THE AGRICULTURIST

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Poetry.

BY THE RIVER.

Sadly, silently we're watching,
By a river dark and wide,
As its rolling, surging waters
Ever onward swiftly glide.
Rays of light and flitting shadows
Come and go upon its shore,
As we listen for the voices
That may greet us never more.
In the land beyond this river
Our beloved are ever blest;
"Where the wicked cease from troubling,
And the weary are at rest."

On the rocky banks we stumble,
As we look with heavy eyes
Over all the waste of waters,
Waiting for the mist to rise.
Will it softly, quickly scatter?
Will its glittering glow unfold
Mansions, homes of heavenly beauty,
Paths whose glory is untold?
Well we know, dark, silent river,
That the pure in heart are blest,
"Where the wicked cease from troubling,
And the weary are at rest."

Tired hands are gently folded
Over many a pulseless breast;
Tired brains are freed for ever
From the cares which once oppressed;
But we here, oh, death's dark river,
We are standing on thy brink.
And from thy deep chilling waters
Still we timidly do shrink.
Shall we find our fondly cherished
Beyond thy dark heaving breast,
"Where the wicked cease from trembling,
And the weary are at rest?"

Agriculture.

Canadian Importing Agency.

We call the special attention of our readers to the advertisement of the "Canadian Importing Agency," which has been established in this city, for the purpose of importing from Europe every variety of Poultry In fact almost everything pertaining to the fancy, including, Poultry foods, medicines, Incubators, Artificial Mothers, &c., all of which will be of the best and furnished to buyers at an exceedingly low price. This agency will be a good thing to the breeders of this country, as many who are desirous of importing do not know the best sources from whence to obtain good birds. Capt. McKenzie the manager, has had great experience in breeding and importing fowls and will order only from the most reliable breeders abroad.

For further particulars address Capt. McKenzie, manager, "Canadian Importing Agency," Fredericton, N B., who will gladly receive orders from any part of Canada or the United States, and the fowls or goods ordered will be sent *direct* from Great Britain to the buyers.

Maple Sugar.

At a time when so much is being said of sugar beets and amber sugar cane, it will be well for the farmer whatever experiments he may make with either beet or cane, not to forget the staple maple. A writer in the *Dirigo Rural*, giving his experience in making maple sugar, says:—

It is surprising to see how the facilities for making it and the amount that is made increase with the age of the farms. Rocky hills and wet ravines and lands that had better never be cleared for cultivation, worth more for wood and shade without the use for sugar, are every year improving for making sugar and as an ornament to the farm, besides giving a perpetual supply of wood. And it is safe to say, that with modern improvements for making, there are hundreds of sugaries which, when once set firmly a-going, will give for a competent man's day's work, with a small boy, wife or girl to tuck up the fires. 100 pounds for each day so that if they sell for three cents per pound, there is a profit in it. If the season is a poor one or a failure, there is no loss, as there is so little out-lay; and much of the product is equal to the best honey or refined sugar in market.

It seems lamentable that so many poor families as there are without sugar seemingly do not know how they might get their sugar when they have but little else to do.

There is a great deal of sense in the following excerpt:—

Practical farming is in no way incompatible with scientific knowledge, as those who fling the epithets 'kid-glove farming,' 'sidewalk farming,' aristocratic farming,' and 'scientific farming' would have us believe. The practical farmer avails himself of every fact and improvement which the plodding farmer despises. He takes a good paper which intelligently discusses the great subject of agriculture, which interests the great mass of the population of nearly every country. The reading farmer who farms in the broadest sense, imparts his knowledge to other farmers as freely as he received it, that the benefit he enjoys may be enjoyed by all who farm for pleasure or profit; he feels the generous impulses which should actuate the universal brotherhood of man. For none of us liveth to himself.'

The Agriculturist.

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ANDREW LIPSETT, Publisher. "AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH." ANDREW ARCHER, Editor

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The Month.

