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THE KANSAS FARMER.

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A Level Head on Milk Pedigrees.

The following admirable address, suggestive of an original thinker, was delivered by Mr. Geo. W. Whitney, before the Vermont Dairy-men's Association, this winter.

It is said that experience is a dear school-master, but sometimes we have no other—yet knowledge thus gained has the merit of being the most lasting. Still we must be very cautious that we do not let our little experiences lead us in the wrong direction.

I commenced keeping a dairy of cows some twenty-four years ago, without experience. My first desire and ambition was to make as much from my cows as my neighbors. In those days we bought and sold stock more than we do now, and knowing that there was a difference in cows, made it a point to get those that gave the most milk, though I have since learned that it is not always the most profitable cow that gives the most milk.

My cows had quite a warm stable; were fed on hay cut from about the 5th of July to the 5th of August, with the exception of about three or four weeks in mid-winter, when they were fed on straw. I dried off my cows in December, without reference to the time they were coming in; it was sufficient that they were coming in some time. They were always quite thin when they came out to grass in the spring. I got along some in this way, notwithstanding I owed some for my farm. It was bought low, and I made my expenses very small.

My milk was made up both into butter and cheese. I succeeded in getting about fifty pounds of butter and two hundred and fifty pounds of cheese per cow. But in reading my agricultural papers, I learned that there were dairies that averaged four, five, and even six hundred pounds of cheese per cow. I also read of the superior qualities of the Durham cow. Of course I was anxious to reach the highest figure, and on hearing of a man who had a Durham cow to sell, rushed off and bought her at once, thinking if I had a dairy of Durham cows I could easily make a fortune. But in the course of a week I made up my mind that if that cow was a fair specimen of a Durham cow, I did not want any more of them. But not willing to give it up, I came across another man who had a fine Durham cow for sale, and bought her by paying a large price. She came in in a few days, and was the finest cow I had ever owned. I remember one remark her former owner made when I drove her away. He said he gave her a little barley three times a day. It impressed me it was foolish to be "fussing" that way with cows. However, I was again doomed to disappointment; that cow run down, down, down until she was worthless. I thought perhaps hilly pastures were not good for Durham cows, even though the feed was good—never for a moment thinking that the real trouble was that I (to speak plain) did not know enough to feed a good cow properly.

But an experience or two like this began to open my eyes. I used to have two-year-old heifers do splendidly; but never improve afterward. Have had other dairymen tell me they also had had such heifers, and at that time they nor I knew the reason. Why, it was simply this: they were not properly fed.

I have learned that a cow giving ten or twelve thousand pounds of good milk a year, must have something more than good hay; she must have grain, and should have roots. She should have a variety of kinds of food.

Some sixteen or eighteen years ago I purchased a small French or Native cow that would give nearly fifty pounds of milk per day. I had one or two very good cows, and I commenced raising calves from these cows. I made it a rule not to raise a calf from any cow that would not give forty pounds of milk per day in the best of the season, and the size of the calf should have a mother equally as good. Some time after I purchased a yearling heifer of a Frenchman for three dollars, which would not weigh over one hundred and fifty pounds, live weight. She made a cow that has given forty-nine and one-half pounds of milk in a day. I have nine of this cow's descendants. Those that have given milk are extra cows. By raising four calves from a cow equally as good, I got only one extra cow; but by following the above rule for a good many years, nearly all the cows now raised are desirable milkers.

Were I compelled to give advice to the average dairyman, I should say: Do not go home

and rush off to purchase an extra cow or a thoroughbred animal, but rather rush to the cow stable, and see what is being done there. Learn first the art of feeding, by practical experiment, and by so doing you will learn the animals you now have. You may be surprised to find what great milkers you have. You may be surprised to learn how some of your cows will take on flesh while giving a little poor milk. Test every cow's milk; you may be surprised to learn how much butter some cows will make from a small quantity of milk. Should you find you have no good milkers, buy a thoroughbred bull, if the pedigree is right. If you make butter exclusively, have a pedigree for butter; if cheese, a pedigree for cheese; if beef is your object, a beef pedigree. But if the pedigree is for blood only, don't buy, unless you have use for high-toned blood.

Now, I am not quite sure about this matter of pedigrees? What should constitute a pedigree for dairy purposes? Should not dairy stock have a pedigree of five generations where the cows have yielded not less than three hundred and fifty pounds of butter or nine hundred pounds of cheese? I have made two attempts to purchase a thoroughbred Jersey bull. I asked their owners if they could give me a pedigree for milk qualities. They told me they could give me a pedigree for blood—for pure blood. I did not buy.

"Now, the question I would like to know is: Did I do right or wrong? Is the breeding of thoroughbred stock complete in all its branches? For instance, the Durham, as a beef animal, is perfect; the results attained are almost marvelous. And some strains have been bred for milk qualities with great success. But is there a pedigree to be offered for these milk qualities? Should not our thoroughbred breeders establish a new departure expressly for dairy purposes?"

In 1877 I milked twenty cows and heifers, all told—two two-year-olds, three three-year-olds, and fifteen cows. The milk was sent to the factory five months and twenty-two days, or one hundred and seventy-two days, and weighed seventy-six thousand five hundred and ninety-four pounds—making an average per day of twenty-two and a quarter pounds per cow. This milk made seven thousand eight hundred and thirty-three pounds of cheese. I made four hundred and ninety pounds of cheese at home, and one thousand nine hundred and forty pounds of butter—making an average per cow of four hundred and sixteen pounds of cheese and ninety-seven pounds of butter. If the butter is reduced to cheese by calling two and a half pounds of cheese a pound of butter, the yield per cow for the year would be six hundred and fifty-eight pounds of cheese; and by reducing the cheese to butter by the same ratio, would make the yield of butter for the year, two hundred and sixty-three pounds. I received for the butter and cheese \$1,280—making an average per cow in money of \$84.30.

For the year 1878, I have milked twenty-four cows—an addition of four new heifers. One came in the 6th of January, one the 13th of February, one the 7th of March; these heifers were not two years old until the May after they came in. One came in the 6th of February, and she was two years old the last day of February.

The yield for the year was only four hundred and ten pounds of cheese, and seventy-five pounds of butter—equal to five hundred and ninety-seven pounds of cheese, or two hundred and thirty-nine pounds of butter. One reason why they did not do better was that I did not give the dry cows in mid-winter any meal, which I usually do. Another reason was, I made beef of one of my old cows, and bought one that had been milked a part of the season, which, with the addition of the four very young heifers, made the difference. I do not feed any grain in the summer, or sow corn or other grain for green food.

My cows that have the best pedigree for milk, are the most sure to have heifers that are good milkers, though I never owned a thoroughbred animal. According to the general acceptance of the term, my experience is in favor of thorough breeding for the purposes you desire.

I would like to have my haying all done from the 4th to the 10th of July. The field cut the last of June can be cut again in August, and my experience is that grass will not run out as quick with two cuttings as with one. My experience is that hay cut the last of June will make one-third more milk than hay cut in the middle of July. My last experience in this matter was the present month. My cows, up to the 10th of this month, had been fed on hay cut the last of June. On the 10th I commenced feeding hay cut the middle of July. It was

very bright and marketable, but the cows shrank from two hundred pounds down to one hundred in a few days.

If I should feed hay only, and that cut the last of July, I could make as much from poor or ordinary cows, as from good thoroughbred cows, because the ordinary cows could stand this feed, and make a little above their keep, when the really good cows would run down and either lose their bags, abort, or become poverty stricken, or, as some would call it, have the horn-ail.

Breed from the best cows, and as you increase the milk qualities of your dairy, increase your care and feed; also increase the variety or kinds of feed. By giving a variety of food, the animal which has now become largely a manufactured creature, will be more sure to get all the elements necessary to build up the animal economy in her new condition, and thereby prevent the many constitutional weaknesses that will be quite sure to attack our dairies sooner or late.—Wallace's Monthly.

Literary Items, No. 20.

HEARING.

Dr. Dick thus describes the sensation of hearing.

"The air put in motion strikes the drum of the ear; the tremors thus excited produce vibration in the air within the drum; this air shakes the handle of the hammer; the hammer strikes the anvil with which it is articulated; the anvil transmits the motion to the stirrup to which the longer leg is fastened; the stirrup transmits the motion it has received to the nerves, and the nerves vibrating like the strings of a violin, and the motion being still further augmented in the labyrinth—thus the soul receives impressions altogether incomprehensible."

STRANGE THEORY.

The learned Lord Manbodus, speaking of the human species, insists that we were originally ornamented with tails, like the monkey, or other four footed race of animals, but they have become extinct by frequent sitting. Notwithstanding this strange idea, the learned Lord wrote a very interesting book on the varieties of the human race.

INSANITY.

"If we are right," says Gooch on insanity, "in supposing that the instincts of animals consist of reasonable acts, not preceded by any reasoning process, but subservient to some bodily sensation in the animal, there would be a striking analogy between the two conditions, and insanity might be said to be the temporary conversion of human into animal nature."

ELECTRICITY AND THE LAWS OF ANIMAL LIFE.

Dr. John Abernathy, in one of his lectures before his medical class, says, "are we not warranted to believe that some chemical agent produces the effect on organized bodies which we find continually taking place elsewhere? Is it not admissible to believe that a similar agent produces the sudden and forcible motion of matter which forms the striking characteristic of living beings? Do we depart from the law of reason in supposing that electricity, or some corresponding principle, is the prime moving cause of vital action, without which, as Mr. John Hunter has indisputably shown, it is impossible to account for the functions and processes of life?"

JAS. HANWAY.

Central Kansas.

As I have been requested by several subscribers of the FARMER, (who do not live in the state), to furnish them with information regarding this part of the state, I will say a few words in the FARMER instead of by letter, as my time is occupied very closely. I will speak principally of Russell county, as I am better posted near where I live than in other parts of the state.

This county lies on the third line of counties from the Nebraska line, and fifth from the Colorado line; longitude 39. Population, in 1878, 3,239. Russell county has filled up very rapidly. The census of 1870 showed it to contain but 156 persons.

The soil on the creek bottoms is a dark loam, well adapted to corn but not for wheat. The upland prairie is well adapted to wheat and other small grains.

The name "Golden Belt," which is applied to the land on each side of the Smoky River, is very appropriate. The large fields of golden grain that may be seen each year, increasing to larger and more extensive fields, shows the observing traveler, as he flies over the rolling prairie on the K. P. railroad, that he is now passing through the finest wheat country that

he ever saw. The government land is about all taken up, except that reserved for school purposes, which is sold on seven to nine years' time at seven per cent. interest. There is some very choice railroad land here yet. The rapidity of the settling up and improvement of this county shows its superiority over many other parts. If you wish to take a farm, you don't want to go to a place where no other person will go, unless you are looking for cheap land, regardless of all other conveniences. You hear of a place where land can be got in such great abundance, and if you go there you will find it forty or fifty miles from a railroad, or where there is no coal or wood; or perhaps water is exceedingly scarce or stone can not be found. If part or all of these drawbacks are to be encountered, land would be dear at two cents per acre.

Coal is mined here sixteen to twenty inches, in drifts, and sells at three dollars per ton. Limestone of the finest quality is very abundant. There are several limekilns here. Wood is not as plentiful as in the eastern part of the state. It decreases from the east to the west. There is a herd law here, so fences are not required.

This is a fair description of Russell county, and Ellsworth, Barton and Ellis may be classed with it, but I have not traveled over them enough to say that was a fair description of them.

It would not be well for a farmer that has a good home on a well improved farm, to go to a place he knows nothing about. The safest plan is to see the country himself, as people generally praise the country they live in the most. This can be done without a very great expense, by using a light wagon. Put in just what the necessities of a month or two months' journey will require. Travel along the principal streams; by doing so you will go through the richest country and the best watered, as you will meet all the creeks and the most timber and stone. Coal is also more plentiful near the rivers.

If you have to pay something for a farm, you will make more by the conveniences, and you will find the finest part of the state settled first. Don't believe every one you meet. One may say the south part is the only part good for farming; another will tell you that the north part has got all the comforts that man needs here below, while a third will tell you if you want a cheap farm, go west where it has not been taken up yet and you can take the pick of the finest land there is. It may become a good location for farming, but farmers should not locate in advance of the general settlement line. The cultivated ground draws the moisture, as will be seen by the different states east of us in their early settlement. The growing grain prevents the sun from evaporating moisture from the earth, and consequently as the state is more improved it will change the heavy floods and long droughts to gentle showers. The change is plainly seen every year.

A place that would suit one person would not suit another. Our minds and tastes are so diversified that it is the best plan to see before you believe. If you have not the money to use in traveling about and neglecting your farm, you should not think of coming, though you might succeed in the end. There is a great deal of privation for a person who has not got the capital.

I came here partly for my health, which has improved since I left Indiana. It is very healthy here, and that is a blessing to be appreciated by those that have seen the reverse. I took a timber claim here two years ago. I like the state much better than Indiana or other states I have been in. The wind tempers the summer heat. Though the thermometer may be up in the nineties when the wind blows all the time, it is not felt so badly as in places where the air is perfectly still.

F. W. HEY.

Plants From Hot, Dry Countries.

In looking over the map of the old world, we see two extensive desert regions, that of northern Africa and that of Central Asia. And when we realize that the only drawback to our beautiful California is a climate too dry to be perfectly adapted to many of the products of the moist climate of Europe, and the scarcely less moist climate of the eastern states, it becomes a subject of interest, of deep interest, to learn how mankind live in the dry regions of the earth, and what the earth produces in those dry countries.

Notably among those products suited to very dry climates is the sorghum or broom-corn family. History does not reach back to the beginning of

THE CORN OF EGYPT.

spoken of in the beautiful story of "Joseph and His Brethren," in the old bible, were varieties of this family, the brown and the white Dhoura, sorghum dura and sorghum ceruum, known in our state as the white and brown Egyptian corn. It is still the chief product of the dry region of northern Africa. Baker, the great African traveler, in his "Travels in Africa," speaks of it as giving, under favorable conditions, the enormous yield of 500 bushels, 30,000 pounds annually per acre. From my experience in the rich soil and the hot climate of our valley, I believe such a yield possible. It has here yielded half of that amount, and yet it was cut down by frost in the midst of its growth, while in the climate of the region where Baker saw it, it would have gone on producing a crop every month for the remaining four months that would have made up the entire year.

CHINA CORN.

While these have been feeding for thousands of years the people of the dry regions of Africa and Arabia, the no less ancient, and, in agriculture, more skillful millions of the dry regions of central and northern China have been cultivating the same plant, and from their superior culture and selection of seed, and grown in their shorter seasons, it now comes to us as an improved and earlier, better-yielding variety. Botanists have given it the distinction of a separate variety, under the name of sorghum helapense. Rev. A. Wylie, D. D., in his article on China, in the new American Cyclopaedia, vol. iv, page 445, speaks of it under the name of "Millet," as the chief crop of the great plains of China; and from two years' experience in raising it in California, I can positively assert that its growth here equals that of its native country. A hundred million people have eaten it to-day, will eat it all the days of their lives as their chief article of food.

SUGAR CANES.

