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PRIMITIVE FOREST.



THE  
NEW YORK  
Horticultural  
REVIEW

C. REAGLES  
EDITOR

SUBURBAN  
ART

BOTANY

ENTOMOLOGY,  
SMALL ANIMALS  
TIPS

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LANDSCAPE GARDENING.

THE great desideratum sought to be realized in the composition of a Landscape Garden, is by the tasteful and artistic grouping of Trees, to produce as much variety as will consistently harmonise with the *locale* to be improved, and contiguous scenery. To perform this beautifully, and without disparaging natural laws of unity, require a talent cultivated to the most delicate sense of discrimination. An inherent love for the *beau ideal* in nature and the fine arts. Most unfortunately for the budding taste which is rapidly expanding for rural homes in this country, our professional landscape teachers are only in rare instances, qualified to impart the knowledge imperative to the creation of the veritably and naturally picturesque.

The refined and least sordid of the mercantile community in large cities, anticipate largely for their *dolce far niente* in declining years, from the delights and pleasure inspired by a "Country Home." This object is the cynosure of their ambition, and the incentive to speculative transactions. These men lavish extravagant sums in the accomplishment of their long-fostered wishes. The result in a majority of cases is a home—a building with the prominent features of some peculiar architecture, fearfully emblazoning every inequality of surface presented for ornamental consideration. This is termed by the gentlemen of labyrinthian architectural lore "*Ornate Expression.*" With him ornateness is the *sumum bonum*, the poetry of

his art, for the most exquisite elaboration and perfection of this absorbing idea, minor details tending to the comfort and convenience of the occupants, and landscapesque effect, suggested by surrounding objects, are sacrificed. To such a scrupulous modeller of human habitations, the idea of enshrining a cot in ivy or any other expressive and elegant vegetation, would be insupportable vandalism, a retrograde to feudal times and barbaric sentiment. As a fitting accompaniment to a house of this character, a lawn is tortured into an inelegant perpetuity. A requisition is made upon a person, notorious for his profundity and subtlety in piling misshapen rocks into representations of miniature Gibralters, covered with spasms of vegetation vainly endeavoring to struggle through a butterfly existence, stimulated by limestone and three inch crevices of daily irrigated mould. This individual generally makes his *debut* formidably armed and accoutred with lustrous surveying instruments, and other tools peculiar to his art-professional: not forgetting a small army of ambitious young men whose desire to absorb abstruse sciences compels them to do menial service, which is symptomised in chain dragging. This spreading of the science tends much to create an appreciation and mystification in the individual "who pays." The first effort of the brass-mounted gentleman is directed to subduing hillocks, and correcting undulations, subjugating nature to a monotonous and placid aspect, exceedingly deferential to all potent progression. The landscape creator being governed in his operations by certain fixed geometric rules, whose principles involve the great secret of the profession, and therefore cannot be transcended. He next selects from a voluminous catalogue a list of trees and shrubs, rendered particularly attractive, in his estimation, from the great care required in their cultivation, their high price, foreign nativity, and lastly a stilted Quixotic name.—Walks and drives are made to perform circles and squares, and triangles quite amazing to the beholder, and a matter of self-gratulation to the originator. Trees are planted circumspectly, pertinaciously following the walks, and characterizing their peculiarly graceful elliptics and angles. Shrubs are introduced in expanse, which from their subsequent appearance, for no other object than affording a gardener an opportunity of shearing them annually; imparting the appearance of a huge punch bowl reversed. After seeding down in grass, the grounds are rendered classic by being "dubbed" lawn, but which the genuine lover of nature would not recognize as such, but for the information conveyed by a number of small signs which read, "*Keep off the lawn.*" On the principle of the artist who painted what he intended should represent a pig, but on showing his performance to a friend was told it more nearly resembled a whale. Not

wishing to leave the people in a state of doubt he immediately, with commendable discretion, underscored the words, "This is a Pig."

Landscape Gardening has materially changed in the last half century. Avenues of trees which formerly graced every abode pretending to suburban dignity, have now given place to a more natural style of planting. The group at present finds favor, as being more particularly in keeping with nature. But this taste has thus far only impregnated the higher cultivated class, by whom we mean, those whose leisure and predilection, have led them to cultivate their rural inclinations as a speciality. Large grounds are mainly composed of a succession of groups, comprising thickets and woods, interspersed with the smaller group of from two to a dozen trees, but so judiciously arranged, and so harmonious to nature, as to be perfect as a whole. The principle of grouping may be extended with pleasing results, even to the smallest place, which however demands very nice judgment. Thickets are occasionally introduced with happy effect, for instance, to screen a change in the order of planting. In wandering around a curve, with the objects beyond obscured from view, an entirely different scene breaks with all its invigorating freshness upon our admiration. A little hillock, reposing *perdu* in some sequestered nook, oft-times imparts a zest to landscape not attainable by bolder and more ambitious objects. The modern style of landscape making is beautifully adapted to the rapid formation of scenery in localities covered by forests. By the proper and careful thinning out of ill shapen and unnecessary trees, they can in a few years be metamorphosed from a wild wood into a cheerful landscape, full of finely toned shadows, rendered doubly attractive by pendulous luxuriant trees, sweeping the sun-lit green sward as if it were a love-making, twixt the emerald grass and and her majestic companion.

\* \* \* \* \* "The noonday sun  
Now shone upon the forest, one vast mass  
Of mingling shade, whose brown magnificence  
A narrow vale embosoms.

\* \* \* \* \*  
The meeting boughs, and implicated leaves  
Wave twilight o'er the poet's path, as led  
By love, or dream, or God, or mightier death,  
He sought in nature's dearest haunt, some bank—  
Her cradle and his sepulchre. More dark  
And dark the shades accumulate—the oak,  
Extending its immense and knotty arms,  
Embraces the light beech. The pyramids  
Of the tall cedar overarching frame  
Most solemn domes within—and far below

The ash and the acacia floating hang  
 Tremulous and pale. Like restless serpents clothed  
 In rainbow and in fire, the parasites,  
 Starred with ten thousand blossoms, flow around  
 The grey trunks, and as gamesome infants' eyes,  
 With gentle meanings and most innocent wiles,  
 Fold their beams round the hearts of those that love.  
 These wind their tendrils with the wedded boughs,  
 Uniting their close union : the woven leaves  
 Make net-work of the dark blue light of day,  
 And the night's noontide clearness mutable  
 As shapes in the wierd clouds. Soft mossy lawns  
 Beneath these canopies extend their swells  
 Fragrant with perfumed herbs, and eyed with blooms  
 Minuter, yet as beautiful."

Our engraving entitled a primitive forest, strikingly illustrates the unpolish and tortuous picturesqueness of original condition. Here we have trees that ramify and interlace one another in every possible direction; added to this we have a sub-growth of vegetation, altogether in appearance and nature too savage to be pleasing. And then again, minute pools of stagnant water assist to make a disagreeable prospect. This semi-barbarous aspect can be astonishingly ameliorated, and made to assimilate the more charming and graceful work of nature, in her cheerful moods.

In the first place, it is absolutely necessary to annihilate a great portion of the undergrowth, in order to obtain an uninterrupted *vista*. By this means we shall be enabled to discover those trees whose development is in consonance with our requirements. And also that natural groups may be selected with an eye to their subsequent relative effect. This is the critical moment to mar or make the landscape, for if this all important operation be illy performed, no amount of after improvement can obviate the stiff and unartistic effect. Nature is rarely consoled by patchwork. It will in consequence be imperative to scrutinize carefully every tree on the grounds, to estimate its value in the landscape, and to ascertain as nearly as possible, the result of robbing it of its present companions. As different varieties of trees present a multiplicity of shapes and contrast of color, and variation in form of foliage, branch and trunk, it will be essential to consider well the species which will contribute the most enlivening appearance to the future effect. It is also a matter of delicate discrimination, whether round headed deciduous trees would tend to produce a greater degree of beauty in certain localities, or on the contrary if spiry-topped evergreens would not be more harmonious, and in keeping with objects in the vicinity. As a general rule pyramidal evergreens should be used sparingly. Intro-



EXAMPLE OF IMPROVEMENT IN FOREST SCENERY.



duced approximate to water, particularly contiguous to rustic bridges, best suits their dignified picturosqueness. Most landscape gardeners are impressed with the notion that evergreens possess the true principle of gracefulness in a tree. On the contrary very few evergreens approach this desirable quality, if we may except such as are of rather straggling and pendulous habit. At the same time we aim at preserving an universal harmony and unity of composition in the plantation, great care must be observed not to create a monotony of appearance that palls our appreciation and ceases to be a novelty after two or three visits. Therefore, occasional strong contrasts may be introduced, which, as they detract from the beautiful, adds immensely to the picturesque. This cannot be performed indiscriminately, otherwise confusion will be the sequence. Different species of trees should be permitted sufficient space to develop their peculiar individualities, which have a marked tendency to increase the grandeur, and dignity of the object. Of course this rule cannot be borne out in thickets or groves, but as these are intended as screens, or for the purpose of forming dark shadows, the importance of individuality ceases, inasmuch as other effects are conjured, necessary to the complete elaboration of universal harmony and landscapesque beauty. An important feature in landscape making, is the effective distribution of the lights and shadows; it adds boldness and decision, and accumulates a masterly tone, and profundity of expression similar to the best touches of an artist in throwing in bright lights, and lengthened shadows in a picture that was previously smooth and mechanical. By adhering to the above suggestions, a forest can in a remarkably short time be made to resemble our illustration, entitled *Example of Improvement in Forest Scenery*. As our space is so limited, we have given but few specimens of trees, as we were anxious to preserve their individuality as much as possible. Such plantations may be put in grass at a very trivial outlay of labor and money. The subgrowth should be grubbed out, after which the surface may be thoroughly broken up with a long-toothed drag. The ground should be worked over at least four times, and grass seed scattered previous to the last dragging. This may appear to be a superficial method, but as we have witnessed several instances of complete success, we do not hesitate to recommend it, chiefly for its economy. In some soils, draining may be necessary to conduct off standing water. This labor of draining may be turned to profitable account by diverting the water into a valley, as the recurrence of miniature lakes, traversed by rude bridges, develops a pleasing effect. Instances of these may be seen at "Greenwood Cemetery." Drives and walks should not be more numerous than actually demanded to get a view of every in-

portant object in the grounds, and these should meander, so that only a limited portion is exhibited at a time, as the novelty is destroyed by seeing the termination of a drive long before arrival.

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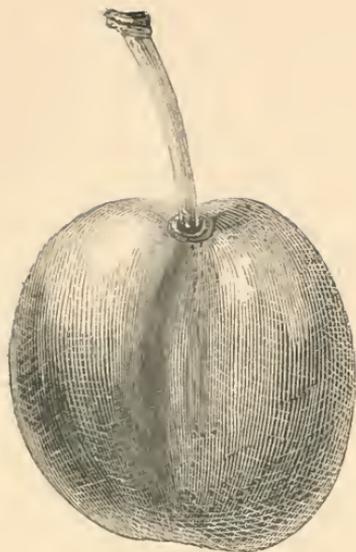
## TWO PLUMS WORTHY OF CULTIVATION.

BY JAMES SNOWDEN.

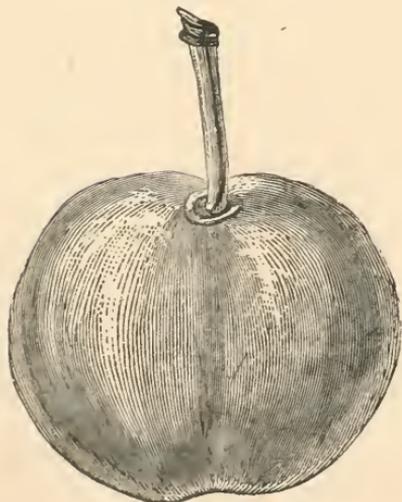
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AMONG the hundred varieties of Plums sedulously set forth in Nursery Catalogues, as embracing all the desirable qualities of this fruit, only about one quarter of the entire number possess any claim to the cultivators attention. Many kinds, which to large size, add a fine flesh and delicious flavor, present so many difficulties to the cultivator's efforts for the perfection of their fruit, that he is but poorly compensated by success. The Jefferson for instance, is a short-lived tree, ill-shapen, dwarfish, and subject to a blighting of its wood, which materially tends to deteriorate the flavor of its fruit. Nurserymen are sensible of this impediment to the perfect development of many celebrated varieties, hence the reason they are not offered to purchasers in as large quantities, or plethoric condition, as less estimable sorts. Before any fruit is heralded to the tree-planting world, as worthy of more than ordinary attention, it should be proved to possess a vigorous constitution, a hardy habit, and a freedom from any inherent promoter of disease. Heretofore, it would appear, that a luscious flavor has been the chief and only inducement why a new aspirant should occupy a position in gardens, to the rejection of older and well-tested sorts. For this reason horticulture has recently been aided by infirmaries for the restoration of trees constitutionally unsound, which like scrofula does not submit to any method of treatment yet discovered. In view of these facts, it is with pleasure we recommend the plums—*Martens Seedling* and *McLaughlin*. These partake in an eminent degree, of all the essential requisites to the perfect formation of a healthful, vigorous tree, and a superior flavored fruit.

The *McLaughlin Plum* was brought to notice about ten years ago. It was raised by the gentleman whose name it bears, at Bangor, Maine. It grows and bears well in a great variety of soils, and no matter what may



MARTEN'S SEEDLING.



McLAUGHLIN.



be the peculiarities of the season, it never deteriorates. The tree is a remarkable rampant grower, with a rather low and spreading head. The leaves are very broad, crumpled and glossy, of a light green color. The bark is of a bright purplish brown on one side, and lightened on the opposite, by an admixture of green.

Fruit of medium size, round, very much in shape like an over-grown green gage. The suture in most specimens is quite indistinct. Stalk varies somewhat in length, from three quarters to one inch, and is inserted in a slightly depressed cavity. The skin is a light transparent yellow, and like most yellow plums has a pretty sprinkling of vermilion on the sunny side, which deepens somewhat as it approaches the stalk. Flesh, greenish yellow, firm, sweet, and exceedingly luscious flavor. It may be safely ranked first rate, and is superior to the Jefferson in every respect, except size.

*Martens Seedling.* This fine plum is an accidental seedling, which sprung up in the garden of Mr. MARTEN, in Schenectady, a locality celebrated for the production of this fruit. ISAAC A. JACKSON, Esq., Professor in Union College, was the first one to discover its value. We have cultivated it in our grounds for the last eight years and have never had reason to alter our opinion of its superior qualities for general cultivation. The tree grows to a great size, is remarkably luxuriant, and a prolific bearer. Not unfrequently, in the nursery, young budded trees attain the enormous altitude of ten feet, the first season. It has also the desirable property of presenting a small crop of fruit when but two and three years old, without in the least diminishing the robust habit of the tree. The wood is quite dark, and slightly pubescent, buds are small without much projection; leaves a dark green; is a rank grower, and quite upright.

Fruit—above medium size, oval, one side exhibits the freak of a greater length continued at the lower end, which, in occasional specimens, amounts to a deformity; suture quite distinct, and traverses from stalk to apex; skin a golden yellow, with dull marblings of green just perceptible. The side exposed to the sun is irregularly blotched with red. Flesh sprightly, juicy, and high flavored; adheres to the stone, which is oval. Stalk long, smooth, and inserted in an even cavity. Ripens first of September.

NOTE.—Our engravings are not as good as we could wish. The general appearance of the fruit is however correct, although inaccurate in minor details.

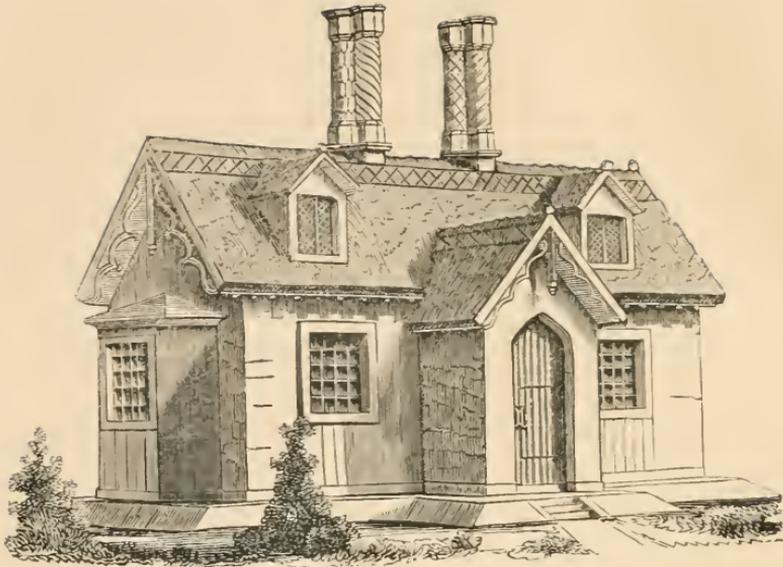
## ORNAMENTAL COTTAGE FOR A LABORING MAN.

BY H. P. KNIGHT.

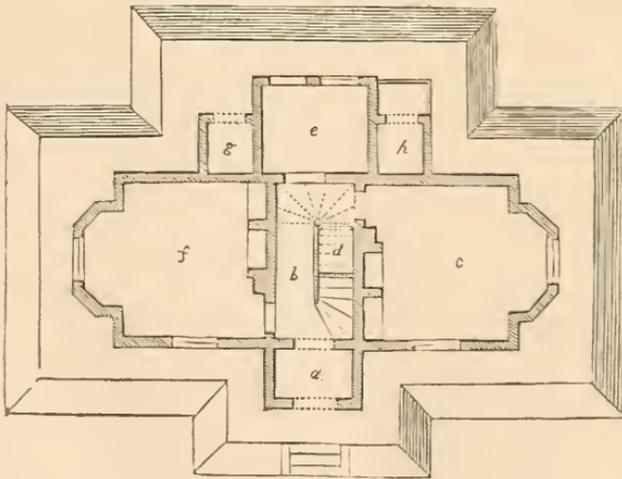
WORKINGMEN have as much right to live beautifully and be surrounded with the things pertaining to a pretty home, as those whose pecuniary means naturally suggest the envied luxury. It costs no more to construct a tasteful, elegant cottage than those square packing-box abodes, which have become fearfully epidemic in our country villages. But laboring men have strong prejudices, constant application to their respective pursuits, warps their minds and makes them insensible to things beautiful. Their energies are so particularly engaged with the all absorbing idea, of providing the actual necessities of life, that the possibility of improving their condition, with an ornamental cottage home, is looked upon as preposterous and absurd. The least departure from an ordinary clap-board building being attended by an expense, in their estimation, decidedly wasteful, and indicative of a wanton disregard of the value of money. The great obstacle is the want of appreciation and the lack of the requisite cultivation for tasteful objects, that deters the laboring classes from the delightful pleasure of constructing homes, that will be cherished reminiscences in their children's memories. They appear to have no conception of the philosophy of comparative happiness as associated with a rose embowered dwelling-place. It follows then, that the only manner in which they can be educated in such matters, is by precept, and show them by example that they can enjoy the same style of home, which they envy in others. It is not imperative because a house is constructed after a certain quaint fashion, and ornamented, that it should increase the expense. The cottage prepared for this article is from Loudon, and has a peculiarly home-like expression, which only requires the aid of trees and flowers to render positively beautiful. The effect is quite picturesque, and the design and construction exceedingly simple.

The material may be of wood or brick, or any other substance easily and cheaply procured. What is called *brick stud work*, plastered from the outside, is very cheap and has quite a finished appearance. Only broken brick are used, which may at all times be purchased at brick yards for a small price. The plastering may be finished to imitate stone blocks, and then painted some agreeable and cheerful neutral tint. The chimney stocks are ornamented. They should be manufactured from *terra cotta*, or Roman cement. The former is preferable, and may be obtained ready made of any design or pattern required. The cost of the entire building from the above material would be about \$400.





ORNAMENTAL COTTAGE FOR A LABORING MAN.



GROUND PLAN.

The ground plan exhibits a porch, *a*; staircase and passage, *b*; kitchen, *c*; closet under the stair, *d*; back kitchen, *e*; sitting room, with small closet, *f*; privy, *g*; and wood-house, *h*. The chamber floor contains a bed room, *i*; closet, *k*; and another closet, *l*; a bed room, *m*; two closets, *n* and *o*; and the staircase and landing, *p*. The defect in the accommodation here, is the want of a proper pantry; but this might be easily obtained by enlarging *h*, turning its present door into a window, and opening a door to it from the kitchen. A substitute for *h*, may be provided adjoining *g*.

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### TREE CULTURE.

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BY PROFESSOR EDWARD NORTH, OF HAMILTON COLLEGE, CLINTON, N. Y.

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MOST men are anxious to make a comfortable provision both for their own old age and for the tender years of their children. This anxiety will sometimes deepen and strengthen until it gains the force of a ruling passion. Its votaries will rise early, sit up late, and eat the bread of economy, contrivance and extreme toil, to the end that they may be free from the pinchings of want, and place themselves in independent circumstances. One is ambitious to acquire in his deeds, and to own more acres than his eye can see over. Another has a ravenous appetite for dividends, and is covetous of stocks, shares and mortgages. The pursuit of this kind of property is so attractive and engrossing, that its perils are apt to be overlooked or disregarded. The danger that banks may fail, that bubble shares may burst, and stock companies declare assessments instead of dividends, is by many made little account of.

The danger that their children may be ruined, body and soul, by the wealth which they are toiling so sedulously to accumulate, seldom enters their calculations. The danger that in the very process of making provision for an old age of happy independence, they are wholly unfitting themselves for any other enjoyment than that baser sort which springs from excitement of speculation and trade, is almost wholly overlooked.

If there is any other way of securing a competence for one's declining years, it is certainly worth knowing. It will be the aim of this article to show that the same end may be reached more successfully by the planting and culture of Trees. The man who plants a tree of some desirable kind, in soil to which he has a clear title, makes an investment attended

with fewer hazards than he who puts faith in scrip and rent-rolls. It has been proved by repeated trials, and is matter of statistical record, that of those who engage in the greater adventures of mercantile business and speculation, a very large proportion end their days in the sorrows of bankruptcy. No such fearful risk is made by him who is content to own a few acres; to stock them with choice trees; to provide for their wants, and then to confide cheerfully in a good Providence for the showers and sunshine which are essential to the growth and ripening of fruits.

The original cost of a fruit tree is but a trifle, if procured from a nursery; and almost nothing if raised from the seed. It occupies only a narrow space of ground, and this without excluding hoed crops or grass. The amount of attendance which it needs is never large, and is always on the decrease. But when it has reached its maturity it will yield an annual income of sometimes \$10; sometimes \$20; and in rare instances, even \$50.\*

We flatter ourselves that we are shrewd enough to know when we are well off, and that we are competent to look after our own interests. We take fire with indignation and wrath, if anything contrary to this is even hinted at. But are we not sometimes a little singular in our way of manifesting this shrewdness and self-sufficiency. While, in ordinary times, the annual profits of our farming are allowed to be small, we yet toil on year after year, in the old beaten track; doing this season the same work we did last season; expecting to repeat the process next season, and so on until our limbs are stiffened by age, and we are compelled to resign the plow and the hoe to our successors. Now, without supposing it possible to carry forward the operations of a farm in any other way than by repeating each successive year the work of the last, is it not both possible and feasible for farmers, as they advance in years, and lose the vigor of youth, to gradually release themselves from the necessity of cropping a large number of acres, and this, too, without diminishing their yearly income! I am old enough to fancy it practicable for every farmer to adopt a course which shall greatly lessen his toils, as years grow heavy upon

\* There is a Virgalieu Pear Tree in the garden of Dr. HASTINGS, of Clinton, the fruit of which has netted him \$50 in one season. Dr. HASTINGS is not alone in his horticultural success. ISAAC DENNISON, of Albany, has reported a single crop of plums from four acres of land that sold for \$1200. It is on record that a green gage plum tree, at Charlestown, Mass., yielded several successive crops each worth from \$40 to \$50. The apple orchard of ROBERT L. PELL, of Ulster county, is said to yield about \$40,000 per annum, clear of all expenses. His orchard is probably the largest in America. His usual crop is 10,000 barrels, which will always command in New-York \$6 a barrel. In London they have been sold, at retail, as high as \$21 per barrel.

him; while at the same time his revenue shall steadily increase. If a farmer, at the age of twenty-one, has the good sense and forethought to plant as many choice fruit trees, and to tend them properly, it is reasonable to anticipate that by the time he reaches the age of forty they will yield him several hundred dollars of annual profit. As they will then demand but little care, their owner will be at liberty to retrench his more laborious operations without curtailing his means of support. He has made a horticultural investment; and with the smiles of Heaven, without which no enterprise can succeed, the regular and handsome dividends may be expected in their season.

But this matter deserves to be looked at in a light less sordid, a light more pure and holy than that reflected from silver and gold. There is a moral, a social, and a civil good connected with the culture of trees, in comparison with which the question of profit and loss shrinks away out of sight. Our first parents were placed by their creator in the position best fitted for the cultivation and enjoyment of their moral and social susceptibilities. They were placed in a garden. Their employment was "to dress it and to keep it." Their home and daily walk was among trees "pleasant to the sight and good for food," which "the Lord God made to grow out of the ground." Human life at its best estate was a life among cultivated trees. If we wish to bring back our spirits to something of that purity and calm enjoyment; something of that freedom from social strife and corroding envy which made Eden a type of Heaven the perfection of earthly bliss, we must not neglect the culture of trees.

To hoard one's earnings, and gloat over them in secret, is mean and miserly. To invest some portion of them in trees is provident and self-ennobling. To amuse oneself in caring for a tree's necessities, in ministering to its appetites and development, in protecting it from vicious insects, from the blasts of winter, and the fervors of Sirius; and finally to rejoice over the rich, ripe and ruddy returns which it ought to make for all this solicitude, is a pleasant care that leaves no rust in the soul. It rather tends to open the heart, and let in the sunshine of generous emotion to its sullenest recesses. It teaches faith in the goodness of Providence. It teaches one to adore that infinite wisdom and skill which erects the stately tree from the crude soil; which causes the vital sap to run on its errand from root to leaf, and the savory, luscious fruit to emerge from the fragile blossom.

The social value of trees is also immense. They render home lovely and attractive. They supply children with delightful memories for their years of manhood, and womanhood—memories which bind their hearts

with a three-fold cord, not easily broken, to the scene of their earliest and purest enjoyments. It is truly surprising how much of what is usually designated a *love for home*, may be resolved by a little reflection into a *love for trees*. Recur to the pages of those who have written on this subject, and it will be found almost invariably, that this sentiment is described in connection with some aged and venerated tree—some sheaf-topped elm, perchance, stooping, like a guardian angel, over the homestead ; or, perchance, a generous apple or pear tree, with an equally generous grape vine hugging its trunk, and surmounting its branches, like a boa-constrictor ; or some giant sugar-maple which has been tapped so often in spring that it looks like a huge round cartridge box ; or some gnarled oak, beneath which the girls gathered acorns for their baby cups and saucers ; or some yellow-limbed willow near the brook, in whose ample boughs the boys built their cuddies, when they returned from school in the long days of summer. Such a tree there once was in old Connecticut, and when it was felled, years ago, its fall sent a bitter pang, not yet forgotten, to one boy's heart. It parted a tie which, had the tree been spared, would have bound him closer to the home of his childhood.

If then it is desired that children should love their home, that they should think of it often and with pleasure, when they grow up to be men and women ; when they are separated from it by many leagues : when they are steeped to the lip in worldly cares ; when their fathers and mothers are locked in the dreamless slumber of the grave. Those fathers and mothers should take pains to make home beautiful and attractive ; should plant trees about it, and thus woo the birds of the forest thitherward. An unsightly house, on a bare spot, exposed to sun, and wind and rain, will be remembered with some unpleasant mixture. "Home is still home, tho' never so homely," says the proverb, and it says truly, if the house had only a tree to stand sentinel over it. A mud-built hut is a picturesque object, if it rest in the shadow of a graceful elm. But without some such companion, you may call it a habitation, a dwelling, a tenement, or what suits you, if you will only leave unperverted the social word "Home."

Attachment to home is one of the elements of patriotism. As trees strengthen this attachment, it follows that they strengthen the sentiment of patriotism. Here I find my closing argument in favor of tree-planting. It is productive of a civil good. It aids in the rearing of good citizens, honest voters, incorrupt freemen.

I have said my thoughts. Let me briefly recapitulate. The planting of trees, if I have uttered the truth, is a profitable investment of capital.

It will ensure a comfortable provision for one's old age, and for the tender years of his children. The culture of trees also contributes to the development of the moral and social susceptibilities. It tends to keep alive and strengthen the sentiment of love for home. It makes better citizens and purer patriots.

"But then," whispers an objector, "the uncertainty that trees will live and do well when planted, is a great drawback upon all this fine prospect." I acknowledge that in growing trees, as well as corn and potatoes, there can be no absolute guarantee of success. Yet this uncertainty may be greatly lessened by planting trees in the proper manner, remembering that they are living, organized, digesting, breathing creatures, and not dead posts.

If one were solicitous to give to a tree the slimmest possible chance for retaining its life, it could hardly be done more effectually, than by imitating the mode of planting adopted by some who aim to enjoy the luxury of trees, their shade, and flowers, and fruitage, without paying the price fixed by nature. They will begin, in case they are planting a shade-tree by dis severing the top, so that the remainder will be a bare pole, without leaf or branch. Next they will dig a hole of the smallest dimensions that will receive the roots, which are crammed into it with as little of ceremony as one would use in mowing away corn stalks. Finally the hard, barren earth is thrown back upon the roots, and the doomed tree is left, without protection, for the cows to rub their necks against. Of course, it "kicks the bucket" in a few weeks, and the owner reproaches himself for having wasted ten minutes in its planting.

This mode of procedure is a waste of time, and a shame to him who is guilty of its practice. But there is a better way. It should be remembered that a tree cannot grow without roots—that it cannot thrive without strong and healthy roots. They serve the purpose of a mouth, and take in nutriment from the soil. Therefore, the roots should be carefully protected, when a tree is transplanted. If an evergreen, its roots should on no account be suffered to become dry. If it is found necessary to shorten in the roots, this should be done without bruising or mutilating them. As many as possible of the small fibres and spongioles should be spared and saved from injury.

A tree cannot live without leaves. They are its lungs. By means of them it respire and perspires. It inhales carbonic acid gas, and after the carbon is incorporated with the vegetable system, it throws back the oxygen upon the atmosphere. Therefore, a tree, when transplanted,

should not be wholly robbed of its leave-buds. Blossom-buds, on the contrary, it is well to remove. The act of flowering always makes a severe draft upon a tree's vitality. If the roots are shortened, the branches should be served likewise, in order that the tree may be well-balanced. But the less of curtailment there is at either extremity, especially at the roots, the better.

A tree should have food. It cannot grow in earth where red-sorrel would die of starvation. Therefore dig a deep, wide hole for the reception of the tree you are planting. Fill it with mellow and nutritious soil. The best manure for this purpose is decayed vegetable matter, which may be procured in abundance from the woods. Its fertilizing and stimulating qualities are improved by mixing it with lime or ashes.

Ordinarily, a tree is without weapons of defence. Therefore, drive stakes about it. Protect it from the force of winds, the pressure of snow-drifts, and the vandalism of cattle.

A tree is a drinking animal—a Maine law toper. Therefore give it plenty of water. If the water is foul and soapy, so much the more acceptable. Deluge your trees, now and then, from top to base with an artificial shower, and they will smile you their thanks from winking leaves and glistening bark. Watch them before the coming of hot weather by placing straw or chip manure about their roots. Thus you will save the soil from baking, and losing its nourishment by evaporation. If after all this attention, they should refuse to live, you can suffer their loss with a clear conscience. You have done what you could.

There is no denying, that to plant trees in this way, demands in the outset, much time, and trouble and expense. But in the long run, it will effect a saving of all three. What is once well done, seldom needs to be repeated. What is only ill performed needs to be done over and over again, endlessly, yet without reaching any satisfactory result.

In conclusion, I can express no kindlier wish for my dearest friend, than that he may live to a green old age, at peace with man and his maker, and pass it amid vines and peach trees, amid plum and pear trees, amid apple and cherry trees, with here and there a thrifty elm or maple, linden or oak, which his own hands have planted and watered, pruned and mulched, manured and defended in his and their early years, with none to disturb him by a note protested, or to make him afraid by a threatened law suit. All this I wish most heartily, for each and every reader of the *HORTICULTURAL REVIEW*.

## THE STRAWBERRY.

BY R. G. PARDEE.

THIS is the earliest, and one of our most delicious and wholesome fruits. It is also so easily cultivated as to be clearly within the reach of all having a few yards of soil—twenty feet square being all that is required to furnish a small family with an abundance. Why then, we are asked are they not more generally cultivated, and more efforts made to obtain the most approved varieties? We answer, the main reason is, that so much that is erroneous has been published, and the result has been so numerous failures, that multitudes have given up in despair, and declared it to be cheaper to buy than to raise this fine fruit. This result too, has been reached when the fact remains, that strawberries of fine varieties have been and can be easily raised for fifty cents per bushel, besides the pleasure or labor of picking them. If this be so, and we do not doubt it, then it is apparent that three-fourths of all the labor and expense bestowed on strawberry cultivation is lost and worse than lost.

Let us notice some of the errors which have led to such disastrous results, and, 1st. We are told to fill the bed in the order of four rows of Pistillates and then one of Staminates. The consequence of this putting staminates and pistallates in the same bed, has been, the strong growing small bearing, rampant staminates, crowd the full bearing, feeble pistillates out of the bed, so that after one season of tolerable productiveness, it proves a failure. It is generally conceded to be necessary to place the staminate varieties contiguous to the pistallates, but we would place them on opposite sides of the garden, as thirty or fifty feet apart for all practical purposes is as well as three feet. Where all the runners are pertinaciously cut off, there is no evil resulting from allowing different varieties in the same bed, but this labor is so great we would never attempt it, and consequently be very careful to keep each variety distinct and separate from all others. 2d. We are told to prepare the beds with an abundance of well-rotted manures. This will produce very strong and vigorous plants, but we have often seen those beautiful plants in beds of sufficient size to produce five bushels of fruit, not yield even one quart during the entire season. The plant has been so high fed, so over stimulated, as to induce barrenness. On the other hand we have often been *surprised* at the large crop of luscious Hovey's and scarlets on soil so poor as hardly to raise corn. In one instance the hard pan from the bottom of a cellar,

without the least addition astonished every one with the large quantities of fine fruit.

We would prefer fair common soil, with a moderate addition of leaf mould and unleached ashes, to the richest garden soil and strongest manures for the strawberry fruit.

3. Another common error is to permit the plants too closely to occupy the bed. The very large kinds should never be allowed to remain nearer than twelve inches apart, and the smaller varieties nine or ten. If the plants are not wanted to set out or give away, throw them away. One plant, with plenty of sun and air, will overbear a dozen within the radius of a foot. The strawberry is a plant with a great number of fibrous roots, and is very tenacious of life. Those numerous roots should not be cut off or greatly disturbed unless we wish to maim the plant. True those maimed plants will bear some fruit, and may in a measure satisfy those who do not care to have a large crop, but such a course should not be recommended to others. Consequently good clean soil, free from weeds, should be selected, thoroughly and repeatedly pulverized, and then if mulched with tan-bark or saw-dust, but few weeds will appear, and those can be taken with the hand, without a resort to that dangerous tool in a strawberry bed—the hoe, or even a spading fork, unless used with great care. Remarks respecting the most approved varieties, with the combined observation and experience of the past favorable season, will be deferred until the next number.

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#### THE CULTIVATION OF THE GRAPE, AND "THE MANUFACTURE OF WINE."

BY D. W. RAY.

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THE cultivation of the Grape and the manufacture of Wine have at last began to attract the attention of the American people. Depending almost wholly for their supply of wine upon importations from abroad, and also paying exorbitant prices for not always an unadulterated article, have led our enterprising Grape cultivators to grow the Grape extensively for the sole purpose of manufacturing the fruit into wine. The manufacture of wine and its sale adds greatly to the commercial wealth and importance of the country where this branch of trade is entered into extensively. The vineyards of the Rhine and the territory of France are celebrated throughout the whole world. The amount of wine manufactured and

sold in the latter country is said to amount to the sum of \$500,000,000, annually. American labor, enterprise and climate are as capable of producing the same amount of wine annually as those of France, and I doubt not the time is not far distant when the United States, with her gigantic mountains, broad and noble rivers, her vast and rolling Prairies, (affording the greatest facilities for the cultivation of the vine, of any country on the face of the globe,) will produce a greater amount of wine than all the other countries in the world. The vine has been cultivated from the remotest period of time, and the time-honored custom of using its juice as a beverage will never be discontinued. Wine made from the pure juice of the grape—containing from seven to eight per cent. of Alcohol, equaling in delicacy of flavor any other drink, will become the companion of our advanced civilization, until every American can sit under his own vine, eat the fruits thereof, and produce his own beverage. The manufacture of native wine and the extensive cultivation of the grape are destined to add millions to our wealth, and “*Temperance*” to the character of our people.

The first vineyards established in America were projected by German and French settlers, at Vevay and New Harmony, Ind., and Lexington, Ky., about the year 1812. Their descendants still cultivate the grape to a moderate extent. The cultivation of the grape and the manufacture of wine is yet only in its infancy, and there are already planted in the vicinity of Cincinnati over ten thousand acres of mostly *Isabella* and *Catawba* vines, which varieties, including the *Schuykill*, are considered the best for productiveness and for wine making. The region of country bordering on the Ohio has become so celebrated as a wine-producing district, that the Ohio is called the *Rhine of America*. Notwithstanding the fact that the borders of the Ohio have taken the lead in the cultivation of the grape, that section is not the only one where success may be had in the production of this desirable fruit. The banks of the Hudson, the Delaware, *Schuykill* and Connecticut Rivers, will one day be as celebrated for the growing of the grape as the banks of the *Rhine*, the *Seine* and *Loire*.

By far the largest grape cultivator in this country is Mr. NICHOLAS LONGWORTH, of Cincinnati, in fact he may be said to be the father of the grape cultivation and wine manufacture. Mr. LONGWORTH has several hundred acres under cultivation with the grape. His mode of operating is, to farm out his land to French and German vine dressers, giving them a certain share of the crop, and then purchasing their part of the fruit. Mr. LONGWORTH manufactures the best quality of wine, and bottles every year more than any other cultivator in this country. It is stated that he

put up last year 250,000 bottles. He has one of the largest wine cellars in the United States, being 45 feet in depth, and capable of holding several millions of bottles. He thinks the deeper wine is kept below the surface of the earth the less liable the wine is to suffer from change of temperature; thus assisting time to ripen its flavor and delicacy.

The borders of the Hudson can also boast of some fair sized vineyards, among the prominent ones are Dr. A. T. UNDERHILL'S, at Croton Point; Messrs. VOORHIES & SNEEDIKER'S, at Nyack, and Dr. GRANT'S, at Iona, a beautiful Islet in the Hudson, nearly opposite St. Anthony's Nose.\*

It is said over four thousand dollars' worth of grapes were sold from about five thousand vines, four years transplanted on this Island. It is also stated another large cultivator's sales from fruit alone, grown upon the Hudson, and mostly Isabella grapes, amounted to over \$18,000. We have thus shown that the cultivation of the grape is profitable, much more so than almost any other crop, and it only remains for the intelligent man, who cultivates even the smallest plot of ground, to enquire where he can plant a vineyard, what varieties he must plant, what preparation he must give his soil, where he can obtain his vines, and how they must be cultivated.

Grapes cannot be grown north of latitude 43, with any degree of success: but they thrive well, and in some aspects vines grow to an enormous height and extent, from this latitude to the Gulf of Mexico. Native vines are found growing in the primitive state on the banks of the Ohio, some of them nearly three hundred feet in length, and yet growing with all their pristine vigor. The Scuppernong grape, found wild from Virginia to Florida, is undoubtedly the most rapid growing and most productive of all native grapes, and can be cultivated with the least care and attention, but the wine made from this grape is inferior to Isabella or Catawba wine. The only profitable varieties of grape for wine manufacturing purposes and for out door cultivation, are the Catawba, (which produces the finest of all wines,) the Isabella, Diana, Schenckkill, and Muscadine, (Northern,) as grown by the New Lebanon Shakers. The writer saw last winter, 1854, several specimens of wine made from this grape containing only about five per cent of alcohol, and it is one of the finest light table wines, with perhaps the exception of LONGWORTH'S Ladies' Catawba, manufactured in this

\*The writer still remembers with pleasure a visit made with some friends to this beautiful Isle the past summer. The Golden Apricot, and ruddy checked Nectarine were just ripening. The young and thrifty Pear orchard was bending with golden fruit, and the large vineyard of Catawbas were literally trailing upon the ground with their enormous crops of fruit. It was never my fortune to see a finer kept orchard or vineyard.

country. Having given the varieties adapted to wine making, we will now proceed to remark the kinds of soil best suited to their growth, mode of cultivating, etc.

Grapes should always be planted in a dry calcareous loam, with a gravelly or open subsoil if possible, at least soil not retentive of water, as grapes do not mildew and are less subject to decay before fully ripe in such soil, than soil not positively dry.

The aspect chosen should be any but a Northern one for a vineyard, as a northern exposure does not give the sun the necessary chance to ripen the fruit. Elevated surfaces are always to be preferred for vineyards, as they are less liable to suffer from frosts. The best mode of propagating is undoubtedly by cuttings, especially if they are wanted for large vineyards. The cuttings should be from twelve to fourteen inches in length, and contain four to five eyes; they should be planted the first year in beds or in nursery rows; if planted in rows, the rows should be three feet apart, and the cuttings in the rows one foot distant, and should be buried, so as to leave but one eye above ground. Cuttings planted in beds and well mulched with the refuse from woolen mills, or even tan bark, have been known to do even better than when planted in rows. For transplanting, the vines should be taken up at one year's growth from the cutting; they should be carefully taken up and the roots guarded against exposure to drying winds, as the fibres are small and easily dried, and should be secured from the rays of the sun. The hole should be dry, large, and the ground for the vineyard should be either trenched or subsoiled. Care should be taken to prune both the roots and the tops; the vine should be cut down to two eyes, and all bruised roots or fibres should be evenly cut off with a sharp knife. The best distance to plant, and the best mode of cultivation, are practiced in Ohio. The Ohio method is to plant the vines three feet apart one way and five feet the other; planting this distance gives 2600 vines per acre; this acre, independent of pruning, can be cultivated at the same expense of an acre of corn, or any other cultivated crop, and the yield of wine the fourth year from transplanting will average 350 gallons per acre, which will readily sell at as many dollars, from which amount deduct \$100 for cultivation, and it will leave \$250 a year profit per acre. I am told one gentleman in Ontario Co., N. Y., the past year, sold from one acre the grape in fruit to the amount of \$1400.

The following is taken from R. BUCHANAN'S treatise on the "Culture of the Grape," on pruning and training: "In the spring cut the young vine down to a single eye or bud at first, if two are left for greater safety

at first, take one off afterward. drive a stake six or seven feet long, firmly to each plant, locust or cedar is preferred, but oak or black walnut, charred at the end and driven into the earth will last nearly as long. Keep the young vine tied neatly to the stake with rye or wheat straw; pick off all suckers, and let but one stalk or cane grow. The second spring after planting, cut down to two or three eyes, and the third year to four or five; pinching of laterals, tying up, and hoeing the vines as usual; the third year the vines will produce a few grapes: train two canes to the stake this year, and take off the lateral shoots. The vines should be pruned in the autumn after the fall of the leaf.

“Pruning the fourth year requires good judgment, as the standard stalk or stem is to be established. Select the best shoot or cane of last year’s growth, cut it down to six or eight joints and fasten it to the adjoining stake, at the top, in a horizontal position, or bend it over in the form of a hook or bow and tie it to its own stake. The ties this year should be of willow, this is the bearing wood. The other cane cut down to a spur of two or three eyes is to form the bearing wood of the next year. Give the shoot, the first year, ties of straw only; then give the bearing shoot a tie on the stake nine inches from the ground, and another tie nine inches above, then bow it over to the neighboring stake in a horizontal position, and give it the third tie at the top of the stake near the extremity of the vine. In the succeeding and all subsequent years cut away all the old bearing wood, and form the new bow or arch from the best branch of the new wood of the past year, leaving a spur as before to produce bearing wood for the coming year, thus keeping the old stalk of the vine down to from one to two feet of the ground, the vine is then always within reach and control, and one man can cultivate as many vines, planted in this manner, as three men can planted on a trellis.”

The uses of the grape independent of wine making are numerous, they can be preserved or dried, and for the dessert there is perhaps no fruit so acceptable or so much in general use. They are one of the most healthy fruits in existence, and are often used for their medicinal qualities alone. They impart an agreeable zest to the appetite, and are a good tonic medicine in some cases of disease. Physicians have even recommended their use. In view of every consideration therefore, we say to all cultivators of the soil: Plant the Vine! Plant freely and without stint, and your children, and your children’s children will rise up and call you blessed.—Plant for yourselves not only, but for posterity.

## THE CONTRAST.

BY WILLIAM BACON.

A quarter of a century ago it was a mere occurrence for any one to set shade trees around their dwellings. The Lombardy Poplar, a tree of easy and rapid growth, had, to be sure, from the novelty of its form and the little labor necessary, been somewhat employed for this purpose, but prejudice in a few years caused the axe to be laid at their roots and the greatest proportion of them were destroyed, and the comparatively few dwellings they had shaded were left to stand in unblushing nakedness, exposed to the fierce glaring rays of the sun, the merciless peltings of the storm, and the harsh and angry singing of wintry winds.

Then came the reign of Maples; all trees set by dwellings or by the wayside, whatever the soil or exposure, must be maple. It has to be sure some recommendations. Its beautiful symmetry and saccharine qualities, the latter entering into the dollar and cent calculations, brought it into particular notice. People entered into the transplanting operation with a commendable zeal, and had their knowledge been equal, many a dwelling now naked and unadorned, would now have been shadowed with delightful foliage, while by our waysides we should have had miles of shady avenues where we now have rods—not all maples, however, for there are soils where it will not flourish, even if it lives.

This idea of all maples for shade trees, illustrates the American character in one respect most forcibly—with whatever we undertake we go the whole figure. What succeeds with one, becomes for a time, the hobby of many others. It was peculiarly so with maples, and instead of imitating nature and helping carry out her designs, we set her laws at variance in the matter, so that where a pleasing variety ought to exist, we make a dull, sleepy uniformity. Who ever saw a forest composed entirely of one variety, or even one species of trees? Then, again, we set them in rows as stiff and formal as ranks of soldiers, and they grew so monotonously uniform that nature almost refused to give them their wonted beauty.

Experience and observation have taught us a salutary lesson. Where we find vacancies to fill, we increase the variety to the greatest extent possible, observing with due care to plant those of dissimilar habits and foliage in proximity, mixing in evergreens with such deciduous trees as retain their foliage for the shortest period, and interspersing trees with dark and heavy foliage with those showing more light and cheerful appearance.

The Pine, Fir and Hemlock contrast richly with the Chesnut and Oak. So does the Poplar and white Birch, whose early tender foliage thickens the branches, while late leafing trees retain the nakedness of winter.

Forest trees should never be planted in rows. It gives them all too formal an appearance. Set them so that their location will appear as much like an accidental springing up from the soil as possible. They should be set so far apart that they will for many long years have a chance to develop their symmetry of form in natural and easy proportions. If immediate shade is desirable, the ground should be filled with such trees as can be taken out as circumstances of growth require to give space for permanent ones. Trees of second, third and fourth size may be advantageously set for this purpose. There is an advantage beyond the pleasure a variety gives, in introducing it in avenues and groves. Each variety feeds on a different food from the others, and in its growth will take up food that its neighbor rejects. Thus a more rapid growth will attend a given number of trees when a variety of species is introduced, than when they are of the same kind.

ELMWOOD, July 9, 1855.

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## A RETROSPECT.

BY A. MESSER.

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I wish to congratulate the public on their prospect of a new work on Horticulture. It is a study worthy of the best minds in the country, and deserves the patronage of those who would keep even pace with the spirit of the times. That there has been rapid progress of late, in this delightful employment, no one can deny; and we think the result is to be attributed in part, to the publication of Agricultural and Horticultural Journals. There are already existing some good works of the kind, but the land is wide, and there is plenty of room yet. The love of this beautiful art is a passion, which "grows on that it feeds on," and the diffusion of some good publications will create a demand for more. It is evident also, that the great progress made in the matter of cheap engraving affords great facilities to the publisher, whereby he can afford a work on gardening, beautifully illustrated, and at a price exceedingly low. The present state of the art would have been astonishing to our predecessors; twenty years ago.

Horticulture is both a science and an art. Many persons contemplate

it in the one aspect only, while they forget, or overlook the other. This may be one reason, and the *chief* reason, why so many are disappointed in the expected results. They have perhaps, for some years, been following their favorite rules of practice, copied from that of their predecessors, and have been surprised at the small fruit of their labors; while at the same time they have been violating some fundamental law of vegetation. It is always safe to follow nature, but not to dictate to, or force her. People may say what they please against "book farming" and book gardening, but it is indispensably necessary to make the science of *vegetable physiology* a subject of careful study.

*Heat and moisture* are the two great and essential agents in the process of vegetation. Where these are furnished in excess, trees and plants are found having a luxuriant growth and reaching to a gigantic size, and they are so found within the tropics. But in the polar regions, these agents are feeble, and the trees and plants are dwarfish in proportion.

Some plants and fruits, natives of warm climates, have indeed been grown with some degree of success in high latitudes. For instance the pine apple of the West India Islands, and the Muscat grapes of Spain, have been produced in England, having a latitude of 50 degrees north, and in northern New York, New England and Canada, having a high northern latitude. But how has this been done? Not that these delicious fruits will succeed without the powerful stimulants which nature furnishes. Art has been brought in to assist nature. Structures have been erected, covered with glass, whereby the solar heat can be economized and retained. The quantity of water can be graduated at will; and thus an artificial climate can be made to meet the wants of the plant. The successful gardener should be well endowed with that faculty of the mind which is called *imagination*. If occupied in growing the foreign grape under glass, let him *in imagination* transport himself to the sunny clime of Spain or Syria, and by inspecting the condition of the "vine at home," judge of its wants and propensities when an exotic.

O! that the lovely vine were endowed with the faculty of speech, so as to be able to plead its own cause under all manner of abusive treatment. Sometimes it is drowned with flood; and then it is scorched with fire. Now its border is completely saturated with rain; then it is dry as the desert of Sahara. Some are fed with stimulating aliment, even to surfeiting; others are left to starve with hunger. But if the often ignorant and but too heedless wine-dresser, could be induced to study his subject scientifically, and learn to sympathise with his tender charge, then might

he see them flourishing in great beauty, and “bringing forth the fruits in their season.”

The late Mr. DOWNING, in one of his articles, introduces a case in point. Some one, in the vicinity of Newburgh, not succeeding well with his vines, invited Mr. DOWNING to visit his grapery, and give his advice. He did accordingly, and found the houses almost without ventilation, and the leaves badly scorched with a continuous, unmitigated, burning sun. What was wanting, was fresh air and water. The gardener, following English practice, had endeavored to keep up the temperature, at the expense of all the other necessary agencies, and converted his viney into an oven.

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THE CULTIVATION OF THE SUGAR CANE, AND THE MANUFACTURE OF SUGAR.\*



COOLIES AT THE SUGAR-CROP.

It is not a little remarkable that an article in such general use as sugar—the production of which in the present day amounts to a million and a half of tons from all sources—should have been so little known amongst the ancients, and so rare even up to the fifteenth century, that we read of a Mrs. PASTOR, the wife of a land-owner of Norfolk, of that day, writing to her husband in London, and begging that he will “vouchsafe to buy her a pound of sugar.”

\* English paper.

Many of the early writers, even so far back as the father of history, Herodotus, make allusions to "honey made by the hands of man," and "the sweet juice of an Indian reed, much used for drinking," which Pliny calls Sacchorh; but of its precise nature, place of production, &c., the most vague opinions were held.

There is little doubt that China and India were the original places of production of this article, whence it would seem to have traveled by slow degrees towards Persia, Arabia, and Syria; and thence became known to many nations of Europe, through the Crusaders, who carried back with them the knowledge of many useful arts.

Chemically speaking, sugar, or the saccharine principle, is met with in many products of the vegetable and animal kingdom. It has been extensively manufactured from beet-root in France and Germany; while, in the United States, sugar is produced from the juices of the maple tree. In Ceylon, and some parts of continental India, sugar is also produced from the juices of the cocoa-nut and jaggery palms. The sugar, however, of which I am now about to write, is the ordinary sugar of commerce, the production of the sugar cane.

Tracing the spread of the sugar-cane culture from Arabia, westward, to the Islands of the Mediterranean, Italy, and Spain, we gather that the Portuguese carried the cane to the Island of Madeira; and about the fifteenth century the Spaniards imported it into the Canaries and the Brazils. Europe continued to be supplied with sugar by the Spaniards and Portuguese; and it was not until the following century that the English colonists of Barbadoes commenced the first of the West India plantations, which afterwards formed such a lucrative-occupation to many of the colonists in that part of the world.

The climate of the Mauritius is very genial, although tropical. Its soil is most fertile, and the vegetation of the island rich and varied in the extreme. Excellent roads stretch from the principal town and seat of Government, Port Louis, through the most fertile districts in every direction. At some distance from the shore, lofty and abrupt ranges of hills rise from the luxuriant plains, clad to their summits with the most abundant and beautiful foliage. Dotted along the slopes of green hills and pleasantly situated amidst the cool shade of palm tops and mingo groves, may be seen many delightful villas, the rustic dwellings of the wealthy Mauritians.

Farther from the town than the above are the bungalows of the planters, surrounded by out-houses, stores, cattle-sheds, and dwellings of their

Indian workpeople. A more animated and interesting scene can scarcely be pictured than the homestead of a Mauritius sugar-planter of the present day. Their labor is entirely that of Indians, brought thither free of cost from the Malabar coast, or from Bengal, under stipulated agreements as to their return home at the end of a stated term. These laborers have each a cottage and a piece of ground allotted them; and if at all industriously inclined, which many are, may live in considerable comfort, and at the end of five or seven years, return to their native villages in a state of comparative affluence.

The "works" of a sugar-planter, if of the most approved description and well managed, present an extended and pleasing view. The power employed is, in nearly all cases, that of steam, and the engine will be so placed as to be readily available, for the many purposes for which it will be required, whilst the mill is so situated as to be easily reached from any part of the estate. A supply of water is a great point; not less so indeed, for the works, than is a good stock of cattle for the fields.

The soil of the Mauritius is mostly of a fine chocolate color, loamy and fertile to a degree; so much so, that many plantations have produced ample crops for several years in succession, without the aid of manure. The propagation of the plant is performed by slips of the cane, generally of a single joint, being placed in holes at regular distances, a few inches below the surface, or in slight trenches, turned up with a little kind of plow. The planting takes place at the change of the monsoon, when frequent showers may be reckoned on, followed by a sunshine not too powerful. At their first stage of growth, the young canes are subject to attacks from many enemies, not the least fatal and secret of which are the white ants. Wild pigs, porcupines, rats, hedgehogs, &c., all prey upon it, attracted by the sweetness of its sap. Weeds of every description are carefully removed from the earlier growth of the canes, as a free circulation of air is most necessary to their proper development.

The liberal rains which fall in all tropical countries during the southwest monsoon, induce a rapid growth of all plants; and among these the sugar cane is one of the most luxuriant vegetation. A more beautiful scene cannot be met with than a fine full-grown field of canes, free from weeds or the attacks of wild animals. In the Mauritius they attain a surprising height, often nine or ten feet, and of a thickness almost incredible—indeed they bear a closer resemblance to bamboos than canes. The joints into which a cane is divided, are distant some six or eight inches from each other, their length entirely depending on the vigor of the

cane, to which this forms a sure guide. From each joint springs a narrow and rather graceful leaf, which, however, are stripped off as the plant approaches maturity, to within three or four joints of the top. By the side of these gigantic canes, yellow in their stem and bright green in their leaves, and waving to the breeze, the tall Malabar cooley appears quite dwarfed, and a whole gang of a hundred laborers soon becomes quite hidden amongst the dense groves of sugar-cane, which stretch on every side for many miles, through valleys, round hills, and across ample plains.



WEEDING A SUGAR PLANTATION.

The world-famed names of Paul and Virginia, consecrated by one of the noblest works of fiction and fact in existence, are still to be seen engraved on a simple tomb at the foot of the Pamplémousse mountain, surrounded by scenery which, of itself, without the hallowed recollections of the tale, would suffice to give a charm to any spot. Birds of softest note warble among the deep green foliage of mango and tamarind trees. The squirrel leaps from the wide branches of the bread-fruit tree, and the gay fluttering plumage of the paroquet and the dove may be seen darting amidst the waving, broad leaves of the bananas. A cottage is near the lovely spot, surrounded by a grove of orange and jambo trees. A small garden of cotton, and tobacco, and melons, is attached, and the sound of soft, sweet voices comes from beneath its roof. Can it be some kindred spirit to the gentle Virginia that dwells therein?

Voices are heard over the fields from where the canes are being cut, the first of the new harvest. The toil of that burning day is over. A fine-limbed, swarthy Malabar cooly, with streaming black locks, hastens up the hill from his comrades. A small, graceful figure emerges from the orange grove: the genius of the spot darts down the path, and welcomes the laborer home. It is the first night of the new harvest, and

The world-famed names of Paul and Virginia, consecrated by one of the noblest works of fiction and fact in existence, are still to be seen engraved on a simple tomb at the foot of the Pamplémousse mountain, surrounded by scenery which, of itself, without the hallowed recollections of the tale, would suffice to give a charm to any spot. Birds of softest note warble among the deep green foliage of mango and tamarind trees. The squirrel leaps from the wide branches of the bread-fruit tree, and the gay fluttering plumage of the paroquet and the dove may be seen darting amidst the waving, broad leaves of the bananas. A cottage is near the lovely spot, surrounded by a grove of orange and jambo trees. A small garden

there is rejoicing among the children of the heathen. One of their first acts of gladness is to place a large bouquet of flowers upon the tomb of the sleeping lovers, Paul and Virginia, whose simple, touching history has found an echo and a sympathy even in the hearts of those unlettered people.

The taking in of the sugar crop is a most bustling scene. Every one capable of assisting in any way turns out to lend a helping hand, for there is work for all. The huge canes towering above the tallest of the coolies, stagger and fall before the short sharp click of the Malabar bill-hook. The ground is heaped up with them, whilst parties of men and women are engaged making them up in bundles for removal to the mill. The tops being cut off, they are taken from the ground in bullock or mule carts, and at once passed into the crushing mill.

There an equally busy, though very different scene presents itself. Beneath a wide and lofty roof a pile of dark iron machinery stands, waving its long arms, and twisting its terrible-looking limbs, and rushing round with its heavy wheels, as though it were afraid of being too late for something, without quite knowing what. The cart-loads of beautiful canes are piled in regular heaps before this Goliath of a machine, whilst a party of men and boys are busily engaged feeding the hungry monster with armfuls of them. The bright, smooth, clean canes are passed between the metal jaws of the insatiable creature, and lo! on the other side, they fall down a confused and ugly mass of crushed and broken fibre and wood, while a pale stream of juice flows from the relentless iron jaws, and, rushing down a narrow channel, is lost to sight amidst a chaos of wheels, and pistons, and other dreadful dark-looking apparatus.

Next to this noisy, steamy, smoky place, is a long range of neat, orderly buildings, that appear as though they never had been in the least dirty, and didn't mean to be, come what might. There are no windows to it; but bless me! what a number of wide, open doors. A delightful breeze floats through the place; there is a decidedly warmish feel; but it is softened by the breeze, which brings in its company a number of pleasant perfumes from orange groves and rose apples, and citron trees, that one rather prefers it.

But if the outside be clean and neat, how much more so is the interior? Why, there never was such a place, to be sure, except in the Hotel de Ville, at Paris, or Victoria's castle at Windsor. There are huge bright shining copper stew pans, large enough to boil soup for the whole unions of the United States; and coolers, and vats, and cisterns, capacious



THE BOILING HOUSE ON A SUGAR ESTATE.

enough to mix gin for the entire British navy, with enough to spare for the army too. Is it possible that the Governor-General of India and his lady can be coming to take breakfast in this beautiful clean hall, and have a dance afterwards? They might very well be entertained in a dirtier place. All that is wanted are mats and cushions for the company, and a few garlands of flowers.

Reader, this is the boiling-house of the Pamplemousse sugar estate; and the neat looking dapper gentleman, with the light wand in his hand, is *not* the master of the ceremonies, as I imagined, but the boiling-master of the establishment. The bright shining coppers are becoming hot and steamy; their contents are thickening gradually, whilst in one or two the operation of skimming commences, in order to remove the foreign matter which rises to the surface during the boiling.

The dapper master of the ceremonies clasps his hands, and half a dozen coolies, as clean as himself, glide in from some invisible corner—I almost fancied they came out of one of the large vats—and without so much as a word spoken, tilted up, by some unseen machinery, one of the hissing, boiling caldrons of sugar juice, and away it went into another caldron rather brighter than the others. The party of mutes having performed this, shifted a number of the other pans, allowed some more fresh liquor to flow in from a vat near the mill-house, and at length, by the aid of more chains and pulleys, that looked like instruments of torture, they contrived

to upset the nearest caldron over a sort of gigantic funnel or wooden water-spout, and away rushed the burning hot-juice to some unknown regions below.

Down a wide flight of stone stairs, along a cool passage, and through a pair of huge folding doors, the visitor reaches the granulating room. It is immediately beneath the boiling-house, and contains many sets of capacious Heidelburgh-looking vats, in which are first boilings of the new crop granulating and draining, ready for shipment. I was shown a little sugar remaining over from the last year's harvest, and a more perfect crystal, and finer, fuller flavor, I certainly never remember. It was white as any salt, and shone brilliantly like pure crystals in the sunlight. It had been prepared by some new and improved process, of which the Mauritius planters are now ready to avail themselves; and what is of equal value to the beautiful appearance is, that the yield of sugar from the juice is much greater by this process, and at the same time the proportion of drainage or molasses is much less.

When the sugar is believed to be sufficiently drained, it is dug out of the large granulators and placed in bags for shipment, very few casks being used in this colony, the sugar being of a far drier nature than that of the West Indies or Brazils. Cropping time lasts from six weeks to three months, during which time both man and beast are worked to the utmost, in order to secure the canes whilst in their prime. If left for too long a period in the ground, they blossom and lose a great part of their juice, as well as become harder and more difficult to grind; and hence it is the endeavor of the planter so to regulate his planting and his cultivation, that all his fields may not be forced on his hands at one time.

The calculation for ordinarily good ground is a yield of one ton and a half of sugar per acre; but from some of the richer soils of the Mauritius as much as four and even five tons to the acre have been obtained. The whole of the labor employed on the estates of this island is imported, as well as the food for their support—viz: rice, dried fish, curry-stuffs, and ghee, a sort of fat.

One great and constantly recurring drawback to the prosperity of the sugar planter of the Mauritius, is the liability to hurricanes, to which the locality is subject. During the months of February, March, and April, these terrible tempests are most frequently met with; and when they visit the island in full force they are not soon forgotten. Houses, factories, mills, engines, cane-fields, all are rooted from the ground and scattered far and near like so many straws before the destroying element.

Machinery, many tons in weight, has been known to be lifted many feet in the air, and hurled to a great distance. Ships laden with full cargoes, and lying quietly at anchor in the harbor, have been not only driven high and dry on the sandy beach, but actually blown for a quarter of a mile inland, and obliged to be broken up where they lay, for to take them back to their own element was a matter of sheer impossibility. The loss that is occasioned by these fearful visitations may be readily imagined, although all works situated on the exposed sides of the island are built of great strength.

During the great crisis of 1847 and 1848, several of the largest planting firms connected with the Mauritius failed, and their prostration caused much embarrassment in the colony at the time. Fresh energy and capital has, however, been since brought to bear upon the sugar industry of this island; and it is now in a more healthy and thriving condition than at any previous period of its history.

In Jamaica, and some other of our earliest sugar-producing colonies, the difficulty of procuring laborers after the abolition of slavery, added to the embarrassments of the leading planters induced by former extravagance and reckless living, has quite revolutionized their industry. Most of the best plantations have been sold at merely nominal sums, and purchased by the freed negroes, who squat on their small holdings and grow just sufficient for their maintenance, having no inclination to labor for hire.

This, however, is not universally the case; for on some of the islands where the *squatting* system could not be carried out, and where the estates fell entire into the hands of enterprising capitalists, skill and industry have been brought to bear upon the properties; and at this moment, what with new and improved machinery, a supply of manure and imported labor, the owners are realizing handsome returns for the capital sunk; in spite of low prices and equalized duties.

Before concluding this chapter on the sugars of commerce, I may as well mention that the description of sugar called Muscovado, is simply the raw unrefined sugar as produced by boiling and granulating. Those sorts known as fine crystalized sugars have been better and more carefully freed from impurities and coloring matters, some of them being evaporated in what are termed vacuum pans—that is to say, in pans having light metal covers, and from which all air has been removed by an apparatus for the purpose. By this means the liquor or syrup boils with much less heat, and consequently does not become so brown. There is another de-

scription called "Clayed Sugar," which is a sort partially purified by being set to granulate in porous earthen pans, kept moistened, from which the moisture passing and running through the grains of sugar, carries with it much of the impurity and color.

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## THE CULTIVATION OF FLOWERS.

BY D. W. RAY.

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BEAUTY of every kind was formed to captivate, and there is this peculiar advantage in contemplating the beauties of the natural world, that while we permit ourselves to be captivated with the beauties of animated nature, we are under no apprehension of dishonorable servitude. A taste for the cultivation of flowers, and for the beauties of vegetation, is the mark of a pure and innocent mind, and at the same time one of the best preservatives of purity and innocence. It diverts the attention from the turbulent scenes of folly, and induces a placid tranquillity, highly favorable to the gentler virtues and to the permanency of the most refined enjoyments. Nature seems to have distributed flowers over the entire world, to serve as a medicine to the mind of man, to give cheerfulness to the earth and furnish agreeable sensations to its inhabitants. When color and shape are combined in perfection, who can view a flower with insensibility. He that can must waive all pretensions to perception of taste, or refinement of delicacy. There is scarcely a single object in the floral world, in which so many agreeable qualities are united, as in that queen of flowers, the Rose. This beautiful shrub is found in almost every clime and country, and in every clime its beauty, its fragrance, the variety of forms and colors it assumes, and the long time it remains in perfection, has rendered it the subject of the poet's song, the ornament of the garden, the object of admiration. The God of nature, as if delighted with this exquisite production of his hand, has multiplied its species and varieties to an almost unlimited extent. The bard has also sung its praises in all ages of the world. It has been wedded to the Nightingale, and the beauty and fragrance of this wonderful flower have been the theme of every tongue. The soul seems to be refreshed on a fine summer morning, (while the happy songsters of the grove are pouring forth their "Martin" songs of joy,) at the view of a fine collection of standard, moss, cottage and summer Roses, all breathing the sweetest fragrance as they lay bask-

ing in the morning sunlight. In oriental climes the rose is peculiarly odoriferous, and yields the most fragrant perfumes and costly essential oils. It figures largely in the language of flowers, and is considered an emblem of Purity and Love.

'Tis said in Eastern lands,  
They tell their loves with flowers,  
And Persian maids with tiny hands,  
From 'neath their jessamine bowers :  
While the shades of night around them hover,  
Will twine a Rose wreath for her lover.

The love of a flower garden, it has been said, has a beneficial influence in attaching men to their homes, and on this account every encouragement given to increase a taste for Landscape Gardening or Ornamental Planting, is creating an additional security for domestic comfort and happiness. Flowers are of all embellishments the most beautiful, and of all created beings, man alone is capable of deriving enjoyment from their growth, and in watching their development. His love for them commences in infancy, and remains the delight of youth; it increases with his age, and becomes the sweet amusement of his declining years. The school boy, in care of his little plot of ground, relieves the tedium of his studies, and loses the anxious thoughts of the home he has left in the cultivation of flowers. In manhood our attention is generally demanded by the more active duties of life, its more imperious and perhaps less innocent occupations, but as age advances, the love of flowers, and the delights of their cultivation will return to soothe the later periods of existence. It was the cultivation of flowers and plants, that added pleasure to and soothed the last days of the Empress JOSEPHINE; she collected together in one vast conservatory all the rare exotic plants to be obtained and lived as happily as circumstances would admit, among her books, her birds, and her flowers. Madam DE GENLIS, a celebrated French writer, pronounced watching the growth of plants and flowers and their cultivation, to be one of the most delightful occupations the mind could engage in, as recreation from the labor and monotony of study. The poets have given us most luxuriant descriptions of ancient gardens and rural scenery, which have been thought to excel reality; they have indeed hardly equaled it. Enter a modern garden of flowers for most of the agreeable flowering plants, and consider if anything in the gardens of Alcinoüs, in the fields of Elysium, or in "Milton's Paradise Lost," can be compared with the intermixture of the Almond, the Lilac, the Rose, Magnolia, Tree Peonia, and a great number of others of less common though of equal

beauty and merit. As we walk under clusters of flowers, white as snow, tinged with gold, purple as the grape, blue as the expanse of Heaven, and blushing as the cheek of modesty, we are led to imagine ourselves almost in fairy land, or in a better world, where every delicate sense is delighted, and all around breathes fragrance and expands beauty—where every thing seems to participate in the laughing joy of Nature.

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NEW TREES.

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*A. Murray in Edinb. new Phil. Journal.*

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PINUS BEARDSLEYI.

“The tree is of great beauty and size; one which was cut down measured 123 feet in height, and 44 inches in diameter at the stump. Another tree near it measured 17 feet 4 inches in circumference at 3 feet from the ground. The stem was a very handsome column about 30 feet to the first branch; timber good and clear. It was found on the top of a mountain, in lat. 41 deg. N., at the same altitude as *Pinus Jeffreyi* and *monticola*, and *Abies grandis*, and higher than *P. Benthamiana* and *Lambertiana*.

“This and the following species (*Craigiana*) seem to have more affinity with *P. Benthamiana* than any other described species. But the present species has the points of the umbo of the scale pointing towards the base of the cone, while in *Benthamiana* they point to the tip; the cone of *Benthamiana* is 5 inches long, while *Beardsleyi* is only 3 inches. The leaves are 11 inches in length, while in *Beardsleyi* they are only 6 inches. The sheath of the leaf in *Benthamiana* is an inch long, while in *Beardsleyi* it is only an eighth of an inch. The wing of the seed of *Benthamiana* is much larger and longer than that of *Beardsleyi*. The timber of *Beardsleyi* is homogeneous all through. The heart of *Benthamiana* is redder than the sap-wood, and the sap-wood occupies a great breadth of the stem. *Beardsleyi* grows much further up the mountains than *Benthamiana*. The distinction between the cones of these trees will be sufficiently seen from the rough etchings which I have given. The figure of the cone of *Benthamiana* is copied from that given by Hartweg. Like all that gentleman's figures and descriptions, it is very characteristic of the cone as it is generally found, but it is inaccurate as a representation of the cone in its complete state, in so far that it represents the hook-

ed umbo as pointing to the base. In point of fact it does take a bend in that direction, but the prickle which terminates the umbo takes a sudden turn backwards, and points to the tip like the following species (*Craigana*.) The prickle in the specimen, from which Hartweg's figure has been taken, has previously been rubbed off, which gives a false impression of the direction of the umbo. There can be no doubt about this, because my brother found all Hartweg's localities so strictly correct that he could recognise the very patches of different trees that he describes having met; and he took his observations on the cones, &c., of *Benthamiana* from the very clump of that tree described by Hartweg, as found by him near Santa Cruz. There was no other tree, or clump of trees, for a great distance, with which it could be confounded.

"There is also some resemblance between this Pine (*Beardsleyi*) and *P. ponderosa*, as was well suggested to me by Dr. Lindley; but the shape of the cone and the size and shape of the seed and wing sufficiently distinguish it. In *P. ponderosa* the cone tapers to both ends, while in this it tapers to the point. Its seed does not appear to be speckled in any figure I have seen, (I have not seen any specimen of the seed itself), while this is. The sheath of the leaf in *P. ponderosa* is smooth, longish, fine, and tightly fitting, wherein in this it is short, corrugated, and rough; and the *ponderosa* is nearly twice as long, being 9 to 11 inches in length, in place of 6 inches. Its leaf also wants (or nearly so) the projecting points which roughen that of *Beardsleyi*, so that the leaves can be distinguished by the feel, or drawing them forwards between the fingers."

#### PINES CRAIGANA.

It differs from *P. Beardsleyi* (the preceding species) in having the prickle of the scale pointing towards the tip instead of the base. The prickle, too, is strong and firm in *Craigana*; in *Beardsleyi* it is small and weak. The apophysis, excrescence on the exposed part of the scale, is smaller in point of space, but more prominent in *Craigana* than in *Beardsleyi*, which has the exposed part somewhat flat, while in *Craigana* the upper part projects over the lower. The wing of the seed of *Craigana* is shorter, and relatively broader. The seed is nearly twice the size of that of *Beardsleyi*, although the cones are about the same size. The leaf of *Craigana* is finer than that of *Beardsleyi*, and not so long. The sheath of the leaf is finer, and considerably longer.

"*Craigana* was found on the same mountains as *Beardsleyi*, but growing lower down, and below it again appeared *Benthamiana*. It spreads its branches wider from the stem than *Benthamiana*, and sheds its seeds

a month later. My brother and I have dedicated this handsome Pine to Sir William Gibson Craig, Bart., whose enthusiasm has done so much to promote the cultivation and introduction of new Pine trees, and who, in particular, was one of those who chiefly conduced to my brother undertaking the expedition, of which this Pine forms part of the fruits."

#### CUPRESSES LAWSONIANA.

"This was the handsomest tree seen in the whole expedition. It was found on the banks of a stream in a valley in the mountains; it is about 100 feet high, and 2 feet in diameter. The foliage is most delicate and graceful. The branches bend upwards at the end like a Spruce, and hang down at the tip like an ostrich feather. The top shoot drops like a Deodar. The timber is good, clear, and workable.

"This species has been named after Messrs. LAWSON, the enterprising nurserymen of the Scottish capital, who after having distributed and made generally known so many species of this family of trees, are well entitled to have their names connected with a species likely to prove a general favorite; and the attention comes well from my brother, who, if he has received praise and commendation from others for the extent and excellence of his collection, has received from these gentlemen the solid expression, they having purchased the whole of his collection at a liberal price."

This has singularly small cones, and branches so closely covered with blunt convex whole-colored scales, not depressed at the sides, as to resemble those of *Juniperus phænicea* or some such plant. The curved ends of the twigs remind us of *Juniperus incurva*. It appears to be very handsome.

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#### LIVING IN THE COUNTRY.

PUTNAM, for August, has a delightfully written article with the above caption, from which we clip the following, being a recital of the energies of Mrs. SPARROWGRASS, (an amiable and frugal housewife), directed to the preservation of seed for the ensuing planting season. It is humorously related, and withal is pregnant of good sense, and suggestive to careless seed gatherers:

"Mrs. Sparrowgrass," said I, "let us have some nuts and apples, and a pitcher of Binghamton cider; we have a good cheerful fire to-night, and why should we not enjoy it?"

When Mrs. Sparrowgrass returned from giving directions about the fruit and cider, she brought with her a square paper box full of garden seed. To get good garden seed is an important thing in the country. If you depend upon an agricultural warehouse you may be disappointed. The way to do is, to select the best specimens from your own raising: then you are sure they are fresh at least. Mrs. Sparrowgrass opened the box. First she took out a package of seeds, wrapped up in a newspaper—then she took out another package tied up in brown paper—then she drew forth a bundle that was pinned up—then another that was taped up—then another twisted up—then out came a bursted package of watermelon seeds—then a withered ear of corn—then another package of watermelon seeds from another melon—then a handful of split okra pods—then handful of beans, peas, squash seeds, melon seeds, cucumber seeds, sweet corn, evergreen corn, and other germs, then another bursted paper of watermelon seeds. There were watermelon seeds enough to keep half the country supplied with this refreshing luxury. As the treasures were spread out on the table, there came over me a feeling that reminded me of Christmas times, when the young ones used to pant down stairs, before dawn, lamp in hand, to see the kingly toy-gifts of Santa Claus. Then the Mental Gardener, taking Anticipation by the hand, went forth into the future garden; the peas sprouted out in round leaves, tomato put forth his aromatic spread; sweet corn thrusts his green blades out of many a hillock; lettuce threw up his slender spoons; beans shouldered their way into the world, like Æneases, with the old beans on their backs; and watermelon and cucumber, in voluptuous play, sported over the beds like truant school-boys.

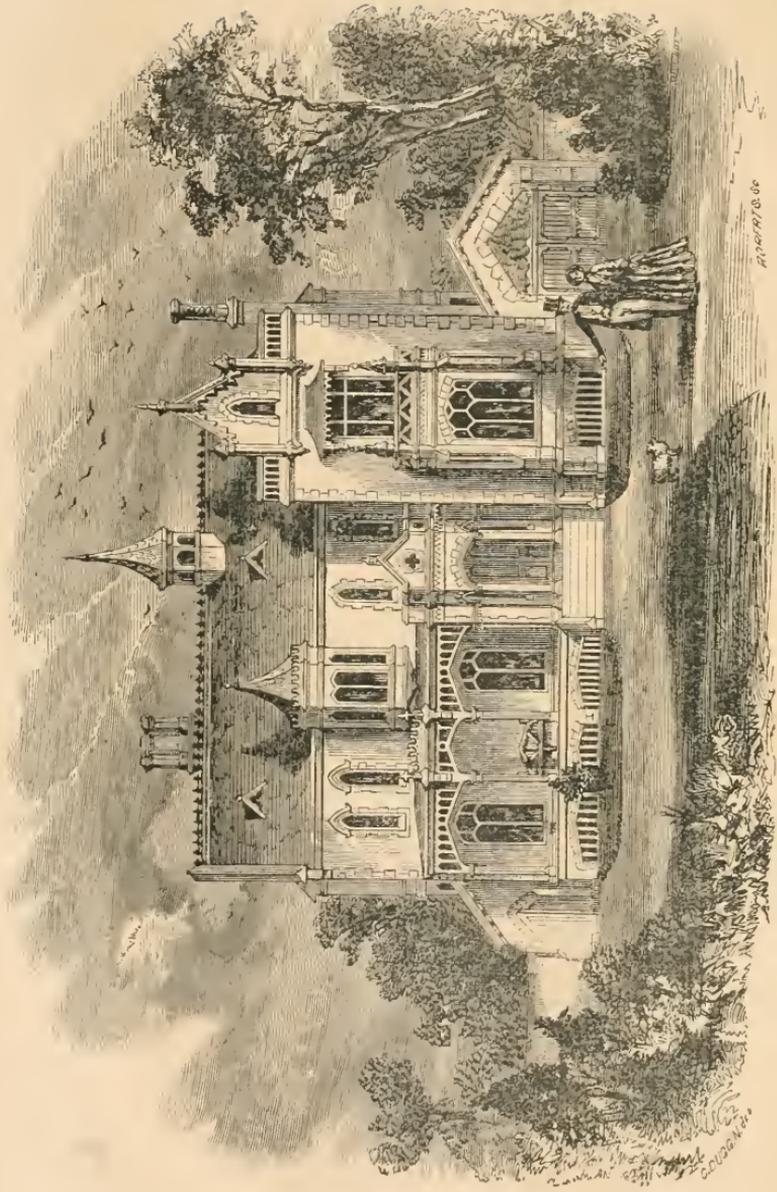
“Here are sweet peas, on tiptoe for a flight;  
With wings of gentle flush o’er delicate white,  
And taper fingers catching at all things,  
To bind them all about with tiny rings.”

“Now,” said I, “Mrs. Sparrowgrass, let us arrange these in proper order; I will make a chart of the garden on a piece of paper, and put everything down with a date, to be planted in its proper time.” Mrs. Sparrowgrass said she thought that an excellent plan. “Yes,” I replied, tasting the cider, “we will make a garden to-night on paper, a ground plan, as it were, and plant from that; now, Mrs. S. read off the different packages.” Mrs. Sparrowgrass took up a paper and laid it aside. “I think,” said she, as the third paper was placed upon the table, “I did not write any names on the seeds, but I believe I can tell them apart; these,” said

she, "are watermelons." "Very well, what next?" "The next," said Mrs. S., "is either muskmelon or cucumber seed." "My dear," said I, "we want plenty of melons, for the summer, but I do not wish to plant half an acre of pickles by mistake; can't you be sure about the matter?" Mrs. Sparrowgrass said she could not. "Well, then lay the paper down and call off the next." "The next are not radishes, I know," said Mrs. S.; "they must be summer cabbages." "Are you sure now, Mrs. Sparrowgrass," said I, getting a little out of temper. Mrs. Sparrowgrass said she was sure of it, because cabbage seed looked exactly like turnip seed. "Did you save turnip seed also," said I. Mrs. Sparrowgrass replied, that she had provided some, but they must be in another paper. "Then call off the next; we will plant them for cabbages, whether or no." "Here is a name," said Mrs. Sparrowgrass, brightening up. "Read it," said I, pen in hand. "Watermelons—not so good," said Mrs. S. "Lay that paper with the rest and proceed." "Corn," said Mrs. Sparrowgrass, with a smile. "Variety?" "Pop, I am sure." "Good, now we begin to see day-light." "Squash," said Mrs. Sparrowgrass. "Winter or summer?" "Both." "Lay that paper aside, my dear." "Tomato." "Red or yellow?" Mrs. Sparrowgrass said she had pinned up the one and tied up the other, to distinguish, but it was so long ago, she had forgotten which was which. "Never mind," said I, "there is one comfort, they cannot bear without showing their colors. Now for the next." Mrs. S. said upon tasting the tomato seed, she was sure they were bell peppers. "Very well, so much is gained, we are sure of the capsicum. The next." "Beans," said Mrs. Sparrowgrass.

There is one kind of bean, in regard to which I have a prejudice. I allude to the asparagus bean, a sort of long-winded esculent, inclined to be prolific in strings. It does not climb very high on the pole, but crops out in an abundance of pods, usually not shorter than a bill of extras, after a contract; and although interesting as a curious vegetable, still not exactly the bean likely to be highly commended by your city guests, when served up to them at table. When Mrs. Sparrowgrass, in answer to my question, as to the particular species of bean referred to, answered "Limas," I felt relieved at once. "Put the Limas to the right with the sheep, Mrs. S., and as for the rest of the seeds, sweep them into the refuse basket. I will add another stick to the fire, pare an apple for you, and an apple for me, light a cigar, and be comfortable. What is the use of fretting about a few seeds more or less? But, next year, we will mark all the packages with *names*, to prevent mistakes, won't we Mrs. Sparrowgrass?"





GOTHIC SUBURBAN VILLA.

## GOTHIC SUBURBAN VILLA.

*From Homes for the People.*

THE illustration of the external appearance of this villa gives a representation of the principal front. The plan shows the outlines to inclose nearly a regular square—broken, however, by a projecting wing at one side. The elevation, without needlessly introducing irregular breaks, still more decidedly departs from the squareness of outline suggested partly by the plan, and the composition of this front has an appearance varied as a lover of the picturesque would demand. The projecting wing, being nearest to the eye, is properly made the principal feature, and the upward leading of its outlines is strengthened by the management of its features, as consisting of windows, canopy and gable, each of which is, in design, connected with the other, and each one falls back from the member below, so as gracefully to lead the eye from the base of this portion of the building to the final terminating its gable.

Next to this is placed the entrance porch, made sufficiently prominent to duly mark its character, and stopping against it, but in subordinate relation, is a veranda, divided into three openings, the central one of which, opposite the pier between the two windows, is smaller than that on either side. Against this central pier is placed a seat, and, as the long window from the dining-room opens on to the veranda, this would be a pleasant resting place for an after-dinner cigar, in fitting weather.

Above the porch are two narrow windows that give light to the chamber at the end of the front hall, and in line with them are the bay-window and the other windows of the large chamber over the dining-room. The roof of this portion of the building is lower than that of the projection, and its surface is broken by small openings containing trefoil-lights into the attic.

The elevations of the other sides may be partly understood from this illustration. Upon one side would be the long line of roof of the projecting wing, broken by the outside chimney-shafts, and by the bay-window which is carried up to the ceiling of the second story. The other side would consist of a gable, such as the illustration indicates, over the dining-room, &c., broken by the projection that the plan contains, and below this would be the eaves of the roof over the lower portion of the building, as explained in the description of chamber plan. The rear would be something similar in its roof management to

the front elevation, with just such an amount of embellishment as situation seemed to render necessary.

The material may be brick, with stone dressings—brick entirely, the architectural features of the design being executed in moulded brick, of perhaps a different color—and the tracery of windows, &c., of wood—entirely of stone—or of brick covered with mastic, and the decorated portions either of stone or of durable composition.

The style is that of the later period of Gothic, and the characteristics that distinguish it have been sufficiently preserved without causing any intrenchment upon modern convenience and comfort. There are few situations that would render the erection of such a suburban villa inappropriate, and few families would require arrangements more commodious than the plan affords. The cost, in the neighborhood of New-York, Philadelphia or Boston, would be influenced to some extent by the material chosen, but may be stated at from eight to twelve thousand dollars—the margin named allowing for elaborate or simple finish of the exterior or interior, as the taste or circumstances of the owner might demand. In other situations the expense would be less; and, whilst the building is upon such a scale as to allow the builder to lavish any outlay upon it, and to bring it to the utmost finish of elaborate design, there is nothing that would be less fitly completed in the most simple and inexpensive manner. In fact, this would be somewhat a seductive home for a man of taste and means to commence; the capabilities that the fine suite of rooms, and the general liberality of internal arrangements afford for appropriate embellishment, would be very apt to draw him on, step by step, towards enriched completeness that would easily be made to require a large expenditure; and this from the very honesty of the requirements of the style—the educated eye perceiving at once that gingerbread construction and meretricious ornament would be out of place, and that decoration, when used, must be in real material and in earnestness of purpose.

Of the ornamental details, of no style can it so truly be said:

“ ’Tis Use alone that sanctifies expense,  
And Splendor borrows all her rays from Sense.”

## LITERARY NOTICES.

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KERN'S LANDSCAPE GARDENING. *Moore, Wilstacth & Keyes, Publishers, Cincinnati.*

THE object of this work, says the author in his preface, "Is to embody in as few and plain words as possible, such explanations of the principles of Landscape Gardening, as well as of the practical operations connected with it, as will make the subject intelligible to that very large class in our country, who are proprietors of a portion, great or small, of its soil."