The *Farmer's Advocate*, London, Ont., for April opens with an article on the month. The season in Western Canada is, especially in the peninsula, is considerably earlier than with us. Their wheat is all the important crop, and the first care of the farmers in spring; here, but few farmers comparitively, look with anxiety after the snow has passed away to see if it has been well perfected, and if the plant is all right. But that the difference between Western Canada and New Brunswick in plagin soil culture is not so great as to make the following hints quite inapplicable here, when the snow has passed away, and the heavy drifts over the fences are fast disappearing:

Run over your wheat-fields with a harrow and roller when the ground is fit. Try part of a field, if you doubt its efficacy, and watch the results at harvest time. Do not be in a hurry to plough up a field if it looks thin. The recuperative powers of thin, poor, miserable looking pieces of fall wheat have astonished us more than any crop we have seen. Sow salt and plaster liberally. The English farmers find it profitable to send here and purchase our superphosphate. Good seed wheat is scarce. reports of different kind are so conflicting that we are at a loss to know which to recommend as the best Most varieties are badly shrunken. (Our farmers have the advantage of the seed exported by the Government.)

Try and raise as much young stock as possible this spring. If we can keep infectious diseases from this Dominion, we may expect a great increase in the prices of all classes of stock.

There is a difficulty in procuring peas free from bugs this year. Do not sow buggy peas if you can procure sound ones.

We hope our readers are fully prepared for the labor of the month, having everything in readiness to commence with the opening of spring See that your implements are all ready, so that it won't be necessary to waste half a day visiting the blacksmith shop.

Select the best seed grain. Have you a change of seed? If not, it is very necessary to do so. Sow none but the best. Always try to be a little ahead. In keeping well ahead with your work this month greatly depends the keeping ahead the whole season.

We need not caution you about sowing too soon this spring. The season is getting well advanced. Sow when your land is in order.

See that the fences are made up good and strong, so the cattle will not be troubling you during the summer by breaking into your crops. Do not let the cattle go tramping all over the meadows in search of a bite of grass; it will do both the cattle and the meadows more harm than good.

The ladies may be seen in the garden. Have it well dug and manured for them. Arrange your flower-beds, and sow your onions carrot and lettuce as soon as possible. Be sure and buy good stock, from reliable men. You can have any garden seed sent direct to your post-office, from any part of the Dominion.

Send to any of our reliable seedsmen, whose advertisements are in our usual columns, for one of their catalogues, They give much useful information, and you can there see all the new and staple varieties of field, flower and garden seed.

YOUNG BEEF.—Taking the top price of beef at 9d. per pound, the Hereford which weighed at 2 years and 4 months (that is, 121 weeks) 140 stone or rather more than 9 pounds a week, returned in money for the period of his life 6s. 9d. per week; and the Shorthorn did almost as well. They had been sufficiently fatted, but were they fed for profit, and killed a little younger, they would have given the feeder quite as much beef per week at a less cost. Bullocks that are properly finished off, and their flesh made firm instead of flabby, can hardly be killed too young. They gain more per week and pay the feeder better when killed under instead of over 2 years old. And the same general rule applies to mutton. Young mutton, like young beef, pays best.

POTATO WATER IN REQUISITION.—Potato water, or water in which potatoes have been boiled, is now recommended in various quarters as not only an effective, but an immediate remedy for lice on cows and other cattle, also for ticks. The affected parts are to be bathed with the potato water; one application is generally sufficient. This remedy (if remedy it proves) has the merit of being exceedingly simple, easily employed and without danger of injury to the cattle.

Early Maturity of Farm Stock.

By the common admission of all competent to form opinions on the matter. remunerative meat production cannot be ensured at the present day without early maturity and rapid fattening. Young pigs fed from birth rapidly, and sent to the pork shops at about six weeks old, may be made to pay, but the production of bacon can only be accomplished at a loss. Lambs taught to nibble oilcake as soon as they will eat anything, and kept steadily moving so that they fatten as they grow, may at about ten months old be brought to heavier weights of carcase than our fathers used to bring their sheep to after keeping them three or four years. And cattle-feeding, to be rendered remunerative, must be conducted precisely in the same way, The calf must never be stinted of food, but have plenty of milk at first, and then milk and meal with a little oilcake. As he grows bigger and devours more of the natural food of the farm, whether it be hay and root pulp or green food, a portion of the milk may be taken off, or skim-milk thickened with linseed meal or linseed boiled to a mucilage, may be substituted for the whole milk, but when this is done the allowance of oilcake should be increased. The calf should at all times be fed so as to go on steadily putting on flesh more and more as it grows, never being allowed to have a check at any time, but to enjoy one continuous, progressive development, with greater and still greater allowances of oilcake or meal, the result of which will be the production of two year old beef.

