

# NEW-YORK FARMER,

AND

## *Horticultural Repository.*

VOL. I.]

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### NEW-YORK FARMER AND HORTICULTURAL REPOSITORY,

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The editor is determined to spare no exertions to render this work intrinsically excellent, and worthy the perusal and patronage of our intelligent practical farmers and horticulturists in different sections of our country.



# NEW-YORK FARMER, AND *Horticultural Repository.*

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**ART. 137.**—*A Notice of the occurrences in Natural History and the Arts and Sciences which have a connection with it for a few years past, in our United States of North America.* By SAML. L. MITCHELL.—[Communicated for the New-York Farmer and Hor. Repository.]

*Sources of the river Mississippi explored.*

In this enumeration, I feel as if I ought to mention the Chevalier Beltrami, an Italian traveller of distinction, who published a book in the French tongue, at New-Orleans, on his travels to the sources of the Mississippi. The famous Bruce claimed the merit of first exploring the head waters of the Nile; Beltrami assumed the honour of having been the first man, (not an indigene) who had penetrated to the places where the waters which form, in their course, the father of rivers, issue from their earthy strata, and in the first place feed ponds and lakes. He had the misfortune to quarrel with some of the distinguished explorers, and other important personages in Louisiana. In consequence, they denounced him and his book. I knew the man and have perused his performance; though full of self-importance and egotism, I think there are some pages of it that may be read with entertainment and even instruction, by those who are not implicated in the author's disputes and hostilities. By the verses written in Latin, on the loss of his bark-canoe, he appears to have possessed the taste of a poet and the attainment of a scholar. On his departure for Ravenna, he carried with him extensive collections of minerals, and of the arms, dresses, ornaments and utensils of the native Indians.

*Valuable Periodical Publications.*

Among the periodical publications evincing the increased desire for natural knowledge, I delight to mention the American Farmer, a work of great merit, established years ago in Baltimore, by Mr. Skinner; the New-England Farmer, issued from Boston, by Mr. Fesenden; and the New-York Farmer and Horticultural Repository, edited by a member of the Horticultural Society, under very favourable auspices, at New-York. To these I ought to add Professor Siliman's Journal of Science: Of this, it would be too little to say, that it is honourable to New-Haven and the compiler, for it is alike creditable to the country and the age.

*Great Accession of Organic Remains.*

It is a subject of gratulation, that Geology has ex-

perienced a remarkable accession. G. W. Featherstonhaugh, Esqr. on his return from Europe, brought along a rare and instructive collection of organic remains, procured with very considerable exertion and cost. This body of articles well arranged and labeled, is deposited in the N. York Lyceum, to whose exhibition, rich and extensive before, it imparts a fine increase of importance. These productions of a former and very different state of being in our planet, are rapidly issuing from their places of sepulture, and affording information concerning the times incalculably anterior to the date of history. These "medals of nature," as they have been called, afford the only evidence extant, concerning the race of extinct vegetables and animals; that is to say, of organized beings which were once inhabitants of this world, but of which not a single individual is at this day, known to be alive. Our own country abounds with such curious productions, which the science and research that now predominates, are constantly bringing to light and subjecting to interpretation.

From these general views, I proceed to some that are more detailed and particular.

*Fossil of the Spermaceti Whale from Louisiana.*

Early in the season of 1828, some uncommon fossil bones were found between the city of New Orleans and the Gulf. The newspapers had abounded with puffing paragraphs concerning their unknown and wonderful nature; at length, from the bank of the Mississippