The Vermont Farmer.

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We are compelled to ask our readers to excuse any short-comings in the Farmer during what we trust is a temporary disability. For the past two weeks all reading has been prohibited, and the sweet light of day is insupportable. It is hoped that the term during which "darkness is preferable to light" will be brief.

The Rockford (Ill.) Register states that Mr. N. B. Douglass, of Cornwall, is in that section with his valuable hay-loading machine, seeking to introduce it there. We wish him success.

If oats are cut when "half turned" and cured without injury by the weather, the straw will make a valuable winter food for stock and the grain will be nearly as heavy. We have no doubt that the crop is worth more.

O. S. Bliss, Esq., announces that the publication of the first number of the Farmstead is postponed until August 1, and the low introductory rate of subscription ($1.35 per year) will be continued until that date. And he appeals to the friends of the enterprise to sustain it with subscriptions.

Rams should be looked after. If not in a pasture well fenced, a fetter of leather, ticking or canvass, should be put on the fore legs, bringing them within six or seven inches of each other. The farmer who has had 15 or 20 of his best ewes lamb in the snow in January will need no second warning.

Weeds should not be suffered to go to seed on the farm. If they have not been hoed down or rooted out, they should now be mown. In the effort to destroy weeds, it should be remembered that many of the coarse, hardy kinds have so much vitality that if pulled up while the seeds are forming, they will mature the seeds from the sap in the stem and root and sow another crop for next year.

Wheat should be cut while the berry is in the dough and can be mashed between the thumb and finger. The grain cut at this time will be plumper and make a better quality of flour and more of it.

Wheat straw is of much value as food for stock, if other necessary food is given with it. The statement of Professor Atwater will be remembered.

We have received from the secretary, O. S. Bliss, Esq., Georgia, the sixth annual report of the Vermont Dairymen's Association, a handsome pamphlet of 163 pages. It has not been possible for us to examine the volume, but presume, that like its predecessors, it is full of rich matter for dairymen and farmers. The association has done in the six years of its existence a work of incalculable value for dairymen, and we wish it may continue in the good cause.

When the Hon. Justin S. Morrill declined the usual fee of $100 for delivering the annual address at the last Vermont state fair, he suggested to the officers of the society the offering of premiums for the best managed farms. It was in fact a delicate way of saying he donated the sum for the purpose. It seems to us that Senator Morrill has done enough for the agriculture of the state and country to entitle his suggestions to a little more respect, especially when he puts up the money to back them.

Lambs ought to be weaned soon after three months old. It is better for them and the ewes. After they are fully weaned, which may be done in two or three days if they are shut up tight, they should be turned into fall feed or a sweet pasture where the feed is rather short, and should have a mess of oats and bran every day until they come to the barn. It will be worth twice the money now that it will at a future day. If there is no separate lot or pasture where they can be kept, they should be weaned and then turned back with the ewes, unless they are early lambs, and the bucks large. If the milk is "stripped" out of the udders of the ewes for two days after the lambs are taken off, and again from those that appear to need it, they will nurse next year enough better to pay for the trouble.

Our old friend, Mr. John G. Perry, of Providence, the inventor of the Perry mower, the man who dared, at the great international trial at Paris, to go into the trial of mowers with his machine, without a track-clearer, (it having been broken off by the team backing into a ditch) and who, with his machine in that disabled condition, on a field newly stocked with clover, having a tangle of clover and weeds and no sod, cut the only swath around his land without clogging and balking up, has again exercised his great inventive power and produced the "People's mower."

We have made a careful examination of this new aspirant for public favor, and find some features of decided value. The seat is so adjusted that it is very easy to mount and ride. The connections between the drive-wheels and the cutting apparatus are so arranged that all is clear under and front of the axle. The pitman is of brass, very strong, very short and entirely protected from injury and breakage; its play is in line with the knife, so that the tendency to break the latter is lessened. The knife plays while in any position. The bar is raised easily, may be easily removed, and all is adjusted with facility. The workmanship appears to be thorough and strong and the finish is good. The gearing is all enclosed. We have not seen the manufacturer's circular or been worried by agents and do not know what is claimed for the machine. It is likely that some new points were overlooked. We have mentioned what were conspicuous.

Farmers having good mares which are not used much after haying, beyond going to meeting, the post office and mill two or three times a week, should keep them breeding, by all means, allowing them to foal in August, or as soon as may be after haying. In this way colts may be raised to good profit. We have worked a mare with foal at her side 10 days old when put to work, on the mower, rake and hay wagon, right through the season, and had a good colt to show in the fall; but it is better to have mares that have to take the brunt in haying foal a little later. If well fed and used humanely, they will bear a good colt after haytime is past, and be in good condition to nurse it.

The necessity for good blood, as well as good individual qualities, in the sire in breeding horses is, if possible, more important than with other stock. We would go a long way to secure the service of a stallion whose stock is proved, in preference to using one equally meritorious who has not established his value as a sire.