Well-breed young steers and heifers, in short, may be ripened into tolerably good maturity at two years old if only they are of the right strains of blood, for a great deal depends on this. Practical men of great experience are well aware what astonishing differences present themselves in the capabilities of animals to lay on flesh rapidly, and arrive at maturity quickly. Of a number of stock picked up indiscriminately at a fair or market, the proportion of "ne'er do well" ones would be large, while others would thrive to a wish. Here and there a few excellent judges of stock may be found capable of picking out the good doers from the band at a glance, ere their capabilities have been tried. But this is a rare gift, and can scarcely be termed a feat of skill to be acquired, consequently the necessity of graziers, who desire to produce two year old beef on a large scale, rearing their own stock, manifests itself. Those who do so can, with the exercise of ordinary skill, generally manage to rear the right kind of stock; for employing a good pedigree bull will alone do a great deal towards accomplishing the object in view. 'A bull forms half a herd' is a proverb often quoted in parts of England, and the extent to which calves of ordinary grade will turn after the sire if he be of high pedigree is astonishing.

Dirty Milk Cans.

It may not be generally known that cans that are not kept thoroughly clean are liable to impart to the milk a dangerous fermentive poison. Very recently a case occurred in London where a family suffered an attack of sickness and purging immediately after partaking of the usual morning's milk. A physician was called in who traced the causes of the attack to the dirty cans from which the milk had been taken. Dr. Muter, in his report of the case, says that the milk delivered to him was in the can in which it came, and also a larger amount of the same milk which had been boiled was likewise submitted. From the latter he made a careful search for poisons, but with a negative result. On opening the can he was struck by the foul smell which emanated from it, and on putting the milk under the microscope he found nothing which indicated disease, but noticed some bodies which appeared to be fungoid cells. He then turned his attention to the can and found that the smell, although partly communicated to the milk, really existed chiefly in that vessel. On washing the can he obtained decided appearances fungoid growths, and some bacteria adhearing to the joints, which were entirely filled by a mass of decomposing mill constituents. He at once concluded that the milk had been rendered poisonous by being placed in this dirty can, and he reported accordingly. His conclusion is that a poison, probably of a fungoid nature, can form in milk vessels when they have had the milk hardening in them, and are only given a slight perfunctory rinse.

We think that selling skim milk, or milk adulterated with water, is a virtue as compared with selling milk brought to our doors in dirty cans. We are not in favour of increasing the class of public officers known as inspectors, but a rigid official examination of the milk cans brought into our cities, made at frequent but irregular periods, we think, would be eminently salutary. Cans on their return from the cities should always undergo a thorough scouring and scalding before being again filled. It is a poor excuse for the farmer that his cans are kept so long on the road that he has no time to clean them. They should be bright, and shine both inside and outside every time they leave the dairy farm.—*American Dairyman.*

Manuring

Says the *Maine Farmer* on this subject, on which too much cannot be said as it is the substracture of farming:

There is no expenditure on a farm, so safe as that for manure; and the labor required to increase it is never labor lost, at any rate, if the labor is directed by an ordinray amount of agricultural knowledge and skill. Every source of supply should be made available, and especial care should be taken that nothing capable of fertilizing is lost. If the farmer returns to the soil as much as he takes off, the farm will retain only its original fertility; the true farmer is never content with this. To add to its fertility, and the amount and quality of the crops taken from the soil, is the aim and ambition of every intelligent husbandman. When this is done, his labor is diminished, his profits are greater and his farm more valuable; nor should the pleasure arising from beautiful fields, golden harvests, fine animals and accumulating prosperity be omitted in making up the estimate of the advantages of successful culture. Manure may be a homely subject but on its preparations and use, successful agriculture must ever depend.

