

THE KANSAS FARMER

ESTABLISHED, 1863.

TOPEKA, KANSAS, FEBRUARY 11, 1880.

VOL. XVIII, NO. 6.

THE KANSAS FARMER.

E. R. EWING, Editor and Proprietor,
Topeka, Kansas.

Apathy of the General Farmer in Regard to Improved Stock.

BY F. D. COBURN, POMONA, KANSAS.

To those of us who have an admiration for stock of those breeds brought to a high standard of perfection by many decades of careful selection, breeding and feeding, it is a matter of surprise that so many apparently intelligent men all around us manifest little or no interest in any such improvement, and look upon its advocates as "fancy" farmers, and in the use of this word *fancy* they mean frequently to convey some pity and a good deal of contempt.

To us there appears no question as to the greater value of or profit in raising beef cattle of Short-horn or Hereford blood over those of the omnipresent scrub stock; no question as to whether a Percheron is better than a pony, a Merino is better than a Mexican, or whether a Berkshire or Poland-China will make more or cheaper pork than the ancient land-pike. We come in contact every day with men who have grown gray in agricultural pursuits, raising every year more or less live-stock, and who estimate the difference in value between two animals by the number of pounds one may weigh more than the other, regardless of quality, age, or cost of production, and if their old South-down bull, Jeff Davis weighs as much as Mr. Crane's Duke, or if their bob-tailed brindle cow is as big as Grace Young 4th, or as some of Mr. Cavanaugh's cows, why they are just as good, and didn't cost—not half as much! "Besides they are tough—never been pampered, you see!" Men of this stamp—especially if they have been reasonably prosperous, look upon themselves with great complacency, feeling that they occupy an impregnable position, and hence they are but wasting time in listening to others who believe in pedigrees, blood, and good breeding.

As a rule, the farmer of limited means who invests a portion of his funds in thoroughbred stock, and settles in a community where such has not before been introduced, need calculate on but little encouragement from his neighbors, more especially in the matter of patronage of males—either horses, cattle, sheep, or swine. In fact in too many neighborhoods the results in this direction are likely to be directly opposite to what might be expected. Instead of appreciating the advantages placed at their disposal by the public spirit and good judgment of such a citizen, and giving his enterprising good words and prompt paying patronage, he is left to his own resources to obtain encouragement from his innate pluck, and patronage from men who are not blind to good form, good color, good quality, rapid growth and quick, profitable yield.

As illustrative of my meaning as the feeling of apathy if not actual opposition to improvement, which is so widely prevalent, I will mention the case of a gentleman in my own neighborhood, who paid a large price to obtain a very superior Short-horn bull—the only one, at the time, within several miles. The owner offered, to a limited extent, the use of his bull to his near neighbors at a very moderate fee. A very few took advantage of it, some thinking it might possibly pay, some thinking they were doing their fellow citizen a great kindness, and some others thinking all the time the money or dicker it cost might as well be thrown in the fire. One man, in particular, who lived near had ten cows of good blood that he had bought, most of them reds and roans, three-fourths and seven-eighths Short-horn, and of such quality that almost any intelligent man ought to have considered it an excellent foundation upon which to use a thoroughbred sire. But not so the owner of these cows, who was a forehanded farmer, ex-merchant, and would-be leader in church, school matters and society: He would pay no man \$2, or \$3, for the siring of a calf by any bull, and goes straightway to another neighbor who owned a deeply inbred black-and-tan scrub of the Gothic style of architecture, and arranged to have his ten cows bred for ten bushels of corn, which the bull-owner could come after at gathering time! It is unquestionably a fact that this man imagined himself in this transaction—and I simply mention him as a mild specimen of thousands—as the embodiment of shrewdness, a close calculator, above, independent of, and entirely too sharp for any book farmer who invested his money in "fancy" bulls.

In another instance a gentleman with excel-

lent judgment as to the make-up of a good hog, bought for fifty dollars, and brought into the neighborhood, a superior young Berkshire boar of the Lord Liverpool stock, and offered his services at two dollars. Some little patronage was given, but seventy-five per cent. of those who ought to have profited tenfold by this opportunity, gave it the cold shoulder, some, within a stone's throw, letting their sows go without breeding for months, or, if at all, waiting to learn of some sub-soiler, the use of which could be had for "accommodation," or perhaps at the rate of six for a dollar, firmly grounded in the belief that the breed is in the trough, and no one but a very mean man would charge a neighbor for the use of a boar. These people, in many instances, appear to regard unkindly their neighbor who shows a disposition to raise a better grade of stock, and if he, knowing he cannot afford it, refuses them the use of his males without some compensation, he is considered selfish and stingy. Viewing it from our standpoint, the man who introduces improved blooded stock into a community where it has before been but little known, and places its benefits within reach of others less favorably situated, is a missionary and public benefactor.

To the mind of the writer there occur two principal methods by which the apathetic and benighted minds all around us may be enlightened and educated as to the better way in stock-raising: The first and best of these is by good example—showing them unmistakably that your animals with the dash of good blood, cost less to raise, mature quicker, and bring more than their scrubs, to say nothing of the satisfaction that comes to every well regulated mind from the possession of something above the average. If seeing is believing, and the seeing is long continued, it constitutes an argument so strong that he must indeed be obdurate who is not influenced by it sooner or later. The other method is the dissemination among our neighbors of the best literature pertaining to our business, such as the agricultural papers and live-stock journals, and as sure as the constant dropping wears away the rock, so sure will these weekly and monthly visitors inspire their readers with a desire to own stock superior to the bone-stacks and animated feed-mills with which their farms have before been cumbered. Reading such journals gives acquaintance with the best breeds, the best methods of feeding and handling, and with the difference in value as shown by the carefully prepared reports of prices and sales. Whenever these last are analyzed, they reveal what in the markets is applicable every day in the year, viz: That with the poorer qualities the markets are glutted, with prices low and weak, while for something extra good, either in cattle, horses, sheep, swine, poultry, or dairy produce, there is always sharp demand at the very topmost figures. As I write, I pick up the first paper at hand, the *American Stockman*, of January 15th. Glancing at the market reports, I read: "On Saturday, choice and extra shipping cattle sold freely at \$4 to \$5.30; common stuff sells slowly." Then follows prices of several common lots at \$3 to \$3.75. In hogs, extra selections averaging about 350 pounds, \$4.85 to \$4.90 was paid, and further down the column we find several lots, probably raised by our non-progressive fellow citizens, averaging about 170 pounds, sold at \$3.50 to \$4. In sheep, one lot of 82, averaging 132 pounds, brought \$5.30 per cental, and another lot of 101, averaging 87 pounds, sold for \$4.62½. Some good horses sold for \$280 each, while plugs were sold at \$90 for a pair.

It is the old, old story that many of us have read for years. Let each and all resolve to do his share towards making it a better and more profitable story in the future, and to be not weary in well doing.

Experience in Raising a Club for the Farmer.

Thinking my experience in soliciting subscribers for your valuable paper would be of interest to your readers, I will give a few items and reflections as they occurred to me in securing a club of ten names. With one exception (he gave me his name and money without any ifs or ands,) the excuses given for not taking a good paper like the *FARMER*, were more foolish than those given in the parable of the supper in the Scriptures.

Said I to one of my neighbors, presenting a copy of the *FARMER* for him to examine, "Wouldn't you like a good agricultural paper for a year?"

"Well, yes, I would," said he; "but there was an agent at our house the other day, and I subscribed, (naming a very cheap story paper, chromos, etc.), so that I will not be able to take any more papers now!"

Said I to quite an old man, perhaps fifty or sixty years of age, as I happened to overhear him talking with a newsdealer in regard to a paper called *Saturday Night*, "How would this suit you?" handing him a number of the *FARMER*.

"Well," said he, "I used to take the (naming above paper) when I lived back in Iowa. I think the *Saturday Night* is a mighty good paper."

But of all the objections that I heard offered, and there were many, the most absurd (the reverse of which I consider true, or will be in the near future,) was that "the day of book farming has passed." Now, Mr. Editor, this is just what is the matter with farmers; there is not enough of book-farming. They don't read agricultural papers and books enough. If every farmer in Kansas would take and read the *KANSAS FARMER*, there would not be half as many farmers swindled by lightning-rod, tree and other swindles as there are now. Until we, as a class, read more, post ourselves up in our own line of business, (and not think because we have farmed all our lives that we know all there is to be known about farming,) we will be imposed upon and jeered at by other professions. What would be the success of a merchant, lawyer, or any other man of business, if he did not keep himself posted in regard to his particular avocation? But it is useless to ask such a question, for all the professions and all the leading industries have their publications, and those in whose interest they are published give them a hearty support. Why do these men support these papers? Because it is to their interest. It pays them to do so. Now comes the question, Why do not the farmers more generally support the papers published in their interest? It will pay you more dollars and cents (I speak from my own experience) the money invested, than almost anything else we might put the same amount into. This question has been more forcibly impressed on my mind during and since I sent the list for your paper. I can not find any rational answer for it; for the way I look at it, no man who is engaged in farming but what ought to be glad of the chance to get a paper like the *KANSAS FARMER* for one or even two dollars, so that when I found farmers would rather take some cheap novel paper and pay more for it than a good paper would cost, I was disgusted with human nature, the farming part of it in particular.

We would be pleased to hear from "B." often. His disgust is the feeling of all intelligent farmers, but the indifference of the larger number of the agricultural class can only be removed by persevering effort on the part of their more intelligent neighbors. Persuade them to join associations of farmers, and especially the young men and ladies of the farm should be looked after and guided into the way of living more intelligent lives. There is a homely saying that "It is hard to teach an old dog new tricks."

Weather Report for January, 1880.

From observations taken at Lawrence, by Prof. L. H. Snow, of the Kansas State University.

The warmest January and, except December, 1877, the warmest winter month on our thirteen years' record. The month was also remarkable for the entire absence of snow and the unprecedented number of fogs. The high temperature has caused many insects to come forth from their winter quarters, including bees, flies, beetles and moths. Our fruit-growers should search for and destroy the wingless females of the canker-worm moth, which in a few localities are now depositing their eggs upon the apple trees.

Mean temperature, 41.23 deg., which is 14.81 deg. above the average January temperature of the twelve preceding years. The highest temperature was 67 deg., on the 18th; the lowest was 20.5 deg. on the 31st; monthly range, 46.5 deg. Mean at 7 a. m., 35.37 deg.; at 2 p. m., 48.42 deg.; at 9 p. m., 40.64 deg.

Rain, 1.80 inches, which is .51 inches above the Jan. average. Rain fell on three days. There was no snow, but a small amount of sleet preceded the rain of the 29th.

Mean cloudiness, 48.49 per cent. of the sky, the month being 64 per cent. cloudier than the average. No. of clear days, 5 (entirely clear, 2); half-clear, 7; cloudy, 9 (entirely cloudy, 7). Mean at 7 a. m., 59 per cent; at 2 p. m., 41.29 per cent; at 9 p. m., 45.16 per cent.

Wind—S. W., 25 times; N. W., 24 times; S. E., 13 times; N. E., 12 times; N., 3 times; S. S. E., 8 times; E., 6 times; W., twice. The entire distance traveled by wind was 12,961 miles, which gives a mean daily velocity of 414.97

miles, and a mean hourly velocity of 17.28 miles. The highest velocity was 55 miles an hour, at 1 p. m., on the 21st.

Mean height of barometer, 29.094 inches; at 7 a. m., 29.115 in.; at 2 p. m., 29.067 in.; at 9 p. m., 29.100 in.; maximum, 29.631 in., at 9 p. m., on the 12th; minimum, 28.604 in. at 9 p. m. on the 10th; monthly range, 1.027 inches.

Relative humidity—Mean for the month, 73.8; at 7 a. m., 84.3; at 2 p. m., 57.3; at 9 p. m., 79.9; greatest, 100, on 12 occasions; least, 29.2 at 2 p. m., on the 14th. There were 9 fogs, all in the 1st quarter of the month.

Good Advice to Girls.

As we are a girl housekeeper, we are very much interested in the domestic department of the *FARMER*, but are surprised that girls do not write more than they do. Occasionally Aunt some one gives us some good advice, but thus far only two girls have volunteered to give to the *FARMER* family the results of their experiments. But we may have formed to hasty conclusions, viz: that but very few girls take as much interest in their calling in life as they should do. We are aware of the fact that it is considered unnecessary for girls to think of the responsibilities of life until after marriage; plenty of time after that for girls to become sedate. "Enjoy yourself while young," we have heard so many times from a mother's lips, "and not grow so old maidish."

Now we beg to differ with all such notions. Seemingly the main object in the education of our girls is to get them married, and there is the stopping-point; but to our mind it is just the beginning. We doubt not that very many girls are given instruction in what we may call the rudiments of housekeeping, and but very few have ever known by actual experience what the word housekeeping implies. We were forced to learn by bitter experience, like scores of others, what it really meant. Our mother was called from us without warning, and an older sister and myself were left, as it were, alone to solve the mysteries of that word—housekeeping. Help of course was called for; but some one must be mistress, and we were worried so much by trying to tell what we did not know ourselves, that we dismissed the help and began to learn ourselves by experience. How hard we tried to do our work nice, and to cook just like mother did. We have succeeded thus far so as to be able to make good bread, yeast, cake, etc., and to cook meats and vegetables nicely, but last and not least to hold our temper and to speak pleasantly or not at all, and we feel that we have just begun to learn how to keep house.

We wish that every girl belonging to the *FARMER* family, would try at this, the beginning of a new year, to assume the entire care of the house, while you have your mother to instruct you. You will be doubly repaid; you will learn to work and relieve your mother, who has borne the burden so long, and still continues to do so, that your enjoyment may be full. Girls, be kind to your mother. You will never appreciate her value until, like us, you are forever deprived of her wise counsel and loving care.

Some girls we know do all the hard work; but yet that is not the management. Mother always tells you what to do and when to do it, and when you want to go to the picnic, or to a party, or go riding, mother will get dinner or supper, as the case may be, and you go as free from care as a butterfly. Many times have we felt the pangs of disappointment at not being able to join the gay picnickers, and would turn to our work almost choking, but if we felt too badly to sing, we could whistle—yes, whistle, no one but ourself being a listener.

We have been a lone housekeeper for nearly two years, our sister having gone to make another man's home happy, and we think it has been the happiest time of our life, and if we are growing a little old-maidish it does not hurt our feelings.

KANSAS GIRL.

Roxbury, Kansas.

Cattle Notes—The Lung Plague, etc.

Kansas is destined to become one of the greatest cattle producing states in the union. Now what kind of cattle shall we raise? I see a few are raising the good old kind that was here in the first settlement of Kansas, but most are trying to improve their cattle and the short horn seems to be the most suitable for that purpose. Also this country seems to agree with them as well as their native home in England, and they will soon be very common here. Some are waiting for them to get cheaper before they begin to grade up their cattle. Now I do not believe good ones will get cheaper soon, for ev-

erything is very low and fancy prices for gilt-edged pedigrees have also run their course. Then every one is not calculated to raise fine cattle. Some will succeed but others will fail to make money out of it, for it is quite a fine thing to understand how to breed so as to get the points, as well as pedigree established in a herd. It takes a persevering as well as an energetic man to succeed.

Some breeders seem to lose sight of the main object which is pure bred bulls for the common farmer. With such they may raise fine steers for beef, and the kind of beef England wants is what we need. Again, if the price should come down we would not get as good an article as at present, because when anything gets so low that it affords but a very small profit, it is neglected and consequently degenerates.

I saw it recommended sometime ago to cross the Galway cattle on Short-horns. I think that is useless, for even if you did succeed in getting a mixed breed without horns, it would take a life time to cross on the Texas cattle before they would be hornless. Then, as peaceable cattle as short-horns are, their horns are no detriment, and besides, a nice horn is quite an ornament to the head. Mr. Bates tried it to some extent and we still see it cropping out in some short-horns and always to their detriment, being coarser and rougher, and some even, have black spots on them.

The pleuro pneumonia is getting to look rather scary to cattle breeders, and we must be very careful about buying cattle that come from a distance for it is gaining quite a foothold in the United States. One animal which landed in Brooklyn has affected seven states, and it is high time that congress was looking after it. But congress seems not to know that the farming community is the real wealth of the nation, and it is they that feed the nation. It is wonderful that they produce and feed both mankind and all kinds of domestic animals. Then why does not congress try and encourage agriculture?

This lung plague is more serious than most persons suppose. It is a contagious disease and will not be eradicated by heat, or cold, or any atmospheric change, or of latitude, longitude, or altitude, or the changes of the season. It differs in this from the Texas fever, or even the yellow fever. Then surely we should buy at the home and of responsible dealers, for if this "germ" disease should get scattered among the large herds of cattle in the west, or even here, what would become of this branch of industry, and what will become of us?

I see that at the great cattle show at Chicago, last December, that Messrs. N. C. Hill & Son, of Ottumwa, Iowa, took the premium for best dairy butter. This was made from the milk of short-horns. I have a thoroughbred short-horn that gives more and richer milk than any of my natives. Her calf is now three weeks old, and she is giving about a gallon of milk a day after the calf has taken all it wants, and she is only a three year old. Her feed is hay and corn in the ear. Judge Cravens, of Indiana, says, "An impression has prevailed quite generally that short-horns will do for beef but not for milk or butter, and yet when I look around me among those giving their attention to the dairy business I find grade short-horns much sought after; many expressing the opinion that they are good milkers, and when they have served their time out in that line they are more valuable than anything else that they can get hold of for beef.

In the year 1877 or 1878 I discovered in the show-ring of the Marion county fair, competing as the best milkers some grade and one thorough bred short-horn. I also discovered that one of the exhibitors was a great admirer and breeder of Jerseys, and yet when called upon to compete for the first premium on milk cows he brought in his grade short-horns, leaving his Jerseys out."

M. W.

Carbondale, Kas.

Blanks for Correspondents.

Those of our readers who desire to furnish the *FARMER* with an occasional communication or crop letter, will have packages of blanks ruled for the purpose, containing printed suggestions or hints of proper subjects to write on or discuss. Such correspondence is found to be of great value to farmers generally, and especially to immigrants, in directing them where to go, and how best to proceed in making a home in a new country, and to the general reader they prove unusually interesting. The contributions of those unpretending communications which are published in the *KANSAS FARMER* are doing a greater work for Kansas than the writers ever dream of. They are building better than they know.

Farm Stock.

Black-Leg

ED. FARMER: Through your valuable paper much inquiry has been made, and a diversity of remedies suggested, in reference to this much-dreaded disease; and, as many farmers have given their experience with the disease, I will give mine.

During the summer of 1872, a disease broke out among my cattle, which was said to be the black-leg. Young cattle were found dead before I knew anything to be wrong in my herd. I became alarmed for the safety of my stock, and knew not what to do, and, as is the case when an epidemic breaks out among our fellow beings, so here among the bovine race, many sure remedies were named, tried, and found unreliable. One was thorough bleeding; another, make a slit through the skin of the affected part of the animal, and put in salt. These were tried, but without avail. Perhaps it may not be amiss to state how my cattle were affected.

