FARM AND GARDEN.

Celery Plants.

Celery plants may be set to advantage in the autumn. The ground should be well prepared, be mellow, and previously well fertilized. The plants should be set in trenches, at least eight inches apart, and as they grow they should be frequently hoed clear of weeds and the soil kept banked up closely around them, leaving only their tops exposed. Even the white plume and golden dwarf are better when frequently banked up and attended to. These varieties will live and bleach themselves, but will be far inferior in quality to the same varieties treated with special care and attention. The crop should be kept in mind during the busy days.

Vigorous Potato Tops.

A good deal can be told of a field of potatoes by a good judge merely seeing them as he passes along the road. Though the tuber is underground its productiveness is usually indicated by the more or less vigorous growth of stems and leaves above. Too many small stems indicate a great number of small potatoes. This is often the fault of varieties that grow their tubers in a bunch. Those which spread more will bear much heavier seeding. The Peach Blow extends its roots so far that a whole potato of this variety may not be too much for seed, though if planted whole only three or four eyes will grow. Those which start first absorb the strength that belongs to the others, and these consequently remain dormant.—*Prairie Farmer.*

Death for the Potato Weevil.

A correspondent of the *New England Farmer* gives the following directions for destroying the grubs of the potato weevil: "Take an ordinary manure hod, one that is broad and light to carry is to be preferred, and grasping it by the hole for the left hand near the mouth of the hod, with a broad and limber broom carried with the right hand, proceed through the field, placing the hod against vines infested with grubs and gently beating or sweeping them over the edge of the hod and into it with the broom. In this way a great majority of all the grubs in a small potato patch may be gathered in a short time and destroyed. This may be of service, especially in cases where there are objections to the use of the poisons offered in the markets. A little practice will enable a person to do execution with the above implements with considerable dispatch."

Making Butter.

Professor Arnold claims that the old idea that the souring of cream develops butter flavor is a mistaken one, and said that souring has no influence upon flavor at all unless it is strong enough to commence injuring it. Butter flavor is increased while the cream is ripening, but it is effected by the action of the air upon the fat in the cream, and not at all by fermentation.

The most advanced butter makers maintain the perfect exclusion of the low cooled milk and cream from the air. Whenever warm air or air comparatively warm comes in contact with colder milk or cream or water, or any other liquid, the warm air, touching the cooled liquid, is condensed and deposits moisture in the form of dew on the cold liquid. With the dew thus deposited go all the impurities the air may contain. In the case of milk and cream these deposits impair in a marked degree the flavor and keeping quality of the butter made from them. It is not essential that air should be excluded from milk until its temperature falls to the temperature of the surrounding air, but when it drops to that point exclusion from the air is important.

Churning, according to this class of dairymen, ought to be done at the first appearance of acidity. They say: "Do not wait until the cream gets intensely sour and stale. In churning the butter should be granulated in the churn, instead of being gathered into a lump. It should be cleansed of buttermilk by washing, and not by working. After lightly salting it must be worked into a solid condition with the slightest working that will effect that end.—*New York Herald.*

Moss on Fruit Trees.

J. H. Hale, of Connecticut, an experienced and successful orchardist, writes to the *American Agriculturist:*

"Moss is found most often on pear trees not in a vigorous growing condition or in moist, shady places. The moss is a sort of fungus growth, which is easily kept off by washing the trees with strong soap-suds. This treatment promotes the growth of a smooth and healthy bark. If the trees are badly mossed over now it will be the best to take an old hoe and scrape off the thickest of the moss before washing the trees, and then wash them two or three times during the next two months. In the fall, after the leaves are off, spray the whole tree with soap-suds, repeating this early in the spring. There is nothing like it to promote clean and thrifty-looking bark. At Elm fruit farm we make a borer wash for our peach and and other trees, and it also answers the double purpose of keeping out the borer and keeping the bark clean and healthy. This wash is prepared by adding to a common bucketful of water two quarts of strong soft soap, half a pint of crude carbolic acid, two ounces of paris green, with lime enough to make a thin paste that will adhere to the tree. If convenient a little clay or fresh cow dung may be added to assist in making the wash stick. Apply it with a swab or brush about the base of the tree and main branches. The rains will wash it down from time to time, and the whole trunk will receive the benefit. In spraying the trees when not in leaf I usually add a quarter of a pound or more of potash to each bucketful of soap-suds, so as to make quite a strong lye. These washes cost but little and are of great value in the orchard."