Prices of horses are now very low, but there is no reason to suppose they will be so three or four years hence. On the contrary, the low prices will tend to check the production, and in a few years there will be a scarcity. Horses are used up very fast, especially in the cities and livery stables.

Teaching Young Animals to Lead.

It is one of the easiest things in the world to break young animals to the halter, and one of the hardest to bring old ones to submit to that necessary discipline.

No colt or calf that it is intended to raise on the farm to maturity or to keep beyond the time of weaning should be suffered to go unhaltered. The inconvenience of having cattle and colts which cannot be led is equalled only by its ridiculousness.

Some farmers never break their calves to the halter, it is so much trouble, and when there is any necessity of removing such an one a half dozen men and boys with whips clubs and stones are required for the operation, and double the time is required for the whole troupe that would be necessary for one if the animal was halter-broken. We remember being a witness of an instance of this kind where a yoke of oxen were driven ahead with a man on horseback and boys afoot in the rear, with great clamor and uproar on a quiet sabbath morning, in a manner that was scandalous to the neighborhood, all because half an hour could not be spared to teach the poor cow to lead when she was a calf.

The injury to the animal driven away with such excitement is no very slight item in the account, and often amounts to several dollars, we doubt not, in addition to all the trouble.

There are two ways to teach young animals to lead. One way is to take them in hand at a very tender age, before their strength is developed or will hardened. At this period of their lives a half hour judiciously spent will usually bring them into such a state of subjection to the halter that there will never thereafter be any trouble in leading them. Let the halter be put on and teach them that they cannot get away and that they are in no danger of being hurt. Neither colts or calves should be suffered to pull long nor hard, as it is liable to injure the nervous system. A five minutes lesson is usually enough at first. When they have realized that they have found their master and cannot escape him, let them have a day to meditate upon the fact, and the time will be well improved. The next day, or soon after, not too long, the lesson may be repeated, always remembering to use no violence and just as little force as possible. In case of colts that run with the dam, if the latter is led away out of sight and hearing the colt will yield more readily. They may be led away for twenty rods, and as soon as they feel lost or confused they will follow the leader, unless they have already learned to fear him. If this course is pursued and a young animal cannot be taught to lead in half an hour's time, he must be naturally intractable. Too great emphasis cannot be laid upon the direction not to let the little things pull until they are half dead from exhaustion of nervous force. We have known animals to pull at the halter until they fell dead. If they will sometimes pull themselves to death, it is easy to see that there may be serious injury from pulling. Many persons do not realize this.

The wrong way is to let them go until three or four months old, and then with three men at the halter, make a trial of strength, which ends only with exhaustion of one party or the other.

Whenever or however the halter-breaking is done great care should always be taken to tie them securely with a strong halter to a firm hitching-post. It is a most unfortunate thing for a colt to learn that there is a possibility of breaking away or working the halter loose. This is so obvious that it is unnecessary to dwell upon it.

We believe in kindness to animals in all cases, and that kind and humane treatment are more effectual in bringing them into subjection to man and the performance of the tasks he imposes than cruelty, and also far more profitable.

What they need to learn is that man is their friend and also their master; that so far as their inclinations are concerned, his will is supreme, a law from which there is no appeal. It is one of the easiest things in the world to teach them this, if one will only make a liberal use of good sense and unfailing patience.

The success which has attended the efforts to subdue and train beasts naturally wild and ferocious, should be an example to the farmer who has to train animals that by nature and habit have acquired docility until that character has become hereditary.

A Chapter on Pans.

A farmer in Franklin county writes to the Farmer that he has used various styles of pans for setting milk, beginning with earthen pans, from those making the first step to six-quart tin pans. Then he had ten-quart pans on racks in a nice milk house. These, after a time, proving out of date and behind the age, "we ordered a set of large pans to be set up on trial. So one day the agent brought them along and we turned our nice milk racks out of doors and set up the large pans, and they worked like a charm. To strain the milk all into one pan, and but one pan to wash, was all very nice, but we soon discovered that they had drawbacks, and the set proved a failure, and one day on returning from a short absence from home I found these new-fangled pans packed up ready for transportation and the old racks and ten-quart pans in their former position in the milk room. Thus failed two sets of pans.

"If some of the Farmer correspondents, having had practical experience with water pans, will answer the following questions through the columns of this paper, I for one will have learned a lesson, and it might be a benefit to others.

"Having a milk room all right and plenty of cold water, and no trouble with butter coming soft only in the very hottest weather, and the loss from this cause not averaging over $1 a year, how large a sum will it pay to expend on machinery to avoid this drawback? Can it be made to pay to pump 10 to 40 pails of water daily through the season and carry it 30 to 40 feet through two doors and up one step into the milk room, and then lift it four and a half feet and pour into a tub? Is the cream soft and spongy with water pans, requiring a third more churn room than the old way? Does it take a third to a half longer to churn? Is the air damp and the milk room all slop and liable to rot out in a few years? What about getting out the milk, does it spatter over everything, yourself included? I suppose different pans have different advantages, and where is the harm in farmers exchanging views?"