Those I found before they died, were lame in their legs, or at least in one leg, or stiff and clumsy, and were very reluctant to stir about, acting much like a foundered horse, and inclined to lie down. On cutting into the leg, or part affected, the part was found to be very dark, and sometimes clotted. The diseased cattle were very thirsty, and could hardly be satisfied with water.

After losing four or five head of sucking calves and yearlings, I found two calves affected with the disease, and with difficulty I succeeded in driving them, with the cows, into my barnyard. One was lame in one fore-leg, and could get along quite well, but the other was so stiff that it required a great deal of pushing, and some assistance rendered, the calf, in order to drive it a hundred yards to the yard.

And now for the remedy used, which is very simple, not requiring all the drugs kept in a first-class drug-store: For a sucking-calf, one ounce of Barbadoes aloes pulverized, and made into a pill by being mixed with molasses, and then rolled in flour, in order that it may be handled without sticking to the fingers. Open the animal's mouth, draw the tongue out on one side of the mouth, take the pill, with the fingers and put it as near the roots of the tongue as you can, then loose the tongue and down goes the pill. One pill cured the less lame calf, but the other had to have a pill a day for three or four days, and it gradually improved until it was "discharged cured," as the cholera reports read.

The following winter I kept some twenty calves, and in the early spring one of my best calves was found lying down dead in the yard, one morning, and apparently in considerable pain. His legs extended at about right angles to the body. It grew worse till afternoon. I then administered about a two-ounce pill, which seemed to check the working of the virus in the animal, and it gradually but slowly gained, and after a week or ten days, could get out among the cattle tolerably well, although somewhat stiff, and appeared to be doing about as well as the other yearlings until June, when it lost the use of its legs, but eat as well as ever, and I had to kill it. Still, I think if I had given the aloes when I first discovered him in the morning, he would have recovered.

I have had no disease among my cattle since the time above referred to, and it may be owing to the way I treat them. I keep salt in a long trough, accessible at all times, and during the latter part of winter, or early spring, I mix some sulphur with the salt, and sometimes a small quantity of saltpeter.

Will the "Old Man of Meriden" please take notice of the cure referred to. In the FARMER of December 17th, 1879, he stated that he had never seen an animal cured after it had become lame in the leg. A. WASHBURN. Topeka, Kansas.

Sheep and Other Matters.

As there are a great many letters written from different parts of the state on so many different subjects, I thought one from this part would not do any harm. As this is my first year on a prairie farm I thought I would give your readers a little of my experience. In the first place I had some bad broke. I asked some of my neighbors how deep I must plow it for corn. Some said just turn the sod over; others said plow it about an inch deeper, etc., and so I heard all their advice, and then I took my own way about it, just as contrary as I could be. When plowing time came I went to work and plowed it from three to four inches deeper than it had been broken. I turned up some new soil, then I put on the harrow and got it ready for corn as I thought a farmer ought to do, either in Kansas or any other state. Some said "you cannot raise over a half crop the first time." I thought if that be true, I had lost a good deal of labor. All I have to say, I should like to raise a full crop this year, as I had fifty bushels to the acre for the half crop. Here is where I find so many new comers make a mistake. Some of these old Kansas farmers say so and so, and it must be true, and they never try any other way but the old. How are we to become better farmers and better stock raisers? By experimenting. Then why not the farmers of Kansas experiment as well as any body else? If you talk to most men in Kansas about sowing clover they will tell you it will not do, "I tried it, and the drouth and grasshoppers got away with it." Suppose they did; they will do it again (if they come) and destroy something else too. Then blue grass, "Oh! that will never grow here." I see it tries very hard to get a place in the hedge brush along the road where it is left to annoy the public travel. How would

your corn, oats, wheat or anything else thrive with such care?

Here comes another class that will tell you that no other kind of stock will do but cattle and hogs. But I am happy to know that there are some that think sheep can be made profitable even in Kansas. But in this state as well as in others there are men that miss their calling. A man buys two or three thousand sheep, then gets some one to take care of them for him who has no love for, or interest in them, and he will make a failure of the sheep business. A man must be a lover of the business that he follows, if he expects to succeed well. The profit in sheep is the right care at the right time. Not that they require any more care than other stock do, but they need it at the right time, and no other time will do. When your sheep are not in a thriving condition the wool dies, and when the sheep begin to thrive on grass, the wool commences to grow, and will push off the dead coat; and some will tell you your sheep has had too much corn, when the trouble was they did not have enough at the right time. Then comes the wool buyer and if he understands his business he will tell you that such wool is not worth half price. You are to blame. Your sheep did not have the proper care at the right time. Sheep need just enough grain to keep them in a thriving condition all the time; then you have healthy sheep and wool. All sheep men have a particular kind of sheep that they like. Mine are those that will yield the most mutton and wool. With this kind of sheep I can get interest on money invested, because a sheep never dies in debt to the owner. If they die at any time, the pelt pays the interest. JOSHUA BROWNING. Northern Shawnee Co., Kas.

Greenwood County Sheep Interest.

The Eureka, Greenwood County Graphic, publishes an interesting article in its issue of the 28th ult., on the above subject, from which we make the following extracts. The outlook for sheep in Kansas is very encouraging:

Robt. Loy is one of the pioneer sheep-raisers of the county, and has gradually improved his flock up to its present standard of 700 well-bred Merinos. A number of these represent an infusion of Cotswold, giving an ample frame and weight and a very profitable length of wool. The average weight of wool per head at the last shearing was slightly over eight pounds. Mr. Loy exhibited several pure-bred Merino rams of excellent appearance. Mr. Loy is an advocate for early lambs, of which he had seventeen last week. By his careful management he is able to save from 90 to 95 per cent. until maturity.

Mr. Thos. Bradshaw has 200 Merino and 112 coarse wool sheep in excellent condition, and several pure-bred Merino rams, of which he is justly proud, and with which he intends to improve his grades.

Mr. A. H. Hawk has a fine flock of 233 sheep, mostly high-bred Merinos, with some grades and three pure-bred rams.

Shelton Birkett showed his magnificent flock of 1,220 well-bred Merino sheep, which he has gradually improved for years. His pure-bred Merino rams take rank with the finest in the county.

Mr. C. T. C. White is a beginner, but evidently believes in beginning with the best at once. His flock of 384 sheep are the highest bred in the county. His rams are of the purest Vermont Merino, with excellent pedigree. He also keeps a small flock of very select pure-bred Merino ewes, for breeding purposes, all from recorded stock.

Hughes & Spencer have a flock of 400, comprising many excellent grade sheep, and some with coarse wool, which they design to improve, and several pure-bred rams.

The corrals of Prof. A. H. Thompson contain the largest flock examined in our tour, comprising 1,340 high-bred Merinos, and several fine pure-bred rams. Prof. Thompson is an ardent advocate of high-bred Merino sheep, without any cross. He has purchased some of the best the market would afford to begin with.

John Bland has adopted the other course. His flock of 594 contains many fine sheep, excellent rams and grades in various stages of improvement.

Mr. F. Jarvis owns a flock of 650 high-bred Merinos, some grades and several splendid pure-bred rams. Mr. Jarvis had already twelve lambs carefully sheltered in his corral.

Mr. F. D. Howell's flock of 400 showed evidences of high breeding and careful management. Some of the finest ewes and rams in the county are to be found in his flock.

L. V. Harkness showed a magnificent flock of 850 high-bred Merinos of superior excellence, and as a flock, with the exception of Mr. White's must be considered the finest in the county. His flock of twelve pure-bred Merino rams are unsurpassed in the county, even by those of Mr. White's.

Messrs. Hart & Patterson's flock of 200 ewes comprise many high-bred Merinos and excellent grades, and six fine pure-bred Merino rams, of which at least two are unsurpassed.

Dr. S. F. Peck's flock is the exact counterpart of the flock of Messrs. Hart & Patterson, and is derived from the same source. It comprises some 200 high-bred Merinos with some good grades, and seven rams of similar excellence to those just mentioned.

Cary & Bro. have a flock of 400 sheep, now in excellent condition, and several fine rams. Their flock shows a vast improvement since even one year ago, and fully justifies the careful attention given.

The visit to these thirteen different ranches gave rise to many interesting questions. There are evidently four sources of income from raising sheep: 1st, the wool; 2d, the increase; 3d,

the sale of wethers, and 4th, the raising of high-bred rams. It is evident that all are not equally prepared for the latter. It is for this purpose that a few pure-bred ewes are of essential importance. The uniform presence of pure-bred rams on all the premises visited, sufficiently attests the aim of the proprietors. It is for high breeding. Hence, inferior rams will meet with little demand.

It seems still an undecided question whether the pure-bred Merino or the cross with Cotswold or coarser woolled sheep affords the most profit. The defects in Merinos are the shortness of the fibre, and a small carcass. A cross with a longer woolled sheep gives a splendid fleece and a fine frame, as is shown by many in the flock of Mr. Loy. Many are evidently aiming at a profitable grade with a small reserve of pure-bred for breeding purposes.

In all the best constructed corrals there was a small enclosure for sheep that were from any cause taken sick or for some reason needed special care. A sort of convalescent hospital.

The three great staple articles of food were corn, fodder and hay, and their value for full-grown sound sheep were estimated in the order named. But for lambs, millet is found to be much preferable to fodder or even hay. The most expensive feed is corn, and it becomes a question of the highest importance to determine what kind of food can be substituted for corn with equal benefit to sheep. A majority of those interviewed expressed the opinion that millet can be largely substituted for corn by beginning to feed small quantities and gradually increasing the amount. And next summer a number of fields of millet will be sown for that purpose. An acre of land will readily yield from four to six tons. Another article that promises largely but has not yet been submitted to the test of experience to the same extent, is turnips. From four to six tons can be easily raised on an acre of ground, and the happy experience of others in the east fully justifies further experiment here.

The very usual occurrence of mild winters in this state, permits the use of rye fields as another source of winter food. Five to ten acres of rye will afford a very favorable change of food for one hundred sheep and the rye still yield a profitable crop. The few experiments made with blue grass in this county, lend no small encouragement to its culture for the same purpose. The experiments of Mr. Birkett and of Mr. Reece have fully established the fact that blue grass thrives in this county and supplants the wild varieties.

With few exceptions, all the sheep seen present a remarkably fine and thrifty appearance, and the numerous extensive and well-built corrals attest the care and energy of the owners. Several of the beginners have not yet completed their arrangements; but by next winter many of the finest sheep ranches in the state will be found in Greenwood county.

A New Mother for the Lamb.

If a ewe loses her lamb, the usual plan is to skin the lamb, and sew the skin on to the lamb that we wish the ewe to adopt or "father;" then to place the ewe in a small pen by herself, and hold her while the lamb sucks, and to milk some of the ewe's milk on to the lamb. It is rare that the ewe will take to the lamb at first. At the best, she will be a little uncertain whether or no this is her very own lamb. And she will bleat again and again to see if she can hear anything of her own lamb. Then she will smell the lamb in the pen, and perhaps stamp her foot and shake her head, and tell the lamb that she does not know what to make of him. You should hold her, and let the lamb suck every two or three hours. When she finds that no other lamb is forthcoming, her doubts will be gradually removed, and she will become as much attached to the foster-lamb as if it was her own.—Land and Home.

Treatment for Catarrh.

G. B. Bothwell, Esq., of Breckenridge, Mo., gives the following concerning his treatment for catarrh, and the results:

Last year I lost two fine Vermont rams with catarrh in the head. Last fall I had two more valuable rams afflicted in the same way, seriously, so that I expected to lose them, but I finally cured both of them. I will state the remedy to you in plain terms:

Of a surgeon I got a small-sized trephine and a syringe that would hold one gill of water. I had a man to lay the sheep down and hold him firmly. I then cut the wool off the forehead, and with a sharp knife cut through the skin of the forehead to the skull, raising up a piece of skin one inch long and nearly as wide, but leaving it fast at the upper end. This cutting should be done about one inch from the horn, and a little to one side of the middle of the face. Turn up the skin that is cut loose, place the trephine on the skull, turn it gently back and forth until the piece of skull under the trephine is loose, then take the point of a pocket-knife and pick out the piece of skull. Fill the syringe with clean water, blood warm; inject the water into the sheep's head through the cavity in the skull; then let it get up for a minute, and repeat the operation with the water three times, once every few minutes; then bring the skin over the wound and bandage with a cloth, and keep the sheep in the dry. Repeat the syringing in about five days. This cured my sheep when Scotch snuff and all other remedies failed. Sheep brought from the east are not so hardy, until they become acclimated, as those raised here; they are more liable to catarrh and other troubles.—Nat. Live-Stock Journal.

Horticulture.

Tree Experience.—No. 2.

BY B. P. HANAN.

PEACH TREES.

On the 3d day of May, 1876, I set out my first peach orchard in Kansas, consisting of 288 trees of the following varieties: Alexander, Allen's October, Amsden, Crawford's Early, Crawford's Late, Early Beatrice, Early York, George the Fourth, Hale's Early, Heath's Cling, La Grange, Large Early York, Late Admirable, Old Mixon Cling, Old Mixon Free, Red Cheek Melocoton, Smock, Stump the World, Troth's Early and Ward's Late. Also, five Morris White, I think, but as the tag was lost from the latter, I am not certain of their name.

The trees were poor, scrubby ones, two years from the bud, bought in the spring of 1875; they being left over when my spring nursery sales ended, I set them in nursery rows in my nursery at Clark City, Clark county, Mo., and dug them up and brought them to Reno county, arriving home with them on April 29, 1876.

This was very late in the spring for transplanting trees in this part of Kansas, and I feared I might lose many of them. By the spring of 1877, there were 104 of these trees dead, which were partly those that failed to start and a few died during August after growing a little, and over 50 were killed by a fire that burned my barn. These were all replaced in the spring of 1877 with good, thrifty trees of the same varieties, one year from the bud, except I substituted Lemon Cling for the missing Early York's and George the Fourth's.

I should have stated that the Alexander's and Amsden's in the first planting were grown by myself from buds obtained in 1874, of the originators of these two valuable varieties, which were the only sorts out of many thousands that I saved through the hard winter of 1874-75. My nursery was then at Clark City, Clark Co. Mo., on an impervious hard-pan. I lost there, at that time, about \$8,000 worth of nursery stock by dry, hard freezing,—the roots freezing in dry earth, and having no moisture in contact with them when they thawed, were destroyed, as roots always will be if they are dry when frozen and thawed.

But I have digressed from my description of my orchards and experience in Kansas. I lost a few of my peach trees last winter by freezing, but they were first weakened by borers which are very troublesome here in peach trees.

In the spring of 1878 I planted out 500 seedling peach trees, one year old. They lived well and are good trees. In the spring of 1879 I set out 837 budded peaches of the following varieties: Alexander, Amsden, Beatrice, Crawford's Early and Late, Hale's Early, Hill's Chill, Early Barnard, Jaques' Rareripe, Mt. Rose, Honest John, Smock, Stump and Troth. They did not live well, a part being badly dried in shipping here. The first trees I planted here, made a good growth in 1877, and an extra good one in 1878, and a poor one last year. They bloomed in 1878, and were full of young peaches in 1879, when we had the late spring freeze which killed all of them. My orchard is on high, dry, light, very sandy land; trees 10 1/2 feet apart, or 400 per acre. My buds are now over one-half killed, except the Alexander and Amsden, which have about 10 per cent. dead. The cold about Christmas did it. The buds about here are badly injured.

Langdon, Reno Co., Kas.

The Quince.

This fruit has been in a measure neglected by horticulturists and farmers. At least it has never received that attention which other fruits have, and which its merits have entitled it to. The fruit is becoming more and more in demand every year, always commanding very high prices, with never enough to supply the market. A correspondent of the Western Rural furnishes an article on the Quince, from which we make the following extracts:

The quince is said to be a native of Cydon, a town on the island of Crete, which lies opposite the mouth of the Grecian Archipelago and in the Mediterranean sea; hence its botanical name *Cydonia Vulgaris*. A native of one of the most fertile islands in the East, with a soil ever moist by the fogs of the Aegean and Mediterranean seas, is alone suggestive of its after requirements when once removed to a foreign soil, and remote from the influences of the salt sea air.

Of the varieties there are several; but not more than two or three are known to the writer that can be cultivated with any degree of success, as to profit. The apple-shaped, or orange; the pear shaped, and Rea's seedling; this is a magnificent fruit, larger than the other two, and an excellent bearer. We have seen that this fruit requires a rich, deep and rather moist soil, free from grass and weeds, and ever after kept so. Though a shrub in size, the holes should be made as large as for apple trees, four or five feet across, and at least two feet deep; the surface soil laid on one side, the subsoil on the other. The distance apart to plant should be twelve to fifteen feet.

Now go, if possible, to some good, reliable nursery, select the variety, take one year old trees, see them properly taken up and conveyed to the grounds in which they are to stand. A moist still day is safest for planting. When ready reverse the soil, placing the surface soil in the bottom, and set your tree a trifle deeper than it grew in the nursery; spread out the roots and use none but fine earth amongst the roots; fill up to within a few inches of the top, and scatter over the hole quite a quantity of

wood ashes mixed with salt; spread the clay over this and then step on over the roots with your feet and gently but firmly tramp down the entire surface. Now if to be had, fork over some half rotted straw and manure, and the deed is done, and done well.

In order to subdue its naturally scraggy and twisted condition of growth the pruning should be quite severe, yet not so much so as to cause weakness as this would lead to blight. The after pruning will consist in clipping back from time to time during the season of growth, the leading branches, thus causing a stocky growth, and a tendency to fruitfulness, the trees, or the body part, should be washed every spring with soap and ashes, soft soap, with the water quite warm; apply with an old broom cut square across. A little salt added to this is an improvement. The third year will bring a crop of fruit. The quince is a voracious feeder, and the compost and ashes must not be withheld, since out of nothing, nothing can come; not even quinces.

Miscellaneous.

Bee Notes.

If you should lose a swarm of bees this winter, don't destroy the comb nor make wax of it, but clean all dead bees from the cells, brush and clean the hive well, and set it away for use in the swarming season. "Do you mean to put a swarm into that in the spring?" asks some one. Certainly I do; why not? The comb, if melted and made into wax, would be worth but a few cents, for there is hardly ever two pounds of comb in a full hive; and while your bees are making one pound of comb they could store twenty pounds of honey. Therefore, if your bees have no comb to build, they can make an extra amount of honey, and you will be the gainer thereby. Bees can make cells only in warm weather, and for that reason they quit work in the boxes sooner than in the main hive, where there is more heat than in separate boxes.—Western Honey Bee.

Still Harping on Small Cheese.

