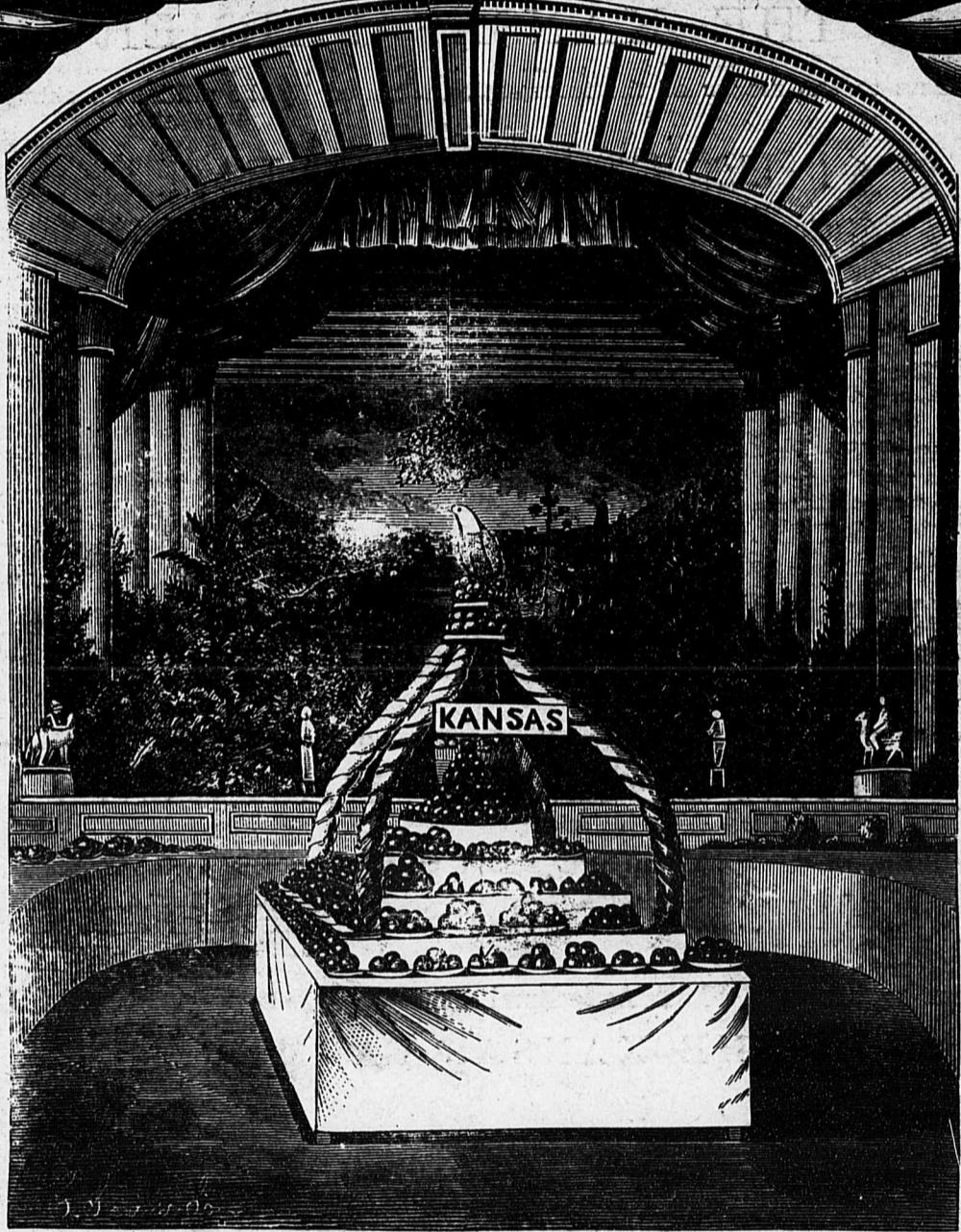


KANSAS FARMER

DEVOTED TO THE FARMER THE SHOP THE FARMER



VII
6.
LEAVENWORTH.
JUNE 15, 1870.

THE KANSAS FARMER.

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ADDRESS

GEO. T. ANTHONY,

LEAVENWORTH, KANSAS.

THE KANSAS FARMER

DEVOTED TO THE FARM, THE SHOP AND THE FIRESIDE

VOL. VII.—NO. 6.]

LEAVENWORTH, JUNE 15, 1870.

[\$1.00 A YEAR.

The Kansas Farmer

GEORGE T. ANTHONY, Editor.

Published Monthly, 75 Delaware Street, Leavenworth.

LEAVENWORTH CO. HORTICULTURAL SOCIETY.

The Society met May 7th, at the usual hour, the President in the Chair. In pursuance of action taken at the previous meeting, they proceeded to re-organize and elect officers, with the following result: WM. M. HOWSLEY, *President*; F. WELLHOUSE, *Vice-President*; C. H. CUSHING, *Secretary*; J. T. LOCKWOOD, *Treasurer*; D. C. HAWTHORN, J. C. VAN WINKLE, and CRAYTON CARNEY, *Trustees*.

A committee of five was appointed to increase the membership, and improve the financial condition of the Society, consisting of J. T. LOCKWOOD, W. M. HOWSLEY, J. C. VAN WINKLE, B. H. TWOMBLEY.

The discussion of the pear, which was appointed for this meeting, was postponed till the next meeting, in June. C. H. CUSHING, *Rec. Sec.*

The regular monthly meeting of the Leavenworth County Horticultural Society, held at the Rooms of the Mercantile Library, on Saturday, June 4th, was well attended both by members and strangers. Vice-President WELLHOUSE in the Chair.

The report of the Special Committee appointed to solicit members, being called for, Dr. HOWSLEY, as Chairman of said Committee, stated that no effort had been made in that direction, as it was deemed best to first solicit pecuniary aid from the city and county; and to meet that end, he offered the following resolution, and very eloquently urged its passage:

Resolved, That a committee of three be appointed, whose duty it shall be to memorialize the Board of County Commissioners, and also the City Council, to afford this Society as much pecuniary aid as in their judgment may seem best suited to perpetuate its usefulness. It is believed that each of these bodies may accomplish the best results, by becoming stockholders of the Society.

After remarks by Dr. STAYMAN, Vice-President WELLHOUSE, and others, the resolution was unanimously adopted. The Chairman appointed Dr. W. M. HOWSLEY, Mr. VAN WINKLE and Mr. CRAYTON CARNEY, in conformity with the resolution. Vice-President WELLHOUSE was, on motion, added to the committee.

President WM. M. HOWSLEY read the preliminary opening of an Essay on

PEAR CULTURE.

The subject of successfully cultivating the Pear is one of great importance, especially in a country so young as Kansas, whose fruit culture of every kind is yet in its infancy, and where the people have so many things to learn in regard to climate, soil, and meteorological influences, which play so very important a part in crops of every kind, especially of fruits. When it is remembered that so many things enter into the full investigation of this subject, as the origin, the size, the great age to which the tree lives, the enormous crops it bears, its natural slothful habit of coming into bearing, the controlling influence which horticultural science has over all these natural traits; the value of the fruit, both as an article of luxury and of commercial profit; the diseases to which the tree and fruit are alike liable, it could not be expected that in a single Essay more than preliminary remarks could be made. I will, therefore, on the present occasion, call your attention to a history of the tree. From these historical facts, perhaps, some very interesting reflections may be made.

First, then, in regard to the origin of the tree. It is said

to be a native of Europe and Asia, especially of China. In both these quarters of the globe it is found growing wild. In Africa and America it is not found in this wild or native condition. But experience has proven that it can be very successfully transplanted to North America, and that, too, across the entire continent.

Secondly, the age to which this tree lives is quite remarkable. There are trees now living, known to range from seventy-five to four hundred years old. Of the latter class there is, or was a few years since, one in Herefordshire, England. Bosc says he knew of many of four hundred years, or more. There are trees now in California, claimed to be more than two hundred years old. Upon Long Island, and in many other portions of New York, are said to be many trees supposed to be not less than one hundred and fifty years old; the seed having been planted, it is thought, by the French Huguenots in 1681. Through the same means there are trees in Detroit, Michigan, and near Vincennes, Indiana, of quite old age.

Thirdly, the great size to which the tree grows, when its natural habits are not interfered with. The old tree in Herefordshire, already mentioned, in 1805 covered more than half an acre of ground, its branches weeping to the ground, taking root, and thus, like the cap raspberries, reproducing itself by natural layers. Of the size of the trunk, I am not aware that we have any account. But the tree near Vincennes, at not more than fifty years old, measured, at one foot above the ground, ten feet in circumference, and its branches were sixty-nine feet in diameter.

Fourthly, its bearing habits. The pear tree, in its natural state, is a most profuse bearer. The two trees already mentioned (the one in Herefordshire, England, and the one near Vincennes, Indiana) bore, the former in 1805, fruit enough to make fifteen hogheads of perry, and the latter, in 1834 one hundred and eighty-four bushels, and in 1840 one hundred and forty bushels.

Thus, these facts show that the pear tree, when unrestrained by the hand of art, or uninfluenced by the principles of science, lives to a very old age, grows to very large size, and bears enormous crops of fruit.

It may be said that these are very extreme cases, and cannot furnish a basis upon which to predicate the successful cultivation of the pear. It is admitted that these are extreme cases, so in advance of anything in the way of pear culture at the present day, that they are thrown out, not with the hope of equaling these results, but as incentives to those who are engaged, or who wish to engage, in the cultivation of this fruit. If they may not hope to reach, they may, nevertheless, approximate these results.

The old adage says that the man who plants a pear tree plants not for himself or his children, but for his grandchildren, to eat the fruit. This slothful and tardy disposition of the pear tree to bear, is explained in the great size to which it grows, and the great age to which it lives. Trees that commence to bear early in life, seldom live to very great age. This rule holds good in the animal as well as in the vegetable kingdom.

The discussion on the Essay naturally leading to the causes and remedies of blight, that subject was taken up by unanimous consent, and ably discussed. President HOWSLEY and Mr. RILEY (of Indiana) claimed the blight to be caused by frozen sap in immature wood in the Fall, giving data to sustain their views. Dr. STAYMAN attributed the cause to excessive wet weather. Mr. CADOGAN pinches his trees in June, and then again in September; don't make any growth after September. Last year did not blight until after that time. Has no confidence in the frozen sap blight theory. Has had his orchard go into winter-quarters in an immature state, and no blight. Thinks the fungus the cause. He gave an account of a very interesting experiment made by him last year. With the sap from a blighted twig, he inoculated twigs of healthy apple, pear, mountain ash and Siberian crabs; and in every instance the disease was produced. When inoculated at the end, it followed down and destroyed the twig; when inserted at the base of the shoot, it only blights a portion of it.

Mr. CUSHING considers fungus as the immediate cause of blight, but that it usually acts upon wood badly ripened. It acts like the cholera, which sweeps off the vicious and unclean, while the temperate and vigorous escape. The obvious remedy is to get wood of slow growth, sound and well ripened.

Mr. VAN WINKLE—As the doctors disagree, I would move an adjournment, and hope by the next meeting they may have their sap so condensed as to give us some of the hard wood.

Dr. J. STAYMAN, chairman of committee on fruit, reported that they found on the table five varieties of apples, presented by FRANCIS GODDARD; five varieties by J. C. VAN WINKLE, and two varieties by JOHN CADOGAN—all in good condition, particularly the Willow Twig.

J. T. LOCKWOOD, *Sec'y pro tem.*

FARMERS, ORGANIZE!

We have, scattered over the State, several Farmers' Clubs, many of which are already very efficient, but by far the larger part drag out a feeble existence. Why is it? One reason, perhaps, is, that the community may be weighed down by old fogies, who never take an Agricultural paper, nor read an Agricultural book; who have no proper conception of what progress means. We know of many such communities; and where there are not enough live, go-ahead, enterprising, progressive farmers to keep up the organization and make it interesting. Many, we say, may, and no doubt do, fall from this cause. But there are plenty of communities where this is not the case. To those communities we say, Organize at once; elect intelligent officers; make your meetings weekly at some central point; drop all formality in your meetings; put yourselves in communication with the Commissioner of Agriculture at Washington; drop politics,—and you will succeed in building up a Club, which will be an honor to your neighborhood.

One great fault with the Clubs generally, is want of punctuality in attendance. Never miss a meeting, when your health will permit you to be present. Perhaps the best plan upon which a Club can be conducted, is by committees, similar to a legislative body. For example, have a committee appointed annually, upon cereals; another upon root crops and vegetables; another upon fruit; another upon breeding animals; another upon the legal rights and obligations of farmers, &c., &c. Have it understood that each of these committees must report monthly, upon some one or more items of their department; and then let the Club discuss the *pros* and *cons* of the report. In this way the meetings will maintain an interest, and the Club will have a good attendance.

It will not do, however, to throw all the work on two or three individuals, as is often done. Every member must bear his share of the labor. By placing yourselves in correspondence with the Commissioner, at Washington, you will get the Monthly and Annual Reports of the Department, together with a liberal supply of garden and field seeds, from which you may reap considerable pecuniary benefit.

But this is not all. By a thorough organization you will awaken an interest among the boys, and teach them not only valuable lessons in Agriculture, but also to love the calling, to believe in a progressive system in farming, as in all other pursuits. If there were no other inducements, these ought to be sufficient to insure the organization of a Farmers' Club in every school district.

The Kansas Farmer

GEORGE T. ANTHONY, Editor.

OUR WHEAT CROP.

Kansas farmers have already produced the most remarkable results in the culture of wheat. By the Agricultural Report of 1868, we have outstripped all competitors, save California. That this is not due to any superior cultivation, nor yet to superior seed, we are ready to admit. There remain but two causes, then, to account for our superiority—climate and soil. Here rises a question that should rest heavily on the mind of every farmer in the State: How long may we expect the latter of these causes to remain? We have the evidence of those States gone before, that it will not always last; nor, indeed, can we expect land cultivated in grain, no matter of what kind, to prove remunerative in wheat.

Wisconsin is a notable example of this. It is but a few years since their general average was from twenty-five to thirty bushels per acre; to-day it is thirteen. Indiana, Ohio and Michigan furnish the same example. The result is, their land scarcely pays expenses. For all results there must be, and is, a producing cause. If this can be obtained, we have the remedy in our own hands of preventing a like disaster falling upon Kansas and our sister States. We have diagnosed the case in the States above mentioned; and our opinion, after calm consideration and mature deliberation, is that the death of the wheat crop was produced by starvation. It required no great amount of wisdom to arrive at this conclusion. It is so plain, in fact, that no argument is required to sustain it. Here, then, we have the cause which produced certain results elsewhere; and the same cause will produce those results in Kansas and Nebraska.

A case of starvation is easier prevented than cured; therefore, it behooves us to feed our wheat crop before entirely starved out. To meet the wants of the case, we must know the variety and amount of food it requires to maintain and keep in a good thrifty condition our wheat crop. Of the ashes it requires potash, soda, lime, magnesia, alumina, silica, sulphuric acid, phosphoric acid, chlorine and iron. Of these, the alumina, the two acids and the chlorine play the smallest part, there being, by SPANGLER'S Analysis, but $1\frac{1}{4}$ pounds of the four elements in one thousand pounds of wheat. Still, their presence, even in these small quantities, indicates their necessity. In the straw they play a more important part. One of the most important elements in the straw is silica. Of this there are nearly thirty pounds in every thousand pounds of straw, and about four pounds in the grain.

Oat straw contains a still greater proportion (forty-five pounds); and this should be taken as a hint to feed the wheat straw, and use the oat straw as manure to supply the silicates.

But we have an article that meets every want, is easily applied, and not expensive. That article is the red clover. To show how perfectly it meets the requirements, we subjoin the analysis, giving the fractions in halves and quarters, rather than in tenths and hundreds. There are of potash, 20 lbs.; soda, $5\frac{1}{4}$ lbs.; lime, 28 lbs.; magnesia, $3\frac{1}{4}$ lbs.; alumina, nearly $\frac{1}{8}$ lb.; silica, $3\frac{3}{4}$ lbs.; sulphuric acid, $4\frac{1}{2}$ lbs.; phosphoric acid, $6\frac{1}{2}$ lbs.; chlorine, $3\frac{1}{4}$ lbs.—to every thousand pounds. This analysis is not as correct as some of the later ones, but sufficiently so for all practical purposes.

With these facts before our eyes, it seems to us to be the part of intelligent men to grasp and make use of them for our advantage. We need the clover for our hogs; and by instituting a system of rotation, we keep our land at its present high status for wheat; we improve it for corn, and we supply a much-needed want for our pigs.

Many farmers, however, need a more thorough preparation of the ground for wheat, than they now

give it. We have spoken heretofore of the great necessity of a thorough pulverization of the soil, before the seed is sown. We would still wish to impress it upon the mind of the farmer, that every particle of earth locked up in clods might as well (for all the good the crops get of it) be thrown out of the field.

Another important point is the surface-draining. This can be easily accomplished by back-furrowing in lands of eight or ten yards width, and then using a little care in rolling the ground. Early sowing is another and almost an essential point. Wheat sown previous to September 10th has nine chances in its favor. The same remarks made last month about corn will apply with equal, if not greater, force as regards wheat. If we could secure a wheat that would mature ten days earlier than most of our crops do, we believe we would be the gainer by at least five bushels per acre. It can be accomplished easier than in corn. There are always heads that mature earlier than the main crop ripens. Secure the earliest of these, and by four or five plantings you get the habit established. A fortune awaits the man who can gain two weeks in the maturing of either wheat or corn.

THE FARMER'S LIFE.

The farmer has much, very much, to be thankful for; more, perhaps, than many realize. It is true, he rarely reaches opulence at one stride; it is true, his life is one of toil; but how free is he, compared with other pursuits, from the anxious cares, the incessant strain upon the mind, the doubts and fears, the hate and rancor, the sins and sorrows. Ah! could the farmer for a time, however brief, place himself in the position of some of those whom, perhaps, he envies, what a change would come o'er the spirit of his dream!

The farmer brings the product of his farm to market; and while there, is thrown in contact with the wealthy merchant. He sees, perhaps, the merchant's family, rolling along the streets in their elegant equipage; the wife and daughters wearing upon their persons a value equal, perhaps, to his entire farm. He goes to the merchant's palatial residence, and the evidences of great wealth are here distinctly visible. He visits the merchant's store, and sees here the vast piles of goods lining the shelves, the office richly furnished, the numerous clerks, the obsequious office boys—all speak of the merchant's wealth; and surely, reasons the farmer, wealth is happiness. He goes back to his farm, repining that his lot has been cast in such unpleasant places. His snug little farm house disgusts him. Pardon him if, for the moment, he makes an unfavorable comparison between his wife and the merchant's; his children and those of the other. He sees but one side of the picture. Look at the other.

Wealthy the merchant is, so far as dollars and cents can make a man so. His palatial residence and elegant equipage are paid for. But what is the life of that man? He has thousands of dollars invested in stocks, which a moment's time may destroy. He has large sums invested in his store, from which one day's decline may take all his profits for a year. His rents and interest are uncertain, and these all keep up a constant strain upon his mind. His thousands no more satisfy his cravings, than do the dollars yours.

But this is not all. His wealth has given his family a position in society, which makes large demands upon their time. Their thought is solely upon their dress. They have no thought or care for the poor tired, careworn man, when he returns from his office after the day's labor is over. No welcome smile greets him; no loving caress welcomes him. He is as little thought of as the veriest servant in the house, save only when money is wanted. He lays his aching head upon the pillow, with no loving wife to pity, no child whose filial love prompts it to acts of kindness. There, alone, the miserable man passes the night, while wife and

daughters are away at some fashionable entertainment.

How is it with the farmer? He rises with the morning's sun, rested and refreshed by his night's slumber. He goes to his work with a light heart. He has nothing to lose by the rise or fall of stocks. He follows the plow all day long, his mind feasting upon what glorious results will be achieved by this year's work. He sees his fields ripening his golden grain; his orchard bearing its luscious fruit; his cattle thriving around him; and a peace and contentment gather over his soul, which the man of business never knows. Then, as he goes to his home after the day's work is done, how eager are those loving daughters to minister to his comfort; how lovingly has that fond wife provided for his reception. He is in that household the sun, the center, around which all else revolves, from which all others obtain their light. At night, he pillows his head upon that breast, which throbs only for him; loving arms surround him, to guard him, as it were, from all unpleasant thoughts.

These are the pictures. Farmers, which do you prefer? Would you exchange all the happiness and wealth of love which you enjoy, for all the wretchedness and misery, which fall to the lot of the man of wealth? Little does the man know what he envies, when he would exchange places with those of wealth and fashion.

"THERE WERE GIANTS IN THOSE DAYS."

How our minds will run back to childhood's hours, and picture upon the retina of our memory those stories that we so implicitly believed. But, as the years come on, as our minds ripen, as our heads become silvered o'er, we can discern signs of giants in our day; and our children and our children's children may listen to the stories of the giants of our day, without requiring the great stretch of imagination that did we, in listening to "Jack the Giant-Killer," and kindred stories. All ages have produced giants, but they have been of those, for the most part, who have made their reputation upon the sanguinary field of battle, whose deeds of valor have given them the rank of leader, and who have subdued nations, principalities and kingdoms.

But the giants of our day are something different. Their conquests have been of a nature to benefit mankind, rather than themselves. No minstrel welcomes them with lute and song; no orator proclaims their deeds of heroic daring; and yet, when we come to reflect upon it for a moment, ours are better entitled to the rank of giants than are those of the olden time. To the latter, nothing was requisite but brute courage and force; our giants have this courage, coupled with the largest possible development of brain. He must, indeed, be a giant in mental stature.

As our minds glance over the lists of prominent farmers scattered all over our broad land, we see so many to whom this term should properly be applied, that it would seem invidious to mention names; but there are one or two, who are universally acknowledged to be giants in their respective departments. One of this class is JOHN JOHNSTON, of Western New York; a man whose head is now blossoming for the grave, and who, throughout his long life, has maintained a certain principle, not only in theory, but in practice. A native of Scotland, he came to this country some forty years ago, a poor man. By honest industry he acquired a small capital, and invested it in land. He worked that land to such advantage, that he was soon able to add more to it; and now he has a farm of something over three hundred acres. But the acquisition of this land is nothing, as a measure of greatness; thousands do this. Mr. JOHNSTON, amid the jibes and derision of his neighbors, laid down the first tile drain laid in America. To do this, he had to send to the Old World for the tiles. That drain was laid by his own hands. He believed that any land worth cultivating was worth draining. He

has remained true to that principle. He has fought and overcome the prejudices of his neighbors. They, in common with all of our most intelligent agriculturists, who have examined this subject, believe in it as implicitly as Mr. JOHNSTON could wish.

To-day, Mr. JOHNSTON has, perhaps, the most productive farm, all things considered, in all this broad and fertile land. The only reason that can be ascribed to have produced this, is the fact that every foot of that farm is brought under the influence of the tile drain. That farm, about two years ago, was leased to gentlemen who knew well its value, for a term of years, for the enormous sum of twenty-five dollars per acre per annum.

By intelligent observation this man arrived at convictions. He has been enabled to surmount every obstacle, to override every prejudice, to live down all opposition; and he stands to-day crowned a king, being an absolute monarch in all matters pertaining to tile draining. We would rather be entitled to JOHN JOHNSTON'S honors, than to have the reputation of a CÆSAR.

But there are hundreds of others who deserve to be, as they are, the peers of Mr. JOHNSTON; not in the same walk, but in others equally useful. When any man establishes a principle in Agriculture or the Mechanic Arts, that man is deserving a nation's honors. Young men upon the farm, in the shop, have convictions upon every subject connected with your occupation. Live for an object. Make the world better and wiser for your having lived in it, that our children, in speaking of our day, can truthfully say, "There were giants in those days."

NEBRASKA.

We see from our exchanges that Nebraska, as well as Kansas, is awakening to the importance of holding Fairs. We see notices of them all over that noble State. This is right. Nebraska has a soil that will compare favorably with the best. She has energetic, live men, connected with her agricultural interests; and it is right that she should show to the world the capacity of both soil and men. It can be done only by the means of State, District and County Fairs. To the farmers of that State, then, we say, Look to your interests. Give every one of these Fairs a generous support. Show to the world that you stand neck and neck with the best, in all that constitutes Agricultural greatness. Let the manufacturers of that State look after the immense coal, stone, peat and salt interests; and Nebraska will soon teem with her hundreds of thousands of happy, thrifty, enterprising citizens.

We should be pleased to hear from some of our numerous subscribers in different portions of that State, as to the progress of different sections; and particularly as to the doings of Agricultural Societies, Fairs, &c. We shall probably make it convenient to attend some of the latter during the Summer and Fall.

WIRE FENCE.

We have received from Mr. J. TRENT, some inquiries upon this subject. As a rule, we are opposed to wire fences. Our objections are, that not one in twenty is an efficient fence, for the purposes for which a fence is made—that is, to turn stock. Our principal objection is, however, that they are an expensive fence, when the design is to grow a hedge, as is usually the case with those who build a wire fence; expensive, from the fact that in four or five years you have no use for the wire, and there is no market for it; consequently, it is a dead loss. The first cost of a three-board fence is but a trifle, if any, greater than the wire, makes a more efficient fence, and after the hedge grows, you have a lot of second-hand plank and posts that are worth to the farmer half the original cost, at least, for building barn lots, cross fences, &c. If we used the plank, we would put two at the bottom, the lower one seven inches from the ground, the next twenty to twenty-two inches, the third one four and a half feet from the ground. The plank fence will

only cost about fifty cents per rod more than will the wire.

Nothing less than four wires will answer, and by right five should be used. With four wires a size larger than telegraph wire, we have seen both horses and cattle go through them, as though they were made of tow. Of course, it injures the animal; but still, you have a broken fence.

Our correspondent makes some inquiries as to the mode and manner of planting and tending a hedge, which we shall take another number to answer.

The best, or at least the plan usually followed, with sod corn, is to break the ground shallow, not over two and a half inches, turning the furrow-slice on its edge at an angle of something less than forty-five degrees, and plant two and a half by three and a half feet apart. We would prefer, however, to make it four feet one way, and two and a half the other. The hand planter is the best manner of planting. If your sod was broken last Fall, we would simply harrow, weighting it pretty heavy. Lay off and plant as for old ground, four feet apart each way. The hoe can be used to good advantage in a crop of sod corn; but the shovel or cultivator is of very little use, and in fact, may be an injury.

THE LIVE WEIGHT OF ANIMALS.

The amount of meat obtained from a domestic animal sold by its live weight is very variable, and experiments have recently been made in Liverpool, to ascertain the proper allowances to be made. From the statistics to be derived from the public slaughter-houses of Paris and Brussels, it appears that the race and the condition of the animal, besides many other circumstances, affect the result, and that certain animals yield as much as 70 per cent. of meat, while others give only 50 per cent. The mean weight of meat produced, however, is calculated at 58 per cent of the live weight in beef cattle. In the case of sheep, the proportion is from 40 to 50 per cent.

From experiments made, it appears that the different products from oxen and sheep are as follows: An ox of the live weight of 1,332 pounds, yields—meat, 771.4 pounds; skin, 110.2; grease, 87; blood, 55.1; feet and hoofs, 22; head, 11; tongue, 6.60; lungs and heart, 15.33; liver and spleen, 20.05; intestines, 66.15; loss and evaporation, 154.352—making the total of 1,332 pounds. The product from a sheep weighing 110.2 pounds, is as follows: Meat, 55.1 pounds; skin, 7.714; grease, 5.51; head, 4.408; feet and hoofs, 2.204; blood, 4.408; tongue, lungs, heart, liver and spleen, 4.408; intestines, 6.612; loss and evaporation, 19.736—making the total of 110.2 pounds.

WHERE DOES THE DEW COME FROM?

To those who have never given this subject much consideration, there is a world of mystery connected with it, and we hear many erroneous opinions expressed in regard to the subject. There is, however, one principle, if properly understood, will explain the whole matter. The atmosphere, under certain conditions, is capable of holding an immense quantity of invisible moisture. That condition is heat. The warmer the air, the more invisible moisture it contains. The opposite of heat is required to bring the two gases that always exist in the atmosphere, oxygen and hydrogen, to that condition known as water, so that it may be visible to our sight. We have frequently noticed that, when a glass or earthen vessel is filled with cold water on a warm day, water suddenly forms upon the vessel. We say the vessel sweats. We have here the proper condition to form dew from the invisible moisture.

So with the plant. After the sun's rays cease to fall upon the earth, and night sets in, the earth radiates the heat faster than the atmosphere; or, in other words, becomes cool before the air does, and the warm air, coming in contact with the cool earth, congeals, so to speak, the two gases that form dew. But we find there are degrees to the fall of dew; that is, upon certain things the dew is heavier than upon others—as, for instance, a growing plant. Our

principle explains this. The plant radiates the heat faster than the earth, or dirt, and hence gets an increased quantity. So, also, does it explain why, in the cultivation of crops, the ground should be kept loose and friable by frequent plowing, that, being loose and porous, it will radiate heat faster, and hence cools before the air, and from this cause gets an additional share of moisture, as well as of the manures held in solution by the atmosphere, which we spoke of in our article last month on the corn crop. By this theory, too, our readers will be enabled to understand why rains are apt to follow water-courses; why timbered countries have more and heavier dews than do the prairie countries; and from this we shall readily understand the necessity of planting trees over our farms. The more substances we can collect upon the farm, that will give off heat fast, the more dew we shall get.

We have said enough, we hope, to enable the reader to understand something of the subject. The theory is not new; it is as old, almost, as chemistry itself. We have not cared to discuss the question, as to whether plants produced dew in part within themselves or not. We think it a hard matter to establish this fact by satisfactory experiment. But it matters little whether they do or not; the truth remains a self-evident fact, that, for the most part the earth owes it to the principle we have stated for its dews. This being so, it becomes us, as intelligent farmers, to take hold of these facts and use them for our benefit. Every step taken in this direction is one step taken toward establishing farming as a science.

CONJUGAL ATTENTIONS.

The duties of husbands are thus laid down in a discourse by the Rev. Dr. ARKMAN: The first duty of husbands is to sympathize with their wives in all their cares and labors. Men are apt to forget, in the perplexities and annoyances of business, that home cares are also annoying, and try the patience and strength of their wives. They come home expecting sympathy and attention, but are too apt to have none to give. A single kindly word or look, that tells his thought of her and her troubles, will lift half the weight of care from her heart. Secondly, husbands should make confidants of their wives, consulting them on their plans and prospects, and especially on their troubles and embarrassments. A woman's intuition is often better than a man's wisdom and shrewdness, and her ready sympathy and interest is a powerful aid to his efforts for their mutual welfare. Thirdly, men should show their love for their wives in constant attention, in their manner of treating them, and in the thousand and one trifling offices of affection which may be hardly noticeable, but which make all the difference between a life of sad, undefined longing, and a cheery, happy existence. Above all, men should beware of treating their wives with rudeness and incivility, as if they were the only persons not entitled to their consideration and respect. They should think of their sensitive feelings, and their need of sympathy, and never let the fire of love go out, or cease to show that the flame is burning with unabated fervor.

THE TOOL SHOP.

Every farmer ought to have some few tools, so that he will not have to waste so much valuable time in going to town to get his little jobs done, nor yet in going to his neighbor's to borrow. It costs more to borrow than to buy. A drawing-knife, a couple of planes, two or three augers, some bits, a couple of files, gimlets, awls, &c., will make an assortment of tools with which a farmer, with the least spark of ingenuity, can manufacture various articles of every day use, upon the farm, to the saving of many dollars.

But not only this: The farmer will find it a positive pleasure to relax a little from the labor of the farm, and go into the shop for an hour or two, and make a single-tree or plow-handle; or on a rainy day to make a form for the wash-tub, a shelf or two

for the kitchen, a trellis for the grape-vine, or a little wagon for the baby. In addition, a cheap foot lathe will be a great source of both pleasure and profit, and can be constructed at an outlay of not more than twenty-five or thirty dollars; and indeed less than that, if the farmer has the timber to make the frame and the drum. A farmer of ordinary ingenuity can construct it himself; and nothing we know of will prove so fruitful of pleasure as will the lathe. When you get it built, give the boys free access to it, and you will be surprised how it will develop their ingenuity, which otherwise would lie dormant. It don't matter if they do dull the tools: teach them how to put them in order again. They will make none the worse farmers for being skillful with tools.

WHAT KIND OF HORSES?

Much has been said and written upon the subject of what kind of a horse the farmer needed. Our own opinion is, that in no one particular kind of horse will we find all the qualities that are peculiarly valuable, from the fact that the work of the farmer is as varied, almost, as there are different kinds of horses. But, first, if the farmer keeps but one span of horses, they should be horses of at least twelve hundred pounds weight, near sixteen hands high, kind and docile. The horse which comes nearest to this is the Percheron; but, as yet, this breed has not got sufficiently spread over the country to be available. It is to be hoped, however, that before many years this difficulty will be removed. We have, however, a good many native stallions, which, if good mares are taken to them, will materially improve our draught stock.

If the farmer keeps two teams, we would have the other somewhat smaller, to weigh from eight hundred to a thousand pounds, not less than fifteen hands high; neat, trim-built fellows, calculated to pull a reasonable load, but selected more especially for nerve and action. Horses which, if put on the road, would walk five miles an hour; if put to the plow, would break two acres and a half a day.

If the farmer keeps a fifth horse, he should be pre-eminently a saddle horse. He should be not over fifteen and a half hands high, quiet but active, able to walk six miles an hour; and for our own use, we should want a natural pacer. Many, however, would prefer a trotter.

We have spoken here of horses, applying it without regard to sex. We have heretofore, in "Farm Notes," expressed our idea of what proportion of mares the farmer ought to keep. By a little care in breeding, the farmer can keep one-half mares, and still not interfere with the ordinary farm work. But let us beg of you never to breed a pony mare. One of the greatest curses to the Kansas farmers to-day, is the large strain of pony blood which enters into our Kansas horses. It can only be eradicated by omitting to breed them. Every farmer should be raising a mare colt or two, that promise to be good brood mares. By a little attention in this direction, we may soon expect to see our farmers supplied with a strain of horses which will supply their wants.

SOMETHING MORE ABOUT BUTTER-MAKING.

We gave our lady readers a little talk about butter, last month; but we hope they did not expect to get off with that, for we expect to keep talking about this subject until the principle of how to make good butter shall be settled, so that every woman in the land shall know just how it is done. We spoke, last month, something about the cows and their feed; the milking and working of the butter, and about exposing the cream jar to irregular heat. We venture the assertion, that there have been more patents granted to churns than to any other article of machinery; and the principal claim of every one of these churns is, that they will bring the butter in less than no time. Now, this is one of the improvements that we don't want. Cream should be churned at least forty-five minutes; and it is better to decrease the temperature a little after churning half-an-hour. Speed in churning is, as

we said before, not what we want. We need a steady, even stroke, that will keep the cream in constant motion. The shape of the churn, or the direction of the stroke of the dasher, matters but little. There can, however, be considerable improvement made in the motive power, or rather in adopting the practice of the older dairy districts.

On many farms, a little water-power could be constructed, with but very little cost; but where this cannot be done, the dog-power can be used, and few families are deficient in this motive power.

A small endless chain power can be constructed by an ingenious farmer, so as to require an outlay of not more than twelve or fifteen dollars. We shall give this subject more notice in another place.

One thing to be avoided is, the wrong practice of coloring butter. Butter, if properly made, makes its own coloring matter; and any variation from this rule is to be condemned.

The practice of working butter with the hands is wrong. A paddle, or what is called a butter ladle, takes out the buttermilk more thoroughly, and does not destroy the oil globules of which the butter is composed; and butter thus worked will keep one-third longer than that made by hand. Butter must have at least three workings, before it can really be called butter. If you desire to pack your butter for Winter use, procure a stone jar of the proper size, and after having worked your butter down well, pack it down tightly, using a potato-masher or some similar contrivance, so that no air shall be left in the body of the butter. Then make the following pickle: Water, one and a half gallons; fine salt, one quart; white sugar, two ounces; saltpeter, one ounce. Boil ten minutes, skim thoroughly, and when cold, pour over the butter. Tie on a cover, and set in a cool place. Butter may be added from time to time, care being taken to pack each lot down firmly. The same pickle will answer for all.

TRACKS.

Boys, don't you recollect the first time you went rabbit-hunting? You know it had commenced snowing the evening before, but at nine o'clock the moon was shining, and you went to bed, rejoiced to think what a glorious time you would have next morning after the rabbits; and then, in the morning you were out of bed by daylight, and hurrying mother to get your breakfast, so you could try that gun (you traded your sled and knife for it, did n't you?) Well, you got your breakfast, after what seemed a long time to you; and, slinging your powder-horn and shot-pouch, and stuffing three or four newspapers in your pocket for wadding, you start out through the garden. Just as you were getting over the fence into the corn-field, out jumps a cotton-tail, and down you jump, bring the gun to your shoulder in sportsmanlike manner, glance along the barrel and pull the trigger, expecting to see the rabbit jump about four feet right straight up, and fall dead, with his head all blown to atoms. But, somehow, your gun wouldn't go off; and when you came to examine it, you discovered that you had forgotten to cock it. You were mad—awful mad; but you resolved to have that rabbit yet. So you stepped out, and there went the tracks right down between the corn rows. Keeping your eyes ahead, walking briskly, this time with your gun cocked, you soon come to a point where you think he might stop; you look sharply on either side; but, no—the tracks keep right straight ahead; so, on you go, your heart beating like a trip-hammer, your breathing short and hurried, holding your gun at a ready. You spy a clump of bushes ahead, right in the track your game was traveling. Carefully you go, keeping an eye on the tracks, to see that you are not on the wrong scent. You approach the covert; but suddenly you stop; you happened to think that the right way was to go around to the other side and see if he had come out. After a careful examination, you find that you have him; so you commence peeking here and there, getting a little nearer each time, but he is nowhere to be seen.

You begin to have some doubts about having him; but, determined not to give it up so, you institute another search, when, all at once, your eyes spy your game, sitting on a tuft of grass not three feet from the end of your gun-barrel. Then, how you did tremble! It was a critical moment; haste or delay might spoil it. You wondered if you could get your gun to your shoulder, without scaring him. You make the attempt. Straightening up gradually, at the same time bringing your gun to your shoulder, your knees trembling, you cast a glance down the gun-barrel, and slap!—bang!—she goes. Oh, my! what a moment! Panting for breath, your cheeks aglow with excitement and the sharp morning air, you stoop and pick up your game, and start for home, eager to display your prowess, and convince them that you are a perfect "Nimrod."

Well, that is the experience of almost every boy; and if there are any who have not, they have missed the only positive pleasure which it is possible for a boy to enjoy, unless it is pulling a four-pound trout or bass out of the water, with a good limber pole.

Well, boys, we started out to have a little talk about another matter, but unconsciously we strayed off to the time we killed our first rabbit.

We were passing over a country road, a few days ago, and all at once we came upon some tracks in the sand, which, upon a closer examination, we found to be quail tracks. They are not so silly as the rabbit; but they, too, had forgotten that their tell-tale tracks might lead to their death. Then our mind reverted to the scenes of our boyhood, and we wondered if we had been so simple as the rabbit—if we had left tracks that would lead to our death. What say you, boys? Are you walking in the soft and slippery paths of sin? If so, remember you are leaving tracks that will tell against you in the great Hereafter. Think of it.

THE GARDEN FOR JUNE.

"A dry June for a corn crop," is an old saying, and, we believe, a true one. We also believe it equally true for the garden. The hoe and the rake must not be allowed to rust during this month. Now is the time to attack the weeds; they must be routed, "horse, foot and dragons." Early and late should be the countersign for garden work, during this month.

ASPARAGUS should not be cut longer; peas and other vegetables come on now, to take its place. It is well to apply a coating of salt now, and fork in lightly.

BEANS.—Keep the soil frequently stirred; if poles are needed, they should be set at the time of planting.

BEETS.—Thin out early. The young ones make fine greens, or they may be transplanted with perfect success.

CABBAGE.—May be transplanted any time during this month. Here the hoe is needed, and it is impossible to succeed in raising cabbage without the almost daily use of the hoe.

CELERY.—Sow seed for the Winter crop, though we prefer doing it earlier. If you have plants grown, prick them out in the bed where they are to stand.

CORN.—For roasting-ears, may be planted all through this month.

CUCUMBERS.—For pickles, may be planted any time during this month, with better success, perhaps, than earlier.

EGG PLANT.—Requires a very rich soil. Stable manure suits it very well.

ONIONS likewise need plenty of manure, and frequent hoeings. Thin early. They mature quick, and hence the necessity of early culture.

TOMATOES.—Transplant as fast as plants reach sufficient size. Seed may yet be sown to good advantage, for canning purposes. Support the bushes, to keep the fruit off the ground. If they bloom very full, it is better to pick off some.

Don't let any weeds stand in the garden. Culti-

vate cleanly. Leave no spot unoccupied. Raise something the family can use on every square inch of ground.

SHEEP.

We don't expect to run wild over sheep; nor do we expect to advocate one breed of sheep, to the exclusion of all others. We well remember, some years ago, that certain Agricultural journals, or at least those that claimed to be devoted to Agriculture, were filled week after week, and month after month, with nothing but sheep. So persistently was this hobby ridden, that the very sight of a sheep disgusted us, and we were almost ready to say that a sheep should never come upon a farm of ours, should we ever be so fortunate as to own one. But that wild and almost disgraceful excitement has passed away, teaching us many valuable, though to some rather costly, lessons. Let us take these lessons to heart, and we are satisfied we shall be profited by them.

But while we acknowledge the great error of those specialties, as applied to most men, let us remember that those who practice a mixed husbandry are the most successful. The very requirements of our natures should teach us that this is the true policy. There are a few men, very few, who may be able to devote a farm to a specialty, and accomplish reasonable results; but these are the exceptions. All admit the general rule. To this end, then, would we call more general attention to sheep raising. We care nothing for the fine wool or the coarse wool question, farther than this. The demands of society are not to be met by either variety, and it is to meet these demands the farmer must work. We must have fine wools and coarse wools, long wools and short wools; and it matters but little in dollars and cents, to the farmer, which of these varieties he grows. There is, however, one consideration in regard to sheep raising, which it behooves the farmer to examine. That is, what sheep will produce the best mutton, as regards quantity and quality. Mutton is rapidly growing in favor with the masses, and it is well to develop this taste, by growing those sheep which will best meet the requirements of consumers.

We would not advise any farmer to rush into sheep-raising, without experience or observation; nor do we advise any farmer to relinquish all other branches of Agriculture, to enter that of sheep husbandry. But what we would advise is, for every farmer to get a few sheep, thorough-breds, if possible, and build up from that such a sized flock as his farm will support. In order to practice true economy, the farmer should allow nothing to go to waste. The sheep will consume much, very much, that cattle or horses will reject. If the farmer has no sheep, this must be irrevocably lost: with the sheep, it is so much money in his pocket. The wool from fifty or a hundred sheep would clothe any ordinary family, and this is no small item to the farmer. We do not mean by this, that the wife must be compelled to work it up at home. The farmer's wife has enough to do without this; the trouble generally is, that she has too much to do. As numerous as our woolen factories have become, it is cheaper to put your wool in good condition, and sell it, and buy such goods as you need.

Another consideration is, that it affords the farmer a valuable addition to his table through the Summer months; and this is one thing wherein many farmers commit a grave error—that of confining the family to pork, as a chief article of diet in meat. The family needs frequent changes, on the ground of health, if no other. Sheep will supply this want.

Let us hope, then, that our farmers, from among all these considerations, will find enough to induce them to enter upon this branch of farming, to a greater extent. We would not by this article wish to give one word of discouragement to the man who has been trained to sheep husbandry, and understands all the details of the business, from entering into that branch to any extent his judgment may dictate. We believe there is a fortune in the busi-

ness here in Kansas, to those who can bring to it a thorough knowledge of it, coupled with a love for the occupation, and some money. But the men who can bring all of these pre-requisites are rare.

ECONOMY.

To the young husband and wife, just starting together on the journey of life, the first and most valuable lesson to be learned is that of economy. Upon this, more than any other one cause, depends their future success in life. Let not the husband think that the wife is the only one who is to practice economy, as is too often the case. Let the lesson be mutual. It is the husband's duty to see that his business is properly conducted. If he is a farmer, it is a part of his duty to see that the farm is so conducted that nothing will be allowed to waste; that no land shall stand idle; that no loss shall occur from neglect of tools or stock. This is a part of his lesson in economy, as well as to see that nothing is foolishly spent. It falls to the lot of the wife to see that of what comes into the house, nothing shall be wasted; that everything shall receive proper care and attention, and at the right time. If the women of our land have a failing, it is in matters of dress. For this, men are in a great measure to blame; but the young wife should exercise in this matter a good deal of discretion, keeping in view always the lesson of economy.

It is not enough for the husband and wife to practice economy, but the lesson should be impressed upon the children. If you give them money to spend, compel them to account for it; if wrongly spent, show them their error.

There is a broad distinction between economy and penuriousness, though in the mind of the stingy man they are synonymous terms. It is economy in the farmer to spend five hundred or a thousand dollars for a thorough-bred animal; it is penuriousness to compel your wife to do the washing, when the widow in the next house needs the seventy-five cents. But it is needless to multiply examples. The wise man or woman can readily discover for themselves the line of demarcation. Find and follow it, and success is sure to crown your lives.

FEATHER BEDS.

Feather beds, though much in repute, are open to numerous objections. In the first place, the feathers used for filling are seldom prepared and purified. As stripped from the skin of fowls, the small feather shafts are charged with animal matter, that undergoes a slow but sure putrefactive change. The result may not be enough to perceptibly affect the atmosphere of a bed-room, but sufficiently to be unhealthy.

Now, in country places, nothing is more common than the use, for bed-making purposes, of feathers which have not been subjected to any purification. Town upholsterers purify, or profess to purify, the feathers employed by them for bedding; but we are called upon to inquire in what the purification consists. It consists in baking, beating, and in some cases, washing. Granting that these processes are followed, that the feathers are purified, and sewed, when absolutely pure, in the ticking, yet, what then? Night by night, animal emanations from the sleeper get absorbed into the feathers, and there remain, despite of shaking up, exposure to the air, or any other process of domestic purification, which either is or can be adopted.

I have assumed the best conditions. Take now such as are the ordinary conditions, if not the worst. Feathers never wear out; it may be said, they never come to an end. To-day, a patient afflicted with a fever, or other mortal disease, may lie on a feather bed, to-morrow he may die upon it; then, after a few days the bed may be sold; and then who shall be answerable for what becomes of it, or the injury it may do? We know what ought to be done with it, at the very least: the feathers ought to be taken out and purified before closure in a feather bed again. Even then, the idea of using such feathers

is repugnant; but frequently no sort of purification is performed, in which case the result may be easily imagined.

ABORTION IN COWS.

We notice in nearly all of our exchanges accounts of cows aborting. In fact, it is becoming so frequent that the best minds of the country are turning their attention to the subject; and we have reason to hope that some satisfactory conclusion may be arrived at. In the mean time, it would be well for the farmers who are suffering from this cause, to examine carefully for themselves, and see if it may not be traced to a distinct cause or causes—for we do not believe it all comes from one cause. We conceive that the cause, when obtained, will be found in some articles of food. It has been found that cows fed upon brewers' or distillers' slops, were liable to abortion. There may remain in this refuse some remnants of ergot, which produce spasmodic contraction of the uterus; or the stimulating nature of the food may be the producing cause. Cold rains may produce abortion, by checking the capillary circulation of the skin, and forcing the blood back upon the internal organs, producing a congested condition, which is always liable to produce abortion.

Clover seed, from its marked emmenagogue properties, is always a dangerous substance for breeding animals. We believe it impossible to feed the seed crop of clover to a mare with foal, without producing abortion. We know of no reason why the same result may not be produced in the cow or ewe. It is frequently the case, that considerable seed will mature in the first crop of clover; and a part of the abortions may be accounted for from this fact.

Again: It is not unlikely that the emmenagogue properties of the seed may extend to the roots of the clover plant; and cows, in feeding, may and do frequently pull up portions of the root in feeding.

There are, undoubtedly, other plants that possess these properties; and it is the duty of the farmer to examine these subjects carefully, and we may reasonably expect, then, that satisfactory conclusions will be arrived at.

"DESPISE NOT THE DAY OF SMALL THINGS."

It were well for the farmer if he would take pattern from the business men of any considerable city or town, in regard to the conduct of his business. There the creditor is as careful to see that every transaction is balanced to a farthing, as are our farmers as to the dollars. They go upon the principle that, if we "take care of the pence, the pounds will care for themselves." But the farmer goes blundering along, paying no attention to the little things of this life, losing a dime here and there in every settlement, without stopping to think that it takes but ten dimes to make a dollar.

But it is not alone in matters of ready money the farmer loses. There is a want of economy displayed upon every hand. He allows a portion of his crops to be wasted, with unvarying regularity; he fails to have sufficient stock to consume his feed, or delays to repair his fence, permitting stock to break in and destroy his crops, or his roof leaks and injures the plastering; or his tools are not repaired at the proper time, necessitating unnecessary expense; and a hundred other things that might be enumerated, wherein the farmer overlooks the little drains that are constantly being made upon his purse. These things the farmer should correct. Go to work in earnest about it, and systematize your business. If success in your business is your object, take such steps as will secure it, and cease this slipshod manner of doing business. Remember that no great things are accomplished in this life, save only as the busy bee stores its honey, "little by little."

SUPER-PHOSPHATE OF LIME.

Many persons, who know the value of the above as a manure, do not, perhaps, know how easily and cheaply it can be made. By placing a good-sized

stone, for an anvil, and beating the earth solid for several feet around it, the bones can be broken up, and afterwards collected very easily. For large bones, a sledge is needed; for smaller ones, an ordinary hammer will do. The finer the bones are broken, the quicker can they be transformed. Ordinarily, they should be broken to about the size of hazel-nuts. Have a tub (a barrel sawed in two), weigh the bones, and add one-eighth their weight of water, and one-fourth their weight oil of vitriol. Stir with a stick once or twice a day, for four or five days. In a week or ten days it is ready for use. Take the paste and dry it with ashes or dry earth, pulverize, and it is ready for use. Two teaspoonfuls to a hill of corn or potatoes will work wonders. It can be made at an expense of less than two dollars and fifty cents per hundred pounds, besides the labor; and a hundred pounds of it, properly applied, is worth to the farmer one hundred dollars. There will be some of the bones that will not be dissolved. If these are placed in the manure heap, they will decompose there, so that nothing is lost. Try it.

WOMAN'S VIRTUE.

It is a prevailing vice among a class of young men—and we regret to say there are some older ones not free from the same vice—of doubting the virtue of women. To us, it looks like not only an outrage to good taste, but also betokens a want of intellect. Besides this, it betokens a besotted nature, and passions that would disgrace a beast. The idea of dragging woman down to man's level, in point of virtue, is so repugnant to the feelings, so utterly at variance with the truth, that the utterer ought not to have a place in civilized society. That there are women—too many of them, in fact—who lack the elements of virtue, none will deny; that it is so, whose fault is it? But this has nothing to do with our question. We would wish to impress upon those who cast this slur upon the character of the women of our land, that if what they charge were true, this fair world of ours would be a perfect hell, fit residence only for those who doubt woman's virtue.

The women of our land are as far above those who make these assertions, as the heavens are above the earth. Our women are the highest types of purity and virtue here upon earth; and any craven who would drive them from this high estate, who would rob them of this, their brightest diadem, deserves the execrations of all good men.

TOO SMALL.

We see, by a recent report, that the average weight of all the hogs received at Chicago the past season, was only two hundred and twenty-six pounds. Here is one of the great reasons why our farmers are not more successful. We raise cattle and hogs without number, and then force them on the market just at a time when they are beginning to fatten well. A small-framed hog, which weighs two and a quarter cwt., makes very nice meat for home consumption; but the demand of the market is for heavy meat, and we respond to it by continually forcing upon it hogs of the above weight. Why do farmers stand in their own light? Why not commence feeding the hogs now? Potatoes are cheap; feed them, if you have no corn. Don't say you are too poor to buy feed: that's nonsense. You are too poor to put hogs into market which weigh only two hundred and twenty-five or fifty pounds. If you have no other way of getting feed, trade some of your shoats for corn or potatoes; but see to it that you raise and save enough from this year's crop to last you through another year, without sacrificing any of your stock. Farmers, don't neglect your own interests.

AT HOME.

How easy it is for one to be polite and courteous in a neighbor's house, or in the presence of those whose friendship we desire to court. Smooth words drop like oil from our tongues. Honeyed phrases are easy of utterance. In a mixed company, when we desire to impress them with the idea that we

have talent, how voluble we can be; but when it comes to our own fireside, we often act as though politeness were a something out of place. Smooth words are not to be thought of. Neat phrases strangle us there. We go into the presence of that woman, wife though she be, as though she were but a servant. Neither by word nor gesture do we recognize her presence. If she tries to converse with us, she gets only a growl. If she would caress us, we may endure it, but no embrace in return is thought of for a moment. Shame on the man who forgets the duties he owes to his family!

BREVITIES.

RUSSIA has appointed a Beet Root Sugar Commission.

GREEN PEAS appeared in our market May 28th, at five dollars per bushel.

STRAWBERRIES, of Kansas growth, appeared in the market May 21st, in this city.

THE HAILSTONES of May 19th did considerable damage in gardens and conservatories.

A BOTANIST in England has offered a prize of twenty thousand dollars for a blue dahlia.

AN Indiana editor says he would as soon eat a slice of PAREPA ROSA on toast, as to eat a robin.

L. F. BEAN, in sending in a subscription, says: "We have a cow that has had five calves, at single births, within three years and seven months."

It is recommended to soak corn in fish brine, to prevent the ravages of the cut-worm and wire-worm. Can any of our readers speak from experience?

A CASE of glanders is reported cured, by giving calomel in quarter-ounce doses daily for eight days, giving water, slightly acidulated with vinegar, as a drink.

A FARMER of St. Albans, Vt., has a sow that recently brought forth fourteen pigs at one litter. He was offered sixty dollars for the sow and pigs, but refused.

GEORGIA fruit-growers are indignant, because they have been buying young poplars for peach trees. An outrageous swindle; but it may prove not unprofitable.

BROWN COUNTY reports the best prospect for Fall wheat they have ever had. If this proves to be the case, we'll hear of some sixty-bushels-to-the-acre crops up that way.

FROM all parts of our State come the most flattering accounts of our Fall wheat prospects. We should not be surprised to see the average run up thirty-five or forty bushels per acre.

MR. JOHN WRIGHT, of Fall Creek, in this county, says his sheep pay him over one hundred per cent. profit. He keeps from one to two hundred, mostly mixed breeds.

It is said that fellows soaked in boiling linseed oil before the tire is put on, will prevent the latter from becoming loose. The fellows should be made of thoroughly seasoned wood.

A CALF was born in New Hampshire having but one eye, and that one in the center of the forehead. The upper jaw was wanting entirely, the under jaw perfect. So says the *N. H. Gazette*. It may be so.

"THE RAIN! the rain! the beautiful rain!" still continues to descend upon "Drouthy Kansas." A Mississippi steamboat could have floated up and down the roads in our vicinity this evening (May 19).

MR. GEORGE SUCH, of South Amboy, N. J., makes the gladiolus a specialty, cultivating several hundred varieties. In a long bed, in front of his residence, he frequently has one hundred thousand in bloom at a time.

WE notice in the papers of Northern Kansas that they are determined to make the District Fair, at Atchison, this Fall, a grand success. Lend a helping hand, farmers; for you are sure to get back ten fold, all you may spend in a good Fair.

WE are glad to place upon our exchange list the *New Hampshire Gazette*, the oldest paper in Amer-

ica, it having been established in 1756. It is one of the leading papers of the New England States; and this fact alone is sufficient comment upon the ability of its editorial management.

AN Ohio hog-grower says the following treatment will make "the biggest hog out of a pig in twelve months": Take two parts of barley, two of corn, and one of oats. Grind them together; then cook, and feed cold. He says it is the cheapest food, and that any pig of a good, improved breed, can be made in this manner to gain a pound a day until a year old.

NOTWITHSTANDING the many reports circulated by Eastern papers to the contrary, Kansas will still maintain the proud superiority she gained last Fall, as the first State in the Union for fine fruit, by her present crop of all varieties. We are receiving reports daily from all parts of the State, and the reports are that of all, save the very earliest varieties, Kansas will furnish an abundant crop.

FINE APPLES are no rarity in Kansas; and yet, those Willow Twigs sold on our streets to-day (May 28th) by Mr. VAN WINKLE, of Pleasant Ridge, in this county, were an exception. Looking down on them from our window, they looked like large golden balls, with the crimson of a Kansas sunset reflected upon their cheeks. Mr. VAN WINKLE is one of our largest farmers and best orchardists.

A MODEL FARMER'S WIFE.—MRS. ALFRED BARTON, of Dexter, Maine, has been married twenty-five years; has reared a family of nine children, mostly boys, and done her housework with the help of members of the family. She has made 11½ tons of butter, and 36½ tons of cheese. Her husband has most successfully managed a large farm—as what man would not be successful, with the help of such a "gude wife?"

A CORRESPONDENT writing us from Dickinson county, says that Mr. DANIEL MERRILET has two thousand one year old peach trees, and that he measured one of them, which was six feet three and three-fourths inches above ground, and four inches in circumference. The correspondent also says he raised some Shaker Russet potatoes, sixteen of which filled to overflowing a half-bushel measure. How's that, for the "Great American Desert!"

THE quercus ruber, or cork oak, from which the substance cork is obtained, grows in the South of Europe and in Africa. When the tree is about fifteen years old, the bark is removed. It is usually done in July or August. The bark is soaked in water, and pressed, when it is ready for market. The tree is not injured by the removal of the bark, but a new bark commences to form. The bark is removed every seven or eight years, each crop improving in quality. The average life of the tree is said to be one hundred and fifty years.

BEETS NOT SOIL EXHAUSTERS.—The *Utica Herald* says no valid objection can be raised to this crop on the score of its exhausting the soil. A tri-yearly rotation of the beet enriches the soil. The tops cut off and plowed in, as well as the salts and charcoal from the sugar-houses, are excellent fertilizers. Large quantities of animal manure are also obtained from the herds fattened on the pulp. Thus the yield of the land would be more than quadrupled in value, while the land itself would be improved, where now it is being exhausted by continuous cropping with cereals.

EVERY-DAY LIFE IN-DOORS.—No. III.

BY MRS. MARY MALCOLM.

How the little things of this life do annoy one! We resolve, and re-resolve, that they shall not bother us; but when the moment of trial comes, those good resolves are forgotten. I was vexed, this morning, because I had no dry wood for the stove. I thought JOHN should have provided it; but he didn't seem to think it made much difference, and this vexed me more. I spoke sharply—in fact, I scolded him roundly; but he simply closed his ears.

I knew my words hurt him, but I was too angry to modify them. I was over an hour in getting breakfast, and the clock struck ten before I got my work done up, and then it was time to get the vegetables for dinner. Churning had to wait till after dinner; the baby was neglected, and consequently cross; the day was warm, and my hurry brought on a headache; and at night I was ready to faint with fatigue. JOHN was very kind to me, and when I came to pillow my head by his side, how the self-contradiction would rise in my mind.

Ah! that's it. We can be cross and scold through the day; but when darkness shuts out the daylight, and we are compelled to look inward, then the blinding tears will flow, and the sobs will convulse, to think how unwisely we have been. Then it is that we wish our tongue had been paralyzed, ere we had uttered an unkind word to him whom we love more than aught else besides. But then, as he takes us in his strong arms and folds us to his heart, and soothes us with a word and a kiss, what a peace comes over our soul! how tranquil our mind becomes! At that moment it would seem that an unkind word could never again pass our lips; but experience tells us otherwise.

Still, we believe it possible to overcome this habit of scolding, which, to a greater or less extent, we believe, all our sisters are guilty of. A quiet determination, coupled with unceasing watchfulness, will generally accomplish it.

I received a letter from sister yesterday; and, as we expected, she has undertaken the in-door management of a farm, and, of course, the farmer too. She has not yet had time to find out how little she knows about house-keeping; but she will find out, and then what distressing attacks of the "blues" she will enjoy.

The Squire's wife came over yesterday, and the conversation turned on soap making. She said she tried to make a kettle of soap nearly a month ago, and worked with it two whole days, and she could not make soap of it. She then poured it out in a keg, and set it away, and thought no more about it till a day or two before, when she went to it; and she says it was just as nice soap as one could wish. I told her I thought likely the lye was too strong. I have known several to fail when they used the concentrated lye, from this cause.

JOHN, in the goodness of his heart, brought me home a washing machine. I have been without any help for some time, and the washing for our family was very trying. I had always been a little prejudiced against washing machines, although I liked the wringer very well. I could readily understand how clothes could be wrung by a machine, but I could not understand how a machine could get the dirt out of wrist-bands and collars. It don't do it altogether, but I do declare that I wouldn't do without a washing machine for nothing. All the sore hands and broken back labor is gone. A woman may do without a sewing machine in the country, but she ought not to get along without a washer. Many of them, doubtless, are worthless; and the better plan is, before you buy, to use them for three or four washings. Dealers generally will give you this privilege, if you are known to them.

Our neighborhood had a genuine excitement last week, and the cause of it was the marriage of one of the prettiest girls I ever saw. The only peculiarity about it was, that she married a wealthy merchant from a distant city. She has been raised upon the farm, and has had no opportunity for education beyond the district school; though that has been of a higher grade than most district schools. But she is a girl of good common sense, has been raised to believe that labor does not degrade one; and I have no fears but what she will fill well the station to which she has been called, if the husband does his part. She looked beautiful, as she stood up by the side of the man whom she was so soon to call husband; and I thought I could read, in the half troubled look which rested upon her face, that she seemed to realize fully the awful responsibility she was about to take upon herself. It were well

if more of our girls could realize this responsibility, before they take upon themselves the name of wife.

There is one thing which has troubled me a great deal, and I doubt not every mother's heart has felt the same thing—I mean, the proper training for our children. It is hard for a mother to raise a child, and bestow upon it every care that a mother's love can suggest, to watch and nurture it through childhood, and then to see that child, when it comes to years of maturity, make shipwreck of all its hopes, both for time and eternity. It is this that troubles me. Can we guard against it? We would, if it were in our power, have our children grow up to man's estate uncontaminated with any of the vices and follies of the present day; we would have them pure in mind and soul. But this can hardly be done; and hence our trouble. There are those who seem to care little what the condition of their children's mind is; and hence, their children grow up in immorality, and the few contaminate the many. A mother's only hope is to so twine the child's heart-strings around her own, to so bind the child's life up in her own, that no earthly power shall be able to seduce its love from that mother. Make it feel that its mother is the only counselor in whom it can trust here upon earth, and endeavor early to impress upon its mind those beautiful Christian lessons taught by a Saviour while upon earth.

I would not, by what I have here said, have it understood that the father should have no part or lot in the training and education of his children; but only that we conceive it to be a part of the wife's duties—as much so as it is the husband's to provide food and raiment for the family. Of course, the wife takes her counsel from the husband; but the children are nearer to her than to the father; her life is more bound up with theirs than is his; therefore, to her belongs more aptly the duty of guiding their footsteps along life's pathway, warning them of the many pitfalls which they must encounter on the way.

Those hemp carpets on the bedroom, up-stairs, which JOHN thought so cheap, after scarcely six months' wear, are now to be numbered among the things that were. I can get some strips for the kitchen, but they look horrid on the bedroom floor. I don't think JOHN will ever buy any more hemp carpeting.

My chickens have furnished us more eggs this Spring than common. I can account for it only from the fact that they have had free access to the lime and sand screenings around the mortar-beds. I think I shall take a hint from this, and keep them supplied another year.

I have taken considerable pains to boil all of my small potatoes, and the peelings, for JOHN's pigs; and he says he never saw anything grow as they do. He feeds them some corn, though, so that my swill can't take all the credit.

CORRESPONDENCE.

WHAT WILL KANSAS BE?

What it Costs to Fence a Farm—Do "Figures" always tell the Truth?—How much could be done with the Fence Tax—"Women, Flowers, Pigs and Poultry"—Will Kansas be "Just" to her Women?

BY JAMES M. MULLIKIN.

EDITOR FARMER: What will Kansas be? Will she be a State of thrifty farmers, with cultivated fields, houses, orchards, roads and schools, or a stock pasture? If she is fit for farming, and a dense rural population, then can she have the people as fast as she needs them, if they have to make outside fences? Figures will show: Each quarter-section will require two miles of fence, at \$1.50 a rod—\$900. This adds \$6 an acre to the cost of the land; or it will build a comfortable four-room house and barn; or it will buy a good team and wagon, ten cows, fifty sheep, and twenty hogs, to stock the farm. It amounts to \$138,000 per township, and to \$4,000,000 for a county! All this to fence out other people's stock!

We continually groan and growl about our taxes;

but look at this fence tax, and count up the interest on it! Outside fences, \$4,000,000, and costing as much as all the stock on all the farms in all the counties!

We know that people cannot come and take your lands on these terms: so, the question recurs, Will Kansas be a State of thrifty quarter-section farmers, with crops, fruits, women, children, roads, bridges and schools, or a stock field?

I noticed the communication of Mr. CAMPBELL. He is severe on land speculators, railroad monopolists, and "poor" men. My own sympathies are not active for the two first classes, though I believe it wise to grant lands for railroads; but, being one of the latter, "a fellow feeling" makes us wondrous kind." Let us see, then, what these "poor" men may do. Four average counties, with one of them on each quarter-section, with two to five horses, and six to thirty cattle each (under their own fences), will contain more stock than Mr. C. claims for all the herdsmen in the State. And then think of the women and children, the fruits and flowers, the pigs and poultry, besides!

I would not favor a stock law, which "compels us to herd upon our own land," as Mr. C. says. The lands of all sorts of speculators, held for a rise by the labor of other people, are none too sacred. Let a few of the most thickly settled counties have a stock law, and let the herdsmen move westward. Then let other counties, from time to time, come under its protection, as the majority see fit.

What will Kansas be? Will she be wise, just and free? or will she gradually fall into the ruts of the old States, where *Conservation* and *Hereditary* prevail? I hope she will soon be just to her women, and wise for herself—admit her women to suffrage, and avail herself of their best help.

I do not mean to argue this case—to attempt to show that women ought to have the right to vote. It is not a question of Right, at all; but of Might. God gave her the right to vote—that is, if He ever gave it to man, which I sometimes doubt. But the men, being the mightier, gathered themselves into Legislatures, and made all the laws, all in their own favor. It is the old, old story, of enslaving the weak; and every argument we hear in support of the present state of affairs is the same, in essence, which we lately heard in support of that other tyranny. Some newspapers are now publishing the manifestoes of certain women who "don't want to vote;" who beg to be "saved" from that calamitous duty. Have we not heard the like sentimentalism before? Did not the Southern papers lately teem with the disclaimers of their slaves, who "did not want to be freed?" Oh, yes! I am the son of Maryland slaveholder, but was an Abolitionist before I ever heard the name—was born one, in fact—and years ago, I personally knew "lots" of slaves who actually pitied and commiserated the freedmen there. But I never knew one of the latter go back to slavery. He might suffer, he might starve, but he remained free.

Is there not something said in literature about some people "hugging their chains?" This must be in poetry. In prose, I never knew of anybody "hugging their chains" any longer than they were "honey-fugled," as the Kentuckians say—that is, prompted, coaxed, befuddled—led by that seductive old ditty—

"Ducky! Ducky! Ducky! Ducky!
Come and be killed!"

It is said, also, that the polls are not fit for the presence of women. Granted. Neither would the church be, if women were kept away from it for six months. Let us bring our women to the polls, and thus purify them.

Kansas is young—a beginner, like. In whatever matter she has gone wrong, let her right herself soon. It will not do to delay. If she does not save herself speedily from wrong and folly, we know what will ensue; for Old Hunks is not dead, and his sordid tribe are now invading her borders from every quarter. If that sort get the control of things, then we all know very well what Kansas will be.

Eaglesfield, Indiana, June, 1870.

The Kansas Farmer

GEORGE T. ANTHONY, Editor.

NEW FEATURE OF A GREAT ENTERPRISE.

We believe that in boldness of conception, energy of action, and sublime faith in results, no other human enterprise can be compared with the construction of our great lines of railway across the continent. The reflecting mind can see in these works a hand more mighty than that of the money gatherer, and a genius above the mere man of business. The conception and execution of such undertakings involve the foresight, power and dignity of true statesmanship. They lay the enduring foundation of State and Empire, where the narrow and selfish could see no hope of such result. They change the relations of home and international trade, driving commerce through new and unthought of channels. They make new centers of the world's trade, and transfer political and social power from the circumference to the center of a continent.

The Kansas Pacific Railway Company is quietly working out a problem worthy the efforts of a National Government, devoted to the highest good of an intelligent and powerful people; and, if carried to a successful issue, as we confidently believe it will be, will place its actors in the front rank of national benefactors.

This work is no less than the redemption of the vast Plains on the line of its road, lying midway between the Missouri Valley and the Mountains. These Plains are to be taken from the Indian and the Buffalo, their trackless surface covered by forests, orchards, hedges, and farm buildings, breaking wind currents, and modifying climate, until Nature answers back to the work of the husbandman, in her most generous bounty of grain, fruit and flower.

We understand that the Company has determined to test, in the most careful and thorough manner, the capabilities of soil and climate, throughout the entire breadth of this hitherto uncultivated waste. To this end a special agent has been appointed, to be known as the "Industrial Agent of the Kansas Pacific Railway Company," under whose supervising care experiments are to be made by the Company, and bounties offered, to induce private enterprise in the same direction.

R. S. ELLIOTT, Esq., of St. Louis, is charged with the responsible duties of this position, and enters upon the work at once. A letter from Mr. ELLIOTT, in which he invites the sympathy and co-operation of THE FARMER readers—many of whom have it in their power to materially aid the State by complying with his request—is herewith published.

We hope to lay before our readers, through the kindness of the "Industrial Agent," more of his plans and purposes. A short interview with him convinced us of his determined purpose to accomplish the work set before him; and in common with tens of thousands we shall look, with deep interest, for results. Mr. ELLIOTT writes:

Geo. T. Anthony, Esq.—Dear Sir: When in Leavenworth, on the 20th inst., I subscribed for THE KANSAS FARMER, and received the five numbers for 1870, thus far. To-day (May 25th) I have found time to read them, here at Brookville, two hundred miles west of State Line, and in about the heart of Kansas. I have been so actively going to and fro, that I had to hold THE FARMER in reserve "for a rainy day;" and truly enough, here on the border of the "Desert," the rain keeps me in-doors, to enjoy the sweet savor of your columns. The first thought is, that I ought either to take no more FARMERS, or pay another dollar; for the numbers already received are worth more than the whole year's subscription. The next thought is, that Kansas must have a very superior Agricultural population, to be able and willing to sustain so creditable a journal. The third thought is, that I may reasonably expect the co-operation of yourself and many of your readers (I do not say patrons) in the work I find myself engaged in.

That work, if successful, is to be of vast consequence to this noble State. Permit me, then, to introduce myself to the thinking men who read your journal. Let them imagine an individual past the blush of youth, who has seen something of men and things, and who believes that the immense region stretching away to the Rocky Mountains is yet to be subdued to the uses of civilized man. Let them know that the managers of the Kansas Pacific Railway desire to aid, if possible, in solving the Industrial problem in Western Kansas and Eastern Colorado; and that the "Industrial Agent" of the Company is instructed to have experiments in culture tried at intervals along the Road, across the entire stretch of

"the Great Plains." Let them know that substantial encouragement will be given to forest culture by individuals, in the counties of Kansas west of Fort Riley; and that in the counties eastward, plantations of trees will be encouraged, by example, probably, as well as by supplying seeds and plants at cost, so soon as the proper arrangements can be made.

Early in June I expect to start the plow, beginning at Ellis, three hundred miles west from State Line, and ending at Kit Carson, four hundred and eighty-seven miles. A few acres will be broken at eight or ten stations, and planted this Fall and next Spring with seeds, trees and vines.

This is the beginning of a work that will not stop till the homes of civilized people will be established in all parts of the now treeless waste. In another article I may point out how I think the future will unfold itself. For the present, I will only trespass on your space so much further as to request that all of your readers, who can do so, will join in the work, at least so far as to give me the benefit of their knowledge and experience. My address is Kit Carson, where I shall be happy to receive communications on the general subject of the Redemption of the Plains. I have my own notions as to what ought to be done; but I am not the man who "knows it all." Truly, yours, R. S. ELLIOTT.

BETTER SUGAR.

We gave our readers a short article upon this subject last month; and we propose now to continue the subject with some valuable statistical information, which we obtain from the Report of the Commissioner of Agriculture for 1868.

We are constrained to pursue this subject, from the fact which we stated in our last issue, that we believed the farmers of Kansas, and in fact, of this whole Western country, are neglecting, to their loss, a very important interest, and one which is destined to work a revolution in our own country and the islands of the sea, as it has already revolutionized large portions of the Old World.

The most remarkable fact connected with this subject is, that it has not received more attention at the hands of a wide-awake, intelligent and discriminating people.

So early as 1790, a beet sugar factory was established in Silesia, under the protection of the King of Prussia, in which 7,000 pounds of beets were daily worked, and from which 430 pounds of raw, or 360 pounds of white sugar, were manufactured. Sugar at this time was enormously high, and the intense excitement which followed the publication of these results was but natural, and resulted in the establishing of other factories.

Two experimental factories were established near Paris in 1800. Other factories were also established in the German States, and various experiments were resorted to, to obtain the best results in extracting the sugar.

The war of 1818-15, which devastated Germany, paralyzed not only the sugar interest, but almost every other branch of industry; but we find, as progress was made in chemistry, a new impulse was given to the beet sugar factories, so that in 1828 they numbered in France alone 103, producing 8,300 tons of sugar during that year.

In Germany it made but little progress until 1836; but it has since reached such enormous proportions as not only to supply the entire home demand, but has also become a regular article of export, competing in the English and Dutch markets with the sugar from the tropics.

The large and unwise tax which these States have levied upon this enterprise, has had much to do in checking its growth. Notwithstanding the many checks it has received, and the difficulties to be overcome, they have been so far surmounted that there are now, in the world, thirteen hundred and ninety beet sugar factories, which produced in 1868 1,162,700,000 pounds of sugar.

By the improvement in machinery, and in the quality of the beet, the factories are now, and have been since 1854, able to make one hundred pounds of sugar from twelve hundred and fifty pounds of beets. The capacity of the largest factory is sixty-six thousand tons per annum; that of one of the smallest, nineteen hundred tons. They both work the beets complete into white loaf sugar.

Of the practical working of the factories, the one at Jerxham, in the Zoll-Verein, is as follows: The establishment is owned by a joint stock company, every shareholder being under obligation to furnish a certain quantity of beets. The total expenditures of the establishment for the year 1867-8 (commenc-

ing in October) were \$101,868.40; the total receipts for sugar and molasses, \$140,678.30; leaving a net profit for the six months of \$38,809.90. The capital invested is not stated. Labor is cheaper in those districts than with us; and yet there is a considerable margin left for the difference in cost of labor.

We hope soon to be able to lay before our readers the statistics of a factory located at Chatsworth, in Illinois, which has been in existence for some time, but of its practical workings we are as yet not advised.

We understand there is a successful factory in operation at Fon du Lac, Wisconsin. A company is also being organized in Canada, with a large capital. It is time that Kansas was moving. While in the countries of Europe they are able to secure cheaper labor than can we, yet we have the advantage of obtaining fuel and lime much cheaper than can they.

So fast as any items of interest come to our notice upon this subject, we shall present them to our readers, in order to excite the interest which we feel satisfied this subject deserves; for, as HENRY CLAY once said, the beet sugar interest is yet to become one of the most important of our industries.

There may be those who have lived in the sugar producing districts of France or Germany, who would be able to give us practical information upon this subject. If so, let them speak.

MORE CAPITAL.

Once in a while we hear the words wisely uttered, "There's no money in farming." Neither is there in merchandising, nor in mechanical operations, nor stocks or bonds, nor in railroad shares, nor in any other species of investment, unless a union of money and brains is brought to bear upon the undertaking. If this is done in Agricultural pursuits, there is no honest employment which will yield the returns that the farm will. Our farmers, for the capital invested, do well—many of them very well. But it is an undisputed fact, that Agricultural pursuits need more capital; but brains must go with it. In other words, it is useless for the man who has been raised entirely to commercial pursuits, to invest twenty or thirty thousand dollars in farming operations, and expect to make a reasonable profit upon his investment from the start. Farming is a science, which many have found to their cost, who have recklessly invested a fortune, and lost. The same thing would result in any other occupation; it does result daily. Why expect more in Agriculture than in other occupations? No man should enter the ranks of the farmers, unless he has some tact or talent in that direction, or unless by his money he can secure it from others. There are many thoroughly practical and theoretical men, with whom the capitalist could make an alliance or partnership, to their mutual advantage. There are many who have not amassed a very great amount of this world's goods, and yet who are capable of managing a farm of one thousand acres, so that it would pay a good round interest. There are but few of our farmers, who own a quarter section, but what could use one or two thousand dollars to the very best advantage. How shall they get it? They cannot afford to pay the enormous rates of interest that are charged. Their only hope is to make a savings' bank; put every extra five cents into a pig or calf; strain every nerve to put up for Winter use every particle of food that can be raised upon the farm; use economy in your expenditures, and in a year or two you can have that thousand dollars at your command; and from that on, it will be easy sailing.

DISTRICT FAIR.

The Northern Kansas Agricultural and Mechanical Association hold their Fair at Atchison, October 5th, 6th and 7th. The premium list will be announced in a few days. Fix up your stock, farmers, and be ready.

We are promised an article on butter-making.

KANSAS ESTIMATED BY HER PRESS.

The readers of THE FARMER will bear us witness that less space has been devoted to its own than to that of any other interest in the State. We have not used the leading columns of THE FARMER in advertising itself. We have been content to try and make a journal that would honor our State, and command an appreciation at home and abroad. It has been a fixed purpose to sink personal individuality in the individuality of the paper itself. We have desired, and do desire, to make it so distinctive and marked in character and conduct, as to prevent the possibility of mistaking its identity.

A "puff" of editors or publishers could not be reproduced in these columns; and we have refrained, almost entirely, from using valuable space for Press notices of THE FARMER itself, however flattering. We now propose to depart from an established rule, by the reproduction of a few of the multitude of notices received from Eastern papers since the last issue, feeling confident that they will be accepted by home readers as interesting items, quite as flattering to themselves and the State as to us.

We ask for these notices a careful reading, believing they will awaken a new impulse of State pride, and give increased confidence in the wisdom of that liberality which has made it possible for THE FARMER to serve Kansas and its enterprising people, as these extracts conclusively show it has been, and is, serving them:

[From the Massillon (Ohio) Independent.]

THE KANSAS FARMER.—Not a few of us recollect vividly the sanguinary history of the State of Kansas, along from 1850 to 1860. It seemed to be the battle-ground between Liberty and Slavery. Missouri border-ruffians, inspired by the malignity of Slavery, and set on by worse whisky, went forth burning dwellings and towns, murdering the people, and committing all sorts of depredations. The valiant Free-State men made a record in behalf of Freedom and the Right, chief among whom was the glorious old Osawatimie Brown, who proved a terror to many a sneaking and cowardly foe. All these associations made the history of Kansas appear to us as a grand battle-field. It is otherwise now. Liberty has conquered there, and the State is a magnificently prosperous one. Among the evidences of this progress is the publication of a fine printed and well conducted Agricultural paper, THE KANSAS FARMER. Instead of the din of battle and the destruction of life and property in those regions, the paper tells us of a powerful, prosperous, and intelligent people, who are making the wilderness blossom as a rose. Peace and plenty dwell within its borders. The title-page of this paper is covered all over with emblems of Industry, Agriculture, Literature and Science, and is a pleasant feature to contemplate.

[From the Barry (Illinois) Observer.]

As we turn over its leaves our mind is busy, first with the interesting contents of the handsome periodical, and then with wonder at the rapid strides which the fine young State of Kansas has made since the days when she "shrieked" to some purpose for "Liberty." As everybody knows, in 1855-6 she was a howling wilderness—the howling being done by the wild and tame savages who had marked her for their own. But the handsome paper before us tells a new tale of Kansas—how her rich lands are cultivated by hundreds and thousands of intelligent people, and how the wilderness blooms as the rose. Accompanying THE FARMER we have an elegant map, showing Leavenworth and her railroad connections.

[From the Geauga (Ohio) Democrat.]

The vast tide of immigration flowing into Kansas is without a parallel in the history of the Western States. To those who are intending to move to Kansas, this journal is invaluable, as, from no other source can there be so much reliable information acquired in regard to the resources of this "Eden" of the West. THE FARMER is not an "advertising scheme" for inducing immigration to Kansas, but is a reliable, ably conducted journal, that will not suffer by comparison with the leading Agricultural papers of the country.

[From the Plymouth (Pa.) Star.]

An Agricultural journal, the size of the American Agriculturist, published monthly. Its typography will compare favorably with the best journals of its class published in the East, and its contents are of interest to every farmer. Those who contemplate a removal to the West will find much information regarding the climate, &c., of Kansas in its pages.

[From the Schenectady (N. Y.) News.]

Carries on its face evidences of Western enterprise that would be good for many of our Eastern publishers to pattern after. The clearness of its print, and its general good appearance, would be hard to be excelled even on the Atlantic coast, where printers pretend that they can do better work than can be done anywhere else in the world.

[From the Waynesburgh (Pa.) Repository.]

We pronounce it really a neat Journal of Agriculture. * * * We make this notice for the benefit of any contemplating moving to Kansas or the West. They will be able to learn more about that State, its prospects and resources, through this medium than by almost any other.

[From the Attica (New York) Atlas.]

A practical dollar monthly, now in its Seventh year. It is devoted to the producing classes, and claims to present facts only, without fear or favor. * * * If you wish to know all about Kansas and its resources, send a dollar and subscribe for THE KANSAS FARMER.

[From the Saline County (Illinois) Register.]

We are under obligations to some unknown friend for a copy of THE KANSAS FARMER. * * * It is the only Agri-

cultural paper published in Kansas, and is worth ten times its price to any one desiring information as to the climate, soil and crops of that State.

[From the Allegan (Michigan) Democrat.]

A large sixteen-page paper, filled with very interesting matter, relating to farm products in that State. Kansas is rapidly developing into a great State, and nothing shows it more than the size and number of its papers, which are not excelled by any in the Union.

[From the Clarinda (Iowa) Democrat.]

A beautiful sixteen-page monthly, having on each page three wide columns of well-written matter, pertaining to agriculture, horticulture, stock-raising and farming generally. The paper is a credit to Kansas people, and should be abundantly patronized.

[From the Metropolis (Illinois) Times.]

We are in receipt of that excellent Agricultural paper, THE KANSAS FARMER, and would recommend to all wishing to learn all about Kansas, its resources, and inducements to those wishing to go West, to subscribe for that journal.

[From the Port Huron (Michigan) Times.]

It is an ably edited sixteen-page monthly, and typographically presents a superior appearance. * * * Any people represented by such a paper as THE FARMER, we are confident, are an intelligent and appreciative community.

[From the American, Massillon, Ohio.]

An Agricultural journal, of mammoth proportions and excellent appearance. Accompanying it is a richly colored cartoon of Leavenworth, showing its railroad connections and superior advantages as a commercial center.

[From the Harrisonburgh (Va.) Commonwealth.]

It is not only one of the best, but among the cheapest of the publications of the kind we know of. Its pages are replete with interesting articles on every subject legitimately belonging to the farm and the household.

[From the Gallipolis (Ohio) Bulletin.]

It is gotten up in the magazine style, printed upon good clear type and paper, and furnished at the low price of One Dollar a year. Those who wish to know what is going on in Kansas and the West should subscribe for it.

[From the Pawzgatweney (Pa.) Plaindealer.]

* * * We have given it a perusal, and pronounce it a first-class periodical. It will amply repay farmers from this State to send for it. It contains all the information required by the millions seeking homes in the West.

[From the Chatfield (Minnesota) Democrat.]

One of the best Agricultural papers we have seen in a long time. The number before us contained a beautiful map of Kansas, as a Supplement, which, of itself, is worth the subscription price to THE FARMER.

[From the Osego (N. Y.) Record.]

This valuable Western monthly * * * is one of the best of Agricultural publications, containing a superior selection of articles and rare illustrations, beneficial to the interests of every family in our land.

[From the Cameron (Pa.) Herald.]

This excellent paper has been added to our exchange list, and is highly prized by us. Any of our readers who desire an accurate knowledge of Western lands and Western farming, should subscribe for it.

[From the New Brighton (Pa.) Herald.]

This splendid monthly agricultural magazine * * * is, without a doubt, the most finely gotten up work of the kind we have ever seen. It is suitable to all classes, and no fire-side should be without it.

[From the Bushnell (Illinois) Record.]

Devoted to the discussion of practical questions. * * * Well filled with a rich variety of original matter. It has an attractive symbolical title-page, is gotten up in neat style, and is well printed.

[From the Cape Ann (Gloucester, Mass.) Light.]

An Agricultural monthly, giving a variety of interesting information concerning agricultural and horticultural matters in Kansas, and a large variety of interesting matter for the general reader.

[From the Roanoke Valley, Clarksville, Va.]

* * * A credit to its enterprising publisher, and to the vigorous young State from which it comes. The magazine is not only good in appearance, but the matter is very good.

[From the Holmesburgh (Pa.) Gazette.]

Well filled with articles bearing upon agriculture, horticulture, &c. It is an acceptable work, and we feel sure will do much for Kansas, in making known its agricultural wealth.

[From the American Standard, Uniontown, Pa.]

It is a neat monthly, and contains instructive and entertaining reading matter, devoted to the interests of Agriculture. We gladly add such a journal to our exchange list.

[From the Lyons (N. Y.) Press.]

It is a neat publication, and well worthy of patronage by all classes, even at this distance, who wish to learn of the resources and products of that new and flourishing State.

[From the Newark (Ohio) Gazette.]

Comes to us full of Western Agricultural news. Persons who anticipate going West, or wish to know everything concerning the Western country, should take this journal.

[From the Harrisville (Va.) Star.]

Is filled with the most interesting and instructive articles on farming, &c. Only costs One Dollar a year, and is worth twice the sum. We advise all to send for it.

[From the St. Charles (Minnesota) Herald.]

A neat Agricultural paper, which we have recently received. It contains sixteen pages of reading matter, devoted to the farm, the shop and the fireside.

[From the Delhi (N. Y.) Gazette.]

Devoted to Agriculture and the internal resources of the State, it will be interesting to those who contemplate emigrating to the Western States.

[From the Manterville (Minnesota) Express.]

* * * One of the best Agricultural papers in the West.

[From the Miami (Ohio) Gazette.]

Looks first-rate. THE FARMER ought to be in every household in Kansas, and 100,000 ought to be sent into the States, to teach the people there what Kansas is.

[From the Troy (N. Y.) Budget.]

Comes to us all the way from Leavenworth, Kansas. It contains a large amount of matter, valuable and instructive to both Eastern and Western farmers.

[From the Strard (Kansas) Press.]

It will rank on an equality with any Western Agricultural journal. Every farmer, as well as everybody else, should subscribe for it.

[From the Newport (Ky.) News.]

Contains much valuable information concerning the West, which has so many attractions for Eastern people. It is a good monthly.

[From the Carthage (Illinois) Gazette.]

Devoted to Agricultural matters in general, and the interest of Kansas farmers in particular. The number before us is ably edited.

[From the Franklin (Illinois) Reporter.]

It condenses and presents to the reader all the information that could be desired by any one intending to emigrate to that State.

[From the Berwick (Pa.) Gazette.]

It contains the experience of the agriculturists and horticulturists of that State, and in all respects is a first-class magazine.

[From the Glenn's Falls (N. Y.) Messenger.]

The only Agricultural paper printed in that State. * * * It presents valuable information to those seeking homes in the West.

[From the Oxford (Pa.) Press.]

Sixteen large quarto pages, and filled with the choicest reading matter for the farmer, the gardener and housewife.

[From the Jefferson (Iowa) Era.]

A fine sixteen-page quarto size paper. It displays good ability, and is replete with good things for agriculturists.

[From the Fredericksburgh (Va.) Herald.]

Contains a great variety for the farmer and horticulturist. It is also quite a neat specimen of Western typography.

[From the Spaulding (Illinois) Chronicle.]

It is ably and interestingly edited, and reflects credit upon its publisher, and is worthy of a large circulation.

[From the Gardner (Illinois) Journal.]

It contains information valuable to those seeking homes in the West, as well as to every farmer and mechanic.

[From the Bryan (Ohio) Democrat.]

A leading Agricultural journal of the West. It is neatly printed, and full of interesting reading matter.

[From the St. Mary's (Md.) Beacon.]

Is well filled with articles of sterling value, and will compare favorably with any of its contemporaries.

[From the Mount Carmel (Illinois) Democrat.]

We find in it all information that can be desired about the rich and growing State of Kansas.

[From the Dealer (Maine) Gazette.]

For those interested in the affairs of Kansas and the West, this must be a valuable periodical.

[From the Parkersburgh (Va.) Times.]

It is a neat, well edited monthly, valuable for farmers, gardeners, and every housekeeper.

[From the Iowa Homestead.]

One of the best and neatest Agricultural papers published in the United States.

[From the Princeton (Illinois) Republican.]

It contains excellent reading. If you want to know all about Kansas, take it.

[From the Henry County (Ill.) Republican.]

It contains excellent reading. If you want to know about Kansas, take it.

[From the Walton (N. Y.) Chronicle.]

A first-class Agricultural monthly, and one of our very best exchanges.

[From the Clarion (Michigan) Monitor.]

A spicy, well gotten up, handsome, and highly interesting periodical.

[From the Newton (Iowa) Free Press.]

One of the best and most excellent papers that come to our table.

[From the Edinburgh (Indiana) Watchman.]

Neat in appearance, and well edited as an Agricultural journal.

[From the Tama (Iowa) Citizen.]

A large, handsome magazine. Well worthy of patronage.

[From the Lexington (Illinois) Courier.]

Is a live paper, published in the interests of the farmers.

[From the Kentucky People, Harrodsburgh, Ky.]

It is handsomely printed, and full of interesting matter.

[From the Newbury (South Carolina) Herald.]

A large and handsome monthly journal. * * * * *

[From the New Hampshire Gazette.]

A large and valuable magazine. * * * * *

NEW GOODRICH POTATOES appeared in market June 3d, and string beans same date. At this date (June 8th) our market is well supplied with all the delicacies of the season. Strawberries have been retailing for some days at twenty cents a quart. The crop is very large, and the quality excellent.

A GENTLEMAN from near Council Grove sold a load of wool in town yesterday, for 23c. per pound.

CHLORIDE OF LIME.

This article is one of the best disinfectants that we have, and can be easily and cheaply made, by making a strong brine, using all the salt the water will take up, and something more. With this slake an equal quantity of lime. This used freely about the privies, cellars, and around the house, is one of the best preventives of disease which can be used. To old, musty buildings, it can be used as a whitewash, by adding hot water to the paste, to bring it to the proper consistency.



Our Corner.

Still They Come!—How they do pour in! Every mail helps to swell our subscription list. Well, let them come; they are not calculated to make us mad. It shows that our efforts to make a first-class Agricultural journal are appreciated. We hope to reach ten thousand before the year closes. Show it to your neighbors, who are not subscribers, or send us the names of persons who would probably subscribe. We take pleasure in sending specimen copies. With the hosts of persons coming into the State, who have learned the value of an Agricultural journal, and by the help of our friends in all parts of the State, to whom we are already under obligations, our list ought to run up at the rate of five hundred per month. A word is enough, often, to gain a subscriber. Who will speak it? Send for our special terms to agents.

Say! you man of the Grand Haven (Michigan) *Herald*, don't soil too many handkerchiefs over the blighted fruit prospects of Kansas this year. You are sorry, because the new settlers are so badly disappointed and deceived, are you! You think the Kansas fruits shown at Philadelphia last Fall, were raised in California, do you! O miserable man! we are sorry for you—No, we ain't; for you have no business to breathe in such a frigid climate, which destroys your intellect, and dulls your perceptions to such an extent that you suppose, because Michigan can raise nothing but a crop of crab apples only about twice in a life-time, every other State is in the same predicament. Stir up your subscribers, if the snow has melted yet up there so you can get about, and get a little money, and start out on a tour of observation. Come down this way, and see if the fruit is all killed, as usual! Will you? Say!

"Baxter Springs. At Home. May 11th and 12th." Such was the notice we received, in common with the editorial fraternity throughout the State. Never since the days when we wanted to go fishing, and couldn't, have we been so awfully disappointed. We had determined in our own mind that, whenever that celebration came off, we were bound to be there; but the Fates ordered it otherwise. Just at that time a multitude of duties crowded upon us, that we could not dodge, and hence we were deprived of the pleasure of paying our respects to Mrs. Baxter Springs. From those who were there, we learn that never was union commenced under happier auspices, than was that which united Kansas City to Baxter Springs by ties as strong as those of steel. May that union prove prolific, and may necessity never arise for appealing to the divorce laws, to sunder the bond that binds them.

Atchison County has taken steps to organize an Agricultural Society. At a meeting held May 20th, Dr. CHALLISS, G. W. GLICK and D. CARMICHAEL, were appointed to perfect preliminary arrangements. From our knowledge of these gentlemen, we are satisfied they will perform their duties wisely and well. We hope the citizens of Atchison county will render every needed assistance, to make the Society a perfect success, to the end that they may get up one of the rousingest Fairs this Fall that Kansas has ever beheld. As an advertisement of the State, there is nothing will pay so well as good Fairs,

properly reported. We raise the premium stock and produce in Kansas, and we trust this Society will be enabled to display it. If you have a particle of State pride, help them.

The Great Fair at New Orleans, during the month of April, was a complete success, notwithstanding the disagreeable weather. The exhibition was large in all its departments; and, arguing from this, we may expect that land, so lately desolated by war, to arise from the ruins more glorious than ever. And this will be due to that intelligent band of agriculturists who, both by word and pen, seem determined to make that broad and sunny land to bloom and blossom like the rose.

We had the pleasure of seeing from a distance a herd of seven Shorthorn Durham bulls, from one to four years old, recently brought into our county from Kentucky, by Mr. BUCHANAN. We saw their pedigrees, all of which are from the American Herd Book. If these animals could be properly distributed over the county, we might hope for great results. We are not advised what disposition Mr. B. will make of them.

Johnson's Patent Roller Plow.—No careful reader of THE FARMER could fail to have his attention called by the advertisement of the Lawrence Roller and Plow Company, of the above Plow, in the May number. It has more points to recommend it than any invention of the kind we have seen. Our farmers, in need of that kind of an implement, would do well to correspond with the above parties.

Another Deluge descended upon Kansas on the afternoon and night of May 30th. From our exchanges, we judge it was a general wetting all over the State. The fall of water is variously estimated at from one and a half to three inches. Just at this time, our corn crop needed the plow more than the water; but then, "Drouthy Kansas" must take things as they come!

"Noxious Vermin, No. IV," was received too late for this month's FARMER. In order that our subscribers may not be disappointed, we go to press some six days earlier than heretofore, so as to be able to mail all of our large edition on or before the 15th of the month. The above article will appear next month.

Correction.—We stand corrected by the Ashland (Neb.) *Times*, and state that the distance between that town and Lincoln is only *twenty-five* miles. We stated in the May number of THE FARMER that it was about one hundred miles. Charge it to the inaccuracy of our map, Bro. MATTHEWS.

We have received the Proceedings of the Alton (Illinois) Horticultural Society, and find that it contains much interesting matter. The Essay upon Pear Culture is very good, and contains some sensible suggestions.

BOOKS AND PAPERS.

Blackburn's Kansas Directory & Gazetteer for 1870. We have received a copy of this work from the publishers; and from the cursory examination we have given it, we take it to be one of the most valuable works that Kansas has ever produced. To those intending to come to Kansas, we know of no source from which they can obtain so much information in regard to towns and counties, as from this work. Address the publishers, BLACKBURN & Co., at Lawrence, Kansas.

Farmers' Home Journal, at Lexington, Ky., \$2 per annum, J. J. MILLER, editor and proprietor. This large and elegant weekly is on our table, and is filled to repletion with excellent matter pertaining to the farmer and mechanic. It is neatly printed, and deserves, as it in reality occupies, a high place in our Agricultural literature.

Arthur's Home Magazine, for June, is upon our table, filled to the brim, as usual, with choice matter. We are always assured that, when we open our *Arthur's*, we will meet nothing to offend the most refined taste. Philadelphia; \$2 per annum.

We have received the *Western Home* for May, published at 103 Washington street, Chicago, at \$1 per annum. This journal is devoted to home interests, and makes as neat an appearance, and is as well filled with interesting miscellany, as any magazine that comes to our table.

Practical Farmer, Philadelphia, Pa., PASCHALL MORRIS, editor and proprietor—one of the very best journals that come to our table. For the ability of its editor we want no better evidence than the journal itself. The workmanship is excellent. Twenty-four pages, at \$1.50 per annum.

Farmers' Clubs.—We desire to obtain a full and complete list of every Farmers' Club and Agricultural organization throughout the State, giving the names of the officers. Will the Secretaries please send us the names, that we may perfect our list? We ask this for our mutual benefit.

The *Little Corporal* magazine, for June, is received. In July this sterling Juvenile is to be enlarged and improved. Those subscribing now receive one number free, if they ask for it when they subscribe. One dollar a year. Published by SEWELL & MILLER, Chicago, Illinois.

Iowa Homestead, Des Moines, Iowa, WM. DUANE WILSON, editor and proprietor. The above journal is upon our table, with its usual promptness, and stored to repletion with matter interesting to every farmer in all this broad Northwest. Weekly, \$2.00 per year.

The *Children's Hour*, for June, is before us, and presents its usual neat appearance. It has but few equals, and no superiors, as a child's magazine.

THE APIARY.

BREEDING BEES.

Mrs. ELLEN S. TUPPER tells how to introduce Italian queens to colonies of native bees, as follows:

Take away the queen of the colony to which the Italian queen is to be given. To find her most easily, open the stand in the middle of a fine day, when many bees are absent from the hive. Disturb the bees as little as possible, and have an assistant to look on one side of the frame, while you examine the other. Look on the frames near the center of the cluster first, as the queen is apt to be there. As soon as you have found and killed her, put the Italian queen, with two or three of her own bees, into the wire cage which accompanies her, and lay it over the frames near the cluster; or, if the weather be cool, the cage may be laid between two frames. Leave her there forty-eight hours, and then, without moving the cage or disturbing the bees, pull out the stopper and allow the queen to go into the hive at her pleasure. I have never lost a queen that I introduced in this way.

ANOTHER METHOD.

Move the hive to which you wish to introduce the queen to a new position, some distance away. Then take from it two or three frames of comb, containing brood and honey, shake all the bees from them, put them in an empty hive, and place this hive where the other stood; close all the entrances except one hole in the top, and through this gently put the new queen on to the frames, and shut her in; then open the entrance for one bee at a time in front, and allow the bees that are out in the fields to come in. Being full of honey, and disturbed also at the appearance of their home, they will not harm the strange queen.

If it is the right season of the year for making new colonies, you may, toward night, add a frame or two more of brood from some other colony; and as a majority of the worker bees from the removed colony will return to their new location, you will have a good, new, prosperous colony. The one you have moved will also do well, and soon be as strong as ever, for it retains the fertile queen.

If you do not care thus to divide, look over the removed hive at once, and kill its queen. Leave it an hour or two; then take all the remaining frames; shake the bees from them, and place them in the

hive where your Italian queen is; and just at dusk, put all the remaining bees in the old hive in front of the new, which they will gladly enter. In this way you remove, by degrees, all parts of a colony to a new hive, except its queen, which you replace by the Italian. This is my favorite way of exchanging queens.

CAUTION.—Open the box in which the queen is sent in a tight room, so that if the queen should chance to fly, she will go to the window, and so be easily caught.

Never handle the queen by the abdomen; always take hold of her by the wings or upper part of the body. It is well, after introducing a queen by the first method described, to look over the combs a few days after—and destroy all queen cells which are started. I never knew them to start any when a queen was introduced in the second way.

VARIETIES OF BEES.

[BY D. L. ADAIR.]

We speak of the "Common Bee," the "Italian Bee," and the "Egyptian Bee," as distinct in their qualities and habits, without being aware of the fact that climate and natural inclination to vary and sport, and perhaps the pasturage, have produced in the United States distinct varieties of the common black bees, almost as different as the varieties named. So little attention has been drawn to this fact, that many will be surprised at the statement. But it is a fact, and a fact of no small importance.

In parts of Mississippi, two varieties are recognized; one larger than the other, grayish in color, and not so much inclined to swarm, but crosser and more inclined to sting. When they swarm, they seek high positions for clustering. The other is smaller, of a yellowish brown color, very prolific of swarms, as gentle as the Italians, and when they swarm, settle on low bushes or limbs, and sometimes on the ground. The former are considered more productive of honey, under the old system of management; but the latter will, no doubt, prove to be the most valuable, when managed on an improved system.

In other parts of the country, I have seen variations as distinct. Within twenty miles of where I write there are three distinct varieties, easily distinguishable by sight, and even more distinct in habits of productiveness, temper, and other characteristics.

The success and failure of many a bee-keeper is, no doubt, more dependant on the bees he has than on their management.

The Italian bee is conceded to possess many advantages over the common variety; yet, we find they vary in excellence, and in color, shape, size and temper. Their crosses on the common bee also produce variations.

These facts, being once understood, place it in the power of the bee-keeper, by a judicious selection and breeding, to establish distinct breeds, and increase the honey crop greatly.

WHAT BREED?

[From "Jennings on the Sheep."]

No one breed of sheep combines the highest perfection in all those points which give value to this race of animals. One is remarkable for the weight, or early maturity, or excellent quality of its carcass, while it is deficient in quality or quantity of wool; and another, which is valuable for wool, is comparatively deficient in carcass. Some varieties will flourish only under certain conditions of food and climate; while others are much less affected by those conditions, and will subsist under the greatest variations of temperature, and on the most opposite qualities of verdure.

In selecting a breed for any given locality, reference should be had, first, to the feed and climate, or the surrounding natural circumstances; and, second, to the market facilities and demand. Choice should then be made of that breed which, with the advantages possessed, and under all the circumstances, will yield the greatest net value of the marketable product.

Rich lowland herbage, in a climate which allows

it to remain green during a large portion of the year, is favorable to the production of large carcasses. If convenient to a market where mutton finds a prompt sale and good prices, then all the conditions are realized which call for a mutton-producing, as contra-distinguished from a wool-yielding, sheep. Under such circumstances, the choice should undoubtedly be made from the improved English varieties—the Southdown, the New Leicester, and the improved Cotswolds or New Oxfordshire sheep. In deciding between these, minor and more specific circumstances must be taken into account. If large numbers are to be kept, the Downs will herd—remain thriving and healthy when kept together in large numbers—much better than the two larger breeds; the feed, though generally plentiful, is liable to be somewhat short during the droughts of Summer, and there is not a certain supply of the most nutritious Winter feed, the Downs will better endure occasional short keep; if the market demands a choice and high-flavored mutton, the Downs possess a decided superiority. If, on the other hand, but few are to be kept in the same enclosure, the large breeds will be as healthy as the Downs; if the pastures are somewhat wet or marshy, the former will better subsist on the rank herbage, which usually grows in such situations; if they do not afford so fine a quality of mutton, they (particularly the Leicester) possess an earlier maturity, and give more meat for the amount of food consumed, as well as yield more tallow.

The next point of comparison between the long and the middle woolled families, is the value of the wool. Though not the first or principal object aimed at in the cultivation of any of these breeds, it is, in this country, an important item or interest in determining their relative profitability. The American Leicester yields about six pounds of long, coarse, combing wool; the Cotswold, somewhat more; but this perhaps counterbalanced by these considerations; the Downs grow three to four pounds of a low quality of carding wool. None of these wools are very salable, at remunerating prices, in the American markets. Both, however, will appreciate in proportion to the increase of manufactures of worsted, flannels, baizes, and the like. The difference in the weight of the fleeces is, of itself, a less important consideration than it would at first appear, for reasons which will be given when the connection between the amount of wool produced and the food consumed by the sheep is noticed.

The Cheviots are unquestionably inferior to the breeds above named, except in a capacity to endure a rigorous Winter, and to subsist on healthy herbage. Used in the natural and artificial circumstances which surround sheep husbandry in many parts of England—where the fattest and finest quality of mutton is consumed, as almost the only animal food of the laboring classes—the heavy, early maturing New Leicester, and the still heavier New Oxfordshire sheep, seem exactly adapted to the wants of producers and consumers, and are of unrivaled value. To depasture poorer soils, sustain a folding system, and furnish the mutton which supplies the tables of the wealthy, the Southdown meets an equal requirement.

Sufficient attention is by no means paid, in many portions of the country, to the profit which could be made to result from the cultivation of the sheep. One of the most serious defects in the prevalent husbandry of New England, for example, is the neglect of sheep. Ten times the present number might be easily fed; and they would give in meat, wool and progeny, more direct profit than any other animal; while the food which they consume would do more toward fertilizing the farms than an equal amount consumed by any other animal. It is notorious that the pastures in that section of the country have seriously deteriorated in fertility, and become overrun with worthless weeds and bushes, to the exclusion of nutritious grasses.

With sheep, as well as with other animals, much

or prolonged exercise in pursuit of food, or otherwise, is unfavorable to taking on fat. Some seem to forget, in their earnest advocacy of the merits of the different breeds, that the general physical laws which control the development of all the animal tissues as well as functions, are uniform. Better organs will, doubtless, make a better appropriation of animal food; and they may be taught, so to speak, to appropriate it in particular directions—in one breed, more especially to the production of fat; in another, of muck, or lean meat; in yet another, of wool. But, these things being equal, large animals will always require more food than small ones. Animals which are to be carried to a high state of fatness must have plentiful and nutritious food, and they must exercise but little, in order to prevent the unnecessary combustion in the lungs of that carbon which forms nearly four-fifths of their fat. The art of breeding can counteract these established laws of Nature.

In instituting a comparison between breeds of sheep for wool-growing purposes, it is undeniable that the question is not, what variety will shear the heaviest or even the most valuable fleeces, irrespective of the cost of production. Cost of feed and care, and every other expense, must be deducted, in order to fairly test the merits of an animal. If a large sheep consume twice as much food as a small one, and give but once and a half as much wool, it is obviously more profitable (other things being equal) to keep two of the smaller sheep. The next question, then, is, *From what breed (with the same expense in other particulars) will the verdure of an acre of land produce the greatest value of wool?*

GOOD PIGS NEED GOOD CARE.

[From "Harris on the Pig."]

We have said that an improved thorough-bred boar in a neighborhood is capable of greatly improving the qualities of the common stock, and adding largely to the profits of feeding pigs. But it is nevertheless a fact that such boars have been used by some farmers with little or no benefit.

There are several reasons for this: There are farmers in every neighborhood who half-starve their breeding sows. Some of them do this deliberately, from a conviction that it improves their breeding and suckling qualities, just as some dairy men think a cow must be kept poor if she is to be a good milker. They mistake the cause for the effect. The cow is thin because she is a good milker, and not a good milker because she is thin. So a good sow gets very thin in suckling her pigs; but it is a great mistake to keep her thin, in order to make her a good breeder and suckler.

We have kept thorough-bred boars for some years, and have observed that those farmers who are liberal feeders speak highly of the cross, but those who believe in starving their sows, and letting the little pigs get their own living, assert that their pigs from a thorough-bred boar are no better than those from common boars.

The trouble is not in the thorough-bred boar, but in the sows. We use the improved thorough-bred boar, in order to obtain pigs that will grow rapidly; but a pig cannot grow rapidly unless it has a liberal supply of food. It would be absurd to buy a superior mill, and then condemn it because it would not make choice family flour out of bran; and it is equally absurd to expect a pig, however perfect in form and fattening qualities, to make flesh and fat out of air and water.

A sow that has been starved all her life cannot produce vigorous, healthy pigs, of good size, and with a tendency to grow rapidly and mature early. To put such a sow to an improved, thorough-bred boar, in hopes of getting good pigs, is as foolish as it is to hope to raise a large crop of choice wheat on wet, poor, neglected land, simply by purchasing choice seed. There is no such easy method of improving our stock. We must commence by adopting a more humane system of feeding, especially while the pigs are young. Then select the largest

thriftiest and best formed sows, and put them to a good, thorough-bred boar. Let the sow be regularly and liberally fed, without making her too fat. When with young, she has a natural tendency to lay up fat; and it sometimes happens that a sow gets so fat that her pigs are small, and there is considerable danger of her lying on them. But there is far less danger from having a sow too fat than is generally thought.

After she has pigged, feed the sow on warm slops, and other food favorable for the production of milk. Let the little ones be fed liberally, as soon as they commence to eat; and then the beneficial effects of using a good, thorough-bred boar will soon be seen.

"But," it may be asked, "will not such liberal feeding produce good pigs, without using a thorough-bred boar?" It will certainly produce better pigs than the starving system; but the effect of an improved thorough-bred boar in such a case is wonderful. We would rather pay five dollars apiece for such pigs at two months old, than to accept as a gift pigs from the same sow got by a common boar. At a year old we should expect the grades, in proportion to the food consumed, to bring at present prices at least ten dollars a head more than the common stock.

We have a neighbor, who is a good farmer, and who takes delight in feeding a good pen of pigs every Fall and early Winter. He "didn't believe" in thorough-breds, and always spoke of my Essex, Berkshires and Suffolks, as "nice little pigs." After watching the effect of a cross with good-sized common sows, he finally concluded to bring a young sow to one of our Essex boars. She was sixteen months old, and certainly would not weigh over one hundred and twenty pounds. It was then our turn to speak of little pigs. It so happened that we had a grade Essex sow the same age, which accidentally took the boar at nine months old, and had a litter of nine pigs. She was very fat, and lay upon three of them. The remaining six were as handsome pigs as could be desired. These six pigs we sold at two months old, for feeding, for thirty-five dollars, and the sow, in a month after they were weaned, was killed, and dressed over three hundred pounds, worth at the time fourteen cents per pound, or forty-two dollars. Here, then, were two sows of the same age, one of which brought in seventy-seven dollars, and the other, at a liberal estimate, was not worth twenty dollars. The difference was due simply to the use of a thorough-bred boar, and to liberal feeding. The one was half-starved, under the mistaken impression that such treatment was best for breeding sows; the mother of the other was liberally fed, and her little ones were never starved. During the Summer, however, they had nothing but the wash and milk from the house, and the run of a good clover pasture. On this the whole litter kept quite fat, and with the exception of this one sow, which proved to be with pig, were sold the 1st of October to the butcher, without having any corn or grain of any kind for several months. The sow alluded to above, out of this litter, received the same treatment; but in a week or ten days after she pigged, we commenced to fatten her, and never did sucking pigs thrive better; and when they were weaned, the sow was actually fat, and in a month afterward was very fat.

Now, there is nothing remarkable in all this. We have had pigs do very much better, because better fed; but it certainly enabled us to silence the sneers of a prejudiced farmer, against liberal feeding and thorough-bred pigs.

Another case deserves to be mentioned, showing the importance of liberal feeding in the case of well-bred pigs. One of our neighbors, a city man, who believed in good breeds and good feeding, had a common sow of good size and pretty fair form. He put her to a thorough-bred Prince Albert Suffolk boar, and had a litter of capital pigs. He afterwards put her to a thorough-bred Essex boar; but about this time he got tired of farming, and at the sale this sow was purchased by another neigh-

bor, who half-starved her. She had a fair litter of pigs some time in October. During the Winter they had a little wash from the house, and what they could pick up in a yard where cows received little or nothing but straw. The next Summer they had the run of the roadside, with yokes around their necks to keep them out of mischief. And a meaner and more utterly forlorn lot of pigs it has never been our lot to see. This good man attributed his ill-luck to our thorough-bred boar!

In one sense he was right. The sow had been accustomed to liberal feeding, and the boar was descended from stock which, since the days of Lord Western and Fisher Hobbs, had been bred for the purpose of rapidly converting all the food they could eat into choice pork. No wonder that such a litter of pigs would not stand starvation as well as those more accustomed to it. Had the sow and the litter of pigs been liberally fed, they would have brought more money, with pork at fourteen cents per pound, than he received that year from his whole farm of one hundred acres.

BARNES'S THEORY OF CULTURE.

[From Correspondence of the Gardener's Chronicle.]

This great horticulturist has studied to good practical purpose the profound theory of the correlation of force. He has impressed upon the soil the great art of giving, and yet increasing. Cropping is the cultural weight that imparts stability to the earth's inexhaustible storehouses of growing power. The one thing to guard against is an unclothed surface. Give the earth work to do, and it will never flinch from its accomplishment. Mr. BARNES's first efforts go to secure mass or bulk of soil. He does not believe in the motive power of light or small bodies; he goes for the impetus acquired by mass. Hence, no mere surface of the earth suffices for him. Down, down, deeper down, is his watchword, until he obtains a tith to work with of from three to five feet in depth. This is his grand storehouse of cultural force, from which his momentum for propelling vegetation is obtained; this is his mass of earth that works with such might and energy in the manufacture of such an astonishing bulk of sweet and crisp vegetable matter.

We have seen the first elements of his productive energy; we will now try to unearth his second agency—heat. How does he enlist this transcendent power into his service? Chiefly in three ways. First, by conserving the heat already in the ground; by freely admitting fresh supplies, and by creating new sources of heat within the earth itself. Thorough drainage is the great conservative power of heat; it bars up the widest doors, through which it is ever ready to escape. A dry surface, or well-drained mass of earth, stops the loss of heat by evaporation, and it is well known to every one that evaporation is the most powerful known robber of heat. By allowing the water a free passage downwards, instead of upwards, the greatest amount of heat is preserved in the earth, with the minimum loss. Next to thorough drainage, a covered surface is the best means of keeping heat in the ground. The crops arrest the escape of warmth, and return a large portion of the heat back to the earth. They erect a barrier against the energy of radiation outside. I advance another step here with more diffidence. It is this, that life itself—the mere vitality of vegetation—becomes a source of heat to the earth. The temperature of plants has often been observed to be considerably higher than the surrounding air or earth. Thus, probably, every living plant becomes a conservator of the heat of the earth, of lesser or greater power, or a generating center of heat. Another mode of increasing the temperature of the earth, is by the free admission of heat, by textural management, and a frequent inversion of the surface soil. A friable soil may heat more gradually, but it retains the heat longer than one of the opposite character; and, if fresh surfaces are continually turned up, and exposed fully to the sun, and the heat so acquired be persistently turned in, it is astonishing how much may thus be done to raise the temperature of the ground.

