of knowledge to the one who intends to devote his life to agricultural pursuits, than all the old Grecian gods ever did.

I wish to speak more particularly of the subject of entomology. This subject is one of the most important in its bearings on agriculture, and yet it is one but little understood by farmers themselves. Every one knows that great damages are frequently done by various insect tribes to both growing crops and stored products, but few have any clear notion of the amount of such loss to the people of the country. We have but to enquire into the ravages of a few of the more generally injurious insects of the country in order to understand something about the importance of this subject. Ever since the landing of the Hessian soldiers in this country the Hessian fly has ravaged the wheat fields and destroyed the crops of our farmers. The wheat fly, or, as it is erroneously called, the "red weevil," has for many years proved destructive to wheat, New York alone suffering an estimated loss of not less than \$15,000,000 in a single year (1854) from that cause alone. The joint worm often proves quite destructive to growing crops of small grain. The army worm often appears in countless numbers and devours all the crops that come in its way. In many of the Central and Western States the chinch bugs frequently pass over the fields and growing grain like a blasting fire, leaving destruction in their course.

In some of the rich agricultural states west of the Mississippi, the Rocky Mountain locust at intervals swoops down in vast clouds, devouring almost every green thing in its pathway. The losses from these and the chinch bug often amount, in a single season, to scores of millions of dollars. The boll worm of the cotton fields of the South frequently reduces the crop of that staple one-third, thus picking the pocket of the people to the extent of \$40,000,000 to \$100,000,000 in a single season. The potato beetle has cost us millions of dollars in the last ten years. But time would fail me to speak of the white grub, the cut worm, the wire worm, the cabbage butterfly, and a long list of other insect pests that prey upon our crops and largely deplete our profits. Of the injurious insects of orchards, it is enough to state that there are six different insects that prey upon the apple, 12 on the pear, 16 on the peach, 17 on the plum, 35 on the cherry, and 30 on the grape. The necessity of a knowledge of these insect enemies is apparent to all. But of this I will have more to say in future.

Take a barrel and shake a bushel of fresh lime with boiling water. After it is slaked add cold water enough to bring it to the consistency of good whitewash; then dissolve in water and add one pound of white vitriol (sulphate of zinc) and one quart of fine salt. This makes a whitewash that will stick as well as paint. It owes its durability chiefly to the white vitriol, which hardens and fixes the wash.

THE STRAY LIST.

HOW TO POST A STRAY

BY AN ACT of the Legislature, approved Feb 27, 1866, section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to forward by mail, notice containing a complete description of said strays, the name and residence of the taker up, their appraised value, and the name and residence of the taker up.

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 enclosure 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 as many places in the township, giving a correct description of such stray.

If such a 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, also he shall give a full description of the same and its cash value. He shall also give a bond to the state of double the value of such stray.

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

If such a 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 stray 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; said appraiser, 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 determine the cost of keeping, 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, 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 sell or 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, \$1.50
To County Clerk, for recording each certificate and forwarding to *KANSAS FARMER*, .50
To *KANSAS FARMER* for publication as above mentioned, for each animal valued at more than \$10, .50

Justice of the Peace for each affidavit of taker-up for making out certificate of appraisement and all his services in connection therewith, .50

Strays for the week ending August 6.

Butler County—Vincent Brown, Clerk.
PONY—Taken up by John Verner, Kansas City, June 29, one pony mare, 2 years old, brown, with stripes in the face. Valued at \$10.

Coffey County—W. R. Throckmorton, Clerk.
MARE—Taken up by Wm. Rich, Neosho, Mo., one 4-year-old sorrel mare, black eyes, white spots, white on right shoulder, both hind legs white up to knees, 14 hands high. Valued at \$50.

MARE—Taken up by Green Taylor, New Weston, Mo., one light dun mare, 16 hands high, 4 years old, black mane and tail, bluish on right knee. Valued at \$40.

Cherokee County—C. A. Saunders, Clerk.
PONY—Taken up by G. D. Kestler, Neosho, Mo., June 19, one brown pony mare, 15 hands high, black eyes, large saddle marks, girl marks, scar on left fore leg and left hip, scar in front left eye, halter marks on head, little white in forehead, some white on left hind foot, splint on left fore leg and shot all around. Had new halter on when taken up.