The plea for cheese of moderate dimensions and in form more convenient for use, is based on good sense and ought to be regarded by the dairy interest. The present common factory make is well enough for convenience in transportation, but when cut the pieces have a bad shape for handling or for preservation. Taken from a large round cheese, a small slice, such as is usually desired for home use, must necessarily be so frail as to break easily, especially at the thinner end, and have so much surface exposed as to injure by drying, if not eaten at once. On these accounts smaller cheese, even if round, cut to much better advantage than larger ones. But the best form of all in respect to exposed surface in cutting, is the rectangular cheese of Mr. A. Holdridge, of Osego county, New York, resembling somewhat the form and size of a brick of double thickness, and weighing about ten pounds. Such a cheese purchased whole and cut from one end exposes but little cut surface and consequently retains moisture and freshness for a much longer time than the thin wedge-shaped pieces with its large surface nearly all cut. Flat cheese would be better for domestic use than the present style of deep ones. The thicker the cheese of a given diameter, the thinner must be the slice to get a given weight, and the more cut surface must be exposed. One of the causes which have contributed to the decrease per capita of cheese consumed in the United States, is the difficulty of keeping a fraction without having it injured by drying before it can be used. A change in the form and size of cheese which would promote better keeping in the larder, would contribute to the welfare of the cheese interest by increasing home consumption.—N. Y. Tribune.

Wiser by Experience.

"Well, neighbor," says my friend Ignavus, "have you learned anything new this season about fruit packing?"

"Yes, two or three things. A fruit grower can hardly pass through a season of practical work and learn nothing. I have learned (1) that it pays to ship large and small specimens in separate packages, and mark them accordingly. We know some appear to think the fine specimens should all be saved for topping, and the small ones should be used for filling up."

Said Ignavus, "Of course I would not think of packing that way for near markets, where I want to establish a reputation, but you know I ship my poor stuff to a distant city, well topped, and have it sold without my name being attached."

I say "Shame on such a sham kind of honesty!" don't you, brother fruit growers of Canada.

Ignavus add, "Anyway the buyers expect such packing, so they are not deceived." But is it any reason why we should be a set of cheats because "buyers expect it?"

We therefore lay down another principle, viz: (2) It pays to be honest, aside from principle, and aside from self-respect which accompanies such a course. "Put conscience in your barrels," said a buyer to one of our firm, some five or six years ago, and we believe the advice to be golden. At all events it was the means of bringing us an offer from a Glasgow house that surprised neighbor Ignavus, it was so much higher than was current. Only a few days before, he had been watching our packing which was going on inside the fruit house. "You make too many culls," said he, "it will never pay you; nobody else thinks of such waste, and yet others get quite as good prices as you do." I said I believed it would pay, and so it has proved.—Canadian Horticulturist.

Patrons of Husbandry.

NATIONAL GUARDIAN—Editor: J. J. Woodman, of Michigan; Secretary: Wm. M. Ireland, Washington, D. C.; Treasurer: F. M. McDowell, Wayne, N. Y.

EXECUTIVE COMMITTEE—Henry James, of Indiana; D. Wyatt Aiken, of South Carolina; W. G. Wayne, of New York.

KANSAS STATE GRANGE—Master: Wm. Sims, Topeka, Shawnee county; Secretary: F. H. Maxson, Emporia, Lyon county; Treasurer: W. P. Poppeno, Topeka.

EXECUTIVE COMMITTEE—W. H. Jones, Holton, Jackson county; Levi Dumbauld, Hartford, Lyon county; J. S. Payne, Cadmus, Linn county.

COUNTY DEPUTIES—J. T. Stevens, Lawrence, Douglas county; T. B. Tyers, Beatty, Marshall county; E. B. Powell, Augusta, Butler county; C. F. Morse, Alto, Lincoln county; A. J. Pope, Wichita, Sedgewick county; A. P. Beardon, Jefferson Co., Post Office, Dimond, Leavenworth county; S. W. Day, Ottawa, Franklin county; G. A. Hovey, Belleville, Republic county; J. E. Barrett, Greenleaf, Washington county; W. W. Cone, Topeka, Shawnee county; J. McComas, Holton, Jackson county; Charles Dabrow, Clay Centre, Clay county; Frank B. Smith, Rush Centre, Rush county; G. M. Summersville, McPherson, McPherson county; J. S. Payne, Cadmus, Linn county; Charles Wyeth, Minneapolis, Ottawa county; F. M. Wierman, Mill-wood, Morris county; John Andrews, Turon, Atchison county; George F. Jackson, Fredonia, Wilson county; D. C. Spurgeon, Leroy, Coffey county; James W. Williams, Feabody, Marion county; R. T. Ewalt, Great Bend, Barton county; C. S. Worley, Zuni, Greenwood county; James McCormick, Burr Oak, Jewell county; L. M. Earnest, Garnett, Anderson county; D. P. Clark, Kirwin, Phillips county; George Fall, Larned, Pawnee county; A. Huff, Salt City, Sumner county; James Faulner, Iola, Allen county; W. J. Ellis, Miami county; George Amy, Glen-dale, Bourbon county; W. D. Covington, Smith county; P. O. Kirwin, T. H. Chandler, Beso, Woodson county; E. R. Williams, Erie, Neosho county; C. O. Vanorsdal, Winfield, Cowley county; George W. Black, Olathe, Johnson county; W. J. Campbell, Red Stone, Cloud county; John Behring, Fairfax, Osage county; J. S. Plock, Junker Hill, Russell county; J. K. Miller, Sterling, Rice county; W. D. Ripplin, Severance, Doniphan county; Arthur Sharp, Girard, Crawford county; P. B. Maxson, Emporia, Lyon county; A. M. Fisher, Hutchinson, Reno county; N. W. Cottonwood Falls, Chase county; G. S. Kneeland, Keene, Wabunsee county.

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

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

Thought in Agriculture.

[Abstract of an address delivered before the Farmers' Institute, at Manhattan, Kansas, Jan. 28th, 1880, by President Geo. T. Fairchild, of the Agricultural College.]

It is said that Ben. Franklin, when asked what is the best manure upon land, answered, "The foot of its owner." He meant, of course, thoughtful attention is the most essential aid to productiveness, the world over. Was he mistaken? A glance at what thought does in farming will show.

LOOKING TO THE PAST, we see how, step by step, each earnest thinker in this business has developed the art and the science. In this we need not ask after the learning or the training in schools; for we can all admit the fact of thought behind the growing ability. We can realize that all the settled methods of experience are the results of thinking in the practical tests of successive seasons. We can imagine how each success established a precedent for others, and each failure was a milestone on the road to knowledge. Seed-time and seed, planting and tillage, culture, handling, harvesting, curing and storing, mark the thoughtful efforts of ages past, even before the earliest record.

What history records of such work is but an index. The poet Hesiod wove his homely verses out of experiences about him. They were the thoughts of the Greeks who had lived before him. So Virgil was only the spokesman for many generations of thoughtful Roman farmers and shepherds, whose daily experience which taught them a few things worth knowing. Even that pioneer of agricultural teachers, Columella, gained his strength from the thinking which he found already done before him. His clearer thought put into shape for preservation the remnants and shreds of thought gathered from a wide domain.

Trace back an invention to its original suggestion; and how the rivulets of thought come in to swell the flow at every step. It is a long journey from an Egyptian cross and share to a modern sulky plow; but no one doubts that every step of it is somebody's thought put into action. So the sickle has grown into the champion of reapers by somebody's constant succession of thinking. The brawny muscle that contended but weakly with crowding weeds by means of the grub-hoe, has given place, through the steady thinking of years, to the attentive eye and dextrous hand that guide the wheeled cultivator to an easy conquest.

Thought, too, has been busy with the forces of production. Every seed selected, every plant protected or acclimated, every "sport" noticed and cherished, every vine trained and propagated, every variety originated and preserved, has called for thought from somebody. Trace only the growth of garden seeds for a hundred years, and what a force is found in the little careful thought, at the opportune moment, to give each germ a proper development.

Then turn to the breeders' record, in which thought has developed weight, and worth and beauty, until we cannot find the origin of domestic cattle, but must solve all such questions by conjecture. See what thought has done for the Short-horns and the Herefords, or for the Ayrshires and the Jerseys! How long is it since American hogs roamed through garden-patch and wheat-field, hindered only by the proverbial knot in the tail? But thought has turned these into Berkshires, and Essex, and Suffolks. Even in the shape, and size, and color, and action of a chicken, you may trace the power of thought to mold these subtle forces to the wants or the whims of men.

Then turn attention to the work of thought in gathering and disseminating others' thoughts, to stimulate this power to greater activity. It is just about three hundred years since Thomas Tusser failed of a living and won immortality from farming. His rhyming calendars of

"Five Hundred Points of Good Husbandry," are a monument to thought in agriculture. His very blunders are the proof of our progress in thought on the farm. So every writer in the same field since has helped to make the two blades grow instead of one. We have almost two hundred years of experience with agricultural papers to thank for some of this growth. But, if we count only the last fifty years' work in this country, since the Albany Cultivator and the Genesee Farmer took the field, we cannot estimate the effect of thought in actual productiveness of the soil.

Muscle has all this time kept up the motion, but mind has guided it toward the end, and, more than that, has found the end that was worth our seeking.

THOUGHT FOR THE FUTURE.

If thought has been so effective in the past of agriculture, it must be still more so in the future. It is a necessary law of civilization that each year's progress calls for a larger proportion of mental effort than its predecessors. Pioneer life is nearest to the animal life; it entices the brutish element of society, because brute force is so much more important there than in the higher life of an enlightened community. So the rude domestic manufacture shows but little thought beside the high-wrought fabric of finished art and skill. In agriculture the same truth is evident, that the more thoughtful ways must conquer. The farmer of New England or Ohio who should give as little thought to his crops and stock as his father did, would be overwhelmed in the competition. All have to think, to live. Well may it be said "in the sweat of the face" that we eat bread, for the head plays a larger part now than the hands. Just watch the drift of thought as it finds echo in the press of the land; the best seeds, best methods, best implements, best fertilizers, best rotations, best storage, and best ways of feeding; best breeds of stock, and best ways of handling them; best means of exchange, and best markets—all these, which are the work of thought, crowd the weekly columns.

If such is the case to-day, what will be the demand ten years from now? Thought must spread out over all the ground. Every minute spot will be touched and made productive by its power. Each year will bring its wider range of questions, as the masses are awakened to a sense of what right-thinking may do. The stone which our fathers kept to balance the meal-sack over the mule's back may be kept in sight; but its use will be to set us to thinking more of the thousand little items of exertion which a timely thought can dispense with. We shall ask how division of labor can do on the farm at least a tithe of what it has done in the other useful arts; and every association will quicken our intelligence, as every advance will make intelligence more necessary. We shall seek for somebody's thoughts on every minute insect that feeds upon our crop, or infests the bin and crib. We shall put thought upon the waste places, and the rough will have to be made smooth with least toil and most thought. This will necessitate

DEEPER INVESTIGATION.

We shall not be satisfied with anybody's conjectures, but must know every minute particular in the life of an insect that injures us. Somebody must push his thinking to the utmost in this direction. Another traces the wheat-rust or the corn-smut through each stage of its development from the minutest spores. Another answers our questions about the black-knot by similar researches. So must some one think upon the pear-blight and the peach-yellows until those mysteries are solved. Each step in this direction is a gain to the thinking done on the farm; and the world must move together. As botany has passed on from a mere collection and classification of plants by their outward form to a study of minute particulars of growth in cells and tissues, so every field of thought is to be probed to its depths.

Such thinking can come only by deliberate choice, and after long preparation. These thorough investigations are the work of years devoted to a single object, for which a man must train himself by special study and drill.

WHOSE IS THE TASK?

The general awakening belongs to us all. In grange and club and institute, farmers must all think. They must discover that power comes not from numbers alone, nor from knowledge alone, but from knowledge put to use by thoughtfulness at the right time and the right place. Many heads put together must solve the thousand and one problems of every day life on the farm, by just such comparison of thoughts and conclusions as we have had to-day. Farmers are beginning to realize to-day the truth of these words of the renowned Burke a hundred years since: "It requires ten times more of labor, of vigilance, of attention, of skill, and, let me add, of good fortune also, to carry on the business of a farmer with success, than what belongs to any other trade."

But the deeper work belongs to special investigators, in the experiment stations of the old world and the new. German investigations are revealing truths in agricultural chemistry, touching vegetable and animal growth. The famed Lawes and Gilbert, devoting a lifetime to such experiments, are a noble example of this kind of thinkers. Similar work is done in our own country; Professors Storor and Farlow of Bussey, Atwater and Johnson of Connecticut station, Kedzie and Miles of Michigan, and a score of able men in our agricultural colleges, are making their mark in such investigations. We need more of it, and more men trained for the work.

But with this body of trained leaders there must be an army of well-drilled followers, able to understand and appreciate their leaders, and to forward their actions by general observation,

Lord Bacon is said to have indulged the fancy that he might gather, by a host of observers throughout England, all the facts of nature; and then, grouping and classifying these, might develop the true theory of the universe. But he could not find the army of acute observers to carry out his orders. Such an army of observers must be drilled aright in our agricultural colleges, if we would reach a scientific basis for farming. They must be taught to ask questions, and to search for the answers, not expecting ready-made information. In this way they may gain power for research.

They must learn to use the senses, and so to observe. Who has not noticed the vast difference between the sight of two persons: both look at a blade of grass with equal attention, but one sees only something green, while the other finds in it a type of the vegetable world, a relation to the animal world maintained by its means, and to the mineral world from which both have sprung, and so on to the universe and the God who reigns over it. Observation uses the senses to find data by which all things are brought into proper relations with past experience.

They must learn to collect the facts which express all nature; but the isolated facts, by themselves, are never so numerous, are nothing till classified. So their collecting must be for the sake of classifying, arranging in proper relations to each other, so as to show their unity in variety.

This enables them to compare; but their comparisons must be brought to take the form of correct inference. Relations of whole and parts, of cause and effect, or of common origin and end, are discovered by well trained minds through genuine comparisons. Such a training is

PRACTICAL EDUCATION.

This is not drill such as makes the perfect soldier or athlete. Men cannot think in squads. It is not a following the routine of skill till every motion is an exact imitation of its predecessor, or of another's act or method. It is not a cramming with useful information such as fills the cyclopedias and hand-books. A memory full of facts may be a serious burden instead of a source of strength, unless the facts are kept for use by ready thought. Practical education is a self-development by a training to think aright, and so to live aright,—to live like a man. Like the teaching of Socrates, it should make one know himself. For this end it should have

A COURSE OF STUDY.

Studies need to be arranged in a course for the sake of both economy and strength. More can be mastered in a given time, if order is cared for; and the whole, bound together by true relations between the parts, is firm and fixed. Many subjects can be understood only after preparation which other subjects can give; while a single line of thought gives too narrow a culture to give true ability. It would scarcely be proper here to outline the course best suited to practical work in the enlightened agriculture of the next score of years; but it must contain both study and practice sufficient to give readiness in the use of all one's faculties. The natural sciences must serve to give keen observation of particulars, and laboratory practice must make the student at home in experiment. Those sciences especially which give acquaintance with everyday facts of life,—botany, chemistry, zoology, physiology, human and animal, and the principles of mechanical and physical forces,—must become the familiar thoughts of the student. Mathematics of quantity and form cannot be developed by judgment and imagination, the most practical of mental faculties. Practice in varied problems, and education of eye and hand by drawing, give an accuracy of observation and a readiness in execution that never come amiss. Language becomes essential as an implement of thought. When President Eliot says that the one essential in any course of study is a mastery of our mother tongue, he emphasizes, I think, the relation between clearness of thought and accuracy of expressions. There should be history enough to strengthen and correct experience by more general facts, and to cultivate memory, the agent of experience, as well as to give the essentials of our national life. Logic and philosophy must help one to understand his own methods of thinking, so that he can feel sure of the steps by which he reaches his conclusions. Whatever else of general information may fit one for his immediate duties must not crowd out the essentials of discipline to energetic and accurate thought. But alongside and blended with this study may come

THE ART.

Here each step should be taken in keeping with advancement of thought. If men were willing to wait for the art till the power of thought is gained, results might be far greater than they are; but both can be so far adjusted to each other as to advance together. In this way the art gives a delightful exercise to a thoughtful mind as well as trained hands, and a nobler end than mere dollars and cents. The real end of all arts is living well; and wealth is but one of the means to this end. He that can make one dollar bring the good of ten in the hands of another man, is as rich as the other. So this training of mind gives the true economy of life.

We conclude, then, that the thoughtful man is hereafter to be the only practical man, upon the farm at least; and when asked what is the best manure for the soil, let us imitate Sir Joshua Reynolds, and answer, "Brains, sir."

Advertisements.

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

Eggs, Eggs.

From pure Light and Dark Brahmas. Write to F. E. MARSH, Manhattan, Kas.

For Sale.

A FOUR-HORSE RAILWAY TREAD-POWER of the Dederick make. Call on J. M. TIPTON, 111 Sixth st., Topeka.

WOOL-GROWERS

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

FOR SALE.

Registered Jersey Bull.

Ourry, A J C O H R. No 4856 out of celebrated cow, "Patty Morse" No 5005. Embden Geese, White Leg-horn Fowls, Fancy Pigeons, Scotch Colley and Scotch Terrier Dogs, all of whom are from strictly standard and imported stock. For particular description and price address GEO. McGILL'S SONS, Leavenworth.

Bee Hives,

Italian Bees

Ecolpo, New American, Langstroth and Simplifier hives complete or ready to mail. Full colonies Italian Bees in good movable comb hives. Honey Extractors, Bellows Smokers, Bee Books, &c. Descriptive circulars sent free. Address F. A. SNELL, Milldegreve, Carroll Co., Ill.

THE CENTRAL KANSAS BREEDERS ASSOCIATION.

Offer FOR SALE.

As good Short-Horn Cattle, Berkshire and Poland China swine as can be found in the West. All orders should be sent to the Secretary of the Association. The Executive Committee of the Society will take such orders, and see that Selections are made that cannot fail to give satisfaction, to the purchasers.

A. W. ROLLINS, Secretary Kansas Central Breeders Association, Manhattan, Kansas.

HOGS.



Southern Kansas Swine Farm.

THOROUGHbred POLAND-CHINAS and BERKSHIRE Pigs and Hogs for sale. The very best of each breed. Early maturity, large growth, and fine style are marked features of our hogs. Terms reasonable. Correspondence solicited. RANDOLPH & RANDOLPH, Emporia, Kansas.

Holstein Cattle.

The largest importers and breeders of Holstein Cattle in America. Also large importers and breeders of Clydesdale horses, and breeders of Hambletonian horses of the most approved strains.

Send for catalogue. Prices reasonable. SMITHS & POWELL, Syracuse, New York.

TREES and PLANTS.