So far as being the exponent of the "principles of the art of Landscape Gardening" is concerned—if we judge from the contents of this volume—the credit of *that* rather belongs to Mr. Repton, from whose admirable work, "Sketches and Hints on Landscape Gardening," Mr. KERN has culled with an unsparing hand. In fact, Mr. K.'s incessant "as Mr. REPTON says," (here follows a page of REPTON,) or "REPTON has given in the following" (a chapter), or "REPTON has spoken so much to the point that I subjoin his remarks,"—(two pages)—reminds us of the country editor, whose editorial assistants were an unlimited exchange file and a pair of scissors, and whose stock of erudition was exhausted when he had written "We clip the following:"

But let it be understood, that we by no means object to quotation from an author so much to be respected as REPTON; we only instance this as a good illustration of the absurd manner of many writers of the present day, who obtain ideas from some antecedent author and then drag him in, *in extenso*, to support and confirm their propositions.

But, for the portion of the work which claims Mr. KERN as its author, and which mainly consists in directions regarding the *practical operations* connected with the art, we have not a word to say in dispraise; his suggestions are in an eminent degree valuable, and his opinions—which are expressed in clear, concise, and lucid diction, easily interpreted by even the most limited conception—fairly assert his claim to a station in the foremost rank of rural improvers.

We can conscientiously bestow unlimited commendation on his acquirements as a *thorough practical gardener*; but judging from the illustrations accompanying the work, we should be sorry to concede to Mr. KERN the title of Artist. Nor can we satisfactorily reconcile to our mind the apparently appreciative and discriminate tone of his remarks, with the glaring discrepancies contained in the embodiment of his ideas, as exhibited in his illustrations.

For a frontispiece, we have a representation of "Artificial Rockwork constructed by G. M. KERN, and exhibited at the fall exhibition of the Cincinnati Horticultural Society, 1854," we will describe it as seen in the cut. In the centre of a small circular pond two semi-fish, curly headed, and curly tailed negro twins are blowing what appears to be peppermint candy out of ear trumpets. Immediately behind this, rises something intended for a rocky steep "crag piled on crag—" but which has more the appearance of the knobby end of a huge twist loaf, set pyramidically, surmounted by the ruins of the old city hall, and overtopped by Fire Island light house; the structure is garnished on either side by seven of those small nondescript combinations of pine shavings and green paint, which do duty as trees in children's German toy sets, and a very old broom, set handle downward, completes the edifice. The lake is appropriately margined by cobble stones, alternated by turnips in a luxuriant state of vegetation; and perhaps one of the most pleasing features in the picture is the perfect equity with which every object, animate or inanimate, is *balanced*. Now this being never seen in nature, we apprehend comes under the head of Art, and if it do, certainly opens a new phase in artistic grouping, of which students will doubtlessly take immediate advantage.

Again, at page 144, in the cut entitled "Pleasure Ground," we cannot see how the owner could possibly derive any pleasure from the contemplation of his estate, until he had obliterated those excrescences on the face of nature which the designer probably intended for observatory, picturesque groups of trees, etc., but which require a more than ordinarily fertile imagination to interpret as anything else than a discontented bell tower, which becoming tired of a metropolitan existence, had wandered forth to spend the summer months in the country. The trees look like a series of obese cabbages, augmented by some choice specimens of (we suppose from their appearance) the recently discovered exotic from which our new street cleaning machines are supplied with brushes. Although the usefulness of these plants cannot be disputed, yet we regard their in-

roduction into a gentleman's pleasure grounds, as a combination of the *utile* and *dulce* more remarkable for its eccentricity than artistic judgment or good taste. In the illustration of "Park Scenery," p. 73, the group of trees, rustic bridge and sheet of water are prettily and effectively designed and drawn, but here the effect is entirely destroyed by the irruption of a fine specimen of the broom tree before mentioned, which rises abruptly from out a rock planted in the very centre of the picture, while the distance is drawn in accordance with those peculiar ideas of perspective entertained by Chinese artists, and only seen in perfection on tea-boards and other celestial works of art.

We do not wish to appear hypercritical, but, as we entirely coincide with the expressed sentiment entertained by Mr. KERN, "A professional landscape gardener, must necessarily possess a thorough knowledge of drawing" (see page 101,) that we deem it right to call the attention to these little inconsistencies. We submit it to you fairly Mr. KERN, did you ever see anything in nature approximating to your "Rockwork," and if the other illustrations are to be considered as specimens of the "Art" of Landscape Gardening, the less nature is assisted in her efforts to achieve in landscapesque effect, the better. However, take the book as it stands, the joint efforts of REPTON and KERN have accomplished a work of more than ordinary importance to the suburban public, and we earnestly recommend those who do not possess it, to obtain a copy, satisfied that its perusal will amply repay them for all trouble or expense incurred.

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HOMES FOR THE PEOPLE. *By G. Wheeler. Charles Scribner, publisher, New-York.*

APPARENTLY, Mr. WHEELER, the author of this volume, has been guided in its construction by the most approved rules of his art, and like a thorough architect—as he really is—has evidently been at great pains to elaborate and perfect his handiwork.

Assuming that the lamentable inuocence of good taste in all matters pertaining to rural beauty, or of a true idea of the picturesque existing among a large proportion of his readers, would render it improbable that his *ipse dixit* in the matter would ever be disputed, and being desirous to inculcate into the minds of the Messrs. Hobbs, Dobbs or Snobbs of retired parvenudom a dawning consciousness of beauty in other objects than gunny bags, cod-fish or calico, he forthwith demolishes and over-

turns all the hitherto conceived ideas which the pre-Whodlerite ruralists may have entertained in the premises; and having pulled down and obliterated all trace of the old school, proceeds to the erection of his new establishment. His ground-plan being laid out, it becomes necessary to accomplish his foundation, and to this end he obtains a store of material from the inexhaustible quarries of English architectural literature, and by ingeniously dovetailing his own conceptions with those of his predecessors, and securing and augmenting the whole by judicious selections from "the Glossary" and "Gwilt," those never failing *vade mecum*s to the architect, forms an admirable thesis for after elaboration.

While we cannot fail to admire the eminently practical nature of Mr. WHEELER's suggestions, and to concede to him much praise for an earnest, and we are gratified to think, successful effort to improve the taste of the American people respecting suburban art, we are not disposed to adopt bodily any author's predilections, (even though backed by the high commendation of Lord Fitzwoodle, or his Grace of Popkins, or any of the aristocratic patronymics so perseveringly thrust under the noses of the before mentioned Hobbs, Snobbs and Dobbs,) when these opinions conduce to the exclusion of some as bright effects of rural adornment as were ever accomplished in any European country. We allude to the numerous designs for rustic mansions, cottages, etc., devised by the lamented A. J. DOWNING, Esq., than whom, no man of finer perception—of more just appreciation of the beauties of nature and art, either separately, or in combination—ever existed.

As an assistant to the Architect, the work would be of little value, as no original ideas are promulgated, either in design or construction, and as it does not obviate, but rather confirms the necessity of employing an architect, the purpose of its publication is rather indefinite.

The plans generally are well arranged, and are far superior to the elevations, particularly those on pages 142 and 258. At page 9 the author speaks of the Gothic arch as being of Eastern origin. Now the pointed arch of the Saracens and other Eastern nations is of an essentially different form from that used by the Gothic architects, being wider at some distance *above*, than *at* the springing, a form that is never seen in pointed architecture; the generally received supposition is that it was suggested by the intersection of the circular Norman arches.

It is, we think, more in interior decoration, than the refined and cultivated taste, which Mr. WHEELER indubitably possesses is called into requisition. In the more expanded appreciation of natural beauty of locale—in the highly imaginative conception of auxiliary splendor, or, in the

effort at the wisest discrimination seems only to produce that almost unattainable effect—improvement of nature—he wholly, utterly fails. The technical cant about “hilly slopes,” “bold outlines,” “broad expanse,” etc., etc., with which the work is so plentifully interlarded, lacks the ring of the true metal to the comprehensive and feeling mind, that detects the superficialness and meretriciousness of its application; and although it may jingle pleasantly enough on the ears of the ignorant or unskilful, where it passes for current coin, and with whom this method of “holding the mirror up to nature” may escape criticism, to the “judicious few,” the warped image paraded for their inspection, and rendering scenic description farcical, will be provocative of no appreciative feeling.

As a literary production, Mr. WHEELER'S book is entitled to a place in any gentleman's library, his style is pleasing, and, if we except some oddities of phrase, such as “the most cheerfully shone upon side,” etc., his expressions are generally happy. The drawings and engravings are fairly made, and the typography and plate printing beautifully executed.

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THE YEAR BOOK OF AGRICULTURE. *Published by Childs & Peterson, Philadelphia.*

THE object of this work is one that will render it invaluable as a medium of retrospective information to the agriculturist. Everything of importance to the farmer that has transpired during the past year is collected and made public in a brief and lucid form. It is designed to be a substantial summary of agricultural progress. The book is divided into several departments under the following captions: *Agricultural Mechanics, Agricultural Chemistry, Agricultural and Economic Geology, Agricultural Zoology, Agricultural Botany, Agricultural Meteorology, &c.* The work is edited by DAVID A. WELLS, A. M., a gentleman celebrated for his participation in agricultural pursuits and their attributes. Its object will be better comprehended by reference to the annexed extract from circular.

“The object contemplated in the preparation and publication of the Year Book of Agriculture, is to aid in the progress and development of that science upon which the prosperity of our country so eminently depends.

It is within a comparatively recent period only, that agriculture has, to any great degree, participated in that wonderful advancement which, during the present century, has characterized nearly every department of industry or vocation. In this pursuit alone has the knowledge possessed by the generation been deemed ample and sufficient for its successors. *Archieve*, therefore, and *let progress*, has been the result.

The present period, however, in respects agriculture, is one of great ac-

tivity and enterprise. Stimulated by the results already attained, in the application of machinery to the cultivation and tillage of the soil, the inventive talent of Europe and America is constantly adding to the number and perfection of their improvements. Every department of natural and physical science is also rapidly extending its boundaries, reducing experiments and theories to practice, and revealing truths and principles before unknown, or which years of routine had only permitted the agriculturist to perceive in a vague and unsatisfactory manner. More than this, the cultivators of the soil have themselves become observers and experimenters; and, through the medium of numerous and well-conducted journals, are recording their observations and results.

If this progress, so happily and so successfully commenced, is to be continued, it is absolutely necessary that the accumulated results of scientific experiment and investigation, the application of new mechanical arrangements, and the records of all important observations, should be brought within the reach and comprehension of every one who desires to keep pace with, or contribute to, the advancement of agricultural discovery and improvement."

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THE MODERN HORSE DOCTOR. *By George Dadd. John P. Jewett & Co., Publishers, Boston.*

FROM a brief perusal of this work, we think it eminently calculated to mitigate many of the diseases peculiar to the animal upon which it treats. It is comprehensive and practical, and in the hands of the farmer will prove a guide, not only for the treatment of the horse in health, but is so simplified that he can be his own surgeon, without fear of committing error. It varies somewhat from the system of medication advocated by works which have been previously published on this subject. The great success of the author, as a practical Veterinary Surgeon, in curing obstinate diseases, is a sufficient recommendation of the merits of his book.

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THE CARPENTER'S ASSISTANT.

RECENTLY published by Livermore, New York, is a work well calculated to supply a want existing among carpenters in the country. It contains a fund of general information relative to the erection of buildings in any of the various prevailing and obsolete styles. The book is elegantly illustrated by elevations and outlines minutely explained. The portion relating to stair building is eminently practical, and elucidated in a manner that cannot escape the conception of the most limited intellect. As a guide however, in the selection of ornate models for rural buildings it possesses no value, these being inserted simply as evidence of the exterior expression of different orders, and not as examples to be minutely followed by the builder. The book is neatly got up; well printed, and bound substantially in leather.

## EDITORIAL MISCELLANY.

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### FOREIGN AND DOMESTIC.

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IN appearing before the *Terra-Cultural* people of these broad and fertile United States, we are acutely conscious of the magnitude of the responsibility we have assumed. The want of a magazine like the present, combining the practical and ornamental branches of Horticulture, has induced us to embark in the enterprise, confidently relying for patronage and support on those whose interest both pecuniarily and beneficently we shall endeavor to enhance. In order that our success may be placed beyond peradventure, it will be imperative that we receive the kindly influence of those whose special interests are dependent on the progress of Horticulture. A large number of subscribers will be necessary before profits can be indulged in, as the exceedingly low price of the REVIEW reduces our remuneration to decimals. In deciding upon a tariff, we have been instigated by a desire to place the REVIEW within the means of attainment of every individual whose sovereignty boasts the possession of even a rood of tillable soil.

Our knowledge of Horticulture is not that of the amateur, but the gleanings consequent upon an intimate association with tree-growing and tree-planting, in a commercial establishment, whose luxurious attributes first delighted and refreshed our infancy; and which in later years has ripened into an admiration for nature's products, almost inseparable from our delectation. A stranger to Horticulturists, outside of a limited locality, compels us to this formal introduction and ebullition of egotism. Unhesitatingly we make the confession, that the tutorship of the lamented DOWNING, has added a zest to our love of gardening which would otherwise have been realized in some less ambitious pursuit. Mr. DOWNING's lucubrations were the *nuclei* from which have sprung the kindly growth that is so rapidly beautifying the banks of our rivers, the hill-top and secluded valley. It was his eloquent pen that first lifted the veil from our eyes and directed mind and vision to the delightful and healthful pursuit of the beautiful in nature, with which a kind Providence has

so unsparingly favored this sunny land. We previously looked upon the landscape, and the generous soil, and the propitious sky, with an unappreciating spirit, which reduced these gifts to a certain something we were used to, and therefore had a natural right to expect, without entertaining a rapture, or evincing pleasure in their realization. Mr. DOWNING's efforts also tended greatly to interlace the commercial relations of metropolis and country, and break down that disparity and contempt which formerly existed for everything that redoled of the suburbs. His soul, like a crystal chalice, drank in the balmy air, the sunny life, and delicious climate, until his entire nature became imbued with its fragrant incense. He lived serenely and tranquilly, delighting thousands with his eloquent discoursing, and feeding his heart with the beautiful things which one by one he gathered to his little court on the Hudson. Much winged forth from this abode that has in an eminent degree generalized our hearts, and subdued that malevolence and ferocity which pervades so unlimitedly our natures. But alas, for those who best loved him, he passed away, meteor-like, blinding us for the nonce by his brilliant abilities and artistic taste. He has passed away, but is still with us in the cot, in the more ambitious villa; in the palatial residence, there are still cherished vestiges of DOWNING. His soul has shed the exuvie of clay; his mortal tenement we have not, but his spirit still hovers on the banks of the Hudson, where he has infused evidences of his surpassing quality, and which will engender lively emotions of pleasant things long after his generation shall be gathered to the great parent. He has left a train of conruscations behind him which will out-glitter the lesser lights whose pigmy scintillations feebly gleam out from their lucre-smear'd efforts. There are those who having caught a little of the halo of Mr. DOWNING's greatness, have with a knavish assurance contrived to niche themselves on the pedestal of public opinion, in juxtaposition to that of the great departed. These men are as completely the slaves of gigantic and *psuedo* constructed conceits, as Faust was of Mephistophiles. So gangrened with their self-estimated favor—arising from the profundity of their ignorance—that the Horticultural community have perforce been surfeited with puerilities until their more delicate perceptions are in danger of perversion. These individuals are the very antipodes of humbug or hypocrisy: being incited to effort by a pretension which subsequently gets so mixed up with egotism, that they become actual believers in what they previously only pretended. In making these strictures we wish to be distinctly understood, as not having any of this emulous hungering after positions occupied by those whose real greatness surpassed our sense

of appreciation, that we simply intend to perform our part to the extent of our capacity and ability. To do this effectually we shall devote the greater portion of our time to investigation, and shall well digest everything before presuming to present to our readers. We would also have it understood, that we are neither directly nor indirectly connected with any nursery establishment, and therefore have no under-current interests to advance, but such as actually concern the well-doing of our undertaking. We shall speak boldly on all topics pertaining to Horticulture, giving our opinion in connection with that of others, qualified by experience to the privilege. We cordially invite Horticulturists, Farmers, and all engaged in cultivating the soil, to correspond with us, and as occasion offers to communicate information relative to fruits, flowers, trees, grain, remarkable appearances in vegetation, the adaptability of certain fruits to certain localities, the hardiness of trees and plants in extreme latitudes, and any other items that will prove interesting to the general reader. We shall be happy to respond to enquiries relating to new plants, methods of propagating different species of trees, plants, &c., or any other question involving Horticultural information. In making responses, of course we are not accountable for answers beyond our ability to fathom. In subsequent numbers we shall endeavor to make such improvements as experience may suggest.

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A GREAT deal of alarm was experienced the past spring by fruit growers; many imagining that the fruit crop for the current season was destroyed beyond remedy. These prognostications have been destined to an agreeable disappointment. The various districts, immediate to New-York, have an abundance of fruit of all kinds; it is even questioned whether in the last dozen years Pomona has so unsparingly spread her ruddy banquet for our epicurean delectation as the present year of '55. The trees in many localities are bending beneath their glowing burdens, adding their lustre to the emerald green of the fresh pastures, and the golden refulgence shed by vast waving fields of grain. Correspondents from various and distant parts of the country inform us that the abundant crop is universal. Nurserymen also, who have suffered much by the drought of the last three years, are exulting over the beautiful, thrifty trees added to their stock by the propitious rains, which have fallen so unceasingly this summer. It is a long time since nature has worn so smiling a countenance. As if to make up for past neglect, she has bedecked herself in unusually florid attire, even making the desert place assume a livery of

rampant vegetation, to which it has long been a stranger. We have reason to be grateful for the present favorable crisis for the cultivator. War and pestilence are stalking in the midst of our trans-Atlantic friends. The seed-time and garnering are permitted to pass them by, and the gathering of the fruitful harvest is substituted for the harvest of human blood. These nations must be fed, and the surplus produce of the United States will find a ready market at remunerating but not exorbitant prices. The poor also of our country can again indulge in a loaf of increased dimensions. Speculators have endeavored, previous to the harvest, to invest the cereal with a fabulous value, by spreading reports of the ravages of the Weevil and Hessian fly; it is quite true a few localities were devastated by these pests, but scarce worth mentioning. The story of grain sprouting, occasioned by the continued rains, has agitated the public mind, but like the Hessian fly report, it proved to be a floating straw, to which wily speculators clung as a last buoy to sustain their drowning hopes. The good time which has loomed in the vista is upon us; mellow orchards, fragrant meadows, and the tinkling lullaby of the brook, gleefully coursing its pebbly bottom, are once more with us; they had almost been numbered with reminiscences of the past.

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AN ERROR CORRECTED.—Amid the chaos arising from the many synonyms of favorite fruits, it is a very easy matter for the Pomologist to commit the most egregious mistakes, albeit he flatters himself he has made the most thorough investigation. Mr. BARRY, a gentleman whose correct Pomological knowledge is almost beyond dispute, has revived an error originally made public by Mr. DOWNING. The matter we allude to is the Duane Purple Plum, of which a beautifully colored plate is given in the June number of the *Horticulturist* for the present year. The *Duane Purple* is not a distinct variety; as there stated it is the *Purple Magnum Bonum*, which is a local variety at Schenectady and vicinity. The mistake occurred in this manner: some twenty-five years ago JAS. DUANE, Esq., of Schenectady, imported from France several varieties of plum; among them was the famous *Peach Plum*, the label, however, of which was lost on the voyage. The earliness of this fruit and its large attractive appearance, made cultivators solicitous to obtain it for their gardens, and in the absence of the true name it was called *Duane's Plum*. Subsequently a gentleman from Albany visited Mr. DUANE, who on his return home took with him some scions, of what he supposed to be the *Duane (Peach) Plum*, but by mistake they were cut from a seedling

*Purple Magnum Bonum* tree. This gentleman not being familiar with different varieties, disseminated this *Purple Magnum Bonum* as the *Duane Plum*, which in the course of its travels became invested with the additional title of *Purple*, and was afterwards known as *Duane's Purple*, and so described by Mr. DOWNING. With regard to the fruit, we would say it is a common variety at Albany and Schenectady. At the latter place the nurserymen do not propagate it by budding, as any quantity of offshoots can be obtained for the digging, as the tree, like many local sorts, has the peculiar property of re-producing itself from seed. Occasionally the seedling will vary slightly in appearance, but not sufficiently marked to merit distinction. Those having the variety under the different names will find by comparing them that we are correct.

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THE ANNUAL FAIR of the New York State Agricultural Society will be held this year at Elmira, a delightful village, centrally located and of easy access from the various portions of the State. The time appointed for holding the Fair is the 2d, 3d, 4th and 5th days of October. Sixteen acres of ground will be fenced in, on which will be erected spacious buildings, tents, &c., sufficient to accommodate all the articles on exhibition.

Last season the accommodations for the display of fruit and other Horticultural products were very meagre, and decidedly unsatisfactory to exhibitors. It would appear that this feature of the great Fair is viewed with indifference by those entrusted with the supervision of providing conveniences. At Saratoga the stands for exhibiting fruit were not erected until the novelty of the show had been dissipated by the surfeit caused by other objects of attraction.

We earnestly hope such unpardonable neglect will not again be chronicled on the coming occasion. This most profitable branch of the cultivator's subtlety should meet with every encouragement from our State Society. The inducements to grow fruit in its greatest perfection should be enlarged in order that the grower be partially remunerated for the extra trouble and time expended. Giving prizes of \$60 for superior specimens of butter and cheese is certainly not objectionable, but we are utterly unable to discover that they are of paramount importance. Equally as large sums are annually expended by private individuals in introducing fine varieties of fruit, as there are in that of importing remarkable breeds of cattle, and no one will deny that the profits attendant upon growing fruit of a marketable quality, are also equally satisfactory. The paltry premiums at present bestowed, contain no inducements for other than profes

sional and nursery men, who are only emulous of giving publicity to their mercantile establishments. The amateur is quite overlooked, because his attention is not directed to the subject, and he imagines that the importance of fruit growing is a secondary or a tertiary matter, inasmuch as he is governed by the opinions of those whom he supposes are familiar with the thing, and are consequently best capable of appreciating the respective merits of fruit, grain or cattle growing. Under existing circumstances we feel called upon to urge the necessity of a distinct and separate organization, devoted exclusively to *Horticulture* and *Floriculture*. This desirable object could be speedily accomplished, provided leading Horticulturists would lend their influence toward enlightening the proper parties who have authority in such affairs. A convention could be held comprising delegates from the various Horticultural Societies throughout the State, primary arrangements could be entered into, necessary resolutions adopted, and a committee appointed to wait upon our representatives at Albany, and then and there the matter should be so represented as to attract some of that legislation which at present is squandered in advocating individual interests, and contending for the consummation of ephemeral and evanescent ambitions. It is our intention to frequently revert to this subject, and by a little display of persistence to arouse the attention of Horticulturists to the great benefits which must ensue if successfully attained. In the Massachusetts Society we have positive evidence of the good growing out of such an organization. The tastes of the people have been improved, and their attention has been particularly directed to the utility and beauty of Pomology. Even country architecture gives evidence in Massachusetts of the favorable working of their society, in the numerous tasteful cottages and villas which garnish farm lands and village suburbs; and it is an indisputable fact that their soil is quite inferior to that of New York State.

Below we give the arrangements of the Fair to be held at Elmira, which we copy from the *Elmira Advertiser*:

"The amount of premiums offered exceed \$8,000. Exhibitors to become members of the Society previous to Monday, October 1, and articles must be arranged on that day, while live stock will have to be on the ground a week previous to the Fair.

On Tuesday, October 2, the ground will be open to exhibitors.

On Wednesday morning, at 9 o'clock, the judges will commence their examinations, when none but persons having charge of the articles examined are expected to be present, but the grounds will be open to the public on that and the two succeeding days.

The plowing matches are to take place at one o'clock on Thursday.

On Friday, Gov. J. A. WRIGHT, of Indiana, will deliver the annual address.

Admission to the grounds will be 25 cents. Members' tickets, \$1 each, admit five persons.

The following railroad companies have agreed to transport stock and articles for exhibition free of charge. They will also take passengers to and from the exhibition at reduced rates:—New York and Erie; Canandaigua and Elmira; Buffalo, Corning and New York; Williamsport and Elmira; Buffalo and New York city; Cattawissa, Williamsport and Erie; Tioga; Canandaigua and Niagara Falls; Blossburg and Corning; Syracuse and Binghamton; Rome and Watertown, and Potsdam and Watertown. The N. Y. Central and Hudson River carry stock and articles free only—not agreeing to make any reduction to passengers.

Agreements have been made with our principal hotels not to charge more than \$2 a day, while the others will charge \$1.50 only. Arrangements will also be made with boarding houses and private families to accommodate a large number of strangers during the week of the fair—so that no matter how many thousands of persons from abroad may visit Elmira then, they may depend on getting good boarding accommodations, and at reasonable rates, too.

The central position of our village, and the extensive arrangements which have been made for transit, will undoubtedly secure a large attendance. Our friends in other parts of the State and country may rest assured that nothing will be lacking on the part of Elmira to make the coming exhibition one of the best ever held in the State."

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THE *Catawissa Raspberry* is attracting considerable attention among cultivators of the smaller fruits. Those who have been favored with a sight of the plant and a taste of the fruit, do not hesitate to bestow commendation. JOSHUA PIERCE, of Washington city, the proprietor of this new aspirant has promised us a plant and a bunch of the matured fruit. If it realizes the encomiums which it has received, we shall in our next number furnish our readers with a correct representation of the fruit accompanied with its history and description. It is our intention not to bestow praise upon any new fruit, until we have personally ascertained its quality and fitness to rank with those of its class esteemed by growers.

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THE RUST, the bane of nurserymen, has not appeared this season. Seedlings, which were in former years entirely denuded of their foliage ere the season was half expired, are at the present time growing vigorously. We had the gratification of viewing a field of plum and pear seedlings a few days past, that would average two feet in height, and were still growing thriftily. This is the more gratifying, as great difficulty is ordinarily experienced in raising a stock of these trees.

To GET a thick fine turf for the lawn is a paramount object in rural husbandry. L. DURAND, a gentleman residing at Derby, Ct., sends us the following method of procedure to secure this ultimatum :

“Every farm and country house should be surrounded by a well kept ‘lawn.’ Of course this refreshing ‘oasis’ of green will vary in size, respectively, according to the circumstances of the proprietor, and amount of taste for the luxurious ; whose object is simply a visual gratification— but in no case in the country should a lawn be limited to less than an acre in extent, and from that up to five, ten, twenty, and even fifty acres ; in the larger town and village it may be from a quarter to half an acre in size. The object is now to get this down to permanent grass. After the requisite gradings have been completed, the ground should be trenched to the depth of at least two feet. This should be performed on small grounds with a spade, on lands comprising a number of acres, economy would substitute the sub-soil plow for this work of preparation. One important matter we would particularly call attention to, that is in grounds of considerable extent, to leave the naturally diversified surface of the land remain, unless the acclivities are inharmonious and acute, these may be ameliorated by a slight reduction ; knolls and graceful undulations are in themselves important features of beauty. After the ground has been pulverized to the required degree of fineness by plowing, harrowing, and rolling, the grass seed should be sown, which for lawns, a mixture of red-top, white clover, Kentucky blue grass, and sweet scented Kinal grass will make a good variety for securing a tight velvety sward. These seeds should be thoroughly mixed together, and put in with a generous hand, at the rate of a bushel and a half to two bushels the acre. Where no grain is sown with the grass the latter quantity will be imperative to the production of a thick growth, as some lee-way must be estimated for seed that in all instances dies out. It is all-important to have the seed get a good ‘catch,’ otherwise a luxurious, even turf cannot be realized. The subsequent culture will consist mostly in cutting away the grass frequently, once a fortnight, during the rapid growing season. This should be done with a short ‘lawn scythe,’ as repeated cuttings materially thicken the grass and hastens the desired objects, viz : a turf that will afford a romping place for both small and large children, without resulting injuriously to the trodden grass. In very extensive grounds the grass could be fed off by sheep. If danger to other vegetation is apprehended, portable hurdle fences may be used, affording quite a romantic and picturesque effect, aside from the utility of the construction.”

We are obliged to Mr. DURAND for his pertinent remarks on lawns. The first part of his article was so hastily written we were unable to interpret it with sufficient lucidness to do justice to the writer. We are promised an article of some length on the culture of the grasses, which will doubtless prove interesting to our readers.

THE FOLLOWING interesting letter was sent by Mr. FROST, "what keeps the Market Garding," to the Secretary of the London Horticultural Society:—

"SIR,

"The Satiety having Bean pleas'd to Complement Me before I beg Leaf to lie before Them agin as follows in particullers with I hop They will luck upon with a Sowth Aspic.

"Sir—last year paid my Atentions to a Tater & the Satiety was pleas'd to be gratifid at the Inmlargement of my Kidnis. This ear I have turnd my Eyes to Gozberris—I am happy to Say I have allmost sucksidid in Making them too Big for Bottlin. I Beg to Present sum of itch kind—Please obsarve a Green Goose is larger in Siz then a Red Goosebry. Sir as to Cherris my attention has Bean cheafly occupid by the Black Arts. Sum of them are as big as Cricht Balls as will be seen I send a Sample tyed on a Wauking-stick. I send lickwise a Potle of stray berris witch I hop will reach. They air so large as to object to lay more nor too in a Bed. Also a Potle of Hobbies and one of my new Pins, of a remarkable sharp flavior. I hop they will cum to Hand in time to be your Feat. Respective Black rod & White Currency I have growd equely Large, so as one Bunch is not to be Put into a Galley Pot without jamming. My Pitches has not ben Strong, and their is no Show on My Walls of the Plum line. Damsins will be moor Plentife & their is no Want of common Bullies about Lunnon. Please inform if propper to classify the Slow with the creepers.

"Concerning Graps I have bin recommanded by mixing Wines with Warter Mellons, the later is improved in its juice—but have douts of the fack. Of the Patgonian Pickleing Coucumber, I hav maid Trial of, and have hops of Growing one up to Markit by sitting one End agin my front dore. On account of its Progressiveness I propos calling it Pickleus Perriginatus if Aproved of.

"Sir, about Improving the common Stocks.—Of Haws I have some hops but am disponding about my Hyps. I have quite faled in cultivating them into Cramberries. I have allso attempted to Mull Blackberis, but am satisfid them & the Mulberris is of diferent Genius. Please observe of Aples I have found a Grafft of the common Crab from its Straglin sideways of use to Hispalliers. I should lick to be infourmd weather Scotch Granite is a variety of the Pom Granite & weather as sum say so pore a frute, and Nothing but Stone.

"Sir—My Engine Corn has been all eat up by the Burds namely Rocks and Ravines. In like manner I had a full Shew of Pees but was distroy

ed by the Sparers. There as bean grate Mischef dun beside by Entymology—in some parts a complet patch of Blight. Their has been a grate Deal too of Robin by boys and men picking and stealing but their has bean so many axidents by Steel Traps I don't like setting on 'em.

“Sir I partickly wish the Satiety to be called to consider the case what follows, as I think mite be maid Transaxtionable in the next Reports—

“My Wif had a Tom Cat that dyd. Being a torture Shell and a Grate feverit, we had him berrid in the Guardian, and for the sake of inrichment of the Mould I had the carks deposited under the roots of a Gosberry Buch. The Frute being up till then of the smooth kind. But the next Sesan's Frute after the Cat was berrid, The Gozberries was all hairy.—& moor Remarkable the Catpillers of the same Bush was All of the same hairy Discription. I am Sir Your humble servant

THOMAS FROST.”

WE find in the “Revue Horticole” an account of two *new Esculents*, which are said to deserve notice. Having no personal acquaintance with them we confine ourselves to a translation of what is said about them by Mr. MULLER, superintendent of the Botanic Garden, Upsal, who sent the seeds to the Botanic Garden, Hamburgh :

“I particularly recommend to your notice these two new kitchen garden plants, *Chorophyllum Prescotti* and *Rumex vesicarius*. We received the first from St. Petersburg in the spring of 1852, but it did not occur to me till last autumn that its fleshy root as large as a Parsnip, might be worth cooking. The seeds being then ripe it was to have been expected that the roots would prove woody; but I was agreeably surprised to find it tender and very nice (*de tres bon gout*). In flavor it is not unlike the Turnip-rooted Chervil (*Chorophyllum bulbosum*), but as it is much larger and good even after seeding, it is a much more useful plant. Cultivation will probably increase its size. In my case the seeds were sown in spring, but I should expect the roots to become larger if the seeds are sown in autumn, like those of *Chorophollum bulbosum*. The plant is perennial and not biennial like that plant. As it is a native of Siberia, cold has no power over it, and it succeeds perfectly in good damp garden soil. It might be called the Turnip-rooted Siberian Chervil.”

The other plant, *Rumex versicarius*, is a kind of Sorrel. “When dressed like Spinach,” says Mr. MULLER, “it is very nice. The leaves are slightly acid, and if mixed with common Spinach greatly improve it. The plant is an annual, with great fleshy leaves, and grows perfectly in any rich moist soil.”

These two plants seem to deserve the attention of seedsmen.

THE tamarind has grown in Virginia from seeds and is highly spoken of as promising to be a valuable acquisition to our fruit trees, especially to the prairie lands of the West. Its growth is rapid, its appearance very ornamental, and it is perfectly free from blight and the depredations of insects. Last season the trees in Virginia produced fruit as good as the imported.

THE ruthless destruction of forests is attracting attention in the right quarter. Dr. HAWKS, at a meeting of the Geographical Society, made the following pertinent remarks :

“ One of the serious effects of a total destruction of the forests and woodlands in any country like this, is that BARRENNESS is likely to ensue. Palestine, once well-wooded and cultivated like a garden, is now a desert—the haunt of Bedouins ; Greece, in her palmy days the land of laurel forests, is now a desolate waste ; Persia and Babylon, the cradles of civilization, are now covered beneath the sands of deserts, produced by the eradication of their forests. It is comparatively easy to eradicate the forests of the North, as they are of a gregarious order—one class succeeding another ; but the tropical forests, composed of innumerable varieties, growing together in the most democratic union and equality are never eradicated. Even in Hindostan all its many millions of population have never been able to conquer the phœnix-life of its tropical vegetation. Forests act as regulators, preserving snow and rain from melting and evaporation, and producing a regularity in the flow of the rivers draining them. When they disappear, thunder-storms become less frequent and heavier, the snow melts in the first warm days of spring, causing freshets, and in the fall the rivers dry up and cease to be navigable. These freshets and droughts also produce the malaria which is the scourge of Western bottom-lands. Forests, although they are at first an obstacle to civilization, soon become necessary to its continuance. Our rivers, not having their sources above the snow line, ARE DEPENDENT ON FORESTS FOR THEIR SUPPLY OF WATER, and it is essential to the future prosperity of the country that they should be preserved.”

A writer in the *Gardners' Chronicle*, makes some remarks on the ripening of seeds. He observes :

“ In the first place it is necessary to ascertain what is meant by ripeness. Some say fruit is ripe when it is ready to fall ; others require the pericarp at least to be dried and the albumen to be completely hardened ; others again allow fruit to be ripe when the seed is so far advanced that it can be made to germinate. This is ripeness in a botanical sense, and is the only sense in which the word can be used with precision. The period for gathering does not depend on ripeness ; for example, the Olive is either gathered or allowed to fall, according to the purpose for which it is wanted. Grapes are gathered when they are more or less ripe, according to the object the grower has in view, the results expected from fermentation, and the composition of the must, so as to suit the taste of his customers. In

Burgundy the Grape harvest is later now than formerly, whilst the contrary is the case in the south of France. As regards Beans, it is usual not to cut them until the pod is dry, but the farmers in the Valais, who desire to keep the stalk unchanged, cut them as soon as the scar of the seed is black, although the rest of it is still green. Wheatseed has been proved by M. Duchartre to be capable of germinating when the albumen is still almost milky, and that germination was strikingly facilitated by the drying and shrinking (*retraction*) of the corn. Without, however, going so far as this, it is certain, from experiments made at Versailles and La Saussate, that corn may be got in without inconvenience when the top of the stem is still green, and that the grains are then finer and more valued in the market. This sufficient ripeness is from nine to thirteen days earlier than what our farmers call complete ripeness, and gives a sum of at least 245 deg. of temperature.

“There is another difficulty met with when an attempt is made to fix upon a sum of degrees of temperature as necessary to enable a plant to arrive at maturity; namely, the difficulty arising from the great number of varieties which mature, some faster and some slower than others: this is the case with Corn, Maize, Potatoes, Grapes, &c. We cannot therefore admit that ripeness in its common sense, which is so arbitrary and changeable, is a natural phase in the life of plants; we must confine the term to its botanical sense above explained, concerning which we know very little, and leave the rest to the convenience of cultivators.”

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“By an artificial contrivance”—says the author of ‘Gossip on Ancient Gardening’—“during meals there descended on the guests from above, the powerful aroma of roses. Heliogabalus, in his folly, caused violets and roses to be showered down upon his guests in such quantities that a number of them being unable to extricate themselves, were suffocated in flowers. During meal times they reclined on cushions stuffed with rose leaves, or made a couch of the leaves themselves. The floor, too, was strewn with roses, and in this custom great luxury was displayed. Cleopatra, at an enormous expense, procured roses for a feast which she gave to Anthony, had them laid two cubits thick on the banquet-room, and then caused nets to be spread over the flowers in order to render the footing elastic. Heliogabalus caused not only the banquet-rooms, but also the colonnades that led to them to be covered with roses, interspersed with lilies, violets, hyacinths, and narcissi, and walked upon this flowery platform.”

A beautiful specimen of the California Century Plant, a San Francisco exchange informs its readers, is now in bloom on the estate of Donna CATALINA MUNRASS, near Monterey. It was planted over twenty-five years ago, and has only this spring put forth its stem, which has grown, in the space of six weeks, twenty feet in height. The base of the stem is seven inches in diameter. At the top of the stem the flowers are now coming out in great profusion, and are of pure white color.

LARGE TREES.—Until within a few years there stood near the junction of the Scantic River with the Connecticut, in the town of East Windsor, a large Sycamore or Buttonwood. After the tree had partly decayed, and a shell of wood, perhaps two inches thick on the outside remained, Mr. JOHN PELTON found that a pole twelve feet long could be placed horizontally inside of the shell, making the tree more than thirty-six feet in circumference. Another tree near measured twenty-four feet. These trees stood near where the first English settlers in Connecticut located.

ACKNOWLEDGMENTS.—From J. WEISLER, a basket of seedling peaches, although superior to many sorts in cultivation, possess no merit sufficiently distinctive to render worthy of universal dissemination. We are obliged to J. B. of Washington city, for some fine specimens of rare Conifers; they were received in admirable condition, and are already embellishing the place we intend them to occupy. Our thanks are due L. PUTNAM, of Boston, for a plethoric box of Grapes, which he informs us were grown in a "cold house." Some bunches of *Black Hamburg's* were the largest we ever witnessed; which extraordinary size we are bound to state, appears to have been attained at the sacrifice of flavor. A beautiful garden vase from R. WARTON, of this city, and a package of seed from L. STRICKLAND.

TO CORRESPONDENTS.—Horticulturists, Architects, Farmers, Gardeners and all who take an interest in the utilitarian and beautiful pursuit of the *Terra-culturist*, and the advancement of suburban art, are cordially invited to contribute any information in their possession which will be instructive, and promote the usefulness of this magazine. Rough notes of experience from the practical farmer, or delicately worded hints from the lady, who is solaced with the beautiful products of her *parterre*, will prove equally acceptable. We shall also be happy to reciprocate by supplying through the columns of this journal any desired information at our control. Letters should be addressed to C. REAGLES, Editor *New York Horticultural Review*, 208 Broadway, New York.

THE Typography of the present number does not equal our expectations or fulfill the promise made in our prospectus. This is entirely owing to the bad working of a new press which we have employed, which although capable of performing good work, requires several trials in order to perfect its operation. We shall probably have overcome this difficulty before our next appearance. We have also detected a number of errors in the first sheets. It shall be our special business in future to prevent a recurrence of this defect, if practicable.

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REPORTS from various Horticultural Societies were received too late for insertion in the present number of our Magazine. We shall be pleased to publish the proceedings of Societies, provided they do not encroach too much upon the space devoted to other departments. Reports should, therefore, be limited to the more important transactions.

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SEVERAL Horticultural Societies inquire "What will be the price of the *New York Horticultural Review* providing we conclude to offer it as a premium to persons competing for prizes at our exhibitions." To such we will answer, where not less than ten copies are ordered the price will be reduced to \$1.50 a year. We shall also be happy to treat with other parties on the same terms; for \$15, in advance, ten copies will be furnished for one year to separate addresses.

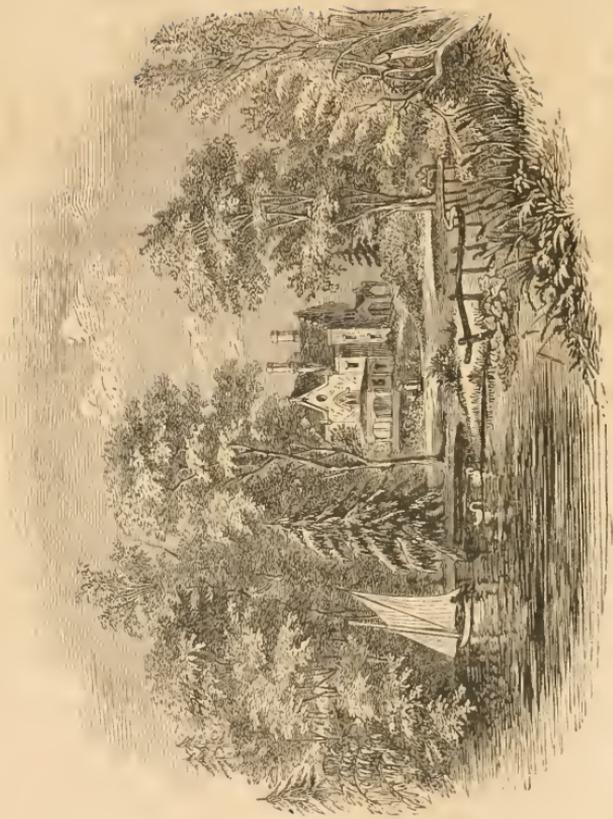
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It is our intention to send the *New York Horticultural Review* to every Post office in the United States. Postmasters receiving this copy will please exhibit it to such parties as take an interest in Horticulture, and kindred pursuits. Commission liberal.

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ADVERTISERS will please send in their favors at an early date as possible. Nurserymen and others will find the medium unsurpassed as a channel for giving desirable publicity to their various establishments. As we are printing a large edition for gratuitous distribution, the present number will doubtless reach 20,000 readers. Our tariff of prices will vary somewhat, being governed by the size of the edition published. We will esteem it a favor not to be troubled with advertisements of quack medicines, or charlatan operations of any description, as we do not wish to be the medium of deceiving our readers. Where such advertisements are received the money will be invariably returned.





ARTIFICIAL LAKE AND SCENERY.



# American Horticultural REVIEW.

## THE FORMATION OF ARTIFICIAL LAKES.

**W**ATER, a celebrated writer observes, is "the very life and soul of a garden, whether it be the ground plot of a suburban cottage or the embellished lawn of an extensive villa." This almost indispensable appendage in the composition of scenery has, as yet, attracted but little attention in this country, doubtless owing to the fact that our education has but just commenced, for the more utilitarian attributes of rural resorting places. A great many dollars are annually expended in constructing suburban dwellings, and planting grounds with a variety of fruit and ornamental trees; these are essential requisites to the pleasure of a country life. An artificial lake, or the lesser pond, or even the coursing rivulet, is not dreamed of as a conducting feature to the landscape; and then another barrier, in unfavorable situations, is the difficulty experienced in procuring a supply of water to meet the contingency of an expanded lake or pond, which, it is urged, decrease rapidly by evaporation in the atmosphere and absorption by the earth. That these objections do exist, there is no denying; but that they are insurmountable we feel inclined to discuss.

There are very few farms of any magnitude, in this country, but which can boast a brook, and not unfrequently what in England would be called a river. The isolated instances in which an abundance of water does not occur in individual domains, can in most cases be remedied by that

admirable little machine, the hydraulic ram. Three of these unceasing laborers will supply a small pond with water sufficient to keep up a current, and thus prevent the accumulation of stagnant matter. Water, by means of the hydraulic ram, may be conducted several miles, when necessary. All that is required to operate it is a head of water, which should not be less than ten feet. This will be capable of forcing a portion of the water which runs through the ram to the height of an hundred feet or more. The better method is to elevate the water, when convenient to a neighboring hill, on which a cement or cedar cistern can be built; from this reservoir it can be conducted to the desired locality in a steady stream. The expense attendant upon the enterprise is much less than one would imagine; \$600 would purchase three rams of large size, and the necessary tubing to convey water for a mile, and also build a cistern and other contingent requirements.

To give an artificial stream the appearance of nature's handiwork is a desideratum not so readily obtained. Most of our people who live elegantly in the country are such as have escaped the dust and smoke of large cities, and are therefore in a highly artificial condition regarding the beautiful in nature. As a result, we have fish-ponds (when attempted) very decorously margined with regularly sloped terrace, from which superior vegetation is kept in respectable spectatorship at a distance from this immense bowl. Grass is permitted to grow on the border, and receives a semi-monthly clipping; but pond lilies are eradicated the moment their struggling heads arise to the surface. In order to prevent the appearance of such untutored vegetation, the bottom of the pond (we can bring to mind two instances) is paved with clam shells or cobble stones. To those disposed to persist in this absurd practice, we would suggest the use of Russ pavement laid in cement, it being a higher state of artificiality, and is economical. It prevents the loss of water by percolation; and then, by the medium of a gate—which could doubtless be rendered a highly ornamental feature—the water could be drawn off, and the bottom scrubbed out as occasion demanded.

Localities which afford an ample supply of water are generally sufficiently undulating or acclivitous to present that other absolute essential to the formation of larger lakes, viz., a valley whose margin performs natural curves or gives precipitous sides. The configuration of the banks is of more importance in producing scenic expression than is generally admitted by those whose energies are directed to this branch of landscape art. If before improving grounds with water, held in artificial bounds, the pro-

prietor would visit some lake celebrated for its picturesque beauty, and study well the producing causes of this effect,—which are in part comprised of bights extending into the shore, suddenly alternated by miniature peninsulas, from whose extreme points depend drooping trees laving their bright foliage in the pellucid water; and again recur steep banks with rocky faces garnished with moss and other parasites fed by trickling springs, and, from crevices which have appropriated a modicum of mother earth, peep forth weeny shrubs reveling in modest attire, and apparently in the happy consciousness of sole occupancy. Further on, a deeper fissure, with its larger volume and several feet of tenacious mould, having caught some winged germ of future tree-greatness, has with parental care vitalized the embryo, and thus a tree—not perpendicular like a French grenadier, but straggling sideways—a sort of loiterer, preponderating between the two opposing elements, sun and water. Under such a tree we experience placid delight and tranquil happiness, unalloyed by baser thoughts of the price of pots and pearls, or fluctuations in stock, or decline of one-eighth in cotton, as, safely moored in tiny skiff, we bait the bearded hook with imitation fly, and then in breathless expectancy await the approach of some voracious trout or pickerel, who, fancying a delicious morsel specially prepared for his epicurean taste, takes a side-long glance, warily approaches as if fearful of startling his prey, and then, gathering up his sinews, makes a bold and desperate plunge. Fatal plunge, indeed; “the biter’s bit!” and in death, like many mortals we wot of, realizes the truth of the adage, “all’s not gold that glitters.”

“The finny brood their wonted haunts forsake.  
Float in the sun, and skim along the lake;  
With frequent leap they range the shallow streams;  
Their silver coats reflect the dazzling beams.  
Now let the fisherman his toils prepare,  
And arm himself with every watery snare;  
His hooks, his lines, peruse with careful eye,  
Increase his tackle, and his rods re-tie.  
Upon a rising border of the brook  
He sits him down, and ties the treacherous hook;  
Now expectation cheers his eager thought,  
His bosom glows with treasures yet uncaught;  
Before his eyes a banquet seems to stand,  
Where every guest applauds his skilful hand.  
Far up the stream the twisted hair he throws,  
Which down the murmuring eurrent gently flows;  
When if a chance, or hunger’s powerful sway,  
Directs the roving trout this fatal way.

He greedily sucks in the twining bait,  
 And tugs and nibbles the fallacious meat.  
 Now, happy fisherman, now twitch the line,  
 How thy rod bends! behold, the prize is thine!  
 'Cast on the bank he dies, with gasping pains,  
 And trickling blood his silver mail distains."

Further exploring the sinuous shore, a gentle slope succeeds the bolder rock,—gradually rising, and disclosing a vista, afforded by an opening in the wood, of vast waving fields of green and golden hue. Enraptured with the view of nature's bountiful spread, we gaze! The scene awakens our gratitude, induces reflection, and our imagination sweetly and peacefully dreams of pleasant things. We become, for the nonce, spell-bound with inhaling nature's narcotine, from which we are suddenly aroused by a tinkling bell suspended from the neck of some parti-colored cow, that, gorged with the nourishing juice of meadow grass, approaches with monotonous tread to slake her thirst, guided in her accustomed peregrinations by the oft-trod path which terminates with the lake shore. At other places, a hill of steep ascent presents its base as a limitation of farther progress in that direction: and thus the irregular circuit is performed, made up of bold projections, sloping hills, abrupt curves, precipitous rocks, all claiming a share of our admiration, and forming the *tout ensemble* of beauty.

The most important objects are the trees and shrubs which characterize this wild outline. At intervals along the bank, thickets will stand out in conspicuous relief, casting strong black shadows on the water, in beautiful contrast to the sunlight which fancifully sports around them; in another place, the gnarled trunk of a huge tree, having lost its footing by the assiduous undermining of the water, has fallen down, extended far out in the lake, where a few limbs show feeble signs of vegetation still tenacious of life; again, a weeping willow or some other pendulous tree droops its branches in graceful luxuriance to the liquid element, affording a favorite retreat for those fish which seek relief from the intolerant heat of mid-day.

Suddenly an island of verdure obstructs the view. A few rocks scattered around at its feet warn the approaching boat to sheer off, or run the hazard of a collision with an enemy lying *perdu* beneath the water's surface. Circumnavigating the island, the clear liquid meets the gaze like a polished mirror, uninterrupted except by the banks which are entrusted with its guardianship. Returning by the other shore completes the delightful tour; and the proprietor who contemplates adding a similar

object to his pleasure grounds, reaches home with a better knowledge of what he requires than if he had consulted a dozen landscape gardeners.

He now selects a valley appropriately margined, approximate to a running stream. Where necessary, the banks are sloped, declivities are formed, and peninsulas are raised where they do not naturally exist, gentle slopes appear, trees are planted where required, and others are partially undermined in order to give them a direction towards the future lake, all of which being satisfactorily accomplished, the dam that is to retain the water is thrown across, and then planted with rapid-growing trees. If the proprietor is impatient to witness the effect, large trees can be removed in the winter season, with balls of earth attached; these can be obtained from their native haunts and replanted, with scarce a perceptible diminution in subsequent vigor to that which they previously exhibited. If needs be, the dam can be so arranged as to afford a cascade, supplied by the overflow. This feature, like the lake, had better be copied from nature herself; otherwise, an artificial expression will be apparent, detracting and marring the surrounding natural beauties. The use of rock-work is admissible in constructing a waterfall, from the fact of its being the only material capable of resisting the continued wear of the water. The rocks should not be too large nor of equal size, neither should they occupy such position as to permit the water to fall perpendicularly; on the contrary, the arrangement should be such as to graduate the descent by a succession of abrupt terminations, varying in height and length. The course of the cascade must not be on a straight line from the lake, but perform part of a circle; or, if the contiguous objects are consonant and the locality propitious, a sudden detour from a straight line will provoke a highly picturesque effect. The rushing, gurgling sounds emitted by water tumbling and foaming down a rocky descent, as if in a terrible rage at the resistance offered by projecting stones, produce a soothing effect, upon the mind of a chance listener, of no evanescent character; and where the surrounding woods are of a wild description, and birds fond of solitude utter their shrill, prolonged notes, as the cuckoo and blue jay, the effect is much heightened. But our digression from the special subject under treatment is already too long.

To return to the lake: We will suppose that the arrangements of shore are completed. Attention is next directed to the most expeditious and at the same time most beautiful method of letting in the water. In the first place, the temporary dyke, which has prevented the flowing element from interfering with previous operations, should be removed.

Only a very narrow channel should be excavated, just wide enough to permit an undisturbed ingress of the water. Huge stones may be placed at the bottom and sides of this inlet to prevent its widening, as it is quite important that the *locale* of admission should be hidden from observation; to complete this object more effectually, a thicket of sombre evergreen trees should be planted on either side of the passage. The *hemlock spruce* is preferable for the purpose. These trees in a few years will depend over the channel and entirely conceal it from view.

Our space being limited, we are unable to go into the minutiae of operations; but to a man of refined taste, agreeable forms of beauty are suggested by appropriate objects, and to such the details of completeness are unnecessary. To those whose conception of the picturesque is limited, our engraving will give a pretty correct idea of the ingredients which comprise pleasing effect, of both water and land. The design is intended to convey the appearance of a pleasure ground and suburban dwelling in a state of finished picturesqueness—a scene of beauty and polished elegance, with a slight admixture of untamed nature—just such a place as can be formed anywhere that presents a running stream and a slightly undulating surface. The lake in our prepared view has no high banks, the reverse of which is shown, as the water is almost on a level with the land. The effect, it will readily be perceived, is attained by the judicious arrangement of trees, which are distributed in such a manner as to entirely conceal the flat country beyond. The ground which the lake covers was naturally low, but has been made deeper where necessary; and the removed earth has contributed to raise the surrounding land, not by forming a dyke (as is frequently seen), but removed a sufficient distance to offer a slightly broken surface, and also to give the banks a more natural appearance. The relative position of the lake to the house is such as to lend an uninterrupted view from the latter to an interesting portion of the water and scenery.

In smaller places, not boasting a plentiful supply of water for scenic purposes, the use of the hydraulic ram can be introduced. Common sense would dictate the *jet d'eau* as the preferable and most economical method of creating beautiful effect. This feature of fountain could supply a pond with its gushing element, which of course would not disclose any stupendous precipices or jutting promontories, but should be arranged with sinuous outline, and should be the receptacle of fancy varieties of fish, and could also afford a home for certain flowering aquatics. Overhanging trees, and tufts of shrubbery on the bank, will prove promoters of

beauty. Avoid islands in a pond, for they immediately convey the artificial communion of uncultivated taste.

In conclusion, we would remark, that trees are the important features in creating either landscape or waterscape beauty. They are beautiful when their swelling buds disclose nests of tiny leaves in spring or the brighter green of expanded foliage in midsummer, or when the mellow and warm tints of autumn hang them with ruby colors mixed with topaz, supplanting the emerald of the season gone, by bright shades that contrast with orange-tinted clouds—Heaven's curtains; and as the glance wanders over empurpled lawns, with here and there refreshing spots of green, protected and screened from chilling frost by overarching trees, commingling odors of summer's last flowers, wafted by soft breezes, invigorate our more corporeal sense. Birds that dolefully chirp their farewell song in strains of sorrowful warning, as if regretting the maize and the rill; the giant oak, the refreshing leaves which have warded off the noonday heat, and that other tree, sacred to bird memory, which witnessed the advent of the three little ones, and offered a home with convenient crotch on which to found a nest where maternal solicitude cared for the wants of future warblers. Standing on some ambitious acclivity; as far as the glance reaches, the eye is regaled with slopes so gentle, hills precipitous, terminating far beyond in the blue mountains, until their peaks are lost by blending with the bluer sky.

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#### CRITIQUE ON THE OCTOBER NUMBER.

BY EVELYN.

YOUR LEADER.—Thanks, Mr. Editor, for your able though good-humored *expose* of a few of the absurdities of the professional landscape makers—I would say marriers—nine-tenths of whom, I verily believe, if entrusted with the adornment of some unfortunate victim's estate, and left to the consummation of their peculiar ideas of beauty, would arm themselves with theodolites, levels, spades, mattocks, and all the rest of their mystical enginery of devastation, and deliberately grade, pave and fence him in; put an iron railing round his lawn, and educate platoons of trees to march in Indian file across his parks and down his avenues; then, after persuading the luckless proprietor that their exertions had achieved a

picture, compared to which Paradise was a mere daub, they present a bill, to liquidate which he narrowly escapes mortgaging his property, and decamp in search of other prey. One of these Vandals, employed by a gentleman residing near Yonkers, actually sacrificed a magnificent group of elm and buttonwood trees, which constituted a principal beauty of the grounds, because, forsooth, they obstructed the view of the river from the front windows! So, a few more touches of your caustic, Dr. R., and the excrescence may be reduced and the nuisance abated. Your intelligent readers will agree with the remarks which comprise the balance of your article, and, indeed, so much to the point are they, that further comment from me would be superfluous. Pray tell us to whom are we indebted for that delicious forest description you quote? and let us know the artist, also, to whose pencil the able interpretation of your ideas is owing.

Mr. SNOWDEN introduces "two plums worthy of cultivation;" and although I believe this is the first time the *Marten's Seedling* has had the honor of a public presentation, I recognize in it and the *McLaughlin* two old and well-tried favorites, and, if my experience go for aught, I conscientiously endorse his recommendation. On my grounds I have upwards of thirty descendants of their stock; and it is my opinion that, if well befriended and not permitted to suffer from neglect or malpractice, we have no more profitable or well-deserving plum than they. The cultivation of this fruit has not had that attention to which its merits entitle it, and I am pleased to see the subject now in the hands of one so evidently *au fait* in the premises as Mr. SNOWDEN. Write again, Mr. S., and bring your friends, the plums, along with you.

Mr. KNIGHT's article on a Home for a Laboring Man is written in a congenial spirit, and evidently derives much of its freshness from that great contributor to suburban architecture, LONDON, from whose voluminous work Mr. KNIGHT acknowledges his cottage to have been transferred. His remarks relating to the apathly existing for pretty homes among the laboring classes are, it would appear, founded on facts afforded by an intimate knowledge of their habits and resources. I sincerely hope the eventful epoch is not far distant when those who toil for a livelihood will live in cottages ornamented in some simple and cheap manner, to the displacement of the uncongenial domiciles which infest the suburbs of our cities and villages. Let us hear from you again, Mr. KNIGHT, and do not forget to appear attended with another model of ornateness for the working folk.

TREE CULTURE; NORTH.—A healthful, blooming, hale old tree is the writer of that article; and one cannot fail to see, from the fruit of his bearing which graces your intellectual board, that his heart is sound and unimpaired, and that the generous sap of true good feeling circulates from root to twig of his hearty, upright frame. Beginning at the foundation, interest—conceded to be the initial step toward convincing the sceptical—Prof. NORTH conclusively proves the investment of capital in the culture of trees to be productive of profits far surer, better and more in accordance with God's nature-induced lessons than all the trick-gotten, hard-wrung and hazardous gains of either trades or professions. He next treats, at length, upon the effect of tree culture upon the growing susceptibilities of children, and the masterly tone of his remarks proves him to be a close and deep observer of human character. I'll answer for it, the tear was called to many an eye that read his picture of a "Home," at the recollection of some gnarled old oak or stately elm, where, erst, the seup hung listless in the noonday heat, and 'mong whose boughs the jay or wren whiled the hours with song, or the robin briskly chirped his joyous note, as though delighted at his close proximity to the clear blue vault of heaven. The Professor's animadversions on ignorant tree planters are correct, and unfortunately too well deserved by the quacks who, by barbarous curtailment or merciless compression, yearly murder hundreds of healthful, promising saplings. May we long have the benefit of your experience and leisure, Mr. NORTH! and now that you are in the autumn of your life, may the leaves you shed often be wafted hitherward, to be, with others, bound in ever-greener!

THE STRAWBERRY has a warm friend in Mr. PARDEE, whose article is eminently comprehensive and to the purpose. The profusion of their delicious "first offerings of the field," which last spring sent to market, and the low prices they brought, would certainly seem to verify Mr. P.'s statement, that they can be raised for fifty cents per bushel, while at the same time there is no question that amateur strawberry raising (if it may be so called) is infinitely more expensive and unsatisfactory. Mr. P. is right: this high feeding to excess will have vent in rank luxuriance of leaf and vine; but the over stimulation *must* have its consequent reaction, and barrenness of fruit is the inevitable sequence. In latter years I have invariably separated the pistillates and staminates by planting sparsely in beds from twenty to thirty feet apart, and the result in almost every case has proven satisfactory.

THE CULTURE OF THE GRAPE AND THE MANUFACTURE OF WINE.—Mr. D. W. RAY's communication on the "Cultivation of the Grape" is a carefully written and correctly compiled summary of statistical and general information connected with the subject. His directions for planting and rearing are judicious, and, as far as I can understand them, correct, and show a thorough conversance with his subject. In his mention of the principal vineries about New-York, Mr. RAY omits to notice the flourishing place of Mr. CUMMING, at Fort Hamilton—a gentleman whose efforts to introduce choice specimens of the seductive luxury which in time gone by proved too much for even that sturdy old patriarch Noah, deserve the gratitude of at least the American portion of the latter gentleman's posterity. Luxuriating in Mr. CUMMING's vineyards are upwards of eight hundred varieties of grape vine, comprising many never before imported to this country. These the owner watches with a fostering care, which eventually must insure success. Indeed, such interest does he take in their culture, that on his return from Europe (whither he recently went to personally acquaint himself with the nature-tutored habits of his favorites), he brought with him a vine dresser, indigenous to the soil, and to the "manor born," to act as attendant on his interesting *protoges*, which individual can often at noon-day be seen enjoying a crust and bottle of *de bon vin* with as much *gusto* as though he were 'neath the blue skies and breathing the balmy air of his own sunny France. As for that other "laborer in the vineyard," Mr. LONGWORTH, the only equivalent we could return for his herculean achievements would be, in all future ovations to the "rosy god," to pledge his new partner, under the firm of "Bacchus and Longworth"—or to represent him in effigy astride the barrel, *tete-a-tete* with his godship, and jovially hob nobbing him over a bottle of "sparkling Catawba." To such as have *not* neglected to plant the vine, I need say nothing; the harvest time approaches, and they well know the treat in store for them. To those who *have*, I offer in consolation the sage *Capt. Cuttle's* advice, "Train up your vine trees in the way they should grow, and when you get old, sit under the shade of 'em." Make a note of it.

THE CONTRAST, by Mr. BACON, is a well penned and veritable essay; but, as the premises are very nearly analagous to those so ably covered in the leader, I hardly deem it worth while to re-traverse them.

A RETROSPECT.—MESSER.—You are one of the brotherhood, friend MESSER. You speak feelingly, and your sentiments do you honor. If the study of Horticulture were as generally disseminated among the

practical tillers of the soil as is the absurd prejudice against "book farming," we would have less cramming, starving, flooding and parching, freezing, scorching and smothering to death of unfortunate trees, fruits or flowers. The *enlightened* cultivator is not content to follow mechanically in the footsteps of some predecessor, to clip because he clipped, and to dig deep or shallow, use rich soil or poor, because *bidden* to do it; he must know why and wherefore the thing is done, and be familiar with the habits of the plant and its consequent requirements, if accident or uncongenial weather retard its progress. Read, study, ye men of toil! improve your knowledge, and make your children read, that the sweat of your brows and the labor of your hands may not be given in vain; read, that you may evade the pitfalls of mispractice; read, that you may follow in the footsteps of well-known guides; and *then* let your own good sense winnow the grain from the chaff—sift the gold from the clay.

THE CULTIVATION OF THE SUGAR CANE AND THE MANUFACTURE OF SUGAR.—Undoubtedly a *sweet* composition, but as I know nothing about the subject, I advise those seeking additional information to carefully re-read the article, which is really very interesting and well-written.

THE CULTIVATION OF FLOWERS.—The beautiful article with this caption is given under the auspices of Mr. RAY; yet many of the conceits and ideas with which it abounds, have, to my ear at least, a singularly familiar sound. In fact, I am half disposed to think our friend Mr. R. composed it while enjoying a promenade amid the flowers that bloom "in the gardens of Gul." Nevertheless, I repeat, the article is good—very good—good enough even to quote from the quoter. (The printer will please not omit the necessary marks.) "Where color and shape are combined in such perfection, he must waive all pretension to perception, taste, or refinement of delicacy, who can view a flower with insensibility." Flowers are nature's artists, as birds are her musicians; and it is as impossible to imitate the rich and varied tints and beauteous forms of the first, or the true, pure liquid melody of the other, as it is for the pen to write enough in their praises.

LIVING IN THE COUNTRY.—My dear Mr. Editor: Take a contract from PUTNAM (if you can get one) to supply you an unlimited number of such papers as the "Sparrowgrass" extract, and up goes your circulation like a kite. I fancy I see hundreds of counterparts of the amiable "Sparrowgrass" pair, laughing as they recognize its truthfulness and appreciate its sparkle. It is a truly valuable *brochure*, as much on account of the instruction it imparts as the amusement it affords. For the latter, note the good-tempered *abandon* of the dialogue, or recall the quaint figure

comparing the young beans to *Æneases* "shouldering their way into the world with the old beans upon their backs;" or, for the former, consider the general *morale* of the story, and the calm, philosophical conduct of Mr. S., upon discovery of his better half's carelessness. Instead of flying off in tantrums, he manfully subdues his irritation and does all he can to make the best of the bargain. And then the suggestion about drawing a ground plan of the garden to plant from, was doubtless new to many who now will avail themselves of its advantages. Depend upon it, such pleasantly-contrived lessons are productive of more real benefit than would be volumes of heavy, wearisome homilies.

GOthic SUBURBAN VILLA, from "Homes for the People."—Judging from this extract, I entirely agree with your able reviewer in commending the style in which "Homes for the People" is written. It is finished, graceful and decisive, and, to my ideas, not so susceptible of improvement as is the design accompanying it. I say, *in my estimation*, for, "*de gustibus non est disputandum*" is a veritable axiom; and what appears objectionable in my eyes, may constitute an essential beauty to the taste of another. What I principally except to, in the design, is the projecting oriel window above the verandah, and the pagoda-like cupola on top. If the first were omitted altogether, and the other altered in form, the *tout ensemble* of the building would be much improved. Next time let us have the ground plan, to judge of the construction of the interior.

REVIEWS.—On reading the review of Mr. KERN's book, I was inclined to believe your caustic reviewer diverged a little from the straight path of truth, to disport in the fields of facetiousness. In this I proved wrong. Upon taking the work from my shelf and comparing it with the critique, I had to acknowledge the justice as well as the humor of its strictures. That frontispiece *is* funny, *funny* is the word for it. But apart from its illustrations, the book is a good book, and I am glad to find my brother critic (who, after all, seems a good-tempered sort of fellow,) awards it its just meed of praise. As I have read but the extract which I noticed above from Mr. WHEELER's work, I must be content to criticise the critic. I cannot help admiring the perfect impartiality with which the rod and the reward, the censure and the praise, are distributed; but when he talks of Mr. W.'s opinions tending to the exclusion of Mr. DOWNING's effects of rural adornment, he gets beyond the bounds of probability. Mr. W.'s or any one else's predilections could no more accomplish that than you could

"Pluck its brightness from the sun.  
Or with polluted finger tarnish it."

EDITORIAL MISCELLANY.—As a pioneer of expected future brilliancies, comes your editorial introduction to the “Miscellany.” You have begun well, sir; persevere, and soon I hope to see the envious undergrowth, that charlatanism and ignorance have interposed, cleared away, and an uninterrupted view of nature’s countenance reflected in the mirror of your Magazine. Make your pen your axe; labor fearlessly and do not falter, and ere long the consummation of this object will be the precursor to more substantial rewards. Your modest assertion of your claim to a leader’s station cannot be construed into egotism, when it is remembered that, though young, the best part of your life was passed amid the surroundings which awaken the soul and enlarge the mind of the horticulturist. You, like myself, are a pupil of the great DOWNING, and your grateful reference to his memory proves how sensible you are of this good fortune. As for the Phaeton like pretenders who would attempt to guide his chariot, there is little danger of their setting either earth or water on fire. So I advise you to let them quietly subside into the mire of oblivion in which they are slowly, surely sinking. For fear my garrulity may transcend the space allotted for my lucubrations, I am constrained to touch but lightly on the agreeable collation served up at your Editor’s Table. Mr. DURAND’s plan of sowing lawns seems to me feasible. Mr. D. is a valuable acquisition to the “Review.” I shall see him often, I trust. Who but TOM HOOD could have written that curiously fanciful letter of Mr. FROST’s. His puns grew as luxuriantly as the “*Pickelus Periginatus*” he speaks of—one end of which was set at his own door, while the other went to market of its own accord. The extract from the “*Revue Horticole*” is well deserving the attention of Florists. And now, with every hope, and scarce a doubt of your ultimate success, I bid you, for the present, adieu.

Hudson, November, 1855.

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#### THOUGHTS FROM MY GARDEN SEAT.

MORNING-GLORIES!—one, two, three, four, five varieties! pale blue, white, pink, dark purple, glowing crimson, and white flecked with blue and crimson—airy as the clouds, with a living, transparent brightness in their cups, as if they were woven of light and air. Other flowers have their days, some their weeks, of gradual development—of mature fullness—of slow decay: the morning-glory is new every morning. It has only

a few fresh hours, and then closes forever, and instead of a half-withered, slowly-decaying flower, lo! to-morrow, we have all new ones, sprung as by one magic touch from the womb of night. Ages ago, the Hebrew poet said of the fairest and only One, the source and essence of all beauty, His mercies are *new* every morning.

These morning-glories, in their unvalued commonness, and yet their strange, ethereal beauty, are a living emblem of that daily love which God shows us daily, when we wake from the seeming death of sleep to a new lease of life—a new present of all its adornments and comforts.

Our garden is a perfect jungle of petunias—that flower so encouraging to the souls of immature gardeners, so hopeful, so hardy, so full of vanity, so persistent in bloom that no exuberance can possibly exhaust it. We have taken from the ground a petunia that has been flaunting its blossoms all summer, cut it down for our winter window-garden, and seen it bloom there with new vigor all winter; and when spring came, go back into the ground and flower on all summer, without one pause suggestive of weariness. Ah! how few among our living friends are there that correspond to petunias.

Verbenas also are an encouraging growth, requiring only sunshine enough for untiring bloom. People with shaded borders should eschew them, for they will not blossom without a plenary fullness of sunlight. Too much sun and heat they scarce can have, and they lift their heads to it with an exultant glow; they are like rich, poetic, artistic natures, which revel in congenial warmth and culture, but become wilted, bloomless and stunted, in cold, shaded, ungenial situations. Many persons can no more be judged of, in such situations, than can the verbenas which some of our neighbors are fond of planting in shady borders under the drip of over-arching trees. "I see no beauty about the thing," they say; "it's a miserable, yellow, lank-growing vine, without form or comeliness." Yet, friend, give it sunshine, and you will see what it can do. Some of the most gorgeous and splendid natures may have, all their lives in this world, passed for miserable failures—simply because the sunshine of congeniality and opportunity never awakened what was in them to bloom; and there may in the future life be glorious blossoms on plants which seemed poor and stunted here.

But, oh, these weeds! What! only a week since garden beds and alleys were faithfully cleaned, and now behold!

Yet one word about these weeds. A friend said to us the other day, Does it not seem a piece of impertinence to seize on a piece of ground

and vehemently uproot and destroy everything that nature inclines to place there, and insist on the growth of something which apparently she cares very little about? Who does not see that mignonette, larkspurs and cypress vines are not nature's pets? She expresses herself with a far more hearty energy in burdock, pigweed and smartweed. These are her thrifty children; our so-called flowers are her step-sons, penuriously and grudgingly brought up. What makes one thing a weed and another a flower? We have seen growing, in trodden paths by the sand and dust of the wayside, weeds fairer than some green-house nurslings. The weed of one country is the cherished exotic of another. Our mullein flourishes in English gardens under the cognomen of the American velvet plant, and the wild heath of her moors is our green-house nursing.

We have thought sometimes that flowers, could they speak, would complain of this capricious standard of valuation. But the same thing runs through the living world. There is *one* Mrs. A. who is broad and fat, a coarse talker, a loud laugh, a heavy feeder, and there is *another* Mrs. A. who is just the same,—but the world calls one of them a flower and the other a weed. One is the rich Mrs. A. and the other is the poor Mrs. A., and that makes all the difference. One is designated as *en bon point*—the other as broad and fat. One is insufferably vulgar—the other is “*so peculiar and original*;” in short, one is the garden plant and the other the roadside weed.

We confess to certain remorseful yearnings in favor of weeds, when we observe the persistent assiduity with which nature endeavors to give them a foothold in the world. How is a believer in universal toleration and freedom of development to reconcile it to his conscience to give pigweed and purslane no chance? Pigweed has his æsthetic merits; his leaf is elegant; in good soil he becometh soon a shapely shrub. Whoso will examine the pink leaves of a very young pigweed through a microscope, will find them frosted with a glittering incrustation of the most brilliant beauty. A few sparkles of dew lying cradled in those pink leaves have often stayed our hand in full process of weeding, and raised the query, Why should this be only a weed? About smartweed, now, the question is easily answered. He has no graces, no fine points; his leaves of a dingy hue, with dull spots—his flower of a dirty pink—his odor coarse and rank; all declare him to be a weed by nature as well as position.

One of our own ideas of a garden is a certain wild *abandon* or freedom of growth, similar to what one sees in woods and hedges. Trim gardens, where every plant is propped and tied, and divided with exactest care,

have their own beauty, but there is (so at least we hope) beauty also in dense masses of flowers which grow, and twine, and mingle together as if nature had planted them. Perforce, such has been the shape of our own gardening affairs; our beds are so full that the ground is scarcely to be seen; flowers lean over each other—vines intertwine, they mat, and run, and blossom in each other's embrace, as if they grew in a meadow. Here and there a hardy weed, if he have any prepossessing points, is allowed a niche, unless some amateur young gardener, zealous for etiquette, pulls him up in our absence. Humming-birds and sparrows come and go among our flowers, and every day, as we explore the jungle, we find some new development.

This humming-bird—child of air and light! winged jewel! ethereal vision! what shall we say of him? Suppose some good, clucking hen, as she scratches in the garden, should deliver to her chicks an opinion of him. Standing on one leg, with her eye cocked upward, she watches his gyrations as he dips first at the coral tubes of the honeysuckle, and then dances through beds of petunias and verbenas. "See, my children," she says, "what absurd, irrational conduct! Did you ever see *me* do so? What if I should go flying about, pecking honeysuckle blossoms? Don't tell me that a bird can live on such fare as that! Don't it take corn-meal, potatoes and worms to keep us alive, and can a living be got by figuring round among roses and jessamines? What utter neglect of all solid tastes and pursuits! If I had the bringing up of that creature, she should learn to scatch and eat corn-meal as a rational bird should! Don't tell me about her fine colors—all trumpery! and graceful motions—pah! what are they good for? do they dig a single worm, or hatch a single chicken?"

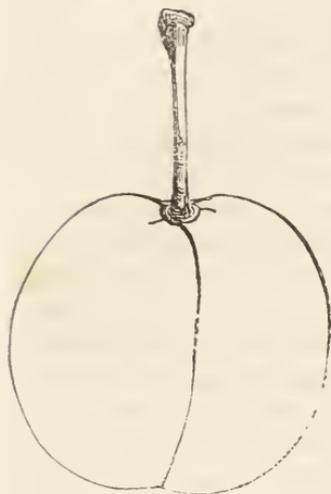
Many of the judgments which human beings pass on each other are about as sensible as this. H. B. S.—*Independent*.

### THREE NEW PLUMS.

BY JAMES SNOWDEN.

I SEND you specimens of three new Plums of decided distinctive character, and eminently worthy to hold rank with the more esteemed of their class. The first that I shall notice is the Fulton, a local variety

## THE FULTON PLUM.



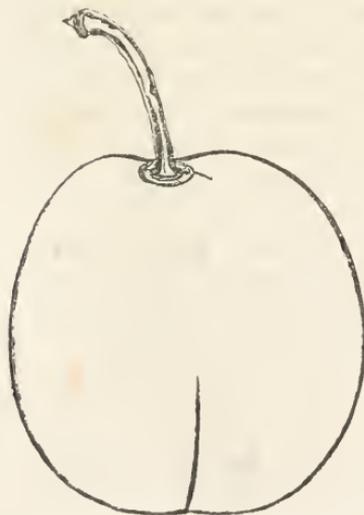
found growing in great profusion at Johnstown, Fulton county, N. Y. I have therefore named it the Fulton, as its origin cannot be traced to the original grower. It is doubtless an accidental seedling.

The tree grows to an unusual size, and produces its fruit in astonishing abundance every season. It also, like most local sorts, attains a more advanced age than those of foreign introduction.

The wood is red while in an immature state; which, however, becomes brown with more perfect ripeness. The leaves are much crumpled, resembling, somewhat, the Lombard. The growth is quite erect and exceedingly rapid.

Fruit medium size, oval; suture very distinct; skin a bright yellow, interspersed with rough brown spots of irregular form; flesh yellow, juicy, high flavored, fine for the dessert; stalk about three-quarters of an inch in length, thick, and inserted in a moderately deep cavity; ripens in October, and frequently remains upon the tree to the 1st of November. It will prove an invaluable sort on account of its extreme lateness, aside from its other merits.

## THE QUACKENBOSS PLUM.



Quackenboss, not a very euphonious name, to be sure; but that is a matter of secondary importance. It originated at Albany, N. Y., which everybody knows is celebrated for the perfection with which its soil invests this fruit. Quackenboss is the name of the individual who first presented it to public notice. Whether this gentleman originated it, I am unable to state with certainty. Unlike the plum just described, it is purple. A specimen tree in my garden is so large as to resemble at a distance a thrifty apple tree of a dozen years' growth. It grows rapidly, and forms a compact head of massive foliage, much darker in color than any

plum tree in my collection. This dark green color of the leaves is a remarkably distinctive feature.

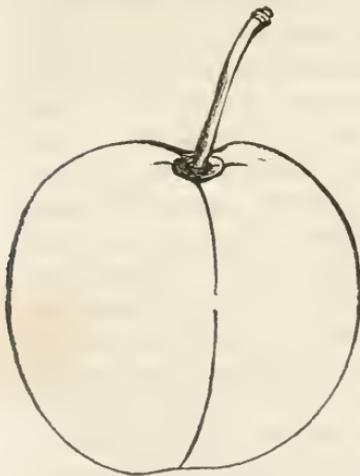
Wood dark brown, and exhibits a deal of pubescence. The growth is straight and perpendicular. The tree is not subject to exudations of gum, neither have I been able to discover traces of the black knot excrescence. The bark on the body is smooth and glossy, the very picture of high condition.

Fruit of the largest size; oblong oval; skin deep purple, covered with a whitish bloom, which at a distance makes the plum appear of a blue color; suture scarcely apparent, and that only at the lower extremity; stalk short, crooked, thin, and set in a slightly depressed cavity; flesh greenish yellow, sprightly, juicy, a little coarse-grained, sweet and excellent, adheres slightly to the stone; October; a valuable late market plum.

GUTHRIE'S APRICOT.

This is an European variety, and much esteemed by the originator. It has borne fruit with me for the three past seasons, and quite equals its foreign reputation.

The tree is a rapid, strong grower, with large foliage and a healthy appearance. Wood dark and smooth; buds large, with a projecting shoulder; forms a low-top tree, with a symmetrical head.



Fruit large; irregular oval; suture deep and expressive; skin golden yellow, covered with a profuse white bloom; flesh yellow, coarse grain, rich and sugary, adheres to the stone; stalk three-

quarters of an inch long and depends from the tree at a slight angle, and is planted in a deep basin; season September.

**CORRECTION.**—The Marten's Seedling Plum, which I described in the October number, is a free stone, which I have since ascertained. My impressions, when writing the description, were derived from the previous season's investigation, and were consequently imperfect on that point.

## AMERICAN FOREST TREES.

BY D. W. RAY.

A GLANCE at the Forest Trees of America may not be uninteresting to the readers of the *Horticultural Review*. America undoubtedly produces the most lofty and truly magnificent trees of any portion of the globe. American forest scenery strikes the European visitor upon his arrival in this country with wonder, to see the vast extent of territory covered with natural forests, untouched by the hand of man, in their primeval wildness and solitude. The European is familiar with only such forests as are artificial in the main, or at best, only those kept as parks by the wealthy few. Our forests excel in variety and extent. The writer, in conversation a few years since with G. P. R. JAMES, the celebrated English novelist, heard an eulogy passed upon American forests which he will not soon forget. He (JAMES) said the average growth of European trees was 30 feet in height, while our forest trees average over 40 feet, and often grow 100 to 250. We have 70 varieties which attain the altitude of 60 to 100 feet. A comparison of American and French trees shows that there are in France only 37 varieties which attain a height of over 30 feet. Prior to the settlement of this country, at Jamestown, Va., the whole Atlantic coast, from the St. Lawrence to Florida, was an almost unbroken wilderness, extending back to the Mississippi, presenting the most extensive forests in the world. This portion of the globe seems to have been peculiarly designed by Providence to produce not only all kinds of forest trees, but fruits and flowers in the same abundance. Our American woods comprise over 140 species of trees, more than half of which rise to an elevation of 60 feet. Among those most distinguished are the American Cyprus (*Cupressus Distichum*); the Walnuts or Hickories (*Inglans Regia*); the Tulip tree (*Tulipifera Lerioidendron*); the Locust (*Robinia*); numerous and magnificent Pines, Oaks, Ashes, the Coffee tree (*Gymnoclades Canadensis*); Magnolia, Sycamore or Plane tree, Loblolly Boy (*Gardenia*), and innumerable other remarkable kinds. Only in the United States the most magnificent and the more useful and valuable forest trees are presented. The North American Flora here indeed affords her most elegant features, and an infinite variety of valuable shrubs and trees.

The first of the American forest trees which we shall notice specially

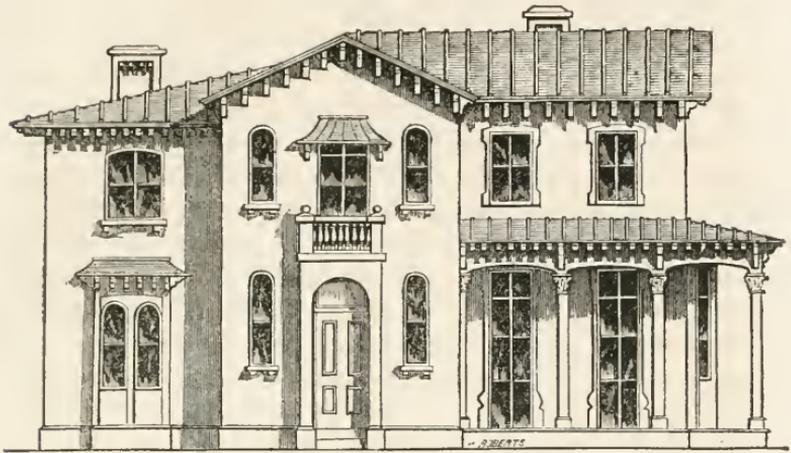
is the White Oak (*Quercus Alba*). "The Oak, in point of usefulness to man," says LONDON, "can only be equaled by the Pine and Fir tribe. The latter may be considered the domestic, and the former the defensive trees of civilized society." The Oak is useful not only for constructing machinery, but for ship building. The White and the Live Oak found in Florida are not equaled. The white is indigenous to North America, and found in no other part of the world. This is the only American Oak that retains some of its withered leaves until spring. The acorns are large, oval and sweet. The bark of this tree is used for medicinal purposes. It is found more abundantly in the Northern and Middle States, and grows from 70 to 100 feet high. Some specimens are said to have been found west of the Rocky Mountains 150 feet in height. We also find in this distant region a range of forest extending along the base of the mountains, 100 miles from the Pacific and several hundred in extent, abounding with the most magnificent trees in the world, among which are many gigantic Pines. Some there are whose tops are 250 and 300 feet from the ground. This is a new Botanical region open for research and scientific discovery. Very many of our new Pines and Spruces have been introduced lately from west of these latitudes, discovered in California and Oregon; the most noted of which are the MENZIES and DOUGLASS' Spruce.

The other varieties of Oaks found in this country are the Live Oak in East Florida (*Quercus Virentes*); the Scarlet Oak (*Quercus Coccinea*) is common in the Southern and Middle States, rising to the height of 80 feet; the Red Oak (*Q. Rubra*) of the more Northern States; the Black Oak (*Q. Nigra*), one of the loftiest of our forest trees, which attains the height of 90 feet, is common to most of our States and affords the valuable quicitron; the Swamp Oak (*Q. Palustris*); Black Jack (*Q. Ferruginea*); the Marsh or Water Oak (*Q. Aquatica*); the Laurel Oak (*Q. Laurifolia*.) These varieties comprise nearly all the largest growing kinds indigenous to this country. Europe presents a larger number of this species of tree, but none that attain the majestic size of our native Oaks.

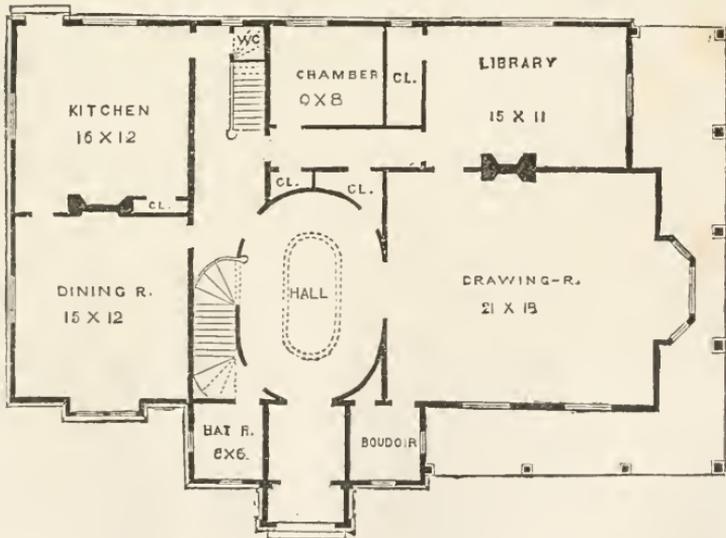
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#### ITALIAN VILLA.

ITALIAN architecture certainly presents, to the rural improver, most agreeable forms and sublime effects for suburban habitations. This



ITALIAN VILLA.—(Front Elevation.)



PLAN OF FIRST FLOOR.

style, in its various peculiarities, is strikingly distinct, as well as exceedingly simple in detail. The singularity of roof which characterizes Italian architecture is a feature to which it owes much of its beauty. The form is horizontal, and is generally extended over considerable surface, although not a positive requirement. It is replete with bold and picturesque projections, remarkably expressive. Another advantage offered by the Italian style is its comprehension of rectilinear forms for the more important details, while at the same time it does not exclude curvilinear shapes for minor embellishments of cornices, &c. No other order furnishes so great an amount of beauty in elevation, without disparaging convenience of accommodation. The Italians are a luxurious people, in a double sense; to enjoy an agreeable object, with them it must be beautiful for the eye to linger upon, without sacrificing that other attribute to pleasure—utility. The architecture of their homes and public palaces is an apt exemplification of their skill in blending the *utile et dulce*.