While these varieties were being grown wholly for their enormous yield of nutritive grain, and yearly improved in this respect, there was another equal demand to be supplied, that was for sugar or its equivalent—syrup. Selection of seed through many years, developed this quality in one variety, and this grown for that purpose and improved for centuries of care and culture by the skillful Chinese, gives us the Chinese sugar-cane of to-day, a plant very valuable for forage and for syrup and sugar production. A like want and a like prolonged effort among the half civilized people of Nubia and Abyssinia, resulted in producing the Imphee or African cane, the most luxuriant growing and best sugar producing, and best forage plant in our state at the present time. Perhaps, however, it will divide the forage merits with Amber cane, a hybrid between Imphee and Chinese sorghum. They both give an immense yield of sweet, tender, rapid-growing stalks and leaves, of which all kinds of stock are very fond, and which possess superior food qualities, while their enormous growth after the plants are permanently rooted, is almost independent of wet or drouth, not being affected by excess of either, and in our climate making succeeding growths, year after year, from the same roots.—W. A. Sanders in Southern Cal. Agriculturist.

The author of "Highland Farm Papers," published in the Ohio Farmer, opens his 67th paper with the following sensible paragraph:

"At my recent visit to the farm of our correspondent, 'J. G. Oxer,' I was impressed with the benefit farmers would receive if they visited each other's farms more, and became acquainted with the details of their management. There is nothing like an ocular demonstration of any fact in agriculture, and if we would spend a half day or more each month in inspecting each other's farms and stock and talking over our plans, I believe it would be the most profitable time spent."

The matter of friction in farm machinery is really a serious one to the owners, and yet we suppose the makers of farm machinery will go on reaping rich rewards year by year, from the useless wear and tear of machinery, and which they really do not covet, simply because the majority of our farmers depend upon borrowing an agricultural paper, rather than to buy one, and thus often lose more in one day than would pay for a good paper for five years.—Prairie Farmer.

Borax dissolved in water makes a good wash for the hair and cleanses the scalp from dandruff better than anything I have ever tried. It also makes the hair soft, and is especially recommended as a wash for children whose hair inclines to curl or wave.—M. O. F., Trenton, N. J.

Farm Stock.

Earlier Maturity.

Wherever beef growing has been scientifically and practically studied, the folly of keeping aged beef cattle has always been discovered. But it is only recently that the full force of the evil of this practice has been felt. The famous English fat-stock shows have long given prizes for the aged class of fat oxen; but the managers have recently found out that such prizes offer a premium to the most unprofitable beef production, and a committee of the Smithfield Club has been appointed to examine into and report upon the best plan of encouraging this system of feeding and encouraging early maturity. The Council of the Birmingham Fat-Stock Show resolved lately to limit the age of all breeds to four and a half years. The proceedings of these leading stock shows mark the conservative character of agriculturists everywhere. Although England has almost led the world in improvements in the feeding of stock, and clearly demonstrated, something like a quarter of a century ago, the great economy of growing young beef over that of the older class, yet the managers of her stock shows took no practical note of the facts, but continued to offer prizes for the aged class, ranging from four and a half to seven years old, regardless of the patent fact that every pound of beef in the aged class cost two prices. But this constant demonstration for so many years has finally borne fruit, and these influential shows will now take action, and in future, no doubt, exclude overgrown, ancient beef from competition.

This JOURNAL has labored on every occasion to set before its readers an array of figures that ought clearly to convince intelligent feeders of the great loss of growing beef to a greater age than three years; and we do not think that an American fat-stock show would commit the blunder of offering prizes for a long series of years, for five, six, or seven-year-old beef. Our first fat-stock show, at Chicago, last year, and the comments made upon it, brought out this feature most clearly. Let us call attention again to the Short-horns and grade Short-horns that drew prizes, and tabulate their ages, weights, and gain per day. We will take the best four of each class, beginning with the eldest.

	Age.	Av. Wt.	Av. Gain per day.
4 steers	1,890 days	2,332 lbs.	1.32 lbs.
4 steers	1,351	2,166	1.69
4 steers	967	1,687	1.74
4 steers	669	1,429	2.13

This simple table is very instructive to those who will understand it. It would take a treatise to develop and explain fully the physiological reasons for this result in feeding; but the simple facts are first and most important to be understood, admitted, and acted upon. This is not an isolated result. The animals were all good examples of their ages, and show what good feeding will do at every stage. It represents what is likely to be nearly the average result of feeding to the longer or shorter period. And in this view let the reader study it. The steers, 679 days, or 22 months old weighing 1420 lbs., are in excellent market condition, and will bring the top price of the market, so if they are to be kept longer, it is for some other reason than their market condition or weight.

Now the comparison must be made from stage to stage in the feeding. In the 298 days between 669 and 967, the gain is only 267 lbs., or 89-100 of a lb. per day. This, at most, would not be worth more than 4-8 cents per day—a sum wholly inadequate to pay for the food as it would cost probably 35 percent more to feed them during this than the previous period, although the first period would pay in growth ten cents per day. Now the next period of 314 days would pay about 8 cents; but on the increased food there would be a heavy loss. But the last period shows the greatest loss, when the gain for 609 days is only 166 lbs., and the value of it not exceeding 2 cents per day. They are kept, of course, at a great loss. It then becomes evident that prizes for fat steers should be limited to those three years and a half old. The prizes given for greater ages could only be useful in showing the great loss that the feeders had subjected themselves to. If the feeders could give the weight at the end of each year, the illustration would be worth all it cost.—*Nat. Live Stock Journal.*

American Cotswolds.

We have received a pamphlet price-list or catalogue, from Joseph Harris, of "Moreton Farm" Stock—Cotswold sheep and pure bred Essex pigs. Mr. Harris is authority on all subjects pertaining to the farm, and he always discourses so pleasantly on stock that every one interested in agriculture is pleased to hear what he has to say. We clip from his price-list what he says about Cotswold sheep. Mr. Harris has these sheep for sale, so due allowance will doubtless be made by the reader. We confess to a special weakness for Cotswolds ourselves, having made their acquaintance while engaged in farming.

Mr. Harris names his sheep American Cotswolds—Cotswold-Merinos—and says of them: I am decidedly of the opinion that the coming sheep of this country will be what I will take the liberty to call, "American Cotswolds."

I have, hitherto, called these sheep Cotswold Merinos. This designates their origin. But the time has now arrived when the name loses its significance. For instance, I have Cotswold Merino Lambs with three and four crosses of pure cotswold blood in them. In other words, these lambs have 93 1/4 per cent. of pure Cotswold blood in them, and only 6 1/4 per cent. of the native or Merino blood, and the next only a little over 1 1/2 per cent.

A few years hence, American Cotswold sheep will be shipped by thousands and tens of thou-

sands every week to the English markets. There is no reason why they are not now shipped in large numbers, except—the fact that they cannot be found. We do not raise enough of them or feed them well enough.

Our beef cattle are better than our mutton sheep. The intelligence and skill of the American sheep breeder has been largely directed to the perfection of the Merino sheep. Wool and yield have been the objects aimed at, and great success has attended their efforts. There are no better fine-wooled sheep in the world to-day than can be found in the United States.

There are many sections where Merinos are the most profitable breed of sheep to keep.

But railroads and steamboats lead to rapid and wonderful changes. There was a time when I thought Cotswold or mutton sheep could not be raised with profit in the far west. I thought it was too far from market, but, if cattle can be raised and shipped with profit to England, long-wooled mutton sheep can be shipped with still greater profit. We do not raise more than half as much combing wool as American manufacturers require. The duties on Merino wool are much higher than on combing wool. This is not just. But still, even with the present discrimination against combing wool, the herders of Merino sheep complain that wool growing is not profitable. Be this as it may, they cannot expect a higher protective tariff, taking the average of the last ten years, the duty paid on clothing wool is equal to over thirty-one cents per pound on the scoured wool while the duty on combing wool is only sixteen and one-half cents per pound on the scoured or real wool. If you buy \$10,000 worth of Merino wool, it cannot be admitted in the United States till you have paid a duty amounting to the average to \$10,589.85; while if you go to England or Canada and buy \$10,000 worth of combing wool, you have to pay a duty of only \$4,431. In other words, the growers of Merino wool have been receiving, since the present tariff went into effect, in March 1867, more than twice as much protection as the growers of the Cotswold, Leicester, and other combing wools. All right-minded men will say this is unjust.

It was asserted that we could not produce combing wool in this country, and that, therefore, there was no necessity of protecting it. The Merino Sheep Breeder's Associations seem to have said to the Wool Manufacturers, "You want combing wool. We (Merino breeders) want to get good prices for our sheep, and if you will help us to get combing and delaine wool, which you very much need, admitted at a comparatively low rate of duty. This will help you, and while it may not advance the price of Merino wool it will give us something to talk about and revive the drooping spirits of Merino sheep breeders. No one will be hurt except the Cotswold and Leicester sheep breeders, and they are of no consequence."

This was a dozen years ago. All this is now changed. The President of the "National Association of (Merino) Wool Growers" wrote from Illinois to the Secretary of the Association a year or eighteen months ago, that Cotswold rams were being brought into this section from Canada, and were selling rapidly at from \$75 to \$100 a head. And no efforts on the part of Merino sheep breeders will stop the change that is now taking place. Cotswold rams are in demand, and will continue in demand for years to come.

Poultry.

Chicken Raising.

EMPORIA, Lyon County,
July 9.

As you ask for letters, I shall favor the readers with my method of raising young chickens.

I began about the first of March last, with thirty hens and two light Brahma roosters. I have had hatched, in all, 607, after deducting those I have lost by accident or otherwise, which number was very small. I kept close count, and think 15 will cover all loss whatever. I lost nine by drowning in a storm some weeks ago. I have sold \$15 worth of old and young chickens already, have on hand now 450 young chickens and 18 old hens. I have picked out and marked all my earliest pullets to keep through the winter. I shall now give my method of treatment.

It requires some time, care, and a great deal of patience to be successful. First, I treat my hens with kindness, never frightening them. They are so gentle I can handle them at will, take them off the nest, put them down to do anything I wish. I keep the hen house clean, sprinkle with lime, then keep the boxes and kegs clean, dust and put fresh hay in every time I take a hen off with chicks. I give my chicks no food until they are about twenty-four hours old, then give them hard boiled eggs and clabber milk curd until one week old. Then I bake corn bread, made up with butter milk, salt and soda, the same as for use; I soften the crust and crumb it up, giving only what they will eat up clean. I also clip red pepper fine and rub in the bread, and a little sulphur if lousy. This I give once or twice a week. I feed on bread until three or four weeks old, and as soon as they can eat it, give them wheat or rye to pick at in the evening. They are fond of these grains, and they are said to be a preventative of gapes. I have not had a case this year. After this age I give them corn meal and clabber milk mixed fresh each time of feeding, and so dry that it will crumble. This I feed about six times a day, and then throw them shelled corn besides, every night and morning. There is scrambling then to pick up the falling grains, and by the time the last handful falls to the ground they are ready for

their feed of meal and milk. Besides this I give once or twice a day bran and some salt to pick at. They eat with much a relish. I feed and care for them myself, and they will run and fly from all directions in sight of me or sound of my voice. I give plenty of fresh water, have sand and lime sprinkled on their feeding ground, keep free from lice by the use of sulphur and lard, provide good shelter and treat with kindness, and I am sure there is to be found in the business both pleasure and profit. Besides it is a very interesting and healthful occupation.

Mrs. J. P. Walters.
P. S. Corn is fine in this locality. Oats are coming out much improved since the rains began to come. Plenty of early potatoes, vegetables of all kinds were late on account of dry weather and cut worms, but most every one has plenty now. We have corn ready for use. Had a pretty little shower of rain this morning. Hay will begin soon, will be rather short, on account of dry weather in the spring.

J. P. W.

The above letter contains as much true information on raising fowls as will be gleaned from many elaborately written volumes. Any one who will commit it to memory and pursue the course of management laid down by Mrs. Walters, will not need any other poultry text book for a guide.

Treatment of Fowls in Hot Weather.

Old fowls will pass into their annual moult this month. Some of the Brahmas and Cochins are already shedding their plumage freely. This is a critical period with many of our fowls, and at this time we find it needful to take extra care of the more valued breeding stock. The cocks should now be taken away from the breeding hens, and the sexes are best kept apart until the new feathers start well on the hens' bodies. In this way the fresh plumage will come out in better shape, the old hens will go through this natural process much more comfortably and healthily, and there will appear less accidents in marring and tearing the soft flesh of the hens, as so often happens in hot weather, when the sexes are permitted to run together after breeding time.

Chickens should be allowed full liberty to run about this season. They grow better thus, having needed exercise, and will thrive much better than is possible when penned up, however well they may be treated artificially. House the younglings at night carefully, and save them from marauding vermin, such as rats, cats, minks, skunks, etc., at this hot season. Wire fronted traps in neighborhoods infested with any of the above enemies to poultry are the thing to have, if out-of-door shelter is afforded the chickens.

The hen houses should be fumigated and cleansed this month, if this has not already been done. The old laying and sitting nests are alive with small vermin now in most places. Clear out the filthy straw and burn it up. Wash the nests with kerosene oil in a thorough manner. Keep down the lice and your fowl stock will be comparatively comfortable during these warm days and nights.

Feed the old birds lightly and the growing stock generously. Avoid stuffing to fatness the aged breeders. They need good food, much much less of it than while breeding. All they require is what is necessary, in a light diet, to keep them in good heart. Naturally all the Asiatics incline to fatten internally in hot weather. This must be avoided. They are matured in growth, and it is desirable only that they retain their flesh well, but do not need to be fattened.—*Poultry World.*

Gapes in Chickens.

The plan given below has been successfully used by us. We give it anew from the pen of an English farmer: "I have frequently lost large numbers of chickens from gapes, and have never until this spring been successful in curing them. About six or seven weeks ago the old complaint made its appearance in almost thirty chickens, some of the size of pigeons and others less. As an experiment, I tried sulphur, commonly called flower of brimstone, and salt—namely, two parts sulphur and one part salt, mixed with water, to the consistency of thick cream (it is best to use the finger in mixing, as sulphur will not readily mix with water). I then applied it with a feather from a fowl's wing, dipping it in the mixture and putting it down the chicken's throat about three inches, worked the feather up and down a few times, then applied some more in the same way again. I soon found they were much better, and repeated the operation three or four times, two or three days between each application. They are now all well. I have not lost one; although some of them were very bad indeed when the remedy was first applied. I may add that the feather requires about half of the broad side clipped off, or it would be too large for the purpose required.—N. Y. Herald.

Glass in Place of Gravel.

An Iowa correspondent of the *Country Gentleman* recommends broken glass and queensware for fowls.

The farm is the great place for hens, and they must have healthy, clean food. No matter what kind of food—grain, vegetables or meat—it must be clean, and not given them on the roost floor, in the mud, or even on the manure pile, but on the sod or in a clean trough. If they eat soft food, or indeed any kind, from a dirty place, much dirt is eaten, and this induces disease. They should have at least eight ounces to the dozen fowls of well-broken glass

or queensware once a week. My hens eat this with as good a relish as their food. It is foolishness to think that hens can pick up gravel sufficient to macerate their food; most gravel or coarse sand is too smooth to be of any use. I regard their "grinders" with as much care as their food, and in this I think lies the great remedy against cholera, because their food is completely digested.