If you want to sell GRAPE VINES, SMALL FRUITS and choice varieties of PEACHES, PEARS, CHERRIES, PLUMS, ETC., ETC., on commission, I will give you the Most Liberal Terms of the age. Park Nursery & City Gardens, Lawrence, Kas. P. P. PHILLIPS.

CONSIGNMENTS OF APPLES WANTED for the English market, also correspondence solicited as to game and poultry for November and December supply. Commission 5 per cent. Address ALEXANDER & CO., Fruit and General Salesmen, 23 Brunswick St., Liverpool, Eng.

THOROUGH--BRED DURHAMS

FOR SALE CHEAP.

One bull 5 years old, kind and gentle to handle. No better in the state. Has been shown twice a year and never failed of winning a prize. 1 yearling 2 bull calves, cows, heifers and cow calves. Address VINTON ALLEN, Brown's Grove, Pawnee Co., Kas.

Breeders' Directory.

BLUE VALLEY HERD—Walter M. Morgan, Hereford Cattle and Cotswold Sheep, Irving, Marshall county, Kansas. Choice Young Bulls For Sale.

B. B. BOWWELL, Breckenridge, Mo., breeder of Spanish or Improved American Marino sheep of Hammond stock, noted for hardiness and heavy fleece. 300 rams for sale.

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

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

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

Nurserymen's Directory.

THE KANSAS HOME NURSERY offers a superior and Large Variety of trees for Western Planters, all the standard and choice varieties of Apples, Peaches, Cherries, Pears, Plums and Quinces, Small Fruits, Vines, Shrubs, and Ornamental Trees, No. 1 Apple Seedlings. Prices to all applicants. Send stamp for samples. A. H. & H. C. GRIESE, Lawrence, Kansas.

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

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

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

Dentist.

A. H. THOMPSON, D. D. S., Operative and Surgeon Dentist, No. 189 Kansas Avenue, Topeka, Kansas.

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

60 Queen Anne and photo cards, illuminated and perfumed, in case 10c Globe Co, Northford, Ct.

60 new styles chromo and floral cards in case 10c; 80 agents' samples 10c; Stevens Bros, Northford Ct.

JAMES A. BAYLES,

Lee's Summit, Jackson County, Mo., Has the largest and best Nursery Establishment in the West. Correspondence promptly answered.

Shannon Hill Stock Farm

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

POULTRY BREEDERS TAKE NOTICE.

I have a few choice Plymouth Rock and Brown Leghorn fowls for sale at reasonable figures if applied for soon. Address Mound City Poultry Yards, Mound City, Kansas.

To Bee-Keepers.

Many of our subscribers are lovers of Honey and would keep bees enough to supply their own tables at least if they know how. We have made arrangements to furnish all such persons the 32 page monthly Bee-keeper's Magazine at only \$1 a year (formerly \$1.50) or the KANSAS FARMER and Magazine for \$2.00. Also all bee books and articles used in Bee-keeping at very low prices. The Magazine gives beginners just such information as the must have to make the business successful and profitable. Send the money direct to us and we will see that your orders are promptly filled. For Prices of Extracts, Hives, Smokers, Uncapping Knives, etc., Address, Publisher of the KANSAS FARMER, Topeka, Kansas.

A. PRESCOTT & CO.,

TOPEKA, KANSAS,

Have on hand

\$100,000 TO LOAN

In Shawnee and adjoining Counties on good Farm security

At 8 and 9 per cent.,

Per Annum.

Beautiful Indian Territory.

When we went to Texas, we picked out the route down through the finest portion of Missouri, by way of the "Queen City" Sedalia, thence to Fort Scott and Parsons, through the garden portion of Kansas, passing along the wonderful "Valley of the Neosho," with its rolling upland prairies, broad majestic rivers, springs of pure water, deep ravines, rich plains of waving corn, dotted here and there with pretty farm cottages nestled under the green slopes. Going south from Parsons, Kansas, our route led down towards the blue waters of the Gulf of Mexico, and we entered the Charming Indian Territory, just below Chlope, Kansas. Beautiful Indian Territory, inexhaustible in its variety of resources, with its mines, forests and prairies; its mountains, cataracts and canyons; its valleys, gales and streams; the brightest skies, the grandest sunsets, the softest twilight and the most brilliant moon and glittering stars; her fair surface covered with the rarest fragrant flowers; home of the wild horse, deer, elk, bear, turkey, grouse and birds of song. Broad winding streams, clear as the crystal mirror in the halls of the fairies, wind along the green prairies, stretching in airy undulations far away, as if the ocean in its gentlest swell stood still with all his rounded billows, fixed and motionless for ever. No other country on the globe equals these wonderful lands of the red man. With a lingering look at them we crossed the Red river and entered Denison, the "Gate to Texas." From this point our route led thro' the finest and richest portion of Texas, through the grain and cotton growing districts, and the wonderful sheep and cattle ranches. What wonderful marks of progress we saw! Our earnest advice to those going to Texas, is to be sure and take the route through the Beautiful Indian Territory, and enter the Gate City, Denison; see that you go by way of the Great Missouri Kansas and Texas Railway. If you wish a beautiful illustrated guide book, describing Texas and Kansas, and containing articles on cattle raising, and where the best and cheapest lands are, it will be sent you free of charge by addressing JAS. D. BROWN, Texas and Kansas Emigrant Agent, St. Louis, Mo.

THE KANSAS FARMER.

E. E. EWING, Editor & Proprietor, Topeka, Kansas.

TERMS: CASH IN ADVANCE.

One Copy, Weekly, for one year, 1.50
One Copy, Weekly, for six months, 1.00
One Copy, Weekly, for three months, .50

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

TO SUBSCRIBERS.

Subscribers should very carefully notice the label stamped upon the margin of their papers. All those marked 7 or 7 expire with the next issue. The paper is always discontinued at the expiration of the time paid for, and to avoid missing a number renewals should be made at once.

Dissolution of Copartnership.

The copartnership heretofore existing between J. K. Hudson and E. E. Ewing, under the name and firm of Hudson & Ewing, was this day dissolved by mutual consent. The KANSAS FARMER will in future be conducted by E. E. Ewing, as editor and proprietor, and the Daily and Weekly Capital and job office will be owned and conducted by J. K. Hudson, who will settle all bills against the late firm. All bills due for advertising in the KANSAS FARMER must be paid to E. E. Ewing, who will receipt for the same.

All letters and communications should be addressed in accordance with the above arrangement. J. K. HUDSON, E. E. EWING.

Topeka, Kansas, Jan. 31st, 1880. P. S. The above publications will be continued at the old stand, 209 Kansas Avenue.

The Farmer Needed in the Halls of Legislation.

If the interest of the farm is ever to receive that attention which its importance entitles it to, which is first of all other interests, the farmer must, himself, go into the halls of legislation. He must fit himself for the work and do it. No servant or proxy will answer. He must lay hold and accomplish the work with his own hands or it will never be done. Behold the spectacle our congress presents, made up mainly of trading politicians and lawyers, their entire attention is directed to secure some advantage over opposing rivals by which to succeed in gaining the next president and securing the offices with the public money that is distributed. Look at the spectacle Maine presents, where an open and barefaced attempt was made to install in office representatives and senators who were rejected by the people, in defiance of the popular choice. The unwavering purpose of all such proceedings is to take advantage of the public, an unwillingness to trust to the people to name whom they wish to administer public affairs and fill the offices for a term. The audacity and hungry greed of our race of professional politicians are overleaping all bounds. Legislation in the interest of state and nation is neglected utterly, by a large majority of those who are sent to congress and the state capitals to direct public affairs. The most shameless and corrupt trading is carried on by this class of men to get and retain the offices they misuse and neglect. They are instrumental in appointing the most unqualified parties to important offices in order to strengthen their hold on a longer lease of power. The result is that the public interest is neglected, and the public money squandered and used by this class of political adventurers. If the lives of these men are scrutinized it will be found that the majority of them have nothing whatever at stake. They are professional politicians with no worldly goods to lose whether the state fail or business wax or wane; or they are lawyers with a few shelves of books and a desk in a rented room. Of such is the large majority of the law makers of this country composed.

There is no other interest suffers so severely by this management of public affairs as agriculture, and no other has half so much at stake.

In the neglect of congress to provide precautionary measures against the cattle plague—that destructive disease, pleuro-pneumonia was bro't to this country from Europe and allowed to spread amongst, and destroy many valuable herds of cattle in the eastern and middle states. And a continued neglect has allowed the disease to linger in those states, and spread its infection in place of having it stamped out. This plague brought here from Europe and allowed to remain has been a plague to the cattle interest throughout the whole country, serving as an excuse for the English Privy Council to issue orders forbidding the importation of live cattle from this country, except they are slaughtered on the wharves as soon as landed in Liverpool.

Some importations of sheep from the United States were found to have a few cases of scab among them, and the embargo was placed on sheep also. Congress was impudently to appoint competent veterinary examiners at the ports where the live stock shipping trade is carried on, and prevent any diseased animals being shipped, but this request in the interest of agriculture was utterly disregarded, and the consequence was, the live stock trade which was rapidly assuming large proportions received a rude check, which caused every farmer, who has a fat animal to sell, to suffer some per cent. of loss. This single neglect of the men who are permitted by the farmers to legislate for them, costs the agricultural interests of the country, doubtless, many millions. If the whole system of legislation is traced, such neglect of the agricultural interest will be found to characterize it throughout. The remedy is to place more farmers in the

halls of legislation, state and national, and keep them there. Place them there in sufficient numbers to vote down and silence all opposition which seeks to gain its point by parliamentary strategy and finesse. To think, to talk, and to vote, is the lesson the American farmer is called upon to learn if he would protect his dearest interest.

The New Secretary to the State Board of Agriculture.

The appointment of a secretary to serve the unexpired term of the late lamented Alfred Gray, occupied the attention of the Board on Thursday of last week. The result of the ballot was nine votes for J. K. Hudson, present editor of the Daily Capital, and our late partner in the publishing of the KANSAS FARMER, and Capital. The balance of the votes were divided amongst a number of candidates, each receiving one vote. In addition to the personal gratification which we feel in the compliment deservedly bestowed on our late partner in business, we can congratulate the agricultural interest of the state in having secured a most energetic and efficient secretary to take up the mantle removed by death from the shoulders of the late occupant of the office. Mr. Hudson has had a very thorough practical as well as theoretical training in Kansas agriculture, having owned a large farm in Wyandott county, which he conducted very successfully for several years previous to taking charge of the KANSAS FARMER.

The election of Mr. Hudson was a case in which the office sought the man and not the man the office. He had many scruples about allowing his name to be presented to the board as a candidate, and only yielded a reluctant consent after much persuasion by many judicious friends whose judgment he was compelled to respect. Having accepted the office tendered in a manner that could not fail to prove most gratifying to the feelings of any man, the new secretary enters on the work left by Mr. Gray, with all the energy and untiring zeal which so pre-eminently characterize all his business relations, and we predict for him a most brilliant and successful administration, an administration which will reflect credit on the secretary and the board of agriculture, and advance the agricultural interests of the state.

Growing Hedges.

As it is approaching the time to plant and trim hedges, I hope to draw out some practical and experimental hedge-growers. My experience is as follows, and I have made it a grand success, notwithstanding my experience differs from the theory of many:

Cultivate my hedge rows one rod wide; the second year plant my hedge in the center of the row, one foot apart; cultivate them early and late, thoroughly, full width of the hedge row, until they are four or five years old, (according to the growth) filling the vacancies by resetting every year.

The worst enemy we have to hedge is gophers, which I destroy by placing strichnine in a small piece of sweet potato and placing it in their holes.

The fourth or fifth year your hedge is ready to lop down, or slash, as it is called. I now trim all the limbs from the stalk in and outside of the row, but none of the limbs running parallel with the rows, then with two men, one with a good sharp hand-axe, and one with a pole six feet long, forked at the top end, for now the hedge is ten or twelve feet high, the axemen cutting the hedge half off under ground, the one with the pole pushes the hedge down close to the ground, leaving a stub standing every four feet apart, two feet high, weaving the plants alternately right and left between the stubs, leaving the fence two feet high and so thick and even that a rabbit cannot get through it. In the fall of the same year after slashing, trim it properly with a good corn knife, and I will warrant a good hedge.

If you want to fence hogs in an orchard or pasture, do not trim the inside of the hedge before slashing it, which will prevent the hogs from rooting under the fence to get in the shade.

Hedge plant growers will recommend planting four or six inches apart and slashing it in three years, but it will not do—planting so close. The hedge is of slow growth and spreading; when planted one foot apart it grows rapidly and large. Never cut hedge to the ground, thinking it will make a good fence, for it will not. Never slash it until it is 1 1/2 or 2 inches in diameter at the ground; if you do, it will die out.

Mudge Monument Fund.

We have been requested to publish the following circular, which appeals to the people of Kansas for aid in a most worthy object:

The announcement of the sudden death of Prof. B. F. Mudge, at his home in Manhattan, two months ago, brought pain to the hearts of many friends, not only in our own state, but also throughout the land. His whole life in Kansas has been unselfishly devoted to the investigation of the natural sources of wealth within our borders, and to the inquiries which resulted in those valuable scientific discoveries which have made his name famous throughout the world. He also improved every opportunity to communicate his rich stores of practical and scientific knowledge, not only to the students placed under his charge in our state institutions of learning, but also to the people of this commonwealth—by public lectures, by private correspondence, and by contributions to the public press.

Giving himself unreservedly to the great work of education, he felt that, like the great

Agassiz, "he had no time to make money;" although hundreds were peculiarly benefited by his labors, and thousands were enriched by the most precious wealth of his learning.

Feeling assured that the proposition to erect a suitable monument to his memory will meet with a hearty response, the Kansas Academy of Science, of which Professor Mudge was the honored president at the time of his death, has appointed a committee to take charge of the enterprise. The members of this committee are as follows: F. G. Adams, Topeka, chairman; Joseph Savage, Lawrence, secretary; R. J. Brown, Leavenworth, treasurer; I. T. Goodnow, E. A. Popenoe, Manhattan; J. D. Parker, Kansas City; F. H. Snow, J. H. Carruth, Lawrence.

It is proposed to raise one thousand dollars for the erection of this monument, and the many friends of our beloved leader and associate are cordially invited to render all possible assistance. Local committees will be authorized to receive subscriptions in the chief towns of the state. Individuals not thus solicited are hereby invited to send their contributions to the treasurer; or, if more convenient, to any member of the committee above named.

F. G. ADAMS, Chairman. JOSEPH SAVAGE, Secretary.

Topeka, Kansas, Feb. 1, 1880.

Early Maturing Stock.

The recent Fat Stock Show held in Chicago, clearly demonstrates the profit of early maturing stock, and it is beginning to be an accepted fact among the most intelligent feeders, that to fatten an animal intended for the butcher's block, can be fed up and ripened, the more profit there is in it to the owner; and one other fact also was brought out by experiments had at the Fat Stock Show, no less important than the former, that is, when an animal is once ripe, if not butchered, it will deteriorate in quality. Fat animals, like fruit, are at their very best just when they reach the point of full ripeness. That point reached is soon passed and deterioration in quality almost immediately sets in.

The gain of weight per day in the six classes of cattle on exhibition at the show, was greatly in favor of the early maturing young animals. Cattle less than two years of age and over eighteen months, made an average gain of about 2 1/2 pounds per day. Those over two years but less than three, averaged about 1 1/2 pounds; over three but not four, gained scarcely 1 1/2 pounds per day; under five, the average gain was a little over 1 1/2 pounds, while those over six years of age showed the least gain of any, averaging scarcely a pound per day.

The secret of successful feeding, demonstrated by these tests, is full feeding from calfhood, so that healthy growth is never for a day checked, early maturity and sale as soon as the animal is ripe. The time being shortened, less risk by accident or death is ran, profit is sooner realized on the investment, and a larger profit made on the food consumed.

The Sunflower as a Field Crop.

In these days of investigation and experiment on the farm, new crops are constantly being tried and investigations pushed into heretofore new and unexplored fields. The possibilities of the farm are being put to a test they have never been before, and the response which mother Earth gives to these requisitions and inquiries, when properly made, is most gratifying. The progress which is making under this new dispensation, shall we call it, bids fair to double the variety and number of farm crops, some of which give hopes of greatly increased profit over old, and what have come to be considered staple crops. In this catalogue of new crops, sunflowers are applying for a place and promising to be among the valuable annual grain crops, one of no insignificant importance. As food for fattening stock, the indications are that sunflower/seed cake will rank with oil cake made from flax and cotton seed, if not surpass the latter as a stock food. For poultry food sunflower seed is considered, among specialists in the poultry business, a very superior article, imparting a fine gloss to the plumage which can be obtained by no other feed. From the plumage and notes of a bird its most perfect condition is judged, and the class of feed which gives these results ranks in excellence. Sunflowers are natives of America, and hence less liable to fail as a crop than other grains which have been imported and naturalized. In answer to the inquiries of a correspondent in regard to the merits of sunflowers as a farm crop, the National Live-Stock Journal expresses the following favorable opinion:

"This plant is a native of America, and has sometimes been raised by sowing the seeds broadcast; and, if the plants should stand 12 inches distant from each other, there would be 43,000 plants on an acre. But it is best planted in drills, 30 inches apart, so that it may be cultivated until the plants get a good start, when they will cover the ground, shutting out the sun so as to prevent the growth of weeds. The flower heads are eight to twenty inches across, and the seeds should be dropped six or eight inches apart in the drill or row. Its cultivation has been mostly on the garden border. It requires a warm situation, but will grow on any rich land, and yield a good crop—say fifty bushels of seed to the acre—and, under ordinary treatment, will yield one gallon of oil to the bushel. It is highly probable that, with good machinery, fifty per cent. more oil might be obtained. The cake or refuse, after the oil is extracted, has been found very excellent food for milch cows or fattening cattle. It would be well for farmers to experiment with planting ten or twenty square rods of ground with the sunflower. The seed would be valuable, ground

with other grain, for feeding calves and cows, and fattening stock. The leaves are eaten with a relish by cattle, if stripped green. It needs more careful experiments and consideration by farmers before its exact value as a field crop can be determined. In oil and muscle-forming matter it may be classed with flaxseed; but it is more cheaply raised than the latter, and is, therefore, well worthy of attention to determine its value as a field crop. The seed is easily obtained of any seedsman."

Gas For All.

Mr. H. W. Deshler is selling, through agents in this city, what he terms a "portable gas light," which he has requested us to try, and give our opinion of its merits. The apparatus consists of a burner, which can be used on any ordinary coal oil lamp. Economy, neatness and beauty are claimed for the light, and as far as our examination extends, with justice. The light is that of perfect gas, and requiring no chimneys, is a great saving, in this respect, over the kerosene lamp. The lamp is very convenient to carry about the room and is not easily extinguished by a draft or rapid movement. We believe the light to be safer than coal oil, while the cost is about the same.

Experience vs. Theory.