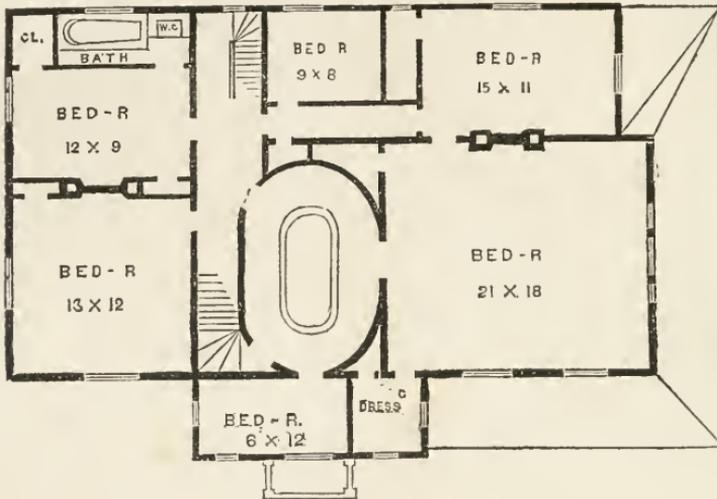
The towering campanile, standing boldly out from the main structure, diminishes the monotony caused by regular rows of equal-sized windows. The veranda finds among its acute projections a snug quarter to locate, as also the oriel and railed balcony window. In the hands of the superficially informed architect, consequent incongruities do not display the error committed in such a ludicrous and offensive manner as the Gothic and other purer styles. There are certain peculiarities, however, which require a somewhat strict observance when profound expression is desired. Thus, the material used for the roof, and its construction, are important. A plain shingled roof, or the ordinary earthen tile, or even slates, would be sadly out of place in the Italian villa. In this country, tin would be the most ornamental material, as its pliability permits of its being secured to an uneven surface, which is essential. This abruptness may be produced by fastening three-inch joists to the roof planking, at regular intervals of eighteen inches or two feet (according to the size of the building). Of course the joists are laid parallel with the angle of the roof. The tin is subsequently fastened over all. (*Vide Engraving.*) Another peculiarity, which demands attention when the building material is of stone, is to avoid walls which present a smooth surface. The stone should be either what is termed stalactited or vermiculated, two methods of forming an uneven surface. The tower, in perfect specimens, is imperative, as are also balcony windows and artistically grouped chimney stacks. Cornices under window sills are indispensable. In Tuscany,

bell turrets are frequently seen appended to ordinary farm houses. In many instances they are formed by carrying up the gable wall beyond the roof. In large villas, the principal entrance doorway is protected by a portico of sufficient size to admit the ingress and egress of a carriage; but this is a feature that can well be dispensed with, as it is neither elegant nor useful, and is rendered gloomy for the want of sunshine. As this style is particularly addressed to refined and cultivated tastes, its greatest and most beautiful expression can only be attained by those skilled in the composition of ornate and artistic effects. At the same time, those of a lower order of talent need not hesitate to attempt its elaboration. One very obliging characteristic of Italian architecture is, that additions may be erected at any subsequent period, without in the least marring the harmony of the composition as a whole. Mr. LAMB, an English architect, remarks, in his work on Rural Architecture: "If we were to look out for a young architect to design an edifice in the Italian style, we should first show him a landscape and ask him to analyze it, and next we should show him a view of an Italian building and ask him to point out the causes of beauty." The Italian villa of which we give the front elevation, possesses the prevailing features of this style, excepting the campanile. In designing this plan, the object sought was to give as much architectural beauty as a moderate cost would permit. Several effects, to increase picturesque expression, can be added if required; but for persons of limited means it will be sufficiently expensive, and ornamental enough to satisfy most tastes, except the hyper-fastidious. The estimate of cost is about \$2500, using wood or brick material; stone would increase the expense about \$2000.

*Accommodation.*—Entering the principal door by the way of a porch, we arrive in a vestibule  $6 \times 6$ ; this is succeeded by a spacious hall describing an ellipse, the light being admitted from above. On the right hand is a large drawing-room,  $18 \times 21$  feet; connecting with this room is a bay window, and a small boudoir—which has a counterpart on the opposite side of the vestibule, which would be appropriate as affording protection for hats and external apparel. The room in the rear of the drawing-room would answer well for a library or study; it is  $11 \times 15$  feet. Again, on the left side the hall, we have that indispensable apartment, the dining room,  $12 \times 15$  feet, of ample dimensions for the purpose. This is in easy communication with the kitchen, which is also  $12 \times 15$  feet, and has the usual appendage of a closet. Adjoining the kitchen is a small hall, provided with a staircase communicating with the floor

above; there is also an entrance to the main hall and stairway. Directly to the right of the rear hall is a small chamber,  $8 \times 8$  feet, which would be commodious for the occupancy of a female domestic. Reference to the Plan will disclose the fact that we have not forgotten those cozy and useful closets, so much desired by the tidy housewife for such a variety of purposes.

Ascending the stairs, we arrive at the sleeping apartments, which are quite numerous and conveniently arranged. The principal bed-room is



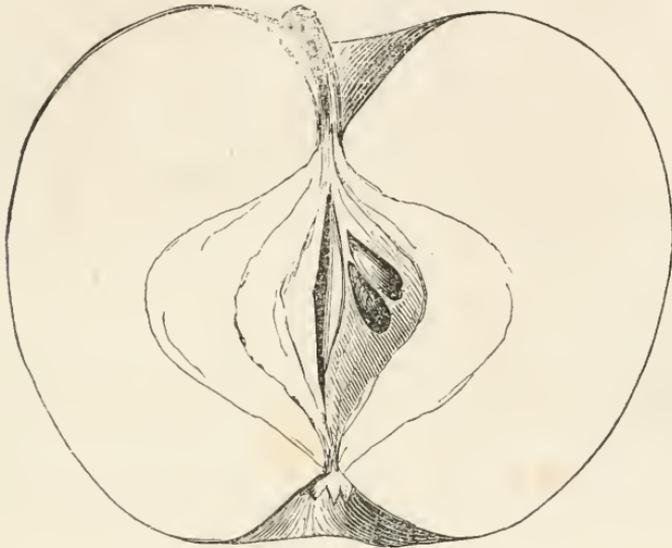
PLAN OF CHAMBER FLOOR.

$18 \times 21$  feet. There are, beside this, five other bed-rooms— $13 \times 12$ ,  $6 \times 12$ ,  $11 \times 15$ ,  $8 \times 9$ , and  $6 \times 12$ ; also a buttry closet, dressing-room and appropriate offices.

The first story is intended to be 13 feet high and the chamber floor 10 feet. The kitchen and library, being an attachment to the main building, have necessarily lower ceilings. Interior decoration will of course be governed by the amount of taste possessed by the builder and the means of the proprietor. In succeeding numbers we shall present Elevations of this style, with other exterior embellishments, as tower, oriel window, etc.

## MILLER APPLE.

WE have received from JAMES A. MILLER, Jr., of Montgomery, Orange Co., specimens of a new variety of Apple; such we presume it is, for, having compared it with numerous and various kinds, of which we have perfect *fac simile* figures, we are forced to the conclusion that it is distinct, and new to the horticultural world. Although averse to sanction



MILLER APPLE.

the admission of any new fruit into the already surcharged lists, we think the one before us at least worthy of trial in other localities. Its season of maturation is at a period when the superior summer varieties are gone, and autumn sorts of merit are not yet sufficiently ripe to pluck. In size and shape the Miller apple approaches the Rhode Island Greening; its flesh is fine and juicy, and of excellent flavor. We append an extract from our correspondent's letter, in which its history and other important facts are detailed:

The history of this Apple is very brief. My grandfather, when he erected the homestead, set out an orchard of the choicest fruit. A few of these trees met with casualties, and others early began to decay. From time to time as these vacancies occurred, they were filled with other trees. Sometimes they were purchased from the nursery, and at other times seedlings were taken from the garden. My grandmother had a habit, and a very good one, too, I think, of planting in the garden the

plumpest seeds of the finest varieties of Apples she might become possessed of, of which the Spitzenburgh and Swaar were and still are her favorites. From these trees the vacancies (when not replaced by grafted fruit) were filled. The tree from which these specimens were taken stands upon the bank of a muckish pond which gets some of the wash of the yard; it has borne ten or twelve years, and I have never known a season when it did not bear a fair crop of fruit for the size of the tree. The apples always hang singly and are very evenly distributed over the tree. The fruit ripens gradually during the months of September and October, and may be preserved till late in the fall, and can be used, here and there one, by the middle of August. Its flesh is rather yellow, firm and spicy, rich flavor, excellent for cooking, and I think, when fully ripe, for eating. In size they are rather above the medium, round, very smooth, and always fair. The stalk short and moderately stout, inserted in a rather deep hollow. The color is a yellow ground, finely washed and streaked with a bright and sometimes a dull red, and on almost every specimen one or more deep green spots in the midst of red. You will see that some of the specimens sent are quite green yet, and I picked off some as ripe as the ripest a month ago. In this respect I consider the apple a decided curiosity.

The peculiarity of this variety, in offering for so long a period both ripe and green fruit, makes it anomalous to its class, and would alone be sufficient evidence to stamp it as entirely distinct from any other kind. Our impression from the specimens sent us is quite favorable, and we do not hesitate to recommend it to amateurs for further trial. A season or two hence will better determine its value for general cultivation—ED.

#### CHINESE YAM—(*Dioscorea Batatas*.)

This esculent is at present attracting considerable attention. M. de MONTIGNY, the French consul at Shanghai, first introduced it into France when the potato disease created so much fearful anxiety. Like all new and recently discovered vegetables, this novelty has been much over estimated. M. de MONTIGNY's description would almost induce us to abandon the Irish potato and seek its successor in this tropical root. M. de MONTIGNY is doubtless a speculator and a votary of monstrosities, for pecuniary emolument. Professor DECAISNE supports M. de MONTIGNY in his statements; and, between the two, Mr. JOHN HENDERSON, late a London nurseryman, has been induced to devote his efforts to the cultivation of the Chinese Yam in England. If

we may credit the statement he has given to the public in a voluminous pamphlet, he has succeeded in its cultivation; but other parties, disinterested, make quite a different report, asseverating that the much-lauded substitute for the potato will not form tubers in open cultivation, and moreover scarce gives evidence of its presence above the soil. In some instances it has attained a growth of ten or twelve inches and then decayed. In England, it will in all probability be consigned to the greenhouse, Mr. JOHN HENDERSON'S assertions to the contrary notwithstanding.

We are informed it has been introduced into this country by an enterprising nurseryman, who is at present experimenting with it in order to determine its value in our more propitious climate. Of course, a single season's experience is insufficient to form a definite conclusion as to its merits. We have seen the Chinese Yam growing in its native localities; its cultivation there is of the most simple character. It is an enormous yielder, and forms the leading article of food among the poorer class where it is indigenous. The natives boil and peel, after which it is in a fit state for the table. During our sojourn in the tropics, we discovered a better method than the ordinary manner of cooking: subsequent to being boiled, we had them grated finely, and then kneaded like bread, seasoning with pepper, salt and butter, after which we put the consistent mass into a shallow baking pan, which was placed in a hot oven and there let remain until a tempting brown crust gave external indication that the product of our *cuisine* skill was in condition for eating. Prepared after this fashion, it became very respectable food; but with simple boiling, without the addition of condiments, it is quite unsatisfactory, being perfectly tasteless—indeed, we were unable to discover the least peculiarity of flavor. We should imagine that for dyspeptics it would prove invaluable, as it is a light food and of easy digestion, like most products of the tropical latitudes, where stomachs are not arranged to hold conflict with "*Welsh rabbits*."

We consider the Yam eminently worthy of trial in this country, and would advise cultivators to experiment perseveringly. By this means, new features may be disclosed which at present are not transparent. We give Mr. JOHN HENDERSON'S opinion, which the reader will discover is highly favorable:

I. That, in point of flavor and nutritive properties, it is equal to the potato, and, in the opinion of Professor Decaisne, superior.

II. That the quantity yielded is greater than that of the potato, whilst its freedom from disease renders the crop more certain.

III. That it will grow upon sandy, and generally considered barren soils, and thus affords an excellent means of turning waste land to a useful purpose as well as to profit.

IV. That it can be propagated with the greatest facility, as will be seen by the remarks on cultivation.

V. That it may remain in the ground several years without degenerating, but, on the contrary, each year it increases in size, weight and nutriment.

VI. That, when harvested, it may be preserved in cellars or sheds, without vegetating, for many months after the potato has become useless for food.

When these things are considered, it cannot be doubted but that this esculent must ere long come into general use, and obtain that consideration, at the hands of all, which its intrinsic merits so imperatively demand. Among those who are pre-eminent in the attention paid to this plant is the learned Professor Decaisne, whose report is full in itself, and conclusively important in its results.

CULTIVATION.—M. de Montigny informs us that “the Chinese put aside all the smallest roots at the taking up, and place them in pits or trenches, covering them well with straw, over which they afterwards spread a coating of earth. In the spring they are taken out, and laid horizontally in beds of prepared mould, where they soon germinate, and produce long trailing stems. As soon as they have attained about six feet in length (which is generally in a month or six weeks’ time), they are taken up, to be replanted and layered. The manner in which this part of the operation is performed is as follows: the ground having been prepared and thrown into ridges, either by means of the plow or spade, a slight furrow is made on the top of each ridge with a rake or hoe, and the plant laid in it lengthwise, and the whole of it, except the leaves, is covered lightly with earth, care being that they (the leaves) are left exposed: if it rains the same day, they take immediately; but should it be dry weather, it is necessary to water them till they begin to grow. At the end of fifteen or twenty days they will produce tubers, and at the same time throw out long trailing stems, which ought to be examined from time to time, to prevent their taking root, and so producing another set of tubers, which latter would injure the full growth of the first or main crop.”

This statement is nearly correct, as applied to the native haunts of the Yam, but most certainly not appropriate to the climate of England. A writer in the *Gardener’s Chronicle* says:

I fear this will prove one of the most complete horticultural fiascos we have had for a long time. In common, I suspect, with some hundreds of your readers, I purchased some tubers in February last and planted them in pots, placing the pots in bottom heat in a forcing house. The shoots were a long time before they made their appearance above ground, seeming to require much heat; however, in May

CHINESE YAM.



they progressed rapidly, so that by the 16th of June each plant had formed a tuber about as large as a nutmeg. On that day, after hardening them off, I planted them out, having first prepared a ridge on a southeastern slope, the soil being a very light sand; this I stirred to two feet in depth, mixing with it a good quantity of rotten manure. I placed no glasses over them, considering that if it is really to prove a hardy esculent fit for general culture, such extreme care should not be required. And now for my success! By the 30th of June they were much less than when planted out; the heavy rains in July gave them a "heavy blow and great discouragement," and at this moment only two out of six are alive, and they have shoots perhaps 6 inches long.

In the extreme south of France, and in Spain, with careful culture, it may succeed, but with our cloudy skies and equable temperature, I fear it will not even reward the amateur gardener, who looks only for small returns after much labor. As an article of general culture it never can be of the slightest utility, and it is really a pity that so much was done in the puffing way with it. A very clever French gardener has made a fortune by it; and when he was with me a short time since I showed him my plants, telling him at the same time that I was aware it had filled his pocket, but that I thought it would never fill our stomachs. His sagacious grin and shrug were things worth looking at.

The flesh is white and very mealy, not equal in flavor to the potato. The plant has a rambling stem which reaches the height of five and six feet, the leaves heart-shaped, the flowers very small, dicecious, of a yellowish color, and produced from the axles of the leaves. It is a perennial, and can therefore remain in the ground several years, the tubers increasing in size with advancing age. We have seen them two feet long. In this latitude they will doubtless require some winter protection.

#### A PEEP INTO A SALAD BOWL.

"My dear, learned friend," said the doctor, "a bowl of lettuce is the Venus of the dinner-table! It rises upon the sight cool, moist and beautiful, like that very imprudent lady coming out of the water, sir! And, to complete the image, sir, neither should be dressed too much!"

When Doctor Bushwhacker had issued this observation, he drew himself up in a very portly manner, as if he felt called upon to defend himself as well as his image. Then, after a short pause, he broke—silence.

"*Lactuca*, or lettuce, is one of the most common vegetables in the world; it has been known, sir, from time immemorial; it was as common,

sir, on the tables of the ancients as it is now, and was eaten in the same way, sir, dressed with oil and vinegar. We get, sir, from Atheneus some idea of the condiments used ; not all of these contributed to make a salad ; but it shows they had the materials :

‘ Dried grapes, and salt, and eke new wine  
Newly boiled down, and assafetida, (pah !)  
And cheese, and thyme, and sesame, (open sesame,)  
And nitre, too, and cummin-seed,  
And sumach, honey, and marjorum,  
And herbs, and vinegar, and oil,  
And sauce of onions, mustard and capers mixed,  
And parsley, capers too, and eggs,  
And lime, and cardamoms, and th’ acid juice  
Which comes from the green fig-tree ; besides lard,  
And eggs and honey, and flour wrapped in fig-leaves,  
And all compounded in one savory force-meat.’

“ They had pepper, too. Ophelian says :

‘ Pepper from Libya take, and frankincense.’

So, sir, if you had dined with Alcibiades, no doubt he would have dressed a salad for you with Samian oil, and Sphettian vinegar, sir, pepper from Libya, and salt from—ah—hem—”

“ Attica, Doctor.”

“ Attica, my learned friend ; thank you. Now, sir, there was one thing the ancients did with lettuce which we do not do. They boiled it, sir, and served it up like asparagus ; so, too, did they with cucumbers—a couple of indigestible dishes they were, no doubt. Lettuce, my dear friend, should have a quick growth, in the first place, to be good ; it should have a rich mould, sir, that it may spring up quickly, so as to be tender and crisp. Then, sir, it should be *new-plucked*, carried from the garden a few minutes before it is placed upon the table. I would suggest a parasol, sir, to keep the leaves cool until it reaches the shadow of within-doors. Then, sir, it must be washed—mind you, ice water ! Then place it upon the table—what Corinthian ornament more perfect and symmetrical ? Now, sir, comes the important part, THE DRESSING. ‘ To dress a salad,’ says the learned Petrus Petronius, ‘ you must have a prodigal to furnish the oil, a counsellor to dispense the salt, a miser to dole out the vinegar, and a madman to stir it !’ Commit that to memory, my learned friend !”

“ It is down, Doctor.” (*Tablets.*)

“ Let me show you,” continued Dr. Bushwhacker, “ how to dress a salad. Take a small spoonful of salt, thus : thrice the quantity of mustard—‘ Durham’—thus : incorporate : pour a slender stream of oil from

the cruet, so ; gently mix and increase the action by degrees" (head of hair in commotion, and face brilliant in color) ; "dear me ! it is very warm—now, sir, oil in abundance, so ; a dash of vinegar, very light, like the last touches of the artist, and, sir, we have the dressing. Now, take up the lettuce by the stalk ! Break off the leaves—leaf by leaf—shake off the water, replace in the salad-bowl, pepper it slightly, pour on the dressing, and there you have it, sir."

"Doctor, is that orthodox ?"

"Sir," replied Dr. Bushwhacker, holding the boxwood spoon in one hand and the boxwood fork in the other, "the eyes of thirty centuries are looking down upon me. I know that Frenchmen will sprinkle the lettuce with oil until it is thoroughly saturated ; then, sir, a little pepper ; then, sir, salt or not, as it happens ; then, sir,  *vinaigre*  by the drop—all very well. Our people, sir, in the State of New Jersey, will dress it with salt, vinegar and pepper—perfectly barbarous, my learned friend—then comes the elaborate Englishman ; and our Pennsylvania friend, the Reverend Sydney Smith, sir, gives us a recipe in verse, that shows how they do it there, and at the same time exhibits the deplorable ignorance of that very people. I quote from memory, sir :

“ Two large potatoes, passed through kitchen sieve.  
Smoothness and softness to the salad give ;  
Of mordant mustard add a single spoon.  
Distrust the condiment that bites too soon,  
But deem it not, lady of herbs, a fault  
To add a double quantity of salt :  
Four times the spoon with oil of Lucca crown,  
And twice with vinegar procured from town :  
True flavor needs it, and your poet begs  
The pounded yellow of two well-boiled eggs :  
Let onion atoms lurk within the bowl,  
And, scarce suspected, animate the whole ;  
Then, lastly, in the flavored compound toss  
One magic spoonful of anchovy sauce.  
O, great and glorious ! O, herbaceous treat !  
'Twould tempt the dying anchorite to eat ;  
Back to the world he'd turn his weary soul,  
And plunge his fingers in the salad bowl ! ”

"Now, sir, I have *tried* that, and a compound more execrable is not to be thought of. No, sir ! Take some of my salad, and see if you do not dream afterwards of the Greek mythology !" — *Wine Press.*

## A FLOURISHING AGRICULTURAL SOCIETY.

OUR special correspondent, D. W. RAY, Esq., is at present making a tour of the Western States. He sends us the following really gratifying report of the Kentucky Agricultural Society, derived from a participation in their recent exhibition, held at Lexington, Sept. 11, 1855.

This is a General Association of Southwestern Fruit Growers, Stock Importers, and Planters generally. The officers of this Society are not limited to Kentucky alone, but comprise gentlemen, without regard to locality, who are interested in Agricultural, Horticultural, and Mechanical Improvement, and the advancement of all kindred sciences. I notice on the books of the Society the names of some judges from New-York, among which are LEWIS F. ALLEN, of Black Rock, SAMUEL THORNE and L. G. MORRIS, of New-York. Through the kindness of Col. SANDERS, and Mr. ROBERT ALLEN, of the Board of Directors, I was appointed one of the committee on fruits and flowers. I was also indebted to the kindness and politeness of the President, Mr. GRATZ, both for attention and information; at his suggestion I became an invited guest. The locality chosen for this exhibition was one of the most delightful places the eye ever rested upon. It was situated upon one of the many turnpike roads leading out of Lexington, upon a gentle eminence commanding a fine view of the city. It seems as if the God of Nature had designed this spot as a fitting place for an Agricultural exhibition. The grounds of the Society comprise fifty acres of fine rolling land, interspersed at intervals with many of Kentucky's noblest forest trees, among which I noticed the stately sycamore or plane tree, black walnut and buckeye. The amphitheatre was erected by the Association at an expense of over fourteen thousand dollars. The grounds cost two hundred dollars per acre. Since the purchase, the Society have constructed a handsome cottage in the Gothic style upon the ground, at a cost of four thousand dollars. Thus, over thirty thousand dollars have been expended in permanent fixtures. I unhesitatingly pronounce their amphitheatre—for the accommodation of the public, for editors, invited guests, and judges—to be one of the finest in the world. The vast amphitheatre, filled with from 15 to 20,000 people, all interested in the exhibition, reminded one of the gladiatorial shows of Ancient Rome; and I doubt if Rome in her palmyest days ever witnessed a brighter spectacle of gallant youths or beauteous maidens. Other States might take a lesson from the arrange-

ment and management of this Association, especially New York. It would be for the interest of the N. Y. Society to fix upon some central position, say Syracuse; there build an amphitheatre capable of containing 50,000 people, sheltered from sun and rain, where ladies could sit in comfortable and permanent seats, and not be obliged to tramp about in the sun, heat and dust, as they are at present compelled to do. This Society has no endowed fund; the money has been all raised by sale of life memberships, voluntary subscriptions and receipts at Fairs. The receipts, I am told, are about ten thousand dollars annually. The people of this place have made a proposition to have the next American Pomological Congress here, offering the use of the grounds and fixtures, and agreeing to subscribe ten thousand dollars, to be paid to the Society, to further the objects for which it was formed. Whether they will accept this offer remains to be seen. The exhibition, the first day of the Fair, was fruits, flowers, vegetables and products of the dairy. The exhibition of fruits was fine—such as were shown, though the varieties were not numerous. Of Apples, there were some thirty varieties exhibited, nearly all of which were large and fine; among the varieties were Baldwin, Prior's Red, Bellflower, Rawle's Janette (by the way, said to be the best winter Apple of Kentucky), Gloria Mundi, Swaar, Roxbury Russet, Lady Apple, Maiden's Blush, &c. The display of Pears was fine indeed; such Seckels, Bartletts, White Doyennes and Flemish Beauties I never saw before. The show of Peaches was also fine; among which I saw a variety called Tampico Seedling, raised from seed of the Tampico Peach, which promises to be a fine sort. The show of Native Grapes was good—of Foreign varieties poor, only two kinds being exhibited. The varieties of Native Grapes were, Isabella, Catawba, Clinton, Alexander, Ohio, Elsingburg, Le Noir, Cape, Diana, and a new seedling from Catawba, called Mammoth Catawba, which promises to be one of our finest Native Grapes. It is similar to the Diana in flavor, color like the Catawba, perfectly hardy in its habit, very productive, and the size of the berry as large as the Black Hamburgh; bunch shouldered, not very compact but quite long. This variety was originated by Mr. WITHERS, an enterprising nurseryman near Danville, Kentucky. The show of Flowers, I regret to say, was small indeed, only two bouquets being exhibited. This speaks rather disparagingly of the Kentucky ladies for refinement of taste, manifested in the cultivation of flowers; yet the ladies exhibited some splendid specimens of embroidery, which attracted a large share of attention.

The second day of the Fair was devoted to the exhibition of Cattle and Horses. There are three importing companies in Kentucky, who import the finest English blooded stock. The largest importer is Mr. R. A. ALEXANDER, an English gentleman of abundant means and leisure, who has done more to improve the stock of cattle in Kentucky than any other man. His importations of cattle this season were thirty-five head of Short-horns, Alderneys and Ayrshires; this lot cost, on an average, about eight hundred dollars each. He has imported one single animal at a cost of over five thousand dollars. Mr. ALEXANDER'S importations are from the herds of Messrs. AMBLER, FANKES, BOLDEN, and other eminent breeders. We also noticed a fine animal exhibited by the Messrs. ALLEN, called Senator, a milk-white bull, imported when one year old, at a cost of two thousand dollars. This animal was from Mr. AMBLER'S herd.

The third day of the Fair was devoted to the exhibition of Horses, mostly blooded stock, for the saddle, buggy and race-course. This was the day the ladies were most numerous in attendance; as Kentucky ladies are proverbially fond of fine horses, they were very much interested in the competition for premiums. Among the breeders of fine horses, Dr. WARFIELD of Lexington has the credit of raising the speediest ever produced in this country; Dr. WARFIELD is the father-in-law of CASSIUS M. CLAY, who also exhibited some fine stock. Dr. WARFIELD entered and received a premium on Alice Carneal, mother of Lexington, that won the twenty thousand dollar race with Lecompte, at the Metaire Course, New Orleans. The exhibition of Colts was fine; among which we noticed some of the Morgan breed, which has been lately introduced from Vermont. The editorial fraternity was well represented: I saw and was introduced to eight editors, among whom I am happy to notice H. P. BYRAM, editor Horticultural Department of *Louisville Journal*, and Mr. BROWN, editor *Ohio Farmer*—a valuable journal, by the way. Among the invited guests, I had the honor to be introduced to Mr. F. R. ELLIOT, of Cleveland, author of "North American Fruit Book," ex-Governor CRITTENDEN, Hon. CASSIUS M. CLAY, Hon. JOHN C. BRECKINBRIDGE, and ex-M. C. Colonel THOMAS STEVENSON, the editor of the first agricultural journal ever published in Kentucky, called the *Kentucky Farmer*. There is at this time more interest taken in regard to horticultural matters than ever before. Your journal will soon receive abundant support. Growers here are now all getting fine fruit trees for cultivation, but neglect shrubbery and flowers. People, too, are just

beginning to build their homes with more artistic taste: Gothic houses are being reared on every side. There seems to be a disposition for improvement throughout the State; and I leave it with an exalted idea of Kentucky hospitality and politeness, and a thorough appreciation of their taste and ability, as displayed in terra-cultural science.

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#### THE COMPOST-YARD.

It is impossible to carry out good gardening without composts or fresh soils. It signifies little whether the gardens be one acre or fifty, whether they contain one plant-house or a dozen; a compost-yard becomes a necessary adjunct, and deserves the title, although it may contain only two or three kinds in as many cartloads. Ladies and gentlemen who are unacquainted with the practical details of gardening, are apt to wonder why so much fuss should be made about soils; but their wonder would cease could they, for only a couple of years, go through the routine of practical gardening and plant culture. Could what gardeners term the potting-board tell tales, it would reveal many a secret which might astonish those who have not dabbled in composts, manures, drainages, &c.

And this is not all mere empiricism; the first gardeners in the land, from Sir. J. PAXTON downwards, will bear us out in the absolute necessity that exists for a potting-bench; the latter, of course, of little use without the compost-yard. We think it was ROUSSEAU, or some witty Frenchman, who said that a knave and a fool were made for each other; and truly the same may be said of the potting-shed and the compost-yard.

But the very kitchen garden and the flower garden have their demands on this useful, out-of-the-way place, and we must proceed to show forth a simplified course of practice in regard of soils. What gardeners term loam is the first in the list of necessary materials. To describe what a good loam is, in the eye of the gardener, is a most difficult affair; good gardeners in this matter are mere rule-of-thumb men; color is not a paramount object—it is more a matter of texture; and we know gardeners, who could tell a good loam blindfolded, so that the finger and thumb would appear to be pretty good judges in these matters.

To those amateurs, ladies or gentlemen, who, not having experience in gardening affairs, yet desire to acquire such, we would particularly address ourselves, as to this material called "loam." All loams are simply soils

composed in the main of sand and clay in various stages ; their degree of cohesion at once points to the percentage of the clayey principle—their want of fixity or amount of incoherence pointing alike to the predominance of the sandy principle. Therefore, between the two antipodes, sand and clay, there are innumerable grades.

But, to be off-hand in the matter, let us assume three points in judging a loam. First, a good loam should be almost or quite homogeneous in color ; it should be rather adhesive—even when half dry ; it should, if possible, contain much organic matter, or, in other words, the remains of bygone vegetation—the roots of grasses, herbs, or even plants of half shrubby character. As to color, it may be almost yellow, or it may be a dull hazel ; these things, although they possess their respective meanings, are but of secondary import. What we want of loam, in the main, is the quality of adhesiveness or coherence ; without which, composts, whatever qualities they may possess in a manurial sense, do not “wear”—to use a technical phrase.

The next soil in point of importance in the compost-yard is peat, as it is commonly called ; but, as this term is used with so much laxity, we must offer a few passing remarks. It is a common practice amongst gardeners to talk about bog soil, peat and heath soil, as though they were the same material, or it were immaterial which formed part of the composts ; but they are widely different. Heath soil is that dark soil containing much sand—generally one-third its bulk—which is found on upland moor soils, and covered with the common heath or heather. Bog or peat is that dark, fatty material which is dug out of morasses ; such, indeed, as is dried and sold for fuel in many parts of the kingdom, and containing but little sand. This, in a raw state, fresh dug, is said to contain a superabundance of humic acid, which is prejudicial in the culture of plants ; it therefore requires to lay some time in the compost-yard, and to be turned occasionally. It is not, however, the proportion of sand they contain which distinguishes them ; they are very different as to the mechanical textures ; although in both the fibrous portion is simply vegetable matter in various stages of decay. The fibrous portion of the heath soil is, in the main, woody fibre, giving a strong and enduring texture to the compost ; that of the peaty soil is chiefly derived from annual or herbaceous vegetables, and is, of course, quicker in action and more liable to perish. Sandy heath soil is by far the safest for choice plants which have to remain long in their pots, whilst the peaty material is adapted to plants of rapid growth and which are destined for a disrooting system, or to be entirely replaced by fresh, young stock.

VEGETABLE MOULD.—Although this is not indispensable in the compost-yard, it is of eminent service; still it must be confessed that a gardener with good loam, sandy heath soil and old manure, can grow any plant in existence well. Vegetable mould is of various kinds, although what the gardener terms leaf-mould is the most popular. But, in truth, when in a highly decomposed state, it signifies little what this humus is derived from; whether leaves of trees and shrubs, decomposed weeds, or indeed anything that has once been a growing vegetable, water-weed and mosses excepted.

MANURES.—It would seem almost superfluous to recommend manures for the compost-yard, since they are in general the first things thought of. We wish, however, to point in a special way to one or two of importance to the plant-grower, as also to show the best mode of handling them. The old dung from decayed hotbeds is a favorite manure with most gardeners, and very useful it is for general purposes, provided it has been frequently turned, and well handled by the spade. But the most useful manure of all, in our opinion, is very old cowdung. This should be at least twelve months old; in fact, when in proper order for the potting-bench, it should resemble well-humbled peat soil. There are other manures of great power, when high concentration is required; but we pass by them. We may here direct the reader's attention to one great fact: that since the utility of liquid manure has been generally recognized, the gardener feels much less anxious about the introduction of manurial matters into his soil.

Sand is another important affair to add to the compost-yard—indeed, a material we cannot do without. There is scarcely a compost made up by a good gardener, but sand, less or more, finds a place in it. Sand for this purpose should be very sharp, fine and clean.

We have here enumerated a few things which should be in every compost-ground, and we may now be permitted to offer a few remarks pertaining to the general economy of composts.

In the first place, a compost-yard must be perfectly dry beneath; no water must lodge here, or the composts will be seriously damaged. Secondly, all soils or composts should at all times be piled up in the form of a sharp ridge, in order to exclude rain, which robs them of their virtues.

The best time, in our opinion, to collect the various soils, &c., is the month of September. The turfy loam in our fields, commons, &c., is then full of the fibrous produce of the past summer, and the soil may be obtained dry if the proper opportunity is sought. By the way, this obtaining soils when in a tolerably dry condition is a point which we must particularly direct attention to; soils handled in a wet state lose half their char-

acter. For the reasons adduced on behalf of the loams, peats and heath soils are in the best condition at this period; the accumulated summer heats in the soil have in general been more than a match for the aggregate amount of summer rains, and the necessary consequence is an open and porous condition in the soils, highly favorable to the compost gatherer.

Again, then, we say to those who desire to systematise matters, and to keep pace with the age in gardening affairs, lay in your soils in September; be sure they are tolerably dry when handled; pile them in sharp ridges; and where speedy decomposition is the object, as in the case of peats, leaf-soils, &c., turn them frequently. But where there is a reason for making the organic constituents endure as long as possible, and preserve their mechanical texture—as in the case of fibrous loams—then, we say, pile in a ridge, as in the other cases, but do not disturb that ridge until the material is required; it will thus, after laying six or eight months, chop down by a sharp spade into the most valuable soil the gardener possesses. In the case of hair-rooted plants, such as the epacris family, the ericas, &c., of course the good cultivator falls back on his sand heath soil, handled in a similar way.—*English Country Gentleman*.

THE following named new roses were shown at a recent exhibition of the London Horticultural Society, and were proclaimed equal to the best of their class, and in some instances gave evidence of superiority. We do not know that these sorts have yet been introduced to our soil. If not, the ensuing spring will doubtless harbinger their loveliness to our more eager amateurs:

- H. P., Madame Duchene; blush, fine form, and a very fine rose.
- H. P., Gen. Castellane; bright crimson, very full, large and fine.
- H. P., Madame Hector Jacquin; bright rose, fine.
- H. P., Glory of France; crimson, very double, and full.
- H. P., Volta; rose, large, and very double—of the La Reine class.
- H. P., Duchess of Norfolk; bright crimson, large and very showy, but not of the best shape, a good grower.
- H. P., Paul's Helen; peach color, very double and smooth.
- H. P., Adam Paul; lilac rose, with rose centre, very double—perhaps a little too much so.
- H. P., Jules Margottin; deep rose, bright and very fine.
- H. P., Louise Odier; rosy pink, not a large rose, but a very free bloomer.
- Tea China, Auguste Vacher; sulphur yellow, a pleasing variety.

With one exception, the list is comprised of Hybrid Perpetuals, which are therefore all perfectly hardy.

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 EDITORIAL MISCELLANY.
 

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AUTUMN is once more with us, the sweetest as well as the saddest season of the year. Insidiously it has crept from out summer's more torrid glow. The flowers are fast fading, and trees are preparing for bleak winds that make them sigh for the beautiful robes they have shed. Jack Frost has already in some localities kissed the freshness from nature's cheek. The plentiful harvest that has been garnered the past season will go far to conciliate us for the desecration of our flower beds by autumnal blasts. Contemporaneous publications teem with glowing accounts from north, south, east and west. We have grain enough for domestic consumption, and to spare for the requirements of other nations who have not been blessed with a similar abundance. No more doleful faces about hard times: by the way, it's high time the baker's attenuated skeleton of a "loaf" became more plethoric in its appearance. The butcher, too, can afford to relent somewhat in his demands for choice cuts. Potatoes at fifteen cents per bushel—good ones, too. Dost smile, reader? To be sure you do. Providence has smiled since warm spring breezes erst oped the violet's bud. Money is getting easy, but as yet it's a secret, and we make the disclosure in confidence. Some alarm has been experienced respecting the sugar crop. Thank Heaven! sugar is not the staple of life; so we'll not fret about such a trifle. Now, good reader, if you could just step into our Washington Market some morning before the sun has chased the dew from the house tops, your vision would be rejoiced with views of peaches—and such peaches! (we are writing in October) apparently emulous to rival pumpkins in size: really, peaches have gotten quite beyond their limit. "Gentlemen, take your choice,

only seventy-five cents a basket!" so says a stentorian voice at our elbow. The truth, too, we give our honor. Apples, too, with ruddy cheeks, are looking out from barrels that stand in such long rows that we wonder much who'll be customers for them all. Plums are a profusion, too plenty by odds; the very look makes one flatulent. Grapes, in numbers countless, stare you in the face; we have quite lost our countenance. Leaving the market makes us melancholy; so we'll just drag in N. P. WILLIS. He's a good fellow, in the main; quite clever at times; but of late has been taken with a hypertrophy of spleen. He gossips of nauseous drugs by the yard: if he takes a pill, he quickly sits him down and inflicts its bitterness on fifteen thousand readers, which is the circulation of the *Home Journal*—so says rumor. Occasionally purging your readers is quite healthful; a little gall makes them piquant, but too much, and you have acrid visages glaring down. We have got beyond our subject; so we'll just append Mr. WILLIS's description of a forest in autumn, written before he took to dissertations pharmaceutical:

## AUTUMN.

The first severe frosts have come, and the miraculous change has passed upon the leaves which is known only in America. The blood-red sugar maple, with a leaf brighter, more refined and delicate than a Circassian lip, stands here and there in the forest, like the Sultan's standard in a host, the solitary and far seen autocrat of the wilderness; the birch, with its amber leaves—ghosts of the departed summer—turned out along the edges of the woods, like a lining of the purest gold; the broad sycamore, the fan-like catalpa, flaunted their saffron foliage in the sun, spotted with gold like the wings of the lady-bird; the kingly oak, with its summit bare, still hid his majestic trunk in a drapery of sumptuous dyes, like a stricken monarch gathering his robes of state about him to die royally in his purple; the tall poplar, with its minaret of silver, stood blanched like a coward in the dying forest, burthening every breeze with its complainings; the hickory paled through its enduring green; the bright berries of the mountain ash flushed with a more sanguine glory in the unobstructed sun; the gaudy tulip-tree, the sybarite of vegetation, stripped of its golden cups, still drank the intoxicating light, in leaves than which the lips of Indian skill were never more delicately tinted; the still deeper-dyed vines of the lavish wilderness, perishing with the noble things whose summer they had shared, outshone them in their decline; and, alone and unsympathizing in this universal decay, stood the fir and hemlock, their frowning heads more sombre and less lovely than ever in contrast with the death-struck glory of their companions. The dull colors of English autumnal foliage give you no conception of this marvelous phenomenon. The change there is gradual; in America it is the work of a night, of a single frost. Oh, to have seen the sunset hills in the still green and lingering summer, and

to awake in the morning to a scene like this! It is as if a myriad of rainbows were loosed through the tree-tops; as if summer's golden purple and crimson had been fused in the alembic of the west, and poured back, in a new deluge of light and color, over the wilderness; it is as if every leaf on these countless trees had been painted to out-flush the tulip; as if by some electric miracle the dyes of the earth's heart had struck upward, and her crystals, ores and sapphires, hyacinths and rubies, had let forth their imprisoned colors to mount through the roots of the forests, reanimating the perishing leaves and reveling an hour in their bravery.

HUDSON, Oct. 1855.

OF the myriads of men who breathe, live and die surrounded by nature's beauteous radiance, it has pleased the beneficent, all-wise Creator to endow but an infinitesimal proportion with the priceless gift of fitness to appreciate and truly love her wondrous beauty. "Since my dear soul was master of her choice, and could of men distinguish her election," such has she "chosen for her own." Pre-eminent among these, stood the loved, lost DOWNING, in whose coveted society and revered tutelage I had the fortune to spend ten of the pleasantest years of my life. Since the melancholy casualty which deprived us of him forever, I have anxiously watched for the advent of one robed in his mantle, imbued with his spirit, to perpetuate his inspired conceptions, to guide his gem-tipped pen. Although numerous works of a kindred nature have appeared since the demise of the author of the *Horticulturist*, to my ear none of them reflect the echo of the voice that is gone. It was, then, with a feeling of sincere interest that I saw heralded the undertaking of one purporting to be a pupil of the master-spirit of rural adornment in this country. The Genesis of your venture, Mr. REAGLES, is before me; and if I be not deceived in my deductions, its budding promise bids fair to ripen into fruitful harvest, and to attain a peaceful, green old age. There was a feature in Mr. DOWNING'S magazine that I think constituted one of the chief charms of that ever-pleasant serial, and which I have never seen in any subsequent publication. I allude to the comprehensive and cheerfully written critiques subscribed "Jeffrey," to whom was allotted the task of, in every number, recapitulating and commenting upon the articles which composed its predecessor. My way of life has fallen into the "sere and yellow leaf;" and if my seniority invest my opinions with sufficient weight to constitute me Mentor to your youthful enterprise, I should be happy to hold the same relationship to the *Review* as my predecessor, Mr. JEFFREY, did to the *Horticulturist*.

I am, Sir, respectfully yours,

To C. REAGLES.

EVELYN.

The above we received from a friend, an old horticulturist, and, withal, a gentleman of most excellent taste, a fine scholar and "well up" in the classic school. Our readers will give him a hearty welcome, no doubt. We have one thing to object to, however, and that is, we do not wish our devoted shoulders burdened with mantles which, in our opinion, have not yet found an object worthy of the inheritance. And then, "EVELYN," you must give us credit for some little common sense, just sufficient to know that we are an incipient vegetation, that requires years of careful nurturing to unfold a blossom or perfect a fruit worthy of perpetuity. Pray don't be too severe, good Mr. Critic, or some of our timid correspondents will desert us; and we'll whisper a truth in your ear—we can't spare them, not one, so be lenient. You perceive we are much improved in appearance, and large efforts are in contemplation. Improvement is our motto, which the present number exemplifies.

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Mr. Error: Perhaps it is not generally known that there is in our midst a deadly foe to the apple tree, called the *borer*. Whether that is their proper name I cannot say, but it is certainly a very appropriate one; and if not molested, they will infallibly destroy every tree they attack. It is a feeble-looking worm (but powerful for mischief), of a brownish tinge, with a head considerably larger in circumference than the body, and of very singular construction. Those that I have seen were about an inch in length, but doubtless they vary in size.

So far as my observation extends, their ravages are confined to young trees or trees with smooth bark. They attack the tree at or near the surface of the ground, and penetrate to a greater or less depth, say from a quarter of an inch to an inch, and then their course is invariably *upward*, sometimes abruptly varying from a straight line.

I first heard of the borer about a year ago, when I was in a neighboring State. A gentleman residing there took me to his orchard, containing about two hundred young bearing trees; notwithstanding it was September, the trees were leafless, and the shriveled fruit, still hanging on the branches, presented a singular sight. It was a scene of desolation in the midst of verdure: now, it seems, they have come to give us a benefit.

Their presence in a tree is easily ascertained; you have only to look carefully around the tree, and when you see small heaps of what looks like fine sawdust lying on the ground, you will have no difficulty in finding a smooth, round hole, as if made with a good-sized gimlet. He is there; and you must destroy him and look for others, or lose your

tree. I know of no other way to do this than to cut away until you find him. I use a small chisel (a gouge is better for this purpose), and, with the aid of a wire, there is no difficulty in tracing their course. A few days since I caught one, that had recently entered, with a penknife. I wish you would favor us with more information on this subject. Is there any preventive against their attacks, where do they come from, how did they get here, how long will they stay with us, &c.? I wish they were all in Symme's hole!

B.

You are correct as to the name of the destructive worm. The borer (*saperda bivittata*) is not a new pest, although but little information has been as yet elicited regarding its peculiar habits. Its depredations are not confined to the apple, but it attacks with equal destructiveness the quince and mountain ash. In the insect shape, it is perfectly harmless, except that it stings the tree in order to leave its eggs; and, as it flies at night, may be destroyed by bonfires. In shape, it resembles a small beetle. The ovaries are thought to be deposited beneath the back, which (the eggs) soon become vitalized, and assume the shape of a whitish grub. This grub subsists by perforating the tree on which its fortunes have been cast. As its course is divergent, it is quite difficult to destroy the pest. The only means yet discovered is the wire which you have attempted. The preferable method of procedure is to prepare the trees to resist their attacks, as soon as it becomes known they are in the neighborhood. This, Mr. DOWNING says, may be effected by washing the bodies of the trees with a mixture composed of one pint of sulphur, one gallon soft soap, and a sufficiency of tobacco water to reduce the whole to the consistency of paste. When the borer once takes possession of a district, it appears quite impossible to dislodge them. We shall be glad to receive any information in relation to this subject, from cultivators who have observed their habits and peculiarities.

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M. W. STEVENS thinks the Massachusetts folk deficient in the knowledge essential to the production of fine pears on quince bottoms. A great mistake. In the first place, but few pears on the quince stock are worth the trouble they imperatively demand at the hands of the cultivator, except in some singularly propitious localities, which Massachusetts is not. Mr. STEVENS sagely advises deep planting, in order that the pear may be induced to throw out roots. It must be obvious, even to the most superficial observer, that this would be simply a pear tree on its own roots, and deriving its natural food through a natural channel, as, in

the subsequent elaboration of the nourishing juices, none will be returned to the quince root. The pear roots having the preference because they offer no impediment to the circulation, as a result, in a few years, the quince roots decay, and you have a standard—a very desirable article, by the way, but secured by a rather circuitous process. Mr. STEVENS speaks paradoxically. What he means to say is, the pear stock is superior to the quince. This is certainly the inference suggested by the article we quote. On some future occasion we shall give our opinion on the quince stock for pears, at considerable length, as we have had some practical experience, which we shall relate candidly :

Having been for a few weeks among the fruit growers of Massachusetts, I notice that an error prevails among them in the treatment of their dwarf pear trees, particularly in planting them, and to so great an extent that many persons have almost abandoned their culture ; although they are really the most valuable trees.

In planting, it should be borne in mind that the Anger's quince will not endure the winters of New England, and that it is the only variety on which the pear succeeds ; in all quinces the borers work, and this variety is even more subject to them than the fruit-bearing kinds, but if the trees are planted deeper than the place of grafting, these difficulties are all obviated, and another advantage attained which is all-important, that is, the production of fibres, above the place of grafting, which will spread plentifully through the ground and sustain the tree to a great number of years, even if the quince roots were entirely removed, and will give them a more vigorous growth and double or treble the amount of their production.

The proper depth of planting is about three inches deeper than the place of grafting. A mound of earth thrown around the tree will not be of any avail, as it loses its own moisture from the roots underneath, and a mound will not often bring out the roots from the pear. Another matter almost always overlooked is the cutting back of trees ; when first planted, they should be cut back to three or four buds of the last year's growth, and this continued for three years, by which a stocky tree of good form is obtained, which will often produce more fruit, and of better quality, than standard trees.

The ground for pears is never too rich ; and two bushels of coarse stable manure put about the tree each spring, and left to decay through the summer, and dug in, and repeated the next spring, will not, on many of the best varieties, fail to bring forth an abundant crop of melting,

buttery fruit, of honeyed sweetness, and of size and beauty that would feast the eye and palate of an epicure.—M. W. STEVENS, in *Boston Journal*.

AN individual owning several thousand acres of fertile soil, devoted exclusively to legitimate farming purposes, tends in a great degree to retard the development of rural improvements of a social and elegant character. It is well known that a large portion of the rich valley of Genesee is owned by JAMES WADSWORTH, and as a consequence there is a lamentable absence of that species of improvement which indicates the presence of progressive influence. This is more particularly discernable in the non-existence of those beautiful dwellings which bedeck other portions of the State. To give some conception of the extent of this gentleman's possessions, we annex an extract from a letter to the *Albany Journal*:

James Wadsworth owns about 8000 acres of land in this town, as much more in Genesee, about 6000 in the adjoining town of Rush, 5000 or 6000 in the town of Caledonia, and a great many thousands in other towns in this and other counties. And it is nearly all good land—the best in the State—and constantly increasing in value. He doesn't sell, but is for ever buying. The effect is perceptible. There is a marked absence of rural taste, so generally inseparable from agricultural prosperity, and so important to domestic comfort, if not to individual morality and happiness. While there is no large landholder in the world more liberal, wise or intelligent than Mr. Wadsworth, it would be far better for the country, and incalculably better for the smaller landholders, if the lands owned by him were owned by two hundred thrifty poor men, who would live upon their small farms and contribute to the general architectural, horticultural and educational improvement of the country. There is a melancholy absence of those substantial farm-houses and tasty appurtenances so noticeable in other portions of western New-York. It is almost painful to look out upon the broad, prolific fields which constitute one of the features of this magnificent valley, and find so few dwellings embraced in the view. It would be more picturesque, as well as more in accordance with what has been found to be most in harmony with the general good, were it otherwise. But, so long as this vast estate is in the hands of its present enlightened proprietor, there will be but little cause of complaint.

All of Mr. Wadsworth's land is rented, not leased, and rented for but a single year. This has been the rule since about 1840. Every lease is renewed every year—a rule which gives Mr. W. entire control of his property, and its cultivation and management. A shiftless tenant stands no chance for a re-lease. And not only is this rule strictly adhered to, but Mr. W. dictates the character of the crops to be sowed in the several fields of each farm—which shall be sowed to wheat, which shall be

reserved for pasture, which allotted to meadow, &c., &c.—thus preventing over-working of the land, or any deviation from what has been ascertained to be the best system of agriculture. The result is, that these lands are among the best cultivated lands in all this well-cultivated region, and uniformly yield as heavy crops as any other in this prolific valley.

The rents, as I learn from "old settlers," are as follows: For the best wheat lands, eight bushels of wheat per acre; for other wheat lands, from five to seven bushels; and for lands used for meadows, spring crops, &c., from \$3 to \$4 per acre; and the land is eagerly sought for at these prices.

THE regular Exhibition of the New-York Horticultural Society took place on the 26th of September. The Exhibition was in every respect the best ever given in the city. In the flower room, which was under the charge of Mr. THOMAS HOGG, the well-known florist, a fine band of music added a pleasing feature to the entertaining exhibition. The following account of its proceedings we quote from the New-York *Tribune*.

#### THE FLOWERS AND PLANTS.

Commencing at the entrance on the left, the visitors were shown three beautiful stands of flowers, having attached to them pendant baskets filled with floral beauties. They were all of exquisite design. The designers were Miss De Grauw of Brooklyn, Mr. Wm. Fitzpatrick and Mr. W. C. Wilson of New-York. On the end of the same table was exhibited a large cornucopia, at the end of which was lying a profusion of fruits, flowers and grains, arranged in beautiful taste. A fine collection of green-house plants was exhibited by Mr. Alexander Muir, gardener of Mr. R. L. Stuart of New-York. A rare collection was also exhibited by the gardener of Mrs. Holbrook—among which was a rare plant known as the *feristeria elata*, a plant from Panama, which is regarded superstitiously by the natives. The collection of Mr. Hogg, too, was large, varied and rare. Among others, he exhibited a new species of the holly, from Japan, called *ilex cornuta*. The competition for bouquet premiums was very great. Eight baskets, ten pairs of hand, and three parlor bouquets, arranged in faultless taste, were exhibited. Mr. Wm. Cranston, gardener to Mr. E. L. Stevens of Hoboken, exhibited some fine green-house plants. Among the varieties were a fine specimen of *maranta zebra*, and two specimens of the palm—the sago palm and the *conipha umbraculifera*. Other fine specimens of hot-house plants were exhibited by Mr. J. W. Wood of Washington Heights, and Mr. George Saul, gardener of Shepard Knapp. Among Mr. Saul's contributions was a fine and large orange tree.

The display of dahlias was large, varied and fine. The varieties embraced almost every color, shade and size. Among the exhibitors were George C. Thornton of Newark, Mateo Donadi of Astoria, James Weir of Bay Ridge, Long Island, B. G. Burgess of Glen Cove, H. A. Graaff & Son of Brooklyn, Alexander Muir of New-York, Joseph Taylor of New-York and A. Richardson of Fordham.

Choice varieties of cut flowers were exhibited by Mr. Cranston of Hoboken, Mr. Alfred Bridgeman of N. Y. and Isaac Buchanan of N. Y.

The roses were unusually fine and varied for this season of the year. The exhibitors were Mr. Charles Murray of Yorkville, Mr. Donadi of Astoria and Mr. James Weir of Bay Ridge.

Mr. William Pointer of Brooklyn exhibited some fine specimens of glexinias. Verbenas were exhibited by Mr. John Burgess of New-York and Mr. J. Riddock. Mr. Burgess's specimens were seedling varieties.

Mr. Donadi exhibited a carnation raised from seed planted in April. It is very beautiful and is said to be very hardy.

#### THE FRUITS.

The display of fruits was the finest we have ever seen. None but the choicest varieties were exhibited.

Mr. Charles Dubois of Fishkill exhibited some large and beautiful golden nectarines. Mr. W. S. Carpenter of Westchester, an amateur fruit grower, exhibited some fine apples and pears. A very fine collection of pears, consisting of thirty varieties, was exhibited by Messrs. Hovey & Co. of Boston. Mr. Charles Downing of Newburgh exhibited a collection of fine apples. Thirty-five varieties of apples and five of pears were furnished by Mr. R. T. Hames of Elizabethtown, N. J. The Hartford (Conn.) Horticultural Society sent some choice varieties of fruits, among which was a specimen of the Hartford Prolific grape, a choice fruit, which is said to ripen three weeks before the Isabella. Some choice pears were exhibited by Mr. Gustin of Newark. Mr. John Morgan of New Jersey, and Mr. Cranston of Hoboken, also furnished some fine specimens of pears. A collection of over one hundred varieties of choice pears was exhibited by Mr. Saul of Newburgh. Some fine pears were also furnished by Dr. Maul of Iona Island, and Mr. Thomas Sprunt, gardener of Mr. J. De Wolff of Throggs Neck. Among Mr. Sprunt's contributions was a Duchess of Angouleme pear, a choice variety, weighing seventeen and a half ounces. Mr. Alexander Gordon of Astoria exhibited six varieties of pears, of extraordinary merit. Mr. Macy of Poughkeepsie exhibited a small but choice collection of pears. The collection furnished by Messrs. Ellwanger & Barry of Rochester numbered one hundred choice varieties, among which were several seedlings.

Mr. Lawton contributed a basket of his mammoth blackberries. Mr. Haff of Harlem exhibited some fine specimens of Catawba and Isabella grapes. Six varieties of choice and beautiful hot-house grapes were exhibited by Mr. Macy of Poughkeepsie.

Among the melons was a fine water-melon contributed by Mr. William Cranston of Hoboken, known as the orange melon, from the fact that the rind can be peeled off like that of the orange. Mr. Isaac Buchanan of New-York exhibited two specimens of the California musk-melon, of large size and said to be very sweet. Mr. William Mitchell of Hyde Park exhibited some fine Spanish water-melons and cantelopes.

The excellent arrangement of the fruit department was made under the direction of Mr. Peter B. Mead, secretary of the Society.

ACKNOWLEDGMENTS.—We have received specimens of the Northern Muscadine Grape, raised by the Shakers' Society at New Lebanon, N. Y. The fruit appears to us to resemble in a striking degree the Catawba; this likeness is carried out in both appearance and flavor. Like the Catawba, it is sweet, superadded to which is a lurking reminiscence of the fox grape of Connecticut. The skin is inclined to be thin; the flesh is pulpy, although much tenderer than the Isabella. It is said to ripen previous to the 15th of September.

We also received in the same package a sample of wine manufactured from the Northern Muscadine. This was made after a bad receipt, and therefore we are not able to judge correctly of what it would have been if made by an experienced vintner. Such a quantity of sugar had been added as to subdue the real grape flavor, although it made quite a pleasant cordial. To make wine from this grape, no sugar is required. If we may judge from the flavor of the fruit, we would say that it was capable of making an agreeable, sparkling hock. The great objection to most home-made wines is, that our home-made people are not connoisseurs in the article of grape juice, and therefore imagine a simple, pleasant flavor is the requisite condition of vinous drinks.

The Shakers are recognized as the most skilful and successful cultivators in the country. Their fair dealing has become proverbial. We are therefore disposed to confide in the assertions respecting their productions, as set forth in their advertisement (for which see another page). As conductor of a Horticultural Journal, it behoves us to be somewhat circumspect in recommending any new fruit, unless qualified by the personal experience of several seasons.

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AN article appeared recently in the *Tribune* condemnatory of the Ailanthus, which brought out the following response. It accords with our own views:

A friend says we are too severe in our sweeping denunciation of the fashionable ailanthus tree. The great error is not in the trees, but in their multiplicity; because "our streets, yards, everywhere are full of them." "Streets are lined from end to end with this species of trees, as though there was no other that would grow in city soil, and it is the abundance of the blossoms that over-load and poison the air." This is true; and if only one ailanthus existed where we have ten, we might endure the unpleasant smell of the bloom, mixed with the sweets of other trees, and allow the trees in diminished numbers to grow, in consideration that in their rapid growth they absorb so much carbonic acid, which might otherwise prove deleterious. The same friend says that the ailan-

thus should be grown in the country, particularly on our Western prairies, for timber; he says that the wood of an old ailanthus tree is hard and strong, and takes a polish as well as mahogany, and is equally handsome for furniture. Its rapid growth in a timberless country would be greatly in its favor; and if the trunks of the grown trees are a good substitute for costly mahogany, it should be grown where the country is open, and not in city streets, and, what is very common, in small pent-up back yards, where the peculiar odor of its blossoms will penetrate every room in the house. The ailanthus should never be set along the roadside opposite cultivated fields, because every broken root will send up a sprout and soon fill all the ground. The best way would be to make a plantation of the trees by themselves, just as those do who grow locust timber as a crop. For shade-trees we have the elm, maple, locust, black walnut, sycamore—all rapid growing trees—and the American tulip tree, the flowers of which are surpassingly beautiful, and for country road-sides we would plant, as well for shade as fruit, apple and cherry trees—the first, seedlings that grow large and strong—and the latter, of what we call the old English cherry, the trees of which grow a great round top and last healthy many years. In planting for shade or city ornament, or filling up a park or open grounds, it is a great error of taste and judgment to plant all one kind of trees, whether ailanthus or any other kind. The greater the diversity of kind, both in form and size and date of putting out or shedding leaves or blossoms, the more pleasing will be the effect. The old elms of New Haven are noble specimens of street-planted trees, but there is a sameness, a sort of uniformity in appearance, that tires the eye much sooner than when it rests upon various forms and shades of color.

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HOVEY & Co. of Boston exhibited 210 varieties of pear at the State Show at Elmira, ELWANGER & BARRY, the renowned nurserymen of Rochester, displayed 207 varieties of pear and 130 of apple, Mr. E. DORR of Albany showed 33 varieties of plum, FROST & Co. of Rochester exhibited 74 varieties of pear. Besides these, a number of other nurserymen made fine displays of fruit, flowers, &c. Take it all in all, the fruit show would be difficult to excel, even in France.

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At the October meeting of the New-York Horticultural Society, Dr. KNIGHT, the corresponding secretary, exhibited a rare plant in bloom, which he found in Jones's wood, and which he says is the *monotropa uniflora*, a parasite and perennial, and forms a connecting link between the herbaceous plants and the fungi. By the way, Jones's wood is a little copse, situated in the upper part of the city, and is doubtless the abiding place of many rare plants which have not yet been introduced to technical phraseology—B. I. L. L. S. T. U. B. B. S. H. I. S. M. A. R. K.

EXTRACT from a "Georgic about Trees," read before the Young Men's Association at Elmira, N. Y., by Professor EDWARD NORTH, of Hamilton College:

Trees furnish us with fuel, timber, fruit;  
 Yet not for this alone I press their suit.  
 They have their language, sympathies and voice:  
 With hearts that leap for joy they can rejoice,  
 And mourn with mourning hearts; if happy thought,  
 Or hope, or love returned, or good deeds wrought,  
 With softest sunshine fill your soul and eye,  
 To all this sunshine woods give glad reply.  
 These joys, for which tongue hath no utterance,  
 Are voiced in music by the streamlet's dance;  
 Feelings that struggle at your lip for words,  
 From smiling trees are syllabled by birds;  
 Or should bereavement, pain, ingratitude,  
 People your breast with sorrow's sullen brood  
 Of wretched thoughts, and human accents rasp  
 Your wounded spirit, and the proffered grasp  
 Of friendship's hand seem icy cold and hard,—  
 With no such rudeness will your peace be marred,  
 When to the hushed and twilight grove you wend,  
 For friendship's self without the selfish friend.  
 From whispering leaves, and insects' hum, and grass  
 Fragrant beneath your footsteps, there shall pass  
 Such soothing influence to your breast, that ere  
 Your griefs are told they turn to holiest cheer.

At the Show at Framingham, Sept. 19, we saw upon the tables a fine-looking grape, a little lighter in color than the Catawba, some of the bunches quite compact, but generally somewhat straggling, and the berries and bunches of good size. They were raised and handed in by James W. Clark, Esq., of Framingham. He says the vine originated in his garden five years ago, from the seed, and was transplanted into a shaded and moist border. The vine grows vigorously, has never been protected in winter, and the ripe fruit holds on well. He thinks it a cross between the native and Catawba, as these two grew near and intermingled their branches near where the new seedling came up. Mr. Clark adds, in a note,—“I claim nothing for it, except that it is a superior native, and, in a fine location, it will ripen before the autumn fruits.” He is right. It is certainly a very superior grape.—*New England Farmer*.

TOADS feed on all kinds of worms, and should never be killed in gardens. The canker-worm is a favorite food with them; they are useful in destroying all kinds of garden grubs.

## STATE FAIR.

THIS exhibition came off, as per previous announcement, in the first week of October. The weather was not propitious, and therefore the display and attendance fell short of anticipations. Notwithstanding these untoward circumstances, the Fair was creditable, even for the Empire State. The fruit show was good, as was also the flowers. Gov. WRIGHT delivered an exceedingly long address, in which he recapitulated the oft-repeated tale that farming was a vocation that none need blush for, that labor was ennobling, etc. He then repeated a great deal of information statistical, regarding the profits derived from good cultivation; after which he glanced down the vista into futurity, and conjured up two hundred millions of inhabitants who would get their bread and butter in the republican area; he said that the towns and villages would be so large that people would tire of metropolitan existence, and involuntarily imbibe a desire for rural life. Very probable. Gov. WRIGHT then explained—as every orator does who addresses himself to the “bone and sinew”—the beneficial influence that agricultural pursuits exerted on the social and moral nature of man; that it was a powerful promoter of virtue, and would infallibly surround the hearthstone with that species of happiness that is reciprocated by an approving conscience,—which, by the way, is a happy and effective method of winding up an oration. The discourse was listened to by a numerous auditory, who seemed highly delighted with the Governor’s remarks, applauding him at all the little intervals occasioned by an outburst of eloquence which induced a desire for a mouthful of water, and thus the audience could indulge their *encore* without interrupting the speaker—a sort of sympathetic arrangement, engendered by mutual admiration. The principal subject of the discourse was the subject of grapes.

The evening concluding the Fair was devoted to Terpsichore, and everybody who appeared to be nearly exhausted during the day became sufficiently refreshed to humor their propensity for the agreeable pastime of the evening, which waned pleasantly for all. On Saturday morning, the ladies appeared on horseback, charmingly attired, and performed, in the presence of a great many gratified young men, Amazonian feats of horsemanship that were astonishing to behold, and equaled in daring those wild men who catch cattle on the plains of Mexico. What with baby shows, and bloomers, and female horse racers, a portion of our

female society is attaining an exalted position in the scale of progression. We are glad to learn, however, that this exhibition was not abetted by the officers of the Society. Among the most useful goings-on at the Fair, were the evening meetings of nurserymen, fruit growers and amateurs (which we quote from the *Times'* report), which assembled at the Court-house, Elmira, N. Y., on Tuesday evening, October 3, under the auspices of the New-York State Agricultural Society, for discussing subjects appertaining to the Culture of Fruits.

Col. E. C. Frost, of Catharine, was chosen chairman, and C. M. Hovey, of Boston, and Joseph Frost, of Rochester, secretaries.

On motion of Wm. R. Prince, of Flushing, it was voted that a committee of three be appointed to propose business for the meeting, and Wm. R. Prince, P. Barry, Rochester, and Dr. Beadle were chosen that committee.

Dr. Sylvester, of Lyons, proposed to discuss the subject of strawberries, their culture, best varieties, &c., and proceeded to give the results of his experience. Thought Burr's New Pine one of the best, much better quality than Hovey's Seedling. Rival Hudson good bearer, but too acid for the table. Had a bed of Burr's New Pine, which produced at the rate of 300 bushels per acre, carefully measured. Hovey's Seedling yielded 350 bushels. For fertilizing, uses a hermaphrodite variety, and prefers it to a staminate variety, as he thinks that they produce much larger crops; has no name for the variety; cultivated it for several years, during which time it has not produced a single perfect berry. The runners of the strawberries were allowed to cover the ground. Watered his plants thoroughly every day with warm well water, after the fruit had set, till it had matured.

Mr. Hovey said that the Burr's New Pine was a poor bearer about Boston, and invariably did not endure during the Winter, and thought that 25 to 30 feet would be a proper distance to set staminate from pistillate sorts, and thought they would be perfectly impregnated. Such varieties as Hovey's Seedling and other sorts having vigorous foliage required more plants to fertilize them than those sorts having less foliage. Mr. Aspinwall grew 2400 quarts Hovey's Seedling to the acre; the plants were set in rows and cultivated between. It was seldom that a strawberry was too poor to sell in Boston, but the Schneicke's Pistillate was one.

Mr. Barry has seen strawberries grown for market, and poorly cultivated, that produced 125 bushels per acre. No particular sort.

Mr. Prince remarked that Crimson Cone and Hovey's Seedling were almost wholly cultivated for the New-York market. The Iowa is too acid. Hovey's Seedling, in good soil and properly cultivated, will produce large crops.

WEDNESDAY EVENING, 7.30.

The meeting re-assembled, Col. E. C. Frost in the chair.

Mr. Wm. R. Prince, from the committee appointed for that purpose, reported that the meeting should take up the Culture of the Pear.

Mr. Barry proposed to discuss the soil most suitable for the pear, and was called upon to address the meeting.

The soil for the pear should be of a substantial character, retain moisture, and sufficiently porous to allow the root to extend in all directions; should be trenched deep. In some parts of the Western States, the pear does not thrive well, and attributes it to the soil, although it is four to five feet deep, which is very fine and so compact that the roots push into the soil with the utmost difficulty. Some sorts do better on particular soils than others, and differ very much under the same treatment. The pear or quince requires particularly deep, rich soils, which ought to receive a good top dressing of manure every year. When planting trees in clay soil, it would be best to put pure sand around the roots of the trees, which would induce the formation of young roots, after which they would be sufficiently strong to make their own way into the clay soil. Would not attempt to plant the pear upon gravelly or light sandy soil.

Mr. Hovey had much experience in cultivating pears, and had observed them growing in different localities; has seen pears do well in soils of sand, but it requires to be deep. All large pears—such as Duchess of Angouleme, Beurre Diel and others—require high cultivation to bring them to maturity. While the fruit is growing or approaching maturity, if the trees are checked, the fruit is apt to crack; believes that all pears will do well upon almost any soil, if it is only trenched deeply, so that it can obtain sufficient moisture; and related some astonishing facts about trees which had received such treatment. Ought not to decide upon the merits of pears till they had been in bearing several years; three or even five years was too short a time; thought that healthy, vigorous trees, grown at any point in the Middle or New-England States, would thrive finely, if planted in any locality.

Mr. Bushnell, of Wayne county, Penn., said that the pear grew very upright; and the roots, to correspond with the top, must extend deeply into the ground; hence it seemed necessary to trench deeply. Thinks that the pear will crack only when the leaves begin to fall, thus exposing the fruit to the sun; therefore should be fed with manures, which would keep the plants vigorous throughout the season. If properly manured, trees would produce fruit every year. Had noticed pears seldom produced perfect specimens soon after planting, or when growing rapidly.—Manured his pears in the autumn, and found it much better than to do it in the spring.

Mr. Maxwell, of Geneva, remarked that tile-drained land is most valuable for trees, and that there is no soil but pure sand which is not benefited by it.

Mr. Clark, of Otsego, had had much experience in growing fruits, described his kitchen garden, the soil of which was of the richest character, yet he was unable to grow pears.

Dr. Sylvester placed about one foot of charcoal around the roots of his trees, as it consumed fourteen times its own weight of water, and parted with it in like proportions. He described the growth and productions

of his trees, which were very great, and attributed it wholly to charcoal, and trenched and well-manured ground.

Mr. Hogg thought the Seckel would do much better than almost any sort upon sandy soils.

Further remarks were made by Messrs. Frost of Rochester, Coffin of Dutchess, Miller Scott of Rochester, Parsons of Yates, and Howell of Steuben, when the meeting adjourned till 7 1-2 o'clock Thursday evening.

#### THURSDAY EVENING, 7.30.

The adjourned meeting re assembled.

Mr. Prince remarked that there was no fire blight on Long Island nor at Boston, which might be suggestive to ascertain the cause of it. He spoke of the present extent of the vineyard culture in the West and other portions of the United States, and the natural advantages of this country, and predicted that, before many years had passed, our native pure wines would be so cheap that parties could not afford to import them.

Mr. Miller had applied salt to his plum trees in moderate quantities, and believed that he experienced much benefit, both in the quality and quantity of fruit. It did not affect the ravages of the curculio. If added in very large quantities, thought it injurious, say half bushel around each tree. The fire blight appeared to avoid those sorts of pears where the tissue was compact and hard, as the Seckel.

Mr. Hovey thought that plum trees were injured by the application of salt, and enumerated instances to prove the fact.

The insect blight upon the apple and pear, was well acquainted with, and frequently destroys the tree as suddenly as the fire blight.

The insect is a beetle, which in its larvæ state destroys the inner bark and wood by eating spirally around it, and when the sap is wholly intercepted, the tree dies suddenly. Knows but little of the fire blight, but has come to the conclusion that it is caused by atmospheric agency,—the sun shining upon the trees through an excessively humid atmosphere. He said that he had pear trees (of White Doyenne) which were set out in 1805 and '6, produced true and perfect fruit up to 1825, after which the fruit cracked badly. Spoke highly of the Concord grape as a wine grape, and gave views highly commendatory of this sort for this purpose.

Dr. Beadle remarked that he had applied charcoal to some of his pear trees that were blighted, and it appeared to intercept the disease, so that the trees recovered, and believed that its more general application would prevent the fire blight in a great degree.

Mr. Frost remarked that the fire blight attacked the quince similarly to the pear, but its ravages were not so great.

On motion of Mr. Thomas Hogg, it was voted that the thanks of the meeting be given to the authorities of the town or county for the use of the Court-House for holding its discussions; and that the thanks of the meeting be presented to the chairman, Col. Frost, and to the secretaries for the faithful manner in which they have performed their duties.

Col. Frost happily responded, and the meeting adjourned *sine die*.

## LITERARY NOTICES.

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BOTANY OF THE SOUTHERN STATES. *By Professor John Darby, A. M.*  
*A. S. Barnes & Co., publishers, New-York.*

THE field for botanical research in the United States is one replete with vegetable novelty of great usefulness and rare elegance, advantage of which has been taken by eminent European gentlemen. As a result, we discover the conservatories and gardens of both England and France made gorgeous with American shrubs, trees and lesser plants, that are yet to many of us strangers, although inhabitants of our forests. The Southern States are particularly noted for their profuse and varied contributions to the taxonomy of our country. Professor DARBY's work treats exclusively of vegetation peculiar to the latitudes of the Middle and Southern States. That such a work should be perfect and complete in detail is a desideratum not to be expected in the present century, but that it embodies all the information that is at present available is evident on a perusal. The first part is devoted to structural and physiological botany and vegetable products. The facts and theories here related, although in brief form, are not mere outlines, but embrace a comprehensive view of the important features of botany, as a useful science. The diction is plain and lucid, avoiding the too frequent use of technical terms, which in most instances have rendered the study of botany a painful and tedious operation to the student. Professor DARBY evidently looks beyond the mere fact of instructing a pupil in the method of ascertaining the name of a flower. The anatomy (if we may use the term) and structure of a plant are explained, not in the usual theoretical manner, but are conclusions arrived at by persevering investigation and actual analysis. The remarks on the various tissue are exceedingly valuable, and disclose some features which may be applied in elucidating the sap blights which affect fruit trees in this variable climate.

Inflorescence, with its various singularities, is explained in such a manner as to be comprehended by the dullest scholar, without the aid of

extraordinary application. The fecundating organs of plants are also arranged and delineated, so that the apparently mysterious function of vegetable procreation may be understood by all. The second part of the work is devoted to elaborate and complete descriptions of Southern plants. These are arranged on the Natural system, which has superseded the Linnæan school; but in order to make the work more perfect, the descriptions are preceded by a Linnæan and Dichotomous analysis. In a word, we consider the book eminently calculated to secure the object entertained by its author, viz., a work which shall in a brief form impart that knowledge requisite to the botanical student, and a correct impression of the botany of the country. As such, we cheerfully recommend its adoption by institutions that give instruction in the science its pages convey.

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STRAY LEAVES FROM THE BOOK OF NATURE. *By Schele de Vere.*  
*G. P. Putnam, publisher.*

It is universally conceded that the United States is making more rapid advances in a practical point of view than any other country in the world; but while these rapid practical advances are acknowledged, we have been accused of neglecting literature, science and the arts in a corresponding ratio. A few years since, our country was a wild, uncultivated wilderness, the home of the savage and the beast of prey, into which civilization was feebly but perseveringly struggling to effect an entrance. Thanks to the determination and powers of endurance of our ancestors, difficulties, apparently insurmountable, were overcome, and a solid foothold at last obtained. The vegetation of the forest held every foot of soil in an unbroken mass, and the undisturbed luxuriant growth of thousands of years required the patient and long-continued efforts of the pioneer to sweep away. Success dawned upon these struggles: the land was cleared, the soil tilled, roads were made and bridges constructed. As these first wants were filled, new necessities arose; the school-house sprang up by the side of the village church, and the manufactory, at first humble, but ever enlarging, made its appearance on the adjacent water-course. More rapid means of locomotion were now demanded, and the puff of the steamboat was heard on every navigable stream, while the thunder of the rail-car echoed through the valleys. But while these matters of national interest were advancing with gigantic strides, the school-house, the academy, the college and the university were following in the wake. Every hamlet has its school-house, every town its academy,

every district its college and every State its university. Education is universally diffused, and with it is implanted a taste for reading and study, which promises largely for the future. In literature, science and the arts, we can now point to individuals whose reputation is not limited to this continent alone, but extends throughout the civilized globe. Masters in every department of science are now endeavoring to instill its intricacies into the popular ear. Manuals and hand-books are being extensively published on every side, and their introduction into our schools and seminaries encouraged and promoted. The rudiments of science will thus be inducted into the rising generation. But something more was wanted: adults of both sexes, whose avocations were such as to prevent long and patient study, were left unreached. This vacuum is now filled. To this class Professor SCHELE DE VERE has particularly addressed himself with the most complete success. An intelligent student of nature, he has winged his flight in all her various recesses, and dragged to light the plenteous stores hidden in her secret granaries. To his own researches he adds the cream collected from the labors of his compeers in all the various walks of natural science, and presents the whole to the reader in the most delightful and fascinating style. It may fairly be called the poetry of science,—the reader, entranced, eagerly grasping each succeeding sentence of the author, as though it were the most exciting romance. Never before have the secrets of nature been pourtrayed in such vivid colors, and a fresh impetus must hereby be given to their study. We trust that Professor SCHELE DE VERE will continue the pursuit commenced under such promising auspices, and present us with many more “stray leaves from the book of nature.”

WHICH THE RIGHT OR THE LEFT, is the novel title of a book recently published by GARETT & Co. of New-York. It is rarely that we notice books emanating from the school of ephemeral twaddle 'yclept novels. But this is not a novel of the ordinary kind. It is a truthful and graphic relation of occurrences which we meet in our every-day intercourse with the business community. The author has with a clever pen painted Christ's Christians in contrast with the unctious ones who assume the garb of Christianity to enhance their value in the estimation of those incapable of discriminating between the genuine and unreal worshipper. We subjoin the opinion of the New-York *Express* :

The writer plunges into the actual heart of all the whirling elements of fashionable religion and every-day business life, and, strangely enough,

bears with him the true spirit of Christianity. His book is written with great strength, and thrashing vigor of thought. The reader who may be familiar with the sterling old novels of DANIEL DE FOE will not fail to recognise in the masculine vigor, the great realness, and the practical elevation of its moral tone, a strong resemblance to their leading characteristics in the present work, which is remarkable for its graphic and powerful delineations of character, the simplicity, force and directness of its narrative, its striking and satisfying interest, but above all by its originality and pathos. The death of the hero—the Christian—and that of the impenitent, are the most effective and significant pictures of the kind in modern fiction. One idea prominently suggests itself to us in connection with the work: there is no means that we are aware of by which the aims of our religious associations—the Bible, Tract, Home Mission Societies, &c.—could be more advanced and *popularised* than by the circulation of this volume. IN IT, RELIGION IS NOT ASHAMED OF ITSELF.

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AGRICULTURE OF MASSACHUSETTS.—By the politeness of WM. BACON, Esq., we are in receipt of a copy of the above valuable work for the year 1854. As a book for the farmer, its real value is beyond estimate, as it is compiled from the experience of intelligent cultivators who appear to have investigated various favorite theories of cultivation in a thorough and satisfactory manner, not for any credit that might redound to their unrequited labors, but for the purpose of improving the condition of the professional cultivator. Our State could very easily afford a similarly useful work, provided we had such a secretary as Mr. FLINT of the Massachusetts Society, to whom the credit of editing the book is due.

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FLOWERS OF THE CRIMEA.—We give with much pleasure the following extract from the *Gardeners' Chronicle*, as pertaining to the Flora of the Crimea. We do hope, in common with many thousands, not only to hear of the prowess of the combined armies of Western Europe in this half-civilized portion of the globe, but also of much good resulting to science from a better knowledge of these half-investigated regions. Not only are our flower-gardens concerned in this perilous campaign, but our very forests also. We have heard enough of the Crimean oaks alone to set us longing for some of their woodland treasures.

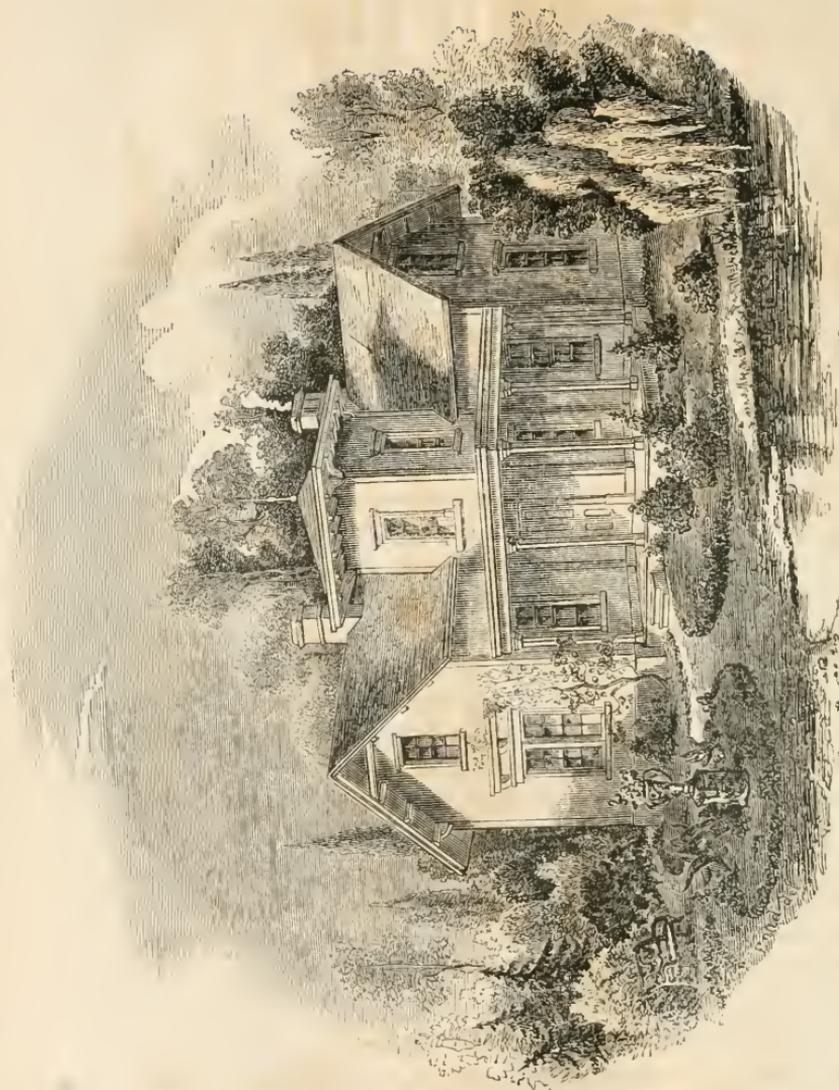
We have a number of very beautiful plants here, and their profusion in rapid succession, grouped in masses, is very striking. I have seen at least one hundred acres of larkspurs and poppies mixed, the larkspurs five feet high; acres of yellow centaurea; two or three sorts of boragineæ, especially a beautiful echium. But none of these equal the carpet of crocuses in the spring. I have already found forty-two species of gramineæ, many of them peculiar species, with some few wandering Indian ones.

A species of secale is common, and so is that remarkable phalaris bulbosa, which has always bulb-like excrescences in whatever soil it may grow. Triticum villosum, monococcum, and cristatum are all very beautiful species. The composites are very pretty; one, an everlasting, has so much flower and so little leaf that it ought to be a very desirable plant to cultivate. I inclose a flower. *W. M., before Sebastopol, Aug. 3.* (The flower referred to is xeranthemum radiatum.)

TOMATO FIGS are made in the following manner: "Pour boiling water over the tomatoes to remove the skins; then weigh them and put into stone jars, with as much sugar as tomatoes; let them stand two days; then pour off the syrup and boil and skim till no scum rises; then pour it over the tomatoes, and let them stand two days, as before; then boil and skim again. After a third boiling and skimming, let them stand in their syrup until drying weather; then place them on earthen plates or dishes, and put them in the sun to dry—that takes about a week; then pack them in small wooden boxes, with fine white sugar between every layer. They will keep for years." These figs, made by this recipe, were exhibited at the Massachusetts Agricultural Show, and pronounced superior to two-thirds of the figs imported. It is a matter worth the attention of all farmers.

The editors of a California paper—the *Calaveras Chronicle*—were recently shown a branch taken from a tree of the nutmeg species, containing a cluster of fruit to the number of seven. The tree from which these nuts were taken was discovered a short time since by a man engaged in working on the Mokelumne Hill flume, about fifteen miles distant. There are two trees standing near each other, the same size, being about thirty feet in height, and the trunks two in diameter. In appearance, they closely resemble trees found in the torrid zone, shooting up in a single stem, a distance of twenty feet before giving off any branches. The leaves are of the most beautiful deep green on the upper side, lighter on the under, are narrow, about two or three inches in length, and arranged alternately upon foot stalks from a foot to a foot and a half in length. It is a difficult matter to determine by what chance these trees should, in the first place, have found their way so far from their native clime; and most strange it is, how they survive the frost of this; for it has ever been supposed that they were indigenous to the torrid zones. The nutmegs of commerce are procured from the East India Islands, principally from the Molucca group. When mature, they are subjected to a process of curation, whereby they are deprived of the power of germinating. As they are easily propagated from the seed, persons having gardens or grounds would be well rewarded by procuring the fruit as soon as it is matured, and treating in the same manner as the peach or any other of the nursery seeds.





RISDON & COGGER, S.O.

MODEL COTTAGE.

WATT & HOLLY, Arch.



New York  
Horticultural  
REVIEW.

**W**HAT can be more appropriate as a decorative attribute to a house of a highly architectural character, than a few judiciously selected and arranged specimens of the sculptor's art. "Poh!" says some blunt objector, in his enthusiasm for oaks and elms; "what congeniality of purpose is expressed by nude figures, perpetually staring down one's garden walks, or stupidly performing sentinel duty, perched on walls; or vases that afford hospital treatment for consumptive plants, that become bilious from envying their more fortunate congeners, who are rioting in a profuseness of mother earth. Do not indulge," he continues, "any such barbarous prejudice; do not desecrate nature's work with the morbid fancies and handicraft of fellows who go to classic Italy, and return with long hair and unseated brains. No, no! let them who will, worship images, the creations of distempered imaginations—I am one of those who think with the poet,

'That Nature unadorned 's adorned the most.'

Quite a tirade, and a specious argument, too; pitfalls for amateur improvers; fogyism spitting upon the sacred fires of genius, in a vain attempt to quench them. Statuary or architectural embellishments of any description, would, we admit, be ridiculous



HOWLAND

MONBERGER DEL.



intruders in the surroundings of a cottage or nee, or a landscape of a highly picturesque character, but, as tributary objects to the splendor of a villa, whose architecture is elaborate and pretentious, they become not only desirable, but indispensable appendages. In

such instances, the presence of statuary is demanded in order to contribute completeness of expression, and entire harmony, suggested by the affinity of art objects.