Douglas County—B. F. Diggs, Clerk.
MARE—Taken up by John H. Byrd, Valerius, Mo., June 24, one 2-year-old, dark bay mare, a little white on left hind foot, and a small white spot just above left back foot. Valued at \$25.

MARE—Also one 2-year-old mare, a slight bluish on left hind leg below hock joint. Valued at \$20.

HORSE—Taken up by James Jennings, Palmyra, Mo., one sorrel horse, about 12 or 13 years old, white on left hind foot, white on right hind foot, small lump on left fore leg below the knee. Valued at \$15.

Harper County—H. E. Joseph, Clerk.
COW—Taken up by Robert Shumard, Anthony, Mo., July 24, one brind cow, 7 years old. Valued at \$15.

Jewell County—W. M. Allen, Clerk.
MARE—Taken up by A. B. Marsh, Grant, Mo., May 12, one black mare, 2 years old, lame in left hip, black face. Valued at \$12.

Jefferson County—J. H. Insley, Clerk.
MARE—Taken up by L. H. Fairholm, Oklawaha, Mo., one sorrel mare, about 12, 14 hands high, 12 years old, 3 white feet, white face, one glass eye, no marks nor brands. Valued at \$10.

Linn County—J. W. Flora, Clerk.
MARE—Taken up by John C. Bratcher, Cedarville, Mo., May 1, one dark bay mare, 20 years old, lame black in the face, harness and saddle marks, a little lame in right hind leg. Valued at \$20.

PONY—Taken up by James Howell, Lincoln, Mo., one roan pony, 14, 14 hands high, 8 years old. Valued at \$15.

Memphis County—Joshua Mitchell, Clerk.
PONY—Taken up by Geo. W. Johnson, Washington, Mo., June 20, one spotted horse pony, 8 years old, white face, collar marks.

PONY—Also one mare pony, strip in face, branded on left hip, collar marks.

Shawnee County—J. Lee Knight, Clerk.
MARE—Taken up by W. C. Haynes, Soldier, Mo., July 4, one black mare, 12 years old, about 15 hands high, harness marks, a few white hairs in forehead and a white spot on the under side of belly near the flank, no other marks nor brands. Valued at \$25.

Wilson County—G. McFadden, Clerk.
MULE—Taken up by James Steele, Verdine, Mo., one 2-year-old mare mule, bay, has a wart on root of right ear. Posted June 28.

WORLD'S DISPENSARY, BUFFALO AND LONDON.

(Successors to Dr. V. PIERCE, M. D.)

Dr. V. PIERCE, having acquired a world-wide reputation in the treatment of Chronic Diseases, resulting in a professional business far exceeding his individual ability to conduct, some years ago induced several medical gentlemen to associate with him, as the Faculty of the World's Dispensary, the Consulting Department of which has since been merged in the *WORLD'S DISPENSARY*. The organization has been completed and incorporated under the name and style of *WORLD'S DISPENSARY MEDICAL ASSOCIATION*, with a capital of \$100,000.

Hon. R. V. PIERCE, Pres. F. D. PIERCE, V. Pres. JNO. E. PIERCE, Sec. LESTER E. SMITH, Treas.

NINE PHYSICIAN AND SURGEONS of eminence and skill have been associated with the *WORLD'S DISPENSARY* for the purpose of consulting in the treatment of all chronic diseases within the province of their several specialties.

LARGE DISCOUNTS on all medicines and surgical appliances, and a large stock of the most reliable and successful remedies, is very ably managed by a gentleman of mature judgment and skill. Bronchitis, Throat, and Lung Diseases treated with the most successful results.

DISEASES OF WOMEN.—Especially those of a chronic nature, and of a superior order for the cure of all those chronic diseases.

NEURALGIC AFFECTIONS.—Paralysis, Nervous Debility, Epilepsy, Fits, Chorea, St. Vitus's Dance, Rheumatism, and other nervous affections, receive the attention of an expert specialist.

NOT RESPECTABLE.—By our original system of diagnosis, we can treat many chronic diseases as successfully without as with a personal consultation. For this reason, we have a Common Sense Medical Adviser (1200 pages, sent post-paid for \$1.50) or "Invalids and Tourists' Guide Book" (100 pages, 10 cents post-paid).