Location has much to do with the production of first class fowls. It is certainly true that fowls thrive best in high and dry localities, with sandy or gravelly soil. In a heavier clayey soil they grow slower, and their feathers never look so nicely. More care is necessary to keep them in health when the soil is damp. In such localities coarse sand or gravel ought to be spread over the yards once or twice a year.—*Poultry Yard.*

Apiary.

Extracted Honey.

Mr. Burch contributed the following to the late meeting of the N. A. Bee Keepers' association:

One hundred colonies of bees are about all that can be profitably kept in one location, and will give one person full employment when the extractor is exclusively used, for at least one hundred and fifty days out of each year. In the days of box hives and black bees, before our late civil war, when gold was the basis of our currency, these one hundred colonies were worth \$500. At the present time, with Italian bees and movable frames, they will represent twice that amount, or \$1,000, while in some isolated cases bees may be had for less money. One hundred colonies arranged for the extractor, with an extra set of combs, are worth or will command fully that sum. Suitable appliances for carrying on business will cost \$500 more. This includes ground for a bee yard, a bee or honey house for storing honey in summer and protection of bees in winter, and all other necessary appurtenances. These two sums, then, will represent your investment. The interest, taxes and insurance thereon at 10 per cent. or \$150; the labor required at \$2 per day, will amount to \$300 more, \$450 in all. This much for the outlay. Now, such an apiary will give an annual yield of five thousand pounds of extracted honey. But little increase of stock will be secured where the extractor is exclusively used—enough perhaps to cover losses in wintering. According to the above figuring the actual cost of producing extracted honey is nine cents per pound.

In the foregoing calculation we have endeavored to avoid extremes, and thus obtain an average result. There are localities where our apiary will produce a larger yield of honey, while, in a great majority of cases, a lesser amount will be secured. There are seasons when honey is very plentiful, and an average location will exceed five thousand pounds; yet, in three years out of four, the yield will bring it down to this average. Labor can be procured for less than \$2 per day, but the man who possesses the skill to successfully manage one hundred colonies of bees would command more had his attention been directed in other fields of labor. Money is worth but 7 per cent, in many states, while here in the west it really commands 10, and taxes and insurance will make the latter figure an average.

Work Among Bees and Effect of Stings.

At a recent meeting of the bee-keepers at Lansing, Mich., Prof. Cook said in answer to a query: "I believe the oftener colonies are looked through to the summer the better. The bees will get used to it, and will go right on gathering and storing. I have seen the queen keep on laying eggs when I had the combs out. In order not to disturb their operations one must be quiet. Working with the bees will overcome nervousness. When I am feeling nervous and go out to work among the bees, I soon get entirely over it. This matter of fear can be got over by any one. Getting stung gets one used to the poison, so he will not be injured by it. A bee sting does not swell on me now, and one of the students at the college told me that he was stung yesterday without knowing it, until he saw the swelling sometime afterward; yet at first a bee sting was painful to him. I think this is on the principle of inoculation. Mr. Langstroth said that at first his eyes would swell if he was stung on any part of his body, but he got over this. Mr. Davis does not know when bees sting him, though it sometimes swells on him. Thickness of the skin may make some difference."

Introducing Queens.

Herr Benedict Broglie states in the July number of *Der Biener Zuechter*, Strasburg, that since the spring of 1876, he has practiced, with uniform success, the following method of introducing queens: The bees of the hive to which the queen is to be introduced are brushed from the comb into a box, then dampened with fresh water, and poured down before the hive, the queen being permitted to crawl into the hive with the buzzing bees. Of course before this operation is commenced it is necessary to remove the queen that is with the colony at the time, or in case queen cells are present, to destroy them when the bees have been shaken from the combs.

The water for garden plants should not be very cold; rain water is the best and it may always be obtained by having a hoghead standing in some place out of sight, under a spout connected with the roof.

Fruit Jellies.

Cherries and strawberries will not produce a firm jelly without the use of gelatine. Raspberries, to jelly well must be mixed with a third their quantity of currants; red and white currants mixed in equal proportions, make a jelly of exquisite color, and black currants alone, one that is rich and dark and exceedingly palatable. Currants and wild cherries in equal quantities make a good and wholesome jelly, and the late wild plums, one that can scarcely be surpassed either in appearance or flavor. Ripe grapes cannot be depended on; grapes should be used while partially green; gooseberries are better before they are fully ripened. A beautiful amber jelly may be made from tart apples, but it must be flavored with lemon juice.

Peaches are not always to be relied on. It will require the juice of a lemon to every pint of peach juice, and the jelly may, or may not be firm, according to the quality of the peaches. Crab-apples, both the wild and Siberian, and quinces are particularly easy to jelly. These latter fruits must be washed and cut into pieces without peeling or coring, and cooked until tender, in sufficient water to cover them. The fruits before mentioned may be softened without the addition of water by adding a little of the fruit first put into the kettle to prevent its burning. The process for all jelly-making is materially the same. Cook the fruit until the juice runs freely, avoiding all iron or tin utensils as they will injure both taste and color. Turn the softened fruit into a three-cornered bag, made of coarse linen, flannel or cotton. Wring it out of hot water before using, and be sure that it is stout as well as coarse, then suspend it over an earthen bowl, and leave it to drip for ten or twelve hours. When strained, measure the juice, and put into the kettle, weigh a pound of sugar for each pint of juice. Boil the latter rapidly for twenty minutes; skim well, then add the sugar, and when it is dissolved the jelly will fall from the spoon in flakes; if there is the least doubt as to the result, it may be allowed to boil for five minutes longer, but it is seldom necessary. Strain the jelly while boiling hot, through a thin muslin bag into a pitcher; hold the bottom of the bag with a fork and twist the top, but not too tightly; then pour, as soon as possible into the molds, as the jelly will form almost immediately, and the quicker it can be transferred, the clearer it will be. Dip each mold into cold water before filling, that the jelly may turn out nicely, and if glass is used, set it on a cloth dipped in cold water, and put in a silver spoon while filling.—*Prairie Farmer.*

The Curculio.

Harris says of this insect, "They begin to sting the plums as soon as the fruit is set. The irritation arising from the gnawings of the grubs after they are hatched, causes the young fruit to become gummy, diseased, and finally to drop before it becomes ripe. Meanwhile the grub comes to its growth, and immediately after the fruit falls, burrows in the ground; in the space of a little more than three weeks afterwards, the insect completes its transformations, and comes out of the ground in the beetle form." The hens undoubtedly destroy the grubs while passing from the plums to the ground or from the ground to the trees. Trees unprotected by hens last year will not be free from curculios this year as trees that were so protected, nor will trees surrounded by large orchards unprotected by hens be as free as those isolated from other trees. If no methods are taken to destroy the curculios except in one particular spot, there is no doubt but the curculios will fly from surrounding trees unless the plum trees are surrounded with a high fence, which seems to be a protection.

Alcohols for Chills and Fevers.

The following recipe for the cure of this annoying sickness we find among the "Useful Maxims" in Prof. Wilkinson's essay on Dairy Rooms and Dairy Farming.

"Keep the stockings and feet well saturated with alcohol for five hours prior to the usual recurrence of the chill. Repeat the following day."

The American *Agriculturist* says: "Complaints now come from Kansas concerning a 'United States Home and Dower Association.' Last month mention was made of a similar association in Pennsylvania. The circulars before us give no locality for this 'United States Association,' but it has agents in various parts of Kansas. This fact of no location, joined to that of a special appeal to clergymen, besides complaints of persons who have advanced money for loans, and after waiting six months have received none, make us think that this United States concern should be regarded with caution. One postmaster in Kansas complains of being forty-five dollars out of pocket, and that there are a dozen others in the same state in a similar condition."

This is the first we have heard of this humane association. They appear to keep shady near home.

CHOOSING SEED CORN.—The season of harvest is the proper time to select seed corn. First look for such ears as being perfectly ripe are also perfect in form. Small cobs are the best keepers, as the cob contains so large a quantity of moisture that the ear is liable to retain dampness. Reject red cobs in white corn. A sound ear that has ripened early, with grains full and perfect, and a medium sized cob, is the best for seed. Store the ears in a dry place free from rats and mice, and where an even temperature can be maintained. Let the grain remain on the cob until planting time. Shell by hand, and reject the small grains near the point of the cob.

Decisions against Swindlers.

The supreme court of Iowa has won the sincere gratitude of the farmers of that state by rendering a decision which will tend strongly to put a stop to the swindling operations of agents of patent rights, lightning rods and things of that ilk. That such a decision is just and greatly needed no one can doubt. Unfortunately the law does not recognize any difference between a lightning rod agent and a human being, and so would hold responsible a man who should kill one of these pests. It is this fact which makes the decision of the Iowa supreme court so pleasing, just at this time, when the patent agent finds it more pleasant to roam through the country swindling the granger than to sit toasting his toes by the hearth of some victim in the town. A special from Des Moines to the Tribune says:

The supreme court of Iowa has vetoed swindling transactions in this state with patent right notes. The schemes to defraud farmers have been most cunningly devised. First was the contract, or agreement, by which the farmer contracted to take some patented articles, at a certain price, for future delivery. The machine was on hand; and the next thing was a promissory note for three times the sum agreed on, in the possession of a bank for payment. The agreement was so ingeniously printed that it could be cut in two parts—one of which was a snap-judgment note, and the other a mere memorandum of the sale. The courts held these notes valid, as there was no evidence of fraud or alteration in them; and further, on the ground that every man is presumed to know the contents of a contract which he signs. This fraud worked well until public notoriety broke it up. The victims were numbered by thousands. Then came the lightning rod swindle, by which a farmer agreed to give a certain sum for rods, and signed a contract, supposed to be an order, by which the rod-man was unlimited as to the number of rods he put up. If the farmer objected to the fraud, he was shown his contract, and bulldozed by threats of an attachment with a mechanic's lien, until he gave his note for the full extortion. The note was quickly sold at a bank, and the farmer had to pay under the law of negotiable paper, that there were no defenses between the maker of a note and an innocent purchaser without notice before maturity.

Emboldened by success, these peripatetic swindlers have adopted a new trick. They will sell a farmer a patented article at a very low price, and then raise the note \$100, and will sell it at a bank; and farmers, when sued by the bank, would accept the judgment of the lower courts and pay the notes, rather than incur the expense of further litigation. But in Marion County there happened to be one John Clark, who did not propose to be swindled. He had given his note for \$10, which was raised to \$110. He did not cancel the blank space, nor did he fill the blank designating where it was payable, because the person to whom he gave the note said an agent would come and collect it when due. But the blank was filled by writing in the words, "at the Knoxville National Bank, Knoxville, Ia." The court below held that where blanks were left unfilled in a note, the presumption of law was, that the payee had authority to fill them; and, if he inserted a larger sum than the maker had agreed upon, it was only a breach of trust; that a person may be civilly liable for the fraudulent acts of another whereby a third person has sustained a loss, the fraud being made possible by the acts or negligence of the person charged; that where the maker of a note leaves the blanks unfilled, thereby placing it in the power of a payee to do a wrong as between the maker and an innocent purchaser for value, the maker ought to suffer the loss.

The supreme court, however, makes the distinction, in the case at bar, that the blanks in the note were partly filled, and any alteration of such blanks is a forgery, and the courts will not make one person civilly liable for the criminal acts of another; or, in other words, will not compel a person to perform a contract he did not make, merely because another has fastened it upon him by forgery.

It is usually the case that altered or forged notes bear evidence on their face of fraud; but in these patent right notes they are filled out by the agent; and the alteration, of course, is made with the same hand and ink; hence the difficulty in detecting them. The Knoxville bank held several of these notes, and the result of this action will put a stop to its purchase of notes, unless satisfied that they are bona-fide; and the result will be to stop the traffic all over the state, and compel these swindlers to keep notes and settle with the maker. No decision of the supreme court for many years is so important to the people as this, and the court is entitled to much credit for taking a step in advance of established precedents. —American Stockman

We wish to call attention to the Knoxville bank. After the first complaint had been made at the bank by a farmer whose note had been raised, the bank had strong presumptive evidence that all such notes were forgeries, yet it seems the bank officers had no scruples about buying such notes at a good big "shave," as on as the lower courts were willing to call such swindling justice and law. No conscientious twinges on the score of justice and morality troubled the bank officers. They were dy to "go halves" with the swindlers in the game of robbing farmers.

The farmer is fair game for all classes to pick, who are ever ready to assist each other in this profitable pastime. This will continue to

be the case till that fraternity among farmers makes it dangerous to the interest of merchants, lawyers, bankers, etc., to be found a party aide in this class of business. Farmers can have it so whenever they will. They must make common cause in their own defense by co-operating with each other by business and social organizations.

That fruit is a great promoter of health, there is no doubt, especially apples, and the use of more fruit would often reduce doctor's bills, and add greatly to the comfort of the family, especially among children. A correspondent of the Indiana Farmer relates the following facts touching this subject:

"Dr. B. F. Dunkley, of Dunksburg, Missouri, has made public the following facts. When he first settled in that place there were no orchards, and few vegetables in that country. The diet was chiefly corn bread, bacon, and a little black coffee. Inflammatory disorders, especially such as relate to the lungs, brain, bowels and heart, prevailed in the winter. Malignant dysentery, the pest of armies, shut off from fruit, afflicted many of the inhabitants in the summer and fall, and in the spring it was not uncommon for whole families to be sick with scurvy, the disease so common to sailors on long voyages, before fruit was practiced. Now fruit and garden vegetables are abundant in the locality, and these diseases are not so malignant a type, and yield much more readily to treatment. When the orchards first began to bear, Dr. Dunkley noticed that those children whose fathers planted apple trees, ate plenty of the fruit and enjoyed most excellent health, while children living without fruit, were dying of flux."

Patrons of Husbandry.