If statues, and vases, and fountains, are not permissible as tasteful decorations contiguous to suburban dwellings, then the like incongruity is apparent in a purely ornamental building itself; as nature, (the hobby upon which the prohibitor of sculptural objects, bases his opposition,) does not fashion our tenements, no more than she does a *Medician Venus*. The difficulty can be summed up in a nut shell. We have invariably discovered, that those who are most fervid in their admiration of nature, to the utter abandonment of cultivated sentiments, are such whose education and early prejudices were directed to beauty as signalled in dollars and cents. Subsequently with a satiety of the pleasure engendered by accumulating gold, comes a desire for those more peaceful attractions connected with fruits, flowers, graceful trees, green lawns, an elegant house, etc. Such a person, we repeat, is incapable of appreciating or recognising beauty in a statue, although it were the handiwork of Angelo. To entertain admiration for works of art, it is necessary that





we be somewhat impregnated with those exalted feelings which inspired the genius that wrought at the marble. These feelings can be cultivated only by an intimate association with the works of the great artists. Not unfrequently have we observed, those pretending to be connoisseurs, too, looking at a beautiful figure, almost faultless in truthful expression and graceful swelling outline, with a stocial indifference, that quite puzzled us to comprehend. Others again, who place a proper value on art, contend that it is absurd and ridiculous to place a statue out of doors, exposed to all weathers. If there is any absurdity in the remark, it consists in the expression of sympathy for undraped figures, carrying the similitude to humanity beyond reason. What lends such exquisite poetry to the landscape as a "Venus, wooing you from the top of a Doric column," surrounded by other architectural

features; or a Vase of classic mould, from whose side depends bright foliage and delicate flowers.

Statuary should not be looked upon as simply ornamental appendages to the pleasure ground, but also, as instructive remembrancers of the birthplace of impulsive enthusiastic genius; the bidding place of men with conceptions beyond the ordinary herd of which they formed a conspicuous part. Men who lived only for their heaven-inspired profession, and who breathed an atmosphere radiated with beauteous





forms. Such are a few of the feelings resurrected by contemplating Art objects. Sometimes an over zealous patron of Hebes and Bacchantes and Venuses, intersperses his domain so thickly with his favorites, that the eye tires with their constant recurrence, and in the place of contributing an agreeable finish, assume a stiffness and formality very much out of keeping, and really makes one think that the gratified proprietor has turned idolater, and given himself, body and soul, over to his idols. This remark, however, cannot apply to the London Horticultural Gardens at Chiswick, which are profusely filled with marble, for they are all exquisite gems of art, and individually possess a world of beauty. Horace Walpole being an Art critic, however, advises retrenchment. But his judgment will not pass current with the man of taste who has visited Strawberry Hill—the most incongruous pile of lath, stone and mortar, constructed since Babylon's tower was chronicled as an architectural monstrosity. Walpole himself, a great admirer of sculptuary, did not indulge his passion at Strawberry Hill otherwise than in interior decoration, which he carried to an excess inexcusable in a man of his stamp.

Statuary may be introduced with propriety near entrance gates, parapets of terraces contiguous to the house, or may be elevated on tastefully wrought columns, but always in the vicinity of architectural objects. In geometric gardens they are frequently discovered embellishing centres formed by walks converging to a common source. They are also fitting occupants for temples, where the latter form the termination of a vista.

The cottage, Mr. Downing says, may have its vase, but where the building is small, the basket vase made of bits of wood and filled with flowering plants, is in better keeping than those made of any more highly artificial materials."

One rule regarding planting, either a vase or statue cannot,

with propriety be transcended that is, they should always be accompanied with a suitable pedestal to give them a proper elevation to meet the eye and also to keep up a certain dignity of appearance which is lost when they are set on the naked ground, or amid vegetation.

Purely classical vases should never be encumbered with plants, as they possess in themselves sufficient attraction for ornamental purposes. Vases of some filagree work or any fancy pattern, are more harmonious for displaying flowers.



Plant vases may be set on walls, pedestals, balustrades, &c. One thing must be borne in mind, wherever they are placed, there should be an apparent object for the disposition, otherwise a meaningless expression will be the result.

Loudon remarks : " If it be asked, why use vases in this country at all, unless plants are to be put in them. The answer is, they are employed as appropriate ornaments, as beautiful forms, and as articles of rarity and value. But it may be further asked, can an article be beautiful or confer ornament on another object, when it is itself of no use. Certainly it can. The noblest ornaments are those without use in the common sense of the word, though in the sense of art and refinement everything is of use, which adds to the strength of the emotion of the kind of beauty which it is desired to produce."

" The history of every country may be traced by its vases, no less than by its coins ! And the history of all countries is set before us in the vases of all countries.

This remark, to some extent, may also apply to statuary. Sculptured figures appear to have been among the first arts. As far back as reliable history can be traced, we have information of various methods of obtaining fac-similes of the human form, hewed frequently from rough stone and wood, or baked from potters clay. These devices were rude in some instances, nevertheless they evinced that artistic feeling which, at a later period, Italy's swarthy sons so beautifully developed, and which now riot in England's palaces and pleasure grounds.

A writer in the *London Florist*, aptly observes : it is not solely for the terrace or formal garden that vases are appropriate ; there are many situations in scenery purely English (or in the natural

style) where vases may be introduced with the happiest effect ; for instance, at the junction of gravel walks, or where these latter are compelled to be terminated abruptly, a vase or seat affords a suitable excuse. The angles formed by the sudden sweep of a walk, and corners not otherwise filled up and backed by masses of planting are positions which just occur to me, as affording sites for vases in natural scenery where their introduction will not offend the eye of taste. On the contrary, they should never be placed in open parts of the lawn, where their isolation of architectural accompaniment would be manifest, and where, besides, masonry in any form would interfere with *repose* and *breadth*, both essential features in this style of gardening. It follows, then, that in natural scenery either real or imitated vases should be placed in immediate connection with gravel walks, which will form a kind of base for them, or at no great distance therefrom ; or only where their employment as objects to fill up otherwise vacant places affords a reason for deviating from the general rule ; and on no account should they be placed as single objects on lawns unconnected either with masonry or walks.



In order to give a more definite idea of such designs as are most appropriate, we have had engraved several figures drawn from actual objects.

Fig. 1., is an exquisite and exceedingly symmetrical design, representing a female bachanalian in graceful *pose*, pressing the juice from a bunch of grapes into a goblet. This figure should occupy a conspicuous position near the mansion.

Fig. 2., is another female figure, somewhat of a more classic character. The drapery is so disposed as to afford a view of a finely developed form, without being offensive even to the over fastidious eye.

Fig. 3., represents an Italian husbandman in a very natural attitude ; leaning upon his spade resting himself, and contemplating the surrounding results of his industry. This figure would

not be out of place in a garden of limited pretension. It is "after" Angelo Piati.

Fig. 4., another classic statue, in dancing position, beautifully moulded; a fine conception and quite a gem of art. As a centre piece for a geometric or architectural garden, it would form an elegant and pleasing feature. The original by Canova.

Figs. 5, and 6., are two dogs, a greyhound and St. Bernard, appropriate embellishments for the parapets of a terrace, or entrance gates of a more than ordinarily elaborate character. Both are in crouching position, head erect, evidently on the *qui vive* for passers in and out, and therefore suggestive of an object, in keeping with the locality they occupy.

Fig. 7., is a classic vase rather severe than otherwise, and therefore should be placed near the house, and should not be encumbered with plants, as the association connected with a purely classic vase would be a variance with good taste if put to the use of a common flower pot.

Fig. 8., an exceedingly elegant fancy vase, a very pretty design, ornamented with foliage, varied by scroll work. Placed on a pedestal, it would present a showy appearance if filled with some gaudy flowering plants.

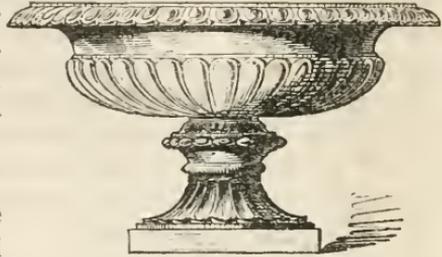
Fig. 9., is another fancy vase of a more elaborate character; the standard of which, represents rustic work, surmounted by a wicker basket. A very suitable receptacle for trailing plants, as its height permits them to depend over the side to their complete development.

Fig. 10., is a tazza vase, much in use and presenting a large surface; affords a temporary habitation for a number of plants, which can be planted promiscuously so as to display a variety of foliage and flowers forming a harmonious mass.

In selecting plants for vase culture, care should be observed that only such are used as are free growers, and will not suffer from a little neglect, and also, that they harmonize with the situation they fill. The dwarf scarlet geraniums are all good plants for this purpose, and if properly cared for, will bloom without



cessation during the summer and autumn months. Vases approximate to the house, may be planted with the American aloe, as its stiff, upright growth, has an affinity for purely architectural objects. The African lilly, Egyptian arum, are good plants for secluded locations; they require, however, a liberal supply of water, being half aquatics. Among trailing plants the *calestegia-pubescens*, will be found admirably suited to the purpose, possessing a good habit, and is a constant bloomer. So are also the *lophosphernums*, and *maurandyas*. A pretty greenhouse plant for the purpose, on account of its unique foliage, is *istradescantia zebrina*. There are a number of other plants well adapted for the purpose, some annuals the appropriateness of which can be governed by the judgment of the gardener whether he be professional or amateur.\*




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### THE CANKER WORM PEST.

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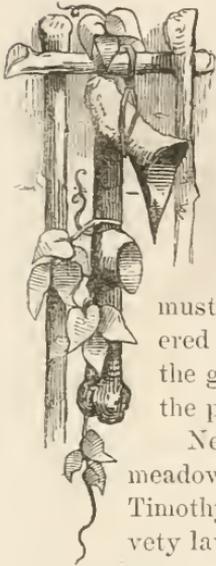
THE indications now are, that in places where sure remedies are not seasonably applied, the ravages of the canker worm upon the tree during the coming summer, will be greater than ever before. They are now ascending from the ground in vast numbers, and if not prevented will fill the trees with their eggs. In some places in the vicinity of Boston, even the fences are covered with these worms. In many places applications of tar are made, and if kept in a moist condition, it appears to be effectual. In other cases, a favorite tree is surrounded with a wooden trench, containing strong brine. In regard to the use of lime and salt, it has been said that it will destroy them. A gentleman last week placed a dozen of them in a tumbler containing a strong solution of lime and salt, and kept them covered with the mixture all night. In the morning they were taken out and placed upon an envelope, and in a short time they were as lively as ever.—*Traveller*.

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\* The objects embellishing this article and from which our engravings were made, may be obtained of Messrs. James & Beebe, at No. 356 Broadway, New York.

## CULTIVATION OF THE GRASSES.

BY L. DURAND.



oremost among valuable farm crops, is grass : the staple as it were, when compared with other vegetation. To the farmer it is of inestimable importance to secure his lands to grass, at least a goodly proportion of his domain. In fact, the foundation of all successful tillage lies in this point, namely : "Does your farm produce all the valuable, natural and exotic grasses well ; if the response be affirmative, you may muster with tillers who have the right to be considered good cultivators or at least you may indulge in the gratifying unction that your neighbors envy you the possession of a superior farm.

Next to the farmer, who is befriended by green meadows, and uplands waving with miniature seas of Timothy," is the rural gentleman who delights in a velvety lawn spread around his house in all its refreshing greenness and glistening brilliancy. To attain this, is not in all cases an easy matter. The difficulty experienced by the amateur, is an inadequate knowledge of the different varieties of grass and their adaptibility to different soils. I shall therefore give the names and description of those kinds, with which I am practically acquainted.

Timothy or Herd's grass, (*Phleum Pratense*) is one of the most valuable of all the cultivated kinds ; it is of foreign origin, but adapts itself to American soil like one to the "manor born." In England, twenty-nine tons of this grass have been cut from six acres of ground, such astonishing yields are doubtless owing to high cultivation and a propitious climate. In this country, it is made use of to an almost unlimited extent for market hay, as it possesses a large per cent. of nutriment, when dry. This fact, however, does not prove it the best ; for not unfrequently it is spoiled in making in hay, while in the field ; it being very sensitive of any extraneous influence. When this grass is put in the ground alone, it often grows coarse, with large stalks particularly the season subsequent to seeding. This rankness of growth, of

course, tends to depreciate the quality of the grass for fodder. In order to avoid this error (for it is an error), the seed should be put in very thick, with a generous proportion of redtop, (*Agrostis vulgaris*). The result will be a fine, tender grass, plethoric with nourishing juice, and affording excellent pasturage and a velvety lawn.

When timothy is sown alone (a plan which I would not recommend) on grounds which have been previously well stimulated by the application of manure, the quantity of seed demanded will be about one bushel and a half per acre. In case the soil is only in indifferent condition, two bushels per acre will be none too much. A better market hay, however, can be produced by sowing one bushel of red-top, to half a bushel, or three pecks of timothy per acre. Oftentimes, one bushel of seed will be as effectual in seeding an acre of land, as two bushels on other occasions. Notwithstanding this singularity, thick seeding is at all time advisable, whether for pasture, or lawn purposes as in unpropitious years, much seed never vegetates. Clover is also, essential to good pasture. In case land has been previously planted to such crops as require much animal manure, it will not be necessary to put in any clover seed, as a sufficient quantity will be found growing spontaneously in connection with the timothy, the first season. The second season, timothy and red-top, will displace the clover. Timothy grass, as a general rule, grows but once in a season, although in low swales if the weather be favorable; it will, after being cut, afford good early fall feed for cattle.

Red-top, in some sections of the country, is considered the very best grass for feed. Entirely alone it makes excellent fodder for stock; horses, however, prefer a mixture of timothy.

Red-top forms a close, tight sward for the lawn, and effectually shuts out weeds of almost every description. It will also grow and flourish well, on a much lighter soil than timothy, remaining in the meadow and growing a good crop of grass, long after the timothy has become a reminiscence. There appears to be two kinds of red-tops, one sort that is peculiar to the west of the upland pastures of New England, and grows about twelve inches high, with a small slender stalk, and a short fuzzy top. The other kind, the red-top proper, grows from fifteen inches to two feet with a long slender head as a top, and a stalk in proportion. The small red-top, may be as nutritious as the larger kind, it certainly

makes a good grass for cattle when fed down, and not permitted to run in to flower and seed before the animals are "turned in."

*Red clover*, we think is entitled to be called a grass, although some claim that it is not a grass proper, then call it a grass improper. A late writer in the *American Agriculturist*, called Indian corn one of the grasses. If this be the case, I think there need be no question but that clover may be recognized by a similar distinction.

Red clover for pasture, is the most economical use to which it can be devoted. It is also valuable as a soiler turned under when green. The amount of feed that red clover will yield in a season, is almost incredible. After it has thoroughly "headed out," "turn in" stock enough to feed it down in the shortest time, in which case it will continue to grow fresh feed during the remainder of the season. It is a bienial.

*White clover* is another excellent grass of the kind; it forms a thick bushy bottom, spreading rapidly over the surface, and forms a much tighter sward than the variety just described. Generally it will spontaneously appear in newly seeded meadows. In order to make it into hay, it should be cut while in blossom, otherwise it wastes in drying, losing its nourishing properties by exhalation.

*Orchard grass*—one of the great advantages of this grass is, that it will grow very early in the season, and thus afford a good bite for the cattle by the tenth or fifteenth of May. On this account it is also valuable for lawn purposes, giving a delicate verdure to the landscape before vegetation has assumed its summer garb. By the middle of June in this locality it is ready for the scythe. One great advantage attending the cultivation of the orchard grass, is its adaptibility for growing beneath the shade of trees without any apparant diminution of vigor, or quantity to that grown in open exposure, hence its characteristic name, orchard grass. There is, however, one drawback attending this variety. Difficulty is experienced in unfavorable seasons in making the seed "catch," therefore, it becomes imperative to perform the seeding with a liberal hand. Clover and orchard grass should be sown together as they arrive simultaneously at cutting condition. I believe it is the rule among English cultivators, to sow eight or ten different varieties of seed together for mowing lands, but in this country, the advantage of such a promiscuous crop is not apparant; two or

three kinds is quite sufficient, say red-top, timothy, red and white clover, in generous quantities, will answer. What the soil requires is to be thoroughly swarded over to grass by the second season of mowing, rooting out all weeds and foul vegetation. Thick seeding will invariably give a finer and better quality of grass for hay, and will also, continue to grow good crops, much longer than when the seed is stintingly scattered.

SWEET SCENTED VERNAL GRASS, is frequently found growing naturally in meadow-lands and the by wayside, it exhales a delightful perfume of an aromatic character. It is a good pasture grass, but for hay, its qualities are not altogether desirable, it continues to flourish during the entire season of vegetation.

KENTUCKY BLUE GRASS, is not known among the northern farmers to the extent its merit deserves. It makes a heavy grass and hearty food for animals. There is a variety of blue grass, peculiar to the pasture lands of New England in appearance and quality, slightly favoring its Kentucky neighbor. I should particularly recommend the Kentucky blue grass for trial among the farmers generally, in order to correctly ascertain its qualifications for enduring and flourishing in the more extreme latitudes ; it has already been proven invaluable for lawn purposes on account of its capability for enduring drouths, and also because it gives a delicate velvety appearance.

In an article of this character, I can only glance at a few varieties. Those I have mentioned are kinds in ordinary use, and are sufficient for practical purposes, whether for feed or rural embellishment. A large list of grasses, illustrated by appropriate engravings, may be found in the Gardeners and Farmers Dictionary.

The proper time for seeding lands to grass in this section, is generally in the spring with oats, or spring wheat, or barley. Oats however, have the preference ; the only objection to which is, when they grow too heavy and rank, they are apt to lodge, and the young grass is smothered and killed out. Barley, and spring wheat are not so objectionable on this account, but for some reason, grass seed with the latter crops do not catch well at all times.

Instances are recorded in which success, the most flattering has been realized by sowing grass seed with buckwheat, which gratifying result has also attended fall sowing with rye and winter wheat.

Some two years ago, I saw a meadow turned over in the month

of August. The furrows were rolled down evenly and subsequently, a top dressing of compost manure was applied, after which, turnips and grass seed were harrowed in. The turnips came up well and gave a large yield. The grass seed also flourished beyond expectation, and last year, delighted the owner with a luxuriant crop of red-top and timothy. This success is doubtless attributable to the propitious season. In an unfavorable year the experiment would in all probability, be an utter failure, still I consider it a good plan, to get an old meadow freshly seeded where a course of other crops is not required.

The best varieties of grass for lawns, are Kentucky blue grass, red-top, timothy, white clover, and sweet scented grass. In localities occupied by trees, and the ground is much shaded, a proportion of orchard grass may be added. In the Oct. issue of the Review, I gave the formula of operations for creating a tight, smooth sward for the lawn and I therefore may be excused from repeating it here.

PASTURE LANDS, for feeding stock are quite heterogenous in their character. The ordinary mountain lands are and should be kept in permanent grass. Such lands, generally afford a rich growth of natural grass which, when fed down by sheep and cattle, may remain undisturbed by the plough for an infinite period ; all the attention the land requires is an occasional clearing up of shrubbery, and the application of a top dressing of some specific fertilizer ; this, with the excrement of the grazing herds, will be ample stimulus, to keep up undiminished vigor.

Open wood lands are often turned to profitable account, as besides affording provender for ruminating animals, they also give shelter, in stormy weather, or the intolerant heat of midsummer.

Such pasture lands as present no obstructions to the progress of a plough, should be brought into a course of crops, and so kept in a fertile condition, when a large amount of grass may be obtained from a comparatively small quantity of ground.

HAYMAKING. Much has been said, written and reiterated about the proper time for cutting hay in order, to retain, all the nourishing juices. Most farmers concur in saying that the right time is after the grass, has attained maturity on the ground, just previous to that dryness which causes the seed to shell out.

For timothy, the time of cutting is at hand (in my opinion) when the blossoms commence drooping from decay.

If the farmer has a great many acres to go over, and the work is to be done by hand, it will be essential to begin cutting quite early in order that the later mowing be not dried up, and the heart of the hay, dissipated by the withering and absorbing influence of the atmosphere, but horse powers and patent mowers are now in such extensive use, that no intelligent farmer will attempt a large job without patronizing their superior facilities for accomplishing labor.

Early haying in June, is uncertain and "risky" as we seldom have more than one or two fair days at a time, three or four acres of hay cut, a part laying in the winrow, and the balance in heaps, and in this situation "weather" a week of rain, is not just the thing for good fodder; here the advantage of horse power machinery is apparent even to "fogies," who still protest against these rapidly advancing innovations (as they term them) of science, and intellect, in their application to farm economy. In concluding my remarks, I would observe, that the cultivation of grass is productive of large pecuniary results, and the beauty of a well kept lawn will not be spoken of disparagingly even by the most sordid disclaimer against the inutility of non productive, gardening. If it were not for the deep, almost perpetual verdure which bedecks rural England, she would not at the present time occupy so exalted a position, in suburban matters. It is her green fields to which she owes, those delightful cottages, which embosom her home loving people, and why do they cherish remembrances even to an advanced age, of the "cot" wherein they commenced the battle of life; simply for the reason that their homes were made Eden like with, grassy lawns, trailing ivy, fragrant flowers, delicious fruits, refreshing vistas of land and water, lowing herds, vast forests; these combined, have done more, for English rural life, and English education, than all the efforts of her ermined law-makers.

(We especially recommend the perusal of Mr. Durand's article. The novice, who is taking the initiatory steps, in growing grass crops, can derive from it, much valuable information, as it is a veritable record, prompted by experience. Our farmers in most instances, regard the special cultivation of grapes, as something quite absurd, only seeding down as a *dernier resort*, when other crops cease to be remunerative. Mr. Durand, has paid a more than ordinary degree of attention to this branch of farming, and therefore his remarks will be more valuable to the practical man.      ED.

## THE NEW ROSES OF 1855.

BY THOMAS RIVERS, [SAWBRIDGEWORTH, ENGLAND.]



N common with most of our flowers and fruits, there are every year new Roses in abundance ; but owing to the present high standard of excellence in Roses, but very few of the new varieties can be honestly recommended. It is true their names and their descriptions are enticing, owing to the false judgment of those

who raise them from seed, who, with that peculiar leaning which every florist feels for a flower of his own creation, see in them qualities far above their deserts ; they describe them with glowing language, because they love them as a parent loves his children, and are surprised when a cool, distinguished

looker-on, points out defects which their affection-blinded eyes never detected. There were probably from sixty to eighty new varieties of Roses "introduced to commerce," as the French phrase is, during the autumn of 1854 and spring of 1855. Many of these are pretty enough—for what Rose is not pretty?—but those of really fine qualities, excelling, or even equaling, such Roses as Prince Leon, General Jacqueminot, Paul Dupuy, General Bedeau, Madame Rivers, and many others, are lamentably few ; so much so, that one almost fears the point of perfection has been attained, and that no better Roses than those we now possess can or will be originated.

The following varieties will, I think, however, be found worthy of a place in the Rose garden :—

Lord Raglan, a seedling from Geante des Batailles, is a full-sized, cupped, and very double Rose, of nearly the same color as the parent, but varying with the season ; in July of this year it was brilliant crimson, a little deeper in color than its parent, in August it gave some blooms of the most dazzling scarlet, and I then thought it the most brilliant and beautiful Rose I had ever beheld. The Emperor Napoleon, of the same parentage, is quite as brilliant in colour, but its flowers are small, not double, and not regularly shaped. Madame Place, is a most neat, beautifully shaped, ele-

gant Rose, a little under full size, of a bright rosy pink. Madame Masson, is one of our largest Roses, and, as usual with large flowers, not quite regular in shape ; its color is a deep rich reddish crimson. It is certainly a fine distinct variety. Baron Laray is a large fine bright pink Rose, good, but not very distinct ; and Duchesse de Chambaceres, is a large Rose of this class of color, remarkable for its vigorous habit and freedom in autumn blooming. Belle Lyonnaise, Madame Lacour Jury, Madame Theodore Martell, and Madame Vidot, are all pale-colored Roses, of the same class in color as Madame Rivers. Deuil de Willermoz, is a pretty, very dark crimson Rose, but scarcely large enough or full enough ; and Prince de la Moskowa, is also a rich dark Rose, but only semi-double. In this class of color fine, large, and well-shaped Roses are much wanted.

Among new Bourbon Roses there does not seem to be one really worthy of notice ; and among the new Tea-scented Roses but one—viz., Louise de Savoie. This variety has bloomed lately in great perfection, its large, pale yellow flowers having a fine effect.

A large number of new summer Moss Roses have been introduced, but a few of them have, however, shown any distinctness or goodness. Comtesse Doria, is of a brilliant crimson, but it is not double enough ; and Baron de Wassenaer, is a very large rose-colored variety, very vigorous in its habit.

Some new Perpetual Moss Roses are really pretty. Celine Briant, Didon, and Marie de Bourgogne are of the Four Seasons Rose tribe. They are dwarf ; their flowers, although not large, are well mossed and very fragrant, and they bloom very freely in the autumn. Salet is a new Perpetual Moss, of the most robust and vigorous growth ; its flowers are of a pale rose color, not large, and not abundantly mossed, but its buds have the true fragrance of the old Moss Rose, and it gives an abundant crop of them in September, recalling agreeably the memory of the Moss Rose buds of "merry June." Madame Ory is a new Moss Rose of this class, at present rare, but it is likely to prove a good variety : its flowers are large, double, and well shaped, and it blooms freely in the autumn. It does not differ in color from the old Moss Rose : its habit is dwarf, and does not approach in vigor to Salet, which is really a remarkable Rose.

I have now given the results of my experience with the new

Roses for the year 1855, and trust this hastily-written article may be of some little interest with the lovers of Roses, among whom I class myself, and I am really an old and faithful lover of our Queen of flowers.

FLORIST AND FRUITIST.

DEATH OF THE SEASONS.

[BY MISS ISABELLA STEVENS.]



HE face of Death was passionless—"  
 A maiden fair stood on the green hill side ;  
 Her eyes, blue as the o'er-arching heavens,  
 Were eastward turned ; a bright smile lingered on  
 Her parted lips, and mid her golden locks  
 The sunlight played, shedding a radiance o'er  
 Her face—and Spring, fair Spring, thus standing forth  
 Half in the sunshine, half in shade, appeared  
 The fair embodiment of all that's bright  
 And hopeful.

But she stood not long alone ;  
 For o'er the distant hills with noiseless step  
 A white robed figure came ; onward it sped—  
 Its face was ghastly pale—nearly eyes  
 Gleamed from that pallid face, and with their glances  
 Of strange and mournful earnestness, they seemed  
 To have no vision for the things of Earth,  
 But peered their ardent gaze adown the dark  
 Vistas of Eternity.

Near and more near  
 The figure came, and Spring felt a cold hand  
 Claspings hers, and yet there fell no shadow  
 On the grass—but her bright smile faded  
 And her sunny brow was clouded—" Oh Death "  
 Said she in mournful tones, " How had I hoped  
 That Earth's inhabitants could greet me once  
 With a full song of joy unmixed with woe ;  
 I would have no trembling hands weave flowers,  
 (My precious dower to earth,) in funeral wreaths ;  
 No wounded heart to meet me with a tear.  
 And morning say " what care I for thy gifts,  
 Oh Spring, thy choicest gifts, since those I loved  
 Are gone ! Oh that I once could journey on

tic eye. A harsh, vulgar outline may pass without particular notice in a view of rural scenery, if the mass is quiet and harmonious in color; while a very tolerable composition may injure materially, the views near it, if painted white; the human eye being so constituted that it will be held in bondage by this striking blot of crude light, and compelled to give it unwilling attention. Where a palace like that at Versailles is erected in the midst of formal gardens and terraces on a very large scale, and so arranged that it is the principal feature from every point of view, it is not inappropriate that it should be of white marble since there is nothing more interesting for the eye to rest on than the building, and the light and shade of the architectural decorations, together with the general magnificence of the composition are set forth to advantage. Pure white, even in large masses, is only disagreeable to the eye when it forces into prominent notice objects of secondary importance.

In country houses the design has to be adapted to the location, and not the location to the design; it is, moreover, undesirable, and generally impracticable, to make the natural subservient to the artificial. Woods, fields, mountains, and rivers *will* be more important than the houses that are built among them, and every attempt to force individual buildings into prominent notice, is an evidence either of a vulgar desire for notoriety at any sacrifice, or of an ill-educated eye and taste.

As for the colors of rural buildings, they should be carefully varied—often cheerful and light, sometimes neutral, seldom dark, and never black or white; and there is no end to the changes and combinations of tints that may be used in painting a house. The constant recurrence of about the same requirements will, of course, lead to much similarity in plan, particularly in small buildings; but the monotony that this would occasion may be agreeably relieved by variety in color, both in the interior and exterior. Different patterns of paper will make two rooms of the same proportion no longer look alike, and the same result will be obtained on the exterior by adopting different tints for the color of the walls and wood-work. Another important point to be considered is, that it is entirely insufficient to use only one or two shades of color for each house; every rural building requires four tints to make it a pleasant object in the way of color. This variety costs no more than monotonous repetition, and adds much to the completeness of

the effect. The principal walls should be of some agreeable shade of color ; the roof-trimmings, verandas, and other wood-work being either of a different color or different shade of the same color, so that a contrast, but not a harsh one, may be established. The third tint, not widely different from the other wood work, should be applied to the solid parts of the Venetian blinds, while the movable slats should be painted of the fourth tint.—This last tint should be by far the darkest used on the premises, for the effect of a glass window or opening in a wall is universally dark when viewed from a distance, and if this natural fact is not remembered, the shutters being painted the same color as the rest of the house, a blank, uninteresting effect will be produced ; for when the blinds are closed (which is generally the case), the house, except to a person very near to it, will appear to be without any windows at all. This error is often fallen into, and requires to be carefully guarded against.

It is, however, a very simple and easy matter thus, in a few words, to lay down common sense rules that may be advantageously followed in painting all country houses, but it is a very different affair to overcome the difficulties of ignorance and prejudice. In some cases the house-painters themselves show a laudable desire to escape from monotonous repetition, but, on the other hand, they are at times troublesome opponents to a reform in this matter. It is, indeed, scarcely surprising that a mechanic, who has been brought up on a chalk-white and spinach-green diet ever since he was old enough to handle a brush, should have little taste for delicate variations of color, because a perpetual contemplation of white-lead and verdigris is calculated to have the same effect on the eye that incessant tobacco-chewing has on the palate ; in each case the organ is rendered incapable of nice appreciation. Any person who may wish to have his residence judiciously painted will do well to depend on himself to make the selection of colors ; and if he will but study the question simply and fairly, trusting to his real, natural, instinctive taste, and regulating his decision by his private feeling for what is agreeable or otherwise, instead of by what he finds next door to him, he will at once cut loose from conventional absurdity, and in all probability arrive at a result that will be artistic and pleasing.

It is highly satisfactory that, in this matter of color, which is so important to rural art, there is constant opportunity for im-

provement. The necessity for painting every two or three years, fortunately compels the question to remain always an open one. Ill-planned roads and ugly houses are troublesome to alter, but an improved taste may readily satisfy its craving for harmonious color, which will give, in every instance, a most liberal return for whatever outlay of thought or money may be judiciously bestowed on it.

## REMARKS ON TWENTY-ONE VARIETIES OF PEAR.

BY JAMES SNOWDEN.



HAVING, during the two past seasons, tested a large number of the recent additions to our pear list, I send you my opinion regarding their respective qualities. One fact I have demonstrated beyond a doubt, and that is, none of the exotic varieties are equal (taking everything into consideration,) to the better sorts of native origin. They are more sensitive to the fluctuations of heat and cold, betray less health, and consequently require a greater degree of attention from the hand of the pomologist. I find it very injurious to make use of

large quantities of highly stimulating manures, as the excessive growth produced thereby, induces succulent wood. This plethora is succeeded by a reaction, the tree is enfeebled, the entire economy loses its accustomed activity, and a sclerotic nursling afflicts your vision, your hopes of a return of vigor prevents you from uprooting it and substituting a tree with a happier habit, and there it remains until death ensues; or if recovery transpire, it is generally at a late period. I should therefore recommend as a manure for the pear, chiefly composts, in which lime and iron abound in large proportions; being less stimulating, they operate specifically as a fertilizer, and also in neutralizing the baneful effects of more heating manure. They induce a glossy, deep green foliage, and incline the wood to produce fruit spurs instead of watery shoots, which should (particularly in the pear) not be suffered.

Among the foreign pears, I find many eminently worthy of cultivation and possessing all the desirable qualities of a first rate fruit.

BEURRE GIFFART, a summer-pear with a handsome yellow color, heightened by a glow of red. It is of medium size, pyriform, juicy and high flavored. From the middle to the last of August it is worthy of general cultivation.

LEECH'S KINGESSING, has been somewhat over-estimated. It was raised at Philadelphia. It is a very vigorous grower, hardy, fair size, melting and juicy, good flavor, but inclined to be a little coarse grained; notwithstanding I do not hesitate to recommend it as a valuable fruit, being to the "manor born" it is not affected by climatical changes. First September.

HOSEN SHENK. I have eaten this pear, but the fruit was not of my own raising. It is quite large, of pyramidal form, melting and buttery, and is also a good grower. I am informed that it originated from a seed of the White Doyenne, which it resembles somewhat in flavor, though scarcely equalling it. The experience of several seasons will be required to adequately test its merits, Ripens about the middle of August.

DEARBORN'S SEEDLING—Is certainly not as good as I have been led by Mr. Downing, to believe. It is very diminutive, ripens among the last of summer pears, is quite variable in flavor; although sometimes excellent, is more frequently indifferent. This is my experience, others to the contrary.

BEURRE BOSC—One of the best of pears, large size, a shy bearer, and a rather refractory grower.

BEURRE CLAIRGEAU—Excellent in all respects; extremely large, and has a russet skin, slightly suffused with red on the side exposed to the sun. Very melting, juicy, fine grained, aromatic flavor. First of November.

BEURRE D' AMANLIS—Another very superior fruit. The tree is remarkably healthy and vigorous, and is not so susceptible of blight as other sorts. The fruit attains a great size, is melting, and has a refreshing sub-acid flavor. First of Oct.

DOYENNE BOSSOCH—Has been highly and deservedly recommended. Like the last described variety, it is a strong grower and succeeds well in a variety of soils. Fruit large, a clear yellow skin, occasionally russeted, melting and buttery. Middle, to last of October.

FONDATE D' AUTOMNE—One of the best of all pears. Medium size,

greenish yellow, delicious flavor scarcely surpassed. The BELLE LUCRATIVE, has proved synonymous with this variety. I do not hesitate to say that no garden, however limited, but what should embrace at least a specimen tree. First of October.

TRIOMPHE D' JODOIGNE—A monster pear, with a green skin and a dark red cheek. It is very juicy, saccharine and acid, with a lurking aroma that forbids satiety. The tree appears to be at home in most any situation. First of December.

BEURRE CHARRON—Promises well. It is a roundish shaped pear, of fair size, though not large; skin green and when quite ripe slightly yellow. Flesh exceedingly juicy, high flavored and excellent. I consider it first rate in every respect. Albeit another season's experience may alter the opinion. It is of quite recent introduction, but I believe may be obtained of Elwanger & Barry, at Rochester, and other leading nurseries.

BEURRE D' ANJOU—My fruit of this variety the current season, was unusually fine. I wonder much that the Beurre d' Anjou is not more universally admired and cultivated, for it is really one of our most desirable pears, and is deservedly worthy of special attention. It is large and imposing in appearance, perfectly hardy, possesses a delicious flavor, beside many other good qualities. In England it ranks first rate. First of November.

DUNMORE—A large pear, but has with me proved but second rate in quality. It forms a fine thrifty tree, bears at an early age, without retarding its growth, as is generally the case with premature bearers. October.

TYSON—Is a fine tree, and presents a most excellent fruit, of medium size. No garden is complete without it. September.

SURPASSE VIRGALIEU—This fine pear, unfortunately is the offspring of a very unsatisfactory growing tree, which will prevent its being as extensively cultivated as other pears, although of inferior flavor. I have several trees of the Surpasse Virgalieu in my grounds, eight and ten years old, but they make no progress. It would appear that this sort is afflicted similarly to the Frederick of Wirtemberg, never making a growth of more than two or three inches in a season. In some localities, however, the tree develops a greater degree of energy, but not universal enough to render it worthy of wide dissemination. October.

URBANISTE—So very hardy that out of several hundred trees of my own growing, not one has been destroyed by blight, although occupying ground that has been almost denuded of other kinds by

winter and summer blight. This fact alone is sufficient to make it invaluable. The fruit is large, buttery, melting and juicy; does much better on the pear, than on the quince, with which, unless double worked, it refuses connection. November.

RAPELJE'S SEEDLING—A juicy, fair-flavored pear, but exceedingly coarse grained, not above second rate in quality. October.

BEURRE GRIS D' HIVER NOUVEAU—A superior new winter pear, keeps into Jan., a thrifty grower. The fruit is large, of melting, buttery flavor, resembling in a slight degree, the old sort, Brown Beurre.

BEURRE BACHELLIER—Of recent introduction, is in eating the present month. It bids fair from the few specimens I have seen, to take rank with the best of its class. It is of fine proportion, has a solid flesh, juicy and buttery. When ripe it presents a very showy appearance, having a golden yellow skin. Messrs. Smith, Thorp, Hanchett & Co., of Syracuse, N. Y., advertise young trees, from whom it doubtless can be procured.

SOLDAT LABOUREUR—I received several spurious kinds, purporting to be the true Soldat Laboureur, from various nurserymen at different times, which caused me much vexation. I have at last, however, succeeded in getting the kind cultivated by Mr. Rivers, of London, and am happy to state that it quite equals that gentleman's encomiums. It is of large size, exceedingly melting and a rich high flavor. January.

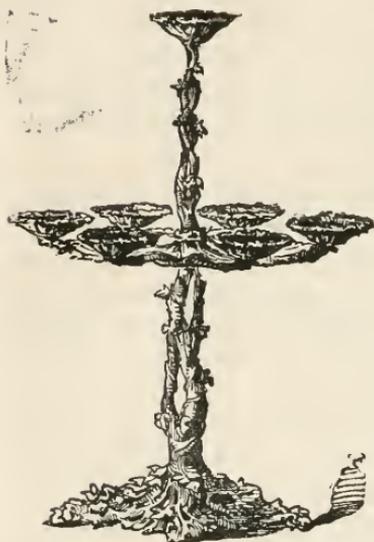
VICAR OF WINKFIELD—Of second rate quality, but extremely valuable as a market pear. December.

I have a large number of other varieties in cultivation, whose merits I shall be happy to relate at some future time.

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FORTY DOLLAR PEAR TREE.—Mr. C. A. Nealy, formerly a resident of this town, but now a farmer, Eddington, Penobscot County, hauled into the village last Tuesday morning, forty bushels of pears, and in one hour retailed all of them from his wagon at two dollars a bushel. The pears were of a superior quality, and bought expressly for making preserves. Mr. N. informed us that he gathered twenty bushels of the first lot from one tree. We should think that the farmers in this region might take the hint—it costs but a trifle to grow the trees.—*Ellsworth American*.

## UNIQUE FLOWER STAND.



While spending a few hours at the establishment of Messrs. Janes & Beebe, of this city, our attention was attracted to an elegant design for a plant stand. It is in itself, a beautiful and expressive piece of furniture. The engraving which accompanies these remarks, affords a pretty accurate idea of its appearance. It is a rustic pattern in bronzed cast iron. It will accommodate seven pots, six of which can be arranged around the perpendicular centre support which is surmounted with a receptacle for another plant. As this stand is of a very ornamental description, it would appear to best advantage when containing plants, while in bloom. Those who can boast of a greenhouse can by a little forcing, obtain a sufficiency of flowers, to keep such an object a continual show during the winter and spring months. Camellias bear forcing admirably, and comport well with the dignity of a drawing-room, but unfortunately are impatient of an arid atmosphere. In the humid air of the forcing house, they look very happy; and with the thermometer at 60 or 65, may be induced to bloom in December. As soon as their blossoms become partially expanded, they may be brought into the drawing-room, forming elegant objects for the decorated plant stand. Roses may be treated successfully in the same manner. Hyacinths, Tulips and other bulbous roots can all be forced and retrograded without the assistance of a special glass structure, by giving them warm or cold positions within the dwelling house. A more practical advantage of the iron stand is, it occupies little room, and the hollows which contain the pots are large enough to catch and retain all the superfluous moisture, running no risk of destroying carpets by a dripping of filthy water.

The wardian case which is becoming very popular, would be an admirable companion for a small plant stand, as its peculiarities are similar in effect to those produced by the more elaborate and expensive forcing house.

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## NEW METHOD OF PERPETUATING THE PLUM.

BY ISAAC REAGLES.

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Nurserymen are generally very unsuccessful in propagating the plum on an extensive scale. The great difficulty consists in the buds refusing to take, with sufficient tenacity, to become a component of the stock. Sometimes in budding plums, a portion of the wood or bark will attach itself permanently to the stock ; but this portion in most cases, is not the part which contains the bud. As the season for budding the plum tree is quite short, the only remedy remaining for stock, on which the buds have failed, is to engraft the ensuing spring ; but engrafting the plum is an equally unsuccessful operation, hence the difficulty that is experienced in getting a saleable stock of plum trees.

Having devoted special attention to raising plum trees, for the wholesale trade, for the last ten years, it became necessary for me to devise some method that would facilitate the increase of stock. I had often observed that the buds invariably grew better on wood of the current season's formation, than that of the previous year. Taking advantage of this fact, I subsequently sought the new wood, when practicable, in which to insert the buds ; the only fault with this method was, that the trees were worked so high on the body of the stock, that in the case of rapid growing kinds, the scion out-grew the bottom, thus making unsightly and rather un-saleable trees.

I have practiced a method with great success for several years, by which I secure the principle of budding in new wood, and at the same time, work the stocks within an inch of the ground.

In the first place, care must be observed to procure none but sound, fresh seed. In the month of November, the ground must be prepared for the reception of the pits. This is performed by ploughing a deep trench. (The soil should be a rather stiff loam,) which may be afterwards deepened to eighteen inches with a spade.

This trench must be partially filled with a compost made from exciting manures, and before using should be thoroughly decayed and frequently turned over in the heap, so as to be well incorporated. On this compost an inch or two of earth may be thrown, after which scatter the seed thinly, but let it compass the entire width of the trench. On the top of the seed, I throw coarse gray sand, such as is used in making mortar. Sand remains perfectly friable, and does not oppose the shooting stem of the young plants, when vegetation takes place in the ensuing spring, and it also prevents for a time the growth of weeds, thereby permitting the seedlings to get the start of foul stuff, which, with a little attention, they will maintain throughout the season. The object of this peculiar cultivation, is to force the seedlings into an average growth of two feet the first summer, and by the first of August, they are all in fine budding condition, still growing rapidly; the bark springs from the knife, and affords ready admission to the bud, which if carefully inserted will not lose five per cent. I have a field of plum seedlings budded the past season, which will average two and a half feet in height, and scarcely a bud exhibits symptoms of decay. The subsequent culture is exceedingly simple. The budded trees are permitted to form their first seasons growth in the seed bed. Many of them will attain the altitude of six and seven feet. They are then transplanted into the nursery rows, where they may remain one or two years; all will, by the expiration of that time, be fit for sale. If it were not for adopting this plan, my trees would cost half a dollar each, to grow for market.

*Union Gardens, Schenectady, N. Y.*

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## MODEL COTTAGE.

(FRONTISPIECE.)

THE ingredients which compose cottage architecture, are fitness, (that is, the arrangement of the design in accordance with the amount of money to be expended in such a manner as to produce a corresponding degree of convenience with durability, utility, and elegance.) Expression (of a character to betray the position and

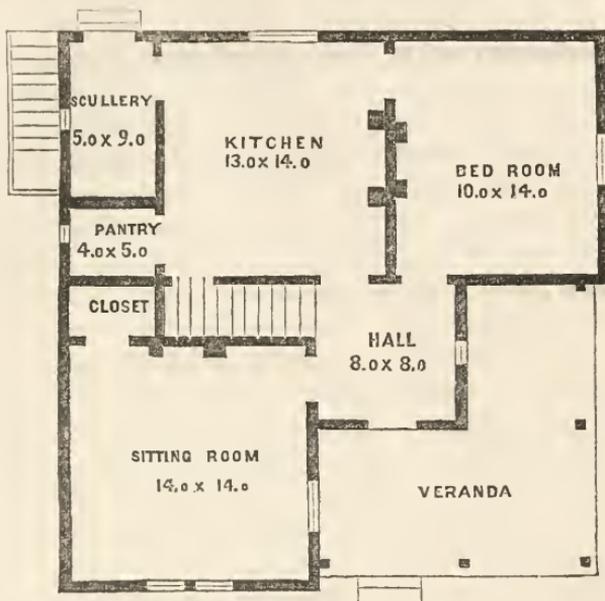
social condition of the occupant—not of the architect, as is frequently the case.) And lastly, appropriate surroundings.

A simple unambitious cottage, does not require the aid of sculptuary to complete it, or promulge a purpose.

*Per Contra*—the less extraneous assistance of an artificial description that is made use of the nearer an approach is made to what may be considered a model habitation.

A rugged landscape befitting a castellated and turreted structure, would be highly indecorous as an appliance to an unpretending cottage. The modest, low-roofed tenement suggests tranquility, a home free from turmoil and bickering strife. A home where children are born and live in happy unconsciousness of the depravity of the world without; where one dies and is mourned for, long after sable garments have fulfilled their mission. A home where virtue thrives and sheds its ennobling, heavenizing influence on the garrulous grandfather, the happy wife and mother, the contented father, the romping little ones, gleesome with exuberant spirits, and rosy with bursting health. Such are those who embosom themselves in cottages, and to such we would feign dedicate our model retreat, as a fitting object, modestly asserting its claims for their adoption for future requirements.

The ostentatious villa may be elaborately covered with tawdry ornaments without marring or rendering it conspicuously disagreeable; but the same amount of decoration bestowed upon a cottage, makes it unworthy the name, and indeed one is at a loss



to conceive the object to be attained by such a profuse outlay of superfluous material and "extra hazardous" carpentry work.

A cottage, to truthfully perform its object, should be simple in construction and in a majority of cases inexpensive in material. Our model cottage (see Frontispiece) was designed by Messrs. Watt & Holly, for a gentleman in Connecticut, who wished it to be as cheap, effective and convenient in plan, as possible.

The architects furnish the following description :—

The Kitchen is in the rear, and communicates directly with the Sink-room, Pantry, Stair to Cellar, Hall and Bed-room. In the partition between the Sink-room and Pantry, is a sliding window for passing dishes from the one to the other.

The door to the back yard is in the Sink-room, an arrangement which is at once convenient, and renders the Kitchen more comfortable. The stairs to the upper floor, are separated from the Hall, allowing the latter to be used for a sitting-room, which will be cool in summer, being shaded by the Veranda. The upper floor contains three Bed-rooms slightly camp ceilinged, with a room in the Tower, and closets.

The exterior is very simple in design, with a quiet, genteel appearance, which is gained by the disposition of the parts. There is no attempt at making a show by putting on what is called ornament, but the details are simple in outline and moulding. The chimneys are rendered effective by the vertical and horizontal divisions, while the coping is of a good thickness and splayed off on the top.

Cost, \$1,300.

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## CRITIQUE ON THE NOVEMBER NUMBER.

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BY EVELYN.

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Your first number of the Review, Mr. Editor, gave us a taste of your quality, by no means deficient in the requisite pabulum for horticultural readers ; but the second, which is now before me, what shall I say of it ? To be brief, you have most prodigally fulfilled your every promise, and more ; you have combined a rare literary sentiment with the practical knowledge which your lifetime experience has imparted. To commence with your leader.

FORMATION OF ARTIFICIAL LAKES—The subject is a good one, and

as you truthfully remark : one that is yet comparatively in its infancy in this country. The advice which you give to improvers is certainly consonant, and if acted upon, must afford satisfactory results. Permit me to promulgate my private opinion, which is, that 'ponds,' under any circumstances, should be classed with nuisances generally. They are always inexpressive ; they insinuate neither beauty, repose nor breadth ; their proportions are too limited to contribute characteristic effect ; and lastly, if not continually cared for, they become reservoirs of pestilential exhalations, and therefore I vote they be summarily tabooed. True, the pond may be used as an asylum for fish, or as a nursery for increasing fine varieties of the finny tribe, but even in this case, the lake presents superior facilities and accommodations. Therefore I say, let us, by all means, have a lake whose capacity is ample for boating—a delightful health producing recreation by the way—and also for piscatorial sport, beyond "pin hooks" and "shiners." No true sportsman is satisfied with anything of less dimensions than a veritable "gudgeon."

THOUGHTS FROM MY GARDEN SEAT—"My life on it." The individual who penned the article with the above caption, possesses a soul that occasionally strays beyond sublunary ephemera, and delights herself with reveling in the fields of *Parnassus*, where perpetual verdure and bright skies hold holiday. Beside being a rare intellectual treat, the author inculcates a moral, the influence is correct, and the conceit quite *piquant*. The next person who engages my attention, is our practical friend, Mr. Snowden, with

THREE NEW PLUMS—Of course I know nothing about them, but will take advantage of the opportunity, to relate the method I pursue in order to exterminate that determined depredator, the *curculio*. Mr. Downing, a few years before his death, advised me to experiment with pungent manures. So I fenced in my plum yard and gave freedom to half a dozen chubby Suffolk pigs, and a score or two of barn-yard "scratchers." The good effect was immediately obvious, for I succeeded in obtaining a goodly quantity of plums, and have continued to do so up to the present time. The swine, doubtless, eat the *larvae* which is concealed in the fruit, and thus prevent their development. But the *curculio*, we are told, is migratory, and traverses a wide range. I do not dispute it. The *curculio* is a precocious insect. It appears to be adverse to depositing its progeny where they are systematically destroyed, or where

the locality is inappropriate, and unpropitious to its complete and perfect development. Such localities are Albany, Troy, and Schenectady. The soil at these places is a stiff blue clay, rather cold; hence it affords disagreeable winter quarters for the *curculio* in its larvæ state. In consequence, the cunning insect, with commendable discretion, and really astonishing sagacity, selects such localities as secure a safe harbor, and a certain resurrection after their winter "nap." Therefore it is almost impossible to grow a crop of plums on light loams or sandy soils. Some one,—I forget whom—in a communication to an agricultural Journal, remarks: That he succeeded admirably in growing plums where the trees were planted on the bank of a stream. The inference was, that the *curculio*, being aware of the fate which would be meted out to prospective *curculios*, if brought into the "breathing-world," immediately over the death giving element, in its wonderful perspicacity, seeks more auspicious feeding grounds. This solution may be sheer nonsense, and still an inkling of the mystery may get a shadow from the theory. The reader must make his own deductions.

AMERICAN FOREST TREES—by D. W. Ray. I am sincerely proud of this favored land, with trees as high as mountains—no munchausernism,—and which puts one in a pleasant glow to circumambulate. Just imagine yourself getting an appetite for breakfast by pedestriating the circumference of a California pine. G. P. R. James—How these "noted characters" are "struck up" with initials—would have had his admiration greatly augmented if he had migrated across the western prairies and the Rocky Mountains, where primeval vegetation disports unattended by decay and death which so surely overtakes the habitants of European forests. Mr. Ray's article is very edifying; his description and remarks of the different varieties of the oak, are worthy of preservation as useful facts. I think Mr. Ray could not perform a more valuable service to your readers than continuing the subject in future numbers of the Review.

ITALIAN VILLA—Your article on Italian and Villa architecture is an intrinsic paper, but I cannot say as much for the building. The plan is unexceptionable; but who ever saw doors and windows, with an altitude exceeding their breadth, at least four times. Such unseemly excrescences are not admissible, so advise your artist to have a care for his reputation, or it will be tarnished be-

yond the remedy of subsequent achievements, though never so meritorious.

The accommodations are convenient, and do not, to my discrimination, present any objectionable features. Italian architecture is pregnant of available and salient points of beauty, not so invariably expressed by any other order; hence its prevalence on the banks of the "Hudson," where hundreds of its kind proudly rear their towers against the sky they assist to beautify. Square and spacious apartments, also lofty ceilings, are desideratums which are attained without the sacrifice of exterior purpose, both to be coveted, and not secured except by the Italian or Romanesque styles. In my opinion pure architecture exerts a refining, enlightening influence in all localities where it most prevails, and some of our honest "Country-folks," need a deal of this species of improvement. I consequently wish you would be lavish of your architectural suggestions, both in pictorial representations and pages of practical hints.

MILLER APPLE—Another new apple. In good truth, tell me what is to be done with them all; for a number of years I bought every new apple, whose praises were trumpeted, both in this country and in Europe. My choice ground was in time entirely taken up, to the rejection of other fruits for which my heart was covetous; some were good, some indifferent, others bad, and a few execrable. I commenced a crusade against the desecrators of my friable mould. I exterminated all but about twenty-five varieties. I lost many years in testing the extolled hatchlings of uninformed cultivators, and now I look with suspicion on every fresh aspirant. I must have "proof of the pudding" before I devote good soil to such "risky" purposes. If the *Miller Apple* be a valuable fruit, let the fact be well ascertained, and well authenticated, before grasping commerce repeats it on every fruit grower's land in the country. I admire your manner of bestowing praise on the various new fruits which are presented for opinion. In the present advanced state of fruit growing, no fruit should be considered worthy of perpetuity unless it offers undisputable evidence of superiority or a desirable peculiarity, for specified localities, but I am getting prolix, so I'll to the next, which is a description of the

CHINESE YAM—by the *Editor*, which, *en passant*, has set me to wondering much, how Editors manage to be posted on every sub-

ject under the sun, and that too with a degree of familiarity which is satisfactory of their being perfectly *au fait* in the premises advocated. I really hope the Chinese Yam will succeed in our climate ; it certainly is more favorable for its development than that of England, and rivals *La Belle France* in the profuseness of elemental essentials. To the Southward of Philadelphia or even New York, I have strong hopes of the Yam becoming a prolific and healthy companion of its congener, the sweet potato. The manner of cooking the esculent, which you describe, I should imagine to be not only original, but an exceedingly happy practice.

A PEEP INTO A SALAD BOWL—Is most assuredly a very piquant production, and worthy of the learned Petrus Petronius himself. Now I have also a method of dressing a salad, which I flatter myself will even supersede that of your agreeable Author. To commence, the Salad should be tender and recently gathered ; a little wilting will not be followed injuriously to the herbage ; wash it clean and then squeeze perfectly dry, by ringing in a spotless napkin ; after which, place it in a deep dish and cut up coarsely. Now for the sauce. To a large head of salad, take the yolks of three boiled eggs, which reduce to the consistency of batter. This is performed by adding a liberal quantity of oil, a minute proportion of salt, an apparent contribution of vinegar, and enough mustard to render its presence positively perceptible. The white part of the eggs may be sliced into the salad, after which empty on the dressing, and incorporate with a vigorous arm. My life for it, you will partake with a gusto that will render the afternoon *siesta* an indispensable attribute to your delectation.

THE COMPOST YARD—Composts are too little heeded by the non-practical gardeners ; and as a result, much difficulty is experienced in the culture of many plants, which demand specific treatment. Rhododendrous and Azaleas are produced in England, of the most gratifying description : but in America, their birth place, they are only seen in thriving condition, where the "God of nature" planted them. A little experience with the necessary composts, will secure their success in any garden, whether in doors or out. To those who delight in choice plants, peculiar to forest soils, I especially commend the perusal of the article.

EDITORIAL MISCELLANY—Quite an *Olla Podrida*, seasoned with appetising condiments, gossipy, occasionally humorous, graphic rebukes for the dirilect and much general and useful information

for everybody, a desert worthy of the feast of good things chronicled in preceding chapters, and this finishes my task—a pleasant one—so adieu for the present.

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## FOREST TREES.

(Continued.)

BY D. W. RAY.

THE observing mind cannot fail to wonder why native forest trees, combining equal merit and beauty, do not command the same attention, and why they are not as eagerly sought after, as foreign varieties of deciduous ornamental trees. We think there is no variety of foreign forest trees that, in elegance of foliage, size, beauty, and fragrance of bloom, can compare with our native Magnolia. Every part of this tree is magnificent, from the individual beauty of its leaves to its grand effect as a whole. There are many species of European forest trees cultivated on lawns in this country, that, were it not for rarity and association of ideas connected with the land of their birth, would not be noticed. I would not place any tree in a lawn that was not in itself intrinsically beautiful. There is no country which produces finer specimens of forest trees than America; and some of our varieties are better known and more prized, as specimen lawn trees, in Europe than in this country. Their Governments have been engaged for years in importing seeds of our forest and fruit trees, and many of them are now vying in beauty and magnificence of growth with their kindred on this side of the water.

I discontinued my former article describing the Oak (or *Quercus*) family, which I considered the most useful, beautiful, and extensive, as to variety, of any species or family of forest tree.

The cultivation of the Sycamore, or Plane Tree, (*Platanus Occidentalis*,) should become more common, as it grows to be a superb spreading tree; its large white arms stretching towards heaven as if in adoration to its Creator for allowing it to overtop nearly all its fellows. This tree is a remarkably rapid grower, and in good strong soils, especially in the alluvial deposit of river bottoms, it attains the enormous size of forty to fifty feet in circumference.

There is a lofty grandeur and symmetry of form in the American

White Ash (*Sorbus Alba*) that I admire. I can even discover sublimity in its round dense head and spire-like trunk, reaching often seventy feet without a limb. It is one of our most useful timber trees.

Hardy Evergreen Trees, from the forest, are ornamental for a lawn any season of the year, and eminently so in the winter, when deciduous trees present so bleak and uninteresting an appearance.

Our forests yield a number of fine and stately trees which are especially ornamental, among which are the White or Weymouth Pine, (*Pinus Strobus*,) also the well-known Silver Fir or Balsam, (*Pinus Balsamea*,) which is one of the finest native evergreens, and is remarkably hardy and rapid in its growth.

The American Arborvitae (*Thuja Occidentalis*) should not be neglected, either as specimen lawn trees or cultivated in the ornamental screen or hedge. This evergreen bears the shears well, which the pines and balsams will not.

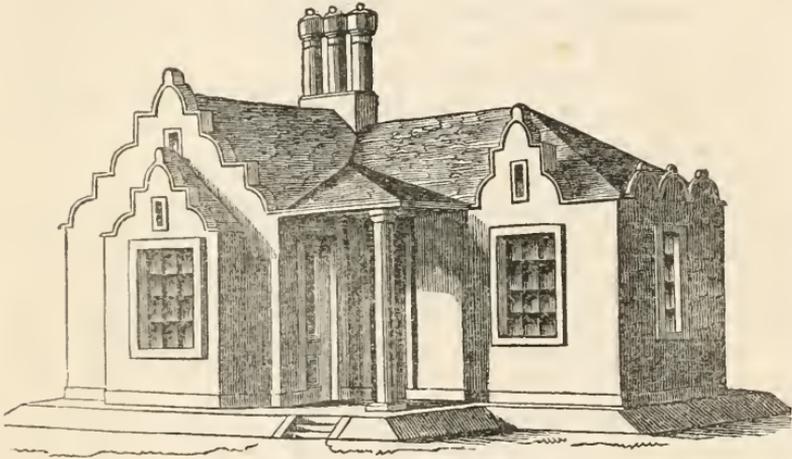
The beauty of our autumnal foliage is world-renowned. This, in part, is caused by our variable and changeable climate. In Europe their autumnal frosts do not come upon the trees as early as here, consequently their leaves and foliage suffer a gradual decay, and turn into the sere and yellow leaf almost imperceptibly, leaving none of those bright scarlet tints which make our woodlands, in autumn, such a richly colored panorama. This beauty of American scenery has been the theme of the poet and painter, and I remember now the glowing description of autumnal scenery we read in our school-boy days, written by N. P. Willis.

American climate is such that trees and their foliage grow until very late into autumn, and when the first frost finds them, which is often a severe one, they are luxuriating in all the emerald green of early summer. The foreigner is first to notice the gorgeous tints of the Scarlet Oak, (*Quercus Coccinea*,) the bright glow of the crimson Dogwood, (*Cornus Florida*,) the deep scarlet of the different varieties of the Acer or Maple, the various shades of yellow or orange, the reddish purple of our American Ash—a distinct sombre purple. These are but a few of the most striking tints that refresh the eye of the foreigner upon his arrival in this "fresh green forest land."

## ENTRANCE LODGE.

(BY H. P. KNIGHT.)

These structures, although eminently foreign in appearance, are rapidly becoming features, as appendages, to the ambitious villa. In this country, I grant, they savor somewhat of the autocrat, as an embellishment, but as this arises entirely from their historical association, no reasonable person can entertain a prejudice to the disparagement of so ornamental an object. I shall be happy to witness the day when all of our wealthy retired citizens will indulge their love of picturesque ar-



Gate Lodge.

chitecture, by adding the gate lodge to their respective domains. In England, no landed proprietor of any magnitude, considers his estate complete, unless it is enhanced by a neat porter's lodge. In all public places, such as parks, cemeteries, etc., they become indispensable. The one at Greenwood Cemetery, Long Island, is an elegant, two story cottage, appropriately decorated, the arch of the building being thrown across the entrance, thus affording a protected gateway, and increasing very materially, the beauty of the construction. In many instances, they are erected as an isolated feature outside the gateway. In other cases, the lodge and gate are built on a continuous front, thus forming a conspicuous composition. It is not absolutely necessary that the gate

and cottage, should be of the same style of architecture. Albeit unity is desirable.

Castellated ponderous architecture appears to me to be very appropriate in building entrance lodges, particularly where stone is used for the material. It strikes the observer as being a kind of protection; a redoubt, (if I may use the term) and therefore, turrets and towers, from their peculiar associations, are not only admissible, but in admirable taste. The one I present to your readers is a one story cottage, with attic, in the Elizabethian style; it is of a very simple construction, but is broken up sufficiently to give a unique effect and pleasing finish. It is from London. The material may be of either wood or stone. The latter is preferable, as the mortar would permit the growth of the Ivy, which flourishes very well in the latitude of New York, and southward.

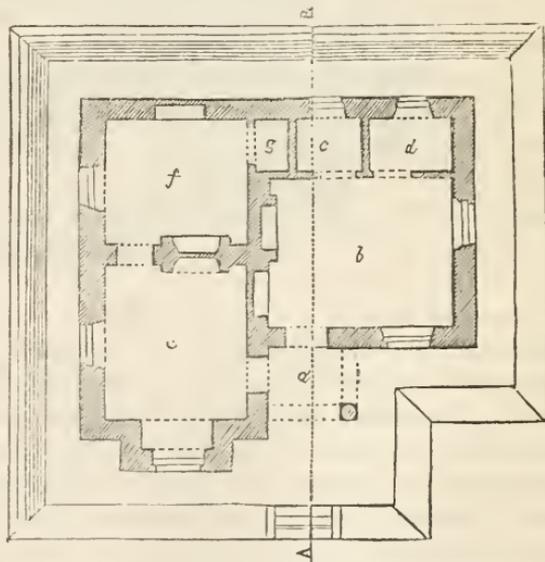
As the design is quite ornamental, its location should be rather conspicuous than otherwise, in order to display as much as possible of the elevation

*Accommodation—*

From a porch, *a*, there are two entrances: one to the kitchen, *b*, with two light closets, *c*, *d*; and the other to a parlor, *e*, and a bed-room, *f*, with a closet, *g*.

*Construction.*

The walls are supposed to be of stone, and the roof covered with gray slates. The openings of the windows are shown



Floor Plan.

with plain architraves or facings; the sashes are modern, and hung with weights and pulleys. The porch is supported by a wooden column, which rests upon a square stone plinth, and has a plain capital. The chimney pots may be formed of cement.

The platform or terrace, may be finished with turf and gravel, or paved, as may be most convenient in the given situation.

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## NOTES ON NEW AND CHOICE PLANTS.

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FROM THE FOREIGN JOURNALS.

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*BILLBERGIA VIRIDIFLORA*, (*Green flowered*). Nat. Ord. *Bromeliaceæ*. A green-flowered *Billbergia* is highly interesting. The lower portion of the flower-stalk and its leaf-like bracts are of a bright carmine color; the flowers, tubular-shaped, are produced in a large terminal panicle; each blossom green, three inches long. It merits a place in the stove, and will contrast very strikingly with the blues and scarlets of the other species. (*Fig. in Flor. des Serres*, 1019). It is in the collection of M. Van Houtte, at Gand.

*CONVOLVULUS ALTHÆOIDES*, var. *argyreus*. Nat. Ord. *Convolvulaceæ*. It is a dwarf, bushy-like plant. The floral stems of the plant (*figured in Flor. des Serres*) are about six inches long, each terminating with a flower of a bright pink, with a white throat, and two inches across. It blooms in profusion, and such humble, bushy-like plants, with numerous large flowers, are very strikingly handsome. It merits a place in every greenhouse or pit frame. It will flourish in the open ground in summer, but will require winter protection in-doors. (*Fig. in Flor. des Serres*, 1021). It is grown in M. Van Houtte's establishment.

*GILIA CORONOPIFOLIA*, var. *carnea-lutea*. Nat. Ord. *Polemoniaceæ*. This handsome flowering variety is a seedling from *Ipomopsis elegans*, which it resembles, in its narrow fine foliage and growth of plant. The flowers are produced in a large terminal branchy pyramidal head, containing almost a hundred blossoms on each head. Each flower is three parts of an inch across, and the tube about as long. It is of a pretty nankeen-yellow color, with a bright carmine rim around the mouth of the tube, which extends beyond in similar colored rayed lines. It is exceedingly handsome, and worth a place in every greenhouse, or open bed in summer. It blooms from June to September, or later, by treatment accordingly. It requires a similar mode of treatment to the *Ipomopsis elegans*. See an article upon it in a previous volume of the "Flori-

cultural Cabinet." (*Fig. in Flor. des Serres*, 1022.) It may be obtained of M. Van Houtte.

*ABIES KÆMPFERII*.—A new and charming *Conifer*, which Messrs. Standish and Noble have obtained from China, and who state, "it is *deciduous*, and somewhat resembles the Larch, but the foliage is very much handsomer, and the disposition of the branches quite distinct. The leaves are three to four inches long, of a lively green. It is a superlatively hardy plant, also exceeding beautiful." In China, it is called the Golden Pine, from the rich yellow of its leaves and cones in autumn. It grows on elevated and mountainous districts, to a great height. Mr. Fortune measured one tree that was eight feet in girth, and 130 feet high. The trunk is straight.

*BERBERIS BEALII*, *B. JAPONICA*, *B. INTERMEDIA*.—These have stood through the past winter wholly unharmed, without any protection. Messrs. Standish & Co. state, "it is not too much to say that the above are the finest evergreen shrubs in cultivation." Their leaves are from fifteen to eighteen inches long, composed of several leaflets, and a terminal one; this latter is often five inches long by three broad, and the side leaflets are proportionately large.

*CRYPTOMERIA JAPONICA VIRIDUS*.—This plant is entirely free from the objection which in some situations the *C. japonica* is liable to, viz., its foliage becoming brown in winter. The *C. viridus* during the past winter retained its bright, lively green color. It is a charming tree.

*DESFONTANIA SPINOSA*.—This beautiful evergreen has much the appearance of a Holly. It is quite hardy; the foliage a deep green, and very ornamental. It bears an abundance of tube-shaped drooping flowers, each about two inches long, red outside and yellow within. A most charming plant.

*EMBOTHRIUM FERRUGINYUM* (Spr. *Somatia*). *EMBOTHRIUM LANCEOLATUM*.—The foliage of the former is peculiarly graceful, resembling very closely the finely cut fronds of a large Fern; and of the latter, *E. lanceolatum*, too much cannot be said. It forms a compact shrub, with large lance-shaped leaves, and long spikes of rich crimson flowers, which are borne in profusion, and very ornamental. They have borne the rigor of last winter without harm, but they flourish admirably in the conservatory or greenhouse.

*EUGENIA UGNI*.—A charming myrtle-like evergreen, bearing very

fragrant flowers, which are succeeded by strawberry-flavored berries ; quite hardy, and handsome.

LAURELIA AROMATICA.—A handsome evergreen, with fleshy leaves, which are very fragrant. It is a native of the mountains of Chili. Quite hardy.

QUADRIA HETEROPHYLLA.—This interesting tree, which is said to be hardy, produces fruit about the size of a small walnut, with the flavor of the cocoa-nut.

RETINOSPORA ERICOIDES.—A very pretty *heath-like* CONIFEROUS plant, which is perfectly hardy. It is a valuable acquisition, having stood out at Messrs. Standish and Noble's during last winter, without the least injury, remaining as green as it was last October.

PHILOX, QUEEN VICTORIA.—The plant is of the *decussata* habit, robust, and stiff. The trusses of blossoms are large, each flower about an inch across, blush-white, with a large purple eye, and of exquisite form ; blooming from July to the end of the summer.

ROSA VIRIDIFLORA.—The flowers in form are exactly like the common blush China Rose, and are produced as profusely, in trusses, of from ten to twenty blossoms in each. They are very double, and of a bright green color. It has a very pretty appearance in the greenhouse, blooming freely during autumn and winter, as well as earlier, if managed properly. It is exceedingly interesting, and may be had cheap.

WILLIAM'S EVERGREEN CLIMBING ROSE.—It is a seedling raised from the common hardy climbing *Ayrshire Rose*, fertilized with the *Yellow Tea Rose*. It has the rapid growth and elegant habit of *Ayrshire splendens*, whilst its glossy foliage and large lemon-colored buds partake of the character of the *Yellow Tea Rose*. The flowers are of a creamy white, deliciously sweet-scented, and produced in long racemes of from twelve to twenty on a single shoot. It is a charming acquisition ; quite hardy.

SALVIA RÖMERIANA.—It is of *dwarf habit*, a very free bloomer, excellent for bedding. The flowers are of a rosy carmine color, and it blooms throughout the summer.

EREMURUS SPECTABILIS. Nat. Ord. *Asphodelææ*. Syn. *Asphodelus Sibiricus*.—A handsome, hardy, herbaceous perennial, a native of Altaic Siberia. The main flowering stem rises from three to four feet high, almost half of which bears a profusion of flowers, forming an ornamental pyramid ; each blossom (star-shaped) is an

inch across, of a sulphur-yellow, with large, bright, orange-colored anthers, which produce a beautiful contrast. It is very ornamental during summer, and merits a place in every flower garden. It is in the Royal Gardens at Kew. (*Fig. in Bot. Mag.*, 4870.)

LEPTODACTYLON CALIFORNICUM.—Nat. Ord. *Polemoniaceæ*. Syn. *Gilia Californica*.—Mr. William Lobb sent seeds of this very charming plant from San Bernardino, in South California, to Messrs. Veitch. It is a low much-branched shrub, having a copious, small, heath-like foliage. The flowers are produced on the short lateral branches which adorn the principal ones, so as to form long racemes of bloom. The tubular portion of the flower is nearly an inch long, yellow, and the fine divided front, an inch and a half across, of a beautiful rose color, with a white eye; in appearance much like a large peach blossom or Oxalis. The branches are clothed with flowers so numerous as almost to conceal the foliage. It blooms in summer, and merits a place in every shrub-border or bed, and being quite hardy, is rendered still more valuable. (*Fig. in Bot. Mag.*, 4872.)

SALVIA CARDUACEA (*Thistle-leaved*). Nat. Ord. *Labiata*.—In De Candolle's *Prodomus*, Mr. Bentham gives a descriptive list of 407 species of *Salvias*, and the one we now notice is the most distinct and remarkable of that vast number. It is a native of California, discovered about the same time by Mr. Douglas and Mr. Coulter, and now first introduced to our gardens by Messrs. Veitch, who received it from Mr. Lobb. It is perfectly hardy, and merits a place in every garden. The plant is perennial, and the floral stem is from one foot to one and a half high, erect. The leaves *thistle-like*, spiny, cobwebby, densely woolly beneath. The flowers are produced in large whorls, each a few inches apart, tier above tier up the main stem. Each blossom has a tube as long as the calyx, white; the limb (front of the flower) is gaping, one and a half inch across, and of a pretty lavender-purple color.—(*Fig. in Bot. Mag.*, 4874.)

MEYENIA ERECTA.—Messrs. Rollison received it in 1854, from Sierra Leone. It was first discovered by Dr. Vogel, in the Niger expedition, and has been described in the "Niger Flora" by Sir William Hooker, who states it as the most beautiful plant of the south-west coast of Africa.

## EDITORIAL MISCELLANY.

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ur table—of stout black walnut, four by six—has, during the past month, been a display that would have tempted Adam of old, without the luring of that beguiled female, Mother Eve.

Monstrous pippins, with waxen exterior, glistened out, half-hidden from view by luscious grapes. Pears have melted on our tongue, which in turn have been washed away by wine from native grapes, as

fruity in flavor as the choicest Amontillado, as refreshing as the vintage of favored France, and as grateful as that sherbet which gives sparkle to a Mahomedan's eye. Good friends, that's quite praise enough, albeit the wine was good, and deserving of much encomium, but, like all things material, the wine was speedily *non est*—and we'll tell you a truth, when the last gurgle faintly expired on our delectated palate, we felt that an entire year must run its course of twelve calender months before the ruby bibulation could be renewed.

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MESSRS. Norris & Douglass, of Geneva, New York, will please accept our thanks. The wine they sent us we unhesitatingly pronounce good. It was manufactured from the Clinton Grape. Unlike Catawba wine, it was heavy, more nearly resembling old port, and equally high flavored. These gentlemen also sent us twenty-two varieties of pears, and four of apples—all good specimens of their respective sorts, and give evidence of having received special cultivation. One variety of pear, labelled the "Adele De St. Denis," proved to be the Beurre Bosc. This is the

second time we have seen these pears confounded. Can any of our readers inform us if there be a distinct "Adele De St. Denis?"

"Pride of Geneva."—This is the name of an apple received from Messrs. N. & D. It is one of the mammoth class, but has a watery flesh which will prove a barrier to its introduction among good fruits of its class. Lecch's Kingsessing was very good, but we are compelled to make the memoranda, "not first rate."

And, now, while we are on the subject, we will take the opportunity to invite horticulturists, both amateur and professional, to send us specimens of any new fruits, flowers, &c., which may come under their observation. By this means, really valuable information may be transmitted, and assertions secure a publicity which shall decide whether they be facts, and entitled to notice. Notwithstanding the prodigious efforts which have been made, and are still making, by distinguished horticulturists to reconcile and individualize the nomenclature of fruits, a lamentable ignorance (quite perverse in some instances) still exists among a majority of fruit-growers, particularly those who cultivate for market.

IN our last number of the REVIEW, "Evelyn," in his critique, refers to Prof. North in a manner which gives the reader an impression that the latter gentleman is frosted with accumulated years, and like a very patriarch, with tottering gait, is advising his inexperienced children to love those material things which come freshest from God's hands.

Now, Prof. North being a young man, and not wishing to occupy a false position, indignantly denies the "ancient" insinuation; and we do not wonder at it, for age and ugliness are with the world an inseparable compound. The professor, however, having obtained his majority, is entitled to the privilege of speaking for himself, so here it is:

HAMILTON COLLEGE,  
Nov. 24, 1854.

C. REAGLES, Esq.

*Dear Sir,*

Some men grow old by natural and easy stages—some bring old age upon themselves, prematurely, by intemperance—and some have it thrust upon them by the printer's devil. To the latter class belongs your wronged contributor.

In one of the articles of your October number, I happened to use the words, "I am *odd* enough to suppose." Your type-setter, either misliking or misreading the phrase, printed it "I am *old* enough to suppose." "Evelyn" naturally infers from this frank confession that my days are in the sere and yellow leaf, and that I am going down the shady declivity of life.

I have read of persons, avaricious of fame, who procured themselves to be gazetted among the dead, that they might see what the editors might say of them, feeling sure that they would have the benefit of the Latin maxim, "*De mortuis nil nisi bonum.*" It is a pleasant custom to speak well of the dead, and respectfully of the aged. Thanks to that mischievous type-setter, I am enjoying the honors that wait on old age, without the drawback of its burdens.

My college companions, who, fifteen years ago, were fagging with me over Tacitus and Sophocles, will pronounce it a rare joke. The least that they will do will be to present me with a gold-headed walking-stick, with this inscription, "*Mature senex fi, si diu velis esse.*"

Make my best regards to Mr. Evelyn. I like his way of treating those who are well-stricken in years. If I live to be as old as he takes me to be, I will write and let him know how it seems. At present I am just clearing myself from "the atrocious crime of being a young man."

I have no shrinking from old age, at least not from that phase of it which "Evelyn" so pleasantly pictures, yet I would rather not be precipitated into its realities until the trees which I have planted are somewhat larger, and better able to take care of themselves—" *Ego me minus diu senem esse mallet, quam esse senem ante, quam essem.*"

Yours, sans wig and crutches,

EDWARD NORTH.

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OUR assistant editor, Mr. D. W. Ray, has been making himself happy in Kentucky. We append his last letter, in which are some interesting items respecting the progress of horticulture and kindred matters in that thriving State :

"I have just returned from a trip of observation at the southwest, where I attended the fair of the South-Western Agricultural and Mechanical Association. I was introduced to the President

of the Society, Mr. Hancock, at whose instance I became an invited guest during the week of the fair. I was also much indebted to the Vice-President, Mr. Mallory, for attention and information; also to Mr. H. P. Byram, the gentlemanly editor of the horticultural department of the *Louisville Journal*. This exhibition was attended by over 60,000 people. There is a feeling of rivalry and emulation in regard to agricultural exhibitions in Kentucky that is salutary and beneficial in its effects. There are about a dozen societies of this kind in Kentucky, who hold annual exhibitions. Their grounds are well arranged, of ample dimensions, all having circular amphitheatres capable of seating, under cover, from 15,000 to 25,000 people, and what adds to the interest of the enterprise, these fixtures are usually erected at a cost of from \$20,000 to \$30,000, and are permanent.

The display of agricultural implements was fine, and in great quantity. The exhibition of fruits was meagre in the extreme, owing, probably, to the lateness of the season. The only variety of fruit worthy of notice was peaches, mostly of the late Clingstone kinds. The display of flowers was fine. Some boquets did justice to their fair exhibitors.

There is no State in the Union that can boast of possessing finer horses and cattle than Kentucky. Their principal aim for years has been to improve their stock of these animals. Their importing associations often bring out \$80,000 worth of cattle from England per year. The character of the horses and cattle exhibited at Louisville excelled anything of the kind I ever saw before.

There was the utmost enthusiasm manifested during the exhibition by the ladies. Each one had her favorite horse or animal and described their good points with as much precision as if they were connoisseurs.

The amphitheatre presented all the gorgeous hues of the rainbow, so great was the array of beauty. It seemed as if all of Kentucky's fairest daughters had turned out *en masse*.

The weather was very propitious for such an exhibition. It was bright, clear, cloudless October weather; no frosts had yet tinged the forest with red and golden hues, and to see the endless panorama of moving life in the shape of elegantly dressed ladies, it seemed as if one was on enchanted ground, and called vividly to mind the scenes described in "Arabian Nights." I shall ever

remember with pleasurable emotions, my visit to the Louisville Fair, and the many kind friends I found to make my stay agreeable. I was especially thankful for the kindness and hospitality of the gentlemanly president of the Louisville Railroad, Mr. Edward D. Hobbs, whose place I visited, twelve miles from Louisville. Mr. Hobbs is an enthusiastic admirer of fine fruits and flowers. He lives in princely style upon his farm of about 800 acres, upon which his enterprising partner, Mr. Walker, is establishing a fine fruit nursery. His house is built in a chaste Gothic style, is ample and commodious. It is embowered in rare ornamental deciduous and evergreen trees, comprising a variety from the graceful Deodar to the classic Cedar of Lebanon. Louisville can boast of some fine hotels, among which are the Galt House, Owen's Hotel, and last, though not least, a new hotel called the National. This is a fine new building of great architectural beauty, situated corner of Fourth and Main streets. I was introduced to mine host of the National by my friend Johnson, editor of the Ky. Statesman. This hotel, in point of size, will compare with the Prescott House, of New York. Its fittings and furniture are of the most costly and gorgeous description, nearly equaling that of the Metropolitan or St. Nicholas. The room allotted me contained rosewood furniture of the most costly description, and a Turkish carpet, which returned no sound of the footfall. Its brilliant figures stood forth in such bold relief, that it seemed as if live roses had been scattered over its surface.

Altogether, my ramble has been very agreeable in various respects. I have been gratified with a view of this garden state, its hospitable people, and lastly, I have done something towards making the New York Horticultural Review a permanent institution in Kentucky.

D. W. RAY.

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*Luminous Lycopodium.*—They have at Kew a most curious Lycopodium, lately come from Jamaica (not, I believe, sent on account of its property). It is a common looking species of the Helveticum group; green as others by day, but as evening comes on, gradually appearing white to the eye—not pure white—but the sickly white of a bleached plant, distinguishable at once by this circumstance when it is too dark to see the form or outline. Mr. Smith detected this property, which can have nothing to do with the effect produced on the so-called Lycopodium cæsius by the rays of light making that plant iridescent, like shot-silk. H. R.

It will be seen from the subjoined extract, that Mr. Rivers has a very favorable opinion of American plums :—

We are indebted to the Americans for some really valuable Plums. Among them the Jefferson holds the first rank ; ripening just after the Green Gage, and being quite equal to it in flavor and far superior in beauty, it cannot be too highly eulogised. I had some fine fruit on pyramids this season, which, owing to the fine weather in September, slightly shrivelled on the trees, and become of a deep golden color, blotched with red ; they were full of delicious juice ; I thought them superior to the Green Gage. Denniston's Superb, ripening eight or ten days before the Green Gage, is also a valuable Plum ; this year the fruit were particularly fine from pyramids ; Huling's Superb is also a very large and very rich Plum ; the Autumn Gage, an oval medium-sized yellow Plum, is valuable, as it hangs well on the tree till after the middle of October. Blecker's Scarlet is a useful kitchen Plum, remarkable for its hardiness and productiveness. Smith's Orleans, an oval redish purple Plum, has not proved quite equal to its reputation in America. Columbia is a large, round, and very handsome Plum, rich and sugary, but rather dry, and ripening with a crowd of other sorts, is not so valuable as the first-named varieties. I may here mention that Plums in Nottinghamshire, north of Trent, rarely attain their full size and flavor ; the climate seems too cool and moist for them, for if large sized fruit are obtained from trees against walls, flavor is sacrificed. Corse's Nota Bene, an oval, purple Plum, of medium size, is, I think, a Canadian Plum, from Montreal ; this is an enormous bearer, withstanding our spring frosts well, and ripening early in August. Plums are becoming most valuable fruit, for owing to several new varieties, the dessert and the kitchen can be supplied from the end of July till nearly the end of October.

T. RIVERS.

A GREEN ROSE.—A recent number of "Galinani's Messenger" says :—At an exhibition of flowers which took place at the beginning of this month, at Manhelm, a prize was awarded for a very extraordinary floral curiosity, a green rose. The petals of the flower were green and had somewhat the form of leaves.

THE FIG MARKET OF SMYRNA.—The fig harvest this year has proved unusually abundant. The cultivators simply gather the ripe fruit, scatter it round the trees, and allow it to dry in the sun. When dry, it is collected into large packs, and sent into Smyrna on camels. The roads and principal streets are thronged all day with long strings of these animals. The fig market is an animating scene. Hundreds of bags of figs are arranged in a

sort of square, where the arrival and unloading of camels, the tasting of buyers and the bargaining with sellers are perpetual. When a purchase has been made, the bags are conveyed to the packers, and after being sorted into baskets, are squeezed into shape by dirty women and children, and then packed into drums or boxes by men. This process is a very disgusting one to look at, and it is said that no one, who has seen it, ever eats a fig again. The residents buy a yearly stock, and have them packed at home by their servants.

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Mr. Gilbert's method of growing that unique bedding plant, the *Cuphea platycentra*, is worthy of emulation, by gardeners on this side of the Atlantic; we annex his practice:—

My employer has succeeded in raising standards of this beautiful plant, 4 feet high, with large heads, which are at this time loaded with fine foliage and flowers. This has been effected by beginning with them when they are cuttings, keeping all lateral shoots stopped, and the leader of each, tied to a neat stake, shifting the plants into larger pots, as soon as they require it, and using a rich compost. Treated as standards they show to better advantage their small but beautiful flowers, and afford a pleasing variety during the summer months, in shrubberies and flower borders, where they should be plunged in their pots for convenience in lifting and housing them at the approach of frost. They should be liberally watered in dry weather, using for them, occasionally, a little liquid manure.—*R. Gilbert, Abbey Wood, Bexley Heath.*

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 Two ripe apples, of the early June variety, of the second crop for this year, have been exhibited to the editor of the *Freeman's Journal*, published in Grant Co., Indiana. These apples grew in the orchard of Elijah Lucas, near Jonesborough, in that county.

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The correspondent of the *Newark Advertiser*, writing from Rome, October 26th, says:—

“The vintage and harvest have failed again this year, and the government has therefore interdicted the exportation of oil, wine, and grain. It has also established public bake houses in the chief cities, to supply the poor at cost prices, and thus prevent extortion by the bakers. Public depots of oil, have been established for the same purpose. As to wine, there is next to none in the country, the old stock having been nearly or quite consumed during the three years failure of the vine. The grape has been cut off again all over the peninsula, and the people are drinking vile decoctions and compositions, for they will not take water with

their chestnuts and beans, the sole food of thousands of families. Those who can afford *potenta*, a sort of pudding made of Indian meal, fare sumptuously. The almond tasted kernels in the cones of the pine tree, are also reckoned a great luxury in the mountains."

A correspondent of the Cambridge Chronicle, says, "We have in our garden a small nursery of plum trees, which have been nearly destroyed by the canker-worm. Last season we commenced shaking them off. One day we observed many toads about these trees, that on our approach became frightened, and retreated in great haste to their retreats in the neighboring bushes. Soon finding that they were not pursued, they commenced hopping back, and eagerly caught with avidity each canker-worm as it descended on its tiny thread. We counted, at one time, thirty immediately around our feet. Day after day, we fed them with their favorite food, and they became so tame as to follow us, watch our hands, and take worms from our fingers."

THE LANGUAGE OF MOTHER EARTH.—Plants are, as it were, the most direct language of the earth. Every new leaf, every strange flower, is some secret that is pressing forth, and which, because it cannot move or speak for joy and love, becomes a mute, quiet plant. When we find such a flower in a solitary place, does it not seem as if every thing around were transfigured, and as if the little feathered ones loved best to dwell in its vicinity? Over the whole dry world is flung this green, mysterious carpet of love. With every spring it is made new, and its strange writing is only known to be beloved, like the posies of the Orient. Forever will he read, and never read his fill; and daily becomes aware of new revelations of living nature.

CRANBERRIES ON HIGH LAND.—Mr. Needham, of Locustdale, West Danvers, has sent us a box of cranberries grown upon high land, which are of good size and shape, and well ripened. He has about one hundred rods under culture—has gathered thirty-six bushels, which he has sold at \$4 00 per bushel. But for the drought of last summer, he confidently expected to get a bushel from each square rod. Few men among us have devoted so much attention to the growing of the cranberry as the Messrs. Needham, or succeeded so well. Others have reclaimed meadows, and cultivated the berry successfully there, but very few have attempted it on dry land.—*New England Farmer*.