SURGICAL CASES.—Among the operations which we are called upon to perform, are those for Nasal Polypus, Hæmorrhoids, Fistula in Ano, Piles, Hernia (rupture), Hydrocele (dropsy of the scrotum), Varicocele, Stricture, Uterine Tumors, Calculi (stone in the bladder), Stricture, etc., etc. We also treat successfully, by a new method, without surgery, Gonorrhea, Syphilis, and Spinal Curvature, and other deformities. (See pamphlet entitled "Motion as a Curative Agent," sent on receipt of 10 cents.)

Address, World's Dispensary Medical Association, BUFFALO, N. Y.

WOMAN

By an immense practice at the World's Dispensary and Invalids' Hotel, beyond 150,000 cases of disease and cases of those diseases peculiar to woman, I have been enabled to perfect a most potent and positive remedy for these diseases.

To designate this natural specific, I have named it *Dr. Pierce's Favorite Prescription*.

The term, however, is but a feeble expression of my high appreciation of its value, based upon personal observation. I have, while witnessing its positive results in the treatment of the most obstinate and chronic diseases of women, singled it out as the climax or crowning gem of my medical career. On its merits, as a positive, safe, and effectual remedy for this class of diseases, and one that will, at all times and under all circumstances, act kindly, I am willing to stake my reputation as a physician; and so confident am I that it will not disappoint the most sanguine expectations of a single invalid lady who uses it for any of the ailments for which I recommend it, that I offer and sell it under a *POSITIVE GUARANTEE*. (For conditions, see pamphlet wrapping bottle.)

The following are among those diseases in which *Dr. Pierce's Favorite Prescription* has been so successful: Leucorrhœa, Excessive Flowing, Painful Monthly Periods, Suppressions when from unnatural causes, Irregularities, Weak Back, Protrusion or Falling of the Uterus, Anteversion and Retroversion, Bearing-down Sensations, Internal Heat, Nervous Depression, Debility, Dependence, Threatened Miscarriage, Chronic Congestion, Inflammation and Displacement of the Uterus, Impediment, Barrenness, or Sterility, and Female Weakness. It does not give a false cure, but it is admirably adapted to a single cure, being a most perfect specific in all chronic diseases of the sexual system of woman. It will not disappoint, nor will it do harm, in any state or condition.

Those who desire further information on these subjects can obtain it in *THE WOMAN'S COMMON SENSE MEDICAL ADVISER*, a book of over 900 pages, sent post-paid, on receipt of \$1.50. It contains full and complete directions for the treatment of all those diseases peculiar to Females, and gives much valuable advice in regard to the management of these affections.

Favorite Prescription sold by Druggists.

J. V. PIERCE, M. D., Prop'r, World's Dispensary, Invalids' Hotel, Buffalo, N. Y.

\$5 to \$20 per day at home. Samples worth 50¢ free. Stinson & Co., Portland, Me.

PROVERBS.

"Sour stomach, bad breath, indigestion and headache easily cured by Hop Bitters."
"Study Hop Bitters books, use the medicine, be wise, healthy and happy."
"When life is a drug, and you have lost all hope, try Hop Bitters."
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"Aque, Biliousness, drowsiness, jaundice, Hop Bitters remove easily."
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Hop Cough Cure and Pain Relief is the Best.

WELL-AUGER. Ours is guaranteed to be the BEST IN THE WORLD. Catalogue free.

W. W. GILES, 149 Clark St., Chicago, Ill.

Ayer's Hair Vigor FOR RESTORING GRAY HAIR TO ITS NATURAL VITALITY AND COLOR.

Advancing years, sickness, care, disappointment, and hereditary predisposition, all turn the hair gray, and either of them incline it to shed permanently.

AYER'S HAIR VIGOR, by long and extensive use, has proven that it stops the falling of the hair immediately; often renews the growth; and always cures every color when faded or gray. It stimulates the nutritive organs to healthy activity, and preserves both the hair and its beauty. Thus, brassy, weak or sickly hair becomes glossy, pliable, and strengthened; lost hair regrows with lively expression; falling hair is checked and established; thin hair thickens; and faded or gray hair regains their original color. Its operation is sure and harmless. It cures dandruff, heals all eruptions, and keeps the scalp, cool, clean and soft—under which conditions, diseases of the scalp are impossible.

As a dressing for ladies' hair, the Vigor is praised for its grateful and agreeable perfume, and valued for the soft lustre and richness of tone it imparts.