NATIONAL GRANGE.—Master: Samuel E. Adams, of Minnesota; Secretary: Wm. M. Ireland, Washington, D. C.; Treasurer: F. M. McElroy, Wayne, N. Y. EXECUTIVE COMMITTEE.—Henry James of Indiana; D. W. Aiken, of South Carolina; S. H. Ellis, of Ohio. KANSAS STATE GRANGE.—Master: Wm. Sims, Topeka, Shawnee county; Secretary: Wm. Sims, Topeka, Shawnee county; Treasurer: W. P. Poppeno, Topeka; Lecturer: J. H. Martin, Mound Creek, Miami county. EXECUTIVE COMMITTEE.—W. H. Jones, Holton, Jackson county; Levi Dumbauld, Hartford, Lyon county; J. S. Payne, Cadmus, Linn county. COUNTY DEPUTIES.—J. T. Stevens, Lawrence, Douglas county; T. B. Fryers, Beatrice, Marshall county; R. Powell, Augusta, Butler county; C. F. Morse, Milo, Lincoln county; A. J. Pope, Wichita, Sedgewick county; A. P. Reardon, Jefferson Co., Post Office, Dimond, Leavenworth county; S. W. Day, Ottawa, Franklin county; G. A. Hovey, Belleville, Republic county; J. E. Barrett, Greenleaf, Washington county; W. W. Cone, Topeka, Shawnee county; J. McComas, Holton, Jackson county; Charles Blabow, Clay Centre, Clay county; Frank B. Smith, Rush Centre, Rush county; G. M. Summerville, McPherson, McPherson county; J. S. Payne, Cadmus, Linn county; Charles Wyeth, Minneapolis, Ottawa county; F. M. Wiernam, Milledale, Morris county; John Andrews, Huron, Atchison county; George F. Jackson, Fredonia, Wilson county; D. C. Spurgeon, Leroy, Coffey county; George Amy, Hampe, Peabody, Marion county; R. T. Ewalt, Great Bend, Barton county; C. S. Worley, Eureka, Greenwood county; James McCormick, Burr Oak, Jewell county; L. M. Anderson, Lawrence, Douglas county; P. Clark, Kirwin, Phillips county; George Fell, Larned, Pawnee county; A. Huff, Salt City, Sumner county; James Faulkner, Iola, Allen county; W. J. Ellis, Miami county; George Amy, Marion county; P. O. Kirwin, J. H. Chandler, Rose, Woodson county; E. F. Williams, Erie, Neosho county; J. O. Vancore, Cowley county; George W. Black, Olathe, Johnson county; W. J. Campbell, Red Stone, Cloud county; John Behr, Fairfax, Osage county; S. Fleck, Bunker Hill, Russell county; J. K. Miller, Sterling, Rice county; W. D. Rippling, Severance, Douglas county; Arthur Sharp, Girard, Crawford county; P. B. Maxson, Emporia, Lyon county; A. M. Switzer, Hutchinson, Kansas county; S. W. Wood, Cottonwood Falls, Chase county; G. S. Kneeland, Keene, Wabaunsee county.

TO OFFICERS OF SUBORDINATE GRANGES. For the use of Subordinate Granges we have a set of receipt and order books. These books will prevent accounts getting mixed up or confused. They are: 1st, Receipts for Dues. 2nd, Secretary's Receipts, and 3rd, Orders on Treasurer. The set will be sent to any address, postage paid for \$1.00.

We solicit from Patrons, communications regarding the Order. Notices of New Elections, Feasts, Installations and a description of all subjects of general or special interest to Patrons.

A Grange Pic-nic.

The farmers of southern Pennsylvania, western Maryland and western Virginia have, for several years, held what is termed a Tri-State Pic-nic, at which the farmers from this part of the country assemble and have a grand time. Exhibits of all kinds of farm products and implements are collected, and a real fair is the result, where numerous sales are effected, and quite a traffic in agricultural machinery is carried on in connection with grange interests. These annual picnics have steadily increased in interest and importance till this year. B. H. Thomas, Secretary of the Pennsylvania State Grange, and also editor of that excellent grange paper, the *Farmers' Friend*, published at Mechanicsburg, Pa., finds it necessary to make preparation for a gathering of farmers and their friends, in greatly increased numbers, and from other states. The pic-nic is to be held this year at William's Grove (Pennsylvania is a famous place for groves, as will appear more fully by reference to the post office Director), Cumberland County, Pa.; on the line of the Dillsburg and Mechanicsburg R. R., thirteen miles southwest of Harrisburg, on the 27th, 28th and 29th of August. The patrons are pushing a vigorous work in that part of the country, and these annual gatherings contribute not a little to advance the cause of the farmers and give the grange prominence and importance in the public eye by lending confidence and courage to its members. This "Tri-State Pic-nic" is worthy of imitation elsewhere.

Any person desiring full particulars should address R. H. Thomas, Mechanicsburg, Cumberland County, Pa.

The Model Grange.

What constitutes a model grange is a question on which there might be a wide difference of opinion. To sum up the whole in a single word, we would say—progress. This does not involve necessarily a fine hall with extravagant appointments; nor a large membership; nor an overflowing treasury. The model grange may meet in the log cabin; a dozen members may carry out the purposes of the Order as effectively as a hundred; its officers may be innocent

of cash. Yet actuated by the true spirit, it will be as essentially progressive as though possessing all the accompaniments of a large and wealthy grange. The tendency will be to secure these. The enquiry arises, what will be the distinctive features which characterize the subordinate grange pressing on to the front rank? The first is the percentage of attendance. This is the touch-stone of a true interest. It must be actively concerned in the distinctive grange work. What this shall be is clearly enunciated in the platform of principles, published to the whole. The ends sought are,—to promote the individual thrift,—to stimulate a higher and better scholarship,—to build up a truer and more perfect manhood. These are the theological grange. The processes by which they shall be attained are for the subordinate grange to determine. But they involve another characteristic of the model grange in the recognition and accurate performance of the work. This is a point in which there is much vagueness and indifference. Every officer should not only know his place, but his part, and be skilled in his especial work. This involves also on the part of the members: endeavors to carry out the plans and purposes agreed upon. To sum up the whole, there will be a large percentage of attendance; the business will be entered upon promptly; the officers in their places, and skilled in their allotted duties; work marked out in advance and something for all to do, with due attention to amusement, literary culture and general profit. That all this is within the reach of every subordinate grange can hardly be called in question. —Grange Record.

What every grange needs is one or two active, earnest members to suggest and push through some co-operative enterprise, that will give interest to the grange meetings and profit to the members. The members of every grange are always ready to respond to any movement that promises practical benefits. The only thing lacking is men of the right spirit to take the lead. It doesn't matter whether there is more than one such leader in a grange; all that is necessary is for him to prepare his plan and step to the front with it. If it is a good plan and he shows a determination to carry it out, he will find ready support, the enterprise will be pushed to successful issue, and as it succeeds the grange will gather strength.

We see these facts exemplified everywhere. We seldom meet a patron who does not earnestly desire the success of the Order, but whose grange is, standing still, because none of its members are willing to take upon themselves the labor and trouble of inaugurating some co-operative movement.

Where there is such a splendid field for co-operation is so pressing as it is acknowledged to be in every farming community, there ought to be a few leading spirits with patriotism enough to keep forward with some practical plan and work it up. They would not fail to secure the earnest and enthusiastic support of their fellow members. —Patron of Husbandry.

The Moral Influence.

Through co-operation have we achieved wonders, and still much is yet to be accomplished. The moral influence of our success as an Order should be felt in every section of country. Laggards in the cause should move with activity for a revival of interest in the great work yet to be accomplished, and, in the end, with the zealous workers share the blessed fruition of this great moral influence of the grange.

In conclusion, permit us to say that there is much to encourage the farmer, and sufficient reason for whole-souled rejoicing by the Patrons of Husbandry, for they have accomplished more for their own and their country's good in the past six years than would have been accomplished by the most beneficent government on the face of the globe.

Such has been the moral influence of the grange. Let us improve upon it until its effects shall be so powerful that every sinning monopolist and middleman in the land will seek forgiveness. And such a glorious result is only barely possible in solid organization and entertaining assemblage. —Farmers' Friend.

Grange:

Geo. K. Weber in *Farmers' Friend*, give the following history of the word grange:

"Grange" is a French word, and means a farm. We find that Shakespeare, in his dramatic works or poems, uses the word as applying to a farm-house, with its accompanying and necessary outbuildings. The designation of grangers of agriculturists who are associated in this movement are consequently quite consonant with their vocation, though as members of the order they are styled the "Patrons of Husbandry." Those who are familiar with English history will remember that some centuries ago England was devastated by civil wars. Feuds arose between different parties, and the granges, or manor houses, as they were called, frequently witnessed these scenes of strife and contention betwixt rival factions; and hence they were usually fortified by a moat, ditch or high wall, so as to afford protection to the farmer and his family against attack. Thus the old grange, a few of which are yet to be seen in England, became a sort of stronghold, and this is the sense in which it is used in our order. The means of access into the Order are likewise aptly symbolized by the actual approaches of the grange, as they then existed, which were a drawbridge and a ladder; and the degrees also symbolize the various and different departments of occupation in agricultural life, and have their appropriate names.

Advertisements.

Our readers, in replying to advertisements in the Farmer, will do us a favor if they will state in their letters to advertisers that they saw the advertisement in the Kansas Farmer.

A GOOD PLAN.

Anyone can learn to make money rapidly operating in stock by the "two-principle" rule for success. In Messrs. Lawrence & Co.'s new circular. The combination method, which this firm has made so successful, enables people with large or small means to reap all the benefits of largest capital and best skill. Thousands of orders in various sums, are pooled into one vast amount, and co-operated as a mighty whole, thus securing to each shareholder all the advantages of the largest operator. Immense profits are divided monthly. Any amount from \$5 to \$5,000, or more can be used successfully. N. Y. *Popper Weekly*, September 26, 1878, says: "By the combination system, \$15 would make \$75, or 5 per cent; \$50 pays \$350, or 7 per cent; \$100 makes \$1,000, or 10 per cent, on the stock during the month according to the market." *Frank Leslie's Illustrated Newspaper*, June 29th: "The combination method of operating stocks is the most successful ever adopted." *New York Independent*, Sept. 12th: "The combination system is founded upon correct business principles, and no person need be without an income while it is kept working by Messrs. Lawrence & Co." *Brooklyn Journal*, April 29th: "Our editor made a net profit of \$100.25 from \$20 in one of Messrs. Lawrence & Co.'s combinations." New circular (mailed free) explains everything. Stocks and bonds wanted. Government bonds supplied. Lawrence & Co., Bankers, 57 Exchange Place, N. Y.

Shannon Hill Stock Farm

Thoroughbred Short-Horn Cattle and Berkshire Pigs, bred and raised for sale. Only first-class animals allowed to leave the farm. Address G. W. GLICK, Atchison, Kansas.

ESTRAY.

Strayed from the premises of the subscriber June 30, one large black mare, heavy with foal, white spot on belly about size of a half dollar. Short neck, heavy mane and foretop. Formerly owned near VALLEY FALLS. A reasonable reward will be paid for information that will lead to recovery of mare. WILLIAM GILKELSON, Flow Boy, Shawnee Co., Kan.

Western Missouri

NURSERIES,

LEE'S SUMMIT, JACKSON CO, MISSOURI.

(20 miles east of Kansas City, on the Mo. Pacific R. R.)

These Nurseries are very extensive and all stock young and thrifty. We call the special attention of

DEALERS AND NURSERYMEN

to our superior stock for fall delivery of \$50,000 Apple trees two years old, 4 to 6 feet high; 50,000 Peach with Pear, Plum and Cherry, grapes and small fruits for the wholesale trade.

With our system we can fit out Dealers promptly and on time. Wholesale prices will be printed by June. We desire every one wanting Nursery stock at wholesale to call and see, and stock or send for prices before purchasing elsewhere. All stock will be boxed if desired.

James A. Bayles,

Prop'r.

BERKSHIRES!

The College Farm.

We offer for sale a choice lot of young pigs now nearly ready for shipment. These are imported from the best stock, and are from sows of such fashionable families as Sallies, St. Bridges, Lady Smiths, Lady Leonidas, &c. In quality and breeding you know these to be unsurpassed. We also offer a young

Short-horn

Bull, a choice bred "Young Mary," calved Aug. 30, 1878.

E. M. SHELTON, Supt. Farm, Manhattan, Kansas.

FRAZER AXLE GREASE.



For sale by all dealers. Awarded the Medal of Honor at the Centennial and Paris Expositions. SAM'L CUPPLES & CO., Agent for our St. Louis Factory. FRAZER LUBRICATOR CO., Chicago and New York.

COLLEGE OF THE Sisters of Bethany,



BETHANY COLLEGE, TOPEKA, KANSAS.

For Girls and Young Ladies. Exclusively under care of Protestant Episcopal Church, for boarding and day pupils. From eight to ten teachers in the family. All branches taught—Primary, Intermediate, Grammar, and College, French, German, the Classics, Instrumental and Vocal Music, Drawing, Painting, etc. For Boarding Pupils from \$20 to \$300 per school year, according to grade. For Day Pupils, from \$5 to \$20 per session, according to grade. BISHOP VAIL, President.

Breeder's Directory.

L. K. KAPP, Dover, Shawnee Co., Kan., breeder of Pure Short-Horn Cattle, and Berkshire Pigs.

C. S. EICHLITZ, Breeder of Short-Horns, Berkshires and Bronze Turkeys, Wichita, Kansas.

JOSHUA FRY, Dover, Shawnee county, Kansas, Breeder of the best strains of Imported English Berkshire Pigs. A choice lot of pigs from 2 to 8 months old for sale. Prices to suit the times. Correspondence solicited.

D. R. W. H. CUNDIFF, Pleasant Hill, Cass Co., Mo., breeder of thoroughbred Short-Horn Cattle of fashionable strains. The bull at the head of the herd weighs 3000 pounds. Choice bulls and heifers for sale. Correspondence solicited.

HALL BROS., Ann Arbor, Mich., make a specialty of breeding the choicest strains of Poland-Chick Suffolk, Essex and Berkshire Pigs. Present prices less than last card rates. Satisfaction guaranteed. A few splendid pigs, sows and boars now ready.

Nurserymen's Directory.

LEES SUMMIT AND BELTON NURSERIES, Fruit Trees of the best, and cheapest. Apple Trees and Hedge Plants a specialty. Address ROBT. WATSON, Lee's Summit, Jackson Co., Mo.

A. WHITCOMB, Florist, Lawrence, Kansas. Catalogue of Greenhouse and Budding Plants sent free.

MIAMI COUNTY NURSERIES, 11th year, large stock, good assortment; stock first class. Osage hedge plants and Apple trees at lowest rates by car load. Wholesale and retail price lists sent free on application. E. F. CADWALLADER, Louisville, Ky.

Physician.

MRS. DEBORAH K. LONGSHORE, M. D., has removed her office to the west side of Harrison St., 1st door south of Sixth St.

Dentist.

A. H. THOMPSON, D. S. Operative and Surgeon, Dentist, No. 129 Kansas Avenue, Topeka, Kansas.

TEETH extracted without pain, by Nitrous Oxide gas, or laughing gas, at DR. STULTS Dental Rooms, over Funk's Clothing Store, Topeka, Kansas.

ANNOUNCEMENTS.

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THOMAS L. ROSS, Candidate for Register of Deeds.

Durham Park Herds

ALBERT CRANE,

BREEDER OF

Short-Horn Cattle

Berkshire Pigs,

Durham Park, Marion Co., Kansas.

Catalogues free. The largest and best herds in the west. Over 200 head of cattle, and a like number of pigs. Prices low. Address letters to DURHAM PARK, Marion County, Kansas.

GEO. M. CHASE,

BREEDER OF

Thoroughbred English

Berkshire Pigs.

—ALSO—

Dark Brahms and White Leghorn Chickens.

None but first-class stock shipped.

WOOL-GROWERS

Can rely upon immunity from contagious disease in their flocks after use of LADD'S TIGER SHEEP WASH. GUARANTEED an immediate cure for scab and prevention of infection by that terrible stock-masters. GUARANTEED to more than repay the cost of application by increased growth of wool. GUARANTEED to improve the texture of the fleece instead of injury to it as is the result of the use of other compounds. GUARANTEED to destroy vermin on the animal and prevent a return. GUARANTEED to be the most effective, cheap and safe remedy ever offered to American Wool-growers. No flock-master should be without it. I have the most undoubted testimonials corroborative of above. Send for circular and address orders to W. M. LADD, 21 N. Main St., St. Louis, Mo.

Kansas Pacific 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 country, in the limestone 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 Elev. 1835 to 324 bushels, or over 41 per cent, and including unreporting counties, fully 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 the Union in 1878, produced 89,324,971 bushels of corn, of which the Golden Belt counties produced 27,399,055 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, in the increase in population during the past year; and 43 per cent, of the increased acreage of wheat in the state in 1878, belonged to the "Golden Belt."

A FARM FOR EVERYBODY.—\$2,500 farms—5,000,000 acres—for sale by Kansas Pacific—the Best land in America, at from \$2 to \$6 per acre—one-quarter off for 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: \$25 to \$50 will secure 50 acres on credit, or \$120 to \$360 in cash will buy it outright.

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

Read all you can gather 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.

THE KANSAS FARMER.

HUDSON & EWING, Editors & Proprietors,
Topeka, Kansas.

TERMS: CASH IN ADVANCE.

One Copy, Weekly, for one year,	2.00
One Copy, Weekly, for six months,	1.00
One Copy, Weekly, for three months,	.50
Three Copies, Weekly, for one year,	5.00
Five Copies, Weekly, for one year,	8.00
Ten Copies, Weekly, for one year,	15.00

RATES OF ADVERTISING.

One Insertion, per line (nonparel) 20 cents.
One month, " " " 15 " per insertion.
Three months, " " " 12 " " "
One year, " " " 10 " " "

The greatest care is used to prevent swindling humbugs securing space in these advertising columns. Advertisements of lotteries, whisky, bitterns, and quack doctors are not received. We accept advertisements only for cash, cannot give space and take pay in trade of any kind. This is business, and it is a just and equitable rule adhered to in the publication of THE FARMER.

TO SUBSCRIBERS.

A notification will be sent you one week in advance of the time your subscription expires, stating the fact, and requesting you to continue the same by forwarding your renewal subscription. No subscription is continued longer than it is paid for. This rule is general and applied to all our subscribers. The cash in advance principle is the only business basis upon which a paper can sustain itself. Our readers will please to understand when their paper is discontinued that it is in obedience to a general business rule, which is strictly adhered to and in no wise personal. A journal to be outspoken and useful to its readers, must be pecuniarily independent, and the above rules are such as experience among the best publishers have found essential to permanent success.

The Weekly Capital.

July 1st, as heretofore advertised, we begin the publication of the WEEKLY CAPITAL, a first-class family newspaper, giving latest telegraphic news from all parts of the world, state news, news of the cities of the state, and local news from the capital. It will be full and complete in all its departments, bright, newsy, and entertaining. It will be sent from July 1st to January 1st 1880, for fifty cents. One year for One dollar. Address Hudson & Ewing, Topeka Kansas.

Post Office Changes.

Subscribers wishing to have their FARMER changed from one postoffice to another must mention the name of the office it is to be changed from. P. Polley may say change my copy of FARMER to Brookville, but in a list of a thousand postoffices how shall we find the name of Mr. Polley, unless he gives us the name of the office he wishes it changed from, as well as the one he wishes the paper to be sent to in future? In ordering changes always give names of both offices.

Intelligent Employees.

There are two kinds of intelligent hands or help, as every observant employer is doubtless aware, who has had much experience in hiring the services of others. The one is ready and skillful in doing the work given them, and are usually classed under the head of "good hands." When they have accomplished the work assigned them, or have put in the time allotted, they have no other concern about it. The interest of their employer does not claim a second thought. They have fulfilled their contract in a literal sense, and whether good or ill be the result of their employer's business, concerns them but little. They do not comprehend the importance it is to them that their employer's business should prosper and continue successful. Their intelligence does not reach so far as that or discover the close affinity of interests between the employed and employer.

There is another class of workmen equally skillful, who possess not only the knowledge of how to do deftly, but have an intelligent idea of the necessity of having the work done. The latter among those who hire, are the most rare and valuable. They are the men and women who make themselves a necessity to employers, or employers soon persuade themselves to think so. They take a portion of the load of care off of the shoulders of the master, which is by far the heaviest load among life's burthens. This kind of help soon mounts to the top round of the ladder, is not infrequently offered a share in the business, is sure of the best and most lucrative place at least, in the gift of the employer. Such employees retain situations whoever else may be discharged. And all because they cultivate the unselfish faculty of an intelligent comprehension of the necessity of having the work done in proper time and in the best manner. Such men possess a reserve capital fully as valuable as money, which the employers of other men's labor are quick to discover and generally ready to offer for its full value. The employee who comprehends the importance of the work he is about, stands nearest the man whose busy brain plans employment for hundreds of hands which would otherwise be idle, and makes possible the bread which is to fill the stomachs of many more.

Farm Accounts.

A good deal is said about the advisability of keeping farm accounts, by agricultural papers, which we allow is the right thing to do, but the mode usually pointed out by a certain class of stock writers which constitute a species of editorial staff to certain farm journals, smacks more of the fanciful than practical. A flippant correspondent will tell his readers how he charged up interest on capital represented by a half dozen or more acres of land valued at \$50 or \$75 per acre; then plowing, harrowing, planting, reaping, seed, cultivating crops, etc., are catalogued, and this aggregation of expense is deducted from the proceeds of the crop, which problem in arithmetic, properly solved, proves clearly that farming is profitable to the time of ten to twenty per cent. This amateur book-keeping deceives no practical farmer. To arrive at a proper estimate of the loss or gain in

farming, or that of any crops raised, the entire farm must be taken into account, the idle as well as the productive parts. The winter season with its necessary expenses must be added with other expenses, and each part made to bear its just proportion. The time and loss incident to any part or season, resulting from any cause whatever, must be equally distributed.

The whole establishment must be kept up, or no special crop is possible. To open an account with a single crop which only covers the time of its growth and the immediate preparation for it, does not show all of the expense which it incurs, while all of the receipts are shown. The crop which turns out well this year may prove very unprofitable next, and vice versa. No single year's farming will give a reliable data for any crop, or of the business; one rotation, at least, must be gone through with, with a correct account of the whole transaction involved in the operation to reach any reliable data. This will include at least three years. Then if the books have been properly kept an intelligent conclusion may be reached, not only as to the whole, but in regard to individual crops also. By a careful study of entries, and comparison, that have been intelligently made, a discriminating judgment will not only be able to sum up the ratio of gain to loss or outlay, but can determine with an approach to correctness the profit or loss on individual crops.

Such a system of accounts requires intelligence and judgment considerably above the average, and it requires just those two qualifications to make a successful farmer.

Debt and Taxation.

A complaint brought against the government of Great Britain is that a landed aristocracy hold in fee simple all the land, and those who till it are compelled to pay an annual rent, in addition to other government taxes and expenses. The quit-rent fairly represents a perpetual interest, and is a drain upon labor which should be got rid of; it is an abnormal condition of business. The evil which is a part of the warp and woof of the government of Great Britain, has successfully wormed its way into the popular government of the United States under other conditions and in a new form, but all the bad results to labor and business is experienced from it. This evil exists in the enormous increase of municipal debt in this country. Within the decade, between 1866 and 1876, these debts were increased 200 per cent. Taxation to meet the heavy interest of this debt has been increased 83 per cent. The valuation of property on which this tax is levied has increased 75 per cent. only. It will be seen by this presentation at what a fearful rate debt is forging ahead of production. The met of the money which the enormous municipal debts represent, has been used not for public but private interests. Much of the money has been absolutely stolen by dishonest officials; much more has been filched by circumlocution of law that played into the hands of rings, and on the whole the public has derived but a small percentage of benefit for this heavy outlay. The evidences of this mountainous debt have fallen into the hands of shrewd men, who draw a liberal income by it from the hand of busy industry.

Where, in effect, does this differ from the land-rent system of Great Britain in its taxing results? The conquerors of the British Isles seized and appropriated the lands as personal property, and made it a fundamental principle of the government to entail it upon their posterity, transmitting it down from family to family through successive generations. The terrible municipal debts of this country will be transmitted in a similar manner, and be a perpetual lien upon the property of the people, continuing to draw interest from the toil of millions yet unborn.

The total municipal or local debt at the close of 1878 amounted to \$1,051,107,112. This sum does not include state and national debts, but is the debt created by cities, counties, townships, etc., for improvements! The bonds issued for these hundreds of speculative improvements are continually being talked up by a class of men who sit in cool offices and evolve schemes for running the public in debt.

Millions of this debt has been swallowed up in projects to build railroads in the western states, in which the municipalities have not now a vestige of ownership to the amount of a single dollar.

At the rate this municipal debt-making has traveled, it could not fail to bring about what is beginning to take place in some parts of the country—repudiation, scaling down the debt and offering a lower rate of interest on the balance. But new debts will be added if legal bars are not placed upon the practice. The debt-making propensities of the American people will have to be restrained with a strong hand, and an article placed in the constitution of the state prohibiting county, city and townships from creating bonded debts. If a court-house, school-house, or other public work, is needed, compel the authorities in power to begin by levying a special tax for the purpose for a series of years, long or short, according to the amount required, and when the money is in the public treasury, the work can be done in the most economical manner. A building or other necessary improvement worth \$20,000, will be made for that sum and not be represented by a bonded debt of thirty or forty thousand, drawing interest at 7 to 10 per cent.

While our present loose system of municipal debt-making obtains, which permits officers of municipalities to heap up bonded debts for posterity to pay, the face of industry will be ground to feed the idle, until the tax to support it comes to be looked upon as an outrage, when

all such debts will be repudiated. This system of public, or rather reckless, extravagance, is promoted by the class of men who are eternally elbowing their way into office. Office-holding is a profession with them, and they are the constant and earnest advocates of higher salaries to procure the best talent. In theory this is plausible, but in practice it has proved a fallacy. The higher the salary, as a rule, the less efficient and more dishonest the public official. A high salary is a temptation to the smooth, accomplished villain who does not scruple to use any means and spend money freely to reach the office, knowing that he can reimburse himself out of the public purse. Plain, homespun, practical ability and honesty are beaten in the race for a fat salaried office every time. These are the political adventurers who fill a majority of fat offices, manipulate jobs and push through bond elections which load business and property down with debt and taxation, paralyze the arm of industry and tempt the public morals with repudiation.

Shade for the Poultry.

During the hot weather the poultry should be provided with plenty of shade. An orchard is an excellent place in the hot season, for fowls. They are protected by the grateful shade of the trees, and in turn become the protectors of the trees by destroying grubs and beetles which prey upon the trees. Fowls, in summer, love the branches of trees to roost among, where they enjoy the fresh air and are protected from the chilly night dews. With plenty of dust baths provided in the orchard, and a good supply of fresh water, there is no healthier place for fowls, in summer, than an orchard.

Harvest Feast.

A. P. Reardon requests us to announce that there will be a harvest feast near Dimon, in Jefferson County, on Saturday, August 9th, under the management of Delaware and other granges. State Master Simms, Overseer of State Grange, ex-Lecturer Stephens and others will address the meeting. A general invitation to the public is extended to attend the harvest home, remembering to take with them well filled baskets. "Let us set apart that day for recreation and social intercourse among farmers."

The Wheat Crop of Kansas.

Information received from our widely distributed corps of correspondents, shows that the wheat crop of the state is better than was reasonably anticipated. The many drawbacks it experienced cut short the late sown and that on slovenly prepared ground, and the straw was also shortened and thinner on the ground, than in more favorable seasons, but fine weather for maturing and ripening, perfected the grain and made up much in quality for shortage in quantity. The grain is plump and good but will fall far short of the yield of last year's crop.

The fall term of the State Agricultural College, at Manhattan, begins Wednesday, September 10th, 1879, and closes December 18th, 1879. The college is designed to be peculiarly a farm institution, and if the agricultural interest of the state is true to itself, and will throw around the college that moral support which will aid in upholding the hands of the faculty, as well as the material support it requires, by sending their sons and daughters to it to receive a practical education, the institution bids fair to develop into one of the best schools in the country. Shut out the dross of the old education and let in the newer education. Instead of teaching the legends and stories of the fabled heathen gods and goddesses, teach the boys and girls how to conduct their everyday employment by the light of science.

Pamphlets and Catalogues Received.

American Wine and Grape Grower. No. 1, Vol. 1 of this publication is on our table. A monthly journal devoted to the interests of wine growers and brewers of the United States, published at New York. This periodical will make these departments of the liquor interest a specialty. Price \$1.00 a year. Published by B. F. Clayton, 245 Broadway.

Seventh Cincinnati Industrial Exhibition for 1879. This exhibition is announced in an exquisite red line pamphlet, containing rules and premium list. The exposition will commence Sept. 10th, and close October 11th.

Annual Catalogue of Enoch Marvin College, Oskaloosa, Kan. This catalogue contains the work of the first year of the college, or rather one term, the regular work having suffered from unavoidable causes. One hundred and thirty-four dollars will pay for boarding and tuition in the Collegiate Department for one year. The officers and faculty are, J. S. Smith, President, Geo. Nunn, Secretary. Faculty. J. S. Smith, Moral Science and Mathematics; Geo. Nunn, Ancient and Modern Languages; Herbert Milton, Natural Science and English Literature. Teacher of Primary Department, Mrs. B. W. Milton.

Catalogue and Premium List of Third Annual Fair of Kentucky Agricultural and Mechanical Association. Will commence August 26th and continue five days. Exhibition grounds at Lexington, Kentucky.

Premium List of Grand Exposition of the Agricultural Society, of Delaware, held at Dover, Delaware, Sept. 22d to 27th, inclusive.

Shawnee County Agricultural Fair.

Family tickets for this fair are now on sale by the secretary, Mr. T. L. Stringham, in this city, and the directors in each township. One

dollar buys a family ticket.

Family tickets will be on sale until the 15th of August, and all who have families within the county, at least, should provide themselves with tickets. The fair, this fall, promises to be the largest and best of the kind ever held on the company's ground. Farmers should feel that the exhibition is a personal matter, and that its success will reflect credit, or its failure reproach, on them.

The Wool Market.

Although the marked activity which prevailed in the wool market during May and June has been checked by the large receipts of wool from all sections of the country, yet there is nothing in the outlook which would indicate any material falling off in prices. Manufacturers of woolen goods, dealers in ready-made clothing, all anticipate a fall trade larger in the aggregate than has prevailed during the past five years. This increase is predicated upon the bountiful crops and the probable foreign demand for our surplus grain, provisions and cotton, thus adding largely to the purchasing power of the producing classes, which in turn will enrich the mechanic, the manufacturer and the public carrier. No class of men or section of country can prosper without adding to the general prosperity. No true wealth can be created except that which emanates from the skill and industry of the husbandman.

Notwithstanding the great hue and cry made by the organs of capitalists and manufacturers concerning the unusual advance in the price of wool, yet the rise is not only legitimate but natural. When any staple article sells at a lower price than is represented by its cost, a reaction is simply a question of time. During last winter and early spring, wool was unnaturally depressed. The price paid by the manufacturers in the last fifty years for X and XX Ohio wool has averaged about fifty cents per pound. Why then should thirty-seven to forty cents per pound be considered, an unreasonable figure? Why should the New York City journals stigmatize the recent operations in buying wool as "a mad freak which carried the entire wool trade off its feet?" Prices of wool in Boston market to-day are no higher than those which prevailed one year ago, and values were not then considered at all extravagant. Because buyers had their own way in forcing a subsequent decline, is it unreasonable to suppose that our farming classes, our wool producers, should occasionally have a word to say in the matter, or that they should have some voice in establishing market rates?

Though it is commonly a good rule to sell any product intended for market when buyers are plenty and anxious to trade, yet let no farmer who still has his wool unsold be frightened into the idea that the market is liable to a heavy decline. The vast increase in this year's clip as heralded by city journals is somewhat of a bugbear, since it will scarcely amount to five per cent., and is confined principally to the fine wools grown in the new states and territories. Owing to a severe winter in most sections of Texas, and the consequent heavy losses among the flocks, the wool clip in that state shows less increase than was confidently expected. Business of all kinds is dull at this season of the year and wool is no exception. Up to the present time this year the receipts have been unusually heavy. During last week alone the receipts of domestic wool were 25,250 bales, as against 15,725 bales for the corresponding week of 1878, while for the four weeks ending July 18th, the receipts were 101,638 bales, as against 47,882 during the same period in 1878.

With such large supplies and a reduced present demand from manufacturers, stocks are accumulating quite rapidly and prices are not very strong, and are certainly without any indications of an advance. It is estimated that about three-quarters of the clip of Ohio, Pennsylvania, Michigan, Wisconsin and other western states has already passed out of farmers' hands and into stronger holding. It cannot be expected that the manufacturers will take the whole clip of the country in a few weeks, but that they will eventually want all the available wool produced before the season closes, and at fairly remunerative prices, is the settled conviction of the most intelligent and unbiased authorities.—Cultivator.

Crops in Northern Illinois.

In a recent trip from Peoria in Central Illinois, to the Rock River country, to Southern Wisconsin, I note the crops as follows:—The corn is of good color, but of very uneven growth. There are two causes for this—poor seed and improper drainage. In the same field some corn is about to tassel, and some is scarcely two feet high. In low, wet places, some corn has greatly suffered from standing water. But on the whole the prospect is good for a fine crop. In the Rock River country, a sandy loam, and mainly well drained, the corn and other crops are from a week to ten days ahead of the clay loam of the regions further south. Good fields in Northern Illinois and Southern Wisconsin are in full tassel, and the oat harvest is ready. Heavy rains a month or more ago have helped out the grass, so that a fine hay crop is assured, and the weather, is now, as favorable as possible to secure it. This is one of the most important crops of this region, as dairying is a very important part of farming here. Oats and wheat promise a very good crop, flax, ditto. The frosts of March cut off our apples and pears; grapes, a moderate crop. Winter wheat in Central and Southern Illinois is good, and in some localities the yield is enormous, as high as from 30 to 40 bushels per acre.

Tornadoes, that in former years frequently desolated parts of Iowa and Illinois have this

year spent their fury in other states. When I left Kansas I passed through Nebraska, in May, the appearance of the corn was the finest I had ever seen in those states. The heat is sufficient. May the rain also come, so that 1879 may be a year long to be remembered as the great corn year. J. A. BENT.

Wheaton, Ill., July 21.

Inquiries and Answers.

W. M. Pennel, of Russell, Kansas, finds difficulty in growing a forest. He says:

"I have a tree claim, and am meeting with some ignominious failures in raising timber. For three years I have planted trees and cuttings of cotton-wood. This spring I planted 20,000, and the high winds and dry weather killed all of them. Have tried cotton-wood seed and failed.

I am thinking now of trying fall planting. What think you of it? Don't you think it would be best to cut off the tops?

Be kind enough to give me your opinion at what time in fall would you plant."

Make the cuttings of cotton-wood early in the spring of the last season's growth, cutting them about 18 inches long. Let the ground be very mellow, and rows running east and west and about 4 feet apart. Place the cuttings about a foot apart in these rows, pushing them into the soil about 6 or 7 inches. Tread along the row so that the surface of the ground will be compact. Cover the whole ground then with hay or straw to the depth of four or five inches. Set the cuttings out early in the spring, by all means. We see no reason why under this treatment that these cuttings should not grow and thrive with you as they do in other parts of the state.

C. L. Cook, of Americus, Lyon County, Kas. asks, "when and how should peach trees be cut off after having been budded the fall before? And is salt good to mix in with the soil around quince trees?"

The tops of peach trees should not be cut off before the tree is budded, nor until the buds start in the spring. Then cut off close and smooth, and it will heal over in a very few weeks.

A reasonable amount of salt is good for quinces, but be careful about using it, as more than four quarts to a square rod of ground is very injurious to all kinds of trees and plants, with the possible exception of asparagus.

One great leak on the farm is found in the way stock is kept. Some try to stop the leak by seeing how small a quantity of food will sustain life, and often succeed by having their stock almost entirely leak away, whilst their neighbor, who feeds bounteously, does not have this leak to contend with, but generally has a profit to apply to the stoppage of other leaks.

State Fairs.

This Fall's Meeting of Agricultural and Mechanical Associations.

American Inst.	New York Sep. 17 to Nov. 22
Am. Pom. Socy.	Rochester, Sep. 17-19
Arkansas	Little Rock, Oct. 20
California	Sacramento, Sep. 8-13
Canada Central	Guelph, Ont. Sep. 15-19
Capital State, (Tex.)	Austin, Oct. 28 to Nov. 1
Cent. Ohio	Mechicsburg, Sep. 2-5
Colorado	Denver, Sep. 23-27
Conn.	Hartford, Oct. 14-17
Delaware	Dover, Sep. 22-28
Fat Stock	Chicago, Nov. 10-15
Georgia	Macon, Oct. 27 to Nov. 1
Illinois	Springfield, Sep. 29 to Oct. 4
Indiana	Indianapolis, Sep. 29 to Oct. 4
Iowa	Des Moines, Sep. 1-5
Inter-State	Chicago, Sep. 3 to Oct. 18
Kan. City Exp.	Kan. City, Sep. 15-20
Kent'y. Ass'n	Frankfort, Sep. 2-7
Michigan	Detroit, Sep. 15-18
Western Mich.	Grand Rapids
Minn. A. and M. Ass.	Minneapolis, Sep. 1-6
Minnesota	St. Paul, Sep. 1-6
Nebraska	Lincoln, Sep. 8-12
New Jersey	Waverly, Sep. 15-20
New York	Utica, Sep. 8-12
Northern Ohio	Cleveland, Sep. 1-3
Northern Ind. Ft. Wayne	Sep. 22-25
Northern Ky.	Florence, Aug. 26-30
Northern Iowa Postville	Sep. 16-19
Northern Neb. Fremont	Sep. 23-27
Northern Wis. Oshkosh	Sep. 15-20
N. W. A. G. A. Dubuque	Sep. 8-12
New England Worcester	Sep. 2-6
N. Carolina	Raleigh, Oct. 13-18
N. Orth	Atlanta, Oct. 20-25
Ohio	Columbus, Aug. 25-29
Pennsylvania Phila.	Sep. 8-20
Rhode Island Cranston	Sep. 9-11
St. Louis	Oct. 5-11
Southern O.	Dayton, Sep. 22-26
Southern Ky.	Glasgow, Oct. 7-10
S. Carolina	Columbia, Nov. 11-14
Tri-State	Toledo, Sep. 8-13
Vermont	Montpelier, Sep. 9-11
Virginia	Richmond, Oct. 28-31
Wisconsin	Madison, Sep. 8-12

Norman Stallions.

E. Dillon & Co., of Normal, Ill., importers of Norman French horses, sends us the following note, dated July 25th:

"We sailed from London the 5th of July, with nine Norman stallions. Landed in New York the 18th with eight, lost one when about 300 miles out from New York. They are all dark grays; one is four years old, the other seven are all five years old. They are in good health, and looking well."

New Music.

The following new music has been received from Geo. D. Newhall & Co., 62 West Fourth street, Cincinnati, Ohio:
Just For Luck.—Waltz, by Geo. W. Turner.
Friends of Old are Good as Gold.—Words by A. W. French; music by C. W. Brown.
Ye Starry Lamps.—Ballad.—Words by same; music by H. M. Cole.

Farm Letters.

Hodgeman Centre, Hodgeman County.

July 22d. Perhaps a few notes from this part of Kansas might be of interest to some of your readers. We had a heavy rain on the afternoon of the 17th inst. which lasted into the night of the 19th. It rained very hard and now the ground, on sod is wet down about 12 inches. It is a splendid time for breaking and every one that can be at it. We understand that a Mr. McLain had a yoke of oxen and one cow struck by lightning.

Wheat and oats in this county as a general thing are a failure, (in this part anyway). Have seen on Mr. Larned's farm a common field corn that will average six feet in height. Rice corn is splendid; pea nuts, sweet potatoes, water melons, cucumber and other vines, look fine and are now growing nicely. We find some people that are discouraged; and why? Because they are disappointed; and why disappointed? Because they came here last year expecting to raise an abundance of everything this year. The settlers here need a little gentle encouragement from the eastern part of the state in the shape of seed wheat, potatoes, etc.

We have read with extreme satisfaction the article "Farmers and Politics" in the KANSAS FARMER of July 9 also the article from the pen of Samuel Sinnett, of Iowa, and we believe with this gentleman that in the sun-browned brains of the farmers of Kansas and the Union are brains enough to make our own laws. What we want is men "whom money cannot buy." Are there not honest farmers? Nay more, are there not Christian farmers? Can we not find among us men who will equal a Washington, or a Lincoln in honesty and stability? If not, then we deserve to be walked over and "bulldozed" until such a time as we have, and can find such grand noble men. Gentlemen who are laboring to advance the interests of the farmer and the laboring classes, here's my hand. Work, and one of these days over every farmer's door may be this legend "With malice toward none, charity for all, still none but a farmer need ask me for my vote." Farmers, wake up! Get over the idea that only lawyers, doctors and moneyed kings are capable of making our laws for us. We have been asleep too long. Let us go to the ballot box and there deposit our votes for our own best men. Messrs. Butterfield and Sinnett don't let your pens be idle; one of these days you will reap the harvest, and it will not be a harvest of thorns.

CHARLES W. MARSH.

Ellis, Ellis County.

July 21st.—Our wheat is gathered, scattered again, and regathered, and we have commenced threshing. The yield is from two to twelve bushels per acre of No. 3 and 4 grade; average 6 1/2 bushels per acre. Much of the wheat is damaged by heavy rains. Some have saved it from damage by spreading and drying. The best quality is selling at 70 cents. Oats and barley are an entire failure. The dry weather of May and June, and the bugs or beetles, have used up the potatoes. Drought and hail in some localities have almost destroyed the corn. Millet is a good crop. Farming in this locality is almost a total failure, and, in consequence thereof, there will be much suffering the ensuing year. Unless aid is granted from some quarter, many will be obliged to leave their claims to obtain food to prevent starvation. Many who settled in this county last year have invested their last time in crops for this year, and these crops have failed to remunerate anything, consequently they are entirely destitute, and cannot put in another crop, or have anything on which to live. Will those who have bursting granaries contribute to those who have nothing? Some have teams, and would put in a crop could they obtain seed; otherwise they cannot do it. If any one feels a desire to grant relief, and will make it known, I will give the names of the needy, so that those only will get the relief.

JOSEPH FULLER.

If assistance is necessary to enable some of the settlers in extreme western counties to sustain themselves till a new crop can be made, committees should be appointed by the citizens whose duty it will be to ask for aid, receive supplies, and conduct the business in a systematic manner. There seems to be a foolish sensitiveness about making the facts public, that a severe drought in many of the extreme western counties has cut short, or totally destroyed the crops. The country being recently settled there is no reserve store of provisions to fall back upon and in place of it being a disgrace—as it would seem some of the settlers think—it is a misfortune which occurs in every newly settled country, and a condition which the public understand and rightly appreciate. If the people on the borders of the state are in need of help, let each township appoint an agent, and the agents form a county committee, whose duty it will be to state exactly what is necessary to make the destitute citizens comfortable, and there is no doubt that the citizens of the older settled parts of the state will provide for all their wants. But stop this foolishness of making believe there is plenty where circumstances over which the settlers have had no control have left them in want of the necessities and comforts of life. Next year, in all probability, will be as favorable for crops as last. Failure and destruction of crops by natural causes are common occurrences, happening every season in some section of the country, but in old settlements there is a reserve to fall back upon.

Bradford Miller is a candidate for county treasurer of Shawnee county, Kansas, subject to the decision of the republican primary election on the 23d of August, 1879.

The publishers of the Kansas FARMER also publish the Daily and Weekly CAPITAL. The Weekly CAPITAL is made up from the best things in the Daily, and for those who cannot get the Daily, the Weekly will be a most desirable addition to their reading matter. To introduce the paper to all the readers of the FARMER, we have concluded to make the following extraordinary offer, viz: To send the Weekly CAPITAL the balance of 1879 for 25 cents. At this rate every subscriber can take the Weekly and can send two or three copies east to friends who may want news from Kansas.

Remember, the paper will be sent, postage paid, to any address in the United States, the balance of this year for 25 cents, which may be sent in letter at our risk, in currency, or postage stamps. Address Hudson & Ewing, Topeka, Kansas.

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 fumigators, 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 alterative 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 alterative yet discovered. The Discovery cleanses the vitiated blood, while the Catarrh Remedy allays the inflammation and heals the diseased tissues.

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.

Mrs. Partington Says:

Don't take any of the quack nostrums, as they are regimental 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 *plui unum* of medicines.

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, July 28, 1879.
GOVERNMENTS—Weak.
RAILROAD BONDS—Firm.
STATE SECURITIES—Dull.
STOCKS—The market was extremely active and buoyant throughout the day, Granger shares being the most prominent in dealings. Towards close there was a slight reaction in some cases, but final quotations showed an advance on Saturday's closing prices, ranging from 1/2 to 3/4 per cent.
MONEY—2 1/2 per cent.
DISCOUNTS—Prime mercantile paper, 3/24 per cent.
STERLING—\$1 88; weak.

St. Louis Produce Market.