The preparation of manures involves care and labor but it is labor that pays. The work of preparing a compost is much greater than simply drawing from the yard the droppings of the animals, but it is much more economical in the end, because the quantity is so much increased and the quality so much improved. The only other method that can compare with it, and that is not so satisfactory because there will be more or less waste is to spread the substances, muck, stable litter, leaves, wash of roads, leached ashes, &c., over the yard and allow them to be fermented there. The fundamental principle of the preparation of manures is that of impregnating the earths used in the process with the soluble salts and the gasses, which in the ordinary method of rotting, are wholly or at least partially lost to the farmer. The great business of the farmer who aims at profit in his business, should be to convert useless into useful matter; to change dead, putrid substances into organic matter, into corn, grain and roots; into meat, milk and wool;—into all the products of 'the farm—into the means of wealth and rational happiness.

True and False Economy.

The practice of economy is essential at all times but there has rarely been a time when there was greater need of it than now. The lower price of farm products and the difficulty with which remunerating sales are made, all indicate that the farmer should exercise great prudence in the management of his affairs, and give special attention to his income and expenditures. This is especially the case with those who are in debt, or who having little in advance, are dependent on the annual proceeds of the farm and their labor for their support. There are those in every community whom the pressure of the times, the prices of living or the scarcity of money hardly ever reaches. They are those who subsist on the fees of office or on the interest of their accumulations. Lessons of economy are not necessary to such.

But while we would enjoin the strictest economy in all our expenditures, we would by no means narrow the broad distance between economy and parsimony; between prudence and covetousness. If reform in expenditures is necessary, the farmer should see that it falls on those things which are the least essential to his present and future prosperity. It would be downright foolishness to commence a system or curtailment by dispensing with any of the necessary implements of the farm, the absolute need of which would produce the evil which he seeks to avoid. Equally erroneous would it be for retrenchment to fall on any of those things necessary to inform and improve the mind, and thus promote the intelligence, respectability and consequent happiness of the farmer and his family. Better would it be to dispense with a new coat, and make the old one last another year, than to part with the means of instruction; to forego the luxuries of the table than to starve and dwarf the mind.

The importance of this particular point cannot be too strongly urged or too frequently enforced upon the mind of the farmer, or the truth too frequently impressed, that economy, or rather parsimony in this direction, is a serious crime and the means of inflicting untold and irreparable injury. It is not in this, nor in similar things that economy should be begun, but every farmer when tempted to purchase anything, should first ask himself the question, if it is necessary for him to have it, and not purchase it until this query is fully and satisfactorily answered. Then make it a rule to pay in advance for everything that is purchased, for this is one of the most important of all the aids to the practice of true economy. A farmer who is in the habit of paying down for his purchases, of course, has almost unlimited credit, if he chooses to make use of it, and thousands have been wrecked and ruined by having such excellent credit.—*Maine Farmer.*

Farm Yard Manure.

The following extract, from a lecture (reported in the *North British Agriculturist*,(on Farm Yard Manure delivered before a body of English farmers, is worth attention:—

The value of any sample of farmyard manure depended greatly on the manner in which it had been kept. If exposed to rain, as was unfortunately to much the case in this country, it very rapidly deteriorated—ammonia escaped into the air, and potash and phosphoric acid were washed out of it. The commmon practices of storing it in a corner of a field, and of leaving it to be trodden in open courts, were both wasteful, and should be abandoned. Careful experiments made by Voelcker and others showed that the best mode of storing farmyard manure, was to put it in water-tight pits protected from rain, but watered occasionally to prevent its becoming too dry. The liquid manure was thus preserved, and might be pumped up over the heap from time to time. It had been shown that manure so treated was nearly twice as valuable as that which had been for months exposed to the weather. Various substances were sometimes added to manure heaps, with a view of fixing their ammonia, such as the mineral acids, gypsum, charcoal, and lime; but in a well made, pited, and covered heap, these were not much required. Contrary to expectation, it was found that lime had a very good effect in preventing waste of ammonia in a manure heap, but to be of any value it had to be added only to fresh manure. The application of lime to rotted manure was attended with great loss of ammonia.