PREPARED BY DR. J. C. AYER & CO., Lowell, Massachusetts, Practical and Analytical Chemists.

SOLD BY ALL DRUGGISTS AND DEALERS IN MEDICINE.

THE BEST OF ALL LINIMENTS FOR MAN OR BEAST.

When a medicine has infallibly done its work in millions of cases for more than a third of a century; when it has reached every part of the world; when numberless families everywhere consider it the only safe reliance in case of pain or accident, it is pretty safe to call such a medicine

THE BEST OF ITS KIND.

This is the case with the Mexican Mustang Liniment. Every mail brings intelligence of a valuable horse saved, the agony of an awful scald or burn cured, the hoofs of a lame animal made sound, and of a thousand and one other blessings and mercies performed by the old reliable Mexican Mustang Liniment.

All forms of outward disease are speedily cured by the

MEXICAN MUSTANG LINIMENT

over the solitary plains, to the merchant prince, and the very house, banishing pain and curing disease with a power that never fails. It is a medicine needed by every body, from the ranchero, who rides his

speedily cures such ailments of the HUMAN FLESH as

Rheumatism, Swellings, Stiff Joints, Contracted Muscles, Burns, Scalds, Cuts, Bruises and Sprains, Poisonous Bites, Stings, Stiffness, Lameness, Old Sores, Tetter, Freethites, Chilblains, More Blisters, Caked Breast, and indeed every form of external disease.

It is the greatest remedy for the disorders and accidents to which the BIRTH CREATION is subject that has ever been known. It cures

Sprains, Swellings, Stiff Joints, Founders, Horns, Hoof Diseases, Foot Rot, Screw Worms, Scabs, Hollow Horns, Scratches, Windgalls, Spavins, Paresy, Ringbone, Old Sores, Poll Evil, Fila upon the Sight and every other ailment to which the occupants of the Stable and Stock Yard are liable.

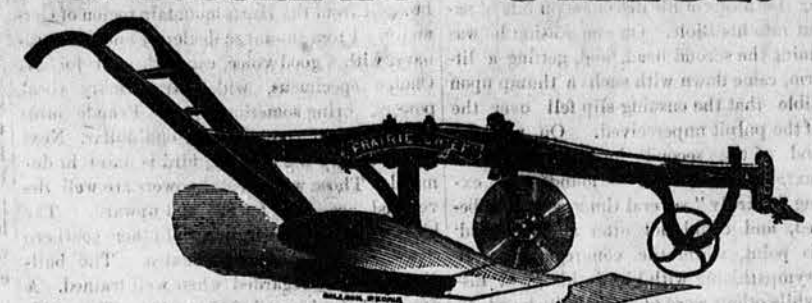
A twenty-five cent bottle of Mexican Mustang Liniment has often saved a valuable horse, a life on crutches, or years of torture.

It heals without a Scar. It goes to the very root of the matter, penetrating even the bone.

It cures everybody, and disappoints no one. It has been in steady use for more than twenty-five years, and is positively

THE BEST OF ALL LINIMENTS FOR MAN OR BEAST.

"Prairie Chief."



SOMETHING NEW! The above cut represents which we style the "PRAIRIE CHIEF." It combines more good and desirable qualities than any other Breaker. The construction is light and strong! The shape is as near perfection as can be made! It turns a fat furrow with great ease and without breaking the sod! It is made with our solid Silt-Share, which is far superior to those formerly used on Breakers. Our new upright is put on all these Breakers, which has twice the strength of any other Upright! The

Prairie Chief Breaker

Is also made to attach to the CANTON SULKY PLOW in such a manner that there can be no trouble as they will always fit. This feature alone is of great importance. The Prairie Chief has many superior and desirable qualities which cannot but bring it in great favor.

DON'T BUY 'TILL YOU SEE IT.

We have lately patented and attached to our WAGONET FRAME SULKY A

VERY SIMPLE & WONDERFULLY EFFECTIVE IMPROVEMENT.

FOR RAISING THE PLOW Out of the ground by the power of the TEAM.

ANY Boy, Girl, INVALID, AGED, or other person Capable of managing a team CAN

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NO SPRINGS, CATCHES, DOGS OR GEARS. SIMPLICITY ITSELF.

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In Fact, as well as in Name.

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Lime Stone for Building Purposes, and Sidewalks.

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Wit and Humor.

The great danger of using slips of paper to aid the memory in public speaking, is illustrated in the case of a minister who had a custom of writing the heads of his discourse on bits of paper put into his Bible. On one occasion he was explaining the second head, and, getting a little warm, came down with such a thump upon the Bible that the ensuing slip fell over the edge of the pulpit unperceived. On reaching the end of the second head he looked for the next, but it could not be found; and exclaiming "thirdly" several times, got quite bewildered, and could not utter another word. At this point, while the congregation were partly sympathizing with him in his great distress, while others were of an opposite mood, an old woman rose up and addressed the minister "If I'm no' mis'taken, sir, I saw thirdly flee out at the east window a wee while syne."

"Were there cats in the ark?" is a question that is troubling the religious editor of an exchange. Certainly there were, and the first thing they said after leaving the ancient craft, was, "If there's Ararat round here we want to gopher it."

A gentleman addresses another gentleman, whom he does not know, at a party: "This affair is awfully stupid; let's go out and take a drink." "I would like to do it," was the reply, "but I can't do it very well." "Why not?" "Why, you see I am the one who is giving the party."

"Now, Leander, my dear, I want you to be sure and not forget these few things when you come down to-night," says the young wife, just before the kiss and "good bye," at the summer hotel in the morning, as the gentlemen were starting for the city.

"Certainly not, my love."

And this is the way the list ran:

1. Two yards of blue borage.
2. Three yards Hamburg edgings.
3. My new braid from the hair store.
4. Half a dollar's worth of nainsook.
5. Box pearl powder from my upper drawer.
6. "Modern Minister," from Loring's Library.

Arriving in town, he forgot all about the list till late in the afternoon, and then couldn't find it in any of his pockets. But hadn't he read it, and didn't he recollect it all? Of course he did, and this is what he brought home to his expectant wife.

1. Two heads of blue cabbage.
2. Three yards of handsome netting (mosquito).
3. Some blue braid.
4. Half a dollar's worth of canned soup.
5. Box of seditious powder.
6. Loring said he hadn't any such book as the "Mug and Canister" in the library.

Exclamations on receiving the above, "O, Leander, Leander, you must have been dining at that horrid club again, or you couldn't have made such a mistake!"—*Boston Commercial Bulletin.*

New Refrigerating Liquid from Beets.

In Europe the principle supply of sugar is derived from beets; the annual production of beet sugar being now seven hundred thousand tons. Besides this a large quantity of beet molasses is produced, a portion of which is distilled, and a coarse sort of whiskey made; the stuff remaining in the retort yields potassium salts, which are employed as fertilizers. Sugar, spirits and potash have heretofore been the chief products manufactured from beets. But Mr. Vincent has succeeded in realizing from the refuse that remains after the beet molasses distillation, a combustible gaseous body, which is easily condensed into liquid form, and is called chloride methyl.

This liquid, obtained as stated from beets, is used in the preparation of some of the aniline colors; but it is now found to be specially valuable as a refrigerating agent. By its rapid evaporation a temperature of 55° C., or 60° F., below zero may be maintained, which is far below the freezing point of mercury. Prof. Huxley says that by this means mercury (which freezes at 39° F. below zero) may be frozen by the pound. For the manufacture of ice this new beet root product promises to become of much importance.—*Maryland Farmer.*

Why Some People Are Poor.

Silver spoons are used to scrape kettles. Coffee, tea, pepper and spices are left to stand open and lose their strength.

Potatoes in the cellar grow, and sprouts are not removed until the potatoes become worthless.

Brooms are never hung up, and are soon spoiled.

Nice handled knives are thrown into hot water.

The flour is sifted in a wasteful manner, and the bread pan is left with the dough sticking to it.

Clothes are left on the line to whip to pieces in the wind.

Tubs and barrels are left in the sun to dry and fall apart.

Dried fruits are not taken care of in season, and become wormy.

Rags, string and paper are thrown into the fire.

Pork spoils for want of salt, and beef because the brine wants scalding.

Bits of meat, vegetables, bread and cold puddings are thrown away when they might be warmed, steamed, and served as good as new.

The Trade in Birds.