Many farmers come to Kansas thinking they know all about farming theoretically, and they make a failure; then they howl about the country, call it a barren waste, drouthy, windy, grasshopper cursed, and the country filled with people that would get away from it if they could—then they go back to their wife's poor relations.

Others come with some experience; they talk with, and receive experimental instructions from old settlers—take the KANSAS FARMER, and they make a success. They praise the country, get used to the winds, and claim that is the cause of good health; they overcome the drouth, (if there happens to be one) by deep plowing, and by seeding in the right time. They forget that there were ever any grasshoppers, and never expect to see them again; they think they are living among the best people in the world; they are healthy, contented and happy, and send for all their wife's poor relations to come to a country overflowing with agricultural charms, where the rich prairie reaches from sunrise to sunset. God above, and man below to till the soil.

This is no fancy sketch. 'Tis too true. Ninety per cent of our state is good, rich soil, susceptible of giving employment to millions of farmers. All kinds of grain, grasses, and fruit flourish, and are made profitable to good experienced farmers. H. C. STCLAIR.

Holton, Jackson Co., Feb. 4, 1880.—We in this part of the country are booming. Wheat looks fine; some fears in regard to the Hessian Fly. There are a good many cattle being fed near here, and they are doing well. Feeders expect good prices for fat cattle. The weather is delightful. We are to have a \$20,000 Normal School building put up this summer. The money is nearly all subscribed for it. I would like to enquire how many annual meetings the Kansas State Horticultural Society have in one year. They met here in December and had a three days' session, and I tell you we had a good time. In the FARMER of January 14, I see you report their meeting at Humboldt. I don't see how that can be, for they elected officers for the coming year at their meeting held here.

Myself and many others subscribed for the FARMER thinking we should hear, through it, some of the reports of the doings of the society, but we are very much disappointed in that, and also to learn that you are not in unison with them, but seem to throw cold water on them when you can. Now a good many of your readers don't like to see this state of affairs between two such great powers in the land as the KANSAS FARMER and the State Horticultural Society. Can't you shake hands across tea bloody chasm and make up? D. S. H.

This is the first intimation we have had that there was a lack of "unison" between the KANSAS FARMER and State Horticultural Society. We publish all the proceedings of the society we can get hold of, that are of public interest. The FARMER, so far as we know, has never refused to publish any report of the proceedings of the society sent to it, and if there is any ill feeling between these "two great powers in the land" as our correspondent expresses it, the society enjoys a monopoly of it, for we are entirely ignorant of it. Not have we any knowledge of throwing any kind of water, either cold or warm on the society. Since our correspondent has brought the subject up, we do remember to have heard some of our predecessors remark that the State Horticultural Society was extremely sensitive, and did not think it was given credit commensurate with its merits. We do not know how this may be, in fact it is none of our business to meddle with the sentiment of that or any other organization. We would like to have reports of all proceedings of the State and all other horticultural and agricultural societies, that are of general interest, to publish. The FARMER is kept busy with more important work, and has no time to devote to squabbling with any associations. If the State Horticultural Society has valuable contributions from members, and proceedings that it thinks would be of advantage to have widely circulated and read by the most advanced fruit growers and farmers in the state, let it order its secretary to send them to the KANSAS FARMER. The public cannot derive much benefit from them if they are locked up with the books or published only in some county paper.

If the State Horticultural Society wants the KANSAS FARMER to assist its usefulness in any legitimate way it can, let it proceed to use a little common sense, and not stand round and pout, as D. S. H. intimates it is doing. We are anxious

to do all that lies in our power for the advancement of horticulture, agriculture and stock-raising. So step up to the front, ye men of the cedar and vine, the apple and plum, with your choicest products, and we will display them to the gaze of an admiring world.

The Mid-Winter Scribner.

EDITION 125,000.

The success of the Scribner Magazines (Scribner's Monthly and St. Nicholas) during the present season is without precedent in the history of periodicals. The brilliant February (Midwinter) number of Scribner has a cover design by George Inness, Jr., a frontispiece of Peter the Great, with his flag, and begins the series of illustrated historical papers by Eugene Schuyler, so long in preparation.

"PETER THE GREAT."

Which, it is believed, will equal in popular interest the greatest works of fiction. In this series, valuable paintings and original sketches by Russian and French artists will be produced.

A NEW NOVEL BY MRS. BURNETT, The author of "That Lass o' Lowrie's," entitled "Louisiana," begins in this number, which, with the serial story of Creole life by Geo. W. Cable,

"THE GRANDISIMES"

Will fully sustain the reputation of Scribner's Monthly for publishing the best works of fiction by the best American writers. The first fully illustrated and authorized account of

EDISON'S ELECTRIC LIGHT,

Prepared under Mr. Edison's personal supervision, and certified by a fac-simile of his own letter in relation to it, is in this number; also, a paper full of novelty, freshness, and interest,

BI-CYCLING BY A BI-CYCLER,

Entitled, "A Wheel Around the Hub;" besides other articles of great importance, "The Political Outlook," by a well-known political writer, "Present Phases of Sunday-school Work," by Rev. Edward Eggleston, a biographical sketch of John Bright, a short story by Boyesen, etc.

For sale by all book-sellers and news-dealers, by whom yearly subscriptions will be taken. Price \$4.00 a year; 35 cents a number.

SCRIBNER & Co.

The February St. Nicholas,

With Two Child-Songs Written Expressly for this Magazine, by Alfred Tennyson.

A fourth edition of the Christmas St. Nicholas, the demand for which still continues, has been issued, and the entire sales will fall little, if any, short of 100,000 copies. The January number has been reprinted, as also have the bound volumes for 1879, which were exhausted before Christmas. The February issue contains two

CHILD-SONGS BY TENNYSON, contributed by the poet laureate with music composed under his own supervision. It is believed that these are the first poems Alfred Tennyson has ever written for an American magazine.

The author of "That Lass o' Lowrie's," MRS. FRANCES HODGSON BURNETT, contributes a bright story, which will interest young and old alike. Elizabeth Stuart Phelps, Miss Alcott and A. A. Hayes, Jr., are among the other contributors. The frontispiece is a charming wood-cut reproduction (by G. Krnell) of Cousins' mezzotint engraving of

MILLIE'S "PRINCESS IN THE TOWER," painted and engraved for the London Fine Art Society (by whose permission it is used) at an expense of 23,000.

Price, \$3.00 a year; 25 cents a number. SCRIBNER & Co., New York.

GREGORY'S SEED CATALOGUE.—We are in receipt of this annual circular of one of America's best seed dealers. Mr. Gregory's seeds are extensively grown in the south, and we have yet to hear of any complaint about them of failure to germinate, not being true to name, etc. He is a reliable and trusty seedsman. Our readers should send for his catalogue.—Rural Messenger, Petersburg, Va.

Correction.

An error occurred in the notice of Capital Grange Social as published last week. The social will be held on the 26th of February, instead of the 16th.

Estrays.

We have accounts of strays taken up which are not advertised. There is a severe penalty for such neglect. And the wonder is that some parties do not make a business of going through the country and prosecuting delinquents. A small fortune could be made by it, which would soon be classed as a new and profitable industry, originating in Kansas.

The Evidence Accumulates.

H. J. Footner, of Toronto, Ont., certifies that Warner's Safe Pills have cured him of biliousness and sleeplessness. G. A. J. Garbois, of Brookville, Canada, certifies that the Safe Pills and Safe Bitters have cured him of malarial difficulties contracted in Texas. E. J. Campbell, of Philadelphia, certifies that the Safe Pills and Safe Kidney and Liver Cure have nearly cured him of a bad chronic liver complaint. And like testimonials keep coming in.

We invite the attention of persons in the bee-keeping business, or those contemplating entering it, to the advertisement of P. A. Snell, published in the FARMER.

A bee-keepers' convention will be held at Davis' Junction, Ogle county, Ill., on the 10th of February, and an invitation is given to all interested in bees and honey.

Communications.

The Plows Afield—Cure for Chicken Cholera, Etc.

The new year has come in very mild, and in one way very encouraging to the farmer. We see them all over the country breaking prairie, stirring stubble ground, and some are sowing spring wheat. Winter wheat never looked better at this season of the year. Stock of all kinds is doing well on less feed than usual. Fruit seems to be all right yet in this county.

In reply to W. H. Prouty's communication in the FARMER a short time ago asking for a remedy to cure chicken cholera, would say that the best remedy I have found is tincture of asafetida, about twenty drops to a quart of water, placed in their coop.

Another good remedy is onions chopped very fine and mixed with corn meal.

I have also found quite an advantage in moving my coop away from where the fowls first took the disease, and to where I could have a north and south draught through it.

I think "Stoner's feed rack and stock shelter" is very simple and within the reach of every one who has use for the article.

GEO. S. FUNK.
Newton, Kas.

Pekin Ducks.

ET. FARMER: Will you permit me to inquire, through the columns of your paper, if any of your readers can inform me where, in Kansas, I can get a pair or two, or a setting of eggs, of June-bred Pekin ducks?

M. A. STILES.
Pavilion, Kansas.

Certainly, certainly we will permit. Now the man who furnishes the ducks will "stand treat" and send the FARMER an ad. of his stock.

COPE, Jackson Co., Jan. 23.—Having been absent on a tour east for the past two months, accounts for not anything from your correspondent from this corner for a long time.

After spending some six weeks in eastern Ohio, this winter, among the farmers there, I come back to booming Kansas better satisfied than ever that we have the best state in the Union—better soil, better crops, better markets, better climate, better society, better everything to make our state a desirable place to live in.

The winter in Ohio and Indiana has been unusually warm and rainy; the wheat and grass growing all winter, and a crop of mud the like of which I never saw excelled, so much so that all business had to be suspended.

At present writing the weather here is somewhat colder than it has been for a long time. January has been very fine up to date, and stock of all kinds have done well. The wheat still looks promising, though I think it would be better if it had a covering of snow. In looking over many fields, I find that seeded with the drill is doing far the best.

Already men from the eastern states are looking up locations and buying land preparatory to moving their families on in the coming spring. Let them come; there is still room for a few more. We predict a strong immigration to Kansas this season. Everybody wants to come to Kansas, wherever I have traveled this winter, with few exceptions.

At present writing, wheat is worth 95c to \$1; corn, 23c; hogs, \$3.85; fat steers, \$4 to \$5.

J. W. WILLIAMS.

RAY, Pawnee Co., Jan. 25.—The delightful weather of January, thus far, has made it a busy time for the farmers of Pawnee county; all have been busy plowing for corn and spring crops. Wheat, as a general thing, never had a better outlook at this season of the year than now. The heavy frosts in December froze the blade and it looked a little discouraging, but the warm summer days of January brought it out and it is now looking green and nice. Late sown wheat has come up and it is pushing ahead hard on to the early sown. We have had but little rain this winter as yet, but grain is not suffering, and everybody thinks we have a fine prospect for a good crop.

Corn is now selling in market for 33c; wheat, \$1; Odesa, or Grass wheat, for seed, \$1.35; dressed pork, \$3.50 to \$4.

Stock, generally, is in fine condition. No prevailing disease among stock of any kind, and we confidently believe that if kind Providence sends us a little rain between this and the middle of May, we shall again rank among the first of the wheat-growing counties of Kansas.

ETHAN ALLEN.

The best farmer the world ever saw, will derive advantage from the weekly perusal of an agricultural journal. There are many things that he is liable to forget if not reminded of them; there are many little—and some great—as it were, accidental discoveries in the planting of crops and the care of stock, which are published, that are of much benefit to a careful farmer. In short there is an endless variety of incidents which are of more or less importance, which are passing, as it were, in review, constantly through the columns of agricultural journals.

For Coughs, Colds, Bronchitis and all affections of the lungs, take Ayer's Cherry Pectoral.

Distance All Competitors. The dairyman who uses gilt edge butter maker will increase his product 6 per cent., improve its quality 20 per cent., and distance all competitors who do not use it. 25 cents worth of the powder will increase product and market value of same \$3.00. Can you make a better investment? Sold by grocers, druggists and general storekeepers. Send stamp for Hints to Butter Makers. Address, Butter Improvement Co., Buffalo, N. Y.

An Article of Merit. Brown's Bronchial Troches are the most popular article in this country or Europe for throat diseases and coughs, and this popularity is based upon real merit. Imitations are offered for sale, many of which are injurious. The genuine Brown's Bronchial Troches are sold only in boxes.

Haunted Me.

Debt, poverty and suffering haunted me for years, caused by a sick family and large bills for doctoring, which did no good. I was completely discouraged, until one year ago, by the advice of my pastor, I procured Hop Bitters and commenced their use, and in one month we were all well, and none of us have been sick a day since; and I want to say to all poor men, you can keep your families well a year with Hop Bitters for less than one doctor's visit will cost.—A Workman.

A Liberal Offer. The Voltaic Belt Co., of Marshall, Mich., have such implicit confidence in their Electro-voltaic Belts, Bands, Trusses, and other appliances, that they offer to send them, on thirty days trial, to all persons suffering from nervous difficulties, rheumatism, dyspepsia, ruptures, etc., etc. By their use cures are speedily effected, and all sufferers should send for their illustrated pamphlet.

The Tortures of Neuralgia. These are being mitigated, and in a large number of cases wholly removed, by the use of Compound Oxygen, the new revitalizing agent which is now attracting such wide attention. Our treatise on Compound Oxygen sent free. Dr. Starkey & Palen, 1112 Girard street, Philadelphia, Pa.

The Weekly Capital for 1880. The WEEKLY CAPITAL for 1880 will be found one of the most desirable family newspapers. The present enlarged form will be preserved, giving the readers a clear, clean faced, easily-read type, and the large amount of interesting news, political, summary, literary and domestic matter, the best ever offered in Kansas for the low price of

ONE DOLLAR PER YEAR. OUR LOW CLUB RATE. Ten copies, to one or more post offices, for \$5.00, and an extra copy to club agent. Names must all be sent at one time. A sample copy sent free to any address.

J. K. HUDSON, Topeka, Kansas.

P. S. In writing for a sample copy, send the names of half a dozen of your neighbors who read or who ought to read, and we will send them copies to examine.

"Eminent Success." The Great Cough Remedy, Marsh's Golden Balsam, "Has Given Entire Satisfaction in Every Instance."

"I have used your preparation of Golden Balsam with eminent success."—D. H. Ditzler, M. D., Fort Scott, Kan.

"Your Golden Balsam has given entire satisfaction in every instance."—Hutton & Campbell, druggists, Nevada, Mo.

"I have been using some of your Golden Balsam for the past two months, for weak lungs, and I think it helps me much, so that I want more of your medicine."—H. H. Jackson, Oskaloosa, Iowa.

"Your Golden Balsam gives good satisfaction and sells readily, especially to those who have already used it. I am out and wish to have more of it."—Fred. Heck, druggist, Humboldt, Kan.

"Your Golden Balsam is truly a valuable medicine. It has done wonders for me. I can cheerfully recommend it to all suffering with hard cough or weak lungs."—Simeon Fawcett, Kansas City, Mo.

Marsh's Golden Balsam will cure your cough. If you are suffering with any throat or lung affection don't fail to try it. Sample bottle free. Large bottles 50 cents and \$1. For sale by Swift & Holliday, and W. N. Angle, in Topeka and by all prominent druggists in the west.

Prejudice Kills. "Eleven years our daughter suffered on a bed of misery under the care of several of the best (and some of the worst) physicians, who gave her disease various names but no relief, and now is restored to us in good health by as simple a remedy as Hop Bitters, that we had poohed at for two years, before using it. We earnestly hope and pray that no one else will let their sick suffer as we did, on account of prejudice against so good a medicine as Hop Bitters."—The Parents.

Marsh's Golden Balsam. Cures coughs, colds, bronchitis, consumption, sore throat, croup, whooping cough, hoarseness, and all diseases of the throat, lungs, and chest. Don't fail to try this wonderful medicine. Sample bottles free. Regular sizes 50 cents and \$1. Thousands of bottles have been given to the afflicted to prove its extraordinary merit. You can have one. Ask your druggist for it. Two doses will give relief. A large bottle will do wonders. For sale by Swift & Holliday, and W. N. Angle, Topeka, and prominent druggists everywhere.

Chew Jackson's best Sweet Navy tobacco. 8 and 9 Eight and nine per cent. interest on farm loans in Shawnee county. Ten per cent. on city property. All good bonds bought at sight. For ready money and low interest, call on A. PRISCOTT & CO.

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

Down Down with high prices, Genuine Singer or St. John, two drawer, drop leaf sewing machines for \$35 at Frost Bros', Silver Lake.

An Old Man Rejuvenated. Peter Showerman, of Batavia, N. Y., certified Sept. 15, 1879, as follows: "For forty years I have suffered with kidney and liver difficulty, being obliged to void urine as often as once in 30 minutes, and have also been a great sufferer from palpitation of the heart. I am now using your Safe Kidney and Liver Cure, and can truly say, at 70 years of age, that it makes me feel like a new man."

Markets.

Markets by Telegraph, February 10.

New York Money Market.

RAILROAD BONDS—Generally lower, but without important changes. NEW YORK REGISTERED BONDS—107 1/2 to 107 3/4. NEW YORK UNREGISTERED BONDS—106 1/2 to 106 3/4. GOVERNMENT BONDS—105 1/2 to 105 3/4. PACIFIC SIXES—35; new 123. MISSOURI SIXES—46 1/2. ST. JOE—51 1/2.

Chicago Produce Market.

WHEAT—Unsettled, but generally higher; closing strong; No 2 red winter, 1 1/2; No 2 spring, 1 1/2; No 2 1/2 February, 1 23/4; No 1 2 1/2 March, \$1 23/4; No 3 spring, 1 1/2; rejected 90c. CORN—Active but lower; 35c bid cash; 35 1/2 March; 40c May. OATS—Active but lower; \$1 to \$2 cash; \$1 1/4 April; 35 1/2 May. RYE—Quiet and weak; 75 1/2 to 76. BARLEY—Dull and lower; 80c. POBK—Active but weak and lower and unsettled; 11 1/2 to 12 1/2 cash; 11 1/2 to 11 27/4 March; 11 43/4 bid April. LARD—Active but weak and lower; 6 85 to 6 87 1/2 cash; 6 93 1/2 to 6 95 March; 7 02 1/2 to 7 05 April. BUTTER—Steady; 30 1/2; short ribs, 6 20; short clear, 6 30. WHISKY—Steady; 1 07.

Kansas City Live Stock Market.

CATTLE—Receipts, for 48 hours, 407; shipments, 847; market weak; heavy shipping steers, \$4 00 to 4 75; stockers and feeders, \$3 00 to 3 50; cow, \$2 50 to 3 00. HOGS—Receipts for 48 hours, 939; shipments, 105; market weak and lower; sales ranged at 3 80 to 4 00, bulk at \$3 90 to 4 00. SHEEP—Receipts, none; shipments, none, and market steady.

St. Louis Live Stock Market.