At a recent meeting of the New York Horticultural Society, the

following named gentlemen were elected officers for the ensuing year :—President, John Groshon ; Vice-Presidents, Abraham A. Leggett, Archibald Russell, H. M. Schiefflin, Caleb F. Lindsley, Theodore Banks ; Treasurer, Dr. James Knight ; Recording Secretary, Peter B. Mead, Corresponding Secretary, F. W. Tompkins ; Librarian, James Cheetham ; Library Committee, Peter B. Mead, Andrew Reid ; Finance Committee, Caleb F. Lindsley, F. W. Tompkins, Francis Speir ; Premium Committee, Charles More, Isaac Buchanan ; Fruit Committee, Peter B. Mead, William S. Carpenter, John Suttle ; Committee on Flowers and Plants, Thomas Hogg, Thomas Netterville, John S. Burgess ; Committee on Vegetables, Wm. Cranstoun, Alfred Bridgeman, Peter Henderson ; Committee on Seeds, John Groshon, Caleb F. Lindsley, Dr. James Knight.

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I SHOULD not have troubled your readers with the following remarks, had not an article on raising seedling Carnations (recently printed in a contemporary magazine) been greatly calculated to mislead the inexperienced florist. Persons accustomed to raise seedlings never think of saving the seed from single flowers. I should say that from such seed there would not be a moderately good flower in ten thousand. The only fault with, at least, two-thirds of our present varieties is, that they are too thin of petals, and will not form a good crown, which is an indispensable property in the criteria of a fine Carnation or Pink. I ask, what can look more meagre than the half-double flowers ?

For the information of your readers, I will detail my mode of proceeding. I select such flowers as are perfectly double. That such flowers may produce seed, it will be necessary to let every bud remain to bloom. When they are fully expanded, and the pistils assume a glittering icy appearance, take any one half-expanded bloom, and tear it open, when will be seen the apices (anthers) containing the pollen, or dust ; take one of these, and, if not already burst, open it, and draw it along the pistils (thread-like terminating horns) till you see some of the powder adhering to them. If this has been properly done, the bloom will close in two or three hours ; and if no alteration takes place, repeat it till it does. In two or three days after impregnation has taken place, cut off all the other buds, and remove the plant to a situation where it will get plenty of sun ; keep it well supplied with water, and protect the capsule (closed pod) from rain, by placing a square piece of thin board or other material upon the stick, just above it ; gather the seed when ripe, and keep it in the pod in a well-corked phial. It will be also necessary to protect the pod from earwigs, which is best done by winding a little fresh sheep's

wool round the stick and stem ; they will not attempt to pass over it, as it entangles them.

These directions apply equally as well to Pinks, with the exception that the bloom from which the pollen is to be taken must be opened before it begins to expand, or the apices will all be burst, and the pollen gone.

FLORISTA.

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THE Fourth Annual Meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, January 9th, 1856.

Business of importance will come before the meeting. Reports from its officers will be submitted, and a new election be made, in which it is desirable that every State and territory should be represented.

Lectures and interesting discussions are expected on subjects pertaining to the objects of the association, by distinguished scientific and practical agriculturists. The transactions of 1855, containing a full account of the late exhibition at Boston, will be distributed to such members as are present.

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The various agricultural societies of the country are respectfully requested to send delegates to this meeting ; and all gentlemen who are interested in the welfare of American agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion.

MARSHALL P. WILDER, *President.*

W. S. KING, *Secretary.*

December, 1855.

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*For the N Y Horticultural Review.*

REPLY TO EVELYN.—We would say to our venerable critic, who comes to us under the name of Evelyn, that, in writing our article upon the cultivation of the Grape, we wished to treat exclusively upon the cultivation of native varieties. We knew of Mr. Cummings and his plantations of foreign Grapes. But we have ever deprecated the cultivation of foreign Grapes in this country. In our article, in

the *N. Y. Journal of Commerce*, upon the same subject, given last winter, we gave experiments tried upon the cultivation of foreign Grapes, which occasioned great loss to the cultivators, and also gave some statistics of the amount of money lost in attempting to cultivate foreign Grapes in the open air. In regard to our article upon the cultivation of Flowers, if we made quotations, they were so woven into our memory from reading Oriental literature, that we know not from whence they were taken. We beg leave to differ from our worthy critic, and think he lays himself open to criticism in making one remark, "That flowers were Nature's artists." We think Nature the artist, and flowers the gorgeous productions of her handiwork—the "chef de ouvres," if you will allow the quotation.

D. W. RAY.

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THE VINE AND THE WINE OF GEORGIA.—The Augusta Constitutionalist publishes a letter from the Hon. Mark A. Cooper, giving an account of a recent visit to the vineyards of Dr. Anderson and others, of Wilkes. 'These vineyards,' he says, 'were planted from the slip, in the spring of 1853, and now produces grapes of the most admirable quality.' Each vine has on an average of 45 clusters of the very largest size, the flavor surpasses anything I have known. The vineyard was an experiment of one-fourth of an acre, with a setting of 150 vines per quarter, or 1,000 to the acre. Owing to dry weather only 130 lived and are in bearing.

I am not premature in the conjecture that in ten years more the wines of Georgia will meet those of France and our Atlantic ports, and soon thereafter they will make good the completion by going to European markets; so that what has just been achieved by her flower mills and farmers, will also be effected by her vineyards and wine presses.

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GRASSHOPPER TRAPS.—In our rides in the grasshopper country, we saw thousands of the deep holes which had been dug in the earth by the Indians, to entrap their luxurious (?) food. These holes contain about a bushel and a half, and we believe we saw holes enough in Yuba, Butte and Sutter Counties, to have collected fifty thousand bushels of Grasshoppers. The Indians will grow fat this winter,—*California Farmer*.

## LITERARY NOTICES.

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TRANSACTIONS OF THE NEW YORK STATE AGRICULTURAL SOCIETY FOR  
1854.

This is a remarkable voluminous work, containing a large amount of useful information for the farmer, and an equally large quantity of useless verbiage. On scanning it, one cannot but be profoundly struck with the industry which the compilation of such a work demands. The credit of editing the book is due to B. P. Johnson, the accomplished secretary of the society. That the work is very wide of what it should be is not Mr. Johnson's fault. The essays in the book disclose no new features in vegetation, and are only instructive to beginners. The entomological information we would call valuable, if the writer was more conversant with the economy of his subject. It is very necessary that we thoroughly investigate the peculiar habits of destructive insects. A remedy may be suggested therefrom. The writer appears to have had but a very vague idea of the application of his surmises, facts, and theories to practical demonstration. The absence of illustrations of the insects, and their various methods of committing depredations, is to be deplored. Pictorial representations carry conviction in such matters, where written explanations fail to convince or even clearly elucidate. The last pages of the book become enraptured all about a certain horse, renowned for divers feats of agility displayed in days of yore. Candidly, gentlemen, is this not a puff? A very good one as we view the matter.

Cut the report down about three hundred pages, and dovetail the remaining portion in a good wholesome style, and we should have a book worthy the perusal of every cultivator in the country. But, as it is, the very appearance suggests a counterpart of Sahara for dryness; but as our worthy secretary is restricted to certain conventionalities, which obedience to statutory edicts render imperative, we must even digest a volume of transactions annually for all time to come.

We are only sorry to see a really capable, persevering man, like

Mr. Johnson, being compelled to waste his valuable time in giving form to downright nonsense.

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BEDOTT PAPERS. *J. C. Derby, N. Y.*

This is a humorous work of considerable merit, betraying an admirable conception on the part of the author, regarding the indoor provincialisms of New England domestic life. Price, \$1 25. It will well repay the time used reading it.

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SPALDINGS JAPAN. *J. Redfield, N. Y.*

The late treaty with Japan suggested this publication. It contains much interesting history of that comparatively unknown land—the peculiar traits exhibited by its people, its resources, its commercial value to the U. S., &c. It is profusely embellished by tinted lithographs. Price, \$1 25.

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CROTCHETS AND QUAVERS. *S. French, N. Y.*

Max Maretzek, the great leader of operatic orchestral music, has recently attempted a *role* in a sphere in which he seems to have legitimatized himself. He has produced a really clever book—witty, gossiping, instructive and charming. Price, \$1 25.

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A BASKET OF CHIPS. *Bunce & Bro.*

A series of stories, humorous, pathetic, sentimental, and serious, written at sundry intervals, during the peregrinations of that erratic gentleman and actor, John Brougham. Price, \$1 25.

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HARPERS MAGAZINE FOR DECEMBER, is filled with papers unusually interesting, and illustrated in the usual masterly style peculiar to the work. We perceive that "McLellan," is attached to the Magazine; his reputation as an artist is without a rival in New York. The price of the Magazine is \$3 per annum; but it will be supplied with the Horticultural Review. The two for \$4,00.

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PUTNAM'S MAGAZINE FOR DECEMBER, is as usual freighted with articles especially written by the most talented authors in America. This Magazine enjoys a reputation in Europe as a work of great excellence, and has received many encomiums from the English and French presses. Price \$3,00 per year; with the Review, \$4,00.

## THE INVENTOR.

A Journal for the artisan. It is well conducted, profusely illustrated contains remarks on all the new patents of the day, and other valuable information, of intrinsic worth to the class it addresses. Price \$1,00 per annum. Address Quimby, Haskell & Co., New York.

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## CATALOGUE OF COSMOPOLITAN ART ASSOCIATION.

Estimates have been made of the length of the advertisements of the Cosmopolitan Association, as they appeared in the newspapers last year. Averaging each insertion at 10 inches, it was found that, altogether, the advertisements would have formed a strip of paper,  $2\frac{1}{2}$  inches in width, *fourteen hundred miles in length!* Some reading matter, that cost the Association a nice sum of money.

The Illustrated Catalogue is printed upon 360,000 sheets, 24 by 33 inches—giving an area of 328,320,000 square inches!—a few broad miles of printed matter!—The schoolmaster must be abroad to instruct the people to read.

This association has become wonderfully popular in a very short time. All persons who subscribe previous to January 31st are entitled to a ticket in the distribution of that date.

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## ERATA.

In the advertisement of Shaker blankets in the November number, we unintentionally stated, that the prices ranged from \$12, to \$40 per dozen. It should have been \$12, \$35, and \$40 per pair. As the disparity was so great, we feel compelled to give this conspicuous correction.







New York  
Horticultural  
REVIEW.

HINTS ON NURSERYMEN AND TREE BUYING.

WHEN a man arrives at the conclusion that the planting of fruit trees will benefit, and add, pecuniarily, to the value of his land, he should next well consider the matter, of whom his trees are purchased. As a general rule (with but rare exceptions)—we should advise : never to purchase a tree at auction, or from those graceless individuals, *parapateic nurserymen*, who scour the country during the winter season, for the purpose of inveigling farmers into purchasing trees. These trees are, in most instances, grown purposely for such a market, and are composed, mainly, of some free growing varieties ; but the accommodating Charlatans who vend them, will attach labels of any variety that may be required, even though the sort be exclusively local and unknown to commerce. Thus, if the eager purchaser, whose knowledge of estimable fruits is limited, wishes an “ Aunt Betsy,” a kind that he has seen on a neighbor’s land ; and which he considers the apple, *par excellence*, the *parasite nurseryman* immediately books the name, and the purchaser actually receives trees bearing the name of “ Aunt Betsy,” notwithstanding there is but one tree of that variety in existence. This specie of Charlatany is “ carried on ” to an almost unlimited extent. We

can call to mind one individual, who disposed of, in a single season, 80,000 trees ; and that in two counties.

Planting trees of indifferent fruit is a worse evil than entire neglect of planting ; for the reason that in the former case, bad fruit is perpetuated to the rejection of superior kinds. Most planters are loth to destroy a tree after it has commenced bearing, even though the fruit be undesirable. Engrafting in such cases is the only remedy ; but unfortunately, it is either procrastinated from year to year, or another perambulating nurseryman, in the guise of a ruminating "grafter," contracts the job, at a low price. Four or five years more elapse. The trees once more produce fruit ; but what is the astonishment and chagrin of the planter, to discover that his apples are identically the same as the original crop, and the horrible suspicion creeps over him, that his "grafting" friend has supplied himself with scions from the very tree he was working. In many instances, bitter experience of this description damps the ardor of the planter, and for all time to come he remains contented with water core apples, astringent pears, acid cherries, and horse plums. Responsible nurserymen, occasionally send out traveling agents to contract trees ; but such agents are always provided with abundant evidence that they are *bona fide attaches* to the establishment they respectively represent. One may possibly purchase of these men without incurring any risk ; but even under these circumstances, the preferable method is to procure a supply directly from the "fountain head," as commissions are saved, and the probability is that more satisfactory trees will be received.

Instances are recorded, although rare, in which establishments of enviable reputation have had recourse to sending out trees, differing widely from the names by which they were designated. Deception of this kind, is "sooner or later" discovered ; and its transpiration not unfrequently operates disastrously to the future business of the deceiver, although plausible pretexts may be assigned for what is termed an error. There is no branch of commerce which offers such inducements to professional "confidence men" as the tree trade, for the reason that farmers are naturally unsuspecting, and there is no possibility of being detected in several years. Sometimes people imagine they have purchased spurious trees, because the first and second seasons' crops do not perfectly answer to the description as detailed by books ; at the

same time the trees may be genuine. The causes of this divergency from the real character, are various. The main reason, however, is, that young trees are incapable of giving correct expression to their offspring until advanced age brings about thorough development of the organs of fructification. In other instances, imperfections are attributable to climatal peculiarities. A greater maturity of the tree will have the effect of ameliorating even these extraneous influences. The absence of requisite nourishment in the soil, will also account for freaks and sports, that may, on a superficial investigation, condemn the nurseryman. Thus it is apparent that unless purchases are made from parties in whom we have positive confidence, that suspense must be endured for a greater or less period, according to the amount of attention bestowed in cultivation. But few tree planters are willing to accord sufficient interest to this statement. Their confidence once gained, they are credulous until conviction is forced upon them by ocular proof; and then the community of nurserymen are condemned in toto. This is rank injustice to the honest propagator; for if the purchaser is governed by his usual discretion in the matter of barter, he need not bestow his labor and money on worthless trash; again, we repeat, buy your trees of responsible and reputable dealers. We might mention many such, were it not for giving offence to those overlooked in the list.

The pernicious habit of selecting trees of foreign origin, with a delectable title, is another false notion, much to be deprecated. Pears may succeed well in France, that are utter failures in our soil. The reason for which, is, our soil is wanting in the essential elements to their perfect maturation. The highly extolled Ribstone pippin, is the apple of England; but it has never acquired any reputation in the United States, for even ordinary excellence. "Native trees therefore, to the inexperienced cultivator, will invariably afford satisfaction" without extraordinary culture, though high cultivation will produce superior fruit. Amateurs, who plant promiscuously everything that is begilt with a new title, in both the old and new world, have much to answer for, as relates to the present confused state of the nomenclature of fruits, &c., as in their eagerness and zeal to inculcate a new variety, they give scions to all who will accept them; their ill-informed friends assiduously cling to the *Brochure* and its asseverated name, although it eventually proves to be one of the fine old sorts. The amateur neglects to acquaint his

friend of the discovery ; and thus the name is perpetuated and received by the coming generation, in whose mind it becomes a portion of their education, as a fixed fact, like all early prejudices. In this manner is much unintentional deception practiced ; originating, however, in benevolent motive. Hence the necessity of the highest intelligence in those who grow trees for market. Education is as necessary for the nurseryman as the lawyer. He requires the utmost discrimination, in order that he may be able to name almost any variety of fruit tree from its peculiar characteristics. He should possess discretion that he may properly estimate a new fruit before propagating thousands, which he is obliged to sell or lose money. He should be a skillful mechanic of nature, so as to fashion a tree after a becoming model :—"As the twig is bent the tree is inclined." Lastly, he should be an honest man, the most essential ingredient of all. If he possess this qualification, he will never dispose of a tree that has even a suspicion of unguineness lurking in its countenance.

The reader will naturally infer that nurserymen are not generally blessed with all of these enumerated traits, which is certainly the case ; but we anticipate that the day of regeneration is approaching, which is even now symptoming its advent. Gentlemen of rare ability, attracted by the beauty of the occupation and the golden harvest that will fall to their gardening, are engaging in the tree growing business, with all the zeal of the amateur and the skill of the professional. We hail the approach of this millenium with eager expectancy, for the good it will effect to the suburban folks in this Eden-like land, equally blessed with genial suns, refreshing rains, and nourishing soils.

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STEPHANOTIS FLORIBUNDA.—There is no stove plant more easily propagated. Choose cuttings that are short, trim off the lower leaves, and insert the cuttings in sand ; place them under a hand-light, on a heated surface ; pot them off as soon as roots are formed ; replace under the hand-light for a week, shading from sun. In a fortnight they may be fully exposed. This plant will endure a temperature of 45° ; in winter it should never exceed 55°, unless the sun shines, when it may be allowed to rise to 60°, and as the days increase in length the heat may be allowed to rise to 65°, when the plant begins to put forth short, stubby shoots, and fine, broad, healthy leaves.—*Cottage Gardener.*

## GARDEN STRUCTURES.

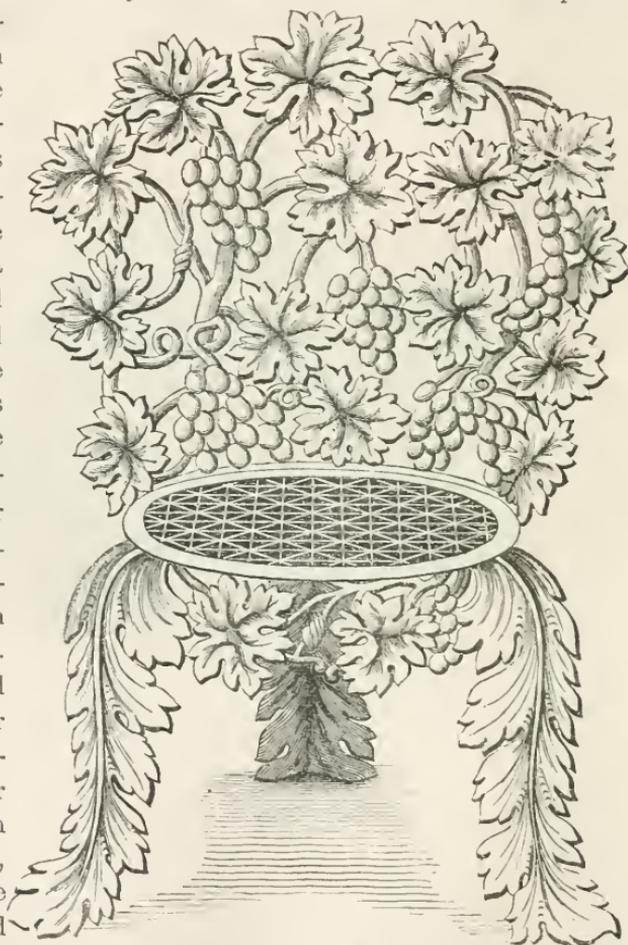
Garden seats of either rude or finished workmanship, are to the *ferme ornée*, what oriental *kiosques*, Grecian temples, pagodas, and sculptured figures, are to the grand house and broad park. No cottager, who is the sovereign of the soil he tills, is so poorly off in worldly goods, as not to have the wherewith to spare for the construction of a covered seat, a rustic arbor, or the more architectural summer-house.



Children love the cosy, vine clad bower. It affords a refuge in their romps, and games; and in after years, when vexed with commercial care, men are frequently solaced with the tranquilizing reminiscence of that same delightful arbor and cottage home, when no cares checked their glee, and the world seemed to their trusting credulous minds one bright picture with constant recurring novelties wherein to revel and drink of happiness until gorged with the inspired elixir. Because the arbor and the rustic seat at the terminus of the garden walk is a reflected imagery on children's minds we would feign advocate their extension. The summer-house, or covered seat, have, in good truth, no feeling in common with intensely architectural structures, neither are they strictly confined in their construction to the professional archi-

tect's *dictum*. The rudest hands can fashion the rustic seat, and display equally as much taste as those who have studied elegant forms in books. The various methods and designs made use of in forming garden structures are almost as numerous as the places they occupy. The model which embellishes a portion of this article, is an exceedingly simple design from the *repertoire* of Messrs. Watt & Holly, of this city. Summer-houses of this description

being necessarily built from wood, are liable to speedy decay. It is therefore advisable that the roof be of a steep pitch, and project several feet beyond the posts. This will be ample protection against weather and will preserve the building for a much longer period. A simpler and a more popular mode of erecting the summer house, is from rustic work, bits of some durable wood



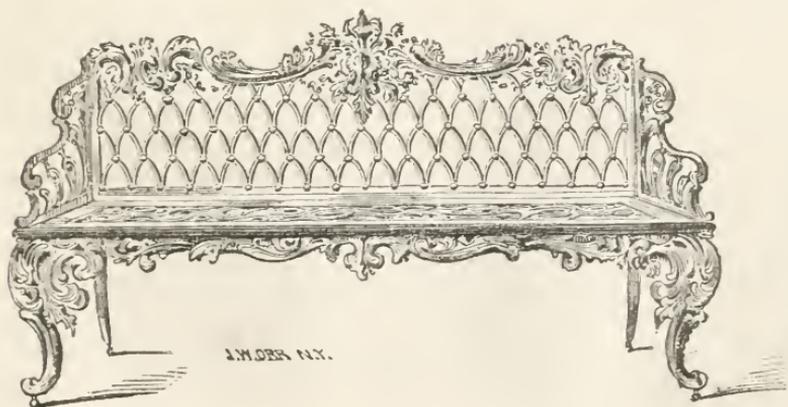
being used for the material, with the bark undisturbed. Red cedar is to be preferred for this purpose, as it is almost impregnable to elemental influences, and is exceedingly tenacious of its bark. The stem of the cedar is generally quite straight, and is therefore admirably adapted for the post, which being inserted in

the ground, also performs duty as foundation. It is a matter of but little consequence whether the building be round, square, or octagonal, as the expression is more particularly conveyed by the attached ornamental work, which is composed of the naturally bent branches of the cedar tree, judiciously appended to the house, so as to present the appearance of brackets, supports and corni-



ces. Lattice work presenting a very unique appearance may also be effectively imitated. The roof of the rustic arbor should always be thatched, using "flag" or straw for the purpose. Vines and creeping plants seem to be particularly happy when permitted to embrace the rude columns of fair weather buildings; for this reason the edifice would be incomplete without a liberal quantity of these aspiring beauties.

The rustic seat may appropriately find an abiding place beneath the outstretched branches of some patriarchal oak, or elm, whose foliage has not undergone a thinning out by the lank gentlemen



J. M. DICK, N.Y.

of scythe notoriety. Such a seat as we consider applicable for these propitious situations, is our illustration of the rustic pattern. And for a seat whose capacity shall not exceed accommodations for more than one person, the grape vine chair would not be inappropriate. It is made of cast iron, and is not only very durable, but exceedingly elegant, in proper situation.

We have also added engravings of two other cast iron seats, which strictly are belongings of the veranda, or situations contiguous to the house, as they are more formal, and express a greater degree of architecture in design. Garden furniture of the kind just described, is quite inexpensive and conveniently procured. As embellishments for simple gardens, they are absolute ingredients, always making the exception, when used with discretion ; an excess of such decorative features is abominable ! and we were about to add, inhuman ; for such evidence of bad taste makes one quite awry when compelled to do admiration for the sake of not offending an enthusiastic neighbor.



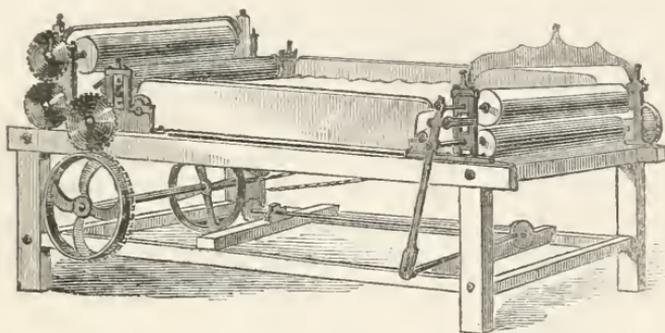

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## THE OSIER, ITS CULTURE, PROFITS, AND MACHINE FOR PEELING.

(BY GEORGE COLBY.)

LATTERLY much attention has been given to cultivating the willow in the United States. The market value of the imported Osier, is \$80 per ton ; two tons can be grown per acre on land that is entirely unfit for other crops. Here we have a yield of \$160 per acre ; deduct the expense of preparing for the trade, about \$20, and you have a profit of \$140. Even allowing that this estimate is exaggerated, there would remain a larger profit per acre than can be obtained from any green crop, and secured by one-fourth the labor. Mr. Colby, of Jonesville, Vermont, has for a long time been displaying his ingenuity in perfecting a machine that will dispense

with hand labor for peeling Osiers, in which laudable undertaking he has finally achieved success. He sends us, for publication, the subjoined description, together with his method of growing and cutting Osiers for market. In order to better explain his remarks, we have engraved appropriate illustrations. (Ed.)



*Machine for Peeling the Willow.*

This machine consists of a frame about eight feet long, and two and a half high. Upon one end of which are hung two rollers, each seven inches in diameter, and of any required length, from one to four feet—as upon the length of the rollers depends the amount of work that the machine is able to perform. One of these rollers is made of India Rubber, and the other of wood or iron.

They are so hung that they roll together, one over the other, so as to draw the willows through between them, and at the same time, have an endwise or vibrating motion of an inch on each one, in contrary directions, so as to roll the willows back and forth side-wise about two inches, as they pass through, thus loosening the bark and tearing it to pieces. This vibrating motion is very quick, given by the lever attached to one end of each roller, with a fulcrum in the centre between them, and operated with a crank under the machine, as shown in the figure. One of the rollers being of *India Rubber*, will allow different sized willows to pass through at the same time, and no willow however large or small, can pass through without being rubbed, and the pressure of the rubber is not sufficient to break or injure them, while it will rub the bark loose, if the willow is in proper condition to peel.

On the other end of the frame are hung two rollers, like the first, only they have no vibrating motion, and are both made of

India Rubber, and geared so as to run about eight times as fast. About six inches forward of these are hung two other rollers, each three inches in diameter, one or both of India Rubber, and running together with the same speed and in the same way—except the vibrating motion—as the first; and these three sets of rollers, and the machinery necessary to set them in motion, constitute the whole machine. The willows, after passing through the first rollers, as described, are carried to the second or small rollers—by a belt running over the table between them—and the thick end which is already clean, passing through them is seized by the large rollers running very fast, and stripped through the small ones and thrown out *clean*, while the small rollers hold the loose bark, which then rolls through and drops in a heap by itself. Such is the simple working of this labor-saving machine; it does its work perfectly and rapidly—to the entire satisfaction of every one who has seen it perform. The amount of work which it is able to perform depends only upon the length of the rollers and the speed at which they are driven.

But many will ask “what is the machine good for, now you have got it?—where are the willows to peel?—and what will you do with them when you get them peeled? &c.” True, there are but very few basket willows cultivated in this country at present; so few that many have never heard of such a thing as cultivating *willows*. But why is it that they are not cultivated here? Surely it is not because there is no demand for them, for there is no article produced, the demand for which so far exceeds the supply as *basket willows*. To supply this demand, in part, we are annually importing a vast amount of willow and manufactured willow-ware, from France and Germany; but there can only be enough obtained in the old country to go but a little way towards supplying the demand in this.

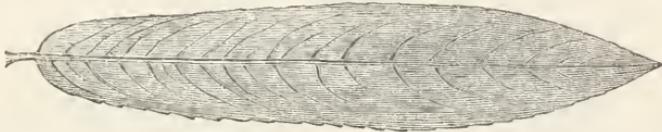
Then why it is that they are not extensively cultivated here? It is not because the best European Osiers will not thrive in our soil and climate, for it has been fully proven by a few enterprising men, who have imported cuttings of the best French and German willow, and cultivated them in this country for a number of years, that they will grow *better* here than in Europe, and all basket-makers prefer the willow grown here to those imported. But the reason that they have not been grown here is, because there has

been no *machine* to peel them with, and the great amount of labor requisite to peel them by hand in the short time in May and June, while the bark will strip, has effectually prevented their extensive cultivation in this country, where labor is so scarce and high.

But this objection is now overcome, and with proper care in their cultivation, willows can now be grown in this country almost as cheap as hay, and while one sells for \$10 or \$15, the other brings from \$100 to \$200 per ton, and the demand for them is unlimited, for there is no end to the uses to which they can be applied. At present there is but very few in market, and the prices rule very high, owing to the supply from Europe being reduced on account of the war.

In our western cities the prices of willow is higher than in New York. In St. Louis it has ranged as high as ten cents per pound for a very common article, the past season.

LEAF OF BASKET WILLOW, (*Salix viminalis*).

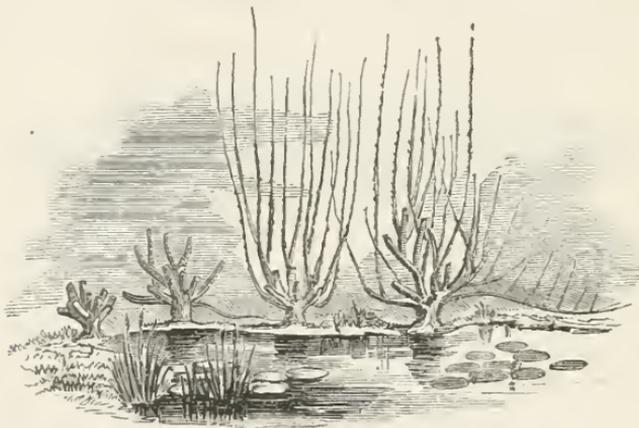


There is no more difficulty in cultivating willow than any other crop, only they have to be planted but once, and it is very important they should be *started right*. And one of the most important things in starting a willow plantation is to procure cuttings of the right kind. The *Salix viminalis* has proved to be the best kind for cultivation in this country; it grows very long, smooth, and free from side branches. There are several other kinds which have been recommended for cultivation by nurserymen and others engaged in selling cuttings. Some of them are worthless, and others, such as the *Salix forbyana*, *S. purpurea*, *S. triandra*, &c., are very good tough willows for baskets, but they grow so full of limbs that they cannot be peeled with a machine, and it will not pay to grow them in this country, and trim and peel them by hand.

Those about to plant willows will be sure they get cuttings of the tree *Salix viminalis*. I will not warrant my machine to peel any other kind, and I think it would be difficult to find a machine that would peel a willow full of side branches. The next important thing is choosing the proper soil and situation, which should be rich and naturally moist, but not too wet. The best soil is a

deep rich loam, as reclaimed swamp, thoroughly drained, or low meadow, near a river or creek. The land should be well prepared by plowing and harrowing, as early in spring as possible, and care taken in setting the cuttings to have it done right. The cuttings may be from eight to twelve inches long, according to the depth of the soil. If the soil is not over six or seven inches deep before it comes to a hard subsoil, the cuttings should not be over eight inches long, as there should in no case be more than one or two buds left above ground. They should be set in rows, about three feet apart, and the cuttings one foot apart in the rows. If they are well cultivated the first year, and a cultivator run a few times through them the second year, they will require but very little, ever after that.

## RESULTS OF PROPER AND IMPROPER CUTTING.



Great care should be taken in cutting them to have it done right. They should be cut within an inch of the old stock every year, and no small willows left uncut. I have seen plantations nearly ruined by carelessness in cutting. If they are cut three or four, or, as I have seen them, *six* inches high, and many of the small ones left uncut, the next year's growth will be nearly worthless, as there will be so many buds left and so many sprouts start to grow, that none of them can grow large, and there will be a great many small limbs, but no good rods. But if they are cut short, and no small ends left, there will be but few shoots start and these will grow very long and slender, often reaching ten or twelve feet in a season. And then it is a *great loss* to cut them

high, as they sell by the pound, and the lower end is the heaviest four or five inches of the lower end takes a very large percentage of the weight.

(Those who may wish for more information, can apply to Mr. Colby, at his residence, Jonesville, Vt. He informs us he will be happy to communicate any information desired, respecting his machine, or the manner of cultivating the willow. He also has published a valuable treatise on the subject, which all interested should obtain, as it is distributed *gratis*.

Mr. Colby, we believe, can also furnish cuttings of the Osier *Salix viminalis*. A working model of the machine is on exhibition at R. L. Allen's, of New York; also at the office of the "Prairie Farmer," Chicago, Ill.—ED.)

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## ON THE UNION OF EMBRYOS.

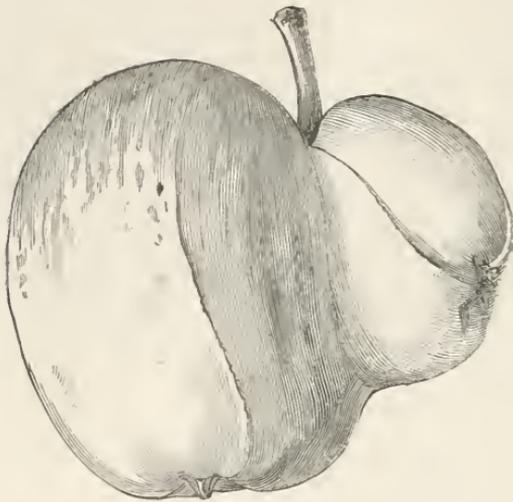
GARDENERS' CHRONICLE.

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It will have been seen by a communication in our last number, (p. 678,) that experimentalists are puzzled to understand how it is possible to make two embryos grow together by grafting. It seems to be considered impracticable so to unite the seeds of an Orange and a Lemon as to blend them into one single plant from the very beginning of their growth. Undoubtedly the operation is attended with some difficulty. Skill and a sound knowledge of the nature and structure of seeds are demanded of those who would perform it. For that reason, indeed, it was, that we offered a valuable reward to the first who should succeed. Had it been a mere puzzle, which could be solved by some lucky accident, we should have consigned it to the limbo of rebuses, charades, and similar puerilities. But knowledge and the power of applying it were demanded, and for this reason it appeared to be an excellent subject for experiment; certainly not merely for the sake of a trifacial Orange, which might be easily obtained in Alexandria.

We have already stated, in reply to an inquirer, that it would probably facilitate the operation if the surfaces to be united are pared down, just as is done when common grafts are united. But we are by no means sure that this is indispensable. On the contrary, many facts indicate that mere contact will produce the

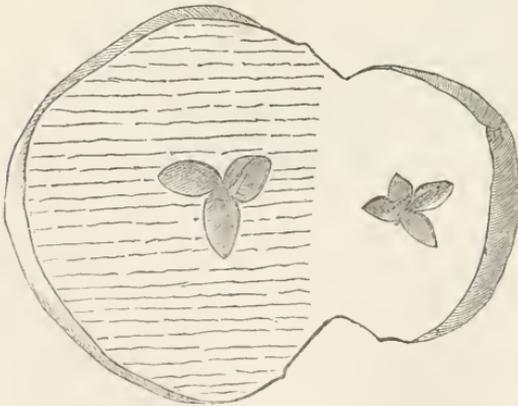
necessary union. No one can be ignorant that Cucumbers often



come as twins ; so do Nectarines ; and we have now before us a pair of Coe's Golden Drop Plums completely united for about half their length. In all such cases no removal of the surface of the parts took place where they joined. They united in consequence of being firmly pressed together when very young, and in the early stage of growth while

the tissues were young, tender, and forming fast.

A similar example is presented by the monstrous Apple of which a figure is annexed. In this instance two Apple flowers,



accidentally brought into close contact in the earliest state of the bud, being kept firmly in contact as they advanced in growth, ended by becoming half incorporated ; notwithstanding which they finally became a twin fruit, consisting of two very nequal halves. In

the smaller only four cells of the seed were formed, in the larger but three. In other respects the structure was complete ; but each was furnished with a pair of elevated lines on the side next the line of junction, as shown in the figure. The nature of these lines is unknown to us. What is particularly deserving of attention here is, that the hairy surface of the young Apple flower of-

ferred no obstacle to the junction in question ; possibly it took place before the hairs had formed.

Such being the case, it becomes a question whether, in grafting seeds, it is at all necessary that the embryos should themselves unite. It may be indeed conceived that the firm, solid, highly carbonized, and scarcely azotized tissue of which such an embryo as that of the Orange consists, would from its very nature be unlikely to form an adhesion ; just, indeed, as grafters find that old wood is very difficult to operate upon. It is by the young tissue, when first growing, soft, tender, succulent, and rich in azotized matter, that junctions are effected. Is it not then highly probable, that if embryos are to be grafted on each other, the union must take place between the surfaces of the young radicle and the tender lengthening stem when first born ? We think so. And upon that supposition it may be a question whether the operation now under discussion may not be most easily and certainly performed by allowing the embryos to enter upon the early stage of germination before they are finally tied together.

Suppose a couple of Orange pips were allowed to grow just long enough to be handled, and then had, in each case, one of the cotyledons removed, so that the nascent stems could be secured to each other with collodion, or a film of India-rubber, or some such elastic matter. We only throw this out as a suggestion.

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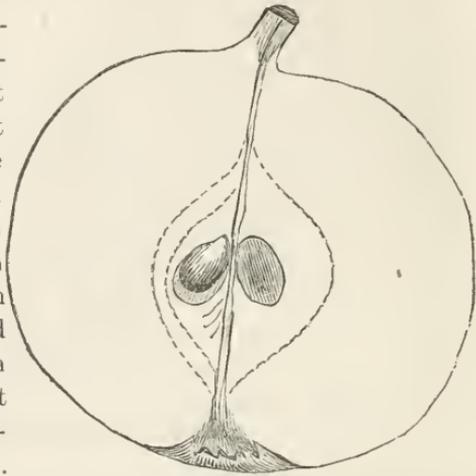
### THE BERGAMOT SECKEL.

BY ROBERT LINDLEY, (London.)

I have always eaten the little American Seckel with a relish surpassing that derived from any of the English, French, or Belgian sorts. It has a peculiar aromatic flavor that belongs to itself. It favors in taste none of the spicy tropical fruits, neither does it resemble in any point that of more northern fruits. It is anomalous to its class and is worthy of the distinction awarded it—the highest standard of flavor among pears.

In the garden it forms a nice tree, without the least assistance in the way of disbudding, or shortening in wayward branches, as is required by other kinds. It is a round, chubby shaped tree, filled

with short joined bearing wood, just such as most makes the gardener's heart glad. And then in the autumn it is a perfect show of brown checked tempting pears, not very large, to be sure, but they remarkably verify the old saying "short and sweet." I have four trees of the seckel pear, which I procured directly from nurserymen in the United States; they have grown finely and are at present quite large, bearing profusely every season.



The seckel was a great favorite of my former friend the late Mr. Williams of Pitmaston. He was a thorough pomologist, and took great delight in crossing the more estimable sorts of pear, in order to induce new varieties of merit; his success was quite variable. In nearly all of his experiments he used the Seckel for either one or the other parent. I have fruited one of his seedlings originated by crossing the Bergamot, an old variety, with the Seckel; therefore, it is named after both parents, "Bergamot Seckel," as it betrays each of their respective characteristics. The fruit in flavor resembles the Seckel, while in shape it is almost an exact counterpart of the Bergamot. With good cultivation, it attains the medium size, though generally below. In figure it is oval and very regular; Calyx very short and stiff, it is planted in a shallow basin.

The stalk is thick, short, and inserted slantendicularly without any depression. The skin is of a redish brown, very finely marked with specks of russet, which increase in number in the vicinity of the stalk. Flesh white, juicy, sugary, with all the spicy flavor of the seckel.

My specimens the past season where in eating the middle of November. If the keeping properties of the Bergamot Seckel were equal to either of its parents, I should give it the preference. The drawing I send you was taken from a medium size pear.

You perceive I have attended to your suggestion, respecting a diagram to represent the inside arrangement of the seed. I think it a very good plan, and shall observe it in future. I am much gratified at the appearance of the Review. It is certainly to be much commended as an individual enterprise. We do not get up such large works in England, unless under the patronage of societies. I shall occasionally send you such information of fruits and flowers, as, in my opinion, will be interesting to your readers, which I hope may be legion.

R. L.

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### PRUNING SHRUBBERY.

PRUNING is an important element in the proper management of the shrubbery, and requires as much attention as the pruning of any other trees or plants. The objects of pruning shrubs generally are, to modify the form, or lessen the bulk, of over-luxuriant specimens; the removal of dead, sickly, and misplaced branches; the shortening back, even to the extent of cutting over to within a few inches of the roots, such as are declining in health and vigor. In the case of many flowering shrubs, other considerations are to be kept in view, and these are founded on their natural habits and mode of flowering. As the Rose will be treated upon in another article, the remarks upon it are omitted. The Honey-suckle should be spurred into one or two eyes of the previous year's wood; Tree Pæonies often require their branches to be thinned out when too much crowded, but their terminal shoots should never be shortened, as it is at the points their blossoms are produced; *Weigela rosea* flowers upon the wood of the previous year, therefore removing much of that lessens the abundance the following season. The season of pruning the majority of shrubs is during Autumn and Winter, and that of coniferous shrubs and trees, late in the Spring, after the sap has commenced circulation.—*Western Agriculturist*.



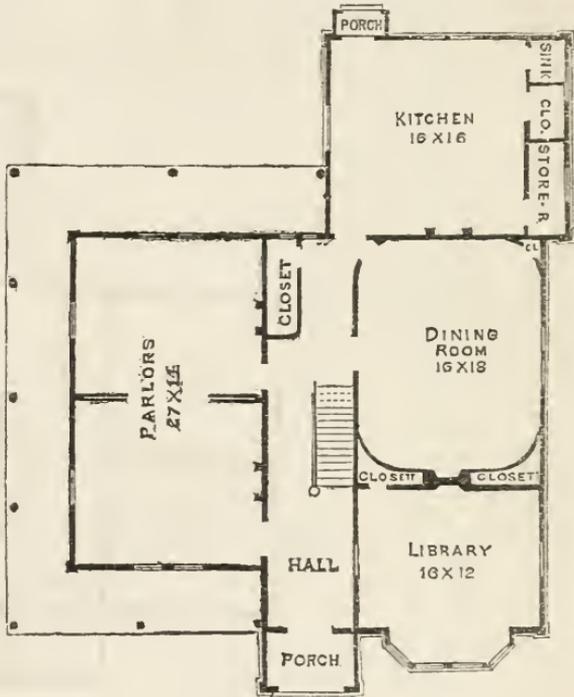
## FARM COTTAGE.

The farmers of the present day are awakening somewhat to their interests, as advanced by the erection of suitable dwellings ; buildings that will comport with the farmers' condition, and illustrative of his susceptibility to progressive and beautiful influences. And who more worthy, we ask, to live in a tastefully constructed house, than the swarthy visaged, hard fisted farmer, who has, almost since his eyes first opened upon the landscape and the harvest field, struggled with the tenacious clay, the resisting sub-soil, and the mellow loam, having wrung his "quotem" from commerce, and added many broad acres of fertile "intervale" and upland to his possessions, it is but meeting out a just and well earned reward, that in the "yellow leaf" of life, he should taste of that self-gratulation, and cosy independence, as suggested by a convenient and elegant cottage. Most unfortunately for the education of the rising generation of farmers, their worthy sires are not always imbued with that love for tasteful architecture, to expend thereupon any portion of their earnings. Now, then, we feel compelled to state that any individual whose ambition and energy have been expended in cultivating his modicum of sand or loam, and having enriched himself thereby, when such a person is content to live in an inconvenient box, we consider it downright, willful ignorance—stupid perverseness—and is as unpardonable as the dog who snarled over the contents of a certain manger. Example is contagious ; therefore, those who build for themselves elegant houses, are national benefactors, and deserving of a nation's thanks. We do not ask the farmer to build a castle like a feudal lord ; or a gothic villa like the merchant Prince ; but we do supplicate him to vacate his unreasonable prejudices, and construct for his family, if not for himself, a house after the fashion of some tasteful model ; make it simple in ornament, unique and convenient in design—picturesque, if you please. Plant trees, and shrubs, and modest flowers around it, and then live in it as becomes a good citizen and man, who has the beatific unction at his heart of having surrounded himself with such elegant comfort by his own judgment, resources, and unaided ingenuity. We can remember the time when people who dwelt in cities al-

ways associated farmers with that class of the human semblance who are enlightened by sending among them pictorial handkerchiefs, so violently opposed were they to imbibing information as promulgated in useful books pertaining to their peculiar avocations. The opposite of this willful barbarism has had its natal hour, and we are happy to chronicle the fact that farmers of the present day are representing us in the ruling places.

This desirable condition of affairs is mainly attributable to the inculcation of such sentiments as are aroused by the contemplation of examples of home architecture, which have been sown by such men as Loudon and Downing. The harvest is worthy of the minds and hands of they who scattered the seed.

There are a great many methods of building a convenient farm house, owing to the great diversity of opinion as to what constitutes convenience. Some hold the opinion that the portion of the house occupied by the family, and the dairy, and structures of a similar character, should all be sheltered by the same roof. Others, again, contend that the dwelling should be disconnected from all other buildings, that its greatest beauty and utility is arrived at when occupying an isolated position. To the latter opinion we claim to be a disciple, and to which we have endeavored to give forcible expression in the illustration entitled "A Farm Cottage," the essentials of which are comprised in a plainly ornamented exterior, and ample and commodious accommodations within.

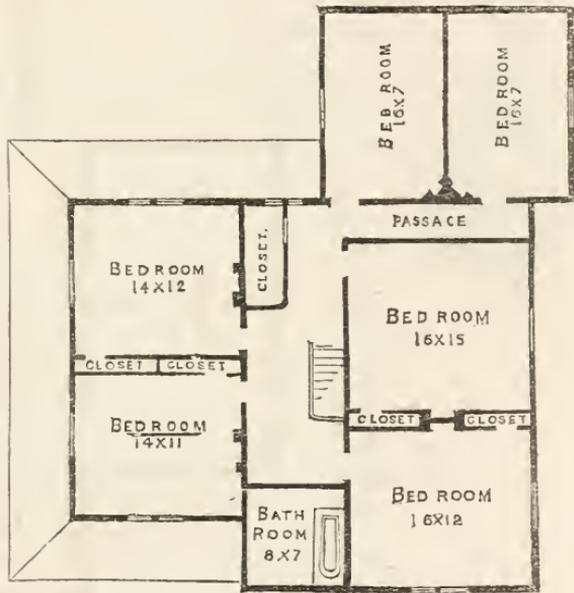


The elevation exhibits an agreeable diversity of form. We have the balcony window, the dormer window, porch over principal doorway, and lastly, that indispensable "belonging," the veranda.

It is the inside of the building, however, which puts forth the most potent claims for observance.

In the first place, there is a large kitchen, 16x16 feet, which has communication with the yard, dining-room, and hall. It also harbors those important items, closet, sink, and store room.

The dining room is still larger, being 16x18 feet ; besides connecting with the kitchen it admits you to the library and hall. The library is 16x12 feet. This is a room which in all well regulated families is of indispensable importance. Running parallel with the hall is a double parlor, 27x14 feet, connected by folding doors. Facing three sides of the parlor is a broad veranda.



Ascending to the chamber floor by a wide stair case of easy ascent, we arrive at the sleeping rooms, which are six in number, of the following dimensions, viz : 14x11, 14x12, 16x12, 16x15 feet, and two rooms of 16x7 feet each. The upper hall also contains a bathing-room, and clothes closet. The three large bed-rooms are likewise supplied with closets.

The material for this cottage may be wood ; the ornament is perfectly simple, and within the elaborating abilities of an ordinary carpenter—not that we would advise the non-employment of competent architects, but in many localities they are not to be procured. If desired, the chimney stacks could be built of brick, of

octagonal form. The entire cost of this building, in plain, durable workmanship, will be about \$2,500.

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## DEATH OF THE SEASONS.

BY ISABELLA STEVENS.

(*Concluded.*)



n that fair plain, beneath a tree o'er which  
A grape vine clambered; clad in russet hue  
Stood proud exulting Autumn. The golden  
Grain was waving in the sun. The aster  
And the orchies their petals bright unfolded.  
The ripened fruit hung from the vine crowned tree,  
And Autumn, as she gazed upon the scene,  
Laughed in merry scorning.

“Oh Death,” said she—

“Grim Death, though others fear and dread thy power  
Yet I do not, for blessings rich I pour  
Upon the grateful Earth, and I am called  
Benificent. When I appear Earth holds  
A jubilee, and Poets sing my praise.  
Thou canst not dim this fame so glorious;  
Speed, thou destroying Angel, speed thy way;  
My onward course must not be stayed by thee.”  
Thus with her radiant face and flashing eye,  
She boldly stood and hurled her gauntlet  
Of defiance, at all conquering Death.

E'en while she spoke a figure glided from  
The woods, and stood beside the haughty one;  
The sunset ray which tipped each tiny leaf  
With gold, now fell upon the face of Death,  
But woke no brightness there. The haughty glance  
Of Autumn fell beneath those wondrous eyes.  
And twilight shadows closed upon the two,  
The conqueror and the conquered. With white lips  
Proud Autumn murmured “Death I go with thee,  
With thee, Oh Death.”

The evening winds caught up  
The murmuring tone, while the mournful cadence  
In the distance died away, and then came  
Floating back the echo—“Death, Oh Death!”

Upon a moorland stood a tall pale figure ;  
And far as eye could reach, the Earth with snow  
Was covered o'er. On every side each hill  
And valley lay, enrobed in spotless white ;  
While o'er the distant horizon gleamed  
The snowy crests of ocean's waves.

And all  
Was still, *serenely* still, not voice or sound  
From busy mart disturbed the quiet  
Of that spell bound spot.

And in the sky  
Above, the moon moved on in majesty,  
Casting her peerless rays on all around,  
And bathing all the scene in yellow light ;  
So that it seemed like an enchanted land.  
But in the midst old Winter stood with locks  
All white and hoary ; and the moonbeams shed  
Their silvery radiance o'er those features pale,  
Bright'ning the eyes now dim with age.

And Hope's  
Bright star did light the depths of those dim eyes,  
As stars, at night, light up the turbid waves  
Of some deep, sullen river. Thus, Winter,  
Hoping to meet Earth's children, unattended  
By the pale conqueror's shaft, murmured in  
Tones low and tremulous : " I go to earth,  
But thy dire presence, Death, is needed not ;  
Man shouts no welcome when my voice is heard,  
But in the fastness of his home-retreat ;  
He draws the curtains—stirs the blazing fire,  
And while the raging elements without  
Are howling round, he hurls defiance  
To my power.—Still I would spare his lov'd ones,  
Spare the cherished forms he seeks to shelter  
From my grasp so rude.

But Death, all haloed  
Round with moonlight, did sternly gaze  
On Winter's furrowed brow—then from those eyes  
Fled the bright starlight, and in silence, side  
By side, they journeyed on.

Thus Death attends the footsteps of the seasons ;  
And whether Earth be bright and beautiful,  
Or whether it be desolate and drear,

Death still is there, to dim the brightness of  
 The brighter, or cast still deeper shadows  
 On the darker scene ; and where'ere he goes,  
 Earth's children mourn, " will not be comforted."  
 But to some he stands transfigured ;  
 And to such he seems the peaceful messenger  
 To unbar for them the shining portals  
 Of the " city of their God."—They clasp their  
 Hands as life is ebbing fast away, and  
 Shout exultingly :

"Oh, Grave, where is thy victory ?  
 Oh, Death, where is thy sting ?"

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## GARDENING—A REFUGE.

BY A. MESSER.



GARDENING, as a refuge and an antidote, is one advantage and blessing offered by horticultural pursuit, as yet not much alluded to. A refuge from what? A refuge from listlessness and that vacuity of mind which, to persons out of employment, sometimes becomes positively painful. There are those who, having been engaged in active and profitable business, during a long life, do, at last, begin to think seriously of retiring. Enterprising young men are ready to come forward and take their places in the workshop, or behind the counter, or in the professional office. But if they give up their place to others, how will they be able to spend the remainder of their days in a satisfactory manner? They know very well that it is a characteristic of human nature to be reaching after some object which lies in the future, and that efforts to obtain it are, if successful, attended with some degree of pleasure. In earlier life they engaged in secular business, and a leading motive was to obtain a competence for themselves and families.

We will suppose that the object has been attained. Shall they now propose to themselves a minor and inferior object of pursuit?

In such a tame and tranquil employment can they get up sufficient excitement to keep them alive? Happy is that man who shall have formed a taste for those simple pleasures which result from rural and horticultural occupation, before the exigency in question shall have arrived. So that when he shall find it expedient to leave the counting-room, or absent himself from the busy mart of commerce, he will find himself at home. There are some—there are *many*—who have followed their money-getting trades so long, and so zealously, that they seem to be rather worshippers of Mammon than rational and immortal beings, having souls to be cared for. Acquisition has become with them a passion and a confirmed habit. The chain of servitude may have been rivetted upon them imperceptibly and insidiously; but it is an iron chain, and hard to be broken.

Now what can be said of the garden as an antidote, (or, if you please,) a substitute? When a man, seeking recreation, retires to his garden, he is at once in the midst of many things to please and instruct. If he has a predilection for the study of Nature, his appetite can be gratified, and the result will be useful. Several departments of physical investigation, such as Botany, Vegetable Physiology, Agricultural Chemistry, and Meteorology, will be called into requisition. He will see an additional reason why these natural sciences are taught in our schools. He will see in many common things a striking illustration of the wisdom and goodness of God. For instance, that the sap of a tree, although nothing apparently but water, yet contains in itself all the essential elements to constitute all the different parts of that tree. One element has a peculiar adaptation for making the bark, another for the leaf, another for the solid wood, and yet another for the fruit. How different must be the elements which form the seed and the pulp of the grape; or the shell proper and the husk of the nut! The one contains a large proportion of flint, the other none; and yet that flint, in an impalpable form, and in particles extremely minute, ascended with the sap. Well did a philosopher inscribe on his garden wall: "Learn to look through Nature up to Nature's God."

And then as to *beauty*—what can excel the well-planted and well-kept garden, whether we regard the rich combination of colors in flowers, or the blushing tints and golden hues of selected fruits? "Who can paint like Nature?" It is not surprising that

our first parents were placed, while yet innocent, in the Garden of Eden, and taught to dress it. It is a good place to educate the children, for you can give a lecture on *vegetation* or *botany* with plenty of illustrations before you. And, as a good writer, treating "On the Pleasures peculiar to Old Age," refers to the "joyous spirit of children," and its influence on the aged, we would like to add that few pleasures are to be compared with that of the venerable father or grandfather who is gratifying the children with fruits and flowers of his own production. If "Music hath charms to tame the savage breast," and

"The man who hath no music in his soul  
Is fit for treason, stratagems, and spoils,"

we would modestly suggest that there is a music, addressed not to the ear, but the *eye*, and has much power to allay the stormy, wicked passions of the human heart. And how much this tranquilizing influence is needed to subdue the acrimony of political strife, or assuage the animosity of family discord !

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## THE HISTORY AND CULTIVATION OF THE ROSE.

BY D. W. RAY.

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ROSE freshly gathered, trembling with the dew that makes its brilliant colors more bright, is a fitting object to deck a bride or inspire a poet.

Roses come to us as the earliest flowers praised and known among the Ancients. "The mythological history of the rose is that the first rose ever seen was given to Hippocrates by the god of silence to conceal the amours of the goddess Venus ; and hence it became a custom among the ancient Greeks and Romans, at their feasts, and in their banquet halls, for the guests to place a rose over their heads, thus indicating that the guests were under no restraint, and that what was said would not be repeated elsewhere. Thus originated the practice of saying

“sub-rosa,” (under the rose) when anything was to be kept secret.

History tells us that “the rose gave name to the holy land—where Solomon sang its praises, as Syria appears to be derived from Suri, a beautiful and delicate species of rose, for which that country has ever been famous—and hence called Suristan, or the land of roses. The Island of Rhodes owes its name to the prodigious quantity of roses which formerly grew upon its soil.”

When Venice was at the height of her maritime power and glory, her merchant vessels always returned loaded with dried rose leaves, and their essential oils. At this age of the world, the traffic in fruits and attar of roses, silver and gold, and gems, comprised nearly the whole trade of the east. Trade in the “Otto” or Attar of roses, was by far greater than in any other article. Profane history of early times gives to Persia the honor of being the birth-place of the rose. It is supposed by naturalists to have been indigenous to the country, but being transplanted to a different soil and aspect, and raised from carefully selected seeds, it gave new and finer varieties, increasing both in size, beauty, and fragrance. “The art of hybridizing was not known until some time during the last century.” Botanists give over one hundred varieties of the rose that are distinct, and marked so as to be easily distinguished. Florists and nurserymen, in Europe and America, give varieties and sub-varieties to the number of eight hundred ; many of these varieties however, are so nearly alike that it takes an amateur to tell the shades of difference. The system of hybridizing has enlarged the list of varieties to a vast extent. Florists have classified and arranged the different species of roses, giving the Deciduous, the Evergreen, and the Perpetuelle roses, different classes. The different classifications of roses are as follows : climbing roses are in this country more generally cultivated than other varieties, as almost every cottage has its running rose of the prairie or Michigan varieties. The next class is the hybrid perpetual ; this class is the most numerous of all the varieties of the rose, and much more valuable for general cultivation as their habit is robust, their foliage deep emerald, of a fine glossy cast upon the upper side of the leaf ; they are in almost constant bloom, when properly treated, from June to November. The Austrian briars are few in variety, and the most valuable are the Persian yellow, and Harrison’s double yellow ; the

former has the sweet briar fragrance. The Moss roses are much admired by all lovers of the genus. Its mossy stem, crested calyx, and mossy buds will never cease to be the admired of all admirers. Some of the varieties of the Moss rose are perpetual bloomers.

The next class of roses we have to consider is the Evergreen. They are synonymous with the Hybrid China. These originated from crosses of the China, Bengal and Bourbon roses. Some of them are perpetual, and others not this class are closely allied in habit and growth to the Noisette. The Bengal and Tea scented China roses are the result of importations from China, and are distinguished from other varieties of China roses by their glossy leaves and smooth bark, and the distance the thorns are from each other on the stem. The Noisettes are most of them tea scented, some of them emitting a powerful odor. They are usually strong growers, and some of them of a climbing habit, often running thirty feet in height.

Among the Provence and other hardy summer roses there are many varieties that are eminently worthy of a place in every flower garden. The habit and growth of this class is low, shrubby, hardly ever attaining a height of over six feet. The Scotch roses, as a class, are the most diminutive in size of plant and blossom, of any class of roses yet described. They are unique in appearance, and cultivated and admired by many. There are other roses that receive by some florists separate classifications, among which are the Banksii, Mycrophylla and Musk Scented. These varieties can all be classed with those already mentioned.

We have now given the different classes of roses and their peculiar characteristics, and will proceed to give some hints upon their propagation and cultivation. The way to propagate the rose is by layering, as stronger plants may be obtained in less time by layers than by cuttings. The usual mode of propagating by layers is as follows: Select from the parent bush two or three thrifty sprouts, dig out the earth of sufficient depth to lay down the branch or shoot to be layered, prepare a stick with a hook upon it, or use a wire with a crook at the end, then lay down the shoot. First take a knife and make an incision to the centre of the shoots, or nearly to the centre. Make the incision from one to two inches, open gently with the knife, insert in the incision a small round piece of wood, leaving open the cut about one quarter

of an inch. In a few weeks the edges of the bark where this incision is made will commence to send out roots. The shoot should be well secured by the wires and covered with earth to the depth of from two to four inches. The time for layering is August—you then have a fine healthy plant to separate from the parent stock in the spring.

The soil for the rose should be rich strong loam, as it seldom thrives well in gravelly or sandy soils. If fertilizers are required, they should be finely pulverized and well decomposed. Liquid manure I think the best for roses, with a liberal addition of potash. Of all cultivated flowers, I think the rose the most gorgeous and beautiful. It is propagated with little care, requires but little attention, and well repays the cultivator for the little care bestowed upon it. I love the rose, and who does *not* love the queenly rose? He who does not, must bid adieu to all pretensions to perception of delicacy or refinement of taste. I think it beautiful—supremely beautiful—beautiful beyond the power of description. Beautiful in the unfolding of its earliest leaf, beautiful in its thorny branch, beautiful in its emerald glossy leaf, beautiful in the formation of its tiny buds, beautiful in every stage of their expansion, beautiful in the plenary fullness of its earliest bloom, beautiful in decay, and beautiful in death.

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## HORTICULTURE AND AGRICULTURE.

BY L. DURAND.

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ETWIXT the terms Horticulture and Agriculture there is generally supposed to be a wide division of interest and meaning, and are invariably treated as separate sciences. This, in my opinion, is an egregious error. The two terms are so intimately connected together that it is difficult to tell where one begins and the other leaves off. Many farmers seem to have an idea that Agriculture and Horticulture have no particular or special connection together. This idea is a great mistake on their part, for the two have a very special and

close interest with each other. Agriculture proper means the improvement and cultivation of the soil, on the farm at large, in the various kinds of crops grown, worthy of cultivation. Horticulture may be called farming more refined ; that is, garden culture, or the cultivation of all classes of vegetables, fruits, flowers, fruit trees, &c. So that the farmer should not only learn to be a good farmer or agriculturist, but he should also aspire to be a good horticulturist by practice. When the two are combined together with skill and practice, science, &c., the farmer then may stand at the head of his profession.

Few of us can or do have a just appreciation of what an improved agriculture and horticulture will have on the community at large in refinements and civilization. In fact, it is one of the motive powers of progress towards refining and civilizing man, in which all may partake and be benefited. The improvement of the soil has a peculiar effect, or will have, on all who will engage in its cultivation in the right spirit, to soften down the rough nature of man, and make him a creature of patience, hope, and good works. True, this may not be the case when the business is simply followed as a means to get a living and make money. But when the mind and heart is engaged with the hand labor to carry forward this business, then it is that the cultivator becomes a real improver of himself and his race. For instance, whoever saw or heard of an improved agriculture or horticulture growing up and flourishing in a land of "Heathenism and Idolatry?" No one. What does this fact prove then? It says, in plain words, that where the cultivation of the soil is neglected, from generation to generation, that misrule, barbarism, and Heathenism will take the place of civilization and the arts. This fact can be abundantly proved by past ages, and, of course, the same rule and practice would again bring about the same results in time. Again the improvement of the soil brings with it all the various kinds of rural embellishments of the day, which go to make up the happiness of civilized society. In fact, it would be difficult to name any special improvements of the age which does not have its foundation from this source as a starting point. If these points are true, then should not all feel an interest in promoting these objects, which all are so intimately connected with? Then, as we have shown that not only farmers and gardeners are interested in this development of the resources of the soil, but the whole com-

munity at large are brought in debt to this source. Of course we expect that those directly interested in soil cultivation as a means of obtaining a living, will feel more interest in this subject, than those not directly in connection with it. But still there is a principle beyond the mere "dollar" idea and view of the subject which is worthy of attention and consideration. In this grasping age we know the first question is, how much "money" can we bring out of it as a business? Our question now is, what is this business worth to us as an improver of morals, health, happiness, long life, &c.? Let every individual answer this question for himself at leisure.

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### McDOWELL'S RHODODENDRON.

BY J. VAN BUREN.

A new, hardy Rhododendron will be welcomed by the lovers of evergreen shrubs. The Rhododendron is certainly one of our most elegant trees, being equally admired for its foliage and flowers. Many persons who are professedly its advocates have, however, abandoned its cultivation as a garden shrub, for the reason that it will not submit to the same treatment as the Spirea and similar riotous plants; but if these same individuals would take a lesson from our brethren across the water, they would soon be able to conquer the repugnance of this plant to occupy dooryard quarters. Give the Rhododendron such soil as is adapted to its nature and peculiar habits, and it will thrive as well as in the districts it naturally inhabits. We have invariably had success after the following method of treatment: Subsequent to selecting a location, dig a hole at least three feet deep, and four in diameter, removing the garden mould; then procure a cart load of leaf mould from the woods, one of sharp river sand, and an equal quantity of peat or swamp muck; incorporate these well, and expose to the action of the atmosphere, by repeated turning with a spade. Fill the hole with this compost, in which plant your Rhododendron, and success will assuredly follow.

We are unable to write positively regarding the distinctness of the Rhododendron known as McDowell's, having only seen a beau-

tiful water-colored drawing, kindly forwarded to us by an old friend, J. Van Buren, of Clarksville, Ga., accompanied by the annexed description :

“DEAR SIR,

“ I send you a drawing and a leaf of the Rhododendron recently discovered by Mr. McDowell in the mountains of N. Carolina. It has been exhibited to most of our best qualified botanists in the U. S., all of which, with one exception, pronounce it to be a new and undescribed species. Professor Curtis, of S. Carolina, says it is the Catawbiense ; Buckley, who, next to Nuttall, is our best practical botanist, says it is a new species.

I have been acquainted with all the Rhododendrons of the U. S. for many years, and say it is entirely distinct from the variety I have always supposed to be Catawbiense, which is very abundant with us, and of which I have a hedge growing on my place. I have another one growing, of which I have never yet seen the flowers, which, I think, will also prove to be new and distinct. Next season will determine it, as it has formed flower buds this fall. It has a hirsute or pubescent leaf, which distinguishes it from *R. Maximum*, *R. Punctatum*, *R. Catawbiense*, and the new one described by myself in October number of the ‘Southern Cultivator.’

It is a nameless and undescribed variety of Rhododendron ; there is, however, a traditionary account of its discovery some 60 years since, by a botanist by the name of Fraser, then exploring this country, under the patronage of the then Emperor Paul, of Russia. Fraser died suddenly on his return to St. Petersburg, which, probably, is the cause of an account of it never having been published.

The annual burning of the forest in which it grows, usually destroys it, so that it is extremely difficult to find a specimen of it. Some four or five years since, however, S. McDowell, Esq., of Franklin, Macon Co., North Carolina, re-discovered this truly gorgeous plant, and for a year or two past has been engaged in propagating them, by removing the plants to his garden near that place. The shrub grows to the height of 4 or 5 feet, and is of easy cultivation ; the foliage is larger and more rich than that of the Pontic varieties, with which we have compared it ; the panicles of flowers, too, are larger and more brilliant in color. Mr. McDowell sent us a box of the flowers in June, which we com-

pared with those of *Ponticum*, which we fortunately then had in bloom, and which were inferior to it in all respects. The foliage also differs from it, being larger and heavier, having golden yellow foot stalks and mid-rib, the peduncles to the flowers being likewise of the same color, whilst those of *Ponticum* are green; the under surface of the leaves are nearly white, and of a velvety texture, differing from *R. Maximum* and *R. Catawbiense* in not becoming ferruginous. No native American flower can exceed it in habit and beauty, and it must become a popular acquisition to the shrubbery and flower garden, being sufficiently hardy to endure any climate. Its color is a bright crimson, approaching towards scarlet; the panicles are composed of a large number of flowers, from 20 to 30, forming a conical mass nearly as large as a man's head; the contrast between these and its dark green foliage is very rich and magnificent, and can only be conceived of by being seen.

The labors of Mr. McDowell have been both arduous and unremitting in transferring these plants to his grounds, as they have only been found on the tops of the highest and most inaccessible mountains—the only approach being on foot. He has employed men to bring them some six or seven miles on their shoulders, it being the only mode of conveyance practicable. Specimens of flower and leaves have been sent to many of our most celebrated botanists and cultivators of *Rhododendrons*, and, as yet, all have failed to identify it with any previously known, and it will probably prove to be a new species.

We hope the industry and labors of Mr. McDowell may meet with a suitable reward in the sale of his noble plant; and those who procure them, we will guarantee, will never regret having done so.

The drawing I send you is a very good representation of the flower I drew it from, being a medium sized panicle. I saw a bush a few days since which had twenty fine panicles of flowers, similar to this, the past season. It is perfectly hardy.

I am not interested pecuniarily in these plants, and only have one or two, which are growing in our flower garden. I only cultivate fruit for sale, as a business; occasionally sell a duplicate of some flower we may happen to have on hand. Our fruit crop has been unusually fine and abundant this season. We have many

very fine native varieties of apples and pears, which we are annually improving and extending in number every year.

I have now in bearing, and under cultivation and trial, some seventy varieties of Southern seedling apples, many of which are very fine, equal to the best of any country. [Which our Southern readers may expect to have figured in the "Horticultural Review—Ed.].

"J. VAN BUREN.

"To C. REAGLES, Esq."

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## CRITIQUE ON THE DECEMBER NUMBER.

BY EVELYN.



TATUARY, as ornament for the garden, has, in this country, tarried thus long without finding an exponent bold enough to advocate its claims. That there exists a taste for such objects cannot be denied, but

whether that taste is sufficiently developed, or has attained the necessary plasticity, to mould the imagery in tangible shape, is not so apparent. In many instances, individuals

who inherit a love for the fine arts do not possess the requisite pecuniary means to gratify their passion, for it is a notable fact, that genius

and the love of the beautiful is generally allied to a soul too noble, too unselfish in its aspirations, to pay that heed to lucrative

pursuits which the lesser gifted mortal considers the ultimatum of human career. So one division of Adam's family is deterred from indulging their natural inclination, while the opposite class unfortunately are innocent of the ambition; therefore the necessity of a teacher, who shall, by example and precept, instil

those sentiments essential to the cultivation of a proper regard and feeling for the fine arts. Generally, with the introduction of new sensations and unusual ambitions, come those bloodhounds and charlatans who feed and fatten on the generous impulses of the credulous ones who desire to soar beyond their neighbor with their recently acquired pinions. Thus are some made happy in the heart-lugged unction that they have acquired a genuine Titian at an enormous sacrifice (so says the wily vender). The good people are not aware in their enthusiasm of these newly-fledged passions, that Medician Venuses are as plenty as grave-stones, and in many instances nearly as faultless as the great original, but are comparatively valueless because Roman chisels were not at the quarrying.

I once heard an anecdote related of a talented artist who visited Rome, and, of course, ran the gauntlet of the chef d'œuvres in the Vatican. Having inspected the various gems of art as disposed in the galleries, he very innocently inquired after the precincts sacred to the works of Angelo and other celebrities. You may well imagine his surprise and chagrin when answered that he had just witnessed the efforts of the great "talked of."

The inference I wish to convey is, that iron statuary, correctly modelled from good figures, is quite as satisfactory, and is capable of exciting the same emotions, as the marble statue that costs fifty times the amount. It will be understood that these remarks are intended to apply to out-door decoration, as iron would be highly improper occupying a niche in one's hall or drawing-room. The figures you represent in the "Review," are very appropriate, and can, doubtless, be procured at trifling prices. Where sculptured articles are introduced in a highly picturesque landscape, I should prefer vases containing flowers, there being a greater degree of affinity, and betray a harmonious purpose. On some future occasion I shall take the liberty of again reverting to the subject.

CULTIVATION OF THE GRASSES—By L. Durand. This is, doubtless, the article promised in the October number. The importance of bestowing a more specific cultivation on this great "staple," grass, seems to be properly appreciated by this gentleman. Many people are desirous of maintaining a lawn whose verdure shall be as bright and untarnished in August as when the emerald carpet

in early spring suffuses itself on Nature's floor. Under the ordinary method of operating this cannot be accomplished—the burning sun and arid atmosphere scorches the grass, and yellow assumes the place of green. Now, one does not enjoy this desert look about his house, hence the necessity of devising some method by which yellow grass can be postponed until winter asserts its claim as destroyer. The only reliable recipe is to trench to the depth of three feet, or not less than two, and at the same time well incorporate a compost, in which the scoria of the blacksmith's forge, and furnace dust, are ingredients. The second indispensable procedure is to procure and seed down with grass that sends out long roots qualified for a *sub terra* ramble for moisture, when drought attempts to diminish its vigor. Such a grass I believe to be the Kentucky blue variety. Whatever kind of seed is used for the purpose this should be comprised in the mixture. I, for one, (and there are, doubtless, others,) shall always be glad to peruse such instructive and practical articles as Mr. Durand's.

THE NEW ROSES OF 1855—By Thomas Rivers—Whose opinion of Roses, as Captain Cuttle would say, “is an opinion as is an opinion.” The list of roses already comprise a greater variety than is really demanded to satisfy the most zealous and avaricious amateur. Unless new varieties are superior to those at present in cultivation, do not let the world know there is another aspirant for their devotions. Such roses as the “Giant of Battles,” “La Reine,” “Paul Dupuy,” “Chromontella,” “Souvenir De La Malmaison,” “Devoniensis,” and a host of others, are quite up to the mark of my appreciation. In them my desire ceases. Who covets more must be a miser indeed.

DEATH OF THE SEASONS—Good poetry (by no means common in this age of plagiarism) by a lady—Miss Isabella Stevens— young most certainly ; old hearts do not tune themselves with music upon which freshness rests and reflects its bright sparkle. The dew of youth is yet to be licked up by those scorching passions which beset the later conflict with life. Young hearts dream of the joys which reward accomplished purposes, and those joys, all so bitter, so replete with gall, we are feign satisfied with the merest sip. The young poetess permits her imagination to revel in thought of cloistered convent and old cathedrals, covered over with tracery of ivy, whose tall spires are companions of taller

trees, with giant arms. The conception is simple, childlike, and exquisitely related; and the intention is a fervid one—no ambition to outsing other poets, only a passing desire to revel awhile with beautiful Nature, and unfold the mystical labors of that skeleton figure who typifies decay and death. The Death of the Seasons is a *brochure* for which I unequivocally thank you, and shall impatiently await the finale to that which is so well begun.

COLOR OF COUNTRY HOUSES—By Calvert Vaux. Says the villager, "What can be more beautiful than a freshly painted cottage, brilliantly white from cellar to eaves, and window shutters of bright green for 'contrasts'?" Very good, Mr. Villager. But what says a neighbor who thinks he knows "a thing or two?" Why, his tune is devoted to a nondescript brown; and having been struck with the beauty of *brown*, it immediately becomes his *beau ideal*, and ever after its praises find in him an industrious chaunter. "Poh!" says another, "what a taste! Brown smacks too much of the Quaker 'snuff' colors;" give me yellow—it's a fast color, and defies storm and time. 'Handsome is that handsome does.'" The idea of many people is, to plant a house on a hill-top, and paint it in such a manner as to make it so irresistibly conspicuous that the eye of the observer is forced to take it in. Good spirits! forbid that my vision be usurped by such daubed specimens of the taste of self-sufficient improvers. Mr. Vaux takes the proper view of the matter of color, and his article will be of service to those who design dressing up with a coat of paint.

REMARKS ON TWENTY-ONE VARIETIES OF PEAR—By James Snowden. As practical as ever is Mr. Snowden. Persons taking the initiatory steps to planting fruits are frequently at a loss to select from the voluminous catalogue prepared for their inspection, replete with unpronounceable names of an infinite assortment of fruit trees, all highly extolled, and all possessing some qualification of a desirable character. The question arises, which of these varieties are adapted to certain localities, and, besides yielding their luscious fruit offerings, will successfully combat the peculiarities of climate. To this sadly perplexed class are such articles as Mr. Snowden's like the *mamma* that fed hungry Israelites. I intended giving a few notes myself, but space will not permit, and, therefore, defer it to a more favorable occasion.

NEW METHOD OF PERPETUATING THE PLUM—By Isaac Reagles. A new contributor and a new subject. While visiting eastern nurseries a few years past, I was particularly struck with the numerous blank spaces in the nursery rows containing plum trees. This, I was informed, was attributable to the great difficulty experienced in budding the plum, when operated like the apple and pear. The bud had the appearance of having grown to the stock, but the union was so imperfect that it had lost its individual property of germinating. Notwithstanding this lack of success, the old practice is still persisted in. The method adopted by Mr. I. Reagles is new to me, and certainly appears feasible, and I am glad to find nurserymen do not place such selfish importance on their little discoveries as to keep them concealed for their own emolument. Anything that will advance the interests of the nurserymen and fruit growers, no matter how trifling, should be divulged through some public medium, for the edification of those immediately concerned.

MODEL COTTAGE—from the pen of the editor. The frontispiece engraving is a perfect gem of ornateness—a cosy cottage nestling in the bosom of great trees. Such examples must improve the public taste, and give it proper direction. There are but few individuals in the United States, who, being desirous of building a house, but can conveniently afford to devote \$800 for the enterprise. The beautifully constructed and well ordered house is the precursory step to the education of children; and more—it places each peculiar occupant in the true social condition regarding one with another. It also enhances the value of real estate almost double the outlay, on which well arranged buildings are erected. The floor plan of your model cottage discloses convenient accommodations, and a thought for diminishing the labors of the housewife. This feature of economising labor in designing the convenience of a cottage house, is frequently overlooked—interior, in many instances, being subservient to a favorite exterior expression. No one better understood this than Mr. Downing or Lewis F. Allen, who has explained himself in a valuable book on farm architecture. Every man who has in contemplation the building of a home for his especial accommodation at some period of his life, should make himself familiar with the principles of architecture, in order that he may have a judgment of his own to dictate the nature of his requirements. Most happily, this condition of knowledge is already making a progress.

FOREST TREES—By D. W. Ray. A very good article indeed, and an equally good subject ; but I must take some exceptions. It is a little too general, and scarcely long enough to receive thorough treatment. Pray, friend Ray, give us more minutæ, a trifle more practice, and we (the readers of the Review) will award our benediction. Mr. Ray is evidently a profound lover of nature. I see in the Editorial Miscellany of the December No., he becomes slightly “umbrageous,” because, like an honest critic, I pointed out certain quotations. The necessity for an explanation did not exist, and therefore I was startled somewhat from my wonted beatitude, when, on scanning Mr. R.’s response, I discovered the critic criticised. Very good friend R, I acknowledge the correctness of the criticism, and hold myself amenable to the measure of rebuke to be meted out (I trust in a merciful mood.)

ENTRANCE LODGE—By H. P. Knight. Where one’s means are adequate to the expenditure, the gate lodge becomes a component of the large villa, not only desirable, but in a measure indispensable. These structures in this country are not so rare as Mr. Knight imagines. The banks of the Hudson river boast several extensive domains, appropriately decorated with the porter’s lodge at the principal entrance way. These buildings are generally small, and frequently they are rendered extremely ornamental by a lavish display of architectural fittings.

NOTES ON NEW AND CHOICE PLANTS. Among these, I notice a new dwarf *Salvia*, of compact habit, and a free bloomer throughout both the summer and autumn months. This will be a decided acquisition. The old varieties are quite late in blooming, and in extreme latitudes are frozen ere they expand a blossom. The color of *Salvia Rameriana* is also novel—a rosy carmine—a fine contrast with the bright scarlet of *fulgens* and *splendens*, and the deep ultramarine blue of *Patens*. Among the other plants described I discover some new conifers of a distinct habit. Evergreens are ever welcome, as are also such novelties as an Evergreen Rose, one of which, entitled William’s Evergreen Climbing Rose, is comprised in the list of new plants. A new Philox Queen Victoria, with flowers measuring an inch across, superb for bedding out. I like this plan of keeping us informed respecting the new plants which are brought into notice by the activity and praiseworthy enterprise of the European horticultural societies.

EDITORIAL MISCELLANY—on the second page of which I discover a letter from your correspondent, Prof. North. Humbly beseeching his forgiveness, I would, in partial exculpation, beg to state, I was led into error by that same malignant devil (printer's, I mean) who maliciously, I trow, substituted an *l* for a *d*, and thus the worthy Prof. became invested with antediluvian honors. By the way, Mr. Edward North, as you handle the quill like a veteran journalist, and talk of horticulture like one imbued with the true pomological spirit, why, I ask, do you not permit that spirit a little flight—give it an airing for the benefit of those eager feeders who are clustering around the ample table spread monthly—the Horticultural Review, I mean ; but a hint, &c.—so I write *adios, mi amigo*.

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## ON IMPREGNATION OF FLOWERS FOR RAISING SUPERIOR HYBRIDS.

BY A COUNTRY CLERGYMAN.

One of the greatest pleasures attendant on the pursuit of this art consists in raising new and improved varieties of flowers ; for, however beautiful flowers naturally are, there is no denying that they are doubly so when they come from the hands of the skillful hybridizer. In doing this, we are only taking advantage of the known laws that govern vegetable reproduction ; it is, on a small scale, art dictating to nature, and to that, in a great measure, we owe our many improved varieties of fruits and flowers. The field of experiment is boundless as the extent of nature itself. Thousands of flowers that our fathers looked upon as the pride and glory of their gardens, we now look upon as almost worthless as plants of ornament. Were some old amateur of half a century ago to have a look at our gardens now, he would be bewildered by the blaze of beauty that would meet his eye. The change is not greater in form than in substance ; the style of laying out gardens has advanced, as well as the productions with which they are enriched. For the majority of our most beautiful varieties of flowers we are indebted to the skillful hybridizer ; he soon gains a wonderful power over the color and form of vegetable existence.

We shall suppose him admiring some beautiful flower, but, alas ! it is too delicate for our surly climate ; it comes from some country where frost never congealed its flowing sap, or blighted its opening beauties ; still he admires and covets it ; he has some of the same family in his garden—hardy fellows, that brave every blast ; but they want the beautiful color and form of their exotic relation. Our amateur is one who has studied the structure and functions of plants, and the laws by which those functions are governed in their operations ; he thinks he may transfer the beautiful inflorescence of the exotic to its more hardy relations in the garden. And he does so : art triumphs over all, his skill and forethought are abundantly crowned with success. In thousands of instances has this transfer of inflorescence taken place, to the gratification of every admirer of nature's most lovely productions. The skill of the artist is rapidly changing the face of the floral world ; a standard of perfection has been laid before the florist, and all are bent on its attainment. The art, however, is but in its infancy ; there is not that precision and certainty in results which we think will yet be attained. However, much has been done ; it is an employment full of the most pleasant excitement, and one to which we would invite all amateurs to share in.

As the object of hybridizing is to improve in form and color, only the most perfect formed of flowers ought to be chosen for this purpose ; little advance need be expected, unless that rule be strictly attended to, as flowers that have been artificially improved are very apt to run back to their originals, unless urged on by the same superior attention that has brought them so far as they are. The plants to be operated on must not only be of the best and most perfect kinds, but they must also be in a high state of health, otherwise good seed cannot be obtained. When the flowers of a plant, intended for the seed-plant, are about to open, and just before they expand, the petals must be gently opened, and with a fine pointed scissors cut out all the stamens, taking care not to hurt the stigma. The reason for thus early cutting out the stamens, is to prevent the pollen on them from coming in contact with the stigma, which would defeat any attempt at cross impregnation, by being done in the natural way. The plant to be operated on and the plant to be operated with, must both be in the same state of forwardness as regards their blossom ; very soon after the petals are expanded is the proper time to apply the pollen of

one to the stigma of the other. This may be done in various ways : either by bringing the flower in contact, or by transferring the pollen on the point of a fine camel-hair pencil ; for various reasons we prefer the former way, when carefully done. After the operation is performed, which may be done two or three times, to make sure, it is important that no contact with any other flower be permitted, either by flies, bees, or otherwise ; to prevent that, we advise a covering of very thin gauze, or other similar material, until the petals have faded, then to be discontinued. The plant must all the while be in such a situation as that light, air, etc., will have free access, and due attention to watering, so as to keep it in full health.

In trying to gain a flower to the garden, it in general holds good that seedlings from crossed flowers assume more of the blossom of the male plant, and in general character and hardiness the features of the mother, or seed-plant, prevail ; that is worth recollecting, when endeavours to produce the inflorescence of an exotic to stand our climate is the object of crossing. The above rule will also apply in the case of plants of bad habit, as many fine flowers often turn out. By attention and perseverance, the flowers of a plant of bad habit may be transferred to one of the same family of fine habit, by impregnating the one of fine habit with pollen from the one of bad habit. The exact flower, in form and color, may not be produced, but a near approach may, and often does turn out, and very frequently something much superior

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#### THE RED CAMOMILE (*PYRETHRUM ROSEUM*) FOR THE DESTRUCTION OF INSECTS.

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For some years a vague report has reached us of a Caucasian plant having astonishing and eminently useful properties—that of destroying fleas and bugs ; it was also known that this marvellous plant belonged to the genus *Pyrethrum*, but the specific character was uncertain. This plant has been recently introduced into Brussels, in the rich collections of the botanical garden. We hope that in some years the red camomile shall have freed our people from one of the most abominable plagues which afflict sensi-

tive humanity. Some details of a plant of so certain a future as that the red camomile, will be, without doubt, acceptable to our readers.

In Transcaucasia, its country, this plant bears also the name of the *Persian camomile*, the *flea-killer*, the *flea-wort*. It forms a little shrub with perennial roots, branched twelve to fifteen inches high, bearing many flowers, at first a deep red, afterwards a clear or rosy red, and an inch and a half in diameter, (the size of the flowers will also cause this plant to be cultivated as an ornament in our gardens :) the stalks dry up after the ripening of the seeds, but the roots are perennial, and for some years may be multiplied by division. Freshly gathered, the flowers are not very odorous, but dried they acquire an odor so strong and penetrating that it kills all the insects and all the vermin, of which, until now, no certain agent of destruction has been found. The red camomile can bear 20 degrees Centigrade of frost, a temperature to which it is often submitted on the Caucasian mountains and on the plains elevated from 4,500 to 6,500 feet above the sea level. Although it inhabits virgin soil, it is easily brought into cultivation in gardens, and, since its energetic properties have been recognized, it is cultivated in a large way in different parts of Southern Russia. One very remarkable fact is, that the knowledge of the secret of the manufacture of the red camomile powder for the destruction of fleas, &c., only dates back, even in Caucasia, about ten years, while the employment of this strong powder was known in regions far distant from Circassia. It seems that an Armenian merchant, named Sumbitoff, traveling in the south of Asia, observed that the inhabitants sprinkled themselves with a powder to prevent the stings of insects. This powder was nothing else than that made of the flowers of the red camomile. Returned to his country, our Armenian told his son of the discovery, and taught him to recognize the plant. The son became poor by reverses of fortune, but bethought himself of his father's secret; he set himself then to make this powder, and retired with very large profits from this trade. In 1818, he sold a pood (about twenty kilogrammes) of camomile powder, at twenty-five roubles, (near one hundred francs :) and although the secret had been published, and every one knew the preparation of this powder, more than twenty villages in the district of Alexandropol were actually given up to the cultivation of the red camomile. The flowering of the *Pyreth-*

*rum roseum* commences in June, and continues more than a month. The flowers are gathered in dry weather. In one day a good harvester can collect from thirty to eighty pounds of these wild flowers. They generally dry them in the sun ; but it is remarked that those dried in the shade have more virtue. The bed of flowers is stirred from time to time to help the drying. Three or four days is sufficient to drive off every trace of moisture. To obtain one pound of dried flowers it requires about one hundred pounds of fresh ones ! They are then reduced to a coarse powder with the hand, and by means of a little millstone, or a little brass mill, a very fine powder, fit for use, is obtained. We see by this that the process is very simple ; the most difficult question is how to operate upon a sufficiently large number of flowering plants. To give an idea of the importance of the manufacture of this powder, we must state, that in Transcaucasia alone there are made each year for consumption in the Russian Empire, more than 40,000 kilogrammes. Baron Folkersahn has recently published a valuable paper on the cultivation of the red camomile. His memoir terminates with the following remarks :—That this powder preserves you from fleas and bugs ; it kills flies, gnats, maggots, lice, and even the worms which are produced in the wounds of our domestic animals. To kill insects provided with wings, they mix a little of this with a substance that will attract them ; for instance, to destroy flies, it is mixed with sugar. M. Folkersahn desires that the effects of this powder should be tried on other insects and worms hurtful to man or to his horticultural plantations. He adds, that if experiments demonstrate the efficacy of this powder, each person could cultivate in the corner of his garden a certain number of plants of red camomile, to kill the insects, caterpillars, &c., which ravage his field. From an approximative calculation, it is found that a space of eighteen square versts furnishes a quintal of powder. Mr. B. Roetzl, who lived a long time in Russia, states that the *Insecten pulver* (powder of the *Pyrethrum*) is imported every year from Persia and the Caucasian provinces, into all parts of the Russian Empire ; and that, used fresh, sprinkled over the window-sills, it makes all the flies fall instantly, asphyxiating them ; but that at the end of a year it loses its energy. He also states that it is the *Pyrethrum carneum* and *roseum* which produce this powder.—*Journal d' Horticulture de Belgique.*

## EDITORIAL MISCELLANY.



NOTHER year ; a fruitful one, all frosted with the snows of its culminated pilgrimage among us of material earth, has just been harvested by the garnerer of life. 1855 will be a cherished year in the memory of those who look to mother earth for their pleasure or subsistence. The resurrection year, the first in a long time that has returned the tiller an adequate compensation for his toil.