A dealer in canary birds says that last year he imported 100,000 birds, which were readily disposed of at fair prices. They are generally brought from the Harz mountain region of Germany. From the large dealers a fine male canary, with a good voice, can be bought for \$3. Choice specimens, with extraordinary vocal powers, bring sometimes \$10. Female birds for breeding purposes sell for one dollar. Next to the canary the mocking bird is most in demand. Those whose vocal powers are well developed are sold for \$25 and upward. The birds come from Virginia and other southern states, and also from Mexico. The bullfinch is highly regarded when well trained. A good whistler is worth \$25 to \$40. The goldfinch, chaffinch, nightingale, lark, and the linnet and thrush are also prized as songsters. Of other birds not songsters, thirty different species, kept as pets for their beauty or other acquirements, may be found in market. Of these the parrot is most in demand. A well trained bird, of either the gray African variety or the green American, is worth \$50 or even \$100. The most brilliantly colored birds are Australian paroquets and the strawberry finches.

How to Water Horses.

In cold weather give one pailful at a time three times a day. This is enough unless you are working them regularly; then give a little more, but not to exceed four pailfuls a day. In warm weather when they are brought in, first sponge out the mouth and nostrils well with cold water. After a few spongings they will wait for it to be done. Then give them not to exceed a pailful apiece, and after feeding give one more pailful before you commence work. Don't let them go without long enough to make them want more than this. If allowed, a thirsty horse, when warm, will drink too much. A common twelve quart pail is the size referred to above.

Wool in Larimer and Weld Counties.

For a close calculation it is estimated that this year's wool clip in Larimer County is 250,000 pounds, and about the same in Weld—half a million pounds in the two counties. All the wool in Weld, except about 35,000 pounds, has been marketed. Shearing will not be over in Larimer County for two weeks—about 75,000 pounds yet to market there. Weld County has about 60,000 sheep and Larimer nearly the same number. The sheep business seems to be but in its infancy, though this year's clip is worth nearly \$100,000. There are more sheepmen in Weld County than in Larimer, where the flocks are larger. One firm in the latter—Miner & Warren—claim 14,000 sheep. The largest owners in Weld are J. Hoover and P. W. and L. L. Putnam. Emerson & West have shipped about 200,000 pounds, nearly all from this station. Some of this came from over 100 miles down the Platte, some from Buckhorn, and some from Berthoud, west of the Colorado Central.—*Greely Tribune.*

Pruning Melons and Tomatoes.

Mr. G. N. Wagner asks two hard questions which the writer does not feel competent to answer for all locations and all seasons. So far as he has tried he has never been able to increase the yield of cucumbers or melons by tipping off the tips of the vines. Finer melons or squashes can often be produced by pinching the tips of the vines a few leaves in advance of the last fruit which has set. This prevents other fruit from setting, and aids in throwing the nourishment into the fruit which has started to grow. Shall we prune tomato vines? This depends on circumstances. If the land is rich and the seasons short, yes; if the land is poor and the seasons long, no. In the majority of cases which have come under the writer's observation tomatoes will ripen more fruit if the vines are occasionally pruned. In a cool climate if the vines are large, more fruits set than can be ripened.—[W. J. Beals, Michigan Agricultural College.]

Vanderbilt as a Ranchman.

The immense possibilities of the American export trade in cattle have led William H. Vanderbilt to head a great cattle enterprise. In company with two or three practical cattle raisers, he has purchased 100,000 acres of land in the southern part of Colorado—undoubtedly the biggest cattle ranch in the world—and proposes to go into the cattle business on a scale heretofore unparalleled. It is said that the entire cost of raising cattle on these ranches that will sell for \$10 a head is not over \$4 a head, and with more systematic management and a little grain, it is believed that the cattle can be doubled in value, and with but little extra cost of production. Vanderbilt has declared that the enterprise shall be made a magnificent success, if money will do it.—*New York Express.*

Moving the Cattle North West.

One of our exchanges, the name of which has been lost, says:

Many of our cattle men are taking steps to move their herds north into Wyoming. The occasion of this is that the unusually dry season has made it precarious to risk leaving them on their old, and, in some places, overstocked ranges, to take the chances of a hard winter. The Arkansas country is very short of feed, and our Northern Colorado cattle will drift into that country during the severe winter storms, and it is deemed safer to move them farther off, where

cattle are less numerous. When the cattle go away, sheep will, in many instances, take their places.

Depth of Sowing Wheat.