The last plan to be noted is the direct creation of heat within the earth itself. This is accomplished by the addition of decomposing matter. It is too much the fashion to look upon such materials as possessing only an enriching or manurial value. The term stimulant would, however, be more correctly descriptive of their powers. It is by the performance of quickening functions that the worth of many so-called manures ought to be measured; and they stimulate less by their feeding properties than by their heating powers. Wherever decomposing matter and air meet together, either within the earth or out of it, heat is the product of their union. Thus, every atom of matter undergoing decomposition becomes a center of warmth. Infinitesimally small as the heating power of each center may be in itself, yet their powerful aggregate strength makes up for their individual littleness; and their combined energy may be, and I believe is, sufficiently potent very sensibly to raise the temperature of the earth.

ABOUT PLOWING.

[By W. H. W., in the Practical Farmer.]

Plowing, or using some means of disturbing, stirring and freshening the soil, has been practiced from the remotest ages. Without being able to render a reason why, all nations have practiced this art of first forming a seed-bed before depositing the seed. The practice in earlier ages was somewhat primitive and rude, and among the barbarous, uncivilized and half-civilized, the primitive practices are but little improved; but among those more advanced in the arts, sciences and agriculture, there is large improvement in their practices in this branch at the present day.

The soil furnishes the medium in which the plant fixes the roots, and through which it receives all its mineral, as well as much of its combustible, elements, or food. The soil is supposed to hold all these necessary ingredients, or elements; and to render them available to the plant, certain processes of manipulation of the soil are found necessary. All soils are not alike, some being differently constituted, holding the same elements, or in different proportion, from others—their different capacities varying as largely.

These being admitted truths, it would seem evident, from analogy, that different soils require different treatment, in relation to plowing. While one soil is deep, well filled with available plant food to a great depth, another may be equally deep, as well filled with nutritive matter, and yet not available to plants. Another may only have its surface to a slight depth impregnated with plant food. To say that each and all these soils would be equally productive, in relation to itself, with the same treatment, or plowing to the same depth, is saying what no experienced, practical farmer will admit. Therefore, when we read the discussions on deep or shallow plowing, these as well as all other circumstances should be taken into consideration.

The best soil should be left on top. If we wish to increase the depth of our soil, it should be done by degrees; and to do it with the least present disadvantage, the plowing should be done with the "lap-furrow," for in this way the soil is more equally and better mixed than in any other equally practical way. An inch increase in depth of plowing has that inch of soil commingled with the best soil; that which has been ameliorated by the action of the elements, air, water and heat, and by harrowing is mixed, and loosened, and being brought to the light, is operated upon by the same agents, and its elements thereby brought into an available form.

That a soil may be more pervious to the roots, it needs to be brought to a state of minute division of plants. In such state it also gives more ready admission to air and to water—thus carrying warmth and moisture, so essential to all growing plants, as well as for liberating and preparing food in the soil for the plant.

The roots of plants are always proportioned to their tops. The tops have no resistance except the air, to their extension, and will extend in proportion as the roots extend and take up the necessary pabulum. If the roots are confined to a narrow or shallow space, of course the amount of pabulum must be proportionally limited—although the habits of growth of different plants vary, and will endure varied treatment. It stands to reason that a half-bushel will hold more than a peck measure, and so, if a rich soil is stirred, and the humus exposed to air, &c., to become decomposed as plant food, plants will thrive therein better than if the same soil is stirred to only one half the same depth; all under has its plant food in a less available or entirely unavailable form.

Sometimes a soil contains ingredients which are noxious to the health, &c., of the plant. Such may be greatly ameliorated, by having these noxious ingredients washed down below the reach of the roots of plants by deep plowing and fining the undersoil. Decomposing substances have their decomposition increased in rapidity by exposure to air and division. The more completely the whole soil has been exposed to air, &c., the greater amount of ammonia, &c., withdrawn from the air does it contain. Other reasons might be adduced for deep culture and thorough pulverization of the soil; but enough for the present.

THE ROOT CROP.

[From the Utica (New York) Herald.]

The root crop has scarcely risen yet to the importance of a staple product in this country. Our Agricultural Societies recommend and foster the cultivation of roots; our Agricultural writers show the superior quality of roots as food for stock; our leading practical agriculturists vindicate the profitability of root-raising, by practical and tangible results; and still the great body of our farmers persist in their prejudice against the crop, or, at least, indifference to it.

This prejudice and indifference must, sooner or later, give way to more rational views. It is well known that the health of animals demands a mixed food. Hay is, indeed, for stock what bread is for man, the staff of life; but as man cannot be confined to bread and water diet without injury to his system, neither can domestic animals be restricted to hay and water without similar injury. Succulent food is necessary, not only to furnish nourishment, but to keep the system in a relaxed, and at the same time a vigorous, condition. For accomplishing this end, the root crop affords the cheapest and the best means. This is plainly seen, by comparing this with other crops. An acre of ground that will yield forty bushels of oats, will yield twelve hundred bushels of mangold wurzels; one that will yield thirty bushels of barley, will yield one thousand bushels of turnips; and eight hundred bushels of carrots will grow on an acre that will produce twenty bushels of rye. Surely, one bushel of oats, of barley, or of rye, is not worth as much to feed as thirty bushels of mangold wurzel, or of turnips, or of carrots.

In England, three millions of acres are devoted to the cultivation of turnips, and the crop is estimated to be worth \$500,000,000. By means of this crop, England has more than doubled her capacity for sustaining stock. As roots have increased in quantity and estimation, hay and grain have also increased, until, at the present time, the average yield of wheat to the acre in England is more than triple that in our own and the New England States. Further than this, England can show the best herds to be found anywhere in the world. Belgium has made roots a staple product for even longer time than England, and there are found the largest herds and most population to the square mile, of any country in Europe. A Belgian farmer devotes every fifth acre to the cultivation of roots, and thus makes a farm of forty acres keep a herd of twenty cows. The same process will insure to our farmers the same profitable results.

THE KANSAS DROUTH.

[By IVY INGLE, in the Topeka Commonwealth.]

The lightning's forked gleam,
And the thunder, muttering low,
Have stilled, once more, the stream
Of the yearly dismal flow
Of croaking; poor old Raven-mouth,
Croaking about the coming Drouth!

The crystal drops come down
With whispered words of cheer,
O Farmer, wear thy crown,
And never, never fear,
Or heed the poor old Raven-mouth,
Croaking about the dismal Drouth!

Plow deep, and smoothly roll,
Sow well thy seed with care;
Nor stop to heed this poor old soul,
Whose only cry is half a prayer,
As muttering low, this Raven-mouth,
Be careful—don't forget the Drouth!

Your answer is, the waving corn
In gold and green above his head;
His castle of despair is shorn,
And poor old Raven's almost dead.
He views the grain with open mouth,
And shrieks, in wonder, Where's the Drouth?

With pumpkins, pears, potatoes, peaches,
Peas, apples, corn, and greenest pickles,
Ah! this is how Young Kansas preaches,
While gaily sing the shining sickles;
We'll fill with grapes old Raven's mouth,
And hear him croak no more of Drouth!

Seed time and harvest there shall be!
O Kansas! grand and fair,
A golden gathering waits for thee;
Come, tiller, come and share
This wondrous bounty, Raven-mouth
Persists in calling "Kansas Drouth!"

THE FARMER'S SECURITY.

[From the Ohio Farmer.]

The high prizes of life are not offered to the farmer—not one in a thousand acquires a princely fortune by the cultivation of the soil. This is so well understood by the shrewd men, who "will be rich," that almost every man of them avoids farming, as by instinct.

But there is another side to this subject, which is full of interest and instruction. Almost every farmer who has average health and industry, acquires a competence and independence. Four out of five of all the families to which the Farmer is welcomed, will furnish proof of the assertion, that men, beginning with nothing but vigorous industry and an unsullied name, have, within the last twenty years, risen to the possession of comfort and abundance. The exceptions to this remark are few, and can be readily accounted for on the most obvious principles. Now, set down against this fact, that other fact, which the observations of the last fifty years have developed, namely, that nine out of every ten of all who engage in trade fail in business, and farmers have abundant reason to felicitate themselves on their position and its blessings.

Where the farmer exercises care and prudence, and does not go out of his business to make money, he is quite beyond the reach of bankruptcy.

We have taken some pains to learn the actual condition of the farming interest in the region of our calculation, and it is our belief that nearly every serious case of embarrassment has arisen from one or both of the two following causes: Farmers have purchased faster than necessity required or prudence permitted; or they have gone beyond their business to engage in speculation, more or less remote from their work as farmers. When they have become commercial men, they have incurred the risks of commerce, and those risks should not be set down to the account of agriculture; for where farmers have kept aloof from these, they have avoided those entanglements which have been the "lion's net" to so many men.

We invite the attention of our young men to these facts. They are worthy the most thoughtful reflection. Other professions are always crowded to overflowing; very few succeed in them. The present commercial derangement is scattering the fictitious fabric built on a hollow credit, while the farming interest passes comparatively unscathed.

INTERESTING EXPERIMENT.

[From the Ohio Farmer.]

A recent work of science gives the following novel experiment, which settles a question of some importance in philosophy. Two hundred pounds weight of earth was dried in an oven, and afterwards put into an earthen vessel. The earth was then moistened with rain water, and a willow tree, weighing five pounds, was placed therein. During five years the earth was watered with rain or pure water; the willow grew and flourished, and to prevent mixing with fresh earth or dust from any source, it was covered with a metal plate, numerously perforated to admit air only. After growing in the air for five years, the tree was removed, and found to weigh 169 pounds plus, and the earth in the vessel being removed, dried and weighed, was found to have lost only about two ounces of its original weight. Thus, 164 pounds of woody fiber, bark and roots, were certainly produced; but from what source unless from the air.

HOUSEHOLD RECIPES.

INK.—The following recipe for making writing ink is known as DANIELLS', being the one used by Prof. DANIELLS, of King's College, supposed to be the same as the celebrated Arnold's Ink. It was sold for several hundred dollars when disposed of by the Professor, who used to make it in small quantities, as follows: He put into a stoneware jar one gallon of water, twelve ounces of bruised nut galls, and next day six ounces of gum arabic and four or five drops of kreosote. The bottle was then corked, and left in a corner of the room for three weeks, so that, once in two days, it might remind the owner that it wanted a good shaking. After this, it was left a few days, and then the clear liquor was decanted off for use. This formed a very black, a very cheap, and what is more, a very durable ink.

A VERY PRETTY MANTEL ORNAMENT may be obtained by suspending an acorn, by a piece of thread tied around it, within half-an-inch of some water contained in a vase, tumbler or saucer, and allowing it to remain undisturbed for several weeks. It will soon burst open, and small roots will seek the water; a straight and tapering stem, with beautiful, glossy green leaves, will shoot upward, and present a very pleasing appearance. Chestnut trees may be grown in this manner, but their leaves are not so beautiful as those of the oak. The water should be changed once a month, taking care to supply water of the same warmth. Bits of charcoal added to it, will prevent the water from souring. If the little leaves turn yellow, add one drop of ammonia into the vessel which holds the water, and it will renew their luxuriance.

TO PRESERVE FRESH FLOWERS.—If our lady readers wish to keep a bouquet fresh, let them drop a teaspoonfull of powdered charcoal into the water intended for the flower stalks, and they will keep their freshness and perfume for several days, and look and smell the same as those just gathered. The charcoal settles at the bottom of the vase, the water remaining clear.

TO COLOR BLACK.—For four pounds of rags, take two ounces of blue vitriol, and eight ounces of logwood chips. Put the vitriol in iron, and dissolve in warm water. Put in the yarn, and scald it, but do not let it boil; stir it occasionally, for half-an-hour. Then put in the logwood dye, which must be prepared in iron, and let it stand an hour. Rinse in three waters.

TO POT BUTTER FOR WINTER.—Mix a large spoonfull of powdered white sugar, one of saltpeter, and one of salt; work this quantity to every six pounds of fresh made butter. Put it in a stone pot thoroughly cleansed, having a thick layer of salt on top. Butter put down for Winter should remain covered with the salt until cold weather.

TO COLOR BLUE.—For every three pounds of rags dissolve one ounce of Prussian blue in brass, add one ounce of oxalic acid, put in the cloth, and let it stand over a slow fire till deep enough.

PANCAKES.—Beat eight eggs quite light; then stir in one pint of milk, twelve tablespoonfuls of sifted flour, and one teaspoonful of salt; beat well together, drop the batter by the spoonful into hot lard, fry it to a light brown, and serve with wine sauce.

ISINGLASS JELLY.—Put one ounce of isinglass and half a drachm of cloves into a quart of water. Boil down to a pint, strain upon one pound of loaf sugar, and when cold, add a pint of wine. It will then be fit for use. A very nourishing beverage may be made by merely boiling the isinglass with milk, and sweetening with lump sugar.

DELICIOUS LEMON PIE.—Take the juice and rind of one lemon, a cup of sugar, the yolk of two eggs, three tablespoonfuls of flour, milk to fill the plate; line the plate with paste, pour in this custard, and bake until it is done. Beat the whites of two eggs, add four tablespoonfuls of powdered sugar, spread over the pie, and brown lightly in the oven.

EGG BALLS.—Boil six eggs for ten minutes, then put them in cold water. When quite cold, bruise the yolks with the back of a spoon, or put them in a mortar and pound them, adding by degrees the beaten yolks of two raw eggs, until it forms a smooth paste. Season it with very little pepper and salt, or with curry powder; make it up into small, round balls, and boil them two minutes in soup or stew.

TO COLOR COTTON YELLOW.—For every three pounds of cotton, take six ounces of sugar of lead, dissolved in hot water in a vessel of lead or tin. In a wooden vessel dissolve three ounces of bi-chromate of potassa in cold water. Dip the goods first in one vessel and then in the other, until the color suits. If you wish orange, dip the cotton in strong lime water.

WILD ROOT BEER.—To three gallons of lukewarm water add a small teaspoonful each of the oils of spruce, sassafras and wintergreen; one quart of molasses, and three yeast cakes. Let it stand in a warm place ten or twelve hours; then strain, and bottle for immediate use. For a stronger root beer, take a handful each of yellow dock, dandelion, and sarsaparilla roots; boil them in water, with the addition of a little boneset, until the strength is extracted; strain the liquor, and when cool enough, add three gallons of molasses, and yeast cakes as above.

FOR COLORING WOOL YELLOW.—For every three pounds of wool, take eight ounces of alum and quercitron bark. Dissolve the alum in this solution, boil it an hour; then plunge it in the solution of quercitron bark, and keep turning until the color suits. Add eight drachms of powdered chalk, and boil ten minutes longer, if you wish the color deepened. For a very light yellow, oxide of tin should be used instead of alum; a little cream of tartar added will give a greenish yellow, and a little cochineal, orange.

TO COLOR BLACK.—Take half-a-pound of madder half-an-ounce of cream of tartar, and one ounce of marine or hydrochloric acid, to a pound of cloth. Put all together, and bring the dye to a scalding heat. Then put in the cloth and scald, but do not boil, for ten minutes. Rinse immediately in cold water. The various shades of green may be obtained by dipping the goods, first into blue, and then into yellow dye; those of lilac and purple, by alternating with red and blue; and those of orange, by using first yellow, and then red.

SOAP MAKING.—Mrs. L. C. MERRIMAN, of Lewis county, N. Y., sends to the *Rural American* the following, which she assures us makes most excellent soap: For one barrel of soap, pour into a strong barrel four pailsfull of lye that will bear up an egg; add thirty pounds melted grease (previously tried and strained), and mix them well together. Let stand a few hours, and then stir thoroughly. As soon as the soap begins to thicken, add weak lye, one or two pailsfull at a time, until the barrel is full. Be sure to stir the soap thoroughly each time the lye is added, and afterwards stir it once or twice daily for three days.

"WHERE THE LAUGH COMES IN."

"A little Nonsense, now and then,
Is relished by the best of men."

THREE boxes rule the world—the ballot-box, the cartridge-box, and the band-box.

WHAT animal has the greatest amount of brains? The hog; for he has a hog's-head full.

A DANGEROUS METAPHOR.—"It's bed time, darling; all the little chickens have gone to roost." "Yes, Mamma, and so has the old hen."

A LADY wished a seat in a crowded hall, when a handsome gentleman gave her a chair. "You are a jewel," she said, in thanking him. "O, no; I am a jeweler. I have just set the jewel."

A BLIND BEGGAR who frequents the Rue St. Honore, in Paris, has the following announcement affixed to his breast: "Blind—father of four children—the result of a terrible accident!"

A DRUNKEN MAN had made persistent and desperate efforts to keep on a narrow sidewalk, but failed. At last he darted out into the street, exclaiming: "There, now! Go in the street, if you want to!"

A YOUNG LADY, examining her class at Sabbath school, asked: "What is the pomp and vanity of this world?" A little girl, looking up in her face, very innocently replied: "The flowers upon your bonnet."

ALLUDING to the conversation of school teachers who insist on maintaining corporeal punishment in the schools, the *New York Tribune* innocently says "they are looking after the things that are behind"—which is very true.

AN Indiana paper reports that a young lady in that State was recently licensed to marry two gentlemen, and adds that she made only one of them happy. It does not say which one, but it must have been the one she didn't marry.

At a trial in an Alabama town, not long since, one of the witnesses, an old lady of some eighty years, was closely questioned by the opposing counsel relative to the clearness of her eyesight. "Can you see me?" said he. "Yes," was the answer. "How well can you see me?" "Well enough," responded the old lady, "to see that you're neither a Negro, nor an Indian, nor a gentleman." The answer brought down the house, and silenced the lawyer.

DON'T swap with yure relashuns, unless yu ken afford tu giv them the big end uv the trade.

Marry yung, and if circumstances require it, often. Don't take yer tobaccor box out in kumpany.

If yu kan't get gude cloas and edikashun, get the cloas.

Say, How ar ye? to evrybody.

Kultivate modesty, but mind and kepe a gude stock of impudence on hand.

Bee charitable. Sent peeces war made on purpus. Don't take ennybody's advice but yure own.

It costs more to borrow than it duss to buy.

Ef a man flatters yu, yu ken kalk'late that he's a roge, or thinks yure a fule.

Keep both ize open; don't cee mor'n haf yu notis.

When yu pray, pra rite at the senter of the mark.

Don't mortifi the flesh tu much. It wasn't the sores on Lazzarus that cent him tu heaven.

If yu itch fur faim, go into a graveyard and rub yureself against a tume stun.

Beggars don't hav tu advertiz fur runaway dogs.

"Tis a long lane that never turns," and 'tis a gude mill that alvus duss.

Yung man, be more anxshus about the pedigree yure going to leve behind yu, than yu ar about the wun sumbody's going to leve yu.

Sin is like weeds—self-sown, and sure to kum up.

Natur is natur. Yu kan't alter the krook of a dog's tale much, and preserve the length.

About as sure a way tu get rich as I kno uv, is tu get into debt for a hundred thousand dollars, and then go tu work and pa oph the det.

Filosofurs tell us that the world revolves upon its axis; and Josh Billings tells us that fully haf the fokes on the airth imagine that they are the axes.

Thorough-Breed Stock.—THOMAS B. SMITH & Co. are the most extensive and reliable Breeders of the above in America. See advertisement. feb-ly

STRAY LIST.

BY AN ACT of the Legislature, approved Feb. 27, 1867, Section 1, when the appraised value of a stray or strays exceeds ten dollars, the County Clerk is required, within ten days after receiving a certified description and appraisement, to "forward by mail, notice containing a complete description of said strays, the day at which they were taken up, their appraised value, and the name and residence of the taker up, to THE KANSAS FARMER, together with the sum of fifty cents for each animal contained in said notice."

STRAYS FOR JUNE.

Anderson County—J. H. Williams, Clerk.

STEER—Taken up by A. V. Osborn, Walker tp, February 25th, 1870, one small red yearling Steer, white forehead, white on outside of each thigh, white on end of tail, white spots on legs. Appraised \$14.

MARE—Taken up by Ransom Mundell, Walker tp, April 6th, 1870, one dun Mare, 4 or 5 years old, 14 hands high, four white feet, saddle marks, indistinct brand on left shoulder. Appraised \$35.

PONY—Taken up by J. A. Tate, Ozark tp, April 4, 1870, one sorrel mare Pony, 14 years old, 13 hands high, white on face and on right shoulder. Appraised \$30.

MARE—Taken up by Samuel Vaughn, Walker tp, one bay Mare, black mane and tail, a few white hairs in forehead. Appraised \$30.

COW—Taken up by John Mooney, Reeder tp, January 29, 1870, one Cow, 12 years old, white spot on forehead, another on rump, underbit in left ear, part of switch of tail off. Appraised \$12.

MARE—Taken up by M. Porter, Reeder tp, February 8th, 1870, one bay Mare, 2 or 3 years old, a few white hairs in forehead. Appraised \$35.

STEER—Taken up by Henry Flurnborn, Monroe tp, March 26, 1870, one black and white spotted Steer, 2 years old, medium size. Appraised \$15.

STALLION—Taken up by John Hall, Ozark tp, February 21, 1870, one light roan Stallion, 3 years old, 13 hands high, legs all white to knees, white face, mane and tail white. Appraised \$25.

PONY—Taken up by B. F. Bain, Ozark tp, April 28, 1870, one iron-gray mare Pony, 8 years old, two white hoofs, scar on nose. Appraised \$30.

HORSE—Taken up by A. J. Vaughn, Jackson tp, May 14, 1870, one bay Horse, blind in left eye, saddle and harness marks, iron gray spot on right hind leg, white spot in forehead. Appraised \$35. Also, one bay MARE, saddle and harness marks, shod all round. Appraised \$40.

PONY—Taken up by Wm Coultrain, Jackson tp, May 14, 1870, one dark bay Stallion Pony. Appraised \$25.

PONY—Taken up by Ransom Mundell, Walker tp, May 1, 1870, one dark bay mare Pony, 9 or 10 years old, black mane and tail, branded ME on left shoulder, star in forehead, right foot white, one shoe on collar marks. Appraised \$30. Also, one bay horse PONY, 6 or 7 years old, saddle marks, black mane and tail, had three shoes on, branded JB on left shoulder. Appraised \$25.

HORSE—Taken up by A. Kratzberg, Walker tp, May 1, 1870, one dark brown Horse, 5 years old, 14 hands high, black mane and tail, saddle marks, scar on left hip. Appraised \$40.

Bourbon County—C. Fitch, Clerk.

PONY—Taken up by G. J. Abbey, Franklin tp, May 10, 1870, one red roan horse Pony, 5 or 6 years old, 13 hands high, branded JC on both hips, harness marks. Appraised \$40. Also, one white roan mare Pony, 5 or 6 years old, 13½ hands high, weak eyes. Appraised \$30.

PONY—Taken up by A. Howard, Freedom tp, May 9, 1870, one bay mare Pony, 8 years old, 13½ hands high, saddle marks, shod all round. Appraised \$30. Also, one sorrel Horse, 9 years old, 15 hands high, blaze face, hind feet and left fore foot white, shod all round, collar marks. Appraised \$40. Also, one strawberry roan stud Colt, 3 years old, 14 hands high. Appraised \$30.

MARE—Taken up by Silas Geplford, Drywood tp, one brown Mare, 14½ hands high, 7 years old, branded M on right shoulder, hind feet white, harness marks, star in forehead. Appraised \$75. Also, one light bay Mare, 14 hands high, 4 years old, hind feet white, blaze in forehead, harness marks. Appraised \$30.