Much discussion had taken place as to the best mode of applying farmyard manure. It was a wide question and could not be answered in a single sentence. Much depended on the condition of the manure, the kind of land, and the season of the year. On stiff land, it should be carted on the land when fresh; and after being allowed to lie there for some time till some of the soluble matter had been washed into the soil, it should be ploughed in, so as to loosen the soil and promote weathering. If this were done in autumn, there need be no fear of any loss from ordinary rain; a stiff retentive soil would retain all it absorbed. On light land there would be a great risk of loss if this method were adopted, on account of the feebler absorptive power of the soil.—Well rotted dung was best suited for it, and it should be applied near the time of sowing; and, if the weather were warm and dry, it should be at once ploughed in to prevent loss of ammonia. In cold, moist weather, fermentation and evaporation were checked, and no loss was sustained by leaving it on the land.

Pasture of the best kind will produce more milk of the best quality than any other feed. A quart of meal, twice a day, is worth something in promoting gentleness. Corn and oats, ground and mixed in equal quantities, make the most valuable meal, and a given quantity of such meal is worth more than any other; though barley and meal made in "pearling." and meal from making split peas, and shorts and ship-stuffs, are held as of great value to help sustain the yield of milk during the winter.

There are many farmers who have extra good butter cows and do not know it. They have poor pastures in summer, and poor shelter and indifferent feed in winter. In the house they have no conveniences for for making butter, the milk is set where there are no arrangements for keeping it cool in summer, and in the living room exposed to the odors of the kitchen in winter; and neither the quantity nor the quality are any index of what a cow can do.

Poultry Feed.

An exchange says all fowls like variety in food, so bread, dry, or soaked to be soft and pulpy, or bread and meal and cracked corn together, or potatoes mashed up with all or either are ready market on their feeding ground. Above all, every fowl loves meat, raw or cooked—raw best. If you live near a city or large town, it is easy to get to the butcher's raw-bone scraps. Mash this up with a heavy stone-sledge, on a sawtd-off block of hard wood, and chop up the mashed mess fine with a hatchet. This is the cheapest food out, if you except scraps. Poultry relish fine-pounded raw bones better. It is egg food and shell material for laying fowls. It may be given quite largely with plenty of other food, though scraps are above all available for those distant from large marts, and can be reached by all. Chop or pound them fine and soak; or soak them and then chop fine; or chop and pound fine and feed dry. Either way will do, as they like the change. But above all, about young ducks, remember that soft food is their delight. It rejoices their souls to muddle it around after it is in a thick soup-like liquid. "It's their nature, too." Boiled potatoes are the one thing that leaveneth the lump to their heart's content. They live by the shifting and search which they give to the mudhole and the pool, and the soft food they there find. So give them soft food—meal and bread soaked in a little milk or the water in which meats have been boiled, and the sundries of the swill-tub. Plain stale bread, meal and water mixed with boiled potatoes, will in either state meet with welcome. Another whim about young ducks, that they must not be allowed a bath until some weeks old. This is a mistake. It is needed best until they get strength and growth of some weeks; not let them wander around loose after it or to tramp with their mother duck or old hen through the wet grass. But in the little pen, to which at first they should be confined, a sunken shallow pan or basin, or any reservoir out of which they can readily climb, will be their delight.

How the Body is Built Up.

The muscle and fat of the body, remarks the Journal of Chemistry, are derived from the food, and animal heat is evolved from their combustion or their combination with the oxygen admitted by the lungs. When the muscles are inactive, slow combustion goes on; and for every grain of carbon burned, a perfectly definite amount of heat is produced. When the muscles contract, the combustion is quickened, and the additional heat is liberated in the muscles themselves. If external work be done, as in lifting a weight or hammering a nail, the heat is no longer developed in the body, but transferred to the weight lifted or the raised hammer, and is liberated when the fall, and the heat thus liberated is exactly equal to the combustion inside the body, Thus the body is an apparatus efficient beyond all others in transforming and distributing the energy with which it is supplied, but it possesses no creative power. A man weighing 150 pounds, by the consumption of a single grain of carbon can lift his body to the height of eight feet, and by the consumption of two ounces, four drachms, twenty grains, to a height of ten thousand feet. Mayer mountains, against Liebig and others that the muscles in the main play the part of machinery, converting fat into the motive power of the organism. He saw that neither nerves nor brain possessed the energy necessary to animal motion, and believed they held fast or let loose muscular energy as an engineer, by the motion of his fingure in opening or closing a valve, liberates and controls the mechanical energy of a steam engine. These views are now quite generally accepted by scientific men.