A Mowing Machine for a Hay Cutter.

Mr. Chas H. Gilbert, of Wolcott, takes any kind of a mowing machine and converts it into a hay cutter that he says is far better than any machine made for the purpose that he ever saw. He takes off the tongue and sets the machine up on its frame and fastens it so that the tongue, if attached, would be pointing upward. He then builds up a feed board that inclines downward toward the cutter bar and puts a board over the cutter bar to keep the hay from falling over, and that is all there is to it. He says it runs easily and cuts the hay very fast, even drawing it in, and all the trouble there is about it is that you must keep your fingers out of the way or you will lose them. It costs less than a dollar to arrange one.

For the Vermont Farmer.

Direct Us.

In every town in Vermont are farmers of a score or more years' experience, who, if they chose, might impart information of incalculable benefit to young farmers, yet they cling to their dearly purchased experience with a tenacious grasp.

As one of hundreds of young men in Vermont engaged in agriculture, I earnestly and respectfully request farmers of experience to aid and guide us, that we may steer clear of obstructions in our path. Obstructions we must encounter, and let us manfully overcome them, and show to the world that farming does not necessitate awkwardness or vulgarity.

Let us, with the aid of experience guiding and directing us, place agriculture in the position that belongs to it—the most important in the nation. F. Eugene Richard.

St. Johnsbury, July 20, 1875.

[Our correspondent gives expression to the need felt by many young farmers. They want plain, practical suggestions, such as can be given by farmers of experience, not essays and fine writing. If readers of the Farmer will look back over the years of their lives in the management of farms and stock, and recall the mistakes they have made and the changes in opinions and plans of operation which have been forced upon them by experience, and jot them down for The Farmer (no offense intended to any other paper) they would be of incalculable value.]

Potato Bugs.

Northfield, July 17, 1875.

Editor of the Vermont Farmer:

Do you think the enclosed can be specimens of the noted and much dreaded Colorado potato bug? Truly Yours,

D. T. Averill.

The specimens enclosed are not the dreaded potato beetle. We are no entomologist and cannot give them a name. The potato beetle, which is causing such havoc westward, and coming towards the east every year, has ten lines on its back. The best remedy yet is Paris-green, a deadly poison, mixed with plaster and dusted on the vines with a dredging box, or with water, and sprinkled on through the nose of a watering pot. The latter method of application is safest to those who use it.

A Vermont Botanist Abroad.

At the spring meeting of the Connecticut Valley Botanical Society in June, at Amherst, Mass., a Vermont botanist, Mr. A. P. Morgan, read a valuable paper and gained himself much credit, as Vermonters usually do when they go beyond the borders of the state.

The Springfield Republican says in its report of the meeting:

Mr. A. P. Morgan of North Pomfret, Vt., read a paper on Phyllotaxis, or the arrangement of leaves on the stem, illustrated by maps drawn by himself, of the leaf positions of several plants and cones, cone scales being transformed leaves. The society hope to see it in print, to study it at their leisure, as the theory usually held by botanists was somewhat modified. The paper embodied a vast amount of curious investigation, and was a model of patient and careful work.

What the Farmers Home Should Be.

President Buckham of the University of Vermont and State Agricultural College, said eloquently in the annual address before the Vermont Dairymen's Association at Montpelier last October:

"I hope to live to see the day when the farm homes of New England shall be the best representatives of our civilization, the abodes of industry and refinement, of simple elegance and plain dignity, of a pure morality and cheerful piety, to which men shall fly as to a haven of rest from the excitement and disquietudes of the city, and from which they shall look with pity and thankfulness for escape upon the conventional shams and superficial accomplishments of the fashionable world."

Philosophy of Fogy Farming.

Years ago, when slavery was dominant, a Southern gentleman and his wife were visiting friends in Boston. At the breakfast table the host asked the lady if she would take some of the famous Boston brown bread. "No, indeed," was the answer, in mingled horror and indignation. "Would you have me become an abolitionist, a woman's rights woman, a free lover and an infidel? I don't want to wear bloomers and make speeches yet awhile." "But," said the husband, "no one wants you to adopt these extreme ideas; this is a different matter. This brown bread is really excellent. Do take some." "Never," said the lady, "at least while I have my senses. These fanatical notions all go together. A man or woman who begins by eating brown bread, never knows where to stop till it leads them into all sorts of fanaticism."