HORSE—Taken up by Joseph Parker, Pawnee tp, April 30, 70, one dark iron-gray Horse, 7 years old, 15 hands 1 inch high, tip of left ear off, black legs, saddle and harness marks, small crease on under part of neck. Appraised \$70.

HORSE—Taken up by L. McDougall, Marmaton tp, May 12, 70, one light iron-gray Gelding, 4 years old, 14 hands high, hind feet white, mane and tail white. Appraised \$30. Also, one sorrel Gelding, 7 years old, 15 hands high, collar and saddle marks, "1" branded on right hip, hind feet white, white stripe on forehead. Appraised \$70.

MARE—Taken up by John Moyer, Franklin tp, May 17, 1870, one dark roan Mare, 11 years old, 15 hands high, shod before. Appraised \$15. Also, one black Horse, 8 years old, 13 hands high, four white feet, bald face, left eye glass, saddle marks on right side. Appraised \$100.

PONY—Taken up by John Caler, Freedom tp, May 23, 1870, one bay stud Pony, 8 years old, 12 hands high, white spot in face, left hind foot white, branded on right shoulder. Appraised \$15.

COLT—Taken up by W. H. Chown, Freedom tp, May 23rd, 1870, one black stud Colt, 2 years old, 13 hands high, star in forehead, left hind foot white. Appraised \$50.

STEER—Taken up by Robert Willett, Franklin tp, May 10, 70, one bay Horse, 8 years old, 14 hands high, white stripe on face, branded CD on left shoulder. Appraised \$60.

MARE—Taken up by James Mitchell, Scott tp, May 16th, 1870, one dark sorrel Mare, 9 years old, 14 hands high, hind legs white, right fore foot white, blaze face, right eye blind. Appraised \$50.

Brown County—E. N. Morrill, Clerk.

HEIFER—Taken up by John McCall, Irving tp, January 26th, 1870, one two-year old Heifer, red back, white belly, roan sides, red head and neck, star in forehead. Appraised \$30.

HORSE—Taken up by H. V. Kimberton, Claytonville tp, January 17, 1870, one dark iron-gray Horse, 8 years old, star in forehead, shod all round. Appraised \$75.

FILLY—Taken up by F. J. Robbins, Walnut Creek tp, March 22, 1870, one bay Filly, 1 year old, spot between nostrils, a shot mark in forehead, left hind foot white. Appraised \$25.

HORSE—Taken up by Matthew Hess, Claytonville tp, one bay Horse, 5 years old, hind feet white, saddle marks, a work horse. Appraised \$75.

Chase County—William Rockwood, Clerk.

STEER—Taken up by W. E. Prather, Fall tp, one domestic Steer, 3 years old, red neck and back, red and white spots on side, crop off left ear. Appraised \$30. Also, one Southern Steer, 8 years old, white face, yellow neck, yellow and white spots on sides, both ears cut or froze off half. Appraised \$30.

PONY—Taken up by Wm Barrington, Cottonwood tp, May 9, 1870, one sorrel mare Pony, heavy with foal, 10 years old, mane and tail iron-gray, sides roan, star in forehead, left hind foot white, a ring branded on right hip. Appraised \$30.

Clay County—J. W. Kennedy, Clerk.

HEIFER—Taken up by Jacob Mall, Republican tp, March 26, 1870, one brindle Heifer, 5 years old, white on each flank, star in face, white on each hip, horns drooped. Appraised \$—.

Doniphan County—John F. Kirwan, Clerk.

MARE—Taken up by H. R. Calvin, Burr Oak tp, April 1, 1870, one red roan Mare, 13 or 14 years old, 14½ hands high, left hind foot white, 2 front teeth out, white speck in left eye, shod on fore feet. Appraised \$40. Also, one bay Horse, 8 or 9 years old, 15½ hands high, star in forehead, hind feet white. Appraised \$85.

Also, one bay Horse, 6 years old, 15½ hands high, shod on fore feet. Appraised \$120. Also, one bay Horse, 5 years old, nearly 15 hands high, a lump on inside of left hock (hind foot). Appraised \$65.

Franklin County—G. D. Stinebaugh, Clerk.

PONY—Taken up by J. K. Mitchell, Greenwood tp, November 10, 1869, one black mare Pony, 2 years old. Appraised \$20.

MARE—Taken up by C. W. Ivy, Ohio tp, April 16, 1870, one sorrel Mare, 15 years old, 15 hands high, star in forehead, ringbone on right hind foot. Appraised \$35.

MARE—Taken up by James Bolcourt, Ohio tp, May 2d, 1870, one light roan Mare, 3 years old, 14½ hands high, both hind legs white, white stripe in forehead, white spot on nose, had a small bell on. Appraised \$40.

Greenwood County—L. N. Fancher, Clerk.

HORSES—Taken up by A. McCone, Lone tp, April 10, 1870, one black Horse, 13 hands high, shod all round, harness marks. Appraised \$75. Also, one dark brown Horse, 5 years old, 15½ hands high, shod all round, hind feet white, star in forehead, harness marks, right eye blind. Appraised \$55.

Jefferson County—A. G. Patrick, Clerk.

STEER—Taken up by J. N. O. P. Wood, Kentucky tp, March 11, 1870, one white spotted Steer, 3 years old. Appraised \$30. Also, one white Heifer, 2 years old. Appraised \$15.

STEER—Taken up by H W Wellman, Sarcosie tp, March 28th, 1870, one red steer, 3 years old, white belly, bushy tail, star in forehead, square crop off right ear, swallow-fork in left ear. Appraised \$30. Also, one red steer, 3 years old, white on belly, a white spot on each hip, underbit in right ear. Appraised \$12.

BULL—Taken up by John Hensley, Jefferson tp, April 5, 1870, one roan bull, 2 years old, red neck, underbit in the right ear. Appraised \$15.

HEIFER—Taken up by John Godfrey, Sarcosie tp, April 24, 1870, one heifer, 3 years old, white back, crop off left ear, a hole in right. Appraised \$15.

PONY—Taken up by E Hudepeth, Grasshopper Falls tp, April 18, 1870, one small bay horse pony, 3 years old, harness marks. Appraised \$—.

Johnson County—J. T. Taylor, Clerk.

PONY—Taken up by Edward Branch, Aubrey tp, May 30, 1870, one black mare pony, 5 years old, 14 hands high, star in forehead, slip on nose, right hind foot white, white spots on left fore leg. Appraised \$20.

PONY—Taken up by J A DeTar, McCanish tp, May 24, 1870, one claybank pony, 6 or 7 years old, 12 hands high, black mane and tail. Appraised \$30.

PONY—Taken up by Sam'l McPherson, Springhill tp, May 28, 1870, one bay horse pony, 6 years old, all four feet white, saddle marks, white spot in forehead. Appraised \$30.

Linn County—J. W. Miller, Clerk.

MARE—Taken up by B F Miller, Sheridan tp, May 8, 1870, one bright bay mare, 6 years old, 15 hands high, black legs, mane and tail, white spot in forehead, saddle marks. Appraised \$30.

PONY—Taken up by B F Kempton, Scott tp, April 8, 1870, one small black horse pony, 18 years old, 12½ hands high, branded GE on right hip, spot on left eye. Appraised \$15. Also, one light brown horse, 5 years old, 15½ hands high, cupped in left hip. Appraised \$70.

MARE—Taken up by Elvira McLean, Blue Mound tp, May 3d, 1870, one claybank mare, 8 years old, 14 hands high, blaze face, hind feet white, branded P on right shoulder. Appraised \$100. Also, one dark iron-gray pony, 8 years old, branded O or 2 on neck and left shoulder. Appraised \$30.

MARE—Taken up by Wm Hendricks, May 2d, 1870, one bay mare, 3 years old, 14½ hands high, a few white hairs in forehead. Appraised \$30. Also, one black mare pony, 4 years old, 14 hands high, white spot on left hind leg. Appraised \$30.

MULES—Taken up by F B Eaton, Liberty tp, May 1, 1870, two mules, one a mouse-colored mare, 4 years old, 12½ hands high, harness marks. Appraised \$60; the other a dark brown horse, 4 years old, 13 hands high, harness marks. Appraised \$70.

STEER—Taken up by John Griffith, Centerville tp, April 11th, 1870, one brindle and white work ox, 6 years old, swallow-fork and underbit in each ear. Appraised \$60.

MARE—Taken up by W C Fletcher, Paris tp, one light sorrel mare, 7 years old, 15½ hands high, collar and saddle marks, star in forehead. Appraised \$—.

HORSE—Taken up by Andrew Shankle, Sheridan tp, April 8, 1870, one dark brown horse, 4 years old, 15½ hands high, white stripe in face, white spot on nose, knee-sprung in left fore leg. Appraised \$75.

PONY—Taken up by Francis McShane, March 30, 1870, one dun pony, 5 years old, 18 hands high, black mane and tail, some white above hock of hind feet. Appraised \$25.

Lyon County—D. S. Gilmore, Clerk.

PONY—Taken up by A Y Saunders, Americus tp, one sorrel horse pony, 5 years old, 15 hands high, white face, white scar on left side of neck. Appraised \$40.

STEER—Taken up by Eliza A Burt, Elmendaro tp, one red and white yearling steer. Appraised \$15.

HEIFER—Taken up by L B Wright, Elmendaro tp, one red roan heifer, 4 years old, star in forehead, crop off left ear, slope off right. Appraised \$25.

COW—Taken up by A G Edmiston, Americus tp, one white cow, 3 years old, red ears and nose, red on fore feet, branded O on right hip. Appraised \$25.

Osage County—Wm. Y. Drew, Clerk.

MARE—Taken up by J S Markham, Burlingame tp, May 2, 70, one light dun mare, 4 years old, 14 hands high, black stripe on back, harness marks. Appraised \$60.

Shawnee County—P. I. Bonebrake, Clerk.

PONY—Taken up by Joseph Neconquit, Dover tp, one brown pony, 4 years old, 14½ hands high, 2 white feet. Appraised \$40.

Wabaunsee County—J. M. Matheny, Clerk.

STEER—Taken up by A Phillips, Mission Creek tp, December 22, 1869, one black steer, 3 years old, branded D on left hip, right horn sawed off, crop off right ear, half crop off left ear, brass on left horn. Appraised \$30.

MARE—Taken up by Peter Thoes, Alma tp, December 23, 1869, one sorrel mare, 2 years old, 13 hands high, hind feet white, star in forehead. Appraised \$30.

STRAYS FOR MAY.

Atchison County—C. W. Rust, Clerk.

HEIFER—Taken up by Pat Kelly, Shannon tp, March 24, 1870, one red heifer, 2 years old, white spots, no horns, medium size. Appraised \$20.

Bourbon County—C. Fitch, Clerk.

PONY—Taken up by J W Ray, Drywood tp, April 4, 1870, one light bay mare pony, 4 years old, 14 hands high, blaze face, right hind foot white, a little white round left fore foot, saddle marks. Appraised \$25.

STEER—Taken up by Joseph Oliver, Marmaton tp, March 11, 1870, one roan steer, one year old, upper bit in right ear. Appraised \$1.

PONY—Taken up by J S Knowles, Freedom tp, one bay mare pony, 7 years old, 11 hands high, saddle marks, fore feet shod. Appraised \$45. Also, one sucking mare COLT, with the above. Appraised \$15. Also, one bay horse PONY, 8 or 9 years old, shod all round, mane roached, inverted J branded on left shoulder. Appraised \$40.

COLT—Taken up by Elizabeth Oshow, Marmaton tp, April 22, 1870, one cream-colored horse colt, 2 years old, dark mane and tail, right hind foot white. Appraised \$25.

MARE—Taken up by W T Whitesit, Marmaton tp, May 7, 1870, one bay mare, 5 years old, 15 hands high, black mane and tail, white spot on back, saddle and collar marks, white spot on right side, had halter on and 8 shoes. Appraised \$30.

Butler County—H. D. Kellogg, Clerk.

STEER—Taken up by H N Wilax, Towanda tp, March 1, 1870, one red and white spotted roan steer, 3 years old, part of left ear off, indistinct brand on left hip. Appraised \$20.

Cherokee County—J. G. Dunlavy, Clerk.

STEER—Taken up by Wm J Derry, Sheridan tp, January 5th, 1870, one white steer, 2 years old. Appraised \$15. Also, one steer, 10 years old, crop off left ear, and slope off right ear. Appraised \$30.

MARE—Taken up by John Leumson, Sheridan tp, December 23, 1869, one strawberry roan mare, branded J on left shoulder, collar and saddle marks; also, one colt. Appraised \$65.

PONY—Taken up by J M Davis, Spring Valley tp, January 12, 1870, one bay horse pony, 11 years old. Appraised \$15. Also, one black and white spotted mare pony. Appraised \$35.

STEER—Taken up by D Hurlburt, Pleasant View tp, February 16, 1870, two red and white spotted steers, one with crop off left ear and underbit in right, the other with underslope in right ear. Appraised \$40.

MARE—Taken up by James Wells, Shawnee tp, April 7th, 1870, one bay mare, 8 years old, 15 hands high, left hind foot white, saddle and collar marks, branded X on left shoulder. Appraised \$35.

HEIFER—Taken up by W M Ghalie, Sheridan tp, January 7th, 1870, one pale red heifer, 3 years old, white face. Appraised \$20.

STEER—Taken up by M O Gillespie, Sheridan tp, one red steer, white face. Appraised \$15.

HEIFER—Taken up by Jesse Crouch, Pleasant View tp, Jan. 27, 1870, one red heifer, two underbits in right ear, one in left. Appraised \$15.

COW—Taken up by David Stone, Lowell tp, in February, 1870, one brown cow, crop and under half slope in each ear. Also, one red calf, 8 months old, white face, stripe down left hip. Appraised \$20.

HEIFER—Taken up by D Shepherd, Shawnee tp, March 14, 1870, one white heifer, crop off right ear, upperbit in left ear. Also, one red heifer, some white in forehead, crop off both ears. Appraised \$11.

MARE—Taken up by J H Patterson, Lola tp, December 15th, 1869, one sorrel mare, 8 years old, 15 hands high, ringbone on right hind foot, blaze in face, hind feet white, saddle marks. Appraised \$15. Also, one brown yearling horse colt, right hind foot white. Appraised \$10.

PONY—Taken up by J D Potter, Pleasant View tp, February 28, 1870, one cream-colored mare pony, 3 years old. Appraised \$20. Also, one bay horse pony, star in forehead. Appraised \$30. Also, one sorrel mare pony, light mane and tail, blaze in face. Appraised \$30.

FILLY—Taken up by Jno Alexander, Pleasant View tp, April 6, 1870, one roan filly, 4 years old, branded N on left shoulder, left fore foot and hind foot white. Appraised \$30.

HORSE—Taken up by J H Weaver, Lyon tp, April 20, 1870, one horse, star in forehead, black hind feet, branded AB on the left shoulder. Appraised \$35.

Doniphan County—John T. Kirwan, Clerk.

HEIFER—Taken up by Arthur Carroll, Washington tp, one brindle heifer, 2 years old, wide horns, two slits in left ear, crop off right ear. Appraised \$12.

Franklin County—G. D. Stinebaugh, Clerk.

MARE—Taken up by A H Calvert, Pottawatomie tp, March 15, 1870, one bay mare, 5 years old, 15 hands high, black mane and tail, white spot on nose, right hind foot white to pastern joint. Appraised \$100.

HORSE—Taken up by J C Hughes, Centerville tp, January 1, 1870, one black horse, 3 years old, 14 hands high, white on forehead, saddle marks, deficient in shoulder and hip. Appraised \$27.

Jefferson County—A. G. Patrick, Clerk.

STEER—Taken up by H W Wellman, Sarcosie tp, March 28th, 1870, one red steer, 3 years old, belly and bush of tail white, star in forehead, square crop off right ear, swallow-fork in left ear. Appraised \$20.

Leavenworth County—O. Diefenorff, Clerk.

MARE—Taken up by F M Wells, Delaware tp, February 24th, 1870, one sorrel mare, 3 years old, 13 hands high, star in forehead, white mane and tail. Appraised \$35.

MARE—Taken up by J W Hillix, Kickapoo tp, March 3, 1870, one yellow mare, 6 years old, 14 hands high, black mane and tail. Appraised \$25.

MARE—Taken up by Geo Eader, Tonganoxie tp, March 28th, 1870, one sorrel mare, 4 years old, 14½ hands high, white spot on forehead. Appraised \$40.

MARE—Taken up by A J Ridgeway, Alexandria tp, April 20th, 1870, one chestnut sorrel mare, 5 years old, 14 hands high, blaze face, white spot on chin, right hind foot and left fore foot white, harness marks. Appraised \$45.

Lyon County—D. L. Gilmore, Clerk.

FILLY—Taken up by Joseph Frost, Fremont tp, one sorrel filly, 2 years old, medium size, white strip in forehead, one nostril torn. Appraised \$40. Also, one light sorrel FILLY, 2 years old, star in forehead. Appraised \$40.

PONY—Taken up by R F Hutton, Waterloo tp, one dark bay stallion pony, 4 years old, 13½ hanes high, white spot in forehead and on nose, saddle marks. Appraised \$40.

STEER—Taken up by J K Jones, Emporia tp, one red and white spotted yearling steer, smooth crop off left and swallow-fork in right ear. Appraised \$14.

MARE—Taken up by D T Lewis, Emporia tp, one roan mare, 3 years old. Appraised \$70. Also, one bay MARE, 3 years old, star in forehead, all feet white. Appraised \$30.

Miami County—G. W. Warren, Clerk.

STEER—Taken up by J B Hamilton, Richland tp, December 21, 1869, one brown steer, 3 years old, white spot on left thigh, some white on brisket, swallow-fork in right ear, crop off left ear. Appraised \$25.

Morris County—J. Hammond, Clerk.

COLT—Taken up by J E Willis, Clark's Creek tp, March 7, 70, one bay colt, 2 years old, 11 hands high white spot in forehead. Appraised \$15.

Osage County—William Y. Drew, Clerk.

MULE—Taken up by J R Green, Ridgeway tp, March 11, 1870, one dark bay horse mule, 3 years old, under medium size, branded CS on right hip. Appraised \$50.

MARE—Taken up by A M Wilson, Burlingame tp, March 23d, 1870, one bay mare, 3 years old, white hairs on root of tail, some white on left hind foot, saddle marks. Appraised \$30.

Ottawa County—A. C. Stull, Clerk.

STEER—Taken up by L C Cairns, one dark brindle steer, four years old, indistinct brand on right hip, underslope in ear. Also, one dark red STEER, 4 years old, indistinct brand on right hip, swallow-fork in left ear.

Shawnee County—J. I. Bonebrake, Clerk.

STEER—Taken up by Andrew Stark, Topeka tp, one yearling muley steer, brindle sides, white back and belly. Appraised \$12. Also, one dark roan yearling steer, underbit off left ear, crop off right. Appraised \$12. Also, one yearling steer, red head and sides, black and white, Appraised \$12. Also, one sorrel mare colt, three years old, white feet, light mane and tail. Appraised \$35. Also, one dark brown horse colt, 2 years old. Appraised \$25.

Wyandotte County—F. J. Kelly, Clerk.

COLT—Taken up by James DeFrees, Wyandotte tp, March 12, 1870, one pale red cow, 2 years old. Appraised \$35.

HEIFER—Taken up by Jacob Rosh, Wyandotte tp, March 12, 1870, one dark red heifer, two years old, full crop in both ears. Appraised \$14.

STRAYS FOR APRIL.

Allen County—W. F. Waggoner, Clerk.

FILLY—Taken up by D Horville, Iola tp, one sorrel filly, 3 years old, star in forehead, white streak on nose, hind feet white. Appraised \$30.

MARE—Taken up by John Rutledge, Iola tp, one brown mare, 6 years old, 14 hands high. Appraised \$40. Also, one bay horse colt, 9 months old. Appraised \$15. Also, one sorrel mare pony, 5 years old, 13 hands high, blaze face, hind feet and right fore foot white. Appraised \$25. Also, one bay mare colt, 2 years old, 13 hands high. Appraised \$25. Also, one bay mare pony, 4 years old, 12½ hands high, star in face, white on nose, left hind foot white. Appraised \$20. Also, one bay mare pony, 6 years old, 13½ hands high. Appraised \$40.

COW—Taken up by N Hawkins, Iola tp, one red and white spotted muley cow, face and neck red, crop off right ear, under half crop in left ear, branded O on left thigh. Appraised \$15.

MARE—Taken up by Thomas Brookshire, Osage tp, one light bay mare, 3 years old, 14 hands high, star in face, right hind foot white. Appraised \$40. Also, one dark bay mare pony, 5 years old, 12 hands high; also, one sucking colt. Appraised \$30.

Anderson County—J. H. Williams, Clerk.

HEIFER—Taken up by J. B. Shoemaker, Monroe tp, January 31, 1870, one red heifer calf, small size, white on belly and end of tail, hind foot white, 1 year old, crumpled horns. Appraised \$12.

COW—Taken up by Heber Reynolds, Washington tp, January 10, 1870, one red cow, 3 years old, white spot on left flank, swallow fork in left ear, blind in right eye. Appraised \$15.

PONY—Taken up by J B Tipton, Reeder tp, January 1st, 1870, one light roan half-pony horse, 2 years old, 11 hands high, blaze face, right hind leg white. Appraised \$30.

STEER—Taken up by J W Robinson, Walker tp, December 9, 1869, one red yearling steer. Appraised \$15.

STEER—Taken up by John McGlinchey, Reeder tp, January 5, 1870, one red yearling steer, both ears cropped, white on face, legs and end of tail. Appraised \$12.

PONY—Taken up by Geo Reed, Ozark tp, January 12, 1870, one dark bay mare pony, 7 years old, 18 hands high, hind feet, left fore foot and fetlock white, star in forehead, saddle marks. Appraised \$35. Also, one chestnut sorrel mare pony, white face, nose, and under lip, left fore foot and left hind feet white, indistinct brand on left shoulder, 3 years old, 12½ hands high. Appraised \$30.

PONY—Taken up by Hugh McEvoy, Reeder tp, January 3, 1870, one cream-colored mare pony, 14 years old, white stripes in forehead, brand on left shoulder. Appraised \$12.

PONY—Taken up by L D Evans, Washington tp, December 27, 1869, one black horse pony, 3 years old, 13½ hands high, heavy mane and tail, right eye weak. Appraised \$22.

STEER—Taken up by Julius Reynolds, Washington tp, December 29, 1869, one dun steer, 4 years old, swallow-fork and crop in each ear, indistinct brand on right hip. Appraised \$35. Also, one white steer, red ears, red spots on neck. Appraised \$30.

HEIFER—Taken up by J P Sutton, Walker tp, December 10th, 1869, one light roan heifer, red neck, white face. Appraised \$14.

STEER—Taken up by Reuben Lowry, Walker tp, December 11, 1869, one white steer, one white yearling steer, half-crop and underbit in right ear. Appraised \$15.

STEER—Taken up by Richd Robinson, Walker tp, January 22, 1870, one red yearling steer, crop and underbit in each ear. Appraised \$15.

Bourbon County—C. Fitch, Clerk.

HORSE—Taken up by Thomas Foster, Osage tp, one brown horse, 7 years old, 15½ hands high, hind feet white, star in forehead, saddle marks. Appraised \$75. Also, a bright bay horse, 4 years old, 14 hands high, left hind foot white, a white spot on nose, saddle marks. Appraised \$30.