Potato Culture.

The soil acknowledged as best adapted to the requirements of the potato-plant is a sandy loam, neither too wet nor yet too dry; heavy soils induce a watery insipidity of flavor, and render a dry, mealy product impossible. A rich, fresh sod yields probably the best-flavored potatoes and those less liable to disease. A calcareous soil produces good tubers and generally a sure crop, though if there is litttle lime present it should be added.

Salt, ashes and gypsum are excellent fertilizers, and have been known to produce on some lands astonishing results. A dressing of salt and unleached ashes applied in the growing season acts not only as a fertilizer but is a preventive of the grub prevalent in richly-manured lands. Bone-dust also greatly benefits a potato soil. Fresh barnyard manures are not advised. They are liable to affect the flavor of the potatoes and induce a luxuriant growth of tops at the expense of the tubers, which in consequence become an easy prey to blight. When necessary to apply manure it is recommended that it be scattered broadcast and plowed in.

The relative merits of whole or cut potatoes for seed agitates the agricultural world each recurring season. Both systems find advocates among successful growers. This fact proves that it is of little consequence which mode is followed, other things being equal, The general rule arising from conflicting experiences and their respective results is: Select for seed none but the best, and when the tuber is cut leave bulk enough to insure sufficient sustenance to the young plant.

The distance apart of both hills and drills depends on the character of the land and variety of potato planted; some sorts grow much larger tops than others. Thorough cultivation during the early season is imperative. The young tubers require a suitable bed to swell in, and become irregular and fail to attain the desired size when they have to struggle with hard ground.

After the vines begin to bloom, when the potatoes are forming and near the surface, cultivation should cease beyond pulling out any weeds that may make appearance.—*N. Y. World.*

Treatment of Grapes to Avoid Rot.

In grape culture all sorts of soils and exposures are not equally good in spite of the fact that the grape will fruit almost everywhere. 1. Strong clay soil is worth a little; 2. Marshy or low-lying land is worth still less; 3. Loamy soils yield well, but not giving a sweet grape, are worth little more for wine making purposes; 4. Exposure toward the north, northeast, northwest and west, should be considered out of the question; 5. Even the best of drainage is not as good as a soil naturally propitious, and should also be avoided. The land and exposures above indicated should never be taken if others can be had, as the result cannot fail to be bad in respect to quality and quantity of crop the rot of the grape, and the production of a wine of little value.

Vineyards should be planted in the following positions in the orders named: 1. Looking toward the south 2. Toward the southeast; 3. Toward the east (but southwest as little as possible); 4. The ground should be level, if dry, and not retentive of moisture. To make first-class wine the soil must be dry, either stony or sandy and as deep as possible.

But how to plant well is the question. To use the plow is more or less bad—always bad. I say take the spade. I am told it is impossible—too long and hard a task, ridiculous! This is because the process has not been taught or tried. When one knows how to use the spade, it is very simple and not hard—much more rapid and less costly than could be thought. An acre dug to a depth of 20 to 24 inches costs little relatively; the vines find ample support in a soil thus worked, and the grapes will not rot.

This, however, is not our only way of fighting the grape rot. The soil should be thoroughly worked in spring with a spade, followed by four or five hoeings in the summer, whether there are weeds or not, in order to keep the ground constantly stirred, and a path should be made in each row to work from, so as never to step on the soil itself. All cultivation and other manipulations should be done in fine weather and when the land is dry. Keep the ground worked always as deep as possible with the hoe; it will thus remain cool, the vines will grow wonderfully, and the fruit or the wine will be of first quality.

Principles of Pruning.