Apple Worm or Codling Moth.

There is now known but one generally successful practical means of preventing the injuries of the codling moth, and that is spraying with arsenites. The essential point in this method of treatment is to have a small quantity of poison lodge in the depression in the blossom end of the apple before it turns down on its stem, the supposition being that when the newly-hatched caterpillar gnaws the skin preparatory to entering the fruit, it will eat sufficient poison to be ki[illegible] is best accomplished by a[illegible] the poison in a water spray by means of a force pump and spray nozzle, throwing the liquid above the tree so that it will settle in a fine mist. This should be done just after the blossoms have fallen, when the apples are about as large as peas. I believe that generally speaking one application will answer the purpose very well, unless there is a washing rain soon afterwards, in which case the application should be repeated. I prefer London purple to Paris green, as it is cheaper, less liable to scorch the trees, more easily seen and in finer powder, and hence is more readily kept in suspension. A safe and effective proportion is three-fourths of a pound to eighty or one hundred gallons of water. Paris green may safely be used in the proportion of one pound to one hundred gallons of water. The poison should be formed into a paste with a little water, before stirring into a large receptacle. Of course it must be remembered that these substances are deadly poisons, and all reasonable care should be taken that no accidents occur through their use. Protect the hands of the operator with close-fitting gloves, and apply the spray so that it will not be breathed by men or horses. Keep stock out of the orchard for some time after the application is made, and do not spill the poison in quantity on the ground where it will be accessible to animals of any kind. Always keep the poison itself in tight vessels, plainly labeled "poison," and out of the reach of children. No danger need be feared from eating mature apples that were poisoned when the size of peas, for chemical analysis has shown that the extremely small amount of poison that lodges on the fruit is dissipated long before it matures.—*New York Observer.*

Cabbage and Potato Culture.

Planting two beds of radishes not exceeding a square rod in extent near half an acre of cabbage is suggestive of a possibility, says Galen Wilson in the New York *Tribune*. There are every day and every hour more cabbage butterflies on the radishes than on all the cabbage. Cabbage worms trouble very little and their ravages are not feared much, for a teaspoonful of ashes to a plant soon "coopers" them. The radish beds, however, were alive with worms until a flock of house sparrows made the discovery that those beds were a good foraging ground, and now there are not worms enough left to "put into tea." It has been observed that cabbage fleas and other parasites trouble Winnigstadt cabbages less than other varieties, because the foliage possesses tougher epidermis; in fact, this kind escapes almost entirely while other sorts in the same field are damaged considerably by the flea.

The best looking field of potatoes I have seen in years was planted on old sod ground plowed last fall and again at planting time, when the seed was dropped into every third furrow and plowed under. A small portion of the field was not plowed the second time, but furrows were opened and then turned back on the seed. On this portion the growth of stalks is only about half the other; they are being cultivated and worked thoroughly; the old sod is pulverized, but they are not doing well. This shows that for potatoes all the surface soil should be in good tilth before planting. If my theory be correct, that a heavy rain occurring when potato stalks are six inches high assures a good yield, other things being right, there will be a bountiful harvest this year, for it has rained nearly every week since planting.

Experiments in Feeding Lambs.