HOGS—Slow; light shipping 4 20 to 4 30; mixed packing 4 10 to 4 15; heavy to select, 4 30 to 4 45; receipts, 5,500; shipments, 3,500. CATTLE—Run fair; mainly fair to good native steers which sold readily; no prime or choice on market; native steers 1 3/4 to 1 7/8; pounds average, brought 4 50 to 5 15; medium to fair, 4 to 4 40; a large drove of winter Texans, 1,125 pounds average, sold at \$4; mixed cattle, receipts, 2,000; shipments, 3,400; 8 75; oxen, 3 to 3 50; bulls, 2 30 to 2 90; receipts, 1,300; shipments, 200. SHEEP—Fairly active; medium to fair, \$7 75 to 4 25; good, 4 25 to 5 40; choice, 5 50 to 6, receipts, 1,800; shipments, 300.

Atchison Market.

HOGS—Receipts, 1,300; shipments, 800; market active and lower; light, 3 60 to 3 75; mixed packers, 3 70 to 3 80; choice heavy, 3 90 to 4 05.

St. Louis Produce Market.

WHEAT—Fairly active; fancy, 6 10 cash; 6 10 February; 6 23 1/2 April; choice, 5 90 cash; 5 92 1/2 February; 5 95 March; 6 50 April; family 5 73 1/2 bid cash; 5 85 Mar 5 90 May. WHEAT—Opened higher and declined then recovered. No. 2 red, 1 24 to 1 23 1/2 cash; 1 27 1/2 to 1 25 1/2 April; 1 27 1/2 March; 1 28 1/2 to 1 30 1/2 April. CORN—Lower; 2 00 to 2 05; 2 05 to 2 10; 2 10 to 2 15; 2 15 to 2 20; 2 20 to 2 25; 2 25 to 2 30; 2 30 to 2 35; 2 35 to 2 40; 2 40 to 2 45; 2 45 to 2 50; 2 50 to 2 55; 2 55 to 2 60; 2 60 to 2 65; 2 65 to 2 70; 2 70 to 2 75; 2 75 to 2 80; 2 80 to 2 85; 2 85 to 2 90; 2 90 to 2 95; 2 95 to 3 00; 3 00 to 3 05; 3 05 to 3 10; 3 10 to 3 15; 3 15 to 3 20; 3 20 to 3 25; 3 25 to 3 30; 3 30 to 3 35; 3 35 to 3 40; 3 40 to 3 45; 3 45 to 3 50; 3 50 to 3 55; 3 55 to 3 60; 3 60 to 3 65; 3 65 to 3 70; 3 70 to 3 75; 3 75 to 3 80; 3 80 to 3 85; 3 85 to 3 90; 3 90 to 3 95; 3 95 to 4 00; 4 00 to 4 05; 4 05 to 4 10; 4 10 to 4 15; 4 15 to 4 20; 4 20 to 4 25; 4 25 to 4 30; 4 30 to 4 35; 4 35 to 4 40; 4 40 to 4 45; 4 45 to 4 50; 4 50 to 4 55; 4 55 to 4 60; 4 60 to 4 65; 4 65 to 4 70; 4 70 to 4 75; 4 75 to 4 80; 4 80 to 4 85; 4 85 to 4 90; 4 90 to 4 95; 4 95 to 5 00; 5 00 to 5 05; 5 05 to 5 10; 5 10 to 5 15; 5 15 to 5 20; 5 20 to 5 25; 5 25 to 5 30; 5 30 to 5 35; 5 35 to 5 40; 5 40 to 5 45; 5 45 to 5 50; 5 50 to 5 55; 5 55 to 5 60; 5 60 to 5 65; 5 65 to 5 70; 5 70 to 5 75; 5 75 to 5 80; 5 80 to 5 85; 5 85 to 5 90; 5 90 to 5 95; 5 95 to 6 00; 6 00 to 6 05; 6 05 to 6 10; 6 10 to 6 15; 6 15 to 6 20; 6 20 to 6 25; 6 25 to 6 30; 6 30 to 6 35; 6 35 to 6 40; 6 40 to 6 45; 6 45 to 6 50; 6 50 to 6 55; 6 55 to 6 60; 6 60 to 6 65; 6 65 to 6 70; 6 70 to 6 75; 6 75 to 6 80; 6 80 to 6 85; 6 85 to 6 90; 6 90 to 6 95; 6 95 to 7 00; 7 00 to 7 05; 7 05 to 7 10; 7 10 to 7 15; 7 15 to 7 20; 7 20 to 7 25; 7 25 to 7 30; 7 30 to 7 35; 7 35 to 7 40; 7 40 to 7 45; 7 45 to 7 50; 7 50 to 7 55; 7 55 to 7 60; 7 60 to 7 65; 7 65 to 7 70; 7 70 to 7 75; 7 75 to 7 80; 7 80 to 7 85; 7 85 to 7 90; 7 90 to 7 95; 7 95 to 8 00; 8 00 to 8 05; 8 05 to 8 10; 8 10 to 8 15; 8 15 to 8 20; 8 20 to 8 25; 8 25 to 8 30; 8 30 to 8 35; 8 35 to 8 40; 8 40 to 8 45; 8 45 to 8 50; 8 50 to 8 55; 8 55 to 8 60; 8 60 to 8 65; 8 65 to 8 70; 8 70 to 8 75; 8 75 to 8 80; 8 80 to 8 85; 8 85 to 8 90; 8 90 to 8 95; 8 95 to 9 00; 9 00 to 9 05; 9 05 to 9 10; 9 10 to 9 15; 9 15 to 9 20; 9 20 to 9 25; 9 25 to 9 30; 9 30 to 9 35; 9 35 to 9 40; 9 40 to 9 45; 9 45 to 9 50; 9 50 to 9 55; 9 55 to 9 60; 9 60 to 9 65; 9 65 to 9 70; 9 70 to 9 75; 9 75 to 9 80; 9 80 to 9 85; 9 85 to 9 90; 9 90 to 9 95; 9 95 to 10 00; 10 00 to 10 05; 10 05 to 10 10; 10 10 to 10 15; 10 15 to 10 20; 10 20 to 10 25; 10 25 to 10 30; 10 30 to 10 35; 10 35 to 10 40; 10 40 to 10 45; 10 45 to 10 50; 10 50 to 10 55; 10 55 to 10 60; 10 60 to 10 65; 10 65 to 10 70; 10 70 to 10 75; 10 75 to 10 80; 10 80 to 10 85; 10 85 to 10 90; 10 90 to 10 95; 10 95 to 11 00; 11 00 to 11 05; 11 05 to 11 10; 11 10 to 11 15; 11 15 to 11 20; 11 20 to 11 25; 11 25 to 11 30; 11 30 to 11 35; 11 35 to 11 40; 11 40 to 11 45; 11 45 to 11 50; 11 50 to 11 55; 11 55 to 11 60; 11 60 to 11 65; 11 65 to 11 70; 11 70 to 11 75; 11 75 to 11 80; 11 80 to 11 85; 11 85 to 11 90; 11 90 to 11 95; 11 95 to 12 00; 12 00 to 12 05; 12 05 to 12 10; 12 10 to 12 15; 12 15 to 12 20; 12 20 to 12 25; 12 25 to 12 30; 12 30 to 12 35; 12 35 to 12 40; 12 40 to 12 45; 12 45 to 12 50; 12 50 to 12 55; 12 55 to 12 60; 12 60 to 12 65; 12 65 to 12 70; 12 70 to 12 75; 12 75 to 12 80; 12 80 to 12 85; 12 85 to 12 90; 12 90 to 12 95; 12 95 to 13 00; 13 00 to 13 05; 13 05 to 13 10; 13 10 to 13 15; 13 15 to 13 20; 13 20 to 13 25; 13 25 to 13 30; 13 30 to 13 35; 13 35 to 13 40; 13 40 to 13 45; 13 45 to 13 50; 13 50 to 13 55; 13 55 to 13 60; 13 60 to 13 65; 13 65 to 13 70; 13 70 to 13 75; 13 75 to 13 80; 13 80 to 13 85; 13 85 to 13 90; 13 90 to 13 95; 13 95 to 14 00; 14 00 to 14 05; 14 05 to 14 10; 14 10 to 14 15; 14 15 to 14 20; 14 20 to 14 25; 14 25 to 14 30; 14 30 to 14 35; 14 35 to 14 40; 14 40 to 14 45; 14 45 to 14 50; 14 50 to 14 55; 14 55 to 14 60; 14 60 to 14 65; 14 65 to 14 70; 14 70 to 14 75; 14 75 to 14 80; 14 80 to 14 85; 14 85 to 14 90; 14 90 to 14 95; 14 95 to 15 00; 15 00 to 15 05; 15 05 to 15 10; 15 10 to 15 15; 15 15 to 15 20; 15 20 to 15 25; 15 25 to 15 30; 15 30 to 15 35; 15 35 to 15 40; 15 40 to 15 45; 15 45 to 15 50; 15 50 to 15 55; 15 55 to 15 60; 15 60 to 15 65; 15 65 to 15 70; 15 70 to 15 75; 15 75 to 15 80; 15 80 to 15 85; 15 85 to 15 90; 15 90 to 15 95; 15 95 to 16 00; 16 00 to 16 05; 16 05 to 16 10; 16 10 to 16 15; 16 15 to 16 20; 16 20 to 16 25; 16 25 to 16 30; 16 30 to 16 35; 16 35 to 16 40; 16 40 to 16 45; 16 45 to 16 50; 16 50 to 16 55; 16 55 to 16 60; 16 60 to 16 65; 16 65 to 16 70; 16 70 to 16 75; 16 75 to 16 80; 16 80 to 16 85; 16 85 to 16 90; 16 90 to 16 95; 16 95 to 17 00; 17 00 to 17 05; 17 05 to 17 10; 17 10 to 17 15; 17 15 to 17 20; 17 20 to 17 25; 17 25 to 17 30; 17 30 to 17 35; 17 35 to 17 40; 17 40 to 17 45; 17 45 to 17 50; 17 50 to 17 55; 17 55 to 17 60; 17 60 to 17 65; 17 65 to 17 70; 17 70 to 17 75; 17 75 to 17 80; 17 80 to 17 85; 17 85 to 17 90; 17 90 to 17 95; 17 95 to 18 00; 18 00 to 18 05; 18 05 to 18 10; 18 10 to 18 15; 18 15 to 18 20; 18 20 to 18 25; 18 25 to 18 30; 18 30 to 18 35; 18 35 to 18 40; 18 40 to 18 45; 18 45 to 18 50; 18 50 to 18 55; 18 55 to 18 60; 18 60 to 18 65; 18 65 to 18 70; 18 70 to 18 75; 18 75 to 18 80; 18 80 to 18 85; 18 85 to 18 90; 18 90 to 18 95; 18 95 to 19 00; 19 00 to 19 05; 19 05 to 19 10; 19 10 to 19 15; 19 15 to 19 20; 19 20 to 19 25; 19 25 to 19 30; 19 30 to 19 35; 19 35 to 19 40; 19 40 to 19 45; 19 45 to 19 50; 19 50 to 19 55; 19 55 to 19 60; 19 60 to 19 65; 19 65 to 19 70; 19 70 to 19 75; 19 75 to 19 80; 19 80 to 19 85; 19 85 to 19 90; 19 90 to 19 95; 19 95 to 20 00; 20 00 to 20 05; 20 05 to 20 10; 20 10 to 20 15; 20 15 to 20 20; 20 20 to 20 25; 20 25 to 20 30; 20 30 to 20 35; 20 35 to 20 40; 20 40 to 20 45; 20 45 to 20 50; 20 50 to 20 55; 20 55 to 20 60; 20 60 to 20 65; 20 65 to 20 70; 20 70 to 20 75; 20 75 to 20 80; 20 80 to 20 85; 20 85 to 20 90; 20 90 to 20 95; 20 95 to 21 00; 21 00 to 21 05; 21 05 to 21 10; 21 10 to 21 15; 21 15 to 21 20; 21 20 to 21 25; 21 25 to 21 30; 21 30 to 21 35; 21 35 to 21 40; 21 40 to 21 45; 21 45 to 21 50; 21 50 to 21 55; 21 55 to 21 60; 21 60 to 21 65; 21 65 to 21 70; 21 70 to 21 75; 21 75 to 21 80; 21 80 to 21 85; 21 85 to 21 90; 21 90 to 21 95; 21 95 to 22 00; 22 00 to 22 05; 22 05 to 22 10; 22 10 to 22 15; 22 15 to 22 20; 22 20 to 22 25; 22 25 to 22 30; 22 30 to 22 35; 22 35 to 22 40; 22 40 to 22 45; 22 45 to 22 50; 22 50 to 22 55; 22 55 to 22 60; 22 60 to 22 65; 22 65 to 22 70; 22 70 to 22 75; 22 75 to 22 80; 22 80 to 22 85; 22 85 to 22 90; 22 90 to 22 95; 22 95 to 23 00; 23 00 to 23 05; 23 05 to 23 10; 23 10 to 23 15; 23 15 to 23 20; 23 20 to 23 25; 23 25 to 23 30; 23 30 to 23 35; 23 35 to 23 40; 23 40 to 23 45; 23 45 to 23 50; 23 50 to 23 55; 23 55 to 23 60; 23 60 to 23 65; 23 65 to 23 70; 23 70 to 23 75; 23 75 to 23 80; 23 80 to 23 85; 23 85 to 23 90; 23 90 to 23 95; 23 95 to 24 00; 24 00 to 24 05; 24 05 to 24 10; 24 10 to 24 15; 24 15 to 24 20; 24 20 to 24 25; 24 25 to 24 30; 24 30 to 24 35; 24 35 to 24 40; 24 40 to 24 45; 24 45 to 24 50; 24 50 to 24 55; 24 55 to 24 60; 24 60 to 24 65; 24 65 to 24 70; 24 70 to 24 75; 24 75 to 24 80; 24 80 to 24 85; 24 85 to 24 90; 24 90 to 24 95; 24 95 to 25 00; 25 00 to 25 05; 25 05 to 25 10; 25 10 to 25 15; 25 15 to 25 20; 25 20 to 25 25; 25 25 to 25 30; 25 30 to 25 35; 25 35 to 25 40; 25 40 to 25 45; 25 45 to 25 50; 25 50 to 25 55; 25 55 to 25 60; 25 60 to 25 65; 25 65 to 25 70; 25 70 to 25 75; 25 75 to 25 80; 25 80 to 25 85; 25 85 to 25 90; 25 90 to 25 95; 25 95 to 26 00; 26 00 to 26 05; 26 05 to 26 10; 26 10 to 26 15; 26 15 to 26 20; 2

Literary and Domestic.

The "Best Room."

There was a parlor in the house, a room To make you shudder with its prudish gloom. The furniture stood round with such an air...

Literary Items.—No. 35.

MUSIC.

From time immemorial music has been regarded by all nations of people as an accomplishment worthy the attention of even princes and rulers. King David played upon his harp...

Men of a metaphysical turn of mind are not generally admirers of music or even poetry. It is said Malbranche, that profound thinker, could not tolerate even poetry; it was "prose run mad."

Plutarch, in his life of Alcibiades, makes him speak as follows: "Let the Theban youth pipe, who know not how to discourse, but we Athenians, according to the account of our ancestors, have Minerva for our patroness, and Apollo for our protector..."

That music is not only an accomplishment, but in many cases beneficial, cannot be doubted. Elisha, when he was in trouble, said: "Now bring the minstrel player, that the hand of the Lord come upon him."

I think we may conclude that music and singing are marks of refinement, provided a person does not become so much taken with them that they are unable to think or converse about matters of greater interest to society.

about abstract questions of morals, metaphysics, or government policy.

CURIOSITY OF MEMORY.

It is related of Wharton, the professor of poetry in Oxford, that after a Sunday dinner with a friend, he repaired to his services at the church. On his way he was powerfully saluted with the cry of "Live mackerel!"

Lane, Kansas. JAS. HANWAY.

Lace and Lambrequins.

To make knitted lace for lingerie, use No. 40 thread; set up seven stitches; slip off first one; knit the second one plain; put your thread over needle and narrow; put your thread over needle and narrow again; put your thread over needle and knit last stitch; knit plain across the needle; slip off first stitch; knit two stitches plain; put your thread over the needle and narrow; put your thread over the needle and narrow again; put your thread over the needle and knit last stitch; knit plain across the needle; slip off the first stitch; knit three stitches plain; put your thread over needle and narrow, then repeat the last mentioned again; put your thread over needle and knit last stitch; knit plain across the needle; slip off first stitch and knit across plain; then narrow the first four stitches, which will leave two stitches; slip and bind them, which will leave you one stitch; knit the other six stitches plain, then it will make your scallop and leave seven stitches to commence again.

The Boston Globe gives directions for making a very pretty lambrequin for a shelf. Take a smooth board the exact length and width of your shelf, and make a case for it in the following manner. Out of a piece of cloth of a color to match or contrast with the furniture of your room, cut a strip eight inches longer and five inches wider than the strip of board; cut a second piece the same shape and size out of the same kind of lining and tack the two together; sew one side with over-and-over stitches, and decorate the other side and ends in any way you like; one made of green cloth worked around the edge with gold-colored flosselle, and a tiny vine, and leave the same color above, is handsome. After the edge is finished to your liking, cut a slit in the lining of your work large enough to admit the board and bind this opening with braid, then slip in the board and lay it flat on the shelf, and if you have followed directions you will have a smoothly covered shelf, with a drapery four inches in depth in front and at the ends. BRAMBLEBUSH.

Mound-Builders' Work.

An exploring party has made wonderful discoveries in a cave in Adams county, Ohio, supposed to be the work of the mound-builders. In Tiffin township is a plateau of two hundred acres, surrounded by high hills. At a depression in the plateau there is a well three feet in diameter and twenty-five feet deep. Persons have frequently descended into the well and explored the chambers of mathematical regularity to which it leads. On the walls of the chambers may be seen among other writings the inscription "Von Brody, 1789," made by that Indian hunter who preceded the "Ohio Company" in 1786. In the fourth chamber, reached through a narrow passage, had long ago been found a well, ten feet in diameter, and of unknown depth. It was to learn the secret of this well that two merchants, a lawyer and two newspaper writers provided themselves with a rope-ladder, implements for breaking stone and lanterns. They descended fifty feet into the well, where they found a narrow gallery fifty feet long, leading by a gradual descent to a chamber 225 feet long, 110 feet wide and 24 feet high. In the center of the chamber was found a large mausoleum, carved out of the solid rock and covered with devices, inscriptions and bas-reliefs. On a stone couch, in its center, lay the stone figure of a man of giant proportions and well carved. A carved winged cap or helmet covered the head. Carved vases, decorated with flowers and leaves, stood at the corners of the couch. A copper lamp hung suspended above the head of the figure. Twenty smaller tombs were found against the walls of the chamber, and twenty-five faces had been painted on the wall near the entrance. A tomb was broken open, and revealed a well preserved mummy nine feet one inch in length. The hair was of fine texture, black and curly. A copper spear-head, almost as hard as a file, several copper utensils, a cup, two plates and a small urn, were also found in the tomb. Wrapped in a varnished cloth, at the head of the mummy, lay a book of one hundred thin copper leaves, on which characters had been engraved. These statements are made in a special dispatch published in the Cincinnati Commercial.