Barry, in his "First Garden," rests the theory of the pruning of fruit trees on six general principles:

First. The vigor of a tree subjected to pruning depends in a great measure on the equal distribution of sap in all its branches. To accomplish this the following means are devised to be successively employed: (1). Prune the branches of the most vigorous parts very short, and those of the weak parts long. (2). Leave a large quantity of fruit on the strong part, and remove the whole or greater part, from the feeble. (3). Bend the strong parts and keep the weak erect, as the more erect the branches are, the greater will be the flow of sap to the growing parts. This remedy is especially applied to espalier trees. (4). Remove from the vigorous parts the superfluous shoots as early in the season as possible. (5). Pinch early the soft extremities of the shoots on the vigorous parts and as late as possible on the feeble parts except always, any shoots which may be too vigorous for their position. (6). Lay in the strong shoots on the trellis early, and leave the feeble parts loose as long as possible in espalier trees.

Second. The sap acts with greater force, and produces more vigorous growth on a branch or shoot pruned short than on one pruned long; hence the practice of pruning short where wood branches are desired, and long for fruit branches.

Third. The sap tending always to the extremities of the shoots, causes the terminal bud to push with greater vigor than the laterals.

Fourth. The more the sap is obstructed in its circulation, the more likely it will be to produce fruit buds.

Fifth. The leaves serve to prepare the sap absorbed by the roots for the nourishment of the tree, and aid the formation of buds on the shoots. All trees, therefore, deprived of their leaves, are liable to perish.

Sixth. When the buds of any shoot or branch do not develop before the age of two years, they can only be forced into activity by close pruning, and in some cases, notably the peach, this even will often fail.

Hiving Bees Without Swarming.

We have tried a new plan of managing our apiary this season. In the burning of our house last winter, we were unfortunate in losing all but a few colonies. There were a few left out doors in chaff hives. When swarming time came it was scarcely possible to watch them, owing to the press of work, so we determined to try the expediency of dividing the colonies instead of permitting them to swarm naturally. As soon as the queen cells were nearly ready for the new queens to come out, we placed a new hive beside the old one, and lifting out first a frame with at least two queen cells in it with plenty of brood, placed it in the new hive, followed up the work until one-half of the frames of honey and brood were transferred, being careful to leave the old queen in the old hive. Then filling the empty spaces in each hive with new frames, the new hives were placed on the stand and the old ones removed to a new place. In a few days both colonies were at work nicely. Old apiarists have practiced this plan more or less for years, but this was my first experience. With but few colonies to look after—too few to pay for the trouble of constant watching during swarming season—this seems to work admirably. At any rate, it is much less trouble, and all the colonies we divided last summer have done well and given a fair amount of surplus honey. Of course this is done where some kind of frame hive is used. We use the Langstroth ten frame hive with a second story above the brood chamber for surplus honey. With me the question of the superiority of the Italian over the black bee, is settled conclusively. They are more pleasant to handle, better workers, and under the same conditions will gather more honey.—*Husbandman.*

Tomatoes.

When an early crop of tomatoes is desired, set out the plants in a light, sandy loam, not too dry nor yet too rich. Prepare the land by thoroughly plowing, harrowing and rolling. Set the plants in rows laid four feet apart, and allow about the same distance between plants.

Water the plants previous to transplanting, so that they may be set with considerable wet earth adhearing to them; a shovelful of finely-pulverized and well-rotted manure, applied in each hill at the time of planting, will greatly accelerate the growth of the crop. Cultivate with the hoe until the vines cover the ground.

To hasten the maturity of the first fruit that sets, pinch off the extremities of the tops, and all the secondary shoots which afterwards appear above the flowers.

On suitable soil, with ordinary careful cultivation, one acre of land will yield about four hundred bushels of tomatoes. In small gardens, where space is limited, a greater quantity of fruit can be obtained by elevating the branches of the plant from the ground with brush or on frames made for the purpose. But for market on a large scale this extra labor is not advised. —*Ex.*

Young calves generally do well this month; but have a care for them. A little extra mash for the cows, and a few roots and a little grain will tell well on your stock during the summer.

The entire length of the boundary of Texas is 4,630 miles, including 875 miles, of gulf coast.

Plant mouse-traps in the pantry. Apply a top dressing of cheese.