The moral of this little story may account for the conservatism of so many with regard to improvements in farming. The slow-going, old-fashioned farmer sees clearly that all these "new-fangled notions" properly "go together," and must each be supplemented by the others to be entirely successful. High manuring, underdraining, soiling, improved breeds of cattle, horses, sheep and swine, clearing land of weeds and thorough culture, generally are each parts of a system known as high farming. Any one of these adopted separately may, and probably will, result in loss, as thousands of farmers have found to their cost. The average farmer doubts whether all together can be made to pay. He knows that he can't or won't adopt more than one or two of these essentials to good farming. Very possibly he is right in believing that all he could or would do in the way of farm improvement would not pay him. It requires a great deal of thought, labor, skill and patience, besides money, to be a successful, *thorough* farmer. These qualities would insure success in any kind of business. If a farmer inventories himself and finds these qualities lacking, what is he to do but to keep in the old ruts where his father and grandfather kept before him? There at least he knows himself to be safe. By working hard all his life he can earn a comfortable living, and he is sure not to lose much, for the excellent reason that he never has much to lose. The much-ridiculed conservatism of old-fashioned farmers is founded in deeper wisdom than we know. Others might do better in their places, but they do wisely in keeping in the safe old ruts. For men without skill, patience or thought to fitfully adopt one or two of the essentials to high farming might very easily result in loss.

What are the elements of high farming? Without doubt high manuring is one of the most important. But what shall men do whose farms are overrun with weeds and whose slovenly tillage gives weeds every advantage? High manuring with such farmers means only increase of weeds—not increase of profit. Would thorough culture and high manuring combined be profitable on land cold and sodden till midsummer from too much water? In exceptional seasons they might; but in others all the culture and half the manure would be wasted for naught. Or, on land dry and reasonably free from weeds can a farmer afford to spend twenty-five to fifty dollars per acre with the soil too sterile to produce a crop? Obviously not. To be entirely and uniformly profitable, manuring, underdraining and thorough culture must be combined. Each is immeasurably increased by each of the others.

The good farmer needs improved implements, but he cannot profitably use reapers and mowers on rough, stony or uneven fields. Often on undrained or sterile farms it may not pay to buy or use a reaper. Some farmers last year left their reapers under the shed, or more likely by the roadside, while they cut the few patches of grain in their winter-killed wheat with an old-fashioned cradle. A man cannot afford to buy costly grain harvesters unless there is a fair prospect that he will have a harvest. Soiling is profitable, undoubtedly, on rich and high-priced land. But if your fields are too poor to yield more than half a ton of grass per acre, soiling is out of the question. You can't afford, with high-priced labor, to cut over a field for such a crop when cattle in pasture will gather most of it without expense. Still another question:—Can farmers afford, with high-priced labor, to cut and carry green food in summer, and steam food in winter, for ordinary or scrubby stock? It is clear that soiling and high feeding must go, not only with improved farms, but with improved stock as well. When you do your best for a cow you have a right to demand that she shall be one that can do best for you in the milk pail or cream pot. If you employ a great deal of skill and high-priced labor in feeding cows, you must lose unless you make "gilt edged" and high-priced butter.

Reverse the rule and it applies with equal force. A careless, slovenly farmer cannot afford to buy or keep improved stock. Neither his farm nor his methods are adapted to them. Short-Horns used for generations to generous living, would starve where his scant stock don't thrive exactly, but do manage to get a living. The purest strains of Jersey blood would improve his butter in color, and perhaps in quality; but only a revolution in family methods could make his butter "gilt-edged." When one of his steers or colts die through sheer carelessness, he is not inconsolable, for the beast "wasn't worth much." But the carelessness after a very short time would be just the same, and far more costly if his stock were thoroughbred.

In a great part of the country only inferior stock is kept by the majority of farmers, and only those crops most easily produced are grown. Possibly for many of these farmers this course may be wisest and best. Such farmers keeping in the old ruts will work hard at increasing disadvantage in competition with more skillful cultivators, and at last die with the old refrain on their lips that a farmer must needs work hard all his days and lead the life of a slave, to get neither honor nor profit in the end.

It is all false. The life of a farmer is not necessarily hard or slavish. Thought, skill and care have their reward here as surely as anywhere, and in as large measure. Men who lack these find any business hard and slavish enough. But the fault is in the man, not in the occupation. It is rare to find men honest enough to see and confess the cause of their failures. Were they to do so the unskillful and therfore unsuccessful farmer would be compelled to say, "Farming is not a bad business. It is, when rightly conducted, honorable and profitable. Money has been made in it by men who have the faculty of making money. Almost any man, with average skill and industry, can make a comfortable and honest support by farming. It is I who am a failure for undertaking a business which demands thought, skill and labor, when I have them not or am not willing to give them as the price of success." When we have men in any business talking to themselves thus plainly of the cause of their failure, the world will have the first and most needed element in doing away with incompetency and its natural result in failure.

[Rural New Yorker.

Farm Tools and Machines.