A precursor, we hope and fully be-

lieve, for years to come. Years in which the Horticulturist shall experience greater delights and larger rewards. Years that shall develop

the resources of this fertile land, and give its producers another fathom of knowledge in the sea of scientific cultivation. Pardon us, we do not mean a resort to the apothecary's art, but knowledge as obtained by the observation of enlightened, intelligent, practical men, who, instead of wasting precious time in pettifogging, have been attracted by the great profits of horticulture and its sister pursuits, given their endeavors to investigating its secret granaries, exploring those more minute branches which the careless and uneducated have hitherto neglected, or which in their film-covered vision they have failed to detect the gold hidden beneath an almost transparent surface. Old school cultivators, are however, beginning to throw off their prejudices, though with a deal of loathing, and urged on by example, are insensibly imbibing new principles and investigating new theories. It is very hard to do this, we confess. It is difficult in life's retrograde track, to play a game in which the tracks are all new. We still have a clinging desire for the fashions of our youth, and, therefore, with a hesitating consent, and a grudging hand, we imperceptibly allow them to slip from us. And now that rural people are scenting new game, and opening for posterity the doors of science that they may reap the reward, we would take advantage of the

propitious epoch, to urge upon those who think education, as imparted by the district school, sufficient mental lore to send their children from the parental roof to dig and traffic, to impress this class with a higher sense of duty to their offspring.

The farmer, to thoroughly understand his vocation, requires an equally large amount of scientific tuition as the lawyer or divine. The question arises, in what manner is this to be realized? We would answer, let the various societies throughout the country organize themselves into a body for concerted action, whose business it shall be, (either by private or public enterprise) to devote their time and energies to procure the erection of schools and colleges, for instruction in good understandable common sense science, as applied to *terra cultural* interests. Much can be performed by individuals, of which fact we have a great living evidence, in the Hon. Marshall P. Wilder *le grand pere de pomona et flore* in America. Let all who possess the leisure and means, contribute their mite to this gentleman's really arduous labors. Somehow it appears to us that many of the societies of agriculture and horticulture, existing in various districts, are extremely farcical. They lack, in many instances, leading men with the requisite ability. They convocate at stated periods, throw wise looks at one another, waste much valuable time in petty preliminary proceedings; occasionally discuss a subject which is postponed from one meeting to another, and finally goes under the table without a decision. This is the result of an insufficiency of earnestness; there should be more fixedness of purpose, more energetic action, more unity, and more deference to the opinions of those qualified to suggest subjects for discussion. And lastly, let every man who grows a currant bush, contribute his share to the support of some journal that advocates his interests. (We are not giving you a hint, for independent of being able to take care of ourselves, we have met with a success probably unparalleled in horticultural journalism.) Many well conducted sheets, devoted to agriculture have been compelled to discontinue, after a season of great vexation and pecuniary loss, for the reason that they were credulous enough to believe that they would be abundantly patronized, because the interests of an almost unlimited class was the subject of their labors. Now then, this same class engage heart and soul in the contents of a trashy, namby pamby newspaper, emanating from some of our large cities—The *Flag*

of our Union, for instance. (We beg the publishers' pardon for the liberty we are taking.) Written by silly love cracked spinsters, egotistical young men who parade themselves *a la* Byron, and misanthropical old men, whose hearts are withered with scorning their fellows, and who consider themselves isolated oases amid the mortal wreck by which they are surrounded.

It is the viscid effervescings of such ephemeral brains, that obstructs the road to refined and pure reading. The romantic distortions of these parapatetic literary nondescripts, render unsavory the unvarnished every day recital. The appetite is cloyed, satiated to repletion, and the very look of a useful or scientific work suggests a desert like aridity. In consequence, we require more education, that a purer taste may result ; so wishing *a happy new year* to one and all, we close the subject for the present.

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A WORD ABOUT OUR ENTERPRISE.—The readers of the Horticultural Review will readily perceive that we are putting forth the most strenuous effort to give them an elegant and useful serial. The present number is a pretty fair criterion of what it will be for the year 1856. No expense will be spared in the department of illustrations or the printed matter to make it worthy of their acceptance. Much surprise is expressed that we give so much for the price ; in answer we would reply that in order to do this profitably, requires a large subscription list. The present expense of getting out the Review, is about \$600 each number, beyond the receipts ; but if we may argue from the rapid increase of our circulation, this extra expenditure will not be demanded in three months from the present writing. We are not avaricious of profit, and have therefore determined to expend in the Review a large portion of surplus that may accrue, in improving, beautifying and enlarging it, to meet the wants of all. We feel much encouraged by the encomiums which have been lavishly bestowed by those capable of discriminating, and, therefore, whose opinions we hold in special regard. Besides the voluntary approval of the press throughout the United States, we have received much by private letters from eminent horticulturists. As an evidence of the estimation in which the "Review" is held, we subjoin a portion of a letter received from the HON. MARSHALL P. WILDER, President of the United States Agricultural Society. "*The general appearance of*

*your Magazine is so good, and gives so much promise of usefulness, I beg you to receive my subscription in support of your worthy endeavors."* Such letters afford us much gratification. It indicates that our labor is appreciated, and that the measures adopted are properly directed. If more of the good people will follow Mr. Wilder's example, our object will be speedily consummated. We do not intend to say much about ourselves in future, therefore we may be excused for the present egotism.

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NEW BUILDING MATERIAL.—The Cleveland Herald speaks of a new kind of brick which has been introduced there for building purposes. They have the appearance of granite, and are made of sand and lime, the blocks subjected to a great pressure while in nearly a dry state. In size they are ten by four and five inches, and hollowed, the indented part being seven by one and a half inches. After the bricks are formed into shape and pressed, they are subjected to the action of the atmosphere, and soon become as hard as rocks, and insensible to the frost or rain. These bricks cost twenty dollars per thousand; but the inventors say that they are cheaper than clay bricks that cost but three dollars, because they furnish so smooth an interior surface that no plastering is necessary, and being hollowed, the walls do not require to be furred.

(We doubt very much this statement of brick at \$20 per thousand, being cheaper than brick at \$3 per thousand, for the simple reason that the former require no finishing with a coat of plaster. They must either be furnished at a much lower rate, or become a luxury, and therefore limited to an exclusive class.—EDITOR.)

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I have observed that whenever the peach tree has been put upon new land—it has almost without exception, and does yet, thrive and bear for a series of years.

From this fact may we not conclude that there is some property in the soil of the newly cleared land, that were it called forth would aid us in the culture of this tree? Will some Chemist tell us what this is, how it can be obtained, or what may be substituted for it? The object is certainly worth their time, their investigation.

Again, it appears that the trees grown from rich land grow

rapidly, and generally bear but once or twice before they die while those on poor gravelly lands grow slowly, bear less luxuriantly, are more hardy, and endure longer.

From this fact we may learn that there is such a thing as driving this tree too much, and that our highly cultivated gardens are not the places for thriving Peach trees. In rich soils, the growth of the tree will be impeded, and the tree made hardy by clipping the ends off the branches often, especially those of the upright ones. If the branch is of any considerable size at the point severed, the wound should be covered with grafting wax.

With this culture the branches are all within reach from the ground, and the trees become hardy, (a good bearer) and often hold out for fifteen or twenty years.

Col. Roe, of Farmington, has a thriving orchard managed in this way, while his neighbors consider it almost an impossibility to raise a single peach. Again, I notice that several of the best peach orchards with which I am acquainted, are situated on land declining towards the Northwest, and from this I am inclined to believe that the Northwest decline is the best, owing, doubtless, to the fact that the tree in such situation would grow with less vigor, and be of firmer texture, than if on a Southern exposure, and consequently be better fitted to stand our winters.—*Exchange.*

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We are inclined to think with Mr. Longworth, that this country is destined to eventually enjoy as great a reputation for its wine as any of the wine growing districts of Europe. The great one, and hitherto apparently insurmountable barrier, has been the varieties of grape essential for the purpose. This difficulty has been partially removed by the discovery of native sorts, which have produced a *Liquor* that will compare favorably with the imported article. Mr. Longworth gives utterance to his experience in the following strain:—

Ours is the region for grape culture and manufacture of wine. The wine countries of Europe have no native grapes. Our hills and valleys are covered with vines, producing hundreds of varieties of grapes. Yet our Solomons have told us that our soil and climate is not calculated for the culture of the grape and the manufacture of the wine. I can pardon that opinion at the north, where they have the Fox and Frost grape only; but I now feel assured that I have on trial a few kinds of grape belonging to a

cool region—that in the Northern part of the State of New York, and in Vermont—which will be valuable for wine. I am not prepared to judge with certainty of the quality of many kinds I have now on hand. But I hope this fall to submit some wines to a select committee, made from new grapes, that shall compare with some of the best wines of Europe, of the same age. If our temperance men can be induced to respect the doctrine of the Bible, and not interfere with the culture of pure wine, not many years will elapse till we can not only supply the United States with wine, but include all Europe.

DETERIORATION OF APPLES.—In the Middle, Northern, and Eastern States, the Apple grows to a uniform standard of size, weight and flavor. In the Western States, they, owing to propitious circumstances, much exceed their natural size. The Michigan farmer remarks :—

“ Our attention has frequently been called to the fact that several varieties of Apple, that in the Eastern States and western New York, are long keepers, and were in this State when the trees first came into bearing, have so far deteriorated that they are matured and go to decay from one to three months earlier than they once did. Whether this is owing to the peculiarities of our climate, or whether it arises from accidental causes, or from the mode of treatment either of the trees in growing, or of the fruit after being gathered, remains to be settled. Whatever may be the cause, the fact is sufficient to arrest the attention of all fruit growers, especially those who contemplate enlarging their orchards, or setting new ones. If the *Swaar*, which formerly kept good till April, or the *Newtown pippin*, or *Russets*, which remained sound till May and June, are now matured in January and February, some other varieties should be selected to take their places as late keepers. Our Apples from trees about twenty-two years old, are so far deteriorated that our *Russets* and *Newtowns*, which formerly kept till June, are now in prime in January and February. *Swaars*, which ought to keep till April, are now matured and gone to decay before the middle of January. Our *Rhode Island Greenings*, which formerly kept till February, are now, in December, showing signs of decay.

Our Northern Spys, which, at the east are called late keepers, are now, December 15th, at maturity. Our Northern Spy were

grown upon a young tree forced into bearing by high cultivation, and bore the past season its first crop. The soil of our orchard is gravelly loam. We have enumerated these particulars to call attention to the facts. January and February will be the best, and with many the only time to make observations as to the extent of the deterioration. As far as our information extends, the fruit growers in some sections of the northeastern and western portions of the State, make the same complaint.

Apples have already become a staple of Michigan, and if the thousands of trees now growing, supposed to be the latest keepers, prove only to be medium, our markets will be nearly destitute of apples by the first of March, unless different varieties are grown. With us, the Newtown pippin has not proved itself what it is recommended to be in other locations; it is, three years out of four, scrubby, and of a diminutive size.

We do not wish to condemn it. We only<sup>7</sup> advise caution, so that orchardists may not set too freely until it is proved to be adapted to our climate. It may be well calculated for some locations and soils. We advise the same as to the Northern Spy. We consider it in flavor not equal to the Esopus Spitzenburgh, Westfield Seek-no-further, and some other sorts, and if it does not prove with others a later keeper than with us, it is unworthy of cultivation, because we have better varieties at maturity at the same time. The apple crop is of more importance than all our other fruits combined, therefore attention ought to be paid to it in proportion to its value.

(The only reason that we can surmise as conducing to this decline in the keeping qualities of apples in western regions, is the unnatural distension of the fruit, induced by extraordinary fertility of soil. This excessive growth entirely changes the character of the fruit, in many instances, to such a degree, that eminent pomologists have been puzzled to distinguish some well known varieties. The Roxbury Russet was so altered by its introduction to Ohio soil that it received a new name—a fresh claimant for the honor of its origin. If the character of a fruit is thus altered exteriorly, there must be a similar change in its interior economy. Everything in both animal and vegetable nature becomes coarse by excessive stimulation. The conducting power is for a time greatly increased; decaying influences have an easy access; and, lastly, the over excitement, the unnatural

stimulation, governed by the great law of Nature, reaction, consequent enervation ensues. The vital energy of the fruit is weakened, and, as a result, decay follows. In the Eastern States the soils abound in lime and phosphates. These produce in the tree firm tissues, in the fruit a firm and perfectly elaborated flesh, capable of withstanding deteriorating action until the proper season of maturation shall have transpired. The "Farmer" also remarks that the first year's fruit of a tree discloses all the peculiarities belonging to its variety. This may be accounted for in the well known fact that the powers of young trees are necessarily limited; and, therefore, it is physically incapacitated from taking advantage of a highly fertile soil until its resources are completely developed. Hence there is not much swerving in a young tree from the original type. We shall be glad to hear from others relative to the matter, as it is a subject of paramount importance.—EDITOR

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JAPAN PEAS—A NEW ARTICLE.—We saw exhibited on 'Change this morning, a sample of peas, which were raised on the plantation of Thomas Maslor, Esq., Moorfield, Virginia. The seed was brought by the Japan expedition, and carefully cultivated by the above named gentleman. They are a very beautiful article in appearance, of a straw color, round, full, and smooth, being about the size of a large buckshot—said to be exceedingly prolific, multiplying in great abundance, and of delicious taste.

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We received, a few days ago, from a kind correspondent, a box of rare California seeds, and several specimens of a "potato climbing Squash," and highly recommended for the table. Having tried the culinary virtues of this vegetable, and as it does not resemble any of the many varieties of the *Cucurbitacæ* family we have tested, we will describe it for the benefit of our friends who are partial to this Connecticut dish. The "Potato Climbing Squash" is a handsome, deep-ribbed, ovate-shaped fruit, about 8 inches long and 4 inches in diameter, in the largest part. Between the ribs is a stripe of dark sea-green upon a yellow ground—the other portions are bright yellow. The skin is remarkably thin; the flesh from one to two inches thick, of a bright orange color—very sweet, fine grained, and solid. Judging from its

sound appearance to-day (12th December) it would keep till May. Like most other winter squashes, it has three carpels. When separated into halves, baked like a sweet potato, and dressed with butter, &c., while warm, it is most delicious—equal, if not superior, to the sweet potato in flavor. From its convenient size, agreeable taste, and apparently good keeping properties, this squash may prove a valuable addition to our winter vegetables.—*Western Agriculturist*.

MR. SALTER'S VERSAILLES NURSERY, HAMMERSMITH.—The Chrysanthemums at this establishment are now in full beauty ; a large house, about eighty feet long, has been formed into a winter garden, in which some hundreds of varieties have been tastefully arranged and intermixed with Pinuses, Ferns, and other plants possessed of fine foliage ; therefore, as may be supposed, an excellent effect has been produced. Of late years few flowers have made greater progress than the Chrysanthemum. Those who remember the little variety called the Chusan Daisy, introduced by the Horticultural Society, would hardly believe that to be the parent of the beautiful Pompones now cultivated, and that in so few years its character could be so completely changed ; but such is the fact, for Mr. Salter, then residing at Versailles, introduced it into France, where it produced seeds, which have each succeeding year yielded flowers more perfect in form and of almost every color that could be desired.

Among the new varieties in this class we noticed Trophe, a rose pink ; Aureole, red crimson, with gold border ; Saint Thais, chestnut brown ; Mr. Dale, brassy yellow ; Fulton, rose and yellow ; Queen of Lilliputs, small blush ; Aigle d'Or, fine yellow ; Alexander Pele, red chestnut ; Mrs. Westwood, a silvery blush ; Lilliputian Regulus, a red cinnamon anemone ; Etoile du Berger, bright gold , Scarlet Gem was almost out of flower, but its dwarf habit and abundance of blooms in some measure show its character. To these may be added Creole, salmon and orange ; La Promesse, rose ; and Io, fringed lilac.

Among seedlings we noticed a large incurved flower, named Alfred Salter, a delicate rose, which is considered one of the finest Chrysanthemums yet raised of this color.—*Gardeners Chronicle*.

Among many curious plants raised in the garden of the Horticultural Society from the abundant collections of our zealous friend, Mr. Skinner, is this, which he describes as "an exquisite little thing," with ultramarine-colored seeds. It crawls over shady banks. Both leaves and flowers beautiful." From its great resemblance to a *Geophila*, it was provisionally named *G. villosa*, under which name it has been distributed. Now that it has flowered it has been identified as the *Coccocypselum cordifolium* of Brazil, which has found its way as far northwards as the forests of Guatemala. The flowers are in very small heads, about three together, of a pale lilac color, and of little interest in their present state; but it is conceivable that if carpeting a bank, and blooming abundantly, the appearance might be gay enough. It is, however, to the "ultramarine-colored" berries that we must trust for the beauty which belongs to the plant. The leaves are roundish cordate, of firm texture, shaggy, with stalks longer than the peduncles in the wild plant, though much shorter in the specimen that has just flowered.—*Ibid.*

EUPHARIS GRANDIFLORA.—This is one of the handsomest of bulbous plants. A correspondent (J. M. A.) has sent us a flower, pure white, thick, like fine kid leather, four and a half inches in diameter, and sweet, like a Tuberose in the evening. In appearance it may be compared to a *Pancreatum*, or rather to a *Eurycles*. The leaf is five inches broad by seven inches long, acute, somewhat heart-shaped, with the texture of a *Funkia*. Three or four such flowers as are above described form an umbel, on a stiff terete scape. The tube is curved and trumpet-shaped, more than two and a half inches long; the border is quite flat, consisting of six ovate segments, the inner overlapping the outer at the base. The coronet is fleshy, cylindrical, about half an inch deep, with eighteen thick teeth, every third of which is longer than the others, and bears an anther. The style projects a little, is very slender, slightly declinate, and ends in a flat bluntly three-lobed stigma. Each cell of the ovary contains about a dozen papilliform ovules.

The plant was found by Mr. Triana, one of Mr. Linden's collectors, in the province of Choco, in New Grenada. It requires stove temperature while growing, and a dry greenhouse when at rest, and is a charming thing.—*Ibid.*

A Georgia horticulturist writes us, that he has a new seedling strawberry, which he intends sending out the ensuing season, that will create considerable sensation among the consumers of strawberries, *au lait*. He says it is a cross between Ross's Phoenix and a native of Alabama.

"This new strawberry is of the hautboy order, immensely large, flesh very firm, and of more exquisite flavor than Burr's new pine, and with my culture is a continuous bearer. I believe it the finest strawberry ever produced. \* \* \* The plant is hermaphrodite in its character, fruit stalks very tall and erect, with fruit stems from three to five inches in length, being highly ornamental as well as delicious. As soon as the fruit ripens I will send you some, per express, and, although you may not get it in its freshness, you will be enabled to judge something of its quality."

In the letter containing the extract as above, we received a blossom of the plant. Although but a skeleton of what it had been, it abundantly verified the statement of extraordinary size, being much the largest strawberry blossom we have ever seen. We intend, at an early day, to give a representation of the berry and foliage, also an accurate description of the plant. We forbear doing so until we shall have realized our correspondent's promise of specimens, when we shall take pleasure in informing our readers of every particular.

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Mr. Wm. R. Prince, of Flushing, Long Island, informs us that he has left some twenty hills of the Chinese yam in the ground entirely unprotected, it being his determination to thoroughly test its hardiness and fitness for extensive cultivation. Mr. Prince's plantation of the yam was much the most extensive of any in this country the past season. Those who wish to procure tubers can, doubtless, be accommodated.

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PINKS—WILMER'S LAURA.—It is the character of some florists' flowers to disappear almost before the raiser or the trade have done extolling their merits; while others, and that but a small portion, get a world wide notoriety, increasing in votaries and admirers, and becoming familiar acquaintances. Such flowers are sure to possess qualities adapting them for the masses, requiring

no extraordinary skill to keep them from degenerating or dying out. Our present subject is an example in point. Although several years have now elapsed since the raiser, Mr. Wilmer, of Sunbury, in England, first brought it before the public, it is just beginning to be eagerly sought after and grown by the gardeners of this country. Its free flowering property in the open ground in summer, and in the greenhouse or windows in winter, make it one of the nicest flowers he can grow for bouquets, as a *pink* carries its recommendations with it, in the refreshing fragrance of its flowers. Planted out in summer, they are easily propagated by layers or by slips, even the layers throwing up a succession of flowers. It may with propriety be called a *monthly pink*. The flower is fair in quality as a *show* flower, and the base of each petal is marked with a well defined blotch of purple.—EDGAR SANDERS, in *Country Gent.*

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GROWING BASKETS OF FLOWERS.—A recent writer says: "Every case I recollect of seeing ivy and flowers associated the effect was agreeable. I have seen hundreds of ladies admiring and investigating the *modus operandi* of hillocks, or baskets of flowers, formed simply by driving rough pieces of wood into the ground, covering them with ivy, and filling the space within with earth and plants, having some of the outside rows of the latter of such a character as to interlace a little with and fall over the ivy. I lately saw a nice ivy basket on the lawn. Originally a basket had been made, with one central stem to support it, and against this ivy had been planted, trained up and round the basket. The original basket has long been gone, but the ivy retains the shape, and bears, without flinching, the weight of the earth and plants; the diameter of the basket being, so far as I recollect, something about four feet."

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EFFECT OF SALT WATER ON THE GERMINATION OF SEEDS.—As you have published notices of Mr. Berkely and myself on the length of time seeds can withstand immersion in sea water, you may, perhaps, like to hear, without minute details, the final results of my experiments. The seed of Capsicum, after 137 days' immersion, came up well, for 30 out of 56 planted germinated, and I think more would have grown with time. Of Celery only six out

of some hundreds came up after the same period of immersion. One single Canary seed grew after 120 days, and some Oats half germinated after 120 ; both Oats and Canary seed came up pretty well after only 100 days. Spinach germinated well after 120 days. Seed of Onions, Vegetable Marrow, Beet, Orache, and Potatoes, and one seed of *Ageratum Mexicanum* grew after 100 days. A few, and but very few, seeds of Lettuce, Carrot, Cress, and Radish came up after 85 days' immersion. It is remarkable how differently varieties of the same species have withstood the ill effects of the salt water ; thus, seed of the "Mammoth White Broccoli" came up excellently after 11 days, but was killed by 22 days immersion ; "early Cauliflower" survived this period, but was killed by 36 days ; "Cattell's Cabbage" survived the 36 days, but was killed by 50 days ; and now I have seed of the wild Cabbage from Tenby growing so vigorously after 50 days that I am sure that it will survive a considerably longer period. But the seed of the wild Cabbage was fresh, and some facts show me that quite fresh seeds withstand the salt water better than old, though very good seed. With respect to an important point in my former communication of May 26th, permit me to cry *peccavi* ; having often heard of plants and bushes having been seen floating some little distance from land, I assumed—and in doing this I committed a scientific sin—that plants with ripe seed or fruit would float at least for some weeks. I always meant to try this, and I have now done so with sorrowful result ; for having put in salt water between 30 and 40 herbaceous plants and branches with ripe seed, of various orders, I have found that all (with the exception of the fruit of evergreens) sink within a month, and most of them within 14 days. So that, as far as I can see, my experiments are of little or no use (excepting, perhaps, as negative evidence) in regard to the distribution of plants by the drifting of their seeds across the sea.

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BEECH OIL.—Amongst the various kinds of oil used in northern Germany, especially in the kingdom of Hanover, for culinary purposes or as materials for combustion, that extracted from the nuts of the Beech (*Fagus sylvatica*) is, on account of its numerous good qualities, deserving of notice. Beech oil does not play a prominent part in commerce, nor is it likely to do so, owing to the fact that it cannot be procured in large quantities ; the coun-

try people who collect the nuts, or cause them to be collected, use the greater part of the oil in their own household, and only dispose of the remaining fraction. This is the reason why it is impossible to give even a rough estimate of the quantity annually produced. About Hanover the nuts are gathered towards the end of October, or the beginning of November; this is done either by picking up by hand, those which have fallen to the ground, or by spreading out large sheets under the trees and beating the branches with poles, so as to cause the nuts to separate from them. The latter process appears, at first sight, least expensive; but as the good nuts have to be separated from the bad (abortive) ones, it is found, on closer examination, to be just the contrary. In 1854 about 25lbs. of nuts sold in Hanover for 1s. 6d.; 25 lbs. yield about 5 lbs. of oil, 1 lb. selling for about 7d. The oil is of a pale yellow color, and has an extremely agreeable taste. It is often adulterated with Walnut oil; the latter is even sold as Beech oil, and that may account for the difference of opinion entertained respecting the quality of the Beech oil. The townspeople use it chiefly as salad oil, but the peasantry employ it generally as a substitute for butter, &c., and only when there has been a good harvest of nuts, for burning in their lamps. The husks (epicarpia) are, after the oil has been expressed, made into cakes about 9 inches square and 1½ inches thick; these are used for combustibles, and not given, as some people imagine, as food to cattle. Both the oil and the cakes alluded to, are exhibited in the Museum at Kew.—*Hooker's Journal of Botany.*

**HORSE CHESTNUT FLOUR.**—The following is M. Flandin's plan of making flour from Horse Chesnuts. Grind the Horse Chesnuts, and mix with the pulp, carbonate of soda in the proportion of one or two per cent. at the utmost, and then wash the produce until it is perfectly white; 1 lb. of carbonate of soda will purify 100 lbs. of Horse Chesnuts, and produce 60 lbs. of flour fit for bread, as the salt removes the bitter principle from the nut.—*A. L. O.*

**ARTIFICIALLY FROSTED GLASS.**—Many are practically cognisant of instances where this kind of glass is used as a means of shading, so as partially to intercept the sun's rays; but the advocates of the practice must be blind, or they would see at once the ill effects of which it is productive. When used for such structures as vin-

eries, pineries, and houses devoted to hard wooded plants, every cultivator endeavors to prevent a prostration of the faculties of his plant when in a growing tender state by intercepting intense sunshine, at the same time admitting as much light as possible; but when such plants have completed their growth, their manifestations alone will teach us how indispensable is a due amount of this agent to the ripening of their wood; and how is this to be accomplished beneath frosted glass? The appearance of the Vines and plants grown under such disadvantageous circumstances will afford ocular demonstrations of the evil. The wood will be long-jointed, sappy, and watery, the leaves will have long slender petioles, and lamina of meagre size etiolated and pallid, thus deteriorating them until they become so constitutionally impaired as to be valueless in all their growing, flowering, and other properties, even if exposed to a clearer medium and more favorable circumstances hereafter. With such unfavorable demonstrations and impracticabilities attending this mode of shading, why not resort to a more expeditious, easier, and cheaper method, which will possess greater advantages and incur less risks than the method in question?—*Gardeners' Chronicle*.

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#### LITERARY NOTICES.

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VILLAGE AND FARM COTTAGES. *D. Appleton & Co., N. Y.*

A large number of works on rural architecture have been recently published, the majority of which, however, have been chiefly confined to such buildings as are both difficult and expensive to construct. Until the work under notice, none were exclusively devoted to that class whose means are limited to the possession of a few hundred dollars. Any country carpenter can build a house modelled after a dry goods box; but can such a house be elegant?—can it express any other purpose than simply a sort of waiting place, in anticipation of death's visit. It really is nothing more than a shelter from inclement weather. The people who reside in these uncouth packing boxes, have ambition very much like those who cast anchor in palaces. They desire to live beautifully, but they have been educated to believe that an approach to elegance, is the road to bankruptcy and destitution.

In this cherished prejudice, they become content to sequestrate themselves in houses that only afford shelter. The present work is intended to correct this erroneous impression, and teach those willing to receive instruction, the way to build a cottage that will rival in beauty the pretentious mansion, and at the same time secure a greater degree of convenience at a comparatively trifling outlay of money ; no more, in many instances, than the packing box house requires. The book contains one hundred engravings, exquisitely executed, and printed in an equally superior manner. Messrs. Cleveland & Backus Bros., are the gentlemen to whom we are indebted for the enterprise. It is written plainly; no technical terms are used ; that cannot be understood by the most ill-informed person. The book eschews all pretension to literary merit, and has its say and comprehends its instructions in such terms as will meet the unqualified approval of the class it addresses.

The price of the work is \$2,00.

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#### FRUIT TREE CATALOGUE.

We have received from A. R. Whitney, Esq., of Franklin Grove, Ill., his catalogue of fruit and ornamental trees. It is gotten up with much taste, is finely illustrated, and affords accurate descriptions of everything offered for sale.

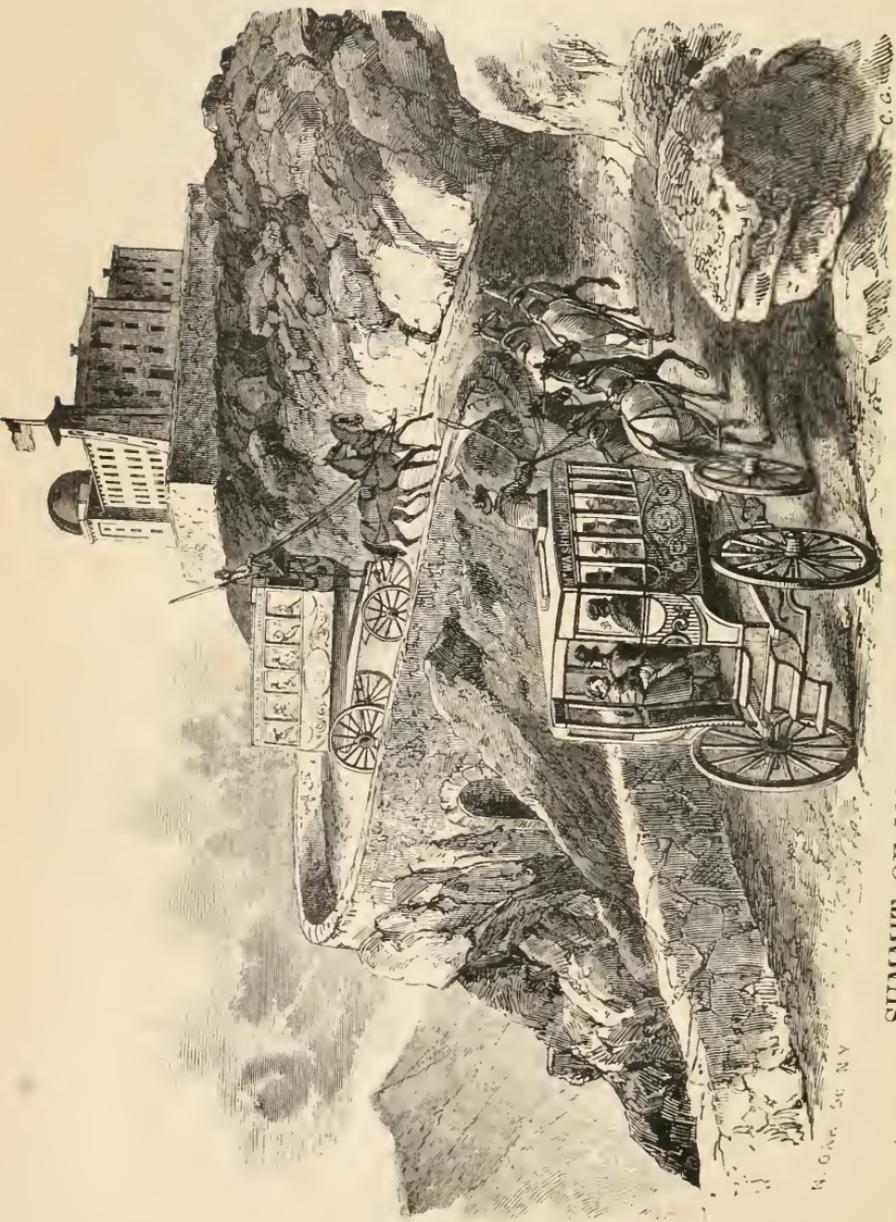
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#### HOLLY TREE INN. *J. B. Peterson, Philadelphia.*

A New Christmas Story, by Charles Dickens. It is quite needless to say anything in its praise. We have only to remark, that it is intensely Dickensy, every line, to insure its perusal by every individual who has sympathy for the truthful pictures of every day life. Price, 12½ cents.

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SUMMIT OF MOUNT WASHINGTON, (White Mountains.)  
(For Hort. Review.)

N. O. W. S. N. Y.

C. C. W.





A NEGLECTED ROSE.

(For Hort. Review.)





A CULTIVATED ROSE.

*(From London Florist.)*





LE VONIENS



New York  
Horticultural  
REVIEW.

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A ROSE IN THE WINDOW.

**B** leak winds sing their threatening lullabies, to ghostly music, as they whirl around the acute gables, and dash against the house walls, sighing on the door-sill, whistling through the key-hole, roaring through the wicket, murmuring in the distance, crackling among the tree tops, licking up the snow-flakes, it's a dreary wind that blows, and we hover around the cheerful fire. Although there is a cheerless prospect without, an opposite scene delights one's vision in the cottage window. There is "a rose in the window." Not one of those scraggy submissive rose bushes, whose flowers hang their heads because their etiolated stalks are not strong enough to sustain their lovely burthens. The rose in the window has had a loving hand to prune it, and prop it—to water it, and give it sunshine. Fair fingers have pulled off its dead leaves, and sprinkled a shower bath on living ones. The rose in the window has no fear of the icy king Boreas on the other side of its crystal protector, the back-log of tough hickory crackling on the hearthstone has given it confidence, and it goes on daily unfolding bright green leaves, and expanding its fragrant blossoms. There is perfume ; delicate, ethereal, diffusive perfume, and red roses in the window, four in all, and three buds dawning

specks of red, emulating their fully disclosed seniors. The storm has had its chatter, fairly blew itself away. The sunshine is flooding the window with its golden light. The rose-bush, with every flower erect, is revelling in the genial warmth. Bright eyes are feasting on the scene, ruby lips are inhaling the rose-buds breath. The hand that has nurtured the rose in the window, is requited for its labor.

We once knew a young man but six months embraced by marital ties, in his exceeding magnanimity, (he was at the mercy of a salary) wished to present his partner with a tangible evidence of his affection. He gave her diamonds, and "thereby hangs a tale." If he had given her a rose-bush, there would have been no melancholy sequel. The heart that has no throbbings for nature's first offerings, is scarce equal to giving the proper inclination to youthful minds; so have a care, ye youths, who are about to take a dive in the mysterious sea of matrimony, take the advice of "Jack Bunsby—skipper." "Give a wide berth to vimmen that aint been brought up with a flower-pot."

Years not few in number, have matured and been garnered since our vision was gratified by daily scrutinizing a rose-bush that surpassed all its fellows in its profuseness of roses, its numerous branches, its *maize*, and its delicious *attar of roses*. It was an ambitious vegetation, not satisfied with an ordinary habitation of clay-ware and two gallons of loam, so we gave it a chance in a wooden vessel of exceeding diameter, and proportionate depth. Our rose appreciated the distinction, and spread its glossy foliage to the sunlight emitted through eight panes of Dunbarton glass, of dimensions each, twelve by sixteen. Passers by without, wondered much at the plethora—the *embonpoint* of that rose-bush residing in an iron hooped pail in the window. Gentlemen of elegant taste declared it a prodigy. A little blue-eyed, flaxen-haired daughter, as she daily wended her way to the village school, would gaze into the window at the luxuriant rose-bush, forgetful that it was just twenty minutes past the hour for her appearance in Mistress Birch's precincts, sacred to crooked "pot-hooks" and teachings of young ideas to shoot. On one occasion, the little maid in her eager admiration, flattened her nose against the window, alas! for frail Dunbarton and Evisch curiosity, the glass shivered, the little one fled—her love for roses was rebuked, and ever after there was no necessity for a chiding from her precept

ress. It was a most wonderful rose. A prim old maid, Miss Wilky by name, importuned and pestered us oft and at various times for "slips." For her sake our favorite was shorn somewhat of its most aspiring twigs. Miss Wilky gave us her benediction and we gave her "slips;" but it was of no avail, no majestic riotous rose branches cast their shadows on her window bench. She had the rose twigs and we maintained our secret of success inviolable, but not for all time. Miss Wilky again waylaid us, she had ascertained by some necromancy that the volume, compactness and symmetrical shape of our rose-bush was owing to a peculiar treatment, which information we had kept *sub-Rosa*. Now Miss Wilky possessed an insinuating address and a speech of much sweetness. And thus it was we parted the secret of rose culture in earthen pots:—

Said we, "procure from the woods a proportion of leaf mould, which may be subsequently dried, pulverized, and sifted—to which should be added an equal portion of burnt sod. Animal manure well rotted, is the next best ingredient—provide of this a similar quantity, season all, and thoroughly incorporate with the mass, a small contribution of yellow sand loam,—it makes the compost friable and facilitates drainage. Now you have the soil. The roses best adapted to pot culture, are Teas, Bourbons, and Noisettes. We do not include the hybrid perpetuals, their season of bloom being doubtful, intermittant. *Devoniensis*, (*Tea*), is a superb, free blooming, white rose; extravagantly large and emits a delicious fragrance. *Souvenir de la mal Maison*, (*Bourbon*), is also a large rose of a delicate flesh color. It has a good habit, is a profuse bloomer, and requires a large pot to attain its perfection. In choosing roses for pot culture, care should be observed to select those possessing a vigorous constitution and rampant growers. A rose to bloom well during the winter months, must be permitted rest during the previous summer—placed in a cool shaded situation will secure the object. In September, the plants designed for the window should be cut down and re-potted in the compost previously described; after which, place them in a cold frame for a few weeks, admitting air during the day and keep close at night. The plants will immediately commence growing, and by the first of October, will show flower buds which should be carefully pinched off. Such stems as show an inclination to outgrow their

fellows may be shortened in. Irregular branches, or such as will mar the symmetry of the plant should be cut out. At this time, a second plotting should be performed in pots two sizes larger, using the same compost. Place again in the frames—the growth will now be somewhat retarded by cool nights. As it is desirable to keep the plants in growing condition, they may be kept closer in the day-time and the sash covered with mats at night. By the first of November they will be in condition to remove to the window. To grow almost any plant successfully in the house, there should be provided a projecting or bay window, as it admits light from three sides. To make the bay window perfect, quite equal to a green house, a sliding sash should be constructed on the inside, so that the plants can be secured from the dry atmosphere of the dwelling room. Place your rose-bushes in the window and close the sash; the thermometer, ordinarily, will range about sixty—in the day time if there is a bright sun it may reach seventy. With this heat the plants will grow finely, which should now receive a weekly allowance of liquefied guano. As the branches extend, pinch their tops, and also decapitate any buds which may show. This pinching the leading stems will induce side branches and a bushy habit. If the green fly appears, place a handful of tobacco in a small furnace, apply fire, and place it in the window, which close tightly by means of the inside sash, let it remain for about twenty minutes, after which plunge the tops of each plant in a tub of fresh rain water, “with the chill taken off,” wash them thoroughly and place in the window. By the middle of December, if the plants have been properly treated, they will be well grown and bushy with numerous side branches.

The latter part of January a profusion of bloom buds will be apparent; these should be permitted to expand. If the plant has received proper treatment there will be a scarcely perceptible diminution of blooms for the remainder of the winter and spring. Liquid guano will incite growth, and wherever new wood is produced, flower buds are the consequence. Miss Wilky had listened to this rather prolix recipe without an interruption. An interval of rest, which her tongue had not experienced since it first essayed to syllable Anglo-Saxon; but it soon made up for the unwonted dirilection, for we were almost immediately overwhelmed by a profusion of grateful acknowledgements, which, if Miss Wilky

uttered truth, her obligation were so enormous that a life-time's devotion would scarce prove adequate to cancel.

Our readers would doubtless be glad to know the names of such varieties as are the most agreeable, and easily subjugated to pot tillage. Anticipating the desire, we have prepared a list of those likely to reward the cultivator with an abundance of roses and perfume delicious, in exuberant installments. To commence with the *Teas*, we give first position to *Devoniensis*; (our engraving is an accurate representation). It is a vigorous grower and possesses a free blooming habit; in color is a creamy white, with a delicate shading of pink. *Abricote* is a fawn color, a robust plant and extremely hardy. *Adam*, a bright rose color, very large, an elegant variety. *Gloire de Dijon*, a magnificent fawn color tinted with salmon; the underside of the leaves are pink—quite unique. *Eliza Sauvage*, light yellow, with a brilliant orange centre. *Safrano*, fawn color; the buds previous to expansion, are bright pink. *Souvenir d'un Ami*, rose color, very large. *Bougere*, a bronze rose, a free grower and distinct habit; one of the best. *Madame Millermoz*, a new variety, white shaded with salmon. *Mirabelle*, a delicate species, sulphur yellow bordered with purple, exceedingly pretty and striking. *Niphetos*, pure white, very large. This will be enough of *Teas*. There are many more varieties recommended, but they do not differ materially from those described.

Among *Bourbons* we place the *Souvenir de la mal Maison*, flesh color, large and finely formed. *Aurore du Guide*, crimson and violet—an elegant flower. *Edouard Desfesses*, a most exuberant bloomer, medium size, bright clear rose color. *George Cuvier*, carmine, perfect shape and a good bloomer. *La Florifere*, an abundant flower, deep pink. *Madame Angelina*, light fawn color, compact habit—beautiful. *Paul Joseph*, bright purple—a splendid dark rose. *Souvenir d'un Frere*, cherry color, quite distinct, dwarf habit. *Queen*, a free bloomer, fawn color. These comprise the cream of *Bourbons*.

The *Noisettes* are not so well adapted to pot culture as the *Bourbons* and *Teas*; they are mostly climbers, and comparatively shy bloomers, producing their flowers in clusters. The best of which are *Augusta*, a new American seedling introduced by Thorp, Smith & Hanchett, of Syracuse, N. Y. It is in general appear-

ance, much like Solfatere, differing in possessing greater depth of color and more fragrance. It is a clear sulphur yellow. Lamarque, lemon yellow, a fine old sort with rambling branches. Feltenberg, crimson, very pretty and distinct. Vicomtesse d'Avesne, rose color, a prolific bloomer. Solfatere, sulphur yellow, a fine rose. We have omitted Chromontella, although a superior rose, it is not satisfactory, being a shy bloomer. Hybrid perpetual, or remontantes are occasionally grown in pots with happy results. This class of roses thrive best when on their own roots, they require very rich soil. Duchesse de Montpensir, a blush of exquisite shape. Geant des Batailles, brilliant crimson, one of the best of its class. La Reine, a universal favorite, exceedingly large, opens well, bright rose color. Paul Dupuy, crimson and violet, very desirable. Leveson Gower, bright red, a profuse bloomer. General Badeau, carmine, fine shape. Lucie de Barante, very fragrant, brilliant rose color.

There's roses enough to satisfy the greediest lover of the thorny beauties ; and the man who is so acidulated as not to relax somewhat of his acrimony in the presence of a rose tree, is not worthy of a future paradise. One discovers in a day's ramble, many roses occupying cottage windows enduring their imprisonment in a very unhappy manner, if their jaundiced countenances may be taken as evidence. One day they are flooded with soap-suds, the next they are fevered by intolerant drought ; the thermometer in the winter season ranging in twenty-four hours all the way from freezing point to blood heat. And then on washing days, they get such a steaming as quite prostrates the little vital energy remaining in their enervated systems. The good housewife ruins the constitutions of her rose plants, and is a perpetual lease of wonderment because she does not get flowers once a month.

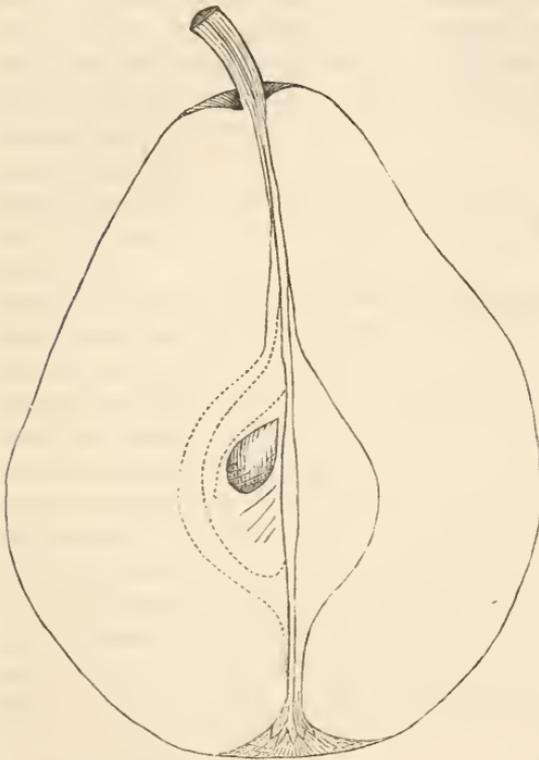
Sometimes a little skeleton of a flower, looking much distressed, takes a brief inspection of domestic matters, and then fades away, withers, and is quietly gathered to the home of dead roses. A sickly rose is a most pitiful picture of dejected vegetation ; *per contra* a healthful, flaunting rose-bush, arouses all the gentle and kindly emotions that adhere to our hardened natures. Reference to our frontispiece plates entitled, "a cultivated rose," and "a neglected rose," will amply satisfy the most skeptical of the advantage acquired by possessing the requisite knowledge for treating pot roses.

## THE GRAND BRETAGNE AND VERULAM PEARS.

BY JAMES SNOWDEN.

I HAVE just devoured (December 30th), my last pear of a variety I received from abroad, under the title of *Grand Bretagne*. In

exterior appearance it bears a marked resemblance to the *Beurre D'Anjou*—indeed, so strong is the likeness, that were it not for the lateness of its maturity, I might believe it synonymous with the latter kind. The tree grows stout and vigorously, with dark, yellow shoots, which stand very erect. This valuable property will much enhance it in the estimation of nurserymen, who are rapidly losing all conceit of trees



that form tortuous branches, as they sadly disparage the profits of their products.

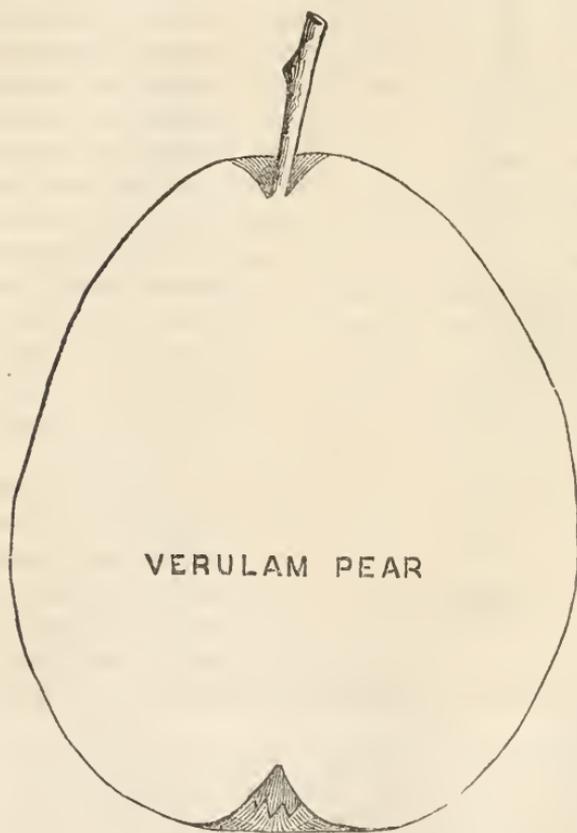
The *Grand Bretagne* is of the largest size; *form*, obtuse, obovate; *skin*, greenish yellow, with russet dots just perceptible; *stem*, half an inch in length, and quite stout, inserted in a moderately deep basin; *calyx*, open with flaring short segments, exposing a tolerably deep hollow; *flesh*, fine, juicy, buttery and melting; *core*, small in comparison to the size of the exterior flesh

surrounding it ; *seeds* plump and perfect, but few in number ; *ripens* latter part of December and first of January. Mine were preserved in a cool, dry room.

In looking over a recent number of the "Gardeners' Chronicle," I discover there described, a pear, which, for its stewing qualities, I should imagine worthy of introduction in this country. A fine red tinge to stewed pears, the good wife says, is indispensable, and she moreover adds, that it is a pretty positive indication of the presence of sugar in abundance. The addition of large quantities of sugar or syrups to pears, to a considerable extent, destroys their natural flavor. A similar disastrous result

is experienced when resort is had to coloring matter.

Mr. Downing, who well understood and appreciated the culinary properties of fruits, advocated certain varieties of pear for stewing and baking purposes ; latterly, however, this object has lost favor, giving away to excellence for desert requirements. It is for this reason that I would press the suit a little strenuously for



the former qualification. The Verulam Pear, it is said, when stewed becomes red, without contributing coloring matter. No

other variety that has come under my observation possesses this singular quality. I subjoin the description communicated by a correspondent of the "Gardeners' Chronicle":—

THE VERULAM PEAR.—*Syn.* Buchanan's Spring Beurre.—Under the latter of these names a tree was received into the collection of the Horticultural Society, from the nursery of Mr. Buchanan, of Camberwell, in 1828. The name, however, is objectionable, inasmuch as the fruit is not properly a Beurre, nor is it asserted that the variety was raised by Mr. Buchanan. In 1827, however, a cutting was received from Mr. Jutler as the Verulam Pear, which proved to be identical, and this name is considered the better one to adopt.

The fruit is produced all over the tree with great regularity, and it is remarkably uniform in size, which is similar, in tolerably good soil, to that of the fruit here represented, from a standard; but in rich soil it grows considerably larger. The form is regular. Stalk, slender and woody. Eye rather open in a slight depression. The skin is strong, and with its bronze-like close coating of russet, is well adapted for protecting the fruit for a long period. The flesh is crisp and juicy, and in good seasons becomes tolerably melting, especially if placed in a temperature of from sixty degrees to sixty-five degrees for some weeks previous to using. Its principal merit, however, is as a stewing Pear, for which purpose it is found to be excellent, and acquiring a fine rose color without the aid of cochineal. In this way it may be used all through the winter and till May.

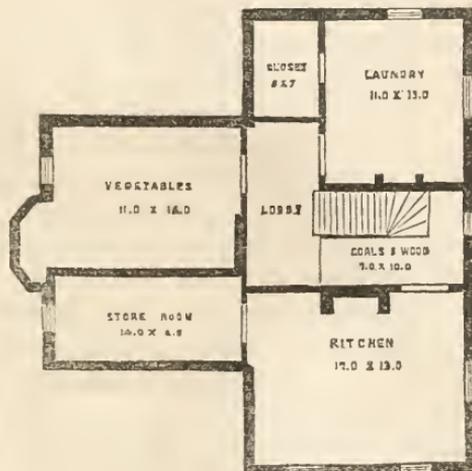
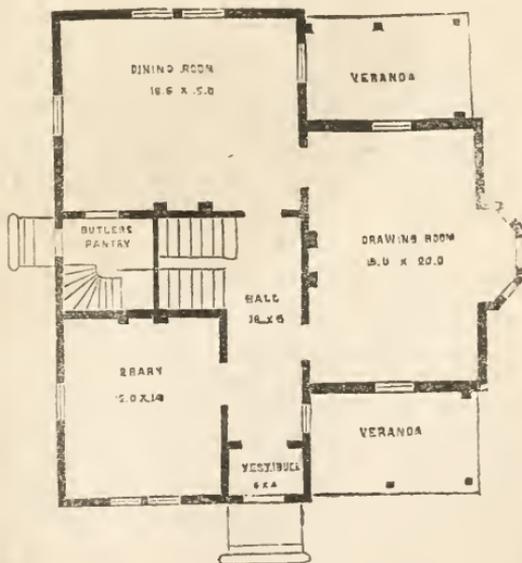
The tree is hardy, forming a round spreading head, and bears abundantly. Shoots, moderately strong, dark olive, sprinkled with both round and linear grey specks; leaves, middle-sized, somewhat obovate, acuminate slightly serrated; petioles, slender, about  $1\frac{1}{2}$  inch in length. A variety of Pear that is hardy, an abundant bearer as a standard, and which keeps sound like the above, must be considered a valuable acquisition. R. T.



SUBURBAN VILLA—A WATT ARCH.

## SUBURBAN VILLA.

SUBURBAN villas of the present day are so multiform as regards exterior elevation, that it is almost an impossibility to recognize the order of architecture by which they may be designated. The one under notice presents some prominent features of the Italian style, and consequently may not inaptly be termed a pseudo-Italian villa. The flat roof is wanting to complete its resemblance to pure Italian, as also several details of a less conspicuous and important character. The campanile, instead of projecting boldly out from the main structure, is flush with one-half the building, and projects sufficiently on the other half to afford a spacious verandah.—The pitch of the roof has a tendency to deteriorate somewhat the value of the tower, when ornamentally considered, making the sky line feeble and monotonous. The tower is a strong feature in Italian architecture, and therefore develops picturesqueness on its individual responsibility. It is in

PLAN OF <sup>ST</sup> BASEMENT FLOOR.

PLAN OF PRINCIPAL FLOOR.

consequence marred to a certain degree when backed by a steep pitched roof. The other appendages to the elevation are oriel window, dormer window, and a railed window over the principal doorway, operating as a protection to the entrance, and also giving it an appearance of elaborate finish without the expense incurred by the reality of such actual completeness.

*Accommodations.*—The basement contains a large and commodious kitchen, 17x13, in direct communication with a capacious store room, 14x6, vegetable room, 11x14, and coal cellar, 7x10. On the opposite side of the lobby or hall is a laundry, 11x13, and closet, 5x7. These rooms are all of easy and convenient access. From the lobby a staircase communicates with the principal floor above. A hall is first entered, 18x6; from the hall you reach a dining apartment, 18x15, drawing room, 15x20, library, 12x14, vestibule, 5x6. Off the dining-room is the butler's pantry. The chamber floor is entirely devoted to sleeping apartments and closets.

A building of this description should be constructed from stone or brick. If the latter is used, stuccoing will impart an agreeable finish. The wood-work should be of the best clear white pine. The cost will not exceed \$6,000.

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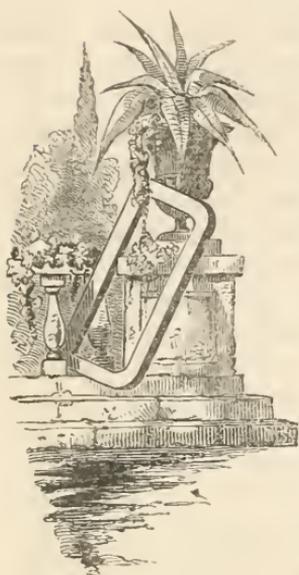
*QUICK THAWING.*—Many plants perish of cold, not so much because of the cold itself, as because they are thawed rapidly. A row of frozen Peas facing the morning sun, is completely cut off by a degree of cold unfelt by the very same crop screened from the sun. A lot of bedding out plants are frozen hard in a neglected vinery; get up the heat and they die; shade them, and thaw them very slowly, and they are as fresh as ever.

A couple of examples of what happened in France last winter may assist in rousing the incredulous to an appreciation of such facts. Last January a gardener had the ill luck to have a batch of Pelargoniums frozen in spite of all the care he could take to shelter them. As soon as he found out what had happened, he put half into a greenhouse and half into a cellar. The first lost all their leaves, the second were completely saved. The same person took up his fine solid Celery, and left the plants at the foot of a wall facing the south. When the severe frost set in he had no time to take them in doors, and therefore covered them well up. The thermometer, however, fell to 5°, and the plants were frozen. He then removed some to his kitchen garden shed, and the rest to an Orangery, where the temperature was kept a few degrees above freezing. The next morning the Celery in the shed was all right, but that in the Orangery was rotting fast.

So much for quick thawing!

## DETERIORATION OF APPLES.

BY L. DURAND.



DETERIORATION of Apples. In the "January Review," you copy a short note on the above subject from the "Michigan Farmer."

The writer goes on to show in substance, that the various kinds of winter apples in Michigan, have shortened their time in keeping during the last twenty years, three, four and five months from what they originally were. He says: "Apples have already become a staple of Michigan, and if the thousands of trees now growing, supposed to be the latest keepers, prove only to be medium, our markets will be nearly destitute of apples by the first of March, unless different varieties are grown. With us the Newtown Pippin has not proved itself

what it is recommended to be in other locations; it is three years out of four scrubby and of a diminutive size, &c." For the last twenty years the Newtown Pippin apple has been deteriorating in juiciness and size, until it has now become apparently worthless for cultivation in all this section of country. For twenty years previous to this time this apple matured and grew well in this section, according to report from old orchardists and from what we can judge by the number of middle aged trees of that variety in the orchards. We believe that these remarks in regard to this apple, will hold good through New England; but what the cause of this deterioration is of course more than we can tell, or probably any one else. But Downing says in his "Fruit Book," that the Newtown Pippin flourishes and matures well in the Jerseys, in some of the Middle States, and in the valley of the Hudson. And this reminds us of the famous orchard of R. L. Pell, of Pelham, of 20,000 bearing trees, all of Newtown Pippin; out of his

crop of apples annually, the bulk of them were shipped to England and sold at the rate of from \$7 to \$10 the barrel to our "English friends" who were probably very glad to get them even at that price. Now making some leeway for "enthusiasm" and considerable "exaggeration," we are inclined to think that Mr. Pell has got the best orchard of Newtown Pippins that there is in this country, and that the sales and profits of the orchard must be large yearly. And further, hearing that he has been brought up to work in the business, we should take heed to his advice on orchard culture generally. It may be possible that by superior cultivation our orchards of Newtown Pippins might flourish in this region, but we would not enter into it or advise it in this section at least. How this apple flourishes where it originated, in Newtown, Long Island, we are not informed. As to the cause of apples of the same varieties not keeping now as well as formerly in Michigan or other sections, it would be difficult to tell. But we are inclined to think that the "climate" has as much or more to do with it than the soil or differences of location. All orchard cultivators know well that there is great difference in the various seasons, in regard to the keeping of apples. Some seasons they keep remarkably well and grow fair, while in other seasons with the same cultivation, they grow knotty and indifferent, and are inclined to rot soon after they leave the trees, and often while they are on the trees. Still a good crop of apples grown and gathered, does not ensure of their keeping well in the cellar. In this case, more, probably, depends on the way the apples are gathered from the orchard and stored in the cellar, than from other causes in regard to keeping. Now the most common article in use to store apples in, is a flour barrel, and it probably is the poorest article that can be used for that purpose, as all may prove by experience. All cultivators who store much fruit for winter should have a "fruit cellar," or a room parted off from the main cellar on the north side. In this room, shelves should be put up around the sides and through the centre, should the room be large. The shelves may be made from two and a half to three inches wide, the bottom boards six inches wide, the joints to be left open  $\frac{1}{4}$  or  $\frac{1}{2}$  an inch to allow a free circulation of air up through the apples. These shelves may be put up two and three tier deep, according to the height of the ceiling and the number wanted.

On these shelves, the apples may be strewed two and three deep in thickness, this will allow of their being picked out as fast as any decayed ones make their appearance.

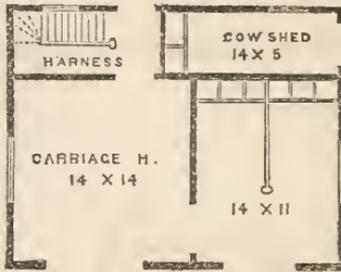
Ventilation should be had from the window outside, or into the main cellar as wanted.

The temperature should be kept as low as it can be above freezing point. Where only a few apples are wanted by mechanics, a large box such as they pack prunes in for transportation, may be put up temporarily in a cool part of the cellar, which will answer a very good purpose to store apples in. Another great point to have apples keep well; they should be gathered or picked from the tree, and handled in such a way that none will be bruised when they go into the fruit cellar; careful cultivators will understand this point. On the whole, as to the deterioration of the apple generally, we should be inclined to think it more owing to climate and seasons, than to any running out or shortening in of the keeping qualities of apples, as to time. There may be some difference between growing apples on a new soil, over the old States, in regard to their keeping qualities; but we should want more proof of that hereafter, in order to place much reliance in it. It is possible you may take any of the long keeping apples named in the several "Fruit Books," and yet under actual trial they might come short two or four months in keeping when compared with the "Books," so we think it one of those points which will be difficult to determine. Before closing, we will just say a word about cutting cherry grafts for spring grafting. The grafts may be cut any time from the middle of February to the first or the tenth of March, if the season be late. Cut and pack them in sand or moss in the cellar till wanted. The grafting should be done as early in April, as the weather will admit. Though if the scions are in good order, that is, the buds not swelled or started, the grafting may be done any time from the first to the fifteenth or twentieth of April. We have had good success in grafting the cherry where the leaves on the stock were well started, and if the scions were right, as named above. In this way, the "Mazzard cherry" may have a new top set on by grafting, with as little less per cent. as apple grafting. But if the cherry grafts are cut a few days too late, or the scions' buds are swelled much, not more than one out of ten of the scions

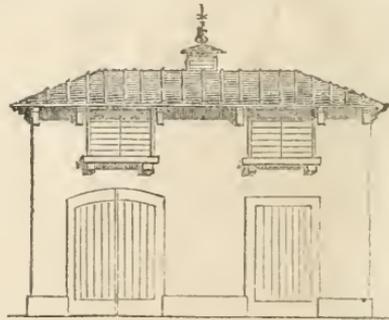
set, will live and grow ; this is our experience on that point, others may be different from this.

### CARRIAGE HOUSE AND STABLE FOR A SMALL COTTAGE .

A SUBSCRIBER requests us to give a plan and elevation of a cheap carriage-house and stable, to have a neat exterior expression and at the same time, not infringe on the convenience and space within ; he also limits the expense to \$250— a very small sum, indeed, for such an edifice. The annexed plans



will correctly convey the only manner in which so cheap a barn can be constructed, without entirely losing sight of ornamental effect. We will premise that the material is wood. The post should not be less than 8x12 inches ; the sills should be somewhat thicker ; the remaining sticks can be 6x9 joice, and 3x4 scantling. The weather boarding should be secured perpendicularly to the frame, and the joints protected by narrow strips, bevelled ; finish the inside with rough hemlock boards, filling the space between the out and inside boarding with oat straw, rammed down compactly. A stable cannot be too warm.



The ground plan exhibits a carriage room, 14x14, with an entrance from the front side of the building, and is also in easy communication with the harness-room and stalls. The stalls are each 14x5½, containing crib feeding troughs, &c. They also have a door in the front. As a cow is indispensable to the cottager, we have provided a suitable apartment for her winter quarters. It is 14x5. The hay loft is arrived at by a stairway contiguous to the harness-room. The loft is so arranged as to permit of foddering both horse and cow from nearly the same openings. To

secure proper ventilation, and also to add a decorative feature, a small cupola is attached to the roof, rising from the centre.

A very durable and cheap paint for a barn is produced by mixing common French yellow, (worth about five cents a pound,) with lamp-black, which creates a beautiful clear olive, and will keep color for several years.

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## THE MANAGEMENT, SOIL, AND SITUATION OF THE PLUM ORCHARD.

BY D. W. RAY.



GREAT many different opinions are entertained in relation to the soil, situation and management of the Plum Orchard.

While so many theories are advanced in regard to the proper treatment of the Plum, we shall adhere to the theory shown to be correct by successful effort ; and the suggestions we shall offer in relation to their cultivation will be found to be eminently practical, and the solution of our theory of rewarded cultivation can be easily shown. The soil for the Plum should not be positively wet, yet they often thrive in soils quite moist, if well drained.

Many writers say a heavy clay loam is best adapted to their growth ; but we have seen them planted in every variety of soil—in clay loam, in strong sandy loam, in alluvial deposit—and we have seen equally good crops of Plums in all

of these soils. This has led us to the conclusion that the Plum may be planted in any soil most convenient if the right manures are applied.

The Plum requires a soil abundantly rich, and if it is not so, must be made so by the application of animal manures with an addition of common salt ; the amount of salt necessary for a tree twelve feet in height, is a top dressing of an inch in thickness, applied in a circuit as far as the limbs of the tree extend.

Potash is also a good manure for the Plum when used in moderate quantities.

The situation of a Plum Orchard should vary with the convenience of the cultivator ; but the best locality we have yet seen is a fowl yard. A piggery is also a good position for a Plum Orchard if fowls are allowed to run in it. The Plum will thrive well and produce large crops if planted near the kitchen-door, where they can receive a liberal supply of soap suds from the laundry, and where persons are often passing by, thus keeping the ground well packed about the trees. This prevents the curculio from burrowing in the ground beneath the trees, and they seek some more favorable locality to commit their depredations.

The curculio (*Rhynchaenus—Venuphar*) is the principal thing to contend against in the cultivation of the Plum. In some sections of the country its depredations have for years destroyed whole crops of this fruit, and the cultivators were obliged to destroy their Plum Orchards and substitute some other varieties of fruit less subject to their attacks. We have with considerable minuteness watched the habits and customs of the curculio. The insect is not as large as the common house-fly ; it has a sheath, or coat of mail, which encases its wings ; the moment it is disturbed, it folds up its wings beneath its coat of mail, and remains motionless, as if it were lifeless. This pest usually commits its depredations in the night. It can fly, but it usually climbs up the body of the tree soon after sunset, and by puncturing the green fruit with its sharp proboscis, makes an incision which subsequently becomes the receptacle of an egg. The egg, in a few days, assumes the larva form, and eats its way to the centre, sapping the life of the immature fruit. The curculio, after committing its nocturnal depredations, drops to the ground, and there awaits an opportunity for another sortie.

Thus the benefit of planting a Plum Orchard in the fowl yard, arises from the fact that the fowls keep the earth under the trees so well packed, that the curculio cannot burrow under the trees ;

and another fact connected with this benefit is, that the fowls are stirring early, even before sunrise, and as the curculio drop to the earth, the greedy chickens soon make a morning meal of them.

Following our directions in this respect, as to situation, will ensure a full crop of Plums, or, at least, as many as the trees should bear consistent with health.

Some have recommended the planting of the Plum over water, which has been tried with success, as the curculio falls in the early part of the day into the water, and is drowned; and the only injury the fruit on these trees receive, is from the few stray curculio that chance to light upon it during the day.

The Plum is not the only fruit that suffers from the onslaughts of the curculio; the Peach, the Nectarine, the Apple, the Cherry, are all more or less subject to their attacks. All remedies that have been prescribed to prevent the depredations of this insect have failed. Such articles as lime-water, sulphur, and iron-hoops are useless. Mr. Matthews' celebrated curculio remedy seems to have not been a certain one.

We would respectfully ask Mr. Matthews to explain the *modus operandi* "of his method," in the columns of "The Horticultural Review."

We close our article by giving a list of the varieties of Plums worthy of cultivation in every orchard. We class upon our list the Jefferson as the best and finest flavored Plum upon the whole list. The next we place upon the list is the Columbia, Washington, Orange, Huling's Superb, Coe's Golden Drop, Imperial Gage, Green Gage, Frost Gage, McLaughlin, Bleeker's Gage, Lawrence's Favorite, Schenectady, Catharine, Lombard, and Marten's Seedling.

There may be other varieties of Plums worthy of cultivation generally, but we have not seen them tested.

[The McLaughlin is superior to the Jefferson in every respect excepting size. The former being somewhat overrated as regards flavor. To render the above list, recommended by our correspondent, more perfect, we advise the omission of such varieties as Columbia, Washington, Orange, and Bleeker's Gage, all of them being more gratifying to the eye than the palate.—EDITOR.]

## AN ERROR CORRECTED, AND SOME INFORMATION ABOUT THE COFFEE TREE.

BY ISAAC REAGLES.

An eastern rural paper has recently been regaling its readers with a story of success having been realized in growing the coffee plant in the State of Maine; other papers have reiterated the report, and it is generally received as a piece of truthful information. The coffee tree can no more be grown in Maine, as a hardy plant, than the Orange tree. The only portion of the United States which has ripened the coffee berry is the State of Florida. On the higher land bordering the Gulf of Mexico it could doubtless be grown with success and profit.



COOLIES MUSTERING FOR WORK IN THE COFFEE GROUNDS.

The coffee tree, where indigenous, grows quite large. I have seen them in Rio Janeiro planted in door-yards for the shade which they afford. When cultivated for the berry, it is not permitted to grow to a greater height than nine or ten feet, it being cut back annually. It bears two crops in a year; the spring crop, however, is considered the best, being nearly twice the size of the fall crop.

There is a climbing *leguminosa* plant called chick pea or coffee

pea—*Cicer Arietinum* of botanists. This is doubtless the plant which has been grown in Maine, and described as the coffee of commerce. The difference between the two is very wide—the *chick pea* belonging to the natural order of plants bearing legumes—*Laguminosæ*. The coffee tree belongs to the natural order *Chinonacæ*, and produces its fruit in the shape of an oval, red berry, containing two seeds each, which is the coffee of commerce. The berries are dried, and the pulpy portion is very easily freed from the seed. In order to give a more correct idea of the manner of operating on a coffee plantation, I have compiled a chapter of information derived from the best authorities.

The coffee plant which yields the article of commerce, is one of a dozen species of the like *genus*, inhabiting various countries about the Tropics. It is the *Coffea Arabica* of botanists, and belongs to the order of *Rubiaceæ*. From the engraving it may be seen that in appearance the coffee plant closely resembles the Portugal laurel. The flowers assimilate to those of the jasmine, (as well also in fragrance), while the full-grown fruit has the appearance of a ripe cherry.

The plant, if left uncultivated, grows in a wild, straggling manner, to about the height of ten or twelve feet. In plantations, however, it is as carefully pruned as any currant or gooseberry bush in this country, being kept down or "topped" when from five to seven feet high, and only a certain quantity of the best bearing wood retained. It grows

readily in many soils, at various altitudes, from 500 to 4,000 feet above the level of the sea in tropical countries, but does not yield abundantly or of fine quality, unless at between 1,700 and 3,500 feet, which on the slope of mountain land, and with good soil, is the favorite altitude.



A few of the earlier plantations in Ceylon, were formed on low, flat land, not heavily timbered ; but there they soon ceased to be productive. Experience proved that to ensure a lasting and profitable yield, heavy forests, or the upper ranges of mountain land, or along the undulating slope situated between the many lofty ranges of hills, should be selected. It is in such positions that the greater portion of the good Ceylon coffee is now grown, and which, in commercial language, is called "Plantation," or "Mountain" kind, in contradistinction to the "Native" or inferior sorts gathered by the Singalese villagers from their wild trees, and sent to market with little, if any, care.

Wilder or more beautiful scenes can scarcely be found than those amidst which the coffee estates of Ceylon are formed. Vast tracts of land, cleared from huge forest trees, stretching along the steep sides of mountains, with the unfelled monsters of the jungle, waving their broad branches to the cold north winds above ; while below, miles of green "pattena," or prairie-ground, may be seen winding through the valleys, skirted by low tufts of oriental underwood ; and dotted over with herds of wild buffalos, with here and there the villagers' cattle quietly grazing. A plantation thus situated, when in full bearing, and with all the usual buildings on it, presents a most picturesque appearance, worthy the pencil of any artist. In its earlier stage, however, it wears a totally different aspect, and the life of a coffee planter, under such circumstances, is far from being either easy or agreeable.

Many of the best plantations are situated forty or fifty miles from the only town in the interior of the island, and a dozen miles from the smallest native village, with frequently no other estate for a long distance. To commence operations in felling the forest, under such circumstances, requires a man of some energy and resolution. Instances have not been wanting in which a young planter thus occupied, has been deserted by every one of his coolies, from some offence, or through dislike to the spot, and left unaided in a leaf hut, with nothing but a little dry rice, and no means of cooking it. On first locating in the depths of the jungle, to open a new estate, the care of the superintendent is to run up a small hut, about eighty feet by six, of boughs, leaves, and jungle grass, upon the most convenient grassy knoll that can be found : this is to form his own dwelling-place during the first six months' operations, and occupies, perhaps, two hours in direct-

ing. Within call from this leafy residence, a long line of buildings, of similar construction, is run up before sunset for the coolies and their native overseers, as well as for the planter's single servant. The first care of the planter is then to select a suitable spot for the "nursery," in which to raise a sufficient quantity of young seedlings for planting out at the proper season. This being found, the ground well turned up, and the seed sown, the work of felling the forest commences, with the view of securing as much available land as possible for the plants that will be ready to put out during the ensuing rains. The operation of felling, although apparently a very ordinary affair, is in these places one requiring considerable judgment, with a view to economizing time and labor. Much of not only the cost, but of the future success of the coffee estate, will depend upon the judicious "fall" that may be made. Trees here are never cut down singly, neither indeed are they cut until they fall by the stroke of the axe; experience has taught the planter an economical lesson in this respect. It has been already said that these plantations are formed on the slopes of mountain forest-land: it is rare, indeed, that a piece of quite flat ground is met with in these precipitous regions. In placing his party of axe-men to work, the planter commences at the base of the hill, and works gradually upwards in a straight line; two men usually work at each tree, and occasionally, when those are of large size, three axes will be placed at one trunk. The rapidity and regularity of stroke of these workmen is truly astonishing; and a prettier sight can hardly be met with than a felling party of sixty or a hundred coolies scattered apparently in disorder, but really in great method, and plying the bright, sharp axes as merrily and untiringly as though they were the merest toys, and had only just commenced. The trees thus attacked are not, however, cut through sufficiently to make them fall; they will be cut about half through, when the axe-men pass to the next, and so on until the party have maimed a whole legion of trees in a straight line from the base to the brow of the hill.

Then comes the interesting sight, and, to a stranger, a rather alarming one. The whole gang of coolies are mustered together in a line across the top of this mountain of wounded forest-kings: two men to a tree, they stand prepared for action, and at a signal a whistle, or a blast on a huge conch-shell, away fly the bright axes, ringing against the stubborn old trees, and this time they

ply until the huge things are cut completely through. Then comes the din of destruction ; this upper rows of wide-spreading trees totter for a moment on the broken pediments, reel to and fro like drunken men, and then, with one long chorus of deep-sounding groans, they topple over on the row beneath, which, in their turn, though but half cut through, stagger beneath the pressure from above, and, with many a groan and heavy sigh, tumble headlong with their verdant branches, carrying the like destruction as they go, crashing, and splintering, and thundering as they bend heavily to the earth. And so the deafening work goes on, until, like a mighty tempest, the roar has reached the basement of the mountain side ; and all that is left of that once lordly forest is a wild steep of ruined, blighted, splintered stumps, and trunks, and branches.

The next task, and this should be begun at once, is to arrange the scattered wreck by applying the axe here and there, so as to facilitate the passage of the fire when all shall be ready, which it will be in about three months' time. As the rainy or planting season draws nigh, firing commences. There is not much skill or labor wanting in this operation. The superintendent usually sees the "burn" started, which is, of course, always from the windward side of the dry mass. It is a brilliant and imposing sight, towards evening, to watch the many jungle fires throughout one of these coffee districts, especially if you happen to be traveling through some quiet valley, and the "burns" are coming off on the mountain slopes far above you. The effect is then very magnificent, flinging, as they do, a supernatural glare over sky, and cloud, and forest. And later, too, when these fires have burnt out, and there remain but so many smouldering heaps of red flickering ashes, you may see them peering up amidst the depth of the jungle in the darkness of a thundery night, like the restless winking eyes of some wild Titan denizens of the forests, disturbed in their mountain solitudes.

These fires sweep away all the small branches and some of the larger, but not all, the huge trunks being only badly singed and blackened. So soon as the embers are cold, a party of "loppers" are placed on the ground with light axes and "catties," or bill-hooks, with which they trim off every remaining branch ; these are followed by other coolies, whose duty it is to pile all the lopped wood at certain intervals, where it is left to dry for

a time, and, previously to the planting operation, has to be burnt off.

A month or so before the first rains commence, and which are there very regular in their approach, "lining and holeing" form the chief work. A stranger to this life, scrambling over the rough ground, bewildered amidst the tangling masses of trunks of trees, rocks, &c., would imagine it impossible to plant 100 acres of land with young coffee plants at regular intervals, or with any approach to uniformity of distance. It is done, however, and with marvellous rapidity. "Lining and staking" are accomplished quickly enough by means of long cords, having cloth tallies secured to it, at such intervals as the coffee is to be planted at. This line being stretched across the field by



two or three coolies, high above all impediments, other men walk along, and drive in the ground sharp sticks immediately beneath each tally on the line. The ground being thus "staked" off, a party of "holers" follow—this is rather tough work, as stems, roots, &c., have to be removed from the spot indicated by the stake, and a hole dug eighteen inches square by the like in depth.

The first burst of thunder-storms over the hill-tops is the signal for beginning "planting," and a right busy time it is; the whole force of the plantation is generally placed at this work, it being essential to have the plants in as early as possible. The young seedlings, when first put out from the nursery, are very small and invisible at a little distance, buried as they are amidst such acres of huge blackened trees and blasted rocks. The field appears one black, barren track, so unlike anything approaching a "plantation" as to puzzle strangers not a little. For some months

afterwards the plants are barely visible above the staves and rotting wood ; but in twelve months the estate wears a cheerful green look, and busy parties of weeders are to be seen going over the various fields with their heavy "Dutch hoes" and sharp-edged "coontanies," with which they grub up all obstinate roots.

While these early plants are growing, there is no rest for the superintendent. If there are no more fields to be planted, there are the coolies' lines or sheds to be erected in a permanent way : his own bungalow to be seen to, on some elevated spot, where a good look-out can be obtained over the working parties. Lastly, there are the "works" of securing and preparing the coming crop : a receiving shed, a pulping-house, a stove, and long range of paved ground for drying the coffee on, occupy many months, and occasion an outlay of a good many hundred dollars. These should be ready for work by the time the plants have reached their third year, for at that time they give a maiden crop. In the hands of an active, clever manager, a coffee plantation, in its third year, will present one of the most picturesque scenes imaginable. The young bushes are then seen to perfection, before they begin to straggle and need the pruning-knife ; and if they have been judiciously selected and well planted, they will be as nearly as possible of equal size.

The daily routine of a planter's life may be thus briefly summed up :—Daybreak sees him up and accoutred ; and with a cup of thick-looking, black coffee in his hand, he strolls into the veranda in front of his bungalow, if he happens to have one, where the coolies are mustering, tools in hand, ready for the day's work. All hands being out, the "check-list," or muster-roll, is called over, beginning with Mootoo Carpen, and ending with Verasamy. In this process a quick and ready ear is needed, as it not unfrequently happens that those present cry out "all right" on behalf of any absentees, who would otherwise be fined or short paid. Mootoo considers it no offence to respond on the part of Tamby, and *vice versa*. The list being made up, the people are told off in working gangs of thirty or forty, under *conganies* or headmen, who receive from the manager the orders for the day's work. Whilst these several parties, numbering together sometimes as many as three hundred hands, proceed to the fields requiring them, the

planter mounts his pony, and gallops to some more remote parts of the estate, to see how the young coffee looks, and if labor is needed elsewhere. Joining the working gangs, he remains amongst them, dismounted, until ten o'clock, having a vigilant eye to the style of their work, especially if it should be planting or pruning, or operations at crop-time. From ten to one, the superintendent passes in the stores, and has his breakfast of curry and rice. The work-people return home to their meal at eleven, going into the field again at twelve. At one, the manager re-mounts and goes over the same ground as in the morning. Once a month this monotonous life is varied by a trip to Kandy, the capital, and the interior, whence he brings, on the heads of coolies, fresh supplies of provisions, tools, clothing, and cash.

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*DIOSCOREA BATATAS.*—In the November number of "The Horticultural Review," in speaking of the Chinese yam, we remarked that it was a tropical plant. In chronicling this fact, we neglected to give the additional information that it was sufficiently hardy to withstand the severe winters of more northern latitudes. In China it forms one of the chief articles of food; it can be eaten either boiled, roasted, or raw. Although it possesses a large proportion of nutritious matter, we consider it, in this respect, not equal to the Irish potato. The yam will, undoubtedly, prove an enormous yielder, as it is one of those peculiar plants which derive food from the atmosphere, hence it thrives on comparatively poor soils. One objection, though not insuperable, to cultivating the yam on an extended scale, is the present mode of increase by tubers and cuttings. Growing from seed would be more rapid, but, unfortunately, the plant is diœcious, and but one of the parents has been introduced to our soil; therefore resort must be had to propagating by cuttings, layers and tubers; by the former method, two years is required to produce roots large enough for culinary purposes. In the meantime, we advise all to try it the coming season on a limited scale. We shall be pleased to record the results of the various experiments.

## GOSSIP ABOUT FERTILIZERS,

BY A. MESSER.



ORTICULTURE is a multiform subject and not soon exhausted. It has many phases, which are worthy of attention, but which are not all equally interesting to a single class of cultivators. The wealthy will feel a strong interest in certain features of the subject, which the poor man cannot, from the nature of the case. He is not able to purchase such grounds, or make such preparations, as will be calculated to bring out to view the strong points of the art. Hence, some of the best magazines of Horticulture, English and French, cannot be fully appreciated in this country. They are not relevant to our wants. Such parts however, as relate to the nature and habits of plants, and to the choice and mode of application of manures, are always in order in any climate, or on either side of the Ocean.

If a man have but a small garden, and but little money to spend for labor ; yet if he have some knowledge of vegetable physiology, and a taste for cultivation, and will consent to be known as an old digger, his genius will be sure to develop itself. His skill may be as plainly seen, in his treatment of a row of currant bushes, as in any other way. I have a neighbor in my immediate vicinity, who cultivates his small garden in a cheap and economical manner. I have been often amused, by observing the process by which he secures the accomplishment of his ends. He makes much of forest leaves, which answer a double purpose ; to cover his grape borders, and strawberry plants, and then the following summer, to be put in a proper place and composted for manure. This is done effectually by putting alternate layers of leaves and spent ashes. Coal ashes, which are usually regarded as a nuisance, are turned to good account when used in this way. There is, near his

garden, a grove of forest trees, and in late autumn the ground is thickly strewn with leaves. You will see him out, on a mild moist day, with rake in hand, gathering up the volant encumbrances, and at night the lawn appears like a meadow studded with hay-cocks. After lying a day or two, they become somewhat compact, and can then be easily removed to the garden. These leaves when decayed, and reduced with ashes, or lime, are the best of aliment for fruit trees, and all kinds of garden shrubs and strawberries. The "Lawton" blackberries are splendid, when treated with this fare. That part of the garden, however, which is allotted to the growing of vegetables for kitchen use, will do best when furnished with strong manures from the stable.

My friend also was careful to have a large rough box, or an old hogshead, obtained for a shilling or two, at the hardware or crockery store, which is put in a convenient place, not too far distant, and filled with rotted leaves, or swamp muck, with pulverized charcoal, and a small part of plaster, or ashes, or lime thoroughly air slaked. It was deemed essential, that the materials be absorbent. The domestics then had their instructions, and it was made the reservoir of all the slops which were not too dilute. At first, the question arose, whether the result of all this process was sufficient to compensate for the trouble. But when the fruits came out to view, in their appointed succession, and were seen in their unusual luxuriance, and were submitted to that last and satisfactory ordeal, the taste, we allowed at once, that "the problem was solved." If he were planting grape vines, and was about to make a border for the purpose, he deemed it true economy to make it according to some judicious plan. You might see boys in his employ gathering up bones and old boots and shoes and all such like refuse. If a shoe-maker lived near, the chips and sweepings of his shop which had been thrown into the gutter, were reclaimed and appropriated. The feet of cattle and sheep from the slaughter house were also obtained, and which cost nothing but the expense or trouble of gathering; these are abundant in nitrogen, which becomes well developed in a few months' time, and affords a rich pabulum for the wants of the plant. Time should be given for the alimentary substance to be incorporated with the earth before the roots of the vine penetrate the mass. The precise manner, (*modus operandi* if you please), in which nitrogen administers nu-

trition, is not very obvious. But Professor Norton, and other chemists, have demonstrated that its presence is indispensable. The decaying bones also furnish the phosphate of lime, which is largely an essential element of the grape vine, which has been shown repeatedly by analysis. Should any one wish to investigate the subject, I would recommend that he peruse Professor Norton's "Prize Essay," which may be found in the "Transactions" of the N. Y. State Ag. Soc. for (I think) 1850. And with respect to a judicious treatment of plants and vines under glass, the second part of Lindley's *Theory of Horticulture*, is equal, or superior to anything in the English language.

A. MESSER.

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### THE LOMBARDY POPLAR.

BY AN OLD DIGGER.



AN the mania for Lombardy Poplar be revived? Mr. Lewis F. Allen has in a recent number of the *Horticulturist*, taken it upon himself to become the exponent of that lackadaisical tree, the Lombardy Poplar. In the commencement of his article, he remarks, "Man is a capricious animal." To verify this crude apothegm he proceeds to state, his (man) having abandoned the Lombardy Poplar, as evidence to the conviction, he calls the introduction of new species of trees "fashion." Mr Allen is either the victim of an unfortunate prejudice, or he is ignorant of the nature of the Lombardy Poplar, and the advancing strides the science of arboriculture is making in America. I should not have taken notice of the article in question, were it penned by a man of lesser notoriety in the horticultural community than friend Allen.

In the first place, he endeavours by dulcet persuasion and graphic description, to prove that the poplar is an elegant and picturesque tree. This, at once, says the gentleman is no artist; true art does not recognize aught in nature as tributary to beauty or

grace, that is composed of straight lines : so true is this fact, that our genuine artist has the greatest abhorrence of everything that is stiff and formal. There may be situations in which a Lombardy Poplar can contribute harmony, the imagination is not adequate to resurrect the spot, and therefore I await the advent of some fortunate chance which shall make the disclosure. He further remarks, that their utmost excellence is attained, "when shooting up their taper heads here and there among other trees, like the tall spires of churches among wide blocks of houses, giving variety, point and character to a finished picture." That's a picture, is it?—a pointed picture, we are told—a finished picture! shade of Hogarth! what is to become of the *parabol*?