How Our Ancestors Dressed.

In the latter part of the last century, a fashionable costume was a medley of harlequin colors. A black silk petticoat was trimmed with a red and white border. The square-cut low bodice had trimmings of blue and silver. In addition, there was a yellow satin apron and a train of dove-colored silk, brocaded with large branching foliage. At the elbows were pleated long full ruffles of lace. The bodice was very long waisted, sometimes laced in front across a lace-stomacher. A little bouquet of flowers was placed coquetishly among the laces just over the heart. The hair was drawn up high from the face over a cushion.

A costume of a gentleman of the reign of Edward III, is singularly fantastic and picturesque. The coat is one-half white, the other half blue or black. The long stockings are different in color, and reach the short breeches; the beard must be very long, and a silk hood embroidered with grotesque figures of animals, is buttoned under the chin. The long pointed shoes are fastened to the knees by gold and silver chains. The dress of the fashionable lady of the same period is a tunic of variegated stripes. Short tippets encircle the neck. A very small cap richly embroidered is decorated and kept on the head with silver coris. A short dagger is hung across the heart, and a broad girdle, ornamented with silver and gold, clasps the waist.

Another striking costume of 1642 is that of a cavalier, in fact, is an exact copy of a costume worn by King Charles. The conical hat has a large feather sweeping around on one side; on the left side there must be a long tress of hair (longer than that on the other side), which is carefully trained as the love-lock. The ruff is supplanted by falling band. A short green doublet has sleeves which are wide and slashed with turned-back ruffles. The long green breeches are tied far below the knee with long yellow ribbons. With the red stockings are worn shoes decorated with rosettes. Over all is thrown a short red cloak lined with blue, with a star on the shoulder. There must be several black patches on the face. The costume of a lady is a long robe with enormous train and heels of great height to her shoes. The hair is dressed low on the forehead and parted in tiny ringlets. The back hair is braided and rounded in a knot on top of the head. Strings of pearl are braided in the hair. A great profusion of jewelry is worn, and black patches, crescent, oval and heart-shape, are placed on the face.

The Long Evenings.

One of the best ways of using the long evenings, if you are the head of the family, is to make them happy and helpful to your household. Don't take your book or newspaper directly after supper—settle down into the warmest corner in a manner that warns everybody to keep still—read sulkily or selfishly until ten o'clock, and then yawningly ask your wife if it isn't "most time to go to bed!" Some fathers are about as useful, and not half so ornamental, as a good quality of parlor boarder. There is a good bit of the evening left after the children's bed-time, if they go to bed when they should. Help Tommy on his "home lesson," if the teacher has been permitted to put one upon him, or give an hour to games in which all hands can join. A little romp will help your digestion and spirits more than it can possibly hurt your dignity. Don't be afraid, good people, of a regular dose of fun in your home life. It is the best preventive going for restlessness, nervousness, irritableness, stupidity, and all other badnesses that spoil home comfort. If it is to be the intellectual life to which the long evenings are to minister, organize your time—plan your work. Very little is accomplished in this world by working aimlessly.

Give so much time to topical and so much to recreative reading. You can master the history of a people, or learn a new language, perhaps, in the time spent in dawdling over books that just happen to come in your way, and whose contents run through your mind like water through a sieve. It is a good time to organize a reading club, if you have none in your circle. If they have not too much machinery and pretence about them, such clubs are very helpful in stimulating interest, saving time, and securing an exchange of knowledge and a comparison of views. The low price at which the best books are now published, and the ease with which they may be had without buying, gives literature a place in plans for time-using and self-culture, such as it never occupied before.

For social recreation and pleasure the long evenings open up a wide field for enjoyment, since sensible people are becoming more rational in their ways of using them. The old style "swell parties" and "crush societies" are giving way to quieter affairs. Invitations now often suggest real pleasure, instead of being a mere legal tender for the payment of social debts. Only so many are invited as can be cozily entertained, and they are selected with some idea of congeniality and the fitness of things. The head is remembered in the entertainment as well as the stomach, and sociality becomes a source of delight instead of a bore. Put the long evenings under tribute in some way as we have indicated, and see if they do not take a place on the sunny side of your memory with the golden days now long passed.—Golden Rule.

A Sturdy Emperor.

Nicholas had an Imperial way of meeting dangers; he marched straight up to them. One day he heard that a market riot had broken out, and that the populace had risen against the inspectors and the "men in blue," or gendarmes. The Czar jumped into his sleigh, drove straight to the scene of the conflict, harangued the rioters, and called upon the ringleaders to give themselves up. The ringleaders surrendered without a murmur, and were probably all transported, for the Czar was no sentimentalist, and showed little magnanimity in dealing with rebels. On another occasion Nicholas heard that a professor of the University of St. Petersburg was conspiring against his life, proof of this offence having been obtained through letters seized at the post office. The Czar wrapped himself in his furred cloak and set out on foot to call upon the professor, who almost swooned at the sight of him. "Shut the door," said the Emperor quietly, as he walked in. "Tell me

who your accomplices are and give me all your papers, or I shall have you knouted." A Sovereign of this sort was quite fit to hold his own over a nation of slaves; and it is no wonder that the homage bestowed upon him was always most fulsome. The Russians felt that they had in Nicholas a ruler who did not fear them, who knew all their weak points, and was, in fact, their master.

Alexander II, unfortunately for himself, began his reign by estranging the nobility; and when he had made himself popular with the lower classes, by the emancipation of the serfs, he tried to get reconciled to the aristocracy by keeping down the people. This vacillating policy pleased nobody; and now the Czar is trusted neither by the upper nor the lower classes. The former think him weak and the latter disincarnate, when he is simply bewildered; and yet the name of Czar has such magic in Russia still that if Alexander II had the nerve to show that he did not care for assassins the attachment of his people would probably afford him a better guard against the Nihilists than any which the police can furnish. It all comes to this, that in a despotic state a sovereign must prove that he sets light store by his life; when he is self-confident, his people will confide in him; when he trembles, or appears to tremble, his subjects will feel their faith in him shaken, and will not think his cause worth serving since he himself seems to distrust it.—Pall Mall Gazette.

Dried Apples.

After the apples are well washed and rinsed in at least two waters, place them in a porcelain kettle or tin pan; fill the vessel nearly full of cold water; this, however, must depend on the size of the vessel and the quality of the apples. Let them very gradually come to boiling, keeping them covered tightly. As soon as they are boiling put in as much sugar as you think will be required. I generally use about a teaspoonful to a quart of apples measured before being washed. Keep a tea-kettle full of boiling water always ready when you are cooking, and while the apples are stewing add boiling water from time to time, as is needed. Boil them slowly and steadily until tender, but not until they seem to shrink up and turn dark. If you use white or light brown sugar and don't add spices and don't mash the apples into an unsightly mass, and have plenty of juice, with sugar enough to make it rich but not to deaden the taste of the apple, and serve up while fresh, you have a dish good enough for anybody to eat, and something better than half of the canned fruit in use. The evaporated apples are better than the dried. They should be covered with cold water and only let simmer ten minutes. They are not yet in general use and are of high price. I must not omit to mention that the juice of nicely stewed dried apples is a delicious beverage for the sick, and possesses a flavor that is peculiarly refreshing and grateful, especially where there is fever.

To Be Well, Keep Well.

Dr. E. Hitchcock says that the health statistics show that Massachusetts farmers live much longer than any other class, dying at an average of 65 years. Man's diseases are one hundred and thirteen, but one-third of them are preventative, and even a large percentage is due to filth. Typhoid fever, the most prevalent in most districts, is due to impure water. Wells should be three times as far from any source of pollution as they are deep. Filth should be carried off by underground drains, or if used as manure, be made less injurious by the use of an absorbent, as dry earth or ashes. Cesspools should be water-tight, frequently emptied, and never be allowed to drain into the soil. The privy, too, is often the cause of much ill-health because of its exposed situation. Bad cooking is also a fertile source of sickness; there is too much frying done, and too much pastry eaten. Pure air in sleeping-rooms is indispensable to good health, and an opening to the outside air at least a foot wide is necessary. But the room need not be excessively cold, a twenty minutes' airing being enough on very cold days.—Land and Home.

Recipes.

COOKING CARROTS.—Cut them up in dice-shaped pieces less than half an inch square, boil in water, salted, until done; then pour off the water and pour over a dressing of cream or milk and butter, with a little flour for thickening to the consistency of cream. They are delicious.

Onions cooked in the same way are very much nicer than the old way, for those who like them.

COOKING POTATOES.—Slice potatoes thin, as for frying. Let them remain in cold water for half an hour. The slices are then put in a pudding dish, with salt, pepper and some milk, enough to nearly cover them; they are then put into the oven and baked for half an hour. When taken out a lump of butter as large as a small egg is out into small bits and scattered over the top. Those who have never eaten potatoes thus cooked do not know all the capabilities of that excellent esculent tuber. The soaking in cold water hardens the slices, so that they will hold their shape. The milk seems to soak them through. The quantity can only be learned by experience. If just a little is left as a rich gravy to moisten all the slices, it is just right.

BREAD PUDDING.—One cup bread crumbs, two cups milk, one-half cup sugar, a few bits of butter, one or two eggs, and a little nutmeg; bake slowly one hour. Any kind of fruit may be added, but it is very good without.

Advertisements.

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

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

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

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

\$72 a WEEK. \$12 a day at home easily made. Costly outfit free. Traux & Co., Augusta, Me.

50 brilliant, chrome, and tortoise shell cards in case with name 10c; outfit 10c Hall Bros, Northford Ct.

80 samples photo duplex etc. cards, 10c; Autograph Album 10c; Globe Print Co., Northford, Ct.

60 Pin-a-4, photo gilt edge etc. cards, and 1 Hudson Valley chrome 10c. Davids & Co., Northford Ct.

62 Gold, crystal, lace, perfumed & chrome cards, name in gold 10c Clinton Bros, Clintonville Ct.

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

Your Name and Address on 50 Gilt. Duplex, etc. cards, in case, 15c. David Bros, Northford, Ct.

PHOTOGRAPH VISITING CARDS. Send 10c for circular and 50 samples. Seavy Bros, Northford Ct.

62 All-chrome and Glass CARDS 10c. 80 Agents Samples 10c. OCHROMO CARD CO., Northford Ct.

\$55.66 Agents Profit per Week. Will prove it or forfeit \$500. 24 Outfit free. E. G. RIDGUT & Co., 215 Fulton St. N.Y.

AGENTS WANTED. For the handsome and CHEAPEST BIBLES Ever furnished Agents. FOMBERG & McALEER, Stationers and Printers, Cincinnati, O.

5000 Bushels seed potatoes. Orders booked now. Leading varieties and valuable new kinds both sweet and Irish. Directions for making FREE HOT BEDS in free catalogue. E. TAYLOR, Armstrong, Kas.

EMPLOYMENT—LOCAL OR TRAVELING. State which preferred. Also SALARY per month. All EXPENSES advanced. WAGES promptly paid. BROWN & Co., 309 George St. Cincinnati, O.

AGENTS! READ THIS!! We will pay agents a salary of \$100 a month and expenses, or allow a large commission, to sell our new and wonderful inventions. We mean what we say. Sample Free. Address Sherman & Co., Marshall, Mich.

AGENTS WANTED. We want a reliable Agent in every town in Indiana, Illinois, Iowa and Kansas to sell our Medicines. No Capital Required; but we do require good recommendations. Agents can make fifty to one hundred dollars a month, with a little work at home. For further particulars address BROOKS & Co., 159 Chambers St., New York City. P. O. Box, 2867.

Pianos--Organs. CHEAPEST HOUSE IN AMERICA. 1st-class Instruments, all new, for cash or installments; warranted 6 years. Illustrated catalogues free. Agents wanted. LEE'S WATERS, Agt., 28 West 14th st., New York

GUNS. Lowest prices ever known on Revolvers, Rifles, & Shotguns. OUR \$15 SHOT-GUN at greatly reduced price. Send stamp for our New Illustrated Catalogue. P. FOWELL & SON, 333 Main Street, CINCINNATI, O.

FREE. A trial box (8 size) of Universal Pile Pills sent free on receipt of five 3-cent stamps. A Sure Cure. Try them and be convinced of their merits. Name this paper. Agents wanted. P. E. SMITH & Co., P. O. Box, 821, Middlebury, Vt.

SHEPHERD DOGS. I have for sale some handsome, pure bred imported Shepherd Pups. Address A. WADSWORTH, Topeka, Kas.

Publication Notice. You, Joseph Lathrop, Jr., Mary D. Lathrop, Abbey P. Lathrop, Lillie D. Whitelaw, Carrie D. Smith, Sarah G. Mack and Wm. A. H. Lathrop, heirs at law of the estate of Jos. Lathrop, deceased, all non-residents of the state of Kansas, are hereby notified that you have been sued in the District Court in the County of Shawnee and state of Kansas by Lucy E. Rix, and that unless you answer the petition filed against you on or before the 18th day of February, 1880, the said petition will be taken as true, and judgment rendered, quieting the title of the said Lucy E. Rix to the following premises, viz: the north half of the north west quarter of section number thirty four (34), in township number thirteen (13) of range seventeen (17), situate, lying and being in the county of Shawnee and state of Kansas, and forever enjoining you and each of you from claiming or asserting any title, estate or interest in or to said premises or any part thereof, and for costs of said action. A. L. WILLIAMS, Atty for Plaintiff.

IF YOU Want a FARM or HOME, with independence and plenty in your old age. "The best Thing in the West," —IS THE— ATCHISON, TOPEKA & SANTA FE R. R. LANDS IN KANSAS.

11 years' credit with 7 per cent interest. 23 1/2 PER CENT DISCOUNT FOR CASH. Fare over A. T. & M. F. R. R. refunded to purchasers of Land. Circulars giving full information sent FREE. Address:

A. S. JOHNSON, Act'g Land Com., Topeka, Kansas.

Land! Land! Land! HOMES FOR THE PEOPLE 350,000 ACRES —IN— Bourbon, Crawford & Cherokee CO'S, KANSAS, Still owned and offered for sale by the MISSOURI RIVER, FORT SCOTT AND GULF RAILROAD COMPANY On Credit, running through ten years, at seven per cent. annual interest. 20 PER CENT DISCOUNT FOR CASH IN FULL AT DATE OF PUBLICATION. For Further Information Address JOHN A. CLARK, Fort Scott, Kansas. LAND COMMISSIONER.

A Dreadful Worm.

Who has not heard of the rattlesnake or copperhead? An unexpected sight of either of these reptiles will make even the lords of creation recoil. But there is a species of worm found in various parts of this land, which conveys a poison of a nature so deadly that when compared with it the venom of the rattlesnake is harmless. To guard our readers against this foe of human kind is the object of the present communication. This worm varies much in size. It is frequently an inch through; but as it is rarely seen except when coiled, its length can hardly be conjectured. It is of a dull lead color, and generally lives near a spring, or a small stream of water, and bites the unfortunate who are in the habit of going there to drink. The brute creation it never molests. They avoid it with the same instinct that teaches the animals of Peru to shun the deadly cova when it waylays their pathway. The symptoms of its bite are terrible. The eyes of the patient become red and fiery, his tongue is swollen to an immoderate size and obstructs his utterance, and delirium of the most horrid character quickly follows. Sometimes, in his madness, he attempts the destruction of his dearest friends. If the sufferer has a family, his weeping wife and helpless infants are not unfrequently the objects of his frantic fury. Such is the spell in which his senses are bound, that no sooner is he recovered from the paroxysm of insanity occasioned by one bite, than he seeks out his destroyer to be bitten again. I have seen a good old father, his locks as white as snow, his step slow and trembling, beg in vain of his only son to quit the lurking place of the worm. My heart bled when he turned away, for I knew the hope so fondly cherished, that his son would be to him the staff and support of his declining years, had supported him through many a sorrow. Youths of America, would you know the name of this reptile? It is the worm of the itill.—John Russell.

Preserving Harness.

The first point to be observed is to keep the leather soft and pliable. This can be done only by keeping it well charged with oil and grease. Water is a destroyer of all these, but mud and the saline moisture from the animal are even more destructive. Mud, in drying, absorbs the grease and opens the pores of the leather, making it a ready prey to water, while the salty character of the perspiration from the animal injures the leather, stitching and mountings. It therefore follows that to preserve a harness the straps should be washed and oiled whenever it has been moistened by sweat or soiled by mud. To do this effectually the straps should be all unbuckled and detached, then washed with a little water and crown soap, then coated with a mixture of neatfoot oil and tallow and be allowed to remain undisturbed until the water has dried out; then thoroughly rubbed with a woolen rag. The rubbing is important as it, in addition to removing the surplus oil and grease, tends to close the pores and gives a finish to the leather. In hanging harnesses care should be taken to allow all straps to hang their full length; bridles, pads, gig saddles and collars should be hung upon forms of the shape of each. Light is essential in the care of leather, and when the harness closet is dark the door should be left open at least half of the time during each day. All closets should be ventilated, and when possible they should be well lighted. To clean plated mountings use a chamois with a little tripoli or rotten stone; but they should be scoured as little as possible.—Harness Journal.

Sorghum Sugar.

The experiments by the agricultural department at Washington in making sugar from sorghum and corn stalks, has created quite a breeze among sorghum growers. Commissioner Le Duc, in his report for the year 1879, says: "A fair conclusion from these investigations appears to be that there exists but little difference between the various kinds of sorghum as sugar-producing plants, and that the juice of each of them is at a certain period of its development nearly as rich as that of the best tropical sugar cane grown in this country." A matter also of practical importance which has been demonstrated is that the period of maximum content of sugar is maintained for a sufficient time to enable the manufacturer to work up a large crop of stalks. Another result of this investigation has been to satisfactorily explain the cause of repeated failure in the production of plants during the past twenty-five years.

The analysis of each of the plants in four successive stages of development shows that the amount of glucose or uncrystallizable sugar diminishes, and the amount of sucrose, or true cane sugar, increases up to a certain time in the development of the plant; that these plants differ widely as to the time when the sucrose is at its maximum, but are alike in this, that the maximum is obtained at about the same degree of the development of the plant, viz: at full maturity. This stage is indicated by the hard, dry seed, and the appearance of shoots or suckers at the upper joints of the stalk. The report of the commissioner on this subject further states that heavy frosts, sufficient to form ice half an inch thick in tubs of water during the month of October, did not produce any marked diminution of sugar.