Tools are required on every farm, and on most farms of any size machines are also used. Consequently every farmer is interested in the subject of this article; he is probably aware that his success or his failure in business will in part depend upon the kind of tools and machines which he employs. With poor tools and inferior machines he cannot successfully compete with his neighbor who uses the very best. Yet it is probable that he has never carefully considered how much difference it makes with a farmer's work whether he has poor tools or good ones. Take, for example, a common shovel; set a hired man at work with one that is thick, heavy, dull and rusty, and, if he is faithful at his work, he will get tired out long before night, and will not have accomplished as much, by at least a fifth, as he would if he had been provided with a nice, bright, sharp shovel. If he is not a good man to work, he will take advantage of the old shovel to shirk as much of his labor as possible. In either case, a man will do enough more work in a very few days with a good shovel, to pay for it, and not be nearly as tired as he was with the old one. With machines, the difference is still more striking. A man with two horses and a second-class harrow, can, in time, fit a ten-acre field for sowing to wheat. But the same man and team with a first-rate pulverizer will fit the land much sooner, and do it so much better, that it will produce from five to ten bushels more grain than if fitted with the old harrow. By using the very best styles of reapers and threshers, the time and labor of one or two men can be saved, as they do not require as much help and attention as the older and poorer patterns. These facts would seem to make it an object for farmers to use some care in selection of their tools and machines; too often they buy what the agent brings, without making any special inquiry concerning its merits, and find, when it is too late, that they have made a serious mistake. It is a far better way to examine the different styles of machines before buying. In selecting a machine, the buyer should try to get one with as many merits and as few defects as possible. It should be as light as possible, yet possess the requisite strength, and should run easily. A heavy, clumsy machine is hard to move or to use. Light running machines are generally made on better principles than those which run extremely hard. It should also be durable. Some machines will last as long again as others which cost as much, or more. And prices are so high that it is an object to get those which will last a long time. But it is not only important to have good tools and machines, but it is also necessary to take care of them, otherwise they will remain good but a short time. The best shovels, hoes and rakes, the finest reapers and mowers, the nicest threshers in the world, if badly used, and constantly exposed to the weather, will soon become very poor. Ill usage and exposure spoils more tools and machines than are ever worn out by use. A good shed in which to keep all the farm implements, is a building which ought to be found on every farm. The farmer who has none, will find the money expended in building one invested better than it would be in government securities. It would save him from constant and heavy losses, and prevent a great deal of scolding about old machines which constantly fail when wanted for service, but for which failures the owner alone is to blame. Machines are often injured by not being properly oiled. A reaper or thresher will run very much easier if frequently oiled, and will last for a long time. But if the oiling is neglected, it will run hard and wear very fast. Oil costs but little, and should be freely used. Let no one imagine that I favor throwing away all the old tools and machines, and buying new ones to take their places. Far from it. The farmer who has good tools, even if they are old, can much better use them than to buy new ones. The same is true of machines. If they are in good order, do not run very hard, and do the work well, they should be kept a while longer. If, however, they are badly worked, run extremely hard, and are in danger of breaking every time they are used, it will be economy on the part of the owner to lay them aside and obtain better ones to fill their places. And when buying a machine, I claim it is economy to "get the best," even though it costs a little more than one which is not as good. What I have said about the care of machines, applies alike to the new and old. No tool or machine which is fit to use, is to poor to be taken care of, and if proper care were taken of them, there would be much less trouble with all kinds of farm implements.

[Live Stock Journal.

Blind Staggers in Pigs.—Prof. Law gives the following directions for the treatment of blind staggers in pigs: When the hogs are attacked, dash bucketfuls of cold water over the body, throw purgative injections into the rectum, composed of sixounces of sulphate of soda, and one or two teaspoonfuls of spirits of turpentine in ten ounces of water. Setons saturated with turpentine may be inserted under the skin behind the ears, or the back of the neck may be blistered by rubbing in the following mixture:—Spirits of turpentine and liquid ammonia, one ounce each, powdered cantharides, two drams.

The Food of Man.

Of articles of human food, there is a great variety. Long since, in the past ages, the nations of the earth had, each, their peculiar cereals for breadstuffs; and, with these, were probably as well satisfied as any now are with the present almost unlimited variety. Thus Europe had oats; northern Asia, barley and wheat; southern Asia, rice; Africa, millet; and America, maize or Indian corn. So also they had, each, their peculiar vegetables of lighter importance; but now all men eat all things.

It is evident that in former periods of time, oats were esteemed of more value as an article of food for man than at present. The precise native land of the common oat is no longer known, although the region along the Danube passes as such; it was considered as the European bread crop. The Celts and the Germans cultivated it 2,000 years ago. It was known to the Egyptians, Hebrews, Greeks and Romans. Barley and rye did not attract so much attention. The former is supposed to have emanated from the region between the Euphrates and the Tigris, while the latter had its origin in that scope of country between the Alps and the Black Sea.

Of wheat, we are able to say much more than of the former grains; for there is no breadstuff for man that ranks with it in modern years. It is now the most important article of this kind of food, and is more widely distributed than any other; and its cultivation has been more or less perfect for at least five thousand years. It was known in China, according to the history, three thousand years before Christ, and was early used by the Egyptians and Grecians. It was imported into America by the Spaniards, at the beginning of the sixteenth century. Next to wheat, in rank, among small grains stands rice. It is indigenous to further India and the Isle of Sunday, and is extended over the whole of southern or eastern Asia, as well as over Arabia, Persia and Asia Minor; thence it has reached on one side to North Africa, Egypt and Nubia; and on the other to Greece and Italy. Rice was introduced into China three thousand years before Christ. In the time of Strabo, rice was cultivated in Babylon, Susiana and Syria. The Arabians brought it into Sicily. It is only very recently that it has been introduced into America.