ST. LOUIS, July 28, 1879.
FLOUR—Dull and unchanged.
WHEAT—Higher for cash; lower for futures; No. 2 red, 98 1/2¢; No. 3, 94 1/2¢; No. 4, 94 1/2¢; No. 5, 94 1/2¢; No. 6, 94 1/2¢; No. 7, 94 1/2¢; No. 8, 94 1/2¢; No. 9, 94 1/2¢; No. 10, 94 1/2¢; No. 11, 94 1/2¢; No. 12, 94 1/2¢; No. 13, 94 1/2¢; No. 14, 94 1/2¢; No. 15, 94 1/2¢; No. 16, 94 1/2¢; No. 17, 94 1/2¢; No. 18, 94 1/2¢; No. 19, 94 1/2¢; No. 20, 94 1/2¢; No. 21, 94 1/2¢; No. 22, 94 1/2¢; No. 23, 94 1/2¢; No. 24, 94 1/2¢; No. 25, 94 1/2¢; No. 26, 94 1/2¢; No. 27, 94 1/2¢; No. 28, 94 1/2¢; No. 29, 94 1/2¢; No. 30, 94 1/2¢; No. 31, 94 1/2¢; No. 32, 94 1/2¢; No. 33, 94 1/2¢; No. 34, 94 1/2¢; No. 35, 94 1/2¢; No. 36, 94 1/2¢; No. 37, 94 1/2¢; No. 38, 94 1/2¢; No. 39, 94 1/2¢; No. 40, 94 1/2¢; No. 41, 94 1/2¢; No. 42, 94 1/2¢; No. 43, 94 1/2¢; No. 44, 94 1/2¢; No. 45, 94 1/2¢; No. 46, 94 1/2¢; No. 47, 94 1/2¢; No. 48, 94 1/2¢; No. 49, 94 1/2¢; No. 50, 94 1/2¢; No. 51, 94 1/2¢; No. 52, 94 1/2¢; No. 53, 94 1/2¢; No. 54, 94 1/2¢; No. 55, 94 1/2¢; No. 56, 94 1/2¢; No. 57, 94 1/2¢; No. 58, 94 1/2¢; 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Literary and Domestic.

A Love Song.

Kiss me, darling. Let your lips
Be a rose that breaks apart,
And I'll be a bee that sips
Honey from the rose's heart.
Ah! the scarlet leaves unclothe
Of this blossom blown for me
Happy fate to be a rose!
Happy fate to be a bee!

Kiss me, darling. Let your eyes
Be the violets on the hill;
I will be the wind that flies
Hither, thither at its will.
When my kiss upon them lies
Then the blossoms, sweet and shy,
Must look up in sweet surprise
While the laughing wind goes by.

Kiss me, darling. Let my heart
Be a warm and pleasant nest;
Come and swing its doors apart,
Enter in and be my guest.
Love stands just within the door—
Tender shall his welcome be;
There, my darling, evermore
Sing your song for him and me.
—Olin Levi Wright.

Fashion Gossip.

One feature of the new styles in bonnets may be considered at least as favoring economy; this is, their individuality and greater independence of the costume. It is true that many ladies carefully adapt the general style of their bonnets to that of their dresses, so that there shall be harmony, or, at least, correspondence, between them. But this is no longer obligatory. On the contrary, the bonnet is rather a point of departure, than a mere beginning, or terminus. It crowns the costume rather than completes it. This fact will undoubtedly be more clearly emphasized in the fall and winter designs, and though no woman of taste would wear a bonnet that clearly outraged the rest of her toilet by its difference of color, yet distinction in color between the bonnet, or, at least, the trimming of the bonnet, and the dress, will probably be general. It may also be taken for granted that satin will be used upon velvet, and that strings will consist more largely of ribbons than of lace, at least for promenade bonnets, and will fasten under the chin. Small veils of the mask form have already been adopted.

Vests to wear with or without jackets over an ordinary bodice, give full-dress appearance at a small cost. They are made of white linen, trimmed with lace and embroidery, of black velvet, of India muslin filled on to a plain foundation and caught down with pearls at intervals, of Pompadour muslin, and of the soft washing silks. They reach the shoulder, fasten at the back, are narrow at the waist, and terminate in two square ends. They are always bordered all round with lace, having a cascade sometimes down the center of the front, and an upstanding ruff at the throat. They cover the front of the dress entirely. Sometimes they are made in one piece, of duchess or brussels lace. Another style, called waistcoat fichu, is a piece of muslin gathered at the waist like a baby's bodice, a ruff at the throat, a cascade of lace at either side, and bows of lace and ribbon at waist and neck.

Dark cambrics and dotted foulards are both utilized largely for traveling purposes, the former serving as well as the latter under an ulster, and in fact looking so much like it that the difference can scarcely be distinguished excepting by touch. But neither of these fabrics is suitable for long journeys, or cool climates, and are therefore employed for short trips, where no changes of temperature are anticipated, rather than for lake or mountain excursions. The ulster has become an indispensable part of the regular traveling outfit, but is cut into the figure so as to render it much more shapely than those that were seen at first. Ladies' ulsters are as well supplied with pockets as those of gentlemen, but the tripple collar is sometimes replaced by a graceful hood, and there is often an insertion of killing in the lower part of the skirt at the back, which is confined by straps, and lends a certain ease and character to the garment which add much to its appearance.

A leather belt and pocket are also useful and pretty.

A pretty walking costume for a miss is made in garnet bunting, having the vest, collar and cuffs of the basque made of satin pekiné, the stripes, alternately, garnet and old-gold color; and the revers on the basque, and bands on the skin, of garnet satin edged with narrow folds of old-gold satin.

The newest walking boots for ladies are cut on the same principle as a gentleman's shooting boot; the front of the boot and tongue in front are cut in one, and the laced pieces open out wide, so that there is no pressure on the instep, and they are slipped on and off easily. This renders them very convenient for summer excursionists.—Capital, (Topeka.)

Soups.

The following is from the Queen, and will show how soup making is managed in an English kitchen:—The following plan I have adopted for some years:—Every Tuesday morning the hot plate was lighted, so that both soup and jelly could be made on the same day and without interfering with any cooking on the ordinary range; because if soup or stock for jelly is moved backward to make room for other saucers it is utterly destroyed. It must be done without disturbance. The same rule applies to the making of preserves, the color and clearness being ruined if allowed to be off and on the boil. For the soup making I have six pounds of shin of beef, six quarts of water. Cut all the meat off the bones, and cut the meat across and across, and sprinkle a tea spoonful of salt over it and put it at once into the six quarts of water in an earthen vessel, while you do as follows:—Wash and cut up two carrots and two turnips and leave them in clear water: then put at the bottom of the soup pot (the digest-

ers are the best), two slices of bacon, a piece of butter as large as two walnuts, one Spanish onion stuck all over with cloves, another cut up in rings, two large lumps of white sugar, a few peppercorns, a small bunch of parsley, and thyme tied up in muslin, as much grated lemon peel as would cover a sixpence, and then put in the carrots and turnips. Let these all be browned at the bottom of the stockpot, stirring all the time, until the bacon looks well enough done to be eaten, then put in the meat and the water it has stood in, and the bones broken; leave the lid off at first, so that you may watch for the rising of the scum, which must be instantly removed, or the color of your soup will be spoiled; when you have carefully skimmed it and no more rises, put the lid tightly on the digester and leave your soup to simmer gently and evenly for five hours. Do not throw away the scum: it is not dirty, provided you have wiped the shin of beef clean before you cut it up; and this scum, although it would spoil the clearness of your soup, is really beef tea, and worth using in the stockpot. When the five hours are nearly elapsed have ready a large kettle of quite boiling water, then strain the soup through a close sieve into a perfectly clean earthen jar, and immediately put back into the digester all the contents of the sieve and pour the kettle of boiling water upon them and let this stew all night. The next morning strain it into another earthen jar and leave it to set. The first stock is now ready to scrape every atom of fat from the top of it, then wipe the top with a clean soft cloth, and all the edges of the jar, then turn it upside down on a large dish and scrape the fat and sediment from the other side. Wash and dry well before the fire the earthen jar and then put your stock back, and you will have a perfectly clean soup, with a delicious flavor and without requiring any clearing with whites of eggs, which always impoverishes the soup. To color it I like best pieces of bread, toasted very brown, and put into the stock when you warm it; and before sending to table put one teaspoonful of sherry at the bottom of the tureen and pour the almost boiling soup upon it. Of course it must be strained to prevent the pieces of toast going in, and you can either use it plain or with cut vegetables in it. Those sold in tins are best, but they require washing in water and then warming in some inferior stock, and must be well strained; and then put with the wine at the bottom of the tureen before you put your soup into it. The next day scrape and wipe your second stock and do just the same with it, and it comes in for gravies or entrees or for thick soups, and sometimes I have had it as clear as the first stock.

What to Do in Certain Cases, and How to Do It.

1. Child two years old has an attack of croup at night. Doctor at a distance. What is to be done?

The child should be immediately undressed, and put in a warm bath. Then give an emetic, composed of one part of antimony wine to two of ipecac. The dose is a teaspoonful. If the antimony is not at hand use warm water, mustard and water, or any other simple emetic; dry the child, and wrap it carefully in a warm blanket.

2. Child girl sprained her knee, violently.

First bathe in warm water, then put the white of an egg in a saucer, stir with a piece of alum the size of a walnut until it is a thick jelly; place a portion of it on a piece of lint or tow large enough to cover the sprain, changing it as often as it seems warm or dry; the limb is to be kept in a horizontal position by placing it on a chair.

3. Bees swarm, and the man who hives them gets severely stung in the face.

The sting of a bee is hollow and barbed, and as it contains poison, the first thing to be done is to remove it. The parts stung should then be bathed in warm water, and a little ammonia rubbed in them.

4. Some one's nose bleeds, and cannot be stopped.

Take a plug of lint, moisten, dip in equal parts of powdered alum and gum arabic, and insert in the nose. Bathe the forehead in cold water.

5. The child eats a piece of bread on which arsenic has been placed for killing rats.

Give plenty of warm water, new milk in large quantities, gruel, linseed tea, foment the bowels. Scrape iron rust off anything, mix with warm water, and give in large draughts frequently. Never give large draughts of fluid until those given before have been vomited, because the stomach will not contract properly if filled, and the object is to get rid of the poison as quickly as possible.

6. Young lady sits in draught, and comes home with a bad sore throat.

Wrap flannel around the throat, keep out of draughts and sudden changes of atmosphere, and every half hour take a pinch of chloride of potash, place it on the tongue and allow it to dissolve in the mouth.

7. Nurse suffers from a whitlow on her finger.

Place the whitlow in water as hot as can be borne, then poultice with linseed meal, taking care to mix a little grease within the poultice, to prevent it from growing hard. Bathe and poultice morning and evening.

8. Child falls backward against a tub of boiling water, and is much scalded.

Carefully undress the child, lay it on a bed on its breast as the back is scalded, be sure all draughts are excluded, then dust over the parts scalded bi-carbonate of soda, lay muslin over it, then make a tent, by placing two boxes with a board over them in the bed, to prevent the covering from pressing on the scald; cover up warm.

9. Mower cuts driver's leg as he is thrown from the seat.

Put a tight bandage around the limb, above the cut, slip a cork under it, in the direction of a line drawn from the inner part of the knee to a little outside of the groin. Draw the edges of the cut together with sticking plaster.

10. Child has a bad earache.

Dip a plug of cotton wool in olive oil, warm it and place it in the ear. Wrap up the head and keep out of the draft.

11. Youth goes to skate, falls into an air hole; brought home insensible.

Strip the body and rub it dry; then rub with a warm blanket and place in a warm room. Cleanse away froth and mucus from the nose and mouth. Apply warm bottles, bricks, etc., to the arm pits, between the thighs and the soles of the feet. Rub the surface of the body with the hand encased in a warm, dry, worsted sock; to restore breathing close the nostrils and breathe steadily into the mouth; inflate the lungs till the breast be raised a little, then set the nostrils free and press gently on the breast until signs of life appear. Then give a warm drink and put to bed. Do not give up all hope for at least three hours after the accident.

12. Child gets sand in his eye.

Place your fore finger on the cheek bone, having the child before you; then draw up your finger and you will probably be able to remove it; but if you cannot get at the sand in this way, repeat the operation while you have a knitting needle laid against the eyelids; this will turn the lid inside out, and then the sand may be removed with a silk handkerchief. Bathe in cold water and exclude the light for a day.

Watering Plants.

Many plants are dried up by watering. Two gallons of cold water sprinkled over twenty or thirty plants when they are hot, and when the surface of the ground is hot, assists nature in drying up the plants. It does it in two ways: first, the sudden dash of cold water on the hot leaves checks the growth of the plant, and thus stops the downward progress of the roots, which in dry weather seek for moisture; second, because the slight sprinkling of the ground forms a crust out of the finely pulverized soil, and thus not only destroys what would have acted as a mulch and a new conductor to keep the heat from penetrating to the roots of the plants, but by its compact form the crust acts as a good conductor of heat to the roots of the plants, and conveys to them heat in such quantities that they are dried up more than they would have been if no water had been applied. Very few persons stop to make any estimate as to the amount of water fall on each rod of land per week. An investigator would be astonished to find the average rain-fall per week to be 125 gallons per rod.

Experience teaches that if seven gallons of water is to be applied to each plant per week it is better to apply it at two waterings than at seven, provided the soil is stirred as soon after each watering as the ground has become dry enough to pulverize.

In watering trees and shrubs the water should not be poured at the trunk, but the ground for some distance around the tree should be watered. A tree of the ordinary size for transplanting, should in dry weather receive at each watering not less than twenty-five gallons.

Small, delicate plants should never be watered with cold water direct from the well, but it should be kept in the sun until it is warm before it is applied. Where plants are cultivated in hills several feet apart, all of the ground between the hills should be watered.

When watering is once commenced, at least 125 gallons per week should be applied to each rod while the dry weather continues. Small fruits, like the strawberry and the blackberry, during the ripening season require large quantities of water. Those who have a few rods of small fruits will find their time well spent in giving them frequent and liberal waterings. A barrel upon two wheels with a sprinkler attached, very much lessens the labor of watering the garden.

If the garden is near the well, a force-pump with a long hose attached is the best for hardy plants, if watered in the cool of the morning.

It is always best to avoid watering hoed crops if possible. In ordinary seasons most of such crops can be kept in a good flourishing condition through the hot, dry weather by frequently stirring the top of the soil; it is, as a rule, better to spend the time in doing this than in daily watering. A drouth that commences in the spring and continues with the growing plants, is not as injurious to vegetation as when a wet May and June is followed by a dry July and August, for the plants, when it is dry, in the first part of the season, send their roots down to a great depth, and thus supply themselves with moisture, while if May and June be wet the plants send their roots near the surface, so that when the drouth comes, having nearly completed the root growth they cannot send roots for moisture, thus they are in no condition to withstand the dry weather, so he who commences to water his garden in the spring encourages the growth of surface roots, and discourages the growth of those which strike down for moisture.

To know when to commence to water plants, how often to water, and the quantity to be applied, requires good judgment, careful observation and long experience.

Soils differ so much that it seems to be necessary for each cultivator to establish rules of his own, such as his experience teaches him are best adapted to his location, soil and crops. This subject of watering plants is an important one, and one that should receive much more attention than is usually given it.—Mass. Ploughman.

The Tuberose.

(Prepared for the Kansas Farmer, by Bramblebush.)

"The tuberose, with her silvery light,
That in the gardens of Malay
Is called the Mistress of the Night,
So like a bride—scented and bright,
She comes out when the sun's away."
—Morré's Lalla Rooké.

The tuberose is an elegant plant, and its exquisite fragrance renders it a deservedly favorite flower. Shelley describes it as—
"The sweetest flower for scent that blooms."

The double tuberose was first raised from seed by a florist of Leyden, and such was his desire to remain the sole possessor of the plant, that he destroyed for a time all the bulbs he could not plant himself.

Tuberose plants should be started in the house quite early in the spring. I always set mine near the kitchen stove, as they require to be kept warm. Water them slightly at first, until they begin to grow. As soon as the weather is warm enough transplant them to the garden. June is a good month to transplant them. They need good, wet earth; they will then produce flowers by the last of August. As they grow in height they should be tied to stakes to prevent the wind from injuring them.