The experiments made with field-corn during the past year are also regarded as worthy of notice, since the results secured were contrary to the almost universal belief. The cornstalks grown upon the grounds of the department and tested by the chemical division were of three va-

rieties—Lindsay's Horse Tooth, white improved Prolific and white Dent, three coarse-growing white field-corns. The stalks grew in drills three feet apart and about nine or ten inches in the row. The ears were plucked after they had thoroughly ripened and the husks were dead and dry; the stalks, however, were yet juicy. The stalks were then topped, stripped and crushed, and the juice proved to be the best yet obtained from the cornstalks at any period of growth or of any variety.

It would seem from the results reached by the chemists of the agricultural bureau, that the whole secret of success in making sugar from sorghum or any other of the corn and millet plants, is thorough ripeness, and the attempts to manufacture sugar and syrup from unripe cane, has been the rock on which all efforts for twenty-five years, have been wrecked. Well, that fact seems simple enough; that all vegetables and fruit should be perfectly ripe before the best results can be obtained from their manufacture and use.

The advantages of thick planting is not only for the shelter it affords in the winter season, but also because it enables one to have pretty scenes in trees, shrubs and garden effects at once, and without waiting a whole life time to see the full effects of the landscape gardener's plan. But this thick planting entails the duty of annual thinning, and pruning, and this is a very good reason to think about it.

Wherever any part of a tree does not grow freely, pruning of such weak growth, at this season, will induce it to push more freely next year. All scars made by pruning off large branches should be painted or tarred over, to keep out the rain. Many fruit trees become hollow, or fall into premature decay, from the rain penetrating through old saw cuts made in pruning. Also, the branches should be cut close to the trunk, so that no dead stumps shall be produced on the tree, and bark will readily grow over. Many persons cut off branches of trees in midsummer, in order that the returning sap may speedily clothe the wound with new bark, but the loss of much foliage in summer injures the tree, and besides painting the scar removes all danger of rotting at the wound.—Gardener's Monthly.

In farming, thinking is necessary as working. The highest results are obtained by those who farm intelligently. Brain, not less than brawn, is required, and there is no calling which requires more careful thought combined with practical skill, than the various branches of rural pursuits. As a rule farmers should devote less hours to daily labor and more to rest, thoughtful recreation and daily reading, especially upon the business in which they are engaged. They will then work more intelligently and accomplish, one year with another, more with eight hours' work per day in the field than in seventeen hours in the other way; and when a man works in the latter manner, he is incapable of thoughtfulness, however much he may be disposed to think and to calculate. And yet a great many men spend their lives in just this way, and seek to drag into the same channel all those connected with them, losing sight of the fact that a little well done is far better than a great deal half done.

To prevent mould and skippers in cracked cheese, Dr. Engelw's prescription is published in the Wiener Zeitung: Dissolve a spoonful of bruised pepper, two teaspoonfuls of salt, and the same quantity of boracic acid, in a quarter of a pint of brandy, for a few days, then filter the fluid through a cloth, and dilute with an equal quantity of water. Some of the preparation is introduced into the cracks of the cheese, by means of a feather, or, better, with a small glass syringe. If places which have been nibbled by mice are rubbed with this liquid, no mould will form. This will put "jumpers" to flight, and greatly assist in preventing any decay.

A cotemporary in the following paragraph, emphasizes what we have frequently urged, the value of dry earth as bedding for stock. No farmer who has stables should be without a good winter supply:

"There is no bedding for stock equal to dry sand. In most localities it may be had merely for the expense of hauling, and if farmers would consider its value as an absorbent, they would not fail to lay in a supply. It saves all the liquid manure by absorbing it. It is also a disinfectant, and where dry earth is used in stables, there will be no unpleasant odor. As a covering for the floors of poultry houses, it has no equal, and where cattle lie on dry earth they will almost always be free from vermin."

SPONGE CAKE.—Seven eggs, one cup sugar, one cup flour, one teaspoonful extract lemon. Beat yolks and whites separately until they froth. Then beat eggs and sugar together; add one teaspoonful baking powder to the flour, and stir in lightly. Bake in a moderate oven.

TAFFY.—Take three pounds of the best brown sugar and boil with one and one-half pints of water until the candy hardens in cold water. Then add one-half pound of sweet-flavored fresh butter, which will soften the candy. Boil a few minutes, until it again hardens, and pour it into trays. Flavor with lemon if preferred.

RELIEF FOR WAKEFULNESS.—Mrs. Thompson, in the Evangelist, says the best remedy for sleeplessness is to wet half a towel, apply it to the back of the neck, pressing it up toward the base of the brain, and fasten the dry half of the towel over, so as to prevent too rapid circulation. The effect is prompt and pleasant, cooling the brain and bringing on a sweet slumber. Warm water is better than cold. To all suffering from overwork, excitement, or anxiety, this remedy must prove a blessing.

Advertisements.

FOR SALE.

Native Bees in Quinby beehives. Mrs. R. D. VAN-WINKLE, Pleasant Ridge, Leav. County, Kansas.

ILLUSTRATED GARDEN GUIDE, of the best FLOWERS and VEGETABLES, with prices of seeds, and how to grow them. FREE TO ALL. It will pay to send for it. COLE & BROTHER, Sec. smen, Peila, Iowa.

1880 The Old Reliable 1880

Kansas City Price Current

AND Live-Stock Journal.

Established 1873. Is the Best and Largest Commercial paper in the West.

To Merchants it gives Railroad Reports, Tariffs, Freight Rates, etc. and Reliable Reports of the Wholesale Markets, Lists of Trade, Agricultural Outlook, Trade Reviews, and Practical Comments, Editors and News upon all questions affecting the commercial world. To Grain Dealers it informs of the Transactions on 'Change in this city, the Movement of Crops, the Outlook and Market Reports from abroad. To Stockmen it gives Thorough and Full Reports of the transactions at the Kansas City Stock Yards, News of the Drives, and Stock information from all sections of the world. To Manufacturers it tells the price of Raw Material, Condition of Markets, and opens new fields for trade. To Business Men of each, all and every class, it is exactly what its name implies. A PRICE CURRENT. To Farmers it tells of the crops, gives the honest price for Produce, and contains Reports of Grain and Stock Markets that they may safely tie to.

TERMS \$2 PER ANNUM.

SPECIAL INDUCEMENTS.

During 1880 the following inducements are offered subscribers: The Price Current and Weekly edition 'New York Sun, for 1 year postage paid, on receipt of \$2 50. The Price Current and Weekly edition Chicago Inter-Ocean for 1 year, postage paid, on receipt of \$2 50. The Price Current and Weekly edition Chicago News, for 1 year, postage paid, on receipt of \$3 00. The Price Current and Chicago Daily News, for 1 year, postage paid, on receipt of \$3 50. The Price Current and Dr. Kendall's valuable veterinary work, "The Horse and His Diseases," a book that every owner of horse should possess, will be sent, postpaid, on receipt of \$2 00.

The Kansas City Weekly Price Current is published every Friday by the

PRICE CURRENT PUBLISHING COMPANY

231 & 235 West Fifth Street, Kansas City, Mo.



My annual catalogue of Vegetable and Flower Seed for 1880, rich in engravings from photographs of two originals will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any Seed House in America, a large portion of which were grown on my six seeded farms. Full directions for cultivation on each package. All seed warranted to be both fresh and true to name; so far, that should it prove otherwise, I will recall the order for the original. In this catalogue are the Hubbard Squash, Phimay's Melon, Marblehead Cabbages, Mexican Corn, and scores of other vegetables. I invite the very best of all who are anxious to have their seed directly from the grower. Fresh, true, and of the very best strain. New Vegeta bios a Special. JAMES J. H. GREGORY, Ma rblehead, May

Sweet Potatoes

For sale in quantities. 5 of the Best Varieties.

I have a large quantity on hand for table use and seed. Write the undersigned.

B. F. JACOBS, Wamego, Kas. Box 122.

Plant Seed Co.'s 1880 Seed Catalogue and Almanac. Containing Prices and Description of Field, Vegetable, Tree and Flower Seeds, Seed Grain, Novelties, Seed Potatoes, etc. Mailed Free to all applicants. ADDRESS: Plant Seed Co., ST. LOUIS, MO.

HAWORTH'S WIRE CHECK ROWER.

Acknowledged by all farmers who have used it to be THE BEST AND ONLY PERFECTLY SUCCESSFUL Wire Check Rower. It is NOT REMOVED FROM THE MACHINE in planting the entire field. Eleven years use has demonstrated the fact that the ONLY SUCCESSFUL WAY to use a rope or wire line is for the machine to transfer it into position to plant the next row. Do not buy a Wire Check Rower unless the line crosses the machine as it will last twice as long as a wire run on one side, which must be dragged into position regardless of obstructions met as the planter crosses the field, and which cause friction, inaccurate checking and breaking of the wire. In our check rower the elasticity of the wire and its large curve passing over the machine, prevents a particle of bending or displacement in the wire, such as occurs in Check Rowers where the line is dragged into the pulley at an angle and high tension, and both bent and displaced as it enters the pulley. Dropping the line into position also causes cutting, or lopping of the plan or, by which one row is planted too deep and the other too shallow. OUR WIRE CHECK ROWERS are too well and favorably known to call for any extended notice. For full description of our Wire Check Rower and the three styles of Rope Check Rowers which we manufacture, write for a circular. HAWORTH & SONS, Decatur. Ill

SEEDS

Our large Illustrated Catalogue of everything for Farm and Garden mailed free to all. It will pay you to send for it. BENSON, MAULE & CO., 223 Church St., Phila., Pa.

BERRIES. QUEEN OF THE MARKET. 2,000,000 Sharpless Strawberries. 1,000,000 Miner's Great Prolific. 10 acres other choice varieties. 2,000 bushels Berries grown at Pomona Nursery in 1879. A new race of Peas, Kleber's Hybrid, Eight-Proof, hardy and productive, bears early fruit large, and of good quality. \$2—Send for Catalogues free. W.M. PARRY, Cinnaminson, N. J.

SEEDS FOR THE FARM & GARDEN

Early Amber Cane Seed; Bohemian Golden Wonder; Early Russian Spring Wheat; Egyptian Pearl Millet; New Varieties of Field Corn; Vegetable and Flower Seed; Seed Potatoes, etc. Send for our Seed Catalogue, containing descriptions, prices, etc. Mailed Free to all. Address: Plant Seed Company, ST. LOUIS, MO.

Plant Seed Company, ST. LOUIS, MO.

AMBER SUGAR-CANE SEED.

35 cts per lb, postage paid. Less rate on 5 or more pounds, sent by express. Special rates on one to five bushel orders. Do not grow common sorghum, when you can get a superior variety from the Amber cane at a small cost; for seed. S. H. Downs, Topeka, Kas.

Farm Machinery.

Browne and Canton Sulky Plows, Stalk Cutters, Harrows, Drills, Cultivators, Climax Mowers and Reapers. Call and see the Rockford Combined Drill and Planter, Iron Turbine and Stover Wind Mill.

SEEDS.—All kinds of Field, Garden and Flower Seeds. Fresh and true to variety.

KANSAS IRON FENCE.—Cheaper than board fence. Call and see it. S. H. DOWNS, Opposite Shawnee Mills, Topeka, Kansas.

Kansas Seed House

F. BARTELDES & CO., Lawrence, : : Kas. SEEDS

of all kinds and descriptions. Catalogues mailed free.

E. D. STOCKING, BROKER,

176 Broadway, New York City. Specialty, exchange of Kansas farm and wild lands for.

JEWELRY, SILVER-PLATED WARE WATCHES, AND CUTLERY.

For price lists and terms, address as above. I will attend to purchase of all kinds of merchants and shipping same to merchant. E. D. STOCKING.

Ayer's Sarsaparilla.

For Purifying the Blood.



This compound of the vegetable alkalies, Sarsaparilla, Dock, Stillingia, and Mandrake, with the Indies of Potash and Iron makes a most effectual cure of a series of complaints which are very prevalent and afflictive. It purifies the blood, purges out the lurking humors in the system, thpt undermines health and settles in the system. Eruptions of the skin are expelled from the surface of humors that should be expelled from the blood. Internal derangements are the determination of these same humors to some internal organ, or organs, whose action they derange and whose substance they disease and destroy. AYER'S SARSAPARILLA expels these humors from the blood. When they are gone, the disorders they produce disappear, such as Ulcerations of the Liver, Stomach, Kidneys, Lungs, Eruptions and Eruptive Diseases of the Skin, St. Anthony's Fire, Rose or Erysipelas, Pimples, Pustules, Blisters, Boils, Tumors, Tetter and Salt Rheum, Scald Head, Ringworm, Itch and Sore, Rheumatism, Neuralgia, Pain in the Bones, Side and head Female Weakness, Sterility, Leucorrhoea arising from internal ulcerations and uterine diseases, Dropsy, Dropsical Swellings, Emaciation and General Debility. With Dietsparthalthre decurtans.

PREPARED BY E. C. AYER & CO., Lowell, Massachusetts. Practical and Analytical Chemists. SOLD BY ALL DRUGGISTS AND DEALERS IN MEDICINE.

What Old Subscribers Say

About the "Chicago Weekly News" When They Renew Their Subscriptions.

R. Cogley, Lolus, Union County, Ind., says: "I think the News the best weekly extant, and do not wish to do without it." D. M. Savage, Flint City, Mich., says: "We can do without the Weekly News. We are taking three other papers beside, but we get more news in your paper than the rest all put together." Wm. McCallum, Cabot, Ark., says: "It just suits me; can't do without it." The Rev. J. Hoberg, Monroe, Oregon, says: "I have been a subscriber to the Chicago News for a number of years. The News is certainly one of the best newspapers of the land. On account of the hard times, and my limited income (I am a Methodist preacher), I thought of doing without the paper, much as I like it. But wife and children give me no rest till I send for it again, so I inclose 75 cents." Willis J. McKinney, Hilburn, Ky., says: "I think your Weekly is one of the best papers published in America, and is not confined entirely to political news." H. F. Wellborn, Snake Prairie, Bastrop County, Texas, says: "Please send me a few copies of your paper (weekly) and I will get you a club. I consider it the cheapest and best newspaper in the United States." Lawrence Walsh, Le Mars, Iowa, says: "You will find enclosed \$1 for sixteen months' subscription to the Chicago Weekly News. I would not be without the Weekly News if it cost \$2 a year." Neol Conturier, Provenant, Leeland County, Mich., says: "I send you the within inclosed \$1 for sixteen months' subscription for the Chicago Weekly News. I have taken papers from every direction in the United States, and have found the paper I want at last. I think everybody else ought to like it. Why there's nothing like it for 75 cents a year!" An anonymous subscriber writes expressly to state his satisfaction with the News, "for," he says, "I want a paper that treats both political parties fairly."

The above extracts are sufficient to show in what esteem the CHICAGO WEEKLY NEWS is held by its old subscribers. It is a FAVORITE FAMILY NEWSPAPER, because it gives all the news, is independent and impartial in its presentation of political intelligence, publishes six completed stories in every issue, has correct market reports, and generally furnishes a complete, trustworthy and pure family journal. AT THE LOWEST PRICE IN THE UNITED STATES—SEVENTY-FIVE CENTS A YEAR, postage included. A dollar bill pays for sixteen months. Address, VICTOR F. LAWSON, PUBLISHER, 123 FIFTH AVE, CHICAGO, ILL.

SEEDS

Western Seeds beats the world. Mine takes the lead. Fresh, pure cheap and warranted. Prices below every firm. I give more extra as presents than all firms. I have issued 20 000 prettiest books on gardening ever printed and described. Worth many dollars to any one. Send for free garden-guide and Seed Catalogue and see that I beat them all. R. H. SHUMWAY, ROCKFORD, ILL.

BEST EVER BRED. HIGH CLASS POULTRY. C. C. GRAY, Brownville, Mo. (NEAR SEDAZZA). Breeder & Shipper. EGGS FOR HATCHING In Season. Send for Illustrated Catalogue, Free.

M. W. DUNHAM

Has Just Imported 36 Head FOR HIS OAKLAWN STUD OF PERCHERON-NORMAN HORSES.



Largest and most complete establishment of the kind in the world.

More than 200 Stallions & Mares, Imported from best stud stables of France.

Winners of First Prizes in Europe and America. Awarded First Prizes and Gold Medals at the Universal Exposition at Paris, 1878. First Prizes and Grand Medals at Antennial Exhibition, 1876.

The public appreciation of its merits is indicated by the great demand for stock from every part of the country. During the past twelve months the provinces of New Brunswick, Canada, and the States of New York, Pennsylvania, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Nebraska, Kansas, Texas, Louisiana, Colorado, California, Nevada, and Oregon and Utah; Washington and Idaho Territories have drawn supplies from its stables. 100 page Catalogue—finest thing of the kind ever issued. Pictures of stallions and mares, sent free on application. M. W. DUNHAM, Wayne, DuPage Co., Ill.

All imported and pure native bred animals recorded in Percheron-Norman Stud Book

Kansas Pacific Railway.

Lands! Lands! KANSAS TO THE FRONT!

The Leading Wheat State in the Union in 1878, and the Fourth Corn State—The Great Kansas Harvest of 1878 was 80,000,000 bushels of Golden Belt.

The celebrated Grain Belt of country, in the limestone section of Central Kansas, traversed by the Kansas Pacific.

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

WHEAT! Kansas rises from the Eleventh Wheat State in 1877 to the FIRST WHEAT STATE in the Union in 1878, producing 26,518,948 bushels of winter wheat, and 6,796,403 bushels spring wheat; total, 32,315,351

Bushels of Wheat, with only one-eighth of the state under cultivation. The organized counties lying in the Golden Wheat Belt of the Kansas Pacific produced 18,332,224 bushels, or over 41 per cent, and including unorganized counties, fully 24,000,000 bushels, or 45 per cent, of the entire yield of wheat in the State, averaging 24 bushels to the acre, while the average for the state was 17 bushels per acre.

CORN! Kansas, the Fourth Corn State in the Union in 1878, produced 89,324,971 bushels of corn, of which the Golden Grain Belt counties produced 27,692,058 bushels, or 31 per cent, nearly one-third of the entire yield of the state, with an equally grand showing in all other departments of agriculture.

The foregoing facts conclusively show why 29 per cent of the 1,100,000 population in the State during the past four years; and 1 per cent, in the increase in population during the past year, and 43 per cent of the increased acreage of wheat in the state in 1878, belonged to the "Golden Belt."

A FARM FOR EVERYBODY.—62,500 farms—5,000,000 acres—for sale by Kansas Pacific—the Best Land in America, at from \$2 to \$6 per acre—one-quarter off for cash, or on 6 or 12 years credit at 7 per cent interest. It don't take much money to buy a farm on the Kansas Pacific; \$25 to \$30 will secure 80 acres on credit, or \$120 to \$360 in cash will buy it outright.

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

Read all you can gather about Kansas, and when you decide to start, be sure and start right by locating along the KANSAS PACIFIC RAILWAY.

T. F. OAKES, Gen'l Superintendent.