"The Lombardy Poplar," again remarks the profound expositor of beauty "is a *universal* tree" to which I will answer, so is the pig-weed a *universal* weed—and a universal nuisance. "It throws up no suckers" Indeed, now, friend Allen, you uttered that sentence in a very positive manner. If you will come to Albany I will show a tree so completely invested by suckers, that only a single branch of the original tree gets nourishment enough to retain the vital spark. The Lombardy Poplar is notorious for suckers, it is diæcious. The Creator when he made trees whose fecundating organs were distributed male and female on separate trees, very wisely provided another method of perpetuating their species in case the two sexes were not in juxtaposition. As a natural result, all diæcious trees throw up suckers from the root, or are readily propagated by cuttings of the root, or branch. Only the male tree of the Lombardy Poplar has ever reached America. One may ask, "if the Lombardy Poplar is not ornamental, if it is not useful for timber, why should it have an existence?" I consider it a special provision for the country to which it is indigenous, being peculiar to a mountainous district, where other species would scarce exist, hence its rapid growth may be considered fortuitous; another reason is, mountainous countries do not have their valleys over-blest with sunshine, owing to the lengthened shadows cast by intervening hills. It is therefore apparent that if their forest trees were of the sprawling kind, not even a stray sunbeam would reach terra firma unless the trees were denuded of foliage. Mr. Allen should associate more particularly with the progressive influences of the age, and not endeavour to hew out original suggestions

at the risk of forfeiting his well earned life-time reputation for rural skill. I cannot conceive why that article was written, unless from a chivalric magnanimity to do battle for the weak and neglected, the same as knights in the olden time performed wonderful feats of daring in the cause of unprotected damsels.

[We admitted the above article to our columns, because it redoled of wholesome truths, at the same time we deprecate the writer's style of expression. We would suggest for the benefit of future contributors who have antagonistic views to promulgate, to select more courteous speech. Ed.]

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## NEW BUILDING MATERIAL.

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BY H. G. BULKLEY.

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EW BUILDING MATERIAL. Under this head in the January number of the "Review," I notice that of *Pressed Sand Brick*.

On investigation, however, it will be perceived that this "New Building Material" has been long used in the construction of *gravel or concrete houses*.

I built two Gothic cottages of this material in 1848, which have stood well, notwithstanding a part of the work was done by a perfect ignoramus, under the pretension of a professed mason.

These buildings being then new in this region, attracted no little attention, and were the subject of many remarks. Among those whose especial attention was attracted, was that of Mr. O. S. Fowler, of your city, while passing through the west as a lecturer; and to whom I explained the *modus operandi* of their construction. Mr. F. has since built one or more houses on this plan, and, I understand, has published a work on this mode of building.

Instead, therefore, of sand brick being a new building material, it is only another and *more expensive* mode of building frame or concrete houses, while using precisely the *same material*.

The mode, as I practised it in 1848, for making concrete buildings, and the one then stated to Mr. Fowler, had its objections.

By such mode it was quite difficult to keep the walls straight and perpendicular ; to set the door and window frames, and keep them in their true position until the walls were hard ; also to keep the moulds in their places, as well as to raise them when filled without injury to the walls ; and to protect the walls from storms while in the process of being constructed.

But I have since discovered a remedy for some of these difficulties in the construction of concrete houses ; and in order to *compare* or *contrast* the concrete with sand brick, as a *valuable* and *cheap* material for building, I will give you the plan.

In the first place, put up what is called a balloon frame, with a double row of studding (at any desirable distance apart) on the outside ; and put in all of the door and window frames, and make them fast to the studding.

Spike all of the joice to the studding, to keep everything in its place, and the building stiff and perpendicular. Put on the *roof at once*, which will shelter the walls from injury by rain, while being moulded, and allow the moulding to progress even in damp or wet weather.

With some hand-screws or other device fasten some boards (say one foot wide) to the outside of this double row of studding, and fill the space between with this mortar, or concrete material. The distance between the rows of studding determines the thickness of the walls.

As soon as the mortar is set in the moulds loosen the screws ; raise the moulds, and fill again, until the walls are completed.

The studding will, in most places, cost no more than the mortar to fill the space, while they keep the walls straight and perpendicular, and prevent their falling by their own weight before being fully set or dry. When the walls *are* dry, the studding will do no good or harm.

The outside of the building should be covered with a good stucco, and blocked off in imitation of granite, marble, or free-stone, to suit the taste of the proprietor.

The mortar for the concrete should be made of good clear gravel and sand, with only lime sufficient to fill the spaces in the sand. Too much lime weakens the concrete, while a want of

lime to fill the spaces in the sand and gravel will prevent cohesion.

The lime should be thoroughly slacked before mixing with the sand, or pieces of lime will slacken in the wall, and by expansion will injure the wall, and prove a waste of lime.

But the last, and "not least," important matter in making good concrete is to have the materials thoroughly mixed before placing them in the moulds. This is rarely, if ever, well performed in mixing mortar either for concrete or brick walls, or for plastering. It is hard work to mix mortar by hand ; and sufficient time is not devoted to mix it properly.

To remedy this difficulty, I have invented a machine for mixing mortar by horse-power, with a view of obtaining a patent. This machine can be constructed at an expense of \$10 to \$20, according to size ; and by the aid of one or two horses and a stout boy, it will mix as much mortar in a day as six to ten men, and mixing the mortar at least ten times as much as it is ever mixed by hand, thus saving labor and lime (the more it is mixed the less lime is required), and making a much stronger concrete or valuable mortar for other uses.

Besides, this machine may be used to draw the sand from the sand-bed, or deposite, to the building, mixing the mortar perfectly in its transit ; and requiring but a small amount of extra power in thus transporting it.

Now for the comparative expense of building with concrete and sand brick, and the real permanency, value, and beauty of the two when completed :—

In the sand brick, cohesion takes place as the result of great pressure : while in concrete, cohesion takes place naturally by the use of liquid lime, properly mixed with the gravel and sand.

In the case of sand brick, the sand and lime are mixed by hand, placed in a mould, subjected to a great pressure in an expensive machine, removed and left to harden in a position to secure it from injury by storms, &c., and then laid into the wall with no small expense and skill in order to make even a building of tolerable strength and beauty ; while the mortar of the concrete is mixed by horse-power, and shoveled at once into the moulds, in which it performs its own pressing and drying, and

cementing itself into one conglomerated rock, already laid into the walls, and by the addition of a stucco, is for ever painted in so good an imitation of granite (or other stone) as, in some instances, to excel in beauty even the granite itself.

Any further information will be given with pleasure on application.

*Kalamazoo, Mich.*

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PROBABLE CHARACTERS TO BE LOOKED FOR  
IN A SEEDLING PEAR TREE.

*J. de Jonghe, Brussels.*

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It is by no means a difficult task to discover in a seedling Pear-tree the indication of its probable worth. It is only necessary to observe the characteristics of five or six good varieties raised in the end of the last century, which have been worked on the Pear stock, and which bear good fruit when the trees are placed in the conditions required for producing well. It is then, also, that the characters are displayed to the fullest extent in the stem, in the branches, in the shoots, the wood, the fruit, and the leaves.

Once these characters are understood, it is easy to discover them in seedlings, and the estimation of the value of one of these, becomes a matter regulated by skillful investigation. Nevertheless, it is necessary to state that these characters are much more prominent in the more recently improved sorts, and are therefore more easily recognised and placed beyond doubt.

An experienced practitioner finds the first indications of a promising seedling in the seed leaves. If these have long petioles, and are themselves long, narrow, of a delicate green, and deeply serrated at the margin, with the surface finely and delicately reticulated, there is a good prospect; if on the contrary, the petiole is short and thick, the leaf round, thick, without serratures, white

or cottony, without distinct reticulations, on the surface, there is not much chance of the seedling proving good. If the plumule, on becoming a stem, is short jointed and forms wood buds of a conical shape, at one foot above the soil, it is a good sign. If on a grey-hazel, or pale greenish brown coloured bark, grey ash-coloured specks are here and there visible, it is a still better sign. If on the contrary, the seedling has a stem which does not bear itself erect, and has distorted irregular branches at unequal distances, no confidence can be placed in it. These marks rarely occur at the present time among seedlings raised from the more recently improved varieties of the Pear. A smooth shining bark, soft to the touch, of a brown, hazel, lead color, fawn, or reddish, the whole sprinkled more or less closely with pale specks, or lenticular glands, it is also considered to be a favorable indication ; so it is likewise when the mature wood of the one-year-old shoots breaks clean. It is not, however, in the first or second year that one can judge of a seedling by its characters ; for these are more distinctly marked in the second year after transplanting. The best time for making comparative observations is at the fall of leaf. It will then be seen that promising seedlings have leaves possessing the good characters above described, and a moderately thick stem, furnished with large prominent well swelled wood-buds.

It will also be observed that some of the seedlings have produced shoots forming wide angles, or are spreading ; others spurs, some slender fruit-bearing twigs ; others short spines on the stem and on the branches, which are furnished with four or five prominent wood buds. Two or three well formed leaves, and a large plump terminal bud will be perceived at the extremity of each of the shoots. A disposition to bear spines is, in general, the surest sign of the beauty, delicacy, and long keeping of the fruit. The contrary opinion is generally maintained : but it can only be considered as an old fashioned prejudice. In fact, at the present day it is generally admitted that fine, smooth, spineless wood betoken a summer fruit. Wood with thick downy leaves is the sign either of a musky summer pear, or of a winter stewing pear. I know of only one exception to what has been stated respecting downy leaves, and that is those of that variety called the Comte de Flandres ; but this variety, on the other hand, possesses all the other characters of a good winter fruit. In this case it may be said there

is no rule without exception. Fine spines along the branches and young shoots, the latter weak and twisted, form an assemblage of characters of bad omen, especially when these characters continue to be reproduced in the upper part of the tree. But the worst character of all is a bad habit of growth, either as regards the stem or the branches, and when, at the same time, the latter are straggling, short, weak, and crooked. Luckily these characters do not occur in seedlings from good varieties.

Besides the favorable signs already enumerated, the following are found in seedlings of five years old:—1st, A straight stem sufficiently strong to maintain itself in an upright position without support. 2d, Lateral branches and shoots of moderate vigor, without being either too slender or too thick, and of moderate length, with their extremities pointing upwards. 3d, Spines regularly distributed on the stem as well as on the lateral branches; these spines are long or short according to where they are produced, and furnished with prominent wood buds throughout their length; they are placed perpendicularly, are well fixed on the surface of the branch, and wrinkled at their bases. 4th, The leaves either of a light or dark green, are finely shaped, rather long than round, not folded, either perfectly flat, or with the margins slightly elevated, and the apex recurved, the finest leaves on current year's shoots being furnished with stipulary leaves. The tissue of the leaves is compact, the skin thin, the incisions regular and deep. The nerves are prominent, the mid-rib strong and straight, extends from the petiole to the apex of the leaf. The petiole is long and slender. 5th, The wood buds, which are reddish brown, or gray, are neither too much nor too little developed, neither too much compressed nor too long, and not placed on the surface but based on projecting supports. 6th, The internodes between the wood buds are not long; but those between the fruit buds are shorter than those others by half, that is about half an inch in length or even less.

The above are characters of good presage, and even of a fine and long keeping fruit; indeed, it has been established, by repeated experiments made by the late Van Mons, that the longer the sowing of seeds of the best of every successive generation of Pears is continued, the greater is the tendency of the fruit produced to keep long, to improve in form, and to increase in delicacy.

The spines should not extend on the stem and branches higher than 5 or 6 feet from the ground, especially if the seedling appears naturally inclined to take the form of a dwarf pyramid. The higher the tree, the more rare the spine, and ultimately they entirely disappear.

These observations may guide the cultivator in the selection of seedlings before the third transplanting. It is in the second year after the third transplantation that the indications of the future worth of the tree are displayed to the close observer in the most striking manner. In a promising seedling the whole habit of the tree is pleasing to the eye, and clearly indicates that the period of full growth and of fructification is at hand.

(The preceding article, is from the *Gardeners' Chronicle*. Amateurs who contemplate, or who are engaged in producing new varieties of pear from seed, can glean from it many valuable facts. We have ourselves, originated several varieties of plum from seed, and our experience is convincing, that out of a seed bed containing several thousand plants, selections can be made with a positive certainty of receiving superior fruit when a crop ensues, simply by becoming familiar with certain external peculiarities which invariably individualize all trees that offer good fruit. These extraneous characteristics are more apparent in the plum, than in the pear, peach, or apple. In no instance—out of several hundred seedlings that we have fruited, has a tree that bore the marks of a wilding, born fruit other than that of a primitive description. The subject is worthy the attention of Horticulturists. Ed.)

## ADDRESS DELIVERED BEFORE THE FRUIT GROWERS SOCIETY, AT ROCHESTER, N. Y.

BY J. J. THOMAS.



THE first annual assembling of the Fruit Growers' Society of Western New York—a Society occupying a field unexcelled in its present products, and in its promise of future results, suggests many considerations for our action; and with the hope of presenting some useful, if not *new* suggestions, I propose to offer a few remarks.

In performing a journey, it is always interesting to ascend occasionally an elevated point in our road, from which we may survey our progress—and from the extensive view afforded us, observe at a glance the nature of the road we have passed—and what is still more interesting perhaps, endeavor to ascertain what we shall be likely to meet with in the course of our future journey. Equally interesting is it, to trace the past course and progress of the delightful art, of which we have to-day met to promote advancement,—that of Pomology. And, of course, any glimpses of its future history, which we may be able to get through the reflected light of the past, will be caught with eagerness.

A number of us will doubtless remember what was the general condition of fruit culture more than thirty years ago. The great majority of our land-owners had planted fruit trees, it is true, at that comparatively early period—the appetite for their delicious products,—which is scarcely less universal than the appetite for money,—showed itself conspicuously in the early history of Western New York. But common orchards then, would hardly satisfy modern adepts in fruit culture. Of the *apples* generally cultivated, there were no higher claims to excellence, than that they are “*grafted fruit*”—all kinds being comprehended under the two distinctive names, *natural* and *grafted*. The few scattered cherry trees consisted of “*sour-cherries*” and “*English cherries*,” with sometimes a rare mixture of “*Maydukes*” and “*Oxhearts*.” We had also two sorts of plums, “*the Blue plum*,” with its several shades of variation, and all green or yellow plums, however worthless, under the imposing and comprehensive name of “*Green Gage*,” while in the more rustic districts, the only distinction was “*wild plums*” and “*tame plums*”—tame enough, indeed, some of them. Very few had even heard of a nectarine or apricot. A cultivated strawberry bed was a great rarity, and this delicious fruit was only sought wild in the fields and woods, at ten times the labor of raising and gathering in gardens. There was one valuable fruit then, in which, I am sorry to say, but little improvement has been made, except in its greatly increased size and quality by cultivation, and this is the currant, which is perhaps the most easily raised, most hardy, and at its period of maturity the most valuable of all fruits.

These remarks apply to ordinary instances and to general practice. There were, here and there, most worthy exceptions of individuals, who in the face of great difficulties,—difficulties which have now happily almost disappeared,—who with untiring perseverance had collected many of the improved varieties, which even now stand among our most admired and delicious sorts. Some of us remember when the *Sweet Bough*, *Early Harvest*, *Full Pippin*, *Spitzenburgh*, *Swaar*, *Rhode Island Greening*, *Seek-no-further*, *Rambo*, *Yellow Bell-flower*, and a few others comprised the principal standard varieties of our best orchards. We had not then added the *Astrachan*, *Benoni*, *Sops of Wine*, *Early Joe*, *Gravenstein*, *Dyer*, *Belmont*,

*Melon, Peck's Pleasant, Spy, Hawley, Wagner*, and other excellent sorts. The selection of the other fruits in those rare collections, contained some of the most valuable varieties, and which we may not be able to excel for a long time to come—such for instance among the pears, as *Seckel, Bartlett, and Doyenne*; and the true *Green Gage* among the plums. It must be admitted that of late years we have greatly increased the number of really excellent sorts, and as a consequence, enlarged the opportunity for selecting those best adapted to our several localities, and for a uniform supply in our varying seasons. Who would not most willingly spend years of labor in making collections, for the sake of finding three new apples fully equal to the *Fall Pippin, Rhode Island Greening, and Baldwin*, in their most valuable qualities! Or three such pears as the *Bartlett, Flemish Beauty, and Louise Bonne of Jersey*!

Some of us are familiar with the early progress of our nurseries. It was less than twenty years ago that I first visited one near this city, and then occupying six acres of ground in all,—or rather it was intended to occupy six acres when they were all planted. Last summer I again spent half a day in its examination,—it had now spread itself over nearly three hundred acres—the trees it contained were counted by millions—and its fame was over the civilized world. This is but one, however, of several of great extent and eminent celebrity, in this and our neighboring cities. Twenty years ago, all the nurseries within ten miles of Rochester, did not amount, in the aggregate, to fifty acres—now they cover densely at least twelve hundred acres, and they send out annually, of full-grown nursery trees, (to say nothing of seedlings and ornamentals,) at least five millions in number. Our other cities and towns, in which Syracuse and Buffalo are conspicuous, have witnessed a great increase in the extent of their nurseries.

But it is not in the extent, merely, in which there has been a great improvement. Their character for *accuracy*, and for their choice selections of sorts, has advanced in a most gratifying manner, as compared with the character of some that existed before Pomology had made much progress in Western New York. I speak from experience, when I say, that of some large collections of trees obtained from highly respectable sources, (and I allude more particularly to one or two establishments not now existing,) not one fourth were found true to name, or else worthy of cultivation. I could occupy an hour in relating the disappointments that occurred year after year, in procuring different varieties, after waiting years for the trees to bear. But it is gratifying to pass from such discouraging instances, to the great improvement which has been made in all highly respectable establishments, by the adoption of specimen or bearing trees to propagate from, and for the prevention of the errors, which, before this precaution was adopted, were so numerous. All nurserymen of character now expect to see *for themselves* the correctness of the sorts they propagate—and not depend on some other person,—who depends perhaps on a third, and he on a fourth, and so on through a chain as long as the pedigree of a nobleman or of a prize animal.

We have now arrived at our present point in a very rapid progress—our country is full of fine nurseries, and facilities for conveyance enable us to select our place for purchase any where within a thousand miles: orchards in great numbers are yearly set out; and we might reasonably look for an immense profusion of the best fruit within a few years. Nothing of the kind, certainly, would be more cheering than to see every family in the land well supplied with the best fruits throughout the year—it would certainly prove a most interesting auxiliary in the advancement of domestic enjoyment and in increasing the attractions of home, if every one had the resources with themselves for this supply. But unfortunately, we see but comparatively little good fruit among the people at large, except at the most abundant seasons of the year. How many, for example, enjoy plenty of our best pears—with the exception of two or three of the most common sorts, for a few brief weeks at furthest? How many are supplied with a full dish of strawberries on every table during the strawberry season? But when we come to look at the whole yearly circle of fruits—the succession which may be had, by selecting not only a proper assortment for ripening during the ordinary fruit season, but for the long months of winter and the destitute period of spring,—where shall

we find such a supply, except in the commonest sorts of the winter apples, and occasionally a few rare specimens of pears? How many, among all the members of this Society, who may be well supposed to stand at the head of information and intelligence on this subject, among a numerous people in an unexcelled fruit-growing district, have ever seen a single barrel of well-ripened winter pears on the opening of spring? Where then are the hundreds of thousands of people embraced within our district, to procure anything like a supply of the long keeping varieties of this delicious fruit? How long, at the present rate will it be, before the market will be overstocked by such sorts as the *Lawrence*, *Prince's*, *St. Germain*, *Doyenne d'Hiver*, and *Easter Beurre*? We might as well attempt to dip all the water out of the Genesee river with an egg shell, as to think of filling up the demand of our wide country and populous cities, which would be created, were they only known, for these delicious and wholesome luxuries, with the few trees that are already planted.

But there is another reason why we have so limited a supply of fruit, notwithstanding the millions of trees that have been set out. This reason is the bad treatment which they afterwards receive. The subject is a most interesting one to fruit-growers. Doubtless a great many perish by careless transplanting,—by mutilating the roots in digging them up, by exposure of the roots to the sun, air and frost, and by hasty and imperfect setting out. But the greatest of all losses, —nay, that which causes more loss than everything else together, is the neglected and deficient culture subsequently received.—Much has been said on this subject: but a great deal more will be needed, I fear, before the evil is corrected. Five million trees are set out annually from the nurseries here; yet I am satisfied from observation, that if instead of the five million as now treated,—if only half a million were set out annually and treated in the best manner, this half million would produce more and better fruit in ten years, than the five million, two to one. No one can appreciate the importance of good cultivation who has not seen trees managed in both ways standing side by side. I have just cut these two shoots from young bearing peach trees, planted out at the same time, of the same variety, on land precisely alike. One of them stands on grass land and has received no cultivation, and as a consequence the growth the past season has been only eight inches. The other grew beside a piece of ground kept clear of weeds and grass on one side by a coating of old straw and manure, the manure not mixed with the soil, and the growth is four feet eight inches. [The shoots described were here exhibited.] This affords a most striking contrast; but I can assure you I have often seen as great a difference in trees allowed simply to grow in grass on one hand, and with a soil kept clean and mellow by tillage on the other, and with no other difference. The question is perhaps more easily asked than answered, why it is that while no farmer would think of planting a field of corn to grow among the grass of a meadow, there are so many who will place valuable young trees, which have cost them more than a hundred times as much as the corn they have planted, in the midst of a dense grass sod? Or, who, having once planted them in good soil wholly abandoned them to weeds? However, dear-bought experience is enforcing its lessons, and good cultivation is becoming more frequent and better understood.

In connection with this subject, allow me to point out one error which prevails with some who do not forget the want of their young orchards. This is the practice, not uncommon, of working the soil well at the foot of the trunk, but not extending the operation far enough off. The distance that the roots of trees extend, is found to be about equal to the whole height of the stem and branches. As a single proof of this, now at hand, I have cut from a tree in a young peach orchard, which stood in grass without cultivation, seven feet from the bed of straw and manure already spoken of, one of its shoots which measures 2 feet 5 inches long; and from another tree, 15 feet distant, this shoot which measures 14 inches long; while from the trees more remote, the growth is only 8 inches. [The shoots were here exhibited.] The trees are about ten feet high, and this example shows that they throw off their roots to a distance of fifteen feet, and are benefited by good soil there. Hence the great error of attempting good culture in a small circle around each tree.

It was an old belief, (now becoming quite antiquated with intelligent persons,) that the planter of trees was not to expect crops in his own life time—that he planted only for his children. No doubt this opinion originated in the slow progress made by neglected young trees. For if a tree makes but eight inches of growth in a season, as in the case just exhibited, and none in grass or grain field can be expected to do much more, it would require at least seven years for such a tree to make the progress attained in a single year under the best culture. I have taken the pains, the present season, to measure the products of a few apple trees, set out about six years ago, then two years from the graft. The soil had but one light manuring for many years, and was naturally more sterile than most of our common farm soils. But it had been kept under good clean cultivation. Two of the *Dyer* apple bore each a basket and two thirds; a *Baldwin* yielded three bushels and a half; a tree of the *Minister*, three bushels; a *Belmont*, two years older, bore five bushels; and a *Northern Spy*, eight years transplanted into a large hole containing a portion of compost, bore nine bushels. I could furnish many other instances of a similar character and equally striking, had the crops been measured. Some years since, a row of twenty peach trees, the ground having been kept cultivated and free from all other growth, bore the third summer from transplanting, about one peck each, and one of them bore about three pecks of peaches. Now, these are not extraordinary instances, and they are merely furnished to show what may be often reasonably expected when proper attention is given to cultivation.

Now, no one can justly say that the *cost* of cultivation is too great for general practice, provided an arrangement is made for horse-cultivation, which should always be the case with every considerable plantation, in this land of high-priced labor. No farmer complains of the cost of cultivating an acre of corn or potatoes, or carries his complaints so far as to propose to let these crops wholly take care of themselves after planting, as many do with their costly young trees. Yet it is much easier to keep an acre of land in trees clean and well pulverized, than an acre of corn and potatoes, for there are usually only a hundred or two of trees, which may be easily worked about with plow or harrow; while there are three or four thousand corn or potato hills, every one of which requires separate attention. By keeping the ground clear of all vegetable growth in an orchard or fruit garden, whether it be a planted crop, or a self-sown\*crop of weeds, which is the best and most profitable course, (unless it be sometimes that a green crop for manure may be advisable)—by adopting this course, five or six dollars an acre are all that need be required, where one or two plowings and five or six harrowings are given annually,—affording an almost incredible supply of the necessaries, comforts, and luxuries of life combined; while without such cultivation, perhaps not a fifth part of the same real value would be afforded. How strange that any one should attempt to save the few by wasting the hundreds! Squandering the dollars to save the cents, most emphatically! But it is needless to dwell longer on the subject.

In addition to the more common objects for our labors,—assisting in the selection of the best fruits, in disseminating them more generally, and in promoting skillful cultivation,—there is another field which has hardly been entered as yet, except by a very few, but which is well worthy of our attention. I allude to the *raising of new varieties*, not by hap-hazard merely, but by carefully directed, scientific labor.

But some one is perhaps ready to exclaim, "Why, we have too many sorts already! We are already bewildered by the interminable lists of varieties before the public—our object should be to reduce, not increase the number." This may be true to a great extent; but what we want is a better quality than we now have; we wish to cast away the whole multitude of poor sorts, and get better ones. It is true, that we have a vast number, *almost* worthy of cultivation; but we want so rich a list to select from, that we shall have not only those adapted to different localities, different seasons, different purposes, different appetites, and to a complete succession throughout the different months of the year, but we want all these to be of such undoubted, unmistakable excellence and general value.

that there shall be no hesitation whatever in adopting them. It is a hard thing to find such a fruit. When the first Congress of fruit growers met in New York in 1848, a committee of nine was selected from the members to present a list of the best fruits for general cultivation, three negative votes in the committee being enough to reject any sort. And what was the result?

How many among the thousand varieties of pears would seven out of nine of this committee agree upon, to present to the Congress as worthy of general cultivation? After ample deliberation, they could agree on only *eleven*; and there were only *two* that did not have any dissenting votes, and these two were the *Seckel* and *Bartlett*.

Neither do I propose raising new sorts in this country for the purpose of discouraging the importation of new foreign varieties. I do not think a fruit is any better or any worse for having been brought "a thousand briny leagues" for adoption here. I hold the inherently wise as well as time-honored rule, that every tree is to be judged by its fruits—by its intrinsic worth, whether Europe or America is the place of its origin. By this rule we all pronounce the older foreigners, the *Bartlett*, *Virgalieu*, *Louise Bonne*, of *Jersey*, and *Flemish Beauty*, and such newer arrivals as the *Rostiezer*, *Giffard*, and *Beurre d'Anjou*, as worthy companions of the *Seckel*, the *Tyson*, the *Brandywine*, the *Washington*, *Sheldon*, and *Lawrence*, and other native Americans; while among the apples, the *Astrachan*, *Dyer*, and *Gravestein*, will compare well with our *Melon*, *Hawley*, *Spitzenburgh*, and *Swaar*.

The truth is, we have a long road to travel before we reach a *perfect* list of fruits; and we need all the assistance we may be able to procure from all sources. It is true that much labor is required to produce even a small result; Van Mons devoted a lifetime, and Knight obtained but few new and excellent sorts; but Van Mons adopted a most tardy and laborious process, and Knight made a bad selection of parents for crossing, in his experiments, especially with pears.

But it must be remembered that we have as yet in this country, but few laborers in the field; yet these few have had their labors generally well rewarded. I would ask our friends, Elwanger & Barry, if bringing into existence such a fine strawberry as the *Genesee*, does not amply repay them for their care and attention? *Burr's Seedling*, of Ohio, and *Hovey's Seedling*, of Boston, have become renowned throughout the whole country, and are now cultivated in many thousand fine gardens. New strawberries, it is true, are raised with great facility, every berry from a pistillate impregnated by a staminate containing seeds that are a cross of the two sorts. Dr. Kirtland, of Cleveland, and Dr. Brinckle, of Philadelphia, have both been eminently successful—the former with the cherry, and the latter with the raspberry. *Governor Wood*, is regarded by many as the best cherry in the world; *Dr. Brinckle's Orange*, has been pronounced the most valuable of all raspberries. Would not such excellent results repay years of toil? Now suppose that instead of half a dozen experimenters, we had at least one or two thousand, would we not in a few years see some wonders springing into existence? We should, of course, be deluged with new sorts, but every one not possessing eminent superiority would soon die a natural death, while those of high merit would rapidly find their way into the world.

We much need in this country, experiments in raising new apples and pears. If we had a thousand operators, what might we not expect from a thousand crosses made by each, or a million crosses in all, from such apples as the *Swaar* with its richness, and the *Baldwin* with its productiveness; or the *Dyer* with its delicacy, and *Gravenstein* with its vigor; or the *Early Joe* with its refreshing juiciness, with the *Sops of Wine* with its fine growth and fairness? What interesting results would be looked for in a hundred thousand seedlings from the huge *Onondaga* crossed with the delicious *Seckel*, the *Bartlett* with the *Tyson*, the *Madeleine* with the *Brandywine*, or the *Winkfield* with the *Winter Nelis*? What a privilege would it not be to range in such a collection of trees when ripening their first crops of new existences!

We can hardly expect cultivators to adopt the toilsome process used by Knight and others, of cutting out with scissors the stamens from the flowers, and dusting

the petals by a camel's hair brush to effect a cross fertilization—perhaps it will be sufficient to plant the two sorts so that their branches may intermix with each other.—Are there not some among us who will immediately make preparations for raising the seed, by planting a collection of trees for crossing, and setting them two and two into the same hole?

Before closing these remarks, in which the progress of fruit culture has been traced up to the present time, and a general glance taken of the needs of the art, it may not be improper to attempt to look forward on the road we are yet to travel, and inquire, "What shall we find as to the condition of fruit raising in our onward progress? Will nurseries still increase in number and magnitude? Will the number of trees set out still be greater each successive year?—Will the markets become overstocked? Will our great labors and outlays, after all, avail us nothing, in consequence of the future decline in prices, just as we get our trees into fair bearing condition? Or, will adverse seasons, diseases, and depredators become so formidable that we shall never attain what we so much long for, and which present success promises?"

These are all most interesting inquiries, and we desire to search for all the light we can find, as the proper answers have so intimate a bearing on our present labors.

There is one thing very certain, that so long as all have an appetite for delicious fruit,—and this appetite appears to have been universal in all ages,—so long as this continues, trees will be planted, cultivated, and cropped. When our orchards become so extensive, well selected and general, that all mankind may partake of this wholesome and delicious luxury throughout the entire year, then we shall have enough, so far as human beings are concerned. Then we shall only have to fill up the natural decay as orchards successively become old. We are now very far from reaching this point. Very few have more than a plentiful supply only in autumn. It sometimes happens that a surplus exists of perishable fruit, if it chances to be of second rate quality. What we need most, in our provision for the future, is such a selection as will give a varied and excellent supply through winter and spring. Long keepers may be sent safely half the circumference of the globe—they will not only supply all seasons, but all countries and all climes. We need not fear to plant too many of these: for a large supply will create large facilities for their distant conveyance, and open large markets for their sale. Need we, then, fear that the country is becoming too full of orchards? If we suppose that twenty million trees are annually set out in the Union from all our nurseries, which would require some six or seven thousand acres for raising the young trees, this is not one tree annually to each inhabitant, and a very small provision when we take all the casualties into view to which they and their crops are liable, the amount needed for foreign markets, whether in a green state, or dried in the best manner, and the immense quantities that might be profitably consumed in feeding various domestic animals, for which they are not only cheaper than roots, but better, cleaner, and more easily gathered for winter storage.

I have taken a little pains to estimate the time required for all our present nurseries in the whole Union, to furnish a ten acre orchard to every farm of a hundred acres, in all the States east of and contiguous to the Mississippi river. On the supposition that all the ground occupied by nurseries in densely planted *fruit* trees, amounts to ten thousand acres, their entire and continued products would be required for *three hundred years* to fill out all these ten acre orchards. But many estimate that only *one-fifth* of all trees set out ever reach a successful bearing condition—in which case fifteen hundred years would be needed by our present nurseries to plant one-tenth of our entire territory with orchards. Our large nurserymen here, at Syracuse, and at other places, whose nurseries range variously from one to three hundred acres, must bestir themselves, extend their grounds, and plant more trees, or it will be a long time yet before our country becomes the orchard of the world.

Will diseases, enemies, and adverse seasons so increase, that good crops will become difficult and rare, as some are led to fear? I do not entertain any apprehen-

sion of the kind. These disasters often prevail at certain periods, and with particular kinds at a time; but they nearly always become greatly shorn of their magnitude under good management, and most of them, after running their course, disappear from our orchards and gardens. I have no question that the benignant promise, that while the world remains, seed time and harvest shall not cease, applies as well to our fruit crops as to the other productions of the earth; and that the enemies and difficulties we encounter, are not intended to check our endeavors, but to incite us to increased diligence, and like all other difficulties and calamities of life, to develop our energies in a manner that would never be accomplished in a life of indolence or of sailing only down the current of a smooth stream.

The future destiny, therefore, of fruit culture is that of improvement and increase. The improvement will consist in the origin, introduction and dissemination of better varieties and their better cultivation; the increase, in the propagation in our nurseries, and the planting out in orchards of those sorts most largely that are calculated to fill the present deficiency which exists during a large portion of the year, and supplying fine fruit at a moderate rate to the great mass of our country and city population, who now obtain at best occasional supplies.

But a most important improvement consists in the moral influence which must be exerted by an increase in the attractions of home, which will always result where family comforts are connected with rural culture, and where tasteful planting of every kind is made to add to the interest of a country or suburban residence. How many young men could be rescued from the gambling house and grog shop, if every owner of a dwelling endeavored to increase these home attractions in the place of what is now too often dull or repulsive! How greatly augmented would be the happiness of a community where, in connection with these excellent influences, a disposition were cherished to discard cold and selfish feelings, and to encourage the prevalence of human sympathy. How often may the possessor of a fine fruit garden, find means to contribute to the happiness of those whom sickness has stripped of physical comforts! How frequently will the acts of such an individual drop the balm of kindness into the corroding irritation of bad nature, and like the atmosphere of spring, breathe cheerfulness and sweetness around all within their influence.

May not we hope that our labors, if properly directed, will thus contribute in some degree to the advancement of the substantial happiness of the human race, and that one of the most valuable results of the future progress of this art will be its favorable influence in the cultivation of the sympathies and amenities of life.

## EDITORIAL MISCELLANY.



UR Evelyn has neglected sending us a critique for the present month ; but in lieu of which, he has kindly indulged us with a little gossip gathered during a recent visit to the White Mountains. It is not universally known that the rugged walls of New Hampshire are situate in the most delightful and picturesque valleys, and embrace singular and startling beauty, not encountered in any other locality west of the Rocky Mountains.

Nature here has acquired an impressiveness sublime, beautiful, terrific, and of a character that arouses those wondrous emotions in the human soul of the infinite

God, whose great conceptions stamp nature's face with the grand imperishable monuments of his almighty power. Craggy steps rise from sweet valleys stretching upward, high up, higher than the eye can reach, up where their peaks cleave the clouds as hastened through the sky, chased by a northern boreas ; high up where even the eagle dare not venture, albeit he is the prince of soarers ; high up where the lightnings disport, and thunders forge their fearful reverberations, and winds whistle, and shriek and howl like evil spirits who have escaped their fetters, assuming weird shapes, and beating the sturdy cliff as if in punishment for its aspiring to a sphere illegitimately appropriated. Thitherward Evelyn wandered during the heated term of the past summer.

DEAR MR. EDITOR :—

I have breathed an atmosphere exhilarating and life prolonging, the same that hovers over those sky-aspiring

peaks, yept Mount Washington. Sated with the beauties of lower earth, and almost prostrated by the fervency and persistence with which Sol dispensed his calorific comforts, during the months of July and August, I was induced to ramble through New Hampshire's rugged granite, verily ! it is a rich State, there are no broad rolling prairies to be sure, but there are quarries of granite and marble enough to contribute palaces to every town in the Union.

During a large portion of the year, the White Mountains present to the spectator a silvery white appearance, given by the snow, which in some places is perpetual ; the warm weather, however, dissolves the icy beds, and at this period the mountains are involved in a blue hazy mist produced by the condensing vapors.

Mount Washington forms the climax of a group, comprising Mount Webster, Pleasant, Jackson, Monroe, Franklin, Clay, Adams, Jefferson and Madison. They are approached through a narrow defile three miles in length, familiarly known as the "notch." A large gap, a mouster pathway, protected on either side by perpendicular walls of solid rock, so very high that one's vision scarce reaches the open space above that lets in a gleaming of the exterior world. Cast your eyes which way you will, nought meets the gaze save adamant and a very limited quantity of daylight. I must confess, while passing through this prodigious gateway, to a vague incomprehensible feeling of terror, mixed with sublimer thoughts of the great Architect, who fashioned these "rocks of ages." I could with difficulty subdue the impression, that these mighty walls were about closing up, and that I should meet the fate of Pharaoh, in his transit through the Red Sea. Emerging from the notch, the beautiful and fertile valley of the Ammonoosuc bursts upon the view. This valley is for most part thickly wooded ; from it the whole range of Mountains is in sight—at the base of which our noblest forest trees flourish, undisturbed by the desecrating inroads of railroad companies and similar progressive influences of this age of go-aheaditiveness. Higher up, spruce and pines add their stiff forms to the wild scenery. Ascending still higher, vegetation with every step perceptibly diminishes in luxuriance, and becomes dwarfed until trees are represented by shrubs, which in turn dwindle in size, and their places is usurped by moss, presenting a remarkably fine study for

those artificially idea'd people who seek rural delight in fantastic rock-work. The peculiar influence of unpropitious atmospheres on the ripening of fruits, is particularly apparent on the mountain. Whortleberries, are so extremely acid as to render the real flavor scarcely recognisable; this acidity is doubtless to be attributed to a deficiency of heat during the growing season, and and also the sudden changes which here exhibits the most singular caprices. The vicissitudes of sunshine and gloom, light and shadow, are as fleeting and ever varying as the smiles and frowns of a well disciplined coquette. For the space of ten minutes the sun peeps out brightly and warmly, then comes up a dark cloud, pregnant of damp and mist, sweeping swiftly through the sky—quickly intercepting the supply of caloric, and as rapidly making one's mind change from tropical thoughts to reindeer and polar expeditions.

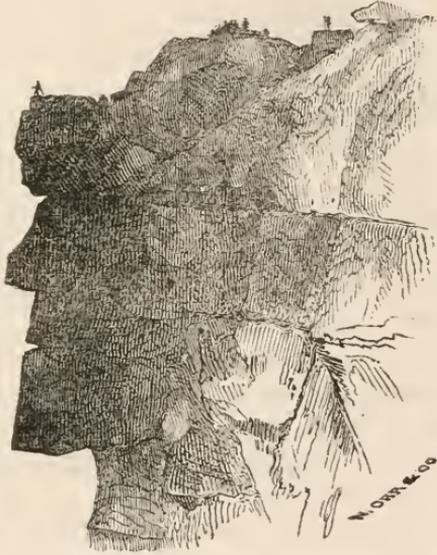
These fleecy vapors embrace the mountains as if their destinies were fulfilled. And so it would, were it not for the merciless installments of west wind leaping out from a sunlit sky; they rush furiously over the valleys, and clasping the misty pall without warning, disengages it from the rock and moss-bed; the succeeding moment it is away, relentlessly pursued until lost to view in the distance.

It is a well authenticated fact, that at the summit of Mount Washington, the external pressure upon the body is much less than at its base. A persons capacity for accommodating food is so much increased, and his appetite sharpened by the exhilarating atmosphere, that on partaking sufficient to appease his craving, and subsequently descending to the foot of the Mountain, he experiences indescribable agonies—a feeling of repletion almost to bursting.

The only manner at present of ascending Mount Washington, is by a bridle path, which, to one unaccustomed to the performance of pedestrian feats, is a herculean undertaking—nevertheless, it well repays for the outlay of perspiration. The view is grand,—entrancing beyond description. The gazer for the nonce, is lost in the sublimity of his emotions; and his own insignificance compared with the mightier works by which he is environed, becomes a startling and permanent conviction.

On the loftiest peak of Mount Washington, a small house has been erected, called the Summit House ; the material and furniture for which, was conveyed a distance of eight miles on men's backs—a rather arduous undertaking, and was only accomplished by a large investment of perseverance, time, and money. The accommodations for visitors, are of course of a temporary character. The Glen House at the foot of the Mountain, being the abiding place for those who resort to this cool retreat during the summer season.

A chartered company has been organized, and are at present engaged in constructing a carriage road of easy ascent from the very foot, to the summit of Mount Washington ; a few miles of this road is already completed. There will also be a fine Hotel erected for the accommodation of visitors. In connection with the Hotel, the company propose constructing an Observatory, providing government will make the necessary appropriation to defray the expense which it will incur. This is the highest accessible point in the United States, and as such, would eminently subserve the cause of science, as observations can be taken at any season of the year without the annoyance generally experienced by vibratory motion.



It is also in contemplation to erect telegraph wires, and by this means the several observations taken daily, can be transmitted to every important city in the Union ; its utility to the commercial interests is beyond dispute. And a month's sojourn for an invalid at the summit of Mount Washington, will obviate the necessity for swallowing nauseous drugs, that do more kill than cure. The increase of travel to the White Mountains, for the last five years, has made a profitable business for ten large Hotels, and all of them are in the vicinity of Mount Washington. The engraving

I send you, is after the plan designed by the Mount Washington Road Company, and affords a very accurate view of the peak of the Mountain. (SEE FRONTISPIECE). The road will be completed in about two years. Among the curious *features* of this locality, is an immense *face* (I enclose a drawing) called the old man of the mountains ; a well defined profile of a human being, twelve hundred feet above the level of the pass ; sculptured by nature in the solid granite, and of dimensions in proportion to her other grand works in the vicinity. The profile is on the south side of Cannon Mountain, facing Mount Lafayette. Said an eccentric speaker, at a celebration a few years since in Fryburg :—" Men put out signs representing their different trades ; jewelers hang out a monster watch ; shoemakers, a huge boot ; and, up in Franconia, God Almighty has hung out a sign that in New England he makes men." The top of the mountain is about two thousand feet above the level of the road, and four thousand feet above the level of the sea. Near the summit, an oblong rock, resembling a cannon, has given a name to the mountain. The sides are covered with a thick growth of maple, beech, birch and spruce. The Profile Rock itself is more than twelve hundred feet above the level of the road ; it being situated far below the summit of the mountain. The profile is composed of three separate masses of rock, one of which forms the forehead, the second the nose and upper lip, and the third the chin. Only at one particular place are they brought into their proper position, which is on the road leading to the Notch, about a quarter of a mile south of the Lafayette House. The expression of the face, as it stands out in bold relief against the sky, is quite stern. The mouth alone betrays any signs of age and feebleness. But the " Old man of the Mountains " has never been known to flinch. " He neither blinks at the near flashes of the lightning beneath his nose, nor flinches from the driving snow and sleet of the Franconia winter, which makes the mercury of the thermometer shrink into the bulb and congeal." Passing down the road from the particular spot where it can be seen to perfection, the Old Man's countenance changes first into a " toothless old woman in a mob cap," and soon the profile is entirely lost. In passing up the road, the nose and face flatten until the forehead alone is seen. The length of the profile, from the top of the forehead to the lowest point of the chin, is eighty feet. The face looks towards the

south-east, and is perhaps half a mile distant from the observer in the road.

There are a thousand other curious freaks of nature, which will render the White Mountains a capital locality to locate strange legends, to those disposed to romancing. The immense cascades which glitter like silver belts in the sunlight, and pour their crystal waters on the plains far below, are in themselves objects of attraction that amply compensate the traveller for his trouble.

I myself would not have missed the sight for a small revenue in reliable securities. I am only sorry that publishers have not turned their attention to making books, descriptive and illustrative of White Mountain scenery. We believe, however, that Mr. N. Orr, of your city, has been recently making sketches, etc., with the view of bringing out a publication of the kind demanded.

Yours sincerely,

EVELYN.

The rapid extension of the fruit growing interests at the south, has developed the fact that apples which are highly estimated at the north for their superior qualities, are in many instances, utterly valueless in a warm climate, assuming characters widely differing from the original type. This variation can, we think, be explained, being attributable to hot, long summers, tending to diminish the saccharine properties of the juice, and concentrate and intensify the acid principle. Cherries also, in many instances, become quite acid. H. R. Robey, Esq., a nurseryman of Fredericksburg, Va., having satisfied himself at an early day, of the inadaptability of northern apples for the southern States, directed his attention to securing seedlings peculiar to his own latitude. His efforts have been rewarded beyond his most sanguine expectations, having collected several native sorts of good quality, and which mature their fruit equally as satisfactory as their congeners of celebrity in higher latitudes. Mr. Robey sends us the following list of apples, which he says can be relied on. They are all winter sorts, many of them keeping till spring :—

ABRAM.—Medium size, dull red stripe, peculiar, agreeable aromatic flavor, will keep till May, great bearer.

BEVERLY'S RED.—Rather large, red, very good.

CART HOUSE.—Medium, red, long keeper, fair quality.

BONUM.—Large, red, good bearer, one of the best.

HEWE'S CRAB.—Small, superior for winter cider, a great bearer.

WAUGH'S CRAB.—Rather large, lively red, flesh very white, fine grained, makes a fine white cider in January, in the Spring it is one of the best eating Apples, very juicy and sweet, will keep till June.

HOLADY'S SEEDLING.—Large, yellow and russet, flesh a little coarse, very tender and juicy, a good keeper, one of the very best.

RAWLE'S JANNETTING.—Large, stripe on a yellow ground, well known as rich and juicy, bears and keeps well, and one of the best.

LIMBERTWIG.—Rather large, dull red, and yellow, a regular and good bearer when kept in dry sand, to prevent shrivelling, until March, it is a rich, tender, juicy Apple.

LEATHER COAT.—A great bearer and keeper, quality fair.

MILAM.—Red, rather a shy bearer, until the trees are fully grown, quality very good.

OGLEBY.—Large, greenish yellow, quality very good, great bearer.

BROOKE'S PIPPIN.—Very large, yellow, flesh very tender and juicy, keeps well until Spring, great bearer, the best.

PRIOR'S RED.—Large, irregular stripe, spotted and russet, the best.

LONG ISLAND RUSSET.—Large, keeps pretty well.

STAWN'S SEEDLING.—Large, striped, good bearer, very good.

BELL PREE.—Large, greenish yellow, very good.

ALBEMARLE, OR MOUNTAIN PIPPIN.—Very large, greenish yellow, very tender and juicy.

C. C. WELLFORD.—Rather small, handsome yellow, very tender, rich and juicy, will keep till June, the best.

WINTER QUEEN.—Handsome stripe, good for early Winter.

VANDEVERE.—Dull stripe, a great bearer, keeps well, very good.

WINE SAP.—Large, dark red, a good and early bearer, very good.

CINCINNATI HORTICULTURAL SOCIETY.—At a late meeting of the Cincinnati Horticultural Society, the subjoined discussion, relating to the effects of the recent cold weather on fruit trees, transpired :

Mr. Buchanan requested the members to state their observations respecting the effects of the frost upon fruit trees, and particularly the fruit buds. He found the peach buds and those of the finer cherries were killed ; those of the apples, the grapes, the hardier pears, and cherries are still safe.

Mr. Kelly thought the examination premature ; some of the young shoots are destroyed ; this was true of peaches, cherries, and pears, that had made a late growth in the fall. As heretofore remarked by him, the Mazzard cherry had suffered more than some of the finer kinds.

Mr. R. W. Reilly reports all the Morellos safe. Napoleon, the Spanish, the Dukes, and other finest varieties are killed, not only the buds but the fruit spurs ; also, the finer pears have their spurs killed, and the blackness often descends to the main branch. Some early apples appear killed ; the late ones look well. The peaches are evidently killed. His trees, five years old, he thinks are not killed.

Mr. Sayers finds some of the young growth of pears looking badly ; but in 1852, the same appearances were followed with no bad results. No peaches, except a few buds, perhaps one per cent., on low branches near the ground. Cherries appear to be all dead. Fruit spurs look badly ; but believes they will recover.

Mr. F. G. Carey has not examined sufficiently, but believes the cherries are all killed ; a few, perhaps, will survive on the early May. Plums are not injured. Peaches are killed now ; some of the trees appear to be injured. He apprehended that we should see the effects of the frost during the next season in various blights.

Mr. Kelly reminded us that four years ago we had the same appearances, and where the shoots were used for grafts they failed ; but where left on the tree they recovered entirely. He thought this discussion altogether premature, except, as had been suggested, by way of showing our powers of guessing ; we must wait until the trees begin to grow in the spring.

Mr. John K. Greene said that Mr. Davis, of Clermont County,

reported a depression of twenty degrees below zero. He is on white-oak levels; more than half of the trees appear to be killed; those in the nurseries were also much injured. At Loveland, near him in the valley, the mercury was reported to be from twenty-four to thirty degrees below zero.

Mr. A. H. Ernst was reminded by the appearances of the observations made in 1852, when the buds and also fruit spurs were injured, and it was thought they would probably fall off, so that we might have less fruit for two or three years, the result proved otherwise. He thought the trees were very well prepared for the cold by thorough ripening of the wood. The vital forces would restore the healthy condition of the trees. He thinks the young cherry and peach trees would throw off the injury by their intrinsic vitality.

Mr. Orange and others thought it premature to judge of the effects at this time, and this is the general sentiment of the members.

Mr. White had experienced a very severe winter in Massachusetts, when everybody dreaded the effects of the cold, but the ensuing season was very fruitful.

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At the recent meeting of the Fruit Convention at Rochester, a committee, consisting of J. J. Thomas, P. Barry, and H. E. Hooker, was appointed to prepare a select list of fruits for general cultivation within the limits of the society's operations. A list having been prepared, the merits of the several varieties of pears were discussed, with the relative adaptation to the pear and quince stock. Each variety was presented by itself, when the following were adopted:

Selected Pears—Bartlett, Louise Bonne of Jersey, Virgalieu, (or White Doyenne,) Lawrence, Vicar of Wakefield, Glout Moreceau, Easter Beurre. On motion, Shelden and Flemish Beauty were added. There was some difference of opinion as to the Vicar of Wakefield, and its merits and demerits were fully discussed. The Onondaga was also proposed, but after a full discussion was rejected, as the number was too limited to admit it.

Apples—King—(It was proposed to add of Tompkins County, as several spurious varieties were in cultivation, some of which were described by members present as much inferior to the

Tompkins County King, a variety stated to have come originally from New Jersey, but never distributed till grafted, where it now prevails.) Rhode Island Greening, Northern Spy, Baldwin, Graevenstein, and Fall Pippin were adopted. Sops of Wine was proposed, but withdrawn as it was not sufficiently known to those present.

The following persons contributed fruits to the exhibition :

Elwanger & Barry, 45 varieties of pears, among which were very fine specimens of Glout Morceau, Easter Beurre, and Vicar of Wakefield, which deserved especial notice ; also 33 varieties of apples.

H. E. Hooker & Co., Rochester, 2 varieties of pears and 30 varieties of apples, among which were several new Southern and Western apples.

Hooker, Farley & Co., Rochester, 18 varieties of apples.

A. Frost & Co., Rochester, 14 varieties of apples.

John Donellan and nephews, 14 varieties of apples.

John J. Thomas, Macedon, 24 varieties of apples.

A. G. Hanford, Waukesha, Wis., 15 varieties of apples.

Stone & Cook, Hinmanville, Oswego County, 28 varieties of apples.

C. L. Hoag, Lockport, 7 varieties of pears.

E. W. Sylvester, Lyons, 55 varieties of apples.

Mr. Mattison, Tompkins County, 38 varieties of apples.

A. Pinney, Clarkson. 14 varieties of apples, and some pears.

J. W. Seward, Rochester, 17 varieties of apples.

E. C. Frost & Co., Schuyler County, fine specimens of King and Wagener apples.

R. H. Brown, Greece, 24 varieties of apples and 27 varieties of pears.

Mason W. Hall, Greece, 9 varieties of apples and 1 variety of pear.

James Lemon, Rochester, Isabella and Clinton grapes.

F. W. Lay, Greece, 14 varieties of apples.

Charles Lec, Penn Yan, fine specimens of Wagener apples, with whom the variety originated.

John Park, Gates, 13 varieties of apples in half bushel baskets which were the finest and best grown specimens on exhibition.

James H. Watts, Rochester, also exhibited a basket containing fine specimens of the Northern Spy.

Eden was a garden, but we have no idea that Adam cultivated onions or cabbages. We think it must have been a natural flower garden. The plants we now cultivate were the accursed weeds which have been brought to edible perfection by that terrible mandate, the sweat of the brow. We believe that there is not a weed that springs from out the "teeming ground" that is not worth its culture, either as a balsam or a table esculent. But we of America never appropriate or improve our wildings, for the table, until they have first been to Europe, and come back with high sounding names. It is a wonder how we ever found out the edible qualities of maize or Indian corn; probably some hungry horse, or discerning chicken, first taught us; or, more likely, the rude savage of the forest. One of the American aristocracy, traveling recently in Europe, heard much of the rare beauty and medicinal virtues of the American Velvet Plant. At a high price he procured the seed, brought them home, sprouted them in his green-house, and transplanted them into open borders with the utmost care. Daily, and almost hourly, he, in common with his horticultural friends, watched its expanding beauties; when, lo! the maturing plant stands confessed, a Mullen in all its charms. So much for our appreciation of American indigenous plants. A garden is not merely a place for the culture of exotics. Asparagus is cultivated with considerable expense, when our native Poke plant, almost its equal for the table, flourishes in the neglected fence corners. The Endive, a bitter salad, is cultivated assiduously, whilst the sweeter and more nourishing Purslane is cut up as a worthless pestiferous weed. Europe and Asia are ransacked for Broccoli and Kale, and our own Milk Weed and Dandelion, infinitely their superiors, left as Nature's wildings.—  
*Soil of the South.*

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THE GRAPE VINE.—Whatever pruning is to be done, should be done now. We have no faith in European pruning for American culture. The native vines are found only to succeed well in open culture. They will not need pruning so much to force the formation of fruit, as to keep the vine within bounds; for, in good soils, they are all rapid growers. The small limbs branching from the main stem may be cut back to three buds: each one of these buds will make fruit. So if each one of the lateral branches

produce three bunches of grapes, the vine will make a splendid yield. The main vine may be cut back, when it is necessary, but if fruit be the object, only prune the laterals. If the vine wants invigorating, dig in a mould from the woods and swamps, with a little good guano, or hen manure with it, around the roots, not merely at the base, but ten or twenty feet from it. Train the vine to trellis or pots before the buds begin to swell, otherwise the buds may be rubbed off.—*Ibid.*

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THE VINEYARDS OF CALIFORNIA.—Mr. Buffum, in his speech in the California Assembly, wherein he proposed to exempt California wine from the provisions of the prohibitory liquor law, gave the following interesting statistics concerning the culture of the vine in that State:—

“In Los Angeles County—the vineyard of California—there are already under cultivation as many acres covered with vine as there are in the whole of the great State of Ohio, the pioneer in the wine manufacture of the United States. In Los Angeles, the number of bearing vines amount to 800,000; the number of acres under grape culture is 1,500; the quantity of wine which can be made to the acre is 400 gallons; the amount of capital invested in the grape culture is \$1,000,000, and the number of persons engaged in the various branches of the business is 4,000. Thus, these 1,500 acres only under grape culture can produce 600,000 gallons of wine annually, which, at two dollars per gallon, will yield in this district the annual income of \$1,200,000. If there are in this State but 250,000 acres of land which can be brought under grape culture, they would produce 100,000,000 gallons of wine annually, which, at one dollar per gallon, would yield the annual revenue of \$100,000,000.

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The *Pekin Plain Dealer* says the Illinois Hedge Company have set out two hundred miles of Osage Orange hedge in Tazewell County.

## LITERARY NOTICES.

LANDSCAPE GARDENING, OR PARKS AND PLEASURE GROUNDS, with Practical Notes on Country Residences, Villas, Public Parks and Gardens, by CHARLES H. SMITH, Landscape Gardener, Garden Architect, with Notes and Additions by LEWIS F. ALLEN, author of Rural Architecture, &c. New York : C. M. Saxton & Co.

The American edition of this work, brought out under the sanction and with the critical notes of Mr. Allen, deserves more special notice than it has hitherto received. The author is evidently well qualified by study and practical experience to speak with authority on his chosen theme ; and his American editor is well known as a tried friend and able advocate of horticultural improvement in this country. As might have been expected in an English book of this kind, some parts of it are of little practical use to American readers. In particular, the remarks upon the hardy trees and shrubs suitable for parks and lawns must be taken with considerable qualification. What is hardy and thrifty in the mild winters and under the weeping skies of England, is often not so here. Indeed, when the author pictures so familiarly scenes of laurels, rhododendrons, hollies, deodars and yews, &c., we sometimes feel a little discontented, because such scenes can hardly be reproduced in the dry, variable and cold climate of our Northern States. And here we must find a little fault with the American editor, for not distinctly informing the general reader which of these trees and plants are too tender for our latitude. He might also, in the same connection, have given us a list of trees of native origin which would answer as substitutes for these fragile foreigners. There is, perhaps, no point on which unprofessional planters more need information at present than this, viz., which of the newer trees and shrubs, foreign and native, are hardy in this climate ; in what soils and aspects they thrive best ; what is their general habit, size and value. We wish Mr. Allen would give us such information in the next edition of this work.

We wish, too, that he would be less general ; instead of giving his "unqualified assent" so frequently, we wish he would *qualify*

the statements of the author, and so render the book better adapted to the wants of American readers.

These things having been said in all frankness, let us pass to speak of the great pleasure the book has afforded us. In the first place, it is written in a plain, unambitious style, as if it had been the aim of the author to give the greatest possible amount of information in the fewest possible words. It proceeds upon the supposition that the reader's taste is already somewhat formed, and that his zeal needs little stimulus. It comes to guide that zeal, and to help that taste in accomplishing some real and important object. Our country abounds with persons intent upon laying out new grounds or improving old ones, and who wish to create scenes of beauty around their homes. They have read, in prose and poetry, of velvet lawns, and leafy groves, and thickets, and groups, and mazes, and statues, and vases ; but they have no clear and definite conceptions of what they wish to accomplish, and much less do they know how to go to work in order to realize the scenes floating dimly in their imaginations. They do not know where to cut down a tree, or where to plant one : where to clear up shrubbery, or where to set it : where, or when, or how to plant evergreens, or deciduous trees, singly or in groups. To such persons this book will furnish many valuable suggestions. It lays down principles which if the amateur planter studies and faithfully applies, he will not go far astray.

There is a great variety of subjects treated here for a book of 360 pages. The headings of the chapters are as follows :—The House and Offices ; the Approach ; Pleasure Grounds and Flower Gardens ; the Park ; Ornamental Character of Trees, detached and in combination ; Planting ; Fences of the Park and Pleasure Grounds ; Water ; the Kitchen ; Fruit and Forcing Gardens ; Public Parks and Gardens ; the Villa : General Observations on the Laying-out and Improvements of Grounds : the Arboretum ; the Pinetum. Under these several heads, the author takes a wide scope, and furnishes valuable information.

It will be observed, also, that some topics are discussed here which do not always find a place in books of this kind. That of Public Parks, for instance, is of great importance just now to American readers. The authorities of our young and thriving cities would do well to read and digest Mr. Smith's chapter on

this subject. Perhaps the result would be that many broad acres in the suburbs of our cities would at once be reserved and planted before they should be otherwise occupied, or the price of land become so high that no enterprise of this kind could be successfully undertaken. In this connection, we must say, that this book would have pleased us more had the chapter on the Kitchen and Fruit Garden been omitted, and its place been occupied by one on Rural Cemeteries.

The author's remarks on the distinctive colors and forms of certain trees, in chapter five, are very interesting, and evince fine discernment and long and careful observation. This subject might profitably be pursued further. What is said in this book on the subject of Botanical Gardens, chiefly as attached to educational institutions, is worthy of special notice. A few such gardens already exist in this country, as at Cambridge, Massachusetts, in New York and Brooklyn, and possibly in other cities. We are happy to know that one is also contemplated at Hamilton College, Clinton, N. Y. It is to be desired that their number may be increased.

With the few exceptional remarks made near the beginning of this notice, we heartily commend the book before us to the attention of all who would gain useful information on the subjects of which it treats.

A. D. G.

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We have received the following Catalogues :—

Descriptive Catalogue of Fruit and Ornamental Trees, from Messrs. Fahnstock & Horr, Dubuque, Iowa. This establishment embraces several hundred thousand trees, selected with a view to supply such as thrive in western localities.

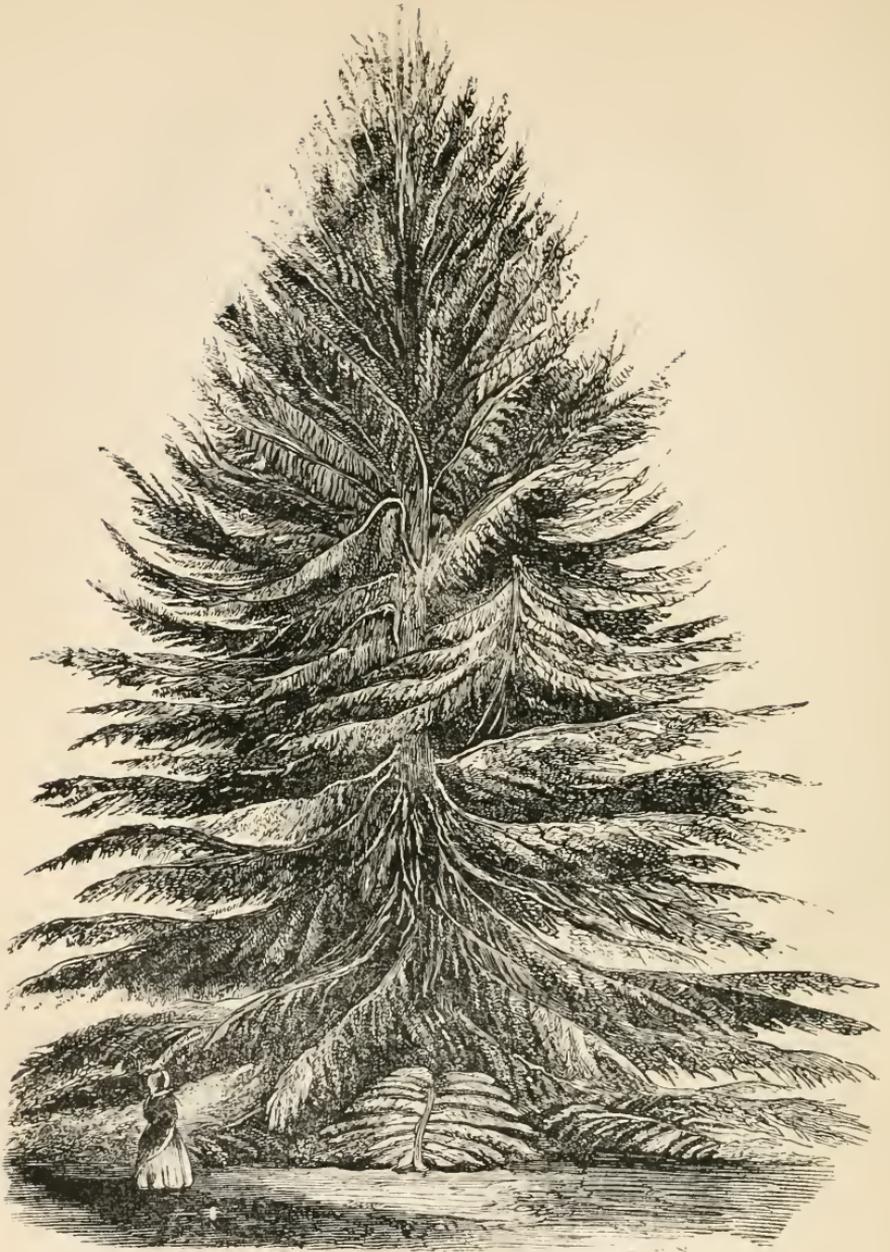
Catalogue of Fruit and Ornamental Trees, &c., from George H. Cherry & Co., River-bank Nurseries, Rochester, N. Y.

Catalogue of Fruit and Ornamental Trees, cultivated by C. J. Ryan & Co., Rochester, N. Y.

Trade List Catalogue of Nursery Stock, from Henry Collins, Waterloo, N. Y.

Wholesale Catalogue, from Wm. R. Prince & Co., replete with novelties and horticultural products of recent introduction.



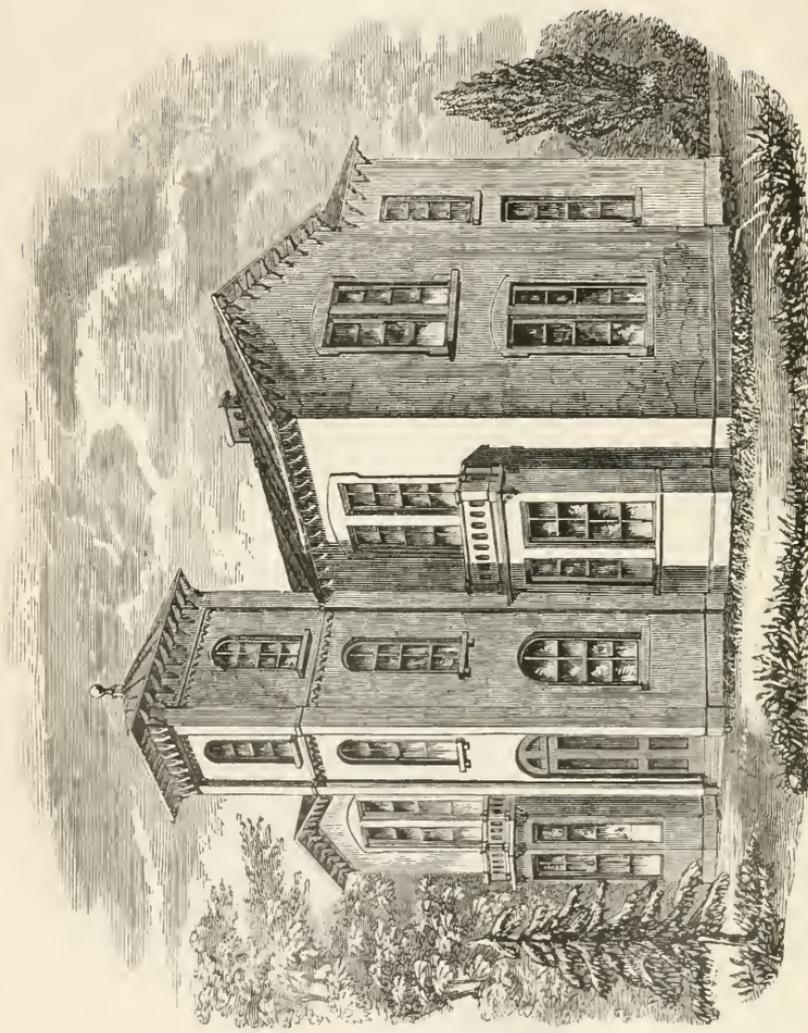


DOUGLAS'S FIR, (*Abies Douglasii*.)

70 FEET IN HEIGHT.

(From the *London Florist*.)



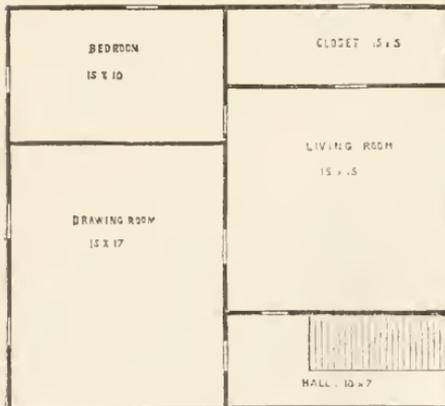


ITALIAN VILLA—WITH CAMPANILE.  
(*Eng. for Hort. Review.*)



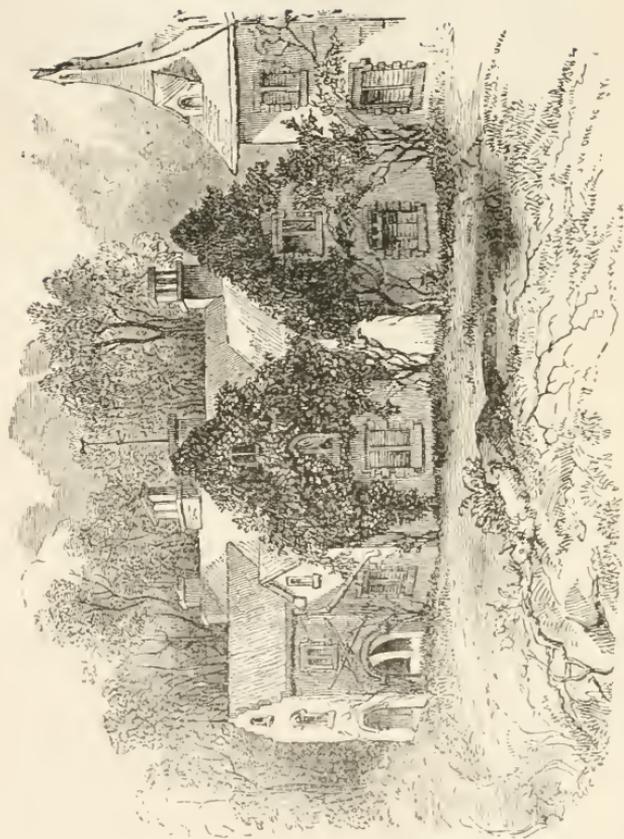


ENGLISH RURAL COTTAGE.  
*(Eng. for Hort. Review.)*



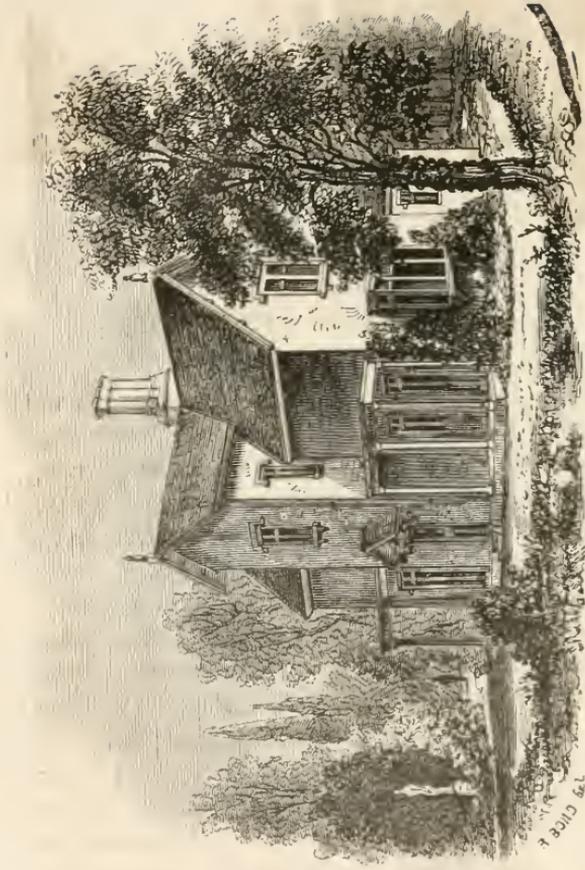
GROUND PLAN.





FUNNYSIDE—RESIDENCE OF WASHINGTON IRVING,  
(*Eng. for Hort. Review.*)





A STORY-AND-A-HALF COTTAGE.  
(*Eng. for Hort. Review.*)



# New York Horticultural REVIEW.

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## THE FROZEN SAP BLIGHT.

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**T**HE plausible and almost universally received opinion that the frozen sap blight in the pear tree is caused by the rupturing of the tissues, owing to the expansion of the sap when converted into ice, is not sufficiently confirmed by facts, and the results of rupture from other causes to permit a discontinuance in investigation.

It is a well-authenticated fact that succulent plants are more susceptible of the influence exerted by heat and cold than those which form short, jointed, firm wood. A pear tree planted in damp soil is liable to produce soft, saturated tissue; and in direct proportion that the tissue is rendered moist, is the susceptibility and conducting power of the tree increased. A pear tree of a similar variety planted in dry ground, grows slow, and creates hard tissues, which diminishes the conducting power, is not so sensitive to extraneous influences, and therefore is better prepared to combat the extremes of heat and cold. Frost exerts itself specifically; its action can only be experienced where humidity exists. When dilatation takes place by the formation of ice in the cellular tissue, they are not lacerated, but simply separate, as these vesicles possess, in a limited degree, contractile and expansive powers, particularly succulent plants. This power diminishes as the wood

increases in dryness. If the frozen sap blight were attributable to the bursting of the cellular tissue, and the consequent displacement of the fluids, and the interruption to the economy of the plant, then similar disastrous consequences would be realized, in partially severing a tree with a knife, or where bruises or disbarking accidentally occurs : in the latter case there is no apparent diminution of vigor in the tree ; on the contrary, but a short period elapses before the destroyed tissue is replaced, and performing its functions in a healthful manner. It is not freezing, then, nor the laceration of the tissue that causes death in a pear tree, but sudden thawing. When a sudden thaw transpires, the components of the sap do not recombine ; the heavier portion precipitates in coagulated atoms, and in this form is incapable of elaboration. Nothing remains but a watery fluid, which is entirely devoid of the vital principle of sap. Chemical decomposition takes place, and the fluids become viscid. Under these circumstances, a tree on the approach of warm weather will expend the perfect sap remaining in the branches in putting forth leaves, which, meeting with no nourishment, in a short time die. Occasionally but one side of a tree is affected by the thaw, and we have invariably noticed where this occurs, that it is the side directly exposed to the rays of the sun. In such instances the tree rarely dies. The side containing the pure sap in its upward progress takes up the inspissated fluid, and conducts it to the leaves, where it is rejected in the shape of reddish brown tubercles, which will continue making their appearance until the tree is entirely divested of impurities. Prof. Turner, who had observed this peculiarity, concluded that it was an entirely different kind of blight, instead of which it is a modified form of the frozen sap blight.

A frozen potato, if thawed slowly by plunging it in cool water, will receive but little injury, but if thawed quickly it undergoes a wonderful change. The starch which it previously contained, almost entirely disappears, and in its place you have sugar. When a frozen plant is subjected to the influence of light and heat, by slowly increased gradations of intensity, the several constituents of the vital principle re-assume their relative healthful positions regarding each other, and the economy is but slightly disarranged ; quite the reverse occurs when heat is applied suddenly

Prof. Morren asserts : "That no organ whatever is torn by the action of frost, except in very rare cases when the vesicles of the cellular tissue give way, but that the vesicles of plants are separated from each other without laceration. 2. That neither the chlorophyll, the nucleus of cells, elementary fiber, amylaceous matter, raphides, nor the various crystals contained in vegetable tissue, undergo any alteration, unless perhaps in the case of amylaceous substances, which, in some cases, are converted into sugar, no doubt in consequence of the action of some acid, formed by the decomposition of the organic parts. 3. That the action of frost operates separately upon each individual elementary organ, so that a frozen plant contains as many icicles as there are cavities containing fluid ; the dilatation thus produced not being sufficient to burst the sides of the cavities. 4. That such dilatation is principally owing to the separation of the air contained in the water. 5. That this disengagement of air from water during the act of congelation, is the most injurious of all the phenomena attendant upon freezing ; introducing gaseous matters into organs not intended to elaborate it, and bringing about the first stage in a decomposition of the sap and the matter it precipitates ; so that a thaw commences a new chemical action destructive of vegetable life. 6. That the expansion of the cells and acquiferous organs drives a great quantity of water into the air-cells and air-vessels, so that the apparatus intended to convey liquid only, contains water and air, while that which is naturally a vehicle for air conveys water. Such an inversion of functions must necessarily be destructive to vegetable life, even if death were not produced in frozen plants by the decomposition of their juices, the loss of their excitability, and the chemical disturbance of all their contents."

From these statements it would appear that what is termed "frozen sap blight" may be partially remedied in the pear by cultivating such varieties as produce firm tissues, and forming plantations on dry soil, and uplands secure from standing water on the surface, and a thoroughly drained subsoil. We have seen several thousand pear trees blighted in a single season, comprising over a hundred different varieties. The Louise Bonne de Jersey was entirely destroyed beyond remedy, while a row of "Urbanistes" adjoining did not receive the slightest injury. The former having moist tissues, is easily excited ; the latter being a

slow grower, has dry tissues, and passed unscathed. The seckel rarely blights. The Bartlett frequently, as also does the "Glout Morceau." Native sorts are less subject to blight than those of foreign introduction.

We have thrown out these hints with the hope that cultivators will make observations when opportunity offers, and compare the results with the above suggestions.

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### "MACLURA" HEDGE CULTURE.

BY C. R. OVERMAN.

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It is now pretty generally conceded that the Maclura (or Osage orange) is capable of being formed into a hedge that will prove an effectual barrier against all stock. It is inferred, from observation and analogical reasoning, that it may possess great durability. It has been *demonstrated* that with patience, care, and *well-directed efforts*, a great hedge may be made at a *less cost* than that of the average of wooden fences, and it will readily be admitted that a hedge, well-thickened and regularly shorn, is an object of surpassing beauty and gracefulness—an ornament to the farm and lawn. Now, when we consider that the *inclosure system* ever has been, and probably ever will be in vogue, all over our vast "rural districts," and that the fencing is, in general, an item of greater expense than all other improvements of the farm put together, we will not marvel that this new enterprise, *promising so much*, has created such an interest, and diffused itself so suddenly over nearly every State in the Union.

Yet, on the other side of the question, a sense of justice compels us to notice also the *discouraging* features of the enterprise, in their present phases, for it must be confessed that there may be seen scattered all over the country, thousands of "specimens" that can never emerge from the condition of a *nuisance*, (unless speedily extirpated), and it may be fairly estimated that three-fourths of the rows now set will result in failure. It would be easy to "amplify" upon the *causes* which have led to this general want of success in the new project, but want of time and space forbids the mention, here, of more than two or three of the most

prominent, namely, want of *requisite information*, inexperience, and *general negligence*. In the hope of correcting some of the *most common* errors in hedge raising, I propose to lay before your readers a succinct view of the whole process of hedge culture, and also a glance at the history and properties of the plant.

It may be well first to promise, that though the science of hedge culture is simple and easily understood, yet, to make a complete hedge is a very *particular business*, and it requires the strict observance of *certain conditions*, which cannot be dispensed with. The following remarks and suggestions on the subject are de-

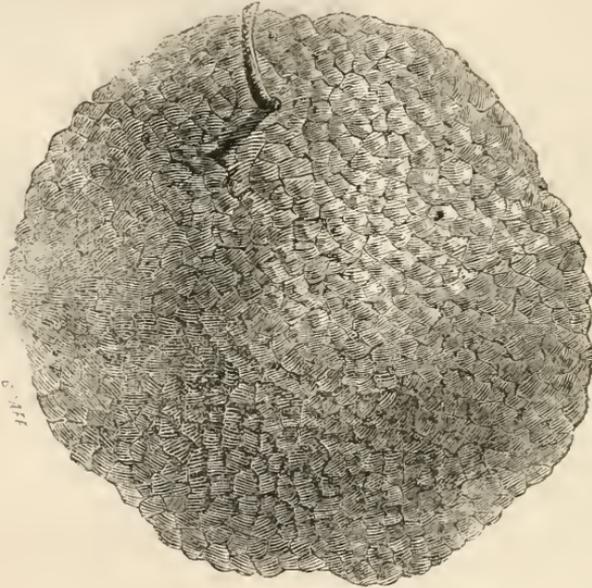
duced from observation, and the close application for a series of years to the hedging business.

The Maclura is found in its wild state in Texas and some other parts of the southwest. In Farming County, Texas, it abounds in considerable forests along the small streams, in some places forming almost impenetrable thickets, and growing thirty feet high, or more. Its leaf is medium in size, oval, acuminate, and of a bright, clear green. The buds on the young shoots are numerous, and from the base of each projects a sharp, tough, and elastic thorn, from three-fourths of an inch to one and a fourth inches in length. These thorns remain on the branches for years. The wood of the Maclura is very hard, and extremely durable. The grain of it is very fine, and susceptible of the finest polish :



BRANCH OF MACLURA.

it is of a beautiful yellow color, and is much used for dyeing silk. It shrinks none in drying, and it is so heavy that when thoroughly seasoned it will sink in water. The fruit (which is generally produced in alternate years) is large, round, and of a yellowish green color at maturity. Its surface is knobby and uneven. It abounds in milk, and the flesh is coarse, or stringy and inedible. Each fruit contains several hundred seeds, which are washed out after the fruit has been bruised or mashed, and partially rotted. If this "mass" is allowed to ferment, the washing is rendered easier, but the vegetating principle will be destroyed. If seed



OSAGE ORANGE.

are damaged, the defect is obvious, the germ appearing dark and lifeless, while perfect seed, on being cut or broken, will appear light, lively, and crisp. The weight of a bushel of clean dry seed is about thirty-five pounds, but by keeping several months it will shrink.

The surest and most effectual method of sprouting the seed is to soak it forty-eight hours in warm water, about the close of winter, and then expose it to hard freezing. Once or twice is sufficient, but care must be taken to spread it out, so that all parts

may be frozen equally. After freezing, the seed must be kept as *moist* and *cool* as possible to prevent sprouting before the weather is right, or the ground in order for planting. To prepare the seed for sprouting without the freezing process, it is necessary to soak it in warm water about a week, keeping the vessel near the stove, or in a warm room, and changing the water once a day, after which the water should be turned off, and the seed kept covered with a damp cloth; stir frequently, and in about another week, if the room is kept warm, the seed will commence sprouting. They should be planted before the radicles are half an inch in length, or the roots will grow crooked.



CUTTING THE HEDGE.

The ground for the seed bed should be rich and deeply stirred, and it should be finely pulverized, and free from weed seeds. "New ground" is best. The drills for the seed may be made with a hand rake, with but two broad teeth a foot apart, drawn by a line stretched across the ground, thus making two drills at once, wide and rather shallow, unless the ground is likely to be dry, in which case the drills should be at least two inches deep.

In these drills sow the seed regularly, about twenty-five to the foot. Before the seeds have time to dry, cover them about two inches deep with fine, mellow soil. Two feet space should be left between the double rows, and if the cultivator is to be used, three feet is necessary. If the seed is in right condition when planted, and the weather is moist and warm, the plants will begin to appear in a week or ten days. The ground must be kept loose and free from weeds. If the plants are too thick in patches, the small ones should be thinned out about midsummer. *Evenness in the size* of the plants is a most important point.

The plants should grow sufficiently large the first season to set in hedge rows. It is found safer to take up the plants in the fall. So soon as the frost kills the leaves, the plants may be mowed at a uniform height, of about four inches. The roots in a free soil strike deep, and they must be cut about eight inches below the surface. This is best done with a subsoil cutter or plow, without the mould board. It is drawn by a strong team, and may be

regulated to any depth. If kept sharp it cuts the roots smooth, and leave the plants standing, but easy to pull up and assort a the same time. The plants may then be tied in bundles of one or two hundred, with willow shoots. They must be buried *below the frost* in dry ground.

Plants may be kept secure through winter, closely packed in the cellar with moist soil or old sawdust, and covered with matting. They must not be permitted to freeze or dry through winter, nor to be soaked in water, if buried out.

After freezing weather is over in the spring, the plants are to be taken out and carefully assorted with reference to their size and vigor—without this precaution, *uniformity of growth*, the most *indispensable requisite* in hedge culture, cannot be secured. When assorted, keep the classes separate, make a thin mortar of clay, thickened a little with old, leached ashes; dip the shoots in this, next lay them in a sloping trench, cover them securely, leaving the tops out; water if necessary. In this condition they may remain till vegetation commences, when they are ready to plant. There is an advantage in starting plants in this way before setting, but in *no case must the roots be permitted to dry*.

The ground whereon the hedge is to be set, should be plowed deep in the fall previous, the strip should be ten or twelve feet wide, the furrows thrown outward, finishing with a deep furrow straight in the line of the hedge row, and left to the action of the frost, but on rolling ground, side furrows should be formed at



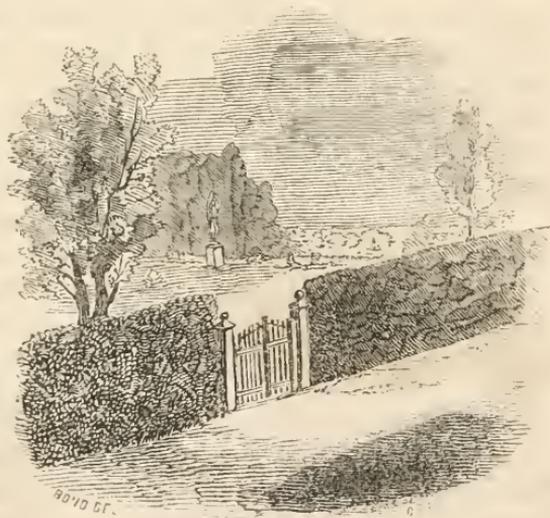
APPEARANCE OF HEDGE SECOND YEAR.

short intervals, to turn out the water, and prevent washing. Early in Spring, harrow the ground; if cloddy, plow deep, throwing the furrows inward, and thus forming a deep mellow bed or border: for the planting, which, however, should be allowed to settle for some days before the hedge is set, on low or damp ground, raise the bed a foot high, or more, and six feet wide. Various methods and implements are used in setting hedges, as with the spade, the transplanting trowel, the dibble, etc. It matters little which method is used, but if you would *plant well*, you must obey *implicitly* the following injunctions: *Use no plant that is not in perfect*

*order.* Plant close and at regular distances apart. Plant deep, plant firm.

The most general and fatal error consists in too wide planting, and too much dependence has been placed in the fine side brush, and small secondary branches, produced by repeated heading down to thicken the hedge. Experience proves that this kind of filling in has neither strength nor permanence. Reliance should only be placed upon the principle—upright stems—for strength and closeness. Perhaps no cultivator of the Maclura hedge in the Union has had longer experience, or given the subject more attention than Mr. William Neff, of Cincinnati. His late remarks on close planting are as follows: “My experience convinces me more and more that *four inches* is the extreme distance that the plants should be separated. When every plant grows, as they always should, the stocks themselves make even the *young* fence impervious to the smallest pigs, and the closer they are set, the more the plant is dwarfed, both above and below ground, and will, when matured, require the less pruning.

Should any plants fail to grow, they must be carefully replaced by vigorous, strong plants, reserved for that purpose: this may be done as late as the first of June, (in a moist time,) by nipping off the new growth. Examine the row critically in the following spring, and if resets are needed, use *strong, two year old plants*. Cultivate



A FINISHED HEDGE.

the first season, by plowing lightly, first to, and then from the row, as often as weeds and grass appear, till midsummer. Late in autumn form a ridge about the plants, by throwing

two heavy furrows from each side to the row, which will protect the roots the first winter. On low, moist ground, the plants must be mulched, or littered two or three inches deep to prevent "heaving out" by the frost.