Farmers who are wide awake and given to investigation, don't sow as much wheat per acre as they formerly did, and they don't sow it so deep. The great, heavy harrows of ten or twenty years ago are not now employed by them in covering the seed, and the drill, which can be depended on better, is becoming universally popular. In broadcast sowing, after the ground has been thoroughly prepared, the Thomas smoothing harrow will cover the seed deep enough. A Wisconsin writer gives the result of an experiment in planting at different depths—on the surface, $\frac{1}{2}$ inch, $\frac{3}{4}$ inch, 1 inch deep, and so on to several inches. That on the surface lay two weeks before sprouting; that $\frac{1}{2}$ inch deep came up in four or five days; and so on, getting later as depth increased. The last to come up was planted $\frac{3}{4}$ inch deep, and was 14 days in reaching the surface. None planted deeper ever reached the surface. At the end of six weeks that planted $\frac{1}{2}$ to 1 inch deep stood away ahead of the rest.—*Record and Farmer.*

Sow Turnips in the Corn Field.

A little outlay for seed and a little time spent in sowing turnips in the corn fields, will furnish a large amount of feed in the fall, after the frosts have killed the grass. A half pound is enough for an acre. The turnips may be fed in the field after the corn is gathered. They will keep up the flow of milk in the cows, and fatten the sheep. Pigs will do well on them. There is no cheaper way by which the farmer can add to the stock of late fall feed. The turnips which are not eaten will make excellent manure in the spring, and are worth all the cost and trouble several times over for this purpose alone. We are surprised that this crop is not more generally grown. The seeds should be sown right after the first hoeing, when the ground is mellow. The first shower will cover them.—*Rural New Yorker.*

Turnips would doubtless produce well on our rich prairie lands if sown among corn which had had clean culture, and seeded early in order to give them the benefit of the late summer showers to get a good start. They would make excellent winter forage for calves and pigs if allowed to stand without gathering; and if pulled and put into pits, would prove a most wholesome diet when the weather began to warm up in the spring before green food was ready for young stock. Sows with young pigs would relish a feed of succulent roots daily, and prove all the healthier and better nurses for them.

For some years past we have been pleased to observe an increasing attention to the preparing of the ground for the wheat crop, and as far as our observation has extended, we have never seen a wheat crop in Indiana so carefully put in as was the one just gathered, and the lesson it teaches is—it pays to put labor on wheat ground.

Whether it be clover soil, stubble ground, or common fallow, it should be deeply and thoroughly broken in August or early in September, and in this breaking the summer crop on the ground, whether of grass, stubble or weeds, should be completely buried and should not be disturbed by any after cultivation before the seed is sown. By this means we get a layer of decaying vegetable matter which will send up the gases from its decomposition in the spring to mellow and enrich the soil above and into which the roots of the crop will penetrate about the time it begins to joint. If long manure (by that I mean unrotted manure) is used, it should be spread before the ground is broken so that it too may be turned under with the surface crop. Some farmers double break their fallow, but in this they lose much of the manurial value of that which was turned under at the first breaking. After a week or ten days from the breaking, a heavy roller or clod-crusher should be passed over the surface and this may be followed by a corn cultivator going to about half the depth of the breaking. Following the cultivator, a level surface of fine earth should be obtained with the harrow. This done, and the field is ready for the drill.—*Ind. Farmer.*

Ex-Gov. Furnas, of Nebraska, says that thirty-five years have taught him that different kinds of fruit trees should be mixed or alternated. He planted peach trees with apple trees, and the former outgrew and nearly smothered the apple trees. So with pears, plums, and other fruits. Each kind wants the whole ground separately.

The farmers of the Upper Alps, though by no means wealthy, live like lords in their houses, while the heaviest portion of agricultural labor devolves on the wife. It is no uncommon thing to see a woman yoked to the plow along with an ass, while the husband guides it. A farmer in the Upper Alps accounts it an act of kindness to lend his wife to his neighbor who is too much oppressed with work; and the neighbor, in his turn, lends his wife for a few days work, whenever the favor is requested.

Great attention is now being paid by the inhabitants of the Argentine Republic, South America, to the cultivation of wheat along the river Plata. There is every reason to believe that in a few years that region will be one of the most extensive grain producing localities in the world. Many Italian, French, Russian and other settlers are breaking fresh ground there.

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