If you wish them for winter blooming, plant the bulbs in July or August, and sink the pots to the rim in the earth in the garden. By September they must be removed to the house, and you will then have a lovely flower for Christmas.

The Pearl tuberose is a dwarf, though only in height, and on that account is to be preferred for the house. Common tuberose bulbs cost one dollar a dozen and the Pearl one dollar and a-half.

RASPBERRY JAM.—Allow a pound of sugar to a pound of fruit. Boil the fruit half an hour or until the seeds are soft. Strain the fruit and throw away the seeds, then add the sugar and boil the whole ten minutes.

PRESERVED STRAWBERRIES.—Look them over with care; weigh a pound of sugar to a pound of fruit; put a layer of fruit on the bottom of the preserving kettle, then a layer of sugar, and so on until all is in the pan; boil them about fifteen minutes; put them in bottles, hot, and seal them, then put them in a box and fill it in with dry sand.

QUINCE MARMALADE.—Rub the quinces with a cloth; cut them in quarters; put them on the fire with a little water, and stew them until they are sufficiently tender to rub them through a sieve. When strained, put a pound of brown sugar to a pound of the pulp; set in on the fire and let it cook slowly. To tell when it is done, take out a little and let it get cold, and if it cuts smoothly it is done.

CREAM PIE.—One pint thick, sweet cream; two-thirds of a cup of sugar; one tablespoon corn starch; season well with nutmeg; bake with an upper crust.

ICE CREAM PIE.—Make a smooth paste of flour and cold water; add boiling water to it, stirring until it is about like thick cream; when cool add an egg; sweeten to taste; put in a small lump of tartaric acid and flavor; bake crust; put in the mixture and bake a little frost on top.

SUGAR PIE.—One-half cup brown sugar; one-half cup butter; yolks of three eggs; nutmeg; bake; frost with whites of three eggs; one-half cup or more of white sugar; flavor with lemon; set in the oven to brown.

POTATO PIE.—Yolks of 6 eggs; 1 cup sugar; 1 cup butter; 1 pint of sweet cream; 1 cup fresh milk; 1 cup mashed potatoes; mix potato and butter well; add other ingredients; bake with only an under-crust; frost with the whites of 6 eggs and 6 tablespoons sugar; flavor to suit.
Mrs. D. R. T.
Topeka, Kansas.

Care of the Drowning.

Dr. Howard, medical officer of New York harbor, recently explained at the receiving-house of the Royal Humane Society, his method of resuscitating persons taken from the water in a state of insensibility. The principles upon which he acts are those of clearing away the water and mucus which prevent the entrance of air into the lungs, and the limitation of the movements of the chest in respiration.

He first empties the stomach and passages of water. For this he places the patient face downward, puts a roll of something hard under the pit of the stomach, so that it is above the level of the mouth, and then presses with all his force on the back. Afterward, to set up artificial breathing, instead of the partial rolling of the body or the pumping action of the arms now practiced, the body is laid upon the back with the clothes stripped down to the waist. The pit of the stomach is now raised to the highest point by something under the back. A bundle of clothes off the body of another man will do for this. The head is thrown back and the tongue must be drawn forward by an assistant, so as to keep open the entrance to the air tubes. The hands are passed over the head, the wrists crossed, the arms kept firmly extended. In this position the chest is fully expanded. The operator then kneels astride the body, places his hands on the lower part of the ribs, and steadily and gradually makes compression. Balancing on his knees he inclines himself forward until his face nearly touches that of the patient, and so lets fall the whole weight of his body upon the chest. When this has yielded as much as it will, he throws himself back, by a sudden push, to his first erect position of kneeling, and the elastic ribs by their expanding bellows action draw air into the lungs. These maneuvers must be repeated regularly twelve to fifteen times in the minute.

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House Drainage.

What to do with sink water and the slops of the house in these hot days when fermentation progresses at a two-fold pace, is a puzzling question for farmers. Cities and large villages are provided with some public system of sewerage, but in the country every man is expected to look out for his own refuse, and those who do it intelligently are few and far between. Most farmers' wives throw their slops out of the door, where they lie and ferment, filling the air with miasm, and saturating the earth with poison that slowly finds its way to the well and thence to the table. From many a kitchen sink a lead pipe conducts the dish-water through the siding of the house, whence it falls to the ground within a foot or two of the cellar wall through which it percolates, and thus contaminates the air both inside and outside of the house. The privy of the farm house is wont to be neglected also, so that, instead of being a reservoir of fertility to the land, it is a nuisance, and, more than this, a fruitful source of disease. So great is the neglect of these things among the rural population that citizens are beginning to think that the air and water of the city are purer than in the country. There is no necessity for this state of things. At a trifling expense—if the farm house is situated on some elevation as it should be—the sink water and all the refuse of the chambers can be conveyed in an underground tile to a field and thus made to do service as a fertilizer. Iron is so cheap now-a-days that a three or four inch iron pipe is probably as economical a conduit for the refuse as can be had. Glazed earthen pipe, however, answer a good purpose. Cement pipe and common clay tile are so rough that they are liable to clog. There is more or less green in dish-water, and this is deposited as the water cools on the sides of the drain, so that a small pipe will not answer for a sink outlet. The drain can be made of stone, but in this case it should be large, and cemented near the house to prevent the earth from becoming saturated with poison. When the drain has reached a field which it is desired to fertilize no cement is required and open ditches or porous tile may convey the refuse in different directions. In all cases there should be a valve in the sink to prevent the noxious gases from returning to pollute the house. It is also a good plan to let the overflow of the cisterns run into the sink drain. This will aid in keeping the drain clear and distributing the fertilizing material in the fields.

If any farmer has located his house so low that the refuse cannot be carried to the neighboring fields, he is to be pitied; still, if the soil is a dry sandy loam the situation is not desperate. A large sink hole—six or eight feet in diameter, according to the size of the family—can be dug at a suitable distance from the house, walled up on the sides and planked over on top, into which the refuse can be conducted, whence it will be gradually absorbed by the soil. If at any time the hole becomes filled with solid matter, it can be shoveled out and composted with dry muck or earth and made into a valuable fertilizer. If any one is so unfortunate as to have built, inherited, or purchased a house in a low, swampy spot where drainage is impossible, our advice is, that he should move it to a higher site, and if it is not worth moving to build a new house and make fire wood of the old one.

As to the water closet, there is no necessity for this being a nuisance in any situation. Everywhere it can, and should, be made a reservoir of fertility. This can be accomplished by building a commodious but not very deep cement vault under the closet, and putting in, daily through the summer and occasionally in the winter, some dry earth or sifted coal ashes to absorb the liquids and gases. The vault should extend two or three feet in the rear of the closet with a trap door over it, so that the earth or ashes can be thrown in easily and the compost easily removed, when the vault is full. Thorough attention to these things will increase the fertility of the farm and diminish the doctor's bills.—Mass. Ploughman.

A Cure for Neuralgia.

Some evenings since I was attacked with a severe dental neuralgia. After resorting to friction, cold and hot applications, etc., without obtaining any relief, I lay upon my bed, trusting that sleep might come and give me respite. Still the excruciating pain continued, and while I was suffering the "tortures of the doubly damned," undecided whether to arouse some tired druggist for a bottle of chloroform or chop my head off (with a decided preference, however, for the chloroform), I suddenly thought me of what I had read of an anesthetic which we always carry with us. Thereupon I began to inflate my lungs to their utmost capacity, and then torbly blew out all the air I could. Immediately the pain began to lessen, and after a few repetitions of the process it had entirely ceased, being displaced by a delightful tickling sensation in the gums, and furthermore I know not, for in less time than it takes to tell it, I was sound asleep, awakening next morning delightfully refreshed, and without a symptom of my ailment left. Henceforth you see, I was not simply temporarily relieved, but entirely well again. I wish other sufferers would try this and report results.—Louisville Medical News.

Notes From the Agricultural Press.

"What do the books say?" is the first inquiry of the old gray-headed lawyer or his younger imitator, and if you just intimate that what the books say is law, is perfect nonsense, the disciple of Coke will honestly deem you guilty of sacrilege and treason. And this blind

devotion to books, tradition and ancient practice makes our courts of justice a sort of faro bank, in which the result is pretty much altogether a matter of chance. If all the reforms that were absolutely necessary in our judiciary system were wrought, the result would be so totally unlike our present system that it would hardly be recognized as a judiciary system at all. In the first place, the judiciary should never be elective, and in our western states it almost universally is, and we are not sure but quite so. It is true that we have been remarkably fortunate in the selection of judges by popular election, but there is always danger, and the danger becomes constantly greater as interests multiply and unprincipled men seek to protect their own interests by controlling the bench. The terrible state of affairs which prevailed in New York a few years ago, under Judges McCunn, Barnard and Cordozo, could never have existed under an appointive judiciary. Fifty dollars would purchase an opinion or decision from Judge McCunn and has done it. Jim Fisk had judicial papers in blank, with the authority of Barnard to sign his name whenever it suited him. Can the reader conceive it possible that the governor of a state should ever nominate one as unprincipled man or either of those to the bench, to say nothing of three of them in one city? No governor ever has done it, and it is by no means probable that one ever will. In all the courts of the country, whether state or national, in which the judges are appointed, there is dignity, ability and honor. In New England their lower courts are more to be relied upon than many of our higher courts.—Western Rural.

As a weed destroyer, carbolic acid seems likely to prove a boon to gardeners. Such weeds as dandelions are killed by one application, the mode of applying it to destroy single plants being to make a hole in the crown with an iron point, and then to pour in a little of the liquid from a bottle. For paved yards, and also for garden paths, the carbolic acid is mixed with from ten to fifty times its quantity of water in a bucket, according to its original strength, and applied with a brush or broom, or from a rose watering can, a sunny day being the best.—Florist and Pomologist.

The following is said to be a good recipe for making "small beer." It is an excellent recipe for making vinegar, which is of more importance to the household than beer. In place of drinking the beer allow it to stand until it passes through the acetous fermentation. "Take one pint of corn and boil it until it is a little soft; add to it a pint of molasses and one gallon of water; shake them well together and set it by the fire, and in twenty-four hours the beer will be excellent. When all the beer in the jug is used, just add more molasses and water. The same corn will answer for six months, and the beer will be fit for use in twelve hours, by keeping the jug which contains it warm. In this way, the whole ingredients used in making a gallon of beer will cost but a few cents, and it is better and more wholesome than cider. A little yeast added greatly forwards the "working" of the beer."

"Get the best," and never keep a poor cow the second year. No man can afford to keep a cow that will not make from 200 to 250 pounds of butter or its equivalent in cheese, every year. The Rocky Mountain Husbandman says black-leg is rife in Montana herds, and there is a fear that it may spread to every valley in Montana and may become a serious obstacle to the cattle-growing interest there.

In sweetening capacity, it takes two and a half pints of grape sugar or glucose to be equal to one of cane sugar.

The camelia is a native of China or Japan. Scientists have discovered that the mummified bull in the Egyptian museum, London, is a species of our common ox.

Hiawatha, Brown County.

July 19th.—Fall wheat straw short and not as thick as usual on ground; heads plump and well filled; will make good acreage; crop stacked in good condition. Spring wheat not much sown and below average. Oats good, with plump grain; mostly stacked in good condition. Barley, poor and badly bleached. Peaches are a failure. Grapes, plenty. Apples scarce, except the Janets, which are loaded, and will give us plenty of fruit as many of our trees are of that variety. Early potatoes good; late potatoes, fair prospect. Vegetables of all kinds are doing well. Timothy and clover meadows have made about an average yield. Last, but not least, is our corn crop. I shall not attempt to describe it, but simply say the prospect for a big crop is most favorable.

I have lived in Kansas twenty-two years, and I don't think I ever saw the farmers, as a class, in as good circumstances as at present. Pay as you go is the rule we are trying to adopt. When we succeed there will be "short picking" for constables and squires.

P.S. The longer I take the FARMER the more I become interested in it, and have concluded not to do without it so long as it is so ably conducted. I think no farmer in this or adjoining states can afford to do without it.

July 24.—Messrs. Editors: Can you tell me what trees are best suited to the climate and soil of Cowley County, Kansas? I am told the Spanish Chestnut is a beautiful tree, bearing very large and fine nuts, which bring a very high market price. Would you recommend it for the region named? If so, can you tell me whether high ground or low, is best suited to it, and how far apart the trees should be planted,—how many to an acre? An answer through your columns will much oblige.

A Subscriber.

Elkton, Md.

Cottonwood is the native tree which thrives

well in that part of the state. Our knowledge of the Spanish Chestnut is not sufficient to warrant an opinion. Probably Mr. Bishir, of Hutchinson, Kan., can give the desired information.—[Ed.]

LeRoy, Coffey County.

Crops are looking splendid. Having an abundance of rain. I don't think that Kansas ever had a more favorable appearance for large crops of corn than this year. I have a piece of corn, blighted on the 19th of May, plowed four times, which shows every appearance of as fine a crop of corn as you would wish to see. I gave it the name of Rural Dale Park, Sunny Side, Dong Creek, Coffey County, Kan.—Eight Miles from Burlington. Yours, R. H. BALDWIN.

From Lyon County.

July 21.—Knowing that your paper has a very large circulation in Kansas, and is read by all the best farmers in the state, I take the liberty of asking a few questions, hoping that some of our practical farmers will give their experience.

I wish to plant clover on wheat ground. Would it be best to plow the ground this fall? If plowed this fall would it require plowing again in the spring? How deep should it be plowed? Is the hoisting plow a success, or a humbug?

We are living on upland stony R. R. land, worth \$1.50 per acre cash. Our corn grew right along during the dry weather, and we had it dry here, in the south of Lyon, and in the north parts of Greenwood County. We could see showers go all around us, and good ones too, but all we got was a very light sprinkle till the 21st of June, then the rain fell was 3 1/2 inches. We have had plenty of rain since. I look for ten cent corn this fall.

Wheat is about half a crop. Potatoes are very small as yet, but we are in hopes they will grow some more.

Is a man responsible for damage done to stock getting into his barbed wire fence?

CITY CHAP.

Larned, Pawnee County.

Will you please inform me, through the columns of the "Farmer," how to apply blue stone to smutty wheat, to be used for seed this fall: also the amount needed per bushel of wheat?

What has been the experience of farmers in the vicinity of Topeka in regard to the best time,—fall or spring—for planting seedling cottonwoods?

Is it too late to plant Bois D'Arch seed in nursery by the first of August?

Respectfully, W. E. HARMON.

Blue stone wash for smut wheat is not much known in this part of the country, though in California it is used very extensively. Will some of our readers familiar with its use furnish the desired information?

In the herd law counties of the state planting cottonwood seedlings is practiced extensively. Will some one who has practiced this branch of forestry please answer?

Valley Falls.

July 21.—Crops booming. Wheat yielding from 15 to 31 bushels per acre. Oats, full crop. Flax and millet, do. Early potatoes, good. Corn and late potatoes promise full crop. Abundance of rain. Farmers feeling jubilant. MAX.



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