Indian corn is peculiarly American—the great staff of life for both man and beast. What rice is to the old world, maize or Indian corn is to the new. It is probably indigenous to Central America, and brought by the Toltecs to Mexico. The many varieties which are known of the maize, indicate clearly a very extended period for the cultivation of this plant. Maize was unknown to the Europeans before the discovery of America. The potato, which is now such an universal article of food, was hardly known until the seventeenth century, and was not cultivated to any extent until the middle of the eighteenth. It is supposed to be a native of South America, and was probably brought into Spain first early in the eighteenth century from the neighborhood of Quito.

It is very obvious that man, in his primitive state, lived in a very simple manner, and obtained but few articles of food for his subsistence. But, as his intellect developed, he discovered new sources from whence to derive his food, and also additional articles adapted to his taste and possessing a large amount of nutritious matter. And, when all these sources are spread out before him, he very naturally obtains the food from both the animal and vegetable kingdoms. At the present day the articles of food for man embrace such a great variety that it would be nearly impossible to enumerate them all. In the rural districts, or within reach of a good city market, all our wants in this line may be richly supplied. [Cor. Ohio Farmer.

A Cheap Cellar Bottom.

In sections of the country where there is an abundance of cobble-stones, collect a few loads of them about four or five inches in diameter, grade the bottom of the cellar, lay the cobbles in rows, and ram them down one-third into the ground so that they will not rock nor be sunk below the rows by any heavy superincumbent pressure, such as the weight of a hogshead of molasses or tierce of vinegar. The bottom of the cellar should be graded so that the outside will be two or three inches lower than the middle. A mistake sometimes occurs by grading the cellar bottom in such a manner that the center will be two or three inches lower than the outside. When this is the case, should water enter from the outside, it will flow directly toward the middle. A straight-edged board should be placed frequently on each row of stones as they are being rammed, so that the upper sides may be in line with each other. After the stones are laid and well rammed down, place a few boards on the pavement to walk on; then make a grouting of clean sand and water-lime, or Rosendale cement, and pour it on the stones until all the interstices are filled. As soon as the grouting has set, spread a layer of good cement mortar one inch over the top of the pavement, and trowel the surface off smoothly. In order to spread the mortar true and even on the surface, lay an inch board one foot from the wall, on the surface of the pavement, stand on the board, and fill the spaces with mortar even with the top of the board; after which, move the board one foot, fill the space with mortar, and trowel it off smoothly. Such a floor will cost less than a board floor, and will last as long as the superstructure is kept in repair. A floor made in the foregoing manner on the ground in the basement of a barn, a piggery or a stable, would be rat proof, and would be found cheaper and more serviceable than a plank floor. The work should be done in the former part of the growing season, so that the cement may have sufficient time to become hard and dry before cold weather.

[Industrial Monthly.

Cool Water in the Field.

There is nothing new in the following method of keeping water cool, for the principle is used by the Egyptians at the present day, and, as may be seen by their inscriptions, has been used by them for thousands of years. They keep their water in unglazed vessels, through the pores of which the water forces itself. The evaporation of this leakage on the outside carries off the heat from within, precisely in the same way that the evaporation of perspiration from the human body enables it to stand a heat which would otherwise be fatal.

If the pail or large vessel containing the water be enveloped in cloths that are kept constantly wet, and be placed in the shade, the water will be found to keep as cool as water for drinking ought to be. Each person on drinking should empty what is left in the dipper or drinking cups upon the cloths, so that they will be kept from drying. Water kept cool in this manner will be more grateful to the palate and less dangerous to the system than ice-water.

Stretches in Sheep.