The result of experiments made at different times and places in feeding pigs has demonstrated that when fed to these animals nitrogenous food produces a much greater per cent. of muscle, and non-nitrogenous a greater per cent. of fat. To ascertain if lambs would be affected in the same way, an experiment was undertaken during the winter of 1887–8 at the agricultural experiment station of Cornell University, Ithaca, N. Y. Six lambs six months old were chosen with careful reference to uniformity in size, weight, shape, and of the same blood. On the 10th of October they were shorn and placed in a box stall together and fed alike till November 11 to prepare them for the experiments.

On November 11 they were divided into two lots of three each, the total weight of each lot being as nearly equal as possible. At the beginning of the experiment lot No. 1 was fed daily one and a half pounds of oilmeal and one and a half pounds of coarse wheat bran. Later on one pound of cotton-seed meal was substituted for one of bran. Lot 2 was fed three pounds of cornmeal daily. Both lots were fed as much timothy and clover hay as they would eat up clean. All ate their rations with avidity up to the last of December, when that of lot 2 had to be reduced for a short time to two pounds, and it was not until March 1, when four pounds of mangolds were added to the rations of both lots, that they could be induced to eat their full rat on of cornmeal.

The experiment lasted 176 days. The difference in the amount of water drank was very marked. Lot 1 drank 61 pounds in 6 days; lot 2, 21½ pounds. All were slaughtered April 26. The live weight of lot 1 was 21 pounds greater than that of lot 2. In proportion to live weight, the dressed weight of lot No. 1 was 9 per cent. greater than lot 2. The wool of lot 1 was 26 per cent. greater than the wool of lot No 2. The bones of the hind legs of lot 1 were 24 per cent. stronger than those of lot 2.

It is thus seen that the valuable parts are larger in the lot fed on nitrogenous food. The experiment is only one of a series to be yet tried; but from its result the fact may be deduced that the effect of feeding an undue proportion of non-nitrogenous food to sheep is to decrease the product of wool by one-quarter, the strength of the bones by one-third, and to reduce the proportion of both fat and lean meat. As no one of these is desirable in sheep husbandry, we may conclude that corn alone is not the best food for sheep. In this experiment there is no evidence that the ration rich in nitrogen caused any marked increase of lean meat in lot 1 over that in lot 2.—*New York World.*

Farm and Garden Notes.

Look after the fences occasionally.

A lamb should not be despised because it is small.

The farmer, not the retailer, should have the main profit on milk.

Secure a good breed for stock, and then feed and treat them well.

Let former failures but urge to greater efforts to make success certain.

When you feed grain throw it among litter and let the fowls scratch for it.

A supply of salt should be placed where cows have access to it every day.

A little time, a little care will often give big berries and bigger satisfaction.

The successful farmer cares for the littles, and allows nothing to be wasted.

Careless farmers will soon begin to realize that weedy seed is a bad investment.

When you gather the eggs set them in the cellar and keep them as cool as possible.

The clematis is a good, hardy perennial. It should be propagated by root-grafting.

Large imported hyacinth bulbs should be added to the home stock each year to strengthen them.

The grain and grass crops will sell to better advantage if turned into meat, butter and cheese.

Hard, intelligent work, and keeping at it, insures success on the farm, as it does in all life's duties.

It pays to plow deep, harrow thoroughly, sow carefully, till diligently, and harvest at the right time.

No farmer should rest satisfied until he is supplied with the best farm tools and implements he can obtain.

It is almost work thrown away to set trees, shrubs or flowers, and then leave them to take care of themselves.

If you have nothing worthy to exhibit at the fair, there must be something wrong about your system of farming.

No dairy can be successfully worked without a thermometer. Don't use cheap ones. Get those which test correctly.

Onions are one of the best vegetables you can feed to fowls, but if fed too freely to laying hens they will flavor the eggs.

Place small brick tiles underneath your flower beds, about a foot deep. Then turn water into the tiles until it shows at the surface and you may be sure the beds are well watered.

Warming water for stock is a subject being much thought of by farmers. It may be done with either wood or kerosene, at a moderate expense. Guarding against fire is the problem most to be studied.