So soon as the buds swell in the spring, the ridge is to be removed and the border made level; then, with a sharp scythe, cut off the row within two inches of the ground, as at A, Fig. 3.

Carefully replant, if necessary, and cultivate as before, by plowing alternately to and from the hedge row.

About the last of June, if the early growth has been rapid, it may be cut again to four inches above the first cutting. Some experienced hedge growers omit this second cutting, till the next spring. Be careful to preserve a *uniform height* at each clipping; nip or pinch off the coarse shoots, or "leaders," that overstep the main body of the hedge. The treatment for the third, may be the same as that of the second; but the height is to be increased in the subsequent clipping, as the thickness of the body of the hedge will allow, six, eight, or ten inches, each time.

The true theory of hedge building is, to check the upward tendency, and to promote and encourage the growth of the base, shortening the side branches only sufficient to keep them out of the way in the cultivation.

In the spring of the fourth year, the clipping should be done with a sloping cut from each side, thus giving it the true and permanent form, which is that of a pyramid.

The hedge may now receive its last plowing, which should be light, throwing inward and giving the border a proper grade from the hedge,—harrow the border smooth, and mulch or litter with rotten straw, to keep down the weeds.

After the hedge has grown sufficiently thick and strong to turn all stock, it would be well to seed down the border on each side to white clover, a thick sward of which will prevent its washing, keep out the weeds, and somewhat check the vigor of the hedge, without growing up to interfere with the body of it. At the same time, it will give it a beautiful, lawn-like appearance.

The finished hedge should be about five feet high, and four feet wide at the base, sloping from each side to the apex.

It will still require its regular annual shearing, and it will be found to be better and easier to shear twice a year, than once—

until the vigor can be checked, which may be safely and easily affected, by running a sharp cutter or coulter, a foot deep, on each side.

This root pruning should be done in August, and once in about every three years—until machinery for shearing hedges by horse power can be perfected, the simplest and best implement for the purpose, is made by taking a strong scythe blade, and attaching to the heel a curved shank, on which is fitted a wooden handle. The blade is to be kept very sharp, and the trimming done with an upward *running* stroke—one side at a time. If the trimming is neglected, the hedge will soon begin to assume the form of an *inverted* pyramid, with high, wide, and straggling top, and with a starved, thin, and open bottom ; and, though it will be likely soon to fail as a fence, will not fail to exhaust the soil and shade the ground, and become a nuisance. A perfect hedge will, when in leaf, present the appearance of a green wall ; the beauty of which, will amply repay the owner, (if he have a particle of taste,) for all the labor, pains, or the expense of promptly shearing, and keeping it in perfect order.

As the principal use of the hedge is to turn all domestic animals, it should be *strong* enough for that purpose independent of its armature of thorns ; and should be made so thick and dense as to render it difficult to see through it, when in leaf. It also subserves other important purposes in the economy of the farm. It forms an excellent screen, or windbreak, and it effectually prevents the blowing of seeds from one field or farm, to another.

A perfect hedge, well kept, will so blend the beautiful with the useful, that it will improve the taste of the farmer, and promote the love of order, neatness and method in all his operations ; and as a consequence, it will strengthen his love of home. Hence, the importance of properly caring for it, and keeping it in good condition. The Maclura flourishes well in any soil where corn will grow, and it has proven sufficiently hardy to withstand the rigors of the winters of the forty-second parallel, though its young shoots are sometimes partially killed, while the root is unharmed.

It is claimed for the Maclura, that as a hedge plant, it excels most other plants used for that purpose in the following properties, to wit : its easy cultivation and consequent cheapness, its capacity to bear crowding, or cutting to any extent, its copious

supply of terrible thorns, longevity, freedom from attack of insects, &c., &c.

I am informed that another new feature of usefulness has been developed in the *leaf*, as a food for the silk worm, the value of which has been fairly tested by a friend at Cincinnati, and the result is, that the silk is *finer than that made from the morus multi-caulis*. We might reasonably infer, that this discovery may vastly enhance the importance of Maclura hedge culture, since the material for producing silk may be collected in vast quantities, with the least expense, from the summer clippings of the hedge; but as this article is already too long, we defer any further speculation on this branch of the subject at present.

Canton, Ill., Feb., 1856.

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## PEAR STOCK *vs.* QUINCE STOCK.

BY JAMES SNOWDEN.

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Some ten years ago, the demand for pear trees increased with such unanticipated rapidity, that nurserymen were unable to increase their stock sufficiently to meet it. As a result, extensive importations were made, and by this means thousands of pear trees were introduced on quince bottoms. As this method of propagating the pear had become exceedingly popular in Europe, attributable more particularly, I imagine, to the unique appearance of the tree than from advantages of a utilitarian character. Mr. Rivers expressed himself favorably and even strenuously advocated the superiority of the quince over the pear for stock, as severating that the fruit was improved in flavor, increased in size the tree, became more prolific, and for the minimum of space occupied, gave the maximum of product.

Mr. Rivers being a nurseryman of much experience, his views were cordially adopted by his adherents, both in Europe and the United States. Tree growers here suddenly became wonderfully enamored of the quince, simply because the stock was easily and cheaply procured, while, on the contrary, pear seedlings were with great difficulty purchased at exorbitant rates, were less

tenacious of life, and quite impossible on account of the leaf blight to grow in the United States. Hence nurserymen soon discovered that their interests and profits would be advanced by proclaiming the superiority of quince stocks. Amateurs, eager and thoughtless, disregarding of the consequences, were induced to chaunt the praises of *quenouilles*, until quite sensible folk came to the conclusion that Nature was in error, and was about being corrected in those charming *pyramids* that present their fruit offerings just on a level with one's nose.

*Quince Pear* trees became the rage. Amateurs planted them, because a great many varieties could be grown and tested on a small piece of ground; farmers were highly delighted, because they got fruit in two or three years from planting. Everybody planted dwarfs, and, of course, everybody expected to realize a fortune from *dwarfs*. After a time it came to be known that many kinds of pear had a limited existence on the quince roots, not unfrequently "going off" after bearing a single crop. This gave rise to many lengthened discussions relative to the average length of time a *quince pear* tree would survive, which was eventually determined to be about eighteen years. The various controversies which ensued respecting the comparative value of dwarfs for market purposes were mostly carried on between parties who had trees for sale, and who, in consequence, were favorably inclined to their universal dissemination. Under such circumstances, it is not wonderful that no individual could be mustered who had sufficient courage to express himself candidly—to boldly stand out from the throng—and declare the fact, that, although dwarfs were very fine, they were immeasurably inferior to standards, and to the unskilled grower, for market—sources of more vexation than emolument—that their real value was on a "par" with the *Mahaleb* for cherries, or the *Doucain* for apples. Tens of thousands, nay millions of dwarf pears have been planted in the last five years; many of these have already ceased to exist, others are pictures of feebleness, their sclerotic foliage, as bestirred by the passing breeze, sing their exequial hymn. A few, in propitious localities, and benefitted by good cultivation, are in a luxuriant and fruitful condition.

The very principle of dwarfing a tree may be interpreted to sicken it. The process pursued is to offer just sufficient food

to keep it alive, therefore a dwarf is a starvling. To make a tree fruitful you must sicken it. This may be performed by partially girdling it or cutting off the roots. Trees so treated never recover. So it is with a dwarf, born of a disease, it cannot naturally be expected to produce an amount of fruit equal to a healthy standard. The pear engrafted upon the mountain ash rarely survives the third year. On the thorn and apple its sojourn is of longer duration. On the quince it will vary from one to twenty-five years.

Many varieties of pear cannot be induced to grow on the quince unless double worked; other kinds will live one or two years, others again five and six years. A few sorts that are rampant growers as standards, exhibit a similar redundancy on the quince stock. This may be accounted for in the fact, that all rapid growing trees or plants derive a large share of nourishment from the atmosphere. Thus it is that the free growing varieties of pear invariably take kindly to the quince. It cannot be denied that large quantities of fruit may be induced on dwarfs by extra cultivation, for the simple reason that if you incessantly apply nutriment to the roots a large proportion must find its way to the fruit. But can this undue excitement be sustained for any considerable period? I opine not, as it is not only inconsistent with Nature's laws, but experience has thus far denounced its practicability. The advocates of dwarfs cite many instances of extraordinary success attending their cultivation. That these instances do occur, I cannot deny, but the coterie is quite small when compared with the almost innumerable occasions where bitter disappointment is realized instead of fruitful, healthful trees.

Some who have written on the subject say that the trees should have a mound of earth, raised high enough to cover several inches of the scion, in order that it may be induced to throw out roots. This advice is certainly very good, but can the tree, under such circumstances, be considered a dwarf, when it is indebted to the roots emitted by the scion for sustenance? Most certainly not; only proving a powerful argument in favor of standards.

To remedy many of the above enumerated evils, tree growers have introduced a variety of the quince that more closely assim-

lates the habit of the pear. The old sorts proved incapable of affording the requisite nutriment to sustain the pear for a lengthened period. For small gardens these will doubtless answer a good purpose, as a person will be enabled to get the full value of his pear tree during his own life ; but for the farmer and the marketer they are not only valueless, but sources of anxiety from the extra cultivation required to *keep* them healthful and fruitful. The time has arrived when a larger share of attention should be directed to standards. Winter pears are meeting with ready sales at highly remunerative prices, and the supply is not adequate to a hundredth part of the demand. The growing of winter pears will ultimately become a source of great profit to those who properly engage in it, and standard pear trees, in consequence, must and will supersede the dwarf where pears are cultivated on an extensive scale.

The leaf blight which has afflicted pear seedlings is, in my opinion, becoming extinct, the recent climatal changes having had the effect to produce healthful and tenacious foliage. This fact will render resort to the quince stock unnecessary ; heretofore it has been almost imperative. My individual experience with dwarf pear trees has been of a nature to induce me to discontinue their cultivation, except for the purpose of ascertaining the quality of a new fruit at the earliest moment. For this purpose and for a kitchen garden they are indispensable, but for orchard cultivation they are very inferior to standards.

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## A STORY AND A HALF COTTAGE

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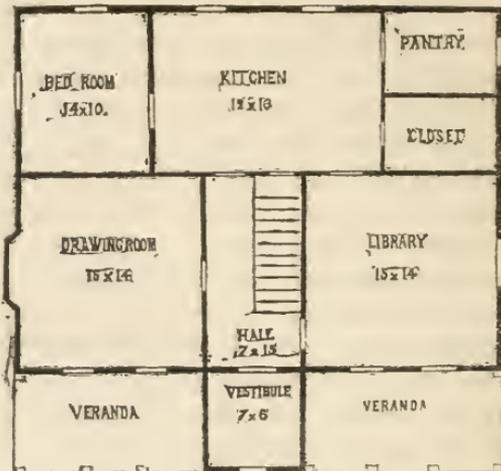
### FRONTISPIECE.

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The exterior appearance of a cottage may prepossess the passer-by without any exposition of the decorator's art. Brackets and cornices are promoters of beauty in the right situation, but the great expense which attends their use, in most instances, deters the man with limited means from putting them into requisition. Some people are possessed of a singular notion that a house can-

not be beautiful unless profusely covered with what in many cases we must call tawdry ornament.

The conformation, consisting of bold and picturesque projections, embodies more real beauty, excites the admiration and detains the eye in nine cases out of ten where a "stove pattern" house is simply seen to be forgotten or remembered as an evidence of monstrous and perverted taste.

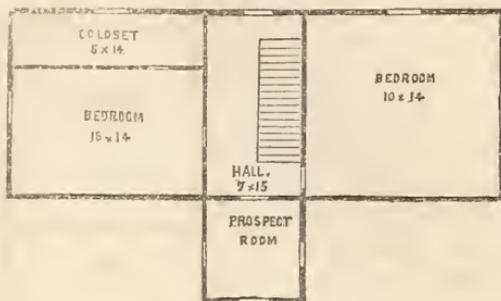


The story and a half cottage represented in the engraving is much to our liking. To boldness is added a permanent appearance, a startling and lasting beauty—a house that suggests its being occupied for half a century by the same family. A tawdry cottage makes one think its occupants are cosmopolitan. The building itself may not inaptly be termed erratic, and it may, therefore, insinuate fluctuation in those who bide for a time within its carved doors. A low priced cottage should not have a square tower like the elaborate and expensive villa, for the reason that it gives the former a dissatisfied look, as if it would very much like to be a castle or something of the kind, were it not for that insurmountable drawback, a lack of means; hence a square projection, like the engraving, neatly roofed over, is more in keeping, and comparatively inexpensive. It affords an excellent and economical position for the veranda, and contains within itself a vestibule and prospect room. Over the principle doorway a slight protection is contributed by a small roof, supported by two plainly carved oak brackets. All the terminations of the building are finished off with O G moldings. The windows facing the veranda are on a level with the floor, and swing on hinges, making the communication with drawing-room quite convenient.

Accommodation—The drawing-room, is 15x14, and has a bay window; it communicates with the veranda, hall and kitchen. The

hall is 7x15 ; to the right is a library, also 15x14, which is likewise entered from the kitchen, which is 12x16 ; from the kitchen you descend to the cellar ; through an entrance under main stairway, there is also conveniently accessible a family bed-room, 14x10, large pantry and store closet.

The second floor is arrived at from lower hall by a rather steep stairway. This floor contains prospect-room, hall, 7x15, a large bedroom, 15x14, a smaller one, 10x14, and clothes closet, 5x14 ; all of which are well lighted from outside windows.



A cottage after this model, plan and dimensions, can be built from durable material, and in a permanent and plain manner, for \$1,500. Where lumber is cheap, \$1,000 will be the maximum of expense.

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## THE MUSHROOM, USES AND CULTURE.

BY EVELYN.

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A DISH of mushrooms, all smoking and hot, reeking a savory odor, is a delightful garnisher for one's table, especially if he or she be of the epicurean school. Very few people seem to have any idea of the mushroom as a culinary luxury, and a smaller number are skilled in its propagation.

The mushroom belongs to the genus *agaricus*, (*agaricus campestris*.) It is most frequently found in old pastures, and may be readily recognized by its pink colored gills. There are several species of fungi which bear a close resemblance to the true mushroom, some of which are supposed to possess deleterious qualities ; but the spurious sorts are darker colored, and are mostly

found in the woods, while the true species invariably inhabits open pasture lands.

The methods of preparing the mushroom for the table are various. To broil them, cut off the stems, and wash the remaining portion in cool water ; after which, place on the gridiron over a slow fire, season with pepper, salt and butter, and serve like broiled meats. To stew them it is necessary to peel off the skin ; after which, place in a saucepan, partially covering with water, to which a small quantity of salt should be added ; stew until they become tender, when the remainder of the seasoning may be contributed, consisting of butter, pepper, spices and wine ; cooked in this manner it is generally served on toast.

Another way of preparing the mushroom is in the form of a *catsup* ; this is performed by placing them in a dish with alternate layers of fine salt, in which condition they should remain about a week ; afterwards, reduce them to a consistent mass and add pepper, cloves, and cinnamon, at the rate of one teaspoonful of pepper, a quarter each of cloves and cinnamon to a quart of mushrooms, incorporate thoroughly and place the vessel containing the mixture in boiling water, where it should remain for the space of three hours. Subsequently strain through coarse cloth, and boil again for half an hour, removing all impurities that rise to the surface, bottle and cork tight, and set away for use.

As the obtaining a supply of mushrooms from pastures is not always reliable, recourse is had to increasing them by domestic cultivation. In Europe, growing mushrooms is a highly lucrative branch of the gardener's art. In this country, it has not been pursued except in a few isolated instances.

The mushroom is propagated by what gardeners term spawn ; a white substance, resembling thread. This spawn may be procured during the spring and summer months, in the localities where mushrooms flourish. Quite a small quantity will be sufficient to commence operations with. The next requirement is a compost, composed of equal parts of fresh horse manure, cow manure, loam, and cut straw. Mix these ingredients well, and mould in the form of square blocks ; then make a small hole in each block, in which insert a portion of the spawn ; when the blocks of compost are all prepared, allow them to dry for a few days, after which, place them on a gentle hot-bed and cover over

with warm straw manure ; this will cause the spawn to spread to the surface of each block. These blocks will keep several years without impairing their vegetative powers. When a crop of mushrooms is desired, all that is necessary is to make an ordinary hot-bed, using an old plant pit for the purpose ; the pit may be of any size. The manure for the bed should incline like the angle of the sash, the back part elevated higher than the front side. After the rank heat of the bed has escaped, which generally takes about a fortnight, cover it with an inch and a half of black loam, sifted fine, upon which the spawn may be planted. One of the blocks will plant a bed four feet square, as it can be broken in pieces the size of a hickory nut. Plant in rows about four inches each way, covering with another inch of loam. The after cultivation consists in keeping an equable temperature, somewhere in the vicinity of 65° will answer, occasionally watering with tepid water. The length of time required to produce a crop, is five weeks. If the bed has been kept too moist, the crop will sometimes fail. Mushrooms can also be grown in the open air on beds of manure, guarding against the fluctuations of temperature by using a covering of straw when the weather is too inclement. I hope in a few years to see mushrooms grown as an article of every-day food, as it is cheap, nutritious, and a luxury that never produces satiety.

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*FORSYTHIA VIRIDISSIMA.*—The culture of this plant, hitherto so little known, being very easy and within the means of every possessor of a garden, I will, with permission, give your reader a few brief hints. The flowers, which are produced in great profusion, are of a deep yellow, very delicate in texture, and will not bear exposure to a rough wind, or draught in a green-house, as they are readily bruised. To ensure the plants blooming in the open ground, it is necessary that they should be planted in rather poor soil, so as to make well-ripened wood of a medium growth, rather than long succulent shoots, which seldom, if ever, bring forth flowers. As a plant for early forcing, it is very applicable ; and for that purpose, strong, healthy plants, with well ripened wood, should be procured, and placed in pots suitable to their size, using some rich decomposed turf, and taking care to stop the shoots, in order to ensure nice compact specimens. The Forsythia is readily propagated from cuttings, stuck under a hand glass, in autumn.—W. C. N.

## NEW INVENTION FOR PRUNING TREES.



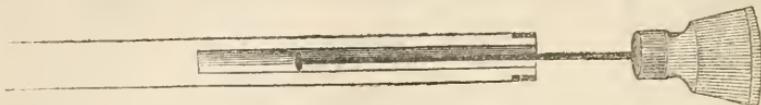
PRUNING trees is a sadly neglected branch of the orchardist's skill. Many people do not feel as if they could afford to pay a professional gardener to trim their trees of superfluous branches, and are themselves averse to the rather hazardous performance of climbing among limbs of doubtful ability to sustain one hundred and sixty pounds or thereabouts of creeping humanity; consequently but few orchards are indebted to ought but nature for the inclination of their stems and branches.

The proper and judicious pruning of fruit trees induces beauty, productiveness, large size, and increased excellence in the fruit, and long life and agreeable form in the tree. Trees that are crowded by an excess of wood, do not receive sufficient air and sunlight to perfectly elaborate their fruit—hence it becomes, in many instances, spotted, deficient in flavor, color and size. The great superiority of fruit grown with the assistance of brick walls, espaliers, or such as are treated as dwarfs, is almost entirely attributable to the trees receiving the frequent application of the pruning knife, and also their favorable exposition for the admission of unlimited quantities of sunlight and air.

There are a great many croakers which infest the community, who unremittingly protest against the advantages arising from pruning trees; asserting that it is the cause of disease, and also that if commenced, it must ever after be perseveringly persisted in, for the reason that for every branch cut off nature will immediately replace by a myriad of emulous sprouts. Very unfortunate-

ly for those favorably disposed to the tree-trimming doctrine, they are deterred from the indulgence of their progressive propensity by the unwarranted prejudices of illiterate "croakers," who, forsooth, being born in the vicinity of a dunghill, must needs be veritable expounders of that which constitutes rural skill. One man, assuming a wiseacre-ish expression of countenance, remarks, "Cut off that branch of your apple tree, and the maimed stump will immediately commence decaying, and will continue doing so until it reaches some vital point and death ensues." Another upon whose features gravity and self-complacence become resigned, assures your novice that pruning will positively produce canker. A third, perfectly innocent of any knowledge of a fruit tree, other than that acquired by a few trees over whose fates he has presided for a quarter of a century, and which have furnished nought but apples of contention for twelve leather-tongued urchins, declares that nature knows her own business, and will therefore, if needed, perform her own pruning. The grafted tree not being a product as originally designed, is, by man's interference, an artificial acquirement, and as such demands artificial treatment. A forest under ordinary circumstances, may not need trimming. A fruit tree, *au contraire*, imperatively solicits the pruning knife to aid nature in forming a beautiful and healthful tree. Possibly a tree may be injured by cutting off a branch five or six inches in diameter, and leaving the wound exposed to the weather. Where pruning is commenced when a tree is small, there will be no necessity of cutting a limb over two inches thick; this system pursued annually will effectually obviate cause for injury, as wounds will quickly receive a granulated protection of new wood, especially if the cutting is performed during the early summer months, while the growth is most rapid. Trimming trees either large or small, should never be performed during the autumn or winter months—where the wood to be taken out exceeds an inch in thickness. The proper season for trimming is just as the leaves appear in spring, or at a subsequent period when rapid growth is going on. This advice, of course, will be understood to apply specially to fruit and ornamental trees of the larger class; shrubbery, vines, etc., should only be pruned in autumn and winter, as the opportunity is more favorable for giving symmetry and desirable proportion.

We have been induced to make the above remarks from having recently witnessed the operation of a pruning chisel, that admirably executes the object for which it was designed. The accompanying engravings disclose a sectional plan of the invention, and also a view of the operation of the instrument. Its construction as is apparent, is exceedingly simple, comprising a broad



chisel, fabricated from the best steel for edge tools ; this is securely fastened to an iron rod, varying in thickness from a half to one inch. The rod works like a piston, in a hollow tube, with, however, sufficient play to render its movement perfectly free. A long handle, or a short one, if more convenient, is firmly attached to all. To operate the chisel, it is, by a dexterous movement, plunged into the wood, which partially severs it, and leaves the blade tightly embedded. The operator then withdraws the handle which slides upon the iron rod, and is prevented from separating by a nut or bolt head : it is then driven violently against the shoulder of the chisel, which, in two or three similar contacts, generally cuts through the branch. It will be perceived that the principle involved is the same as that of the carpenter



who uses the ordinary chisel for morticing a piece of timber. That this instrument will prove serviceable, convenient, and labor saving, we cannot entertain a doubt. It can be used with a short handle while in the tree, for the purpose of lopping branches without the reach, and which it would be unsafe to approach. In case a very long handle is required, moveable joints can be used, connected with stout iron ferrules. The name of the inventor of this ingenious instrument is W. Harvey, of Saltville, Virginia. Per-

sons who would like to purchase, can be accommodated by the inventor, or David Lamdreth and Sons, of Philadelphia, Pa.

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## FOREST TREES FOR WASTE LANDS.

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BY L. DURAND.

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THE subject of growing forest trees for waste lands has been talked of for some years past, while it has been put in practice by some farmers. Still it is a subject that requires a good deal of study and attention, and it needs and wants some go-ahead farmer in every farming township, to lead off in this business of improving waste, poor lands, by growing forest trees upon them. Now almost every farmer in New England, will find that if he has many acres, say from fifty acres to three hundred on his farm, that more or less acres will be found of poor, thin, gravelly knolls, often rocky, with steep hill sides and low pastures capable of growing, as they are, not much but five-finger vines, stramonium and rattle-box weeds and plants. On most of such waste lands, the situation is such that they cannot be plowed to any advantage, although many such soils have been "killed" in years past, by this process of plowing, washing, bleaching and drenching by the rains and atmosphere, with little or no grass growing in the mean time, so that the soil is little better than a waste moor. Then, again, but few farmers can get or spare manures to put on such soils, so what is to be done, for it is certain that such waste lands are an eye sore to any farmer who is favorable to improvement? First, on many such soils young forest trees will spring up naturally if the land is left undisturbed for a few years. If this be the case, the plow should be kept out entirely, and the young sprouts left to themselves, though sheep may have a range in the old pasture, and young cattle, after the trees get to be four and five feet high. About all the attention such trees want, will be to trim them up occasionally, and cut up the brush.

If they should come up too scattering, the open spaces should be filled up with transplanted trees from the forest. In the lines

of old fences, the various kinds of forest trees, such as the Oak, Hickory, Elm, &c., will spring up of themselves; and if the old fences be removed and the under brush cut up, these trees, in a few years will form a handsome belt of growing timber. Where the young trees will not come up naturally, they may be planted in two ways, namely: the young trees may be transplanted from the forest, or the ground may be prepared by cultivation, and then the Acorns, Chestnuts, Cones, &c., may be gathered and planted in rows, or broad-cast, as may be. We think the former method of transplanting the most sure, and in cases where the soil is too steep and rocky to be plowed, this is the only plan that can be followed out. Of course, in either case of cultivation, the young trees should be protected a few years from farm stock, to give such trees as are natural to the soil the preference; for instance, the White Oak, and various other oaks will grow well on thin gravel soils, and high knolls, while the Elms, Hickorys and Maples, will require a heavier and stronger soil. Also the White Birch will flourish and grow well on a very poor, thin soil; and as this tree grows fast, it is worthy of cultivation, it often comes up naturally in old fields adapted to its growth. On many old barren fields that have been worn out and neglected, the White Pines will come up in great numbers; and if, after a few years, these trees are allowed to grow, and are then cut, and trimmed up, and thinned out, in a few years a handsome forest of young Pines will be added to the farm. A fifteen or twenty years' growth will give these trees such a start, that they then may be cut and thinned out, giving the standard trees of from six to ten inches in diameter at the trunk, plenty of room to grow to great size in after years, while the trees should be at such distance as to let in the sun, the pine grove to be used as a pasture for farm stock. The extra wood from the young trees thinned out, would pay the expense of cutting and trimming for fire wood. There are many instances in New England, during the last twenty-five or fifty years, where enterprising and persevering farmers have raised fine groves of young timber and forest trees, after the plans named above. What is now wanted, is a great deal more done at the same business, on poor, waste lands. Another valuable forest tree for cultivation, is the Locust—of these there are several varieties. Amongst the most valuable for timber and posts

are the red and yellow heart varieties, while at the West they have a black heart variety, which they consider valuable for timber. The Locust requires a good soil for cultivation, and it may be propagated by seeds and then by young plants, or trees from the nursery. One advantage in planting a Locust grove, is, that they make a rapid growth, and so they repay the planter for his labor in a few years, with fine shade and valuable timber. We know of but one draw-back in the cultivation of the Locust, and that is the Borer is very apt to attack them, and oftentimes doing much damage in this way. In regard to the cultivation of the Locust for profit, we give a short extract from the Mass., West-field News-Letter. The writer says that the Acacia, or Locust tree, grows in twenty years, to a goodly size, perfuming with the fragrance of its flowers the atmosphere all around it, yielding great abundance of rich material to the honey-bee for the manufacture of his precious nectar—fit food for gods and men. Its use in ship building, for fence posts, as well as for manifold purposes in the arts and manufacture, is rendering it every year, more and more valuable as an article of commerce, and it already commands a high price in all sections of our country; and it will grow well in all soils and situations. It is a highly ornamental tree, as well as in many useful ways valuable. An acre of Locust of fifteen years growth, will bring you \$800 to \$1000; of twenty years growth, \$1,500; of twenty-five years growth, or thirty years, \$3,000, more or less, without the labor of cutting and carrying to market, for the buyers will take it standing and leave you the branches, which, for fire-wood, will pay you the interest on the cost of the land during the time the crop has been growing. The cost of planting and protection for the first few years, with the labor of proper trimming and pruning is trifling indeed, compared with the ultimate profits. Now if we allow the profits on the Locust to be but one-half of the above named figures in the time given, we still have a handsome profit on the time and labor laid out. And we know of no better investment that can be made on a rocky or waste field of pasture, than by planting it out to Locust. The cultivation of the Sugar Maple, also should be considered as a future source of profit, as in after years the tree might be made valuable for the making of sugar. And

although these trees are of slower growth than the Locust, and they require a stronger soil for good growth, they will be found to come to six inches in diameter at the bole before the planter is aware of it. The common red heart Cedar is another tree worthy of cultivation. On many soils this tree will spring up naturally, and if trimmed up at the bole, they may be made to make a straight and erect growth. For fence posts, the Cedar is very valuable, also when growing in open pastures with the trunks well trimmed up they make a fine appearance, and like other evergreen trees, they maintain the same grand appearance throughout the year. Also this tree will make a good hedge, or line fence, when planted close and allowed to grow for that purpose—which is often wanted, particularly on the north and west sides of old fields much exposed to winds and cold. Cattle and other tame stock may be allowed to feed among these trees, as they will not injure evergreens by browsing, as they will deciduous trees during the growing season. The native Hemlock is also a valuable ornamental evergreen shade tree, and although this tree grows more naturally in thick forests, yet it will do well when transplanted and grown as an open standard, giving a darker and heavier foliage than do the Cedars or Spruces. Natural open woodlands are also worthy the attention of the farmer; they should be encouraged to grow wherever they are. Such lands will admit of the valuable pasture grasses growing for stock, and generally will not be troubled with under-brush; if so, they should be cut out and kept down.

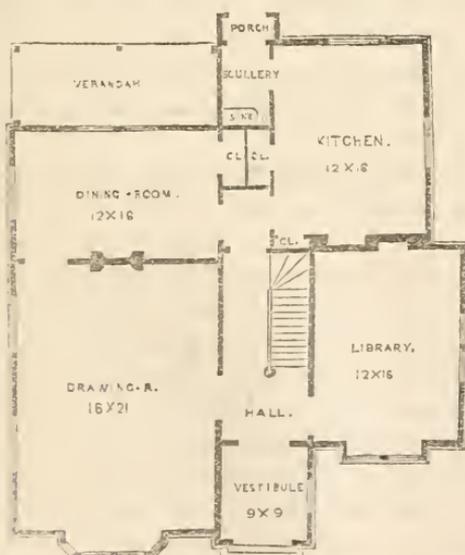
Another great advantage of such lands for pasture is, that the trees afford a protection for animals in case of severe weather and storms, which we often have throughout the growing season. And finally, the advantages which spring up from covering our rocky, waste, poor lands with forest trees, is much greater than we can enumerate. On many such poor soils, they have become so exhausted by the plow, washing rains, scalding suns, and bleaching winds, that the grasses cease to grow; so it is impossible to recruit them except by reproduction. Hence they must have help in that way, and where these soils are covered by shade from the weather and sun's rays, the tree roots branch out and up near the surface, thus opening the soil and imparting fertility to it; then the pasture grasses will begin to grow, and finally, in

time the soil will sward over to grass and turf. Then, again, the droppings of the animals will be much better preserved and fed to the soil under the trees, than without them. So that, the advantages of growing the trees are many and various, affording protection to animals, also improving the soil, covering rocky ledges, deep gulches and waste barrens, with growing timber and good groves. Of course it will take time, much patience, and a good deal of labor to bring this about, also some disappointments must be met and overcome. But whatever cultivator will begin this business and persevere in it, we will guarantee him, in a few years, that he will be abundantly paid for his labor and toil.

## ITALIAN VILLA WITH CAMPANILE.

### FRONTISPIECE.

An important feature in every house, is its entrance hall, and here it has ample proportions, though none too great. You enter first a vestibule nine feet square, and thence into the hall, 9x19, containing a wide and handsome staircase. At the left is the

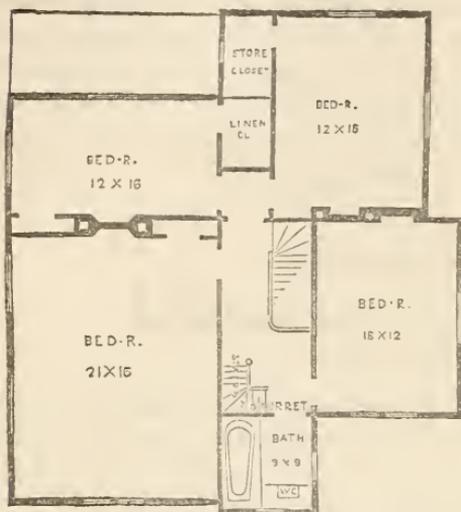


drawing-room, an elegantly proportioned apartment, 16x27, communicating with the dining room, in the rear, of the dimensions of 12x16. For family purposes, and even for entertainments, such as a family living in the house would be likely to give, the latter will be found large enough.

The wide veranda in the rear of the dining room is a notable feature here, and will be much appreciated.

Opposite the drawing room is the library, a cosy, pretty room, 12x16, and in the rear of that is a very snug kitchen, also 12x16. Appended to the dining room and kitchen will be found a good supply of closets, store-room, sink room, porch, etc.

The second floor plan is also conveniently arranged, giving a very large room, suitable for a supper room in case of an evening entertainment, or serving as a bedroom for all the young children, or the master or mistress; three other bedrooms 12x16 each, two very large and two smaller closets, and an excellent bath room with water closet, &c., &c. Each of the four bedrooms is provided with an open fire place, so es.



essential to aid in a proper ventilation. The very large bedroom can readily be divided into two, or even three, good sized rooms, should the requirement of any family make it necessary. The turret or third story of the tower affords another good room 9x9, which may be used for a sleeping apartment or otherwise. It is presumed to be airy, and to afford an excellent view of surrounding objects.

In many localities a house of this description would be constructed with basement rooms, in which case the kitchen and breakfast room would probably be immediately underneath the rooms now designated respectively kitchen and dining room, leaving those rooms to be used for different purposes. This plan is adapted to the use of wood or rough brick, stuccoed. If of the former, the frame should be filled in with coarse brick, and the outside sheathed smoothly. Should brick be used, hollow walls covered with brown stucco will admirably answer. The space in the walls will not cause the house to be dry, but will make it

warmer in winter and cooler in summer, besides giving excellent facilities for ventilating every portion.

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## TREES FOR RAILROADS.

BY WILLIAM BACON.

SEVERAL articles upon this subject have recently been brought before the public, which leads us to suppose that the public mind is waking up on the subject, however drowsy corporations may remain in the matter. Some have argued the benefit which would result from the operation by the protection the roots would give the roads, a consideration of no small account in many places, not only to the corporation, who expend more in every five years in repairs to such embankments, than would be necessary to plant trees to keep them in preservation for a century. Then, there are, in many places, deep excavations, from whose slopes every spring and autumn, and often in heavy rains in summer, the earth, for many years, is working towards the track and requiring much labor for its removal. Sometimes as we have seen, these slopes wash, and wearing away the adjoining lands at the loss of fence, and it may be of the animals by consequent exposure. Here a clump of trees, spread over the slope, would prevent the mischief at a much less cost than the labor attending the neglect.

Again, we have seen it noted somewhere that by this setting out trees on the line, this may no doubt be accomplished, but years must elapse before the timber from recently planted trees would become fit for the purpose. They would much sooner be fit for food to drive the machinery, and for this purpose alone would no doubt well pay the cost of planting, and a good per centage on the amount expended in planting out.

Such are two of the considerations in favor of such an improvement. Another is, that where such trees have become vigorous in their growth, they would, except in very dry times, remedy one of the most unpleasant attendants of rail travelling—the dust. By shading the road a portion of the time, they would keep the earth cooler, and so prevent the rapid evaporation which is the sure at-

tendant of heat and sunshine. They too, by their power of absorption, would attract moisture from the atmosphere by their heads, and from the earth from their roots, thus keeping up a due degree of moisture, except in the very driest times ; the effect of which would be to prevent the dust from accumulating at the surface.

Then again, trees planted by the sides of railroads would give new interest to the country through which they pass. It is a common remark of travellers, that they usually pass through the least interesting sections of the districts along their route. This is necessarily the case in hilly and mountainous regions, in order to secure a suitable grade. Hence they pass along low lands, and in many cases over swamps, most forbidding in their natural features. In higher regions they often pass through deep cuts which entirely cut off the prospect, which otherwise, for a moment, greets the eye. These cuts meet the vision as so many grand deformities, with their ragged sides worn and gullied by every storm. Now, if these lowlands were belted with trees to inhale the miasma which arises from them, and exclude from the eye the unsightly bogs and morasses which line the way—if the embankments presented a slope of verdure seen in beautiful trees rising higher and higher, what a new and beautiful feature these highways for the million would present to attract the attention, feast the eyes and gladden the hearts of all passers-by who have taste enough to appreciate anything so grand and beautiful in nature.

It is a common remark, that "the cars go so fast you can't see anything." I believe no such thing, for we never, in our own experience, rode so fast in them but the difference between an oak or a maple—a pine or a hemlock—a ledge of limestone or of slate—of clay or gravel, or the different stratifications of sand, were noticeable. Then what a beautiful succession of trees would be brought before the eye in travelling from the Atlantic to the Mississippi, or from Canada to the Gulf, or the South, by the array of trees and shrubs of every intervening district spread along in beautiful relief by the way side ; and then the opening of vegetation in spring, and the decay of autumn, would mark the difference of season in a way which he could not fail to admire, and from which we would gather lessons of instruction.

## OLD ENGLISH COTTAGE.



URAL cottages in England are very different from what are termed rural cottages in America. An English village is clothed with verdure of the most enlivening description. There, houses are fairly enshrouded to the very roof with graceful climbers. Every salient point is embraced with ivy, which frequently depends in elegant festoons. Trees and hedges luxuriate everywhere, and the remembrance of the cottage home with the Englishman is a grateful and refreshing reminiscence through all his pilgrimage of life. Americans, we are sorry to say, have a more powerful appreciation for that which produces the

dollar than that which elevates the mind and cultivates home affections. We ardently long after twenty-one, and the opportunity to dash at the busy scenes of life, to compete with others in a struggle for lucre. We build our homes with a view to economize money, space, and at the same time not lose sight of convenience, for we are too utilitarian to omit so important an object. Sometimes we go farther than this, and are stimulated to add a little of what is termed ornament. Instead of doing this with trees and flowers, we substitute paint, (bright paint), a little extra carpentry work, and then desist, in the consoling reflection that we have achieved a prodigy of a house. We are a great restless wave on the sea of life, constantly undulating and foaming, doing that for the good of the nation which were wiser expended in one's family—diving into politics (for we are born statesmen, every one of us)—forgetting in our ambition that a cheerful home with our own

is the paramount consideration of life. And thus our children, strangers to the delights of home, are at an early age estranged, and are self-banished from the moiety of comfort which such a home extends. That there are exceptions to this rather sweeping denunciation, we do not attempt to deny, but they are rare, and when found, are like the oasis that refreshes the weary traveller on the burning sands of the desert.

The cottage illustrated by our engraving, is a genuine specimen of an old English cottage, situated in the suburbs of a delightful village, which may be seen in the distance. It is a picturesque cottage, expresses comfort, frugal and healthful fare, happy children, a place where Wrens and Phœbe birds build nests under eaves, and return again with each ensuing spring. The roof is thatched, there are four gables and two oriel windows. Reference to the plan will disclose the arrangements so as to permit the chimney stacks to occupy the centre of the building, which should in all cases be adopted, when the sacrifice of convenience is not required. The material may be gravel concrete, such as described in the February number of the "Review."

*Accommodations.*—The principal doorway enters upon the hall which runs longitudinally, and is 15x7, affording ample space for staircase. Communicating with the hall is a spacious dining room and kitchen combined, 15x15, connecting with which is a closet 15x5, bed room, 15x10, and drawing-room, or what is familiarly termed parlor, 15x17. All these apartments are in convenient access to each other, and well lighted.

The entrance to the yard is from one side of the building, which, if desirable, could be readily altered to the rear. Cost of construction \$800.

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## A SELECTION OF TWELVE VARIETIES OF STRAWBERRIES, OF UNRIVALLED EXCELLENCE.

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H, Hermaphrodite—P, Pistillate.

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BY WM. R. PRINCE.

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SCARLET MAGNATE, P. The largest variety yet produced in our country; rounded, and some berries compressed; scarlet, rich

flavor, productive, and highly valuable. A very showy berry for market, and a very remarkable and distinct fruit. Plant very hardy and vigorous, with large, broad, dark-green foliage. The leaves never burn during the summer; nor are the plants ever injured by the winter.

IMPERIAL SCARLET, P. Second only in size to the preceding, to which it is rather superior in flavor; the form, obtuse, cone, or rounded, scarlet, handsome, and very showy, juicy, and sprightly flavor, firm, and well suited for market,—productive; plant very vigorous, foliage pale-green, very large and luxuriant; a remarkable variety, very valuable for the size and beauty of its fruit, and for its other qualities. This, and the preceding variety are of larger average size than Hovey's Seedling, and much superior in color and flavor, and consequently, better suited for market.

IMPERIAL CRIMSON, P. Large, short cone or rounded, dark-scarlet or crimson, fine color, sweet, fine flavor, productive; a first rate berry, firm for market. It is nearly as large as McAvoy's superior, and has the qualities for a market fruit, in which that variety is so deficient.

LE BARON, H. Early, very large, obtuse, cone, dark-scarlet, not showy,—sweet, rich, melting, highest flavor of all the large varieties, very productive for one of its sexuality, and continues long in successive bearing; foliage, tall, light-green, and very vigorous,—a seedling of the old Swainstone.

SUPREME MONTEVIDEO, P. Very large, obtuse cone, bright, light scarlet; a beautiful berry, juicy, sprightly, moderately sweet, very productive; foliage large and vigorous. A seedling from the Montevideo or Chili, and precisely equivalent to obtaining a Pistillate variety from the British Queen.

ROSALIND, P. Very large, obovate, beautiful light scarlet, moderate, but good flavor, very showy, scarcely firm enough for long carriage to market, very productive; plant vigorous, with large, broad foliage.

ECLIPSE, P. Early, large, conical, splendid fruit, on long peduncles, and has the remarkable property of ripening all its berries at the same time; bright scarlet, high, brilliant color, fine flavor, with slight acidity. It is one of the greatest bearers

of all Strawberries, and a full and profuse crop may be earlier supplied for the market from this variety, than from any other ; plant vigorous, with large foliage. A very striking and remarkable variety.

DIADEM, P. Very large and showy, rounded, beautiful light scarlet, pleasant flavor—a remarkably fine, and beautiful berry ; plant very robust, vigorous, and hardy, with tall, light-green foliage ; very productive. A seedling of the Iowa.

HUNTSMAN'S FAVORITE, P. Large, obtuse cone, bright scarlet, very handsome, sprightly, juicy, sweet, and very fine ; productive—very valuable. This variety was selected by Prof. Huntsman, from a bed of many seedlings, and was named as above.

CRIMSON PERFUMED, P. Large, obovate or rounded, crimson, sweet, juicy, high perfumed flavor when fully ripe ; very productive—valuable ; foliage dark-green.

RUBICON, P. Very large, obtuse cone, or rounded, crimson, juicy, fine flavor, highly productive, very valuable ; foliage dark green, and vigorous.

MALVINA, P. Large, obovate, bright crimson, juicy, sprightly, good flavor, very productive. This variety greatly resembles Hovey's Seedling, its parents, both in the growth and foliage of the plant, and in the form of its fruit. But when contrasted, it is rather smaller, with the advantage that the berries are of a more average size, and less unequal than that variety. The color is a brighter red, the berries more juicy, and of a more spirited and higher flavor ; and it ripens fully a week or more before the Hovey, thus obviating the disadvantages of that variety. It is firm, and well suited for market ; foliage, dark-green and luxuriant when in full growth. A grower, who sent a considerable quantity to market the past season, contracted for the whole at thirty-one cents per quart.

WM. R. PRINCE,  
Flushing, N. Y.

## CUTTING GRAFTS, AND GRAFTING.

BY L. DURAND.

THE subject of improving and growing fruit is one which should claim our special attention every season, as the time comes around : and as the Apple stands at the head of all fruits, with the farmer, we will give our attention to this point now. It may be, and often is, necessary to repeat, in the course of a series of years, the same general plans in principle in regard to orchard and fruit growing generally, of which we may do in this instance. But our idea is, in this article, to confine our attention to preparing grafts and grafting, though we may allude, in connection, to orchard culture.

Apple grafts may be cut any time after the leaf falls in autumn until before the buds start in the spring, and these may be kept a year or more, though this is not often necessary. But in this climate, any time from the 20th of February until the 1st of April, or before the buds swell, will answer to cut Apple grafts. The grafts should be cut from the outside of the tree, thrifty shoots of the previous or present season's growth, from six to twelve inches in length, as may be. Of course the several varieties should be tied up in separate packages and also labeled. This may be done by shaving down a large scion in each bundle, an inch or two in length, and then marking in notches or in numerals, as Baldwin, No. I, Greenings, No. II, Spys, No. III, Spitzenbergs, No. IV, &c., at the same time entering the names and numbers down in a "fruit book," for future reference at grafting time. This plan followed out will prevent all mistakes in mixing up grafts, so that each kind may be found when wanted. After the scions are all gathered and labeled, they should be packed away in the cellar in a lot, in rugs, or they may be packed in a woollen cloth kept moistened in a lot, in a cool part of the cellar. Moisture will not hurt scions, but the object is to keep the scions in their natural state, as when cut from the tree. If the scions are kept three or four months, and quite moist, as the warm weather increases the buds will push out sometimes half an inch in length or more. In this case, the buds should be lopped off close when the scions are set in the stock. Sometimes such scions do well, but they often

shrink and die out after a few days of hot weather. On the other hand, scions that have bark well shriveled, when set in stocks that have the leaves well started, such scions in a few days will swell out the buds and grow finely. Still it is the safest way to have the scions just right, and if they are to be kept until warm weather, they require a good deal of attention to keep them so.

Some grafters cut and set the scions the same day ; this plan will sometimes do very well, if the grafting is done very early, but the safest way is to have the scions cut as we have named above. As to the time for grafting, it may be done in this climate any time from the 15th of April, to the 15th of June, or later as may be, more depending on the character of the scions than in the season for success. We have had as good success with these scions set as late as the 10th of June, as with those set earlier in the season ; yet it requires a little more care in sawing off the stock, to prevent barking, etc., in late grafting. One advantage, in late grafting large trees, is, that you will only get a short growth the first season—say from six inches to twelve or fifteen inches growth, and the scions will not be so liable to break off by wind and hail storms the coming winter, as where the scion get two feet or more in growth by early grafting. Still early grafting has its advantages, and this work generally should be done in a month from the middle of April to the 20th of May, or by the time the blossoms are well out. Now, as to the manner and kind of grafting to be done on large stocks, the common “cleft grafting” is the best, although this is often done in a bungling manner by green hands. In grafting large trees, to have this work done in a business-like manner, requires three hands at least—namely, one to saw off the limbs and pare the stocks, a second one to set the scions, and a third one to put on the wax. While one or two hands are sawing off and paring the stocks, the third one may be cutting and sharpening the scions, so that no time need be lost. The scions may be cut from two and a half to three inches in length, sharpening the wedge of the scion an inch and a half, leaving an inch and a half or so of the scion above the stock after it is set. One side of the scion should be left a little full of timber in sharpening, and this side should be set the outside of the stock. If the scions are large, as some will be, a shoulder may be cut on the scion, but generally this will not be necessary, as large scions

may be pared down pretty thin, and then set in large stocks. Some grafting "bunglers" we have seen, will leave their scions sticking up above the stock, three, four, and five inches long; this is bad business, as in nine cases out of ten if they live they will get broken off by wind and birds. There it looks again as though the grafter expected his scions to have apples by the "Fourth of July;" at least a wrong calculation. As to the size of the stocks for grafting, those that are about the size of a hoe handle, or from an inch to an inch and a half diameter will answer best. Some grafters saw off limbs two and two and a half inches in diameter, and though scions will usually live and grow in such stocks, yet it takes a longer time for such stocks to heal over; then the stock often pinches the scion so tight as to kill it. So we prefer to go two or four feet further out, until we find the limbs of a convenient size to saw off. In grafting a large tree, go first into the top to saw off, throwing the bush over, outside, and down out of the way. Care should be taken to saw each tier of under limbs at a distance of from two to four feet out beyond the limbs alone, so that when the grafts get well started they will not grow up into each other, but will have room to spread. Of course, two scions should be set in a stock, usually one scion if they live will be enough, cut with care can be retained if wanted as may be.

Most grafters now use a chisel and a wedge combined, to split and open the stock, with a small hammer to strike. In absence of the chisel, a half worn butcher knife, and a small steel wedge and hammer will answer a good purpose to split the stocks and set the scions. A fine edge and stiff back, some such as joiners use to saw clapboards, should be used to saw the limbs, and a good pruning knife to pare the stocks. The grafting wax should be made of seven parts—namely, four of resin, two of bees' wax, and one of tallow, melted together in an iron kettle, and when it has become thoroughly dissolved it may be poured into cold water, and then pulled like shoemaker's wax in rolls; or it may be left to stand in the kettle, and pulled and washed as wanted. This latter plan we prefer, as the iron kettle will draw the rays of the sun, and soften the wax so that it can easily be worked; so that warm, sunny days should be selected for grafting in the early season, not only for comfort, but to melt the wax. The inside of the hands should be well greased to prevent the

wax from sticking while working it, and also when putting it on to the stocks. First put a good cap of wax on the top of the stock, covering it well, and down to the sides, covering the split well to keep out rain and moisture. Some grafters spread on the wax thin, as some will butter on bread where it is t.irty cents a pound, but there is nothing gained by this policy. When the wax is made after the above rule, it will not melt and run in the hottest weather, neither will it crack and come off in the coldest weather, but it will remain on the stock for two years, or until the stock is entirely closed over where it is well covered at grafting.

When large trees that are thrifty are grafted, it will be well to take off most of the branches, leaving the limbs pretty much like bare poles, though a few branches and shoots may be kept to draw up the sap. Where trees are large, and the tops and branches are a good way up from the ground, it will be a good plan to head the trees down, that is, saw off the main branches of the tree at a convenient distance down, or where the branches start out from the trunk, so as to form a new head by the sprouts. These sprouts or shoots may be budded the first or second season, or you may wait three or four years and then graft the stocks. If the trees are very large and slow growers, a part of the tree, say the south half, may be headed down first, and then after two or three seasons' growth of sprouts, the north half may be taken off in the same way. Managed in this way, the trees will continue to grow unchecked; whereas, if the whole top were taken off at once, the sudden check of sap might kill them. If an old tree is sound at the trunk, no matter how many dead limbs there may be upon it, the sprouts or thrifty limbs may be grafted and the dead wood taken off, it will pay.

If such orchards or trees are unthrifty from neglect as they generally are, they may be first grafted and then pruned, afterwards scraped and washed; and then the soil should be plowed for crops and heavily manured, especially under the trees. Crops of corn or potatoes may be raised for two or three years to advantage, or till the soil becomes well shaded again by the growing sprouts and grafts, the soil to be well manured with each crop. The scraping should be done directly after a heavy storm by a "tree scraper," to be had at the implement stores. Begin-

ning at the upper branches and scraping off all the moss and loose bark, and so down the trunk to the ground. After this, a washing of strong potash or lye water may be put on by a large white-wash brush. Managed in this way, the old neglected trees will put on a new dress, while the bark will present a smooth, thrifty appearance. When large trees are headed down and large limbs are taken off, the stumps or wounds should be covered with gum shellac dissolved in alcohol to the consistency of thick paint, and put on with a brush. On this point, most cultivators understand that the wounds should be covered by some kind of composition, where large limbs are taken off. But with judicious yearly trimming, but few or no large limbs will need removing, and so when the pruning is done in the summer or early fall with only small limbs taken off, the shellac or composition may be dispensed with. Where large trees of slow growth have been grafted, it may be well to let all the sprouts grow for three or four years, only cleaning them away around the grafts. This will cause the tree to bring up the sap in a measure, otherwise cut off by a removal of the top. Where large single trees standing in pastures or meadows are wanted for shade, the top of the tree, two-thirds down, may be cut off and grafted, leaving the large branches and boughs for shade until the grafted top is well grown, so as to make shade when the lower limbs can be grafted. In this way, you can renovate your scattering trees, and at the same time retain the advantages of shade for men and animals.

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#### GREEN-HOUSE CLIMBING PLANTS.

IN a recent number of the *Floricultural Cabinet*, a correspondent requires an answer on green-house creepers; I therefore take the liberty, through your widely circulated and intelligent publication, of forwarding a descriptive list of such as I grow—this section of plants (climbers) being a great favorite of mine—as well as an attempt to make a small return for the useful knowledge many others have afforded me in this Magazine.

The following kinds are handsome, as well as free bloomers :—

TECOMA SPECTABILIS—The rich green shining foliage, and its

large, waxy-white, funnel-shaped flowers, with a crimson eye, render it a charming plant. The panicles of flowers hanging down are exceedingly pretty.

**BIGNONIA GRANDIFLORA**—is a climbing shrub, growing ten or twelve feet high, but it commences flowering when two or three feet high ; its flowers are produced in panicles, each flower being two and a half inches across, and of a deep red color. It was introduced from Japan many years ago, and should be grown in a border or a large pot, on a rich loamy soil.

**CLEMATIS AZUREA GRANDIFLORA**—is a beautiful flowering plant ; its flowers are of a pale violet color, four inches across. It may be cultivated in a pot or border of loam and peat. It flowers in April and May ; introduced from Japan in 1837.

**CLEMATIS FLORIDA BICOLOR**—(*Sieboldii*)—is a beautiful showy flower, which is of large size, and of a greenish-white color ; it has an Anemone-like centre of a dark purple ; this and the last species are hardy, but well deserve a room in the house. It blooms in April and May ; a native of Japan.

**HOYA CARNOSA**—is an old plant, but *pretty*, and free to cultivate in a pot or border ; it resembles an Asclepiad (it is commonly called the Wax Plant). It flowers throughout the entire summer.

**KENNEDYA RUBICUNDA**—is a rapid grower, and will not display its beauty except in the green-house border. Its flowers are of a dark red, and plentifully produced, in April and May. It is a native of New Holland, and delights in a sandy peat soil, with plenty of drainage.

**KENNEDYA MARRYATTIANA**.—This is a dwarfer species than the last, and may be cultivated in a pot of peat and loam ; its flowers are of a crimson-purple color. It is a native of New Holland.

**KENNEDYA COCCINEA**—is a very small and pretty species for pot cultivation ; it grows and flowers freely in sandy peat, well drained, blooming in April, May, and June. A native of New Holland.

**KENNEDYA GLABRATA**—This is a neat and handsome species, and may be cultivated very successfully in a pot of sandy peat. Its

flowers are produced in spring, of a fine crimson color. A native of New Holland.

*KENNEDYA MONOPHYLLA*—produces an abundance of blue flowers in racemes ; it should be grown in a border of loam and peat ; it grows eight or ten feet high. A native of New Holland.

*KENNEDYA MONOPHYLLA LONGIRACEMOSA*—The same as the last, but its flowers are of a lilac color.

*LOASA LATERITIA*—is a plant of rough appearance, but deserves cultivation for its easy culture and showy flowers. It may be cultivated successfully in a pot of rich loam ; it blooms all the summer. Introduced from Tucuman.

*LONICERA JAPONICA*—is an evergreen Honeysuckle, producing a sweet odor, and an abundance of pale-yellow flowers ; it grows eight or ten feet high, blooming from June to September. It is a native of Japan.

*PASSIFLORA DECAIRNEANA*—This new and splendid species was figured in this Magazine, in January, 1855. I obtained a plant, and it bloomed admirably in my green-house last summer. Its rich crimson blossoms, adorned with its numerous blue and white thread-like parts of the nectarium, are exceedingly handsome. It grows rapidly and blooms freely.

*PASSIFLORA FILAMENTOSA*—This is a neat and pretty species ; flowers of a light purple, blooming all the summer ; it delights in a rich loam and peat soil. A native of America.

*PASSIFLORA INCARNATA*—is a free-blooming species, the flowers are flesh colored. This and the last mentioned species should be cultivated in the border, in order to succeed well.

*PASSIFLORA KERMESINA*—is a small and beautiful species, requiring a warm greenhouse ; it delights in a rich loam and peat soil, well drained. Its flowers are of a fine rosy crimson color.

*PHILIBERTIA GRANDIFLORA*—is a neat and curious little climber for a pot ; its flowers are greenish-yellow, spotted with purple, blooming from May to July ; it delights in a rich loam and peat soil.

*THUNBERGIA ALATA*—may be trained to a circular trellis four feet high ; its flowers are of a buff color, with a dark purple eye, and are produced all the summer. A rich loam suits it best. The *T.*

*leucantha*, white, with dark eye, and the *T. aurantiaca*, of a fine orange, with dark eye and large flower, alike deserve a place in every greenhouse.

TROPEOLUM TRICOLORUM—is one of the most beautiful creepers in cultivation ; it may be grown in a pot of sandy loam, and be trained to a trellis. To prevent drought injuring its roots, its pot should be placed in a larger one and filled round with damp moss or sand ; it flowers all the spring and summer. Introduced from Peru.

TROPEOLUM BRACHY CERAS—is a plant of the same habit as the last mentioned, and requires the same treatment ; its flowers are yellow, and bloom all the spring and early summer months.

*Floricultural Cabinet.*



## EDITORIAL MISCELLANY.



WASHINGTON IRVING, that most agreeable of American authors, has given us a convincing monument of his good taste in rural matters in his delightful home, amid the scenes of his pen exploits, which he has appropriately called "sunny side." Those who have been permitted the pleasure of partaking the good cheer of his amply spread table, say that it is "sunnyside" indeed, sunny without, from the genial rays of old "sol," and sunny within, from the kindly heart and radiant countenance of the biographer of "Rip Van Winkle." Sunnyside is environed by many

natural beauties which its appreciating proprietor maintains most sacredly. True there is no *parterre* or tutored lawn; but there are grassy knolls and valleys, majestic trees and lowly shrubs, aspiring vines and mossy rocks, all in keeping with the locality, and telling the story of the loves of a simple-minded man, who discovers the greatest beauty in nature, as expressed by the Creator's own fashioning.

Washington Irving, although unmindful of the gardener's skill, has wisely surrounded himself with all the intrinsic enticements of country life. Of choice fruits, his grounds boast a great abundance. Fine stock also finds in him an admirer. His dove cote contains rare birds, and is a model of architecture.

To live comfortably, snugly, with a sufficiency of nature's choice products, a few genuine friends, within sight of the many scenes his prolific pen has immortalized, to listen to the quaint

conversation of the rapidly decreasing remnant of "Knickerbocker," seems to fill his cup of happiness quite to overflowing.

The *Douglass Fir*, represented by one of the frontispiece illustrations of the present number, is an exceedingly fine specimen of its species. It is 70 feet in height, and of the most symmetrical shape. It is growing in private ground in England. The Douglass Fir, although valuable as an evergreen, does not compare for beauty and gracefulness with the *Hemlock Fir* of this country, its very symmetry being a sufficient cause to limit its use to the few localities where perfect shaped trees are desirable.

Mr. BACON sends us a little article relating to the culture of the cauliflower, that neglected, but excellent vegetable :

CAULIFLOWER AND ITS CULTURE.—"Of all the flowers of the garden," says Dr. Johnson, "give me the Cauliflower, so far as its vegetable qualities are concerned." The doctor's opinion is worthy of universal adoption, for whether we consider it as a healthful vegetable, or one worthy of the gusto of the epicure, we know of nothing its superior. Yet with all its acknowledged good qualities it has thus far found its way into comparatively few gardens, and but very few appear to have any idea of its excellence. It is rarely, if ever, found in farmers' gardens, and, so far as we know, is unknown in markets north of New York. In that city, we presume, it is common, and south of there, as we have no doubt, its cultivation is well understood.

The Cauliflower belongs to the Brassica or Cabbage family, of which it is one of the tenderest and most delicate members. While the common cabbage, however, forms a compact head of its leaves under favorable culture, the flower buds of the Cauliflower form a close, firm, white, and delicate head, which, when properly prepared, constitutes a luxurious delicacy which no one, after having once tasted, will be willing to forego.

For northern culture, the Cauliflower should be sown in a hot-bed in March, or early in April, and in May the plants should be transplanted at such distances as are suitable for common cabbages. It is a rough feeder, consequently the soil can hardly be too rich for its growth. We have succeeded best with it on a sod of light loam, or on a loam one year from the sod. Decayed veg-

etable matter is favorite food for it, though compost of muck, ashes, and lime or plaster, proves an excellent substitute. Soap-suds is an agreeable condiment. Frequent hoeings, especially in dry seasons, hasten its growth.

It is the natural tendency of the plant to protect and shelter the head while forming, with the large leaves with which it is provided. The effect of this is to blanch them almost to transparency, and of course remove all disposition to toughness, which an exposure to the atmosphere would be likely to promote. Whenever the leaves show an inclination away from the head, they may easily be brought to cover it by placing them upward in the morning, and thus habituating them to grow up and cover the head instead of downward.

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THE U. S. AGRICULTURAL SOCIETY.—The Executive Committee of the U. S. Agricultural Society had a meeting in Philadelphia last week. The Philadelphia *Ledger* says of it :

“Colonel Wilder, the efficient and distinguished chief of the Association, presided. The object of the meeting was to arrange certain preliminaries for the next annual exhibition, which has been fixed to take place in this city on the 7th of October, and which it is proposed to conduct on a scale of unexampled liberality and splendor. It was decided to embrace, as objects of the exhibition, horses and horned cattle, swine and sheep, agricultural implements, cereal and vegetable productions, poultry, and native fruits and wines.

“A grand banquet, in which ladies will participate, was also settled as part of the programme ; and it was agreed to appropriate \$12,000 or \$15,000 in premiums.”

We have a private letter from Philadelphia which states that the good people of that city are arranging for an exhibition which will eclipse that held in this city last fall. They have subscribed \$15,000 as a guaranty fund, and appointed a committee of arrangements of forty persons, embracing some of the leading men of the different professions. They will have to work sharp and keep busy at it, before they will bear away the palm from the Boston exhibition.—*Boston Journal*.

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EXANTHUS PYRAMIDALIS FLOREPLENO.—This magnificent plant has

large flowers, of a brilliant carmine outside, and fine blue inside, with golden spots in the interior of the petal. Its perfume resembles that of the violet. Stem robust, rising to the height of six feet. It flowers from four to five months, and early; resists the greatest cold, and may be cultivated in pots, in an apartment, or in a greenhouse.

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DOUBLE WHITE PETUNIA IMPERIAL.—Amongst the novelties for the decoration of the flower garden, this year, will be the double white Petunia, said to be as double as the Oleander, and fragrant. If it is really pure white, and a free bloomer, it cannot fail to be valuable as a bedding plant.—*Midland Florist.*

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Building stone may be tinted in different shades by impregnating it with metallic salts and then adding a precipitating reagent. By means of salts of lead and copper, with sulphuretted hydrogen, grays, browns, and blacks may be produced. Copper and ferrocyanide of potassium give a red tint. If porous limestones are boiled in solutions of metallic sulphates, carbonic acid is evolved, and the metallic oxyd, combined with sulphate of lime, is deeply fixed in stone. In this manner, sulphate of iron gives rusty tints, sulphate of copper a fine green, sulphate of manganese a brown, and mixed sulphates of iron and copper a chocolate. The double sulphates thus formed increase the hardness of stone.—*London Artizan.*

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VANILLA.—The vanilla, so much prized for its delicious flavor, is the product of a vine which grows to the tops of the loftiest trees. Its leaves somewhat resemble the grape; the flowers are red and yellow, and when they fall off are succeeded by the pods, which grow in clusters like our ordinary beans—green at first, they change to yellow, and put in heaps for a few days to ferment. They are afterwards placed in the sun to dry, flattened by the hand, and carefully rubbed with cocoa-nut oil, and then packed in dry plaintain leaves, so as to confine their powerful aromatic odor. The vanilla bean is the article used to scent snuff, flavor ice creams, jellies, &c., &c. The plant grows in Central America and other hot countries.

NEW FRUIT-BEARING SHRUB.—UGENIA UGNI.—This new and valuable fruit-bearing shrub, is of the Myrtle family, and belongs to a genus of plants named "Eugenia" in honor of Prince Eugene of Savoy. This variety has been recently introduced by Mr. Veitch, of the Exotic Nursery, Chelsea, and was obtained through Mr. Lobb, from Patagonia.

The fruit is said to be much used by the natives for food, and eaten in Chili as dessert, which statement no one would doubt if once having ate of the fruit. It is of the most exquisite flavor, and difficult to describe. The pulp is soft and white, very sweet, and has a Strawberry flavor, combined with sweet spices, and extremely aromatic. The fruit is round, of a brownish red color, flat eye, and small reflexed segments. The stalk is like that of a Gooseberry, and hangs on the tree in a similar manner.

The plants are increased by cuttings or from seed, and will grow freely in rich loam, and if kept in a greenhouse it will blossom in the spring, and ripen its fruit early in autumn. Small plants in pots bear well, and form very pleasing objects with their dark green polished leaves, studded with ruddy fruit.

Doubtless we have something yet to learn in regard to the cultivation of this new shrub. It is not improbable that it would thrive and produce an abundance of fruit if trained on a south wall, and occupy a place in the garden among other fruit-bearing trees. It fully merits a trial, and I hope at some future time to return to the subject.—*Florist*.

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ON THE CULTIVATION OF THE FUCHSIA.—Having been a successful cultivator of this graceful flower, and having been awarded nearly all the first prizes, for some years, at the Nottingham shows, I have thought it might be interesting as well as useful to the amateur and young gardener, to give a detail of some of the principal features of my mode of cultivation—particularly as regards economy, simplicity, and certainty of success.

I take my last year's plants, and repot them, giving them a good soaking in water, and then place them in the warmest part of the greenhouse. This should be done in December, or early in January, as soon as they have made shoots about two or three inches long; I select those cuttings which are of strong growth, and have no appearance of blooming (early bloomers never make

good specimens), and put each cutting separately into a bottom heat, where the cutting will soon take root. The soil I use for this purpose is one part of leaf mould, one of peat, one of loam, one of sheep dung, with some silver sand, mixed well together. I then pot off the cuttings into half pints, plunge them into a good bottom heat, and as soon as the roots make their appearance round the pot sides, repot them into larger sizes, according to the growth of the plants. By keeping them in bottom heat they will grow vigorously, and soon make good plants. Place a stick in the centre of the pots, and tie the plants to keep them upright. They will soon begin to make side shoots, and when they are three or four joints long, stop them. Do this to all the joints that are near the bottom at once, so that they may all break at one time. Continue to stop the young shoots from the bottom upwards. Care must be taken not to get the leader injured, or the appearance of the specimen will be unsightly. By this treatment, and careful training, you may get plants whose branches hang with graceful regularity from the top to the bottom of the stem—not like those we often see, mere bundles of sticks, resembling half-formed bird-cages. The *growth* of the plant, in my opinion, adds as much to its beauty as the flowers.

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LUCULIA GRATISSIMA.—It is a matter of surprise that this plant is not grown in every cold greenhouse, for its beauty and fragrance at this season of the year cannot be surpassed. Two fine plants are growing in a cold conservatory at Thorp Perrow, Bedale, where the thermometer seldom rises above 44°. It covers a space on a back wall 24 feet by 12 ; in the Christmas week there were more than 100 bunches of bloom open at one time, and their beauty is likely to last for a long time, which makes them more prized in winter. The plants are never exposed to cutting winds. They were planted—one five years ago, the other six. The soil used for them was a mixture of loam and leaf-mould, so impatient are the plants of heat that the hot water pipes near them have been covered up for two years ; previous to that the lower blooms dropped off before they came to perfection.—*Gardeners' Chronicle*.

FARMERS' CLUB MEETING OF AMERICAN INSTITUTE, MARCH 6, 1856.

*Reported for Horticultural Review.*

THE Secretary, Henry Meigs, Esq., read extracts translated by him from the "Journal de la Societe Imperiale et Centrale d'Horticulture. Napoleon III, Protecteur, Paris, December, 1855."

"Mons. Capp, Chief Gardener of the Useful Plants in the Museum of Natural History, in the name of Prof. Decaisne, presented magnificent tubers of the *Dioscorea Batatas*, (Chinese Yam).

The small pieces of this *Dioscorea* were planted in April, 1854, and are now of considerable size, and weigh 500 to 1000 grammes, (17½ to 35 ounces) and ramify much.

Messrs. Chevet, of Montigny, said that they had tasted this *Dioscorea* the last week, and that the flavor rendered them excellent eating.

Mons. J. Dumas, on the contrary, said that he had tasted some that were "fade" (insipid,) and looked like mucilage. Some members said that perhaps they were not sufficiently matured.

Mons. Bourgeois, said that he had the last year received some of the tubers, which were different in figure from the rest, and that instead of being round, they were flattened.

Mons. Remont, of Versailles, presented several specimens of his first crop of the *Dioscorea* or *Igname*. They were raised from the *Bulbilles*, (little bulbs): some were grown on new lands in the environs of Dax, Department of Landes. Others, near Versailles, in rich and well-manured soil, produced an inferior crop to the former. Mons. Remont stated, that he had tried panification (Bread-making,) by adding 20 per cent. of this *Dioscorea* to wheat-flour, and that the bread was excellent. He hopes that 35 per cent. of this root may be added to flour with advantage. Planted in April, a hectare (2½ acres) may yield sixty-five thousand killogrammes of the tubers—about thirty-five tons to an acre. (This would be 780 bushels per acre.)

Mons. Payen said, that if we can obtain 40,000 killogrammes per hectare, it would be an immense advantage gained for Agriculture. He desires of Mons. Remont to dry some of the Ignames and ascertain their proportion of starch. He observed that it was a remarkable circumstance in this elongated root, that the Starch was far more abundant near its upper extremity than at its base. That those cultivated in Algeria were more full of Starch than any grown in France, and that like differences are found in the Starch of the common Potatoes, which vary from 14 to 27 per cent. of Starch.

Prof. Decaisne said, that during the last year, some of the tubers produced 17 to 18 per cent. of Starch.

Mons. Guerin Menneville said, that Mons. D'Montigny had sent from China, *Bulbilles of several varieties* of the Dioscorea.

Messrs. Decaisne and Remont, pointed out a singularity in the cultivation of this plant, quite remarkable, which is, that *they hate dung*. *The Chinese never use it in cultivating the Dioscorea!*

As to the difficulty of getting out the crop their depth in the ground being so considerable, Mons. Bourgeois said, a plow can be made as well suited to plow them out as the plow used for carrots. Mons. Remont says, he intends to try the cultivation of this new root in six of the Departments of France.

Messrs. Bossin and Louesse, presented Dioscorea tubers grown from the Bulbilles (little bulbs,) and others from the cuttings of the root.

Professor Decaisne presented small tubers of the Dioscorea Batatas, and also of the Dioscorea *Aroides*, received direct from China. The first are long roots with *truncated ends*; the latter are probably the Colorasse (species of Arum.)

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ENDIVE.—It is very strange that Endive with us is only known as a salad, dressed green with oil and vinegar, and yet how excellent a vegetable it forms, those who have visited the Paris restaurants must well know. I have sent you the recipe to show how it is cooked on the Continent, the bitterness removed, and an excellent dish produced:—Chop up Chicoree, Endive, or Spinach very fine (cooks say for 10 minutes); boil it first, then put it

into cold water ; then drain the water off, and squeeze it out till quite dry. Take a good tablespoonful of flour, and a piece of butter about the size of a Walnut, mix them well near the fire, and boil them in a pipkin. Put this mixture with the vegetable, and about a teacupful of water, for fear of burning ; add a little salt and pepper, and boil till done. So, I think, the German mode of boiling Beet-root the true one to obtain the fine saccharine flavor, and it has been much approved at my table, though "never heard of before."—*Ibid.*

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PRODIGIOUS POTATO.—The *Independance Belge* informs its readers that "in the Belgian Colony of St. Thomas, a Potato has been grown weighing more than 50 lbs." Good-bye, Big Gooseberries.—*Ibid.*

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THE AMERICAN POMOLOGICAL SOCIETY—SIXTH SESSION.—IN conformity with a resolution passed at the last meeting of this National Association, the *Sixth Session* will be held in CORINTHIAN HALL, in the city of ROCHESTER, New York, commencing on WEDNESDAY, the twenty-fourth day of September next, at 10 o'clock A. M., and will continue for several days.

Among the objects of this meeting are the following :—To bring together the most distinguished Pomologists of our land, and, by a free interchange of experience, to collect and diffuse such researches and discoveries as have been recently made in the science of Pomology—to hear the Reports of the various State Committees and other district associations—to revise and enlarge the Society's catalogue of Fruits—to assist in determining the synonymes by which the same fruit is known in America or Europe—to ascertain the relative value of varieties in different parts of our country—what are suitable for particular localities—what new sorts give promise of being worthy of dissemination—and, especially, what are adapted to general cultivation.

The remarkable and gratifying progress which has been attained, of late years, in this branch of rural industry, is, in no small degree, attributable to the establishment and salutary influences of Horticultural and Pomological Societies. It is, there-

fore, desirable that every State and Territory of the Union should be represented in this convention, so that the advantages resulting from this meeting may be generally and widely diffused. Held, as it will be, at a convenient point between the Eastern States and the Western, easily accessible from the South, and also from the Canadas, it is anticipated that the attendance will be larger than on any former occasion, and the beneficial results to the American farmer and gardener proportionately increased.

All Pomological, Horticultural, Agricultural, and other kindred associations of the United States, and of the British Provinces, are requested to send such number of delegates as they may deem expedient; and nurserymen, and all other persons interested in the cultivation of fruit, are invited to be present, and to participate in the deliberations of the convention.

In order to increase as much as possible the utility of the occasion, and to facilitate business, members and delegates are requested to forward specimens of fruits grown in their respective districts, and esteemed worthy of notice; also, papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and also to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his specimens, and present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable after its organization.

Packages of fruits and communications may be addressed as follows:—"FOR THE AMERICAN POMOLOGICAL SOCIETY, care of W. A. REYNOLDS, Esq., Chairman Com. of Arrangements, Rochester, N. Y."

Delegations will please forward certificates of their appointments, either to the above, or to the undersigned at Boston.

Gentlemen desirous of becoming members of the Society, and of receiving its Transactions, may do so by remitting to the Treasurer, THOMAS P. JAMES, Esq., Philadelphia, Penn., the admission fee of two dollars, for *biennial*, or twenty dollars for *life* membership.

MARSHAL P. WILDER, *President.*

H. W. S. CLEVELAND, *Secretary.*

BOSTON, MASS., MARCH 15, 1856.

THE ROSE GARDEN.—The Rose garden may be of any size or form, according to the taste of the cultivator, but a deal may be done on a small plot of garden. As a matter of course, much depends upon the soil and situation, I find them to do the best when the ground has a gentle slope to the south-east, and is of a rich turfy loam. Twenty-four yards by thirty is the size of my garden, in which there is a nine-foot border all round. On this border I plant my standards, which are about three feet in height, and they consist of the best summer roses in cultivation. The other part of the ground I divide into three chains of circles, eight feet across, with a circular connecting border between each, and on each side there is a path two feet wide. When thus laid out, and it has been well worked with rotten manure to a good depth, I commence planting the first row of beds with hybrid perpetuals, either on dwarf stocks, or on their own roots; the latter I prefer for several reasons, for you may peg them down and layer them, and they are not so liable to be killed by frost. In each bed I plant nine trees round the edge and one in the centre, being careful to pick them as similar in growth as possible. In the second row of beds I plant Bourbon and tea-scented Roses. These may either be planted separately or mixed, and in the centre I plant some of the best sorts of noisettes. In the third row of beds I plant hybrid perpetuals, as before. On the outside border I plant dwarf hybrid perpetuals and Bourbons. When all this is done, I give a good top-dressing of well-decomposed manure, and do not prune them till March, which I like much better than autumn pruning; I fork the ground well over about the beginning of May. As soon as the bloom buds show sufficiently, I pinch off, where there are too many, for by that means I have much finer flowers. For hybrid perpetuals I would advise a good mulching of well-rotted manure, about the middle of June, because it will incite them to bloom much longer and make extra growth.

In the spaces intervening between the roses on the border and beds, there will be plenty of room for choice Phloxes, of which there is now so great a variety, and Pompone Chrysanthemums and Scarlet Geraniums, which would materially add to the embellishment of the Rose garden.

J. G.

CLIANTHUS PUNICEUS.—It appears somewhat strange that this fine Leguminous plant is so seldom seen in that degree of perfection which its exquisite habit and charming racemes of inflorescence so richly deserve. Perhaps a few remarks on its cultivation may prove a word in season to some of your readers.

This fine plant was introduced from New Zealand in 1812, and is probably better adapted for training against a conservatory wall than any other situation. It may be easily struck from cuttings in any ordinary propagating pit, and when rooted should be shifted into 48 pots, in soil composed of loam, leaf-soil, and sand. It should then be kept near the glass in a close pit, or other structure where a growing temperature is maintained.

In the course of six or seven weeks they will be well-established plants, suitable for immediate removal to the conservatory border. The soil should consist of good calcareous loam and good half-decayed leaves, to which should be added sufficient burnt clay, or other porous material, to keep the soil in a good healthy condition. It now requires to be plentifully supplied with water at root, and frequently syringed over-head, with the usual course of stopping, tying, &c., as occasion requires.

In the autumn, water should be partially withheld, in order that the tissue of the plant may become consolidated or ripened sufficient to carry out, in the following spring, the brilliant effusion of drooping scarlet pea-shaped flowers, which will assuredly ensue if the above directions are carried out.—*Florist and Fruitist*.

APPLES FOR MICHIGAN.—At the recent meeting of the Michigan Fruit Growers' Association, the following apples were recommended for general cultivation in that State, viz. : Swaar, Rambo, Yellow Bellflower, Esopus Spitzenburgh, Rhode Island Greening, and Belmont or Waxen. The Baldwin, although found to be variable, and often badly affected with dry rot, was on account of its many excellent qualities, also similarly recommended.

PEARS.—At the same convention, the following pears were recommended for general cultivation : Glout Morceau, Flemish Beauty (for light soils,) Stevens' Genesee, Dearborn's Seedling, Swan's Orange (Onondaga,) and English Jargonelle. The latter must be picked and house-ripened, or it rots at the core and becomes worthless.

NOTES ON PEARS.—There is no fruit so full of vagaries, so capricious in its quality, adaptation to different soils, and in its season of ripening as the Pear. The past has been pre-eminently a Pear year; I purpose, therefore, to give a few running notes on new and old varieties, their variations in quality under different circumstances, and hints as to culture when necessary to serve as a Pear record for the year 1855.

After having cultivated and tasted nearly all the old varieties of early Pears, I have come to the conclusion that we ought entirely to discard such sorts as *Amire Joannet*, the *Blanquets*, and *Muscats*, and confine ourselves to *Doyenne d'Ete*, *Citron des Carmes*, and *Beurre Giffart*, as the only very early kinds worthy of cultivation. They ripen as nearly as possible in succession; the first commencing to ripen in July, and the others following till the middle or end of August, depending much upon season, soil, and site. I am writing of their ripening here in the south, but not in a warm locality; these three varieties were all very good last season and bore abundantly. The first named, as is pretty well known, is small, and when ripe, of a beautiful red and yellow. I have eaten it fully ripe from the tree, and very juicy and agreeable, but as a rule it should be gathered before it is ripe, and kept a few days in the fruit room, it is then more juicy; a very simple mode of prolonging their season, and which may be applied to all early Pears, is not to gather them all at one time, but to do so at intervals of three or four days. This summer *Doyenne* is a great bearer and seems to bear nearly as freely when grafted on pear stock, as on the *Quince*, in deep rich soils. I have seen it on the latter stock grow vigorously and bear profusely, but in most soils it forms a pretty and prolific bush or small pyramid; on the Pear stock it will grow to a moderate-sized standard, and also forms on that stock a nice prolific espalier or pyramid, for such a form is preferred.

The *Citron des Carmes* is a very old variety, and in most seasons is exceedingly juicy and agreeable; last season they were very good indeed; when grafted on the *Quince*, it grows freely, and bears fine fruit, but it is very apt to swell over the stock and become unsightly, unless the stock is carefully covered. The tree is not so tractable as the *Doyenne*, but throws out vigorous irregular shoots. As it does not make a handsome pyramid, it is bet-

ter cultivated as a bush or espalier ; in the former case its vigorous shoots should be pinched early in June, so as to make the bush as compact as possible with such an irregular grower. In most soils cultivated on the Pear stock, it cankers terribly ; but I saw last autumn fine standards growing on a hill at Cheltenham on the blue lias clay without a spot of canker ; I have indeed rarely seen such beautiful trees.—*Gardener's Chronicle.*

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QUERCUS SESSILIFLORA.—In the summers of 1853 and '54, I visited Fontainebleau, and had long drives through the forest. I was much struck with the appearance of the Oaks, and having forgotten what Loudon had stated about them, as being all *Quercus sessiliflora*, I could not account for their fastigiata appearance, so different from our old English oaks. My guide, finding that I was a lover of trees, took care to show me all the lions of the forest in that way ; I took notes at the time of their girth and apparent altitude, but these I have mislaid, and I now only remember that he first of all drove me up to the foot of an enormous tree which he called "Chene du Roi ;" this was a magnificent "stick," with a clean straight bole entirely branchless, and with a compact, densely leafed head. He then, after a considerable drive, brought me up to another, and with his "Voila, Monsieur," directed my attention to its grandeur ; this he called "le Chene des Deux Freres." I remember it as being very tall, straight, and branchless in its stem ; another he pointed out to me as "le Chene de Ferrand" was equally grand ; in fact, I never before saw such straight, clean stemmed, bulky oak trees. It did not strike me at the moment that they were the sessile sort, but on visiting another part of the forest where the sandstone rocks lie on the surface in large masses—one place I remember as very picturesque, called, I think, the Valley of Rocks—I found some small stunted trees with acorns, and I then found that the dense foliaged large oaks I had been admiring were *Quercus sessiliflora*. Loudon describes the leaves as being of a "paler green" than those of *Quercus pedunculata* ; this is just the opposite of my impressions, for I remember being attracted to some trees of *Q. sessiliflora* on the banks of the Dart by their dark green hue, and by their thick, may I call it leathery appearance. The Fontainebleau oaks have

this character. On coming to the verge of the forest near the town, I observed in some of the thickets young trees of *pedunculata*, and I fancied that some were hybrids partaking of the characters of both, but I could not find any acorns on them; has any one ever heard of such hybrids? The misfortune is that it is difficult to prove, for before a young oak tree commences to bear acorns, one has generally ceased to care about acorns and oak trees.—*Ibid.*

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BEURRE D' AMANLIS PEAR.—Mr. Rivers, I observe, speaks well of this pear, but says "it is never highly flavored or perfumed." A pyramidal tree of this kind on the Quince stock I had from him in 1853, bore this last year 14 large fruit, the first I had ever seen of the kind, and I can assure you they were as high-flavored as a good Jargonelle, and very like it in taste though very different in appearance. In fact it was the highest flavored pear I have tasted this season; though that does not say much, as generally I have found them below the mark, not only those of my own growth, but in Covent Garden Market. The Jargonelle thrives in our deep rich soil in the marsh of North Lincolnshire perfectly, and does not canker. One that I grafted myself 18 years ago, near the banks of the Humber, on a sucker of an old pear stock that came up against the house, speedily spread over two of the walls, and bore, (and bears, I believe, large crops, without a trace of canker.)—*Ibid.*

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MEDIEVAL GARDENING.—Our invaluable ancient authority, Alexander Necham, says a "noble garden" should be arrayed with Roses, Lilies, Sunflowers, Violets, and Poppies; he mentions also the Narcissus (*N. pseudo-narcissus*?) The Rose seems to have been cultivated from the most remote time; early in the 13th century we find King John sending a wreath of Roses to his lady, *par amours*, at Ditton. Roses and Lilies were among the plants bought for the royal garden at Westminster in 1276. The annual rendering of a Rose is one of the commonest species of quit-rent named in ancient conveyances. The extent to which the cultivation of this flower had been carried between the 14th and 16th centuries, may be estimated by the varieties enumerated by Law-

son ; they are the red, damask, velvet, double Provence Rose ; the sweet musk Rose, double and single, and the double and single white Rose. The Provence Rose was probably first imported in the 15th century, when the occupation of France by the English may be conjectured to have caused the introduction of many additional varieties of fruits and flowers. The marriage of Margaret of Anjou with Henry VI., may be regarded also as an event likely to have brought the Provence Rose to our northern climate. Of all the flowers, however, known to our ancestors, the Gillyflower, or Clove Pink (*clou-de-giroflee*), was the commonest, and to a certain degree the most esteemed.

Mr. Loudon has stated, erroneously, that the cruelties of the Duke of Alva, in 1567, were the occasion of our receiving through the Flemish weavers, Gillyflowers, Carnations, and Provence Roses. The Gillyflower had been known and prized in England centuries before. At the end of the 16th century, Lawson, who terms it the king of flowers, except the rose, boasted that he had Gillyflowers "of nine or ten several colors, and divers of them as bigge as Roscs. Of all the flowers (save the Damaske Rose) they are the most pleasant to sight and smell. Their use is much in ornament, and comforting the spirites, by the sence of smelling." There was a variety of this flower well known in early times as the wall Gillyflower, or bee flower, "because growing on walles, even in winter, and good for bees." The reserved rent "*unius clavi gariofli*," which is of such frequent occurrence in medieval deeds relating to land, meant simply the render of a Gillyflower, although it has been usually understood to signify the payment of a Clove of commerce ; the incorrectness of this reading must be apparent, if it is recollected that the Clove was scarcely known in the 12th and 13th centuries, when this kind of reserved rent was most common. Another flower of common growth in medieval orchards, or gardens, was the Pervinke, or Periwinkle :—

“There sprang the Violet all newe.  
And fresh Pervinke, rich of hewe.  
And flowris yellow, white, and rede.  
Such plente grew there nor in the mead.”

CHAUCER.

As this plant will flower under the shade of trees or lofty walls, it was well adapted to ornament the securely enclosed, and possi-

bly sombre, gardens of early times.—*Florist, Fruitist, and Garden Miscellany.*

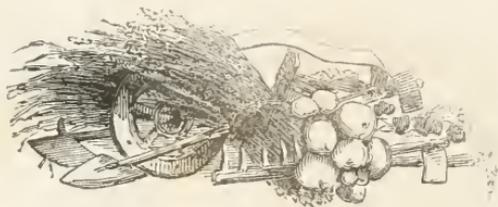
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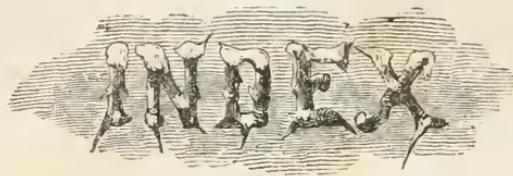
LITERARY NOTICE.

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THE MECHANIC'S, MACHINIST'S, AND ENGINEER'S PRACTICAL BOOK OF REFERENCE. *Stringer and Townsend, New-York.*

For the practical man, the above work will prove an invaluable companion. It is bound in pocket-book form, and contains 500 pages in fine legible type. It gives formula for the various methods of running and changing lines, locating side tracks and switches, etc., besides a vast amount of information in the way of valuable recipes for mechanical purposes, glossary of technical terms used in the various arts, trades, and sciences, which altogether make it indispensable to the general business man or artisan.





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