In the April number, a writer on "feeding sheep" mentions stretches, and advises giving sulphur. Now this subject is of sufficient importance to the sheep raiser to demand a more thorough explanation of its nature, cause and treatment, and as I am posted on this subject, I thought I would give your wool growing readers the benefit of my knowledge of the veterinary art upon this topic, so here goes: Stretches is the animal's instinctive remedy for a disease (or displacement) of the intestines, termed in veterinary science *intro susceptio*, which is the insertion of a portion of the intestines into another portion, producing inflammation, putrefaction, and sometimes rupture of the intestines; for the latter there is no remedy. This disease is produced by too long continued feeding on dry fodder, which produces constipation of the bowels, causing *volvulus* (rolling up) of the intestinal tube, and usually occurs in the small intestines. Take a glove finger, commence in the middle to turn it partially wrong side out, and you have a perfect sample of the case we are treating of. Remedy, nauseants sufficient to produce vomiting is sometimes used with success, but injections are the safest and surest remedy that can be used. Take three or four gills of warm water, one large spoonful of soft soap, mix well, and with a common block tin syringe inject this into the rectum; repeat if necessary. Never give powerful doses of physic in case of stoppage, which is often done to the human subject, which only makes a bad case worse. Nauseants, lubricants and injections are the only safe medicinal remedies. If the shepherd discovers a sheep stretching and has no medicinal remedies at hand, he must resort to the following mechanical operation to relieve the animal, which often proves successful: Lay the sheep carefully on its back, holding the fore end with one hand, and with the other rub the belly, allowing him to kick and struggle with the hind legs. This operation will also assist much in relieving the animal if resorted to in about ten minutes after administering clysters. Preventative—When you begin to feed on dry fodder commence feeding roots once a day; carrots are the best, turnips will do; and here I will give a general rule to be *always* regarded in feeding any kind of roots to any and all kinds of stock. Begin with small quantities, and as the animal becomes accustomed to eating them, increase to the desired amount. Why? Because some roots are slightly cathartic, others slightly diuretic, and over feeding may prove injurious and thus prejudice the mind against these valuable crops, which every man that keeps stock ought to raise. This chapter ought to have been written last fall, so your readers could have had the benefit of it during the long cold winter through which we have just passed; but I did not know then that I could write for the press until you told me and others in the Journal that we could, and you made me believe it.

[Cor. American Farm Journal.

Secret of Growing Cauliflower.

I am in the habit of growing cauliflowers for my family and giving a few heads annually to friends, some of whom have been prompted thereby to attempt the culture of this vegetable, but generally they "have no luck in the business." Now, I am aware there are a great many who would like to raise cauliflowers if they could only have good luck enough to succeed, and therefore I am going to tell them the secret of success; and to make the lesson easy to be remembered, will say that three things are essential, each of them having the initial letter M.: namely, manure, moisture and mulching. Select ground that is rich and moist, if possible; manure it well, and then plant at same time and manner as cabbage; but arrange so that the row of plants will stand in a shallow furrow, and where there is a descent, so that when water is poured at one end it will flow gently to the other, watering each plant in its course. Then if by means of a trough or garden hose water can be conducted to the spot, from a pump or reservoir, all the better. Or it may be carried, a few bucketsful daily, and poured in at the upper end of the furrow; or, still better, pour it into a tub or barrel having a faucet at the bottom from which the water will flow slowly into and along the furrow. The cauliflower is almost a water-plant and will only thrive with plenty of drink; but do not make the mistake of letting water stagnate about its roots. Mulching is not so essential as manure and moisture, but in our sunny climate, and where moisture is likely to be deficient, I have found manure on the surface over the roots of very great advantage. The same is true of cabbages, which also naturally belong to cooler climates than ours. [Ohio Farmer.

Culture of Corn.

English agricultural journals contain numerous directions about the culture of corn—a new crop in that country. Some early-ripening varieties have been found which it is believed will give a crop. At all events there need be no difficulty in securing corn of the early sweet varieties for use while green. One important discovery our English friends have made, *i. e.*, not to hill the corn, but keep the ground as nearly level as possible. The only effect of hilling in the damp, cool climate of England is to mulch the roots, keeping them still cooler and delaying ripening. Even in our hot, dry summers corn does not want earth drawn around the stem. If it seems to do good, it is only because it necessarily loosens the soil, allowing the roots to spread better. Corn needs as tropical weather as it can get anywhere, and would generally be benefited by drawing the earth away from the plants rather than to them. [Rural New Yorker.

It is not in England alone that the condition of the agricultural masses is a bad one, though we, in common with the remainder of the press of this continent, use the state of the English laborer to point the moral when we wish to contrast the condition of the Old World serfs with that of our own producing class. In Silesia, according to the report of a gentleman lately traveling there, the laborer's condition is anything but cheerful. The peasant's cow is very badly off, but his wife is not a whit better. For months every year the men have to seek work in the mines, and during that time the women do all the work that has to be done on their tiny farms or on the farms of employers. More women than men work on the fields; and the women are to be seen "dragging barrows, digging up potato ground, loading and emptying manure carts, working as bricklayers' assistants, wheeling clay from clay pits in brick kilns, acting as blacksmiths' mates at the smithy. Meat is a luxury enjoyed by some once a week; by more two or three times a year. Bread is eaten in small quantities." The potato is the chief article of diet, and milk is not dear; but eggs are rarely eaten. The circumstances of the peasantry seem to attract little or no public attention, in which respect their English brethren have certainly had the pull of them, lately.

Management of Pot Plants.

Amateurs are apt, in repotting plants, to make the soil too rich under the impression that, because the roots are confined within a small compass, necessarily the soil must be very fat. Such is not the fact. Flowering plants should not have the soil over rich. They do better in pure soil, free from an excessive quantity of manure. What is used should be the most thoroughly digested compost. The successful florist understands that the soil requires only to be in that normal state to insure perfect and continuous growth; and, therefore, instead of making the soil in the pots over rich, depends upon stimulating, by means of liquid manure.