Death from Lightning.

The majority of deaths from lightning occur in the level, open country, trees, villages and thickly built-up towns and cities, by their projections into the air, serving as conductors and thereby protecting the inhabitants from direct stroke. The loss of life annually throughout the world is very great. In European Russia from 1870 to 1877 no less than 2270 persons were killed by this cause. In Austria during the same time 1700 persons were likewise killed. In Prussia it is reported that seventy persons are annually killed. Ten thousand persons are reported as having been struck during a period of nine and twenty years, with 2252 deaths in France: while in the United States during 1870 alone 262 deaths from lightning were recorded.

The effects of lightning stroke are most interesting, curious and appalling. The general symptoms are usually a shock. There is often unconsciousness, sometimes coma, lasting from a few hours to even days; partial or complete loss of sight or hearing, associated with impairment of the other senses.

The tissues may be burned superficially or deeply, the bones fractured and portions of the limbs are torn off entirely. The tracks of lightning on the surface of the body may have a fancied resemblance to the branches of a tree, the main stem from which the branches lead off arising at any portion of the body. The skin in these tracks may be simply scarlet in color, slightly swelled or blistered, the branches tapering off until no larger than the scratch of a pin. They may pass in all directions from the place first struck or skip about from one part to another. This is due to the conduction of the current by the clothing, which if wet acts as an excellent conductor.—*Globe-Democrat.*

Origin of Two Inventions.

Several years ago a member of a firm of glass manufacturers was traveling through the West. While on a railway which skirts the shores of a great inland lake, he observed that the plate glass in the windows of the Pullman car was marked with mysterious figures, undefined in shape, but of a singularly airy and delicate lightness. On inquiry, he learned that the marks were made by the sand, which was blown against the windows from the beach as the cars passed. Upon returning home, he began a series of experiments in directing a shower of fine sand against the surface of glass in definite shapes. The result was the discovery of the sand-blast, by which the most delicate figures are outlined upon glass with exquisite lightness and accuracy.

The discovery of a process of engraving was due to similar keenness of sight, and readiness in using a hint. Prince Rupert, a quick-witted, scientific man, who lived in an unscientific age, once stopped at a forge to have his horse shod, and laid his gun upon a damp bench while he waited, until the blacksmith should have finished his work. When he took up the gun he observed that a piece of white paper on the bench bore in fine dotted lines the name of the maker which he cut on the metal. Out of this hint, he evolved the process of etching on copper known as Mezzotint.—*Youth's Companion.*

Water Power in the United States.

The American Statistical Association publishes some interesting figures on the amount of water-power employed in the United States. In 1880 there was a total water-power equal to 1,225,379 horse-power used for manufacturing purposes, this being 35.9 per cent. of the total power thus employed in the States. The annual value of the water-power thus utilized is set down at $24,000,000. The New England States alone use 34.5 per cent. of the whole water-power of the country, and altogether the Atlantic States use over three-fourths of the whole.

HUMOR OF THE DAY.

A sisterhood—A bonnet.

A shocking tric—Electric.

A circulating medium—Blood.

A dead beat—A muffled drum.

A garden party—The gardener.

Signal service—Flag talk at sea.

A marine auction—A sail at sea.

In a regular pickle—Corned beef.

A disagreeable chap—Hugh Mighty.

For crying children—The spanking breeze.

The equilibrist's life hangs in the balance.

Notes for travelers—Bank notes are the best.

The oldest verse in existence—The universe.

Well earned—The fortune of a petroleum producer.—*Pittsburg Chronicle.*

It is the poor struggling attorney who is dressed in a little "brief" authority.

There is always trouble whenever the red flag is run up. It means auction or anarchy.

A tree is like the man in a hurry. When he leaves he makes a good use of his limbs.

Why is it that when a man "erects" a house he gives it a stoop?—*Binghamton Republican.*

The best use to put a madstone to is to hit a snapping, vicious dog in his spot of vitality with it.