COLT—Taken up by Robert Forbes, Timberhill tp, March 5th, 1870, one dark bay mare colt, 2 years old, 13 hands high. Appraised \$25.

COLT—Taken up by J R Greening, Drywood tp, February 15, 1870, one dun mare colt, 2 years old, both hind feet white, dark mane and tail. Appraised \$35.

Chase County—William Rockwood, Clerk.

STEER—Taken up by William Stone, Toledo tp, one blue and white spotted yearling steer, crops off both ears. Appraised \$15.

Cherokee County—J. G. Dunlavy, Clerk.

STEER—Taken up by McCutlkin, Sheridan tp, January 25th, 1870, one red yearling steer, white face. Appraised \$15.

HEIFER—Taken up by W M Ghalie, Sheridan tp, January 7th, 1870, one pale red heifer, 3 years old, white face. Appraised \$30.

HEIFER—Taken up by Jesse Crouch, Pleasant View tp, January 27, 1870, one red heifer, 4 years old, medium size, 3 underbits in right ear and one in left, indistinct brand on left hip. Appraised \$16.

COW—Taken up by David Stone, Lowell tp, February 2, 1870, one cream-colored cow, 6 years old, crop and half slope of each ear, dewlap 3 inches long, a little white near the bag. Also, one calf, 8 months old. Appraised \$20.

STEER—Taken up by W J Dewy, Sheridan tp, January 15, 1870, one white steer, 2 years old. Appraised \$15. Also, one white steer, 2 years old, medium size, red ears, crop off left and slope off right ear. Appraised \$12.

MARE—Taken up by John Lunnon, Sheridan tp, December 22, 1869, one roan mare, 8 years old, branded J on left shoulder, saddle and collar marks. Also, one sucking COLT. Appraised \$40.

PONY—Taken up by J M Davis, Baxter Springs tp, January 12, 1870, one bay horse pony, 9 or 10 years old, shod on all four feet. Appraised \$15. Also, one white, spotted mare PONY, 8 years old, had a bell on. Appraised \$35.

STEER—Taken up by L Hurlburt, Pleasant View tp, February 12, 1870, two red and white spotted steers, 4 years old, medium size, crop off left ear of one, underslope off right ear of the other. Appraised \$30.

Dickinson County—E. S. Wiley, Clerk.

PONY—Taken up by Pat Sheran, Sherman tp, February 1, 1870, one black mare pony, 5 years old, saddle marks. Appraised \$25.

Ellsworth County—Nathan Dreyfoos, Clerk.

HORSE—Taken up by John Selert, February 23, 1870, one bay horse, 8 years old, 16 hands high, saddle marks, a few white hairs in forehead. Appraised \$—.

Greenwood County—L. N. Fancher, Clerk.

MARE—Taken up by A. Thompson, Fall River tp, February 7, 1870, one black mare, 2 years old, 13 hands high, left hind foot white. Appraised \$40.

Jackson County—E. B. Rose, Clerk.

STEER—Taken up by Sidney Hamline, Douglas tp, one red steer, 3 years old, belly and brush of tail white, ring around both hind feet, smooth crop and underbit in left ear. Appraised \$30.

HEIFER—Taken up by F G McReynolds, Douglas tp, one red yearling heifer, white on belly and face. Appraised \$15.

COLT—Taken up by Roger O'Meara, Franklin tp, one brown filly, 13 hands high, star in forehead. Appraised \$40. Also, one dark brown horse colt, 2 years old. Appraised \$30.

HORSE—Taken up by A P Meeks, Jefferson tp, one light bay horse, 4 years old, star in forehead, right hind foot white, spot on left side of nose. Appraised \$25.

PONY—Taken up John Daily, Franklin tp, one light sorrel stud pony, 4 years old, 13 hands high, hind feet white, saddle marks, light mane and tail, white spot on left fore leg. Appraised \$25.

Jefferson County—A. G. Patrick, Clerk.

STEER—Taken up by A A Griffin, Grasshopper Falls tp, one pale red yearling steer, an indistinct brand on left hip. Appraised \$18.

HORSE—Taken up by H M Brooks, Sarcosie tp, one dark bay horse, 14 hands high, bald face, three feet white, right fore foot black, saddle marks. Appraised \$40. Also, one brown mare, 6 years old, 14 hands high, star in forehead, hind feet white, white hairs on hip.

COLT—Taken up by Harriet Woodhead, Union tp, one cream colored colt, 2 years old, white in forehead, black mane and tail. Appraised \$40. Also, one brown mare colt, 1 year old, a star in forehead. Appraised \$30.

STEER—Taken up by G H P Woodward, Sarcosie tp, one red yearling steer, white on belly, swallow-fork and underbit in left ear. Appraised \$11.

COW—Taken up by A. B. Ames, Jackson tp, one dark red Cow, 10 years old, white on belly and inside of hind legs, white on tail and back of right ear, holes in horns. Appraised \$27.50.

HEIFERS—Taken up by Wm Stanley, Fremont tp, one pale red yearling Heifer, white under belly and on end of tail. Appraised \$15. Also, one yearling Heifer, line back, white tail, star in forehead, speckled legs, white under belly. Appraised \$30.

HEIFER—Taken up by B. F. Myers, Emporia tp, one white Heifer, 3 years old, red ears. Appraised \$25. Also, one white yearling Steer, hole in each ear. Appraised \$15.

MARE—Taken up by J. B. Gilliland, Fremont tp, one dun Mare, 5 years old, hind feet white, blaze face. Appraised \$55. Also, one brown Stallion, 4 years old, star in forehead, all feet white. Appraised \$40.

STEER—Taken up by John Rosean, Fremont tp, one black and white Steer, left ear cropped, upper slope and underbit in right ear. Appraised \$20.

STEER—Taken up by David Williams, Emporia tp, one roan Steer, 3 years old. Appraised \$24. Also, one red Bull, 2 years old, white on sides, branded GP on left hip, slit in the right ear. Appraised \$22.

MARE—Taken up by D. W. Appleby, Waterloo tp, one bay Mare, 4 years old, 14½ hands high, black mane and tail, star in forehead. Appraised \$30.

STEER—Taken up by Wm Scheel, Fremont tp, one dark roan Steer, 2 years old, medium size. Appraised \$21.

STEER—Taken up by Carl Scheel, Fremont tp, one roan Steer, 2 years old, medium size, underbit off left ear. Appraised \$22.

COLT—Taken up by F. B. Page, Jackson tp, one bay mare Colt, 1 year old, hind feet white, black mane and tail. Appraised \$50.

Marshall County—James Smith, Clerk.
COLT—Taken up by Thomas Nolan, Vermillion tp, March 5th, 1870, one iron-gray mare Colt, 2 years old, medium size, bald face, white tail. Appraised \$40.

Miami County—G. W. Warren, Clerk.
MARE—Taken up by F. E. Gilman, Osawatomie tp, January 22, 1870, one sorrel Mare, 3 years old, 15 hands high, right hind foot white. Appraised \$40.

PONY—Taken up by James Redden, Osage tp, one bay mare Pony, 4 years old, star in forehead, star in forehead, left hind foot white. Appraised \$35.

MARE—Taken up by John Barnes, Richland tp, one bay Mare, 8 years old, 14½ hands high, star in forehead, black mane and tail, left hind foot white. Appraised \$70.

PONY—Taken up by G. W. Hays, Richland tp, one light bay horse Pony, 5 years old, 13½ hands high, left hind foot white, scar on left side of face, black mane and tail, shod all round, harness marks. Appraised \$30.

MARE—Taken up by Nathaniel Smith, March 8, 1870, one dark bay Mare, 4 years old, 15½ hands high. Appraised \$70.

HORSE—Taken up by D. F. Dayton, March 8, 1870, one light gray Horse, 9 years old, 15 hands high, harness marks. Appraised \$45.

HORSE—Taken up by J. H. Ayres, Richland tp, one light bay Horse, 3 years old, 15½ hands high, black mane and tail, branded J N on right fore foot, saddle marks on left side, scar on right fore leg. Appraised \$75.

HORSE—Taken up by John Rohrer, Stanton tp, March 1, 1870, one roan Horse, 6 or 7 years old, 15 hands high, blaze face, speck in left eye, shoe on right hind foot. Appraised \$60. Also, one bay horse Colt, 2 years old, 13 hands high, star in forehead, some white on left hind foot. Appraised \$30.

Nemaha County—J. W. Tuller, Clerk.
STEER—Taken up by W. R. Short, Richmond tp, January 31st, 1870, one pale red Steer, 2 years old, white on back, belly and tail, crop off left ear, swallow-fork in right. Appraised \$18.

HEIFER—Taken up by Henry Hooper, Nemaha tp, February 8, 1870, one roan Heifer, 18 months old, with 2 notches in left ear. Appraised \$12.

Osage County—W. Y. Drew, Clerk.
STEER—Taken up by Peter Paulson, Valley Brook tp, March 10, 1870, one red Steer, 3 years old, line back. Appraised \$45.

Pottawatomie County—H. P. Smith, Clerk.
MARE—Taken up by R. J. Wooley, Vienna tp, February 9, 1870, one dark bay Mare, 2 years old. Appraised \$50.

MARE—Taken up by J. L. Sanpline, Blue tp, February 22d, 1870, one bay Mare, 9 years old, white feet, white face, white in forehead, white spot on nose. Appraised \$75. Also, one black Filly, 2 years old, white spot in forehead. Appraised \$80. Also, one black Filly, one year old. Appraised \$40.

HORSE—Taken up by W. J. Nealis, St. George tp, February 28th, 1870, one chestnut sorrel Horse, 6 years old, 14½ hands high, saddle marks, white strip in forehead, some white on left hind foot. Appraised \$70.

STEER—Taken up by J. W. Simkins, St. George tp, February 25, 1870, one pale red and white spotted Steer, 2 years old, small size. Appraised \$15.

Shawnee County—P. I. Bonebrake, Clerk.
FILLY—Taken up by T. W. Stephens, Soldier tp, one light bay Filly, 2 years old, 14½ hands high. Appraised \$50.

STEER—Taken up by J. C. Nicum, Tecumseh tp, February 14th, 1870, one black and white spotted yearling Steer, white spots in forehead. Appraised \$15. Also, one yearling Heifer, roan, with red head and neck. Appraised \$15.

MARE—Taken up by Jacob Willetts, Topeka tp, January 31st, 1870, one black Mare, 4 years old, branded C on left shoulder, star in forehead. Appraised \$40. Also, one bay gelding Colt, 3 years old, white on each heel, white streak in face. Appraised \$55.

PONY—Taken up by C. C. Gardner, Williamsport tp, February 8, 1870, one bay mare Pony, 9 years old, 13½ hands high, dark feet, dim diamond brand on left shoulder. Appraised \$60.

PONY—Taken up by Thomas Kiernan, Silver Lake tp, February 22, 1870, one black horse Pony, 5 years old, 13 hands high, hind feet and right fore foot white, stripe on nose. Appraised \$15.

MARE—Taken up by J. M. Dawson, Tecumseh tp, one sorrel Mare, mixed with roan, 3 years old, blaze in forehead, hind feet white, horse-shoe brand on left shoulder. Appraised \$55.

STEER—Taken up by B. A. Murphy, Tecumseh tp, February 14, 1870, one red yearling Steer, white spots on face, belly and flanks, underbit in left ear. Appraised \$9.

HORSE—Taken up by D. E. Kelsey, Topeka tp, March 14, 1870, one dun Horse, 12 years old. Appraised \$35. Also, one sorrel Horse, 15 years old, face and left hind foot white. Appraised \$17.

HEIFER—Taken up by Daniel Spring, March 15, 1870, one red and white Heifer, 2 years old. Appraised \$15.

MARE—Taken up by John J. Oliver, Silver Lake tp, one straw-berry roan Mare, white face, light mane and tail, one blind eye. Appraised \$35.

Wabunsee County—J. M. Matheny, Clerk.
STALLION—Taken up by Martin Woodford, Mission Creek tp, February 8, 1870, one sorrel Stallion, 3 years old, white spot in face, left hind foot white. Appraised \$60.

COLT—Taken up by Joshua Smith, Wabunsee tp, February 15, 1870, one sorrel horse Colt, 1 year old, hind feet and right fore foot white. Appraised \$40.

Wilson County—J. L. Russell, Clerk.
STALLION—Taken up by E. E. Broad, Neodesha tp, February 21, 1870, one dark bay Stallion Colt, 3 years old, right hind foot white. Appraised \$30.

STALLION—Taken up by A. J. Shields, Gullford tp, January 5, 1870, one dun Stallion Colt, 2 years old, branded FA on left shoulder. Appraised \$45.

FILLY—Taken up by Daniel Wiltrout, Center tp, February 14, 1870, one sorrel Filly, 3 years old, 12½ hands high, light mane and tail, blaze face, both hind feet white. Appraised \$25.

STEER—Taken up by W. M. Wright, Fall River tp, February 25, 1870, one red roan Steer, 3 years old, white spot on left shoulder, underbit in left ear, end of right ear frozen off, left horn droops. Appraised \$25.

Wyandotte County—P. J. Kelly, Clerk.
HEIFER—Taken up by L. McKinzie, Prairie tp, February 19th, 1870, one white pld Heifer, 2 years old. Appraised \$15.

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On and after April 8, 1870, Trains run as follows:

LEAVE—	GOING WEST—	MAIL.	L. L. & T. ACCOMOD'N.
Wyandotte.....	EXPRESS.	8:45, A. M.	8:00, P. M.
West Kansas City.....		9:50, " "	8:25, " "
State Line.....		9:55, " "	4:00, " "
Leavenworth.....		9:55, " "	" "
Stranger.....		10:30, " "	7:10, " "
Lawrence.....		11:45, " "	8:45, " "
Perryville.....		12:45, P. M.	10:20, " "
Topeka.....		1:40, " "	11:40, " "
St. Mary's.....		2:45, " "	" "
Wamego.....		3:20, " "	" "
Manhattan.....		4:25, " "	" "
Junction City.....		5:25, " "	" "
Abilene.....		6:35, " "	" "
Solomon.....		7:00, " "	" "
Salina.....		8:05, " "	" "
Brookville.....		8:45, " "	" "
Fort Harker.....		9:50, " "	" "
Ellsworth.....		10:55, " "	" "
Hays City.....		1:20, A. M.	" "
Sheridan.....		7:00, " "	" "
ARRIVE AT—		11:45, " "	" "
Carson.....			

LEAVE—	GOING EAST—	MAIL.	L. L. & T. ACCOMOD'N.
Carson.....	EXPRESS.	3:00, P. M.	" "
Sheridan.....		7:50, " "	" "
Hays City.....		1:20, A. M.	" "
Ellsworth.....		4:25, " "	" "
Fort Harker.....		4:45, " "	" "
Brookville.....		5:55, " "	" "
Salina.....		6:55, " "	" "
Solomon.....		7:25, " "	" "
Abilene.....		8:03, " "	" "
Junction City.....		9:12, " "	" "
Manhattan.....		10:15, " "	" "
Wamego.....		11:20, " "	" "
St. Mary's.....		11:55, " "	" "
Topeka.....		1:00, P. M.	6:45, A. M.
Perryville.....		1:50, " "	7:32, " "
Lawrence.....		2:35, " "	8:08, " "
Stranger.....		3:45, " "	8:45, " "
ARRIVE AT—		4:50, " "	10:50, " "
Leavenworth.....		4:50, " "	10:05, " "
State Line.....		5:00, " "	10:15, " "
West Kansas City.....		5:25, " "	10:45, " "
Wyandotte.....			

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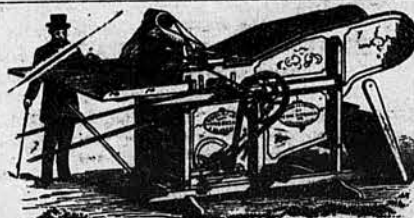
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The above Engraving represents

A BREAKER PLOW,

With a new and great Improvement. It consists of a Roller,
having Hardened Steel Journals, working in chilled boxes,
inserted into the Mold-Board of the Plow, at the point
where the pressure of the Furrow Slice is greatest. This
Roller relieves the Plow of a great deal of friction, and
effects a saving of nearly 23 per cent.; or, in other words, it
will enable a span of horses to do as much work with this
Plow, as any ordinary three-horse team can do with any ordi-
nary Plow, thus saving the use of one horse in breaking—not
for one day only, but every day the Plow is used. This
Improved Plow is

JOHNSON'S
PATENT
ROLLER
PLOW.

In introducing this great improvement in Breaking Plows
to the Farmers of Kansas, we can with confidence assure
them that this Plow will do all that we claim for it. It has
been tested over and over again, with the Dynamometer (an
instrument for ascertaining the draught), and always with
the same satisfactory success. But a practical Farmer only
wants to see the Plow at work, to be thoroughly satisfied of
its utility, and its great superiority over all descriptions of
Plows at present in use. Any Farmer can have a Roller
Plow from our warehouse, and test it here for himself. We
court the fullest trial, and ask no one to buy our Plow unless
he is quite satisfied with it. We claim, without fear of suc-
cessful contradiction, that

Johnson's Patent Roller Plow,
As sold by us, is the
BEST BREAKING PLOW

Known, or ever used for breaking Prairie Sod. We have in
stock Johnson's Patent Roller Breaker, of all
usual sizes, at only a small advance over other Plows.

The Roller can be inserted in old Plows, where there is
room for it under the Mold-Board, by an ordinary blacksmith.
We will send to any person a Roller complete, with instruc-
tions how to insert it, on receipt of Three Dollars.

Below we give a few of many Testimonials in our pos-
session.

Read the following Testimonials:

[From the Kansas State Fair Committee.]

STATE FAIR GROUNDS, LAWRENCE, KAN., Sept. 9, 1869.
The undersigned, a Committee of the Kansas State Agri-
cultural Society, having this day made a thorough practical
test of Johnson's Patent Roller Prairie Plow, hereby most
cordially endorse, approve of, and recommend this invention
as one of rare merit and utility. Henceforth the breaking of
prairie sod, by means of this simple arrangement, will be
performed with ease by any average two-horse team. We
regard it as decidedly the greatest improvement that has
ever been made upon a Breaking Plow. No farmer should
be without one of these implements, inasmuch as it can be
applied to old as well as new Plows, at a moderate cost.

WILLIAM HUGHES,
E. PARKER,
H. C. WHITE.

LAWRENCE, November 25, 1869.

THE undersigned, having this day witnessed a thoroughly
practical and scientific test of "The Lawrence Roller Plow
Company's" Plow (known as Johnson's Patent Roller Plow),
with patent chilled roller in the mold-board, take pleasure in
stating that said test was made in prairie sod, south of this
city, with dynamometer attached, showing exact draught
with and without said roller; and that the result showed an
average of 556½ pounds of draught without the roller, and
of 356½ pounds with the roller attached, making a saving of
labor for the team, by the use of the roller, of a fraction less
than thirty-six per cent.

JOHN P. CATLIN, of Ohio;
HENRY BROWN, Ex-Sheriff Douglas Co.;
R. C. TASKER, of Douglas County;
A. H. BUCK, of Douglas County.

[From the St. Louis Fair Reporter, October 6, 1869.]

SOMETHING EVERY FARMER SHOULD HAVE.—One of John-
son's Patent Chilled Rollers, for reducing the draught of
Breaking or Sod Plows.—It can be applied to old as well as
new Plows. It reduces the draught from 20 to 35 per cent.
It has been thoroughly tested during the late Fall Fairs, with
universal success. The First Premium was awarded at the
late State Fair in Kansas. It is now on exhibition at our
Fair Grounds. It was thoroughly tested yesterday, and
broke furrows ten inches wide, and from four to five inches
deep. This was done, or superintended, by one of our oldest
and most experienced plowmen; and he gave an affidavit
certifying that the said plowing was done with more ease,
with one horse, than he had ever done before with a double
team.

TWIN MOUND, Douglas Co., Kan., Sept. 7, 1869.

THIS IS TO CERTIFY, That on the 2d instant I made a trial
of Johnson's Patent Roller Prairie Plow, on my farm, with
entire success and satisfaction. The relief afforded to my
team, in breaking a heavy piece of prairie sod, was truly as-
tonishing. I am sure that, with the Roller, any ordinary
two-horse team will do the work of three horses with ease.
On the afternoon of the same day the Plow was thoroughly
tried on a neighboring farm with the same result.

H. HYATT.

We intend to give Public Exhibitions of the merits of

Johnson's Patent Roller Plow,

In various parts of the State, during the present season, of
which we will give due notice through the Press.

For further particulars, prices of Plows, &c., address

THE LAWRENCE ROLLER PLOW CO.,

ap-m LAWRENCE, KANSAS.

THE KANSAS FARMER.

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1,000,000 POUNDS

WOOL! WOOL!!

I take Pleasure in informing the Wool-Growers of Kansas, that I wish to Buy very Largely of the Incoming Clip of

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All Inquiries about Wool Promptly Answered.

Wool Sacks for Sale.

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BOUGHT FOR CASH

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This Work has been carefully prepared, and is published especially as a Guide to those wishing to emigrate to this State. Its information may be relied upon as correct. It contains the very information that thousands are anxious to obtain.

A copy of this Work will be mailed to any place, post paid, on receipt of Fifty Cents, or five copies for \$2.00.

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Publishers, Lawrence, Kansas.

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Located in Leavenworth & Wvandtote Counties.

This is the finest body of Land in Kansas, well watered and timbered, convenient to Leavenworth and Lawrence markets, and on the lines of the Missouri River Railroad and Kansas Pacific Railway. Price of Lands from

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Terms of payment, one-third cash; balance in two equal payments in one and two years.

FIFTY IMPROVED FARMS.

We are Agents for Fifty Improved Farms in Leavenworth and Wvandtote counties, at prices ranging from Twenty to Fifty Dollars per Acre.

200,000 Acres Unimproved Land.

Prices from \$2.50 to \$3.00 per acre. We have Lands for sale in nearly every county in the State of Kansas.

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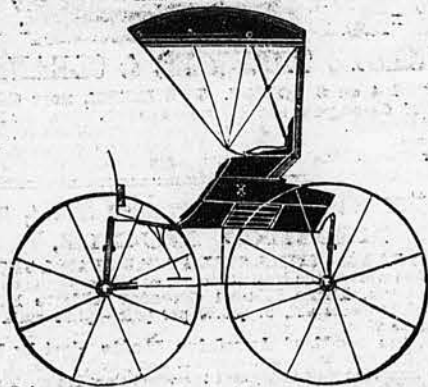
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ONE TO FIVE DOLLARS PER ACRE!

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Farms as Low as One Hundred Dollars!

FARMS!

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Adapted to Stock-Raising.

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Near the City of Atchison and the Missouri River.

FARMS

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Are now offered for Sale and Settlement by

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Upwards of Five Thousand Purchasers

TESTIFY to the unequalled advantages which this Company are offering to Immigrants and Actual Settlers. Upon the completion of their Road to Fort Kearney, the entire Land Grant of this Company will amount to about

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THE GREAT HOMESTEAD AREA,

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The Easiest and Cheapest Route

Is obtained to the Valleys of the

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