A mistake generally made in shifting from one pot to another, is the use of two large pots as the plants increase in size. In changing, use pots only one size larger than the plant was in before. To do this in the best manner put some drainage in the bottom of the pots, say half an inch of broken flower pots for four-inch size, being careful to close the hole in the bottom by laying a piece thereon; on this place a little rich compost mixed with one-half its bulk of sharp sand. Then place a pot one size less than the one containing the plant to be moved. Fill in around this with the same material pretty finely packed. Lift out the pot and fill with soil, just so that the ball of earth in which the plant is contained will reach to about half an inch of the rim of the new pot. Now set the plant in and cave the earth about it from the sides, and fill up level with more soil. [Western Rural.

Smut in Grain.

Smut is caused by a parasitic fungus long known to botanists by the name of *Ustilago Maidis*, and it has frequently been described and figured in botanical works. Its development or growth is also pretty well understood. The fungus grows from very minute spores, which are produced by millions, but exactly as to how these spores react and infest the growing corn, I can find nowhere any definite information, nor have I seen any data relative to preventives. We are left here to surmise and analogise.

Smut in wheat is produced by a similar fungus similar in its botanical character, in its results, and this wheat-smut fungus is much better known. It is proved that this gains access to the plant through the seed. The spores are sticky and adhere to the sound grain at harvest or threshing, and are sown with the seed wheat. As the new wheat plant grows, the fungus develops with it in due time, ripening its spores at harvest. The spores may be killed and the crop saved by soaking the seed wheat in strong brine, or in a weak solution of sulphate of copper, commonly known as blue vitriol or bluestone. (The proportions used are two to five ounces of the crystals per bushel of wheat). It would be well to try the same remedies with corn. I have seen this recommended, but I have no information as to the results. Corn-smut is rarely abundant enough to affect the crop, and is principally dreaded because it is poisonous to the cattle. [Prof. Brewer.

Walking Versus Trotting Horses.

A writer in the Priarie Farmer complains that all the premiums offered at agricultural fairs for the performance of horses go for trotting or running and none for walking. He says the various agricultural societies "say nothing of walking, which is the gait farmers are most interested in. I have often wondered why that was overlooked, and had hoped that some one would bring it before the societies. What benefit is a race-horse to a farmer? If he wants to run or trot him for premiums or stakes, it will not do to work him as farm horses have to work. Besides, fast horses, generally, are not able to stand heavy work, and are not apt to be extra walkers. What the farmer wants is a close-made, muscular horse, weighing 1,000 to 1,200 pounds, that can walk at least four miles an hour with a cultivator, or at that rate while crossing the field. It costs no more for a hand to drive a team that will plough three acres per day, than it would to drive one that would plough only two acres; and a good hand, or one that tries to earn his wages, would."

Cut Feed for Horses.

An accurate farmer has furnished the Country Gentleman a statement of his experiment with feeding cut feed and meal to his horses, accompanied with weighing and measuring. He cuts oats and straw about an inch long with a rawhide cylinder machine; and this chopped straw is then treated with corn-meal and bran mixed in about equal quantities as to weight, so that each horse has about a bushel of cut feed and three quarts of the meal and bran twice in each day. Sometimes hay is cut instead of oat-straw or both are mixed. It is found that two hundred pounds per week of this mixture of corn-meal and bran, added to the cut feed will keep a pair of working horses in the best condition. This, he is satisfied from experiment, is less than two-thirds cost of keeping them on uncut dry and whole grain. The corn meal alone is not so good for horses as when mixed with bran. An excellent meal is made of ground oats. The fodder is cut by horsepower, on stormy or spare days, and stored in large bins, so as to furnish always a surplus on hand.

Bird-Scarer.

The following device for scaring birds from fruit trees or vegetable seeds is an old one, but it is none the less valuable on that account. Get a glass bottle and cut off the bottom, which can be done by tying around it a string saturated in turpentine or kerosene and burning it. A slight touch will detach the botton if it does not part without. Make a hole in the cork and suspend by a string or fine wire coiled two or three times to give it a little spring. A good sized nail, a stone or anything will make a clapper for your glass bell. Then drive in the cork securely or wire it down, and leave wire enough to hang the bottle to some delicate bending twig or to a pliant sapling thrust in the ground. The bell will ring by the motion caused by the wind or by the birds alighting on twigs near it.

VARIETIES.

It is essential to the cheap cultivation of roots that the hoe be applied to them immediately upon weeds becoming visible, and while they are shallow-rooted.

The following is said to be a good preventive of the turnip fly: Take 14 lbs. of sulphur, one bushel of fresh lime, and two bushels of dry road-scrapings or road-dust. Mix them well together, and apply at night, either by means of a drill, or strewed along the rows by hand. If the fly continues troublesome, repeat the process.

When miners find a satisfactory amount of gold in a claim they say they have struck "pay dirt." The best pay dirt is a good farm; it will pay in money, pay in furnishing steady business, and pay in securing a home.