It is a queer coincidence that red is made from madder, and bulls are made madder by red.—*Life.*

To have one's nose to the grindstone must be what is meant by grinding poverty.—*Alta California.*

There is a great deal of billing and cooing done at the seaside. The hotel men do the billing.—*Life.*

A "joint" debate ensues whenever a Chinese opium den is raided by the police.—*Chicago Inter Ocean.*

The fizzical proportions of a soda fountain are not to be measured by a tape line.—*Boston Herald.*

Talk is cheap in this world, because the supply is so much larger than the demand.—*Baltimore American.*

"Have you traveled a good deal?" "I should say so; I have been around the world so often that my heads swims."—*Siftings.*

Rich Chinamen go to Tartary for their wives, their wealth enabling them to secure the very cream of Tartary.—*Siftings.*

The youth has thoughts of suicide,
His heart's received a reg'lar twister;
He thought she would become his bride—
She can be nothing but a sister.
—*Boston Courier.*

First Burglar—"What's your favorite game?" Second Burglar—"Well, cribbage, and yours?" First Burglar—"Grab."—*Detroit Free Press.*

Old Grum, since his daughter has grown up
Says he do sn't get any repose,
All the day time he's footing her bills,
And at night he is footing her beaux.
—*Detroit Free Press.*

In French the same word means to love and to like, consequently when mademoiselle says she can never love any more, we may infer that we shall never see her like again.—*Siftings.*

He—"And suppose while sitting serenely here some one should be wicked enough to steal a kiss?" She—"I should certainly scream for help." (The steal follows.) She—"Carlo, lie down and be still."—*Time.*

It makes a man almost sorry that he moved when he reads in the advertisement in the paper next day the real estate agent's description of the advantages of the residence he has just given up.—*Journal of Education.*

Aggie—"How did George propose to you?" Nellie—"He rushed into the parlor the day after we had been introduced, flung $50,000 worth of bonds in my lap, kissed me eagerly seventeen times, and cried out: 'Darling, you must be mine!' So I became his."—*Time.*

Hat-Wearing and Baldness.

G. O. Rogers, says in the *Popular Science Monthly*: "During several years' residence in Hong Kong, in my professional duties, I had to do with a goodly number of persons, representing a large variety of nationalities, and in my study of these people I found that many theories deduced from local experiences at home were, in some cases at least, hardly broad enough to cover all facts found at large in nature bearing upon the specific points of investigation. Familiar with some of the popular theories as to the cause of baldness, I was surprised to find men who always wore a covering to their heads, and during business hours and always when out of doors wore a very tight hat, were never bald and possessed a wonderfully strong, thick head of hear. I refer to the Parsees (Persians). There is a sacred, religious law among them that no man shall go with his head uncovered. When the Mohammedans invaded Persia, the major part of the native Persians that were not exterminated fled farther east into India, found protection and a welcome home among the Hindoos, a people of castes, and in order that these strangers should always be identified, also knowing that their religion obliged them to wear a head-cover, a law was passed to compel all Parsees to wear a certain style of hat whenever exposed outside of their own private home. The hat prescribed is as tall as an American silk hat with no brim; it truly might be called a "stove-pipe." This hat is worn, inclining backward on the head from thirty-five to forty degrees, and, in order to keep it on its place, the brim is made to cling very close to the head; being so tight and so constantly worn that quite a deep depression is caused substantially around the head; it seemed as if the skull might be involved, but, not having the opportunity of examining one, I was not able to fully determine. Whenever this hat is removed, a skull cap immediately takes its place. In my professional duties these hats often had to be removed, and it appeared to me as a curious fact—if some of the popular theories were altogether true—that these people should never be bald. Therefore I instituted a series of strict inquiries. Many of these gentlemen spoke English intelligently, also French, German, Persian and their local Hindoo dialect, some of whom kindly allowed an examination of their heads, and also assured me that they had never known one of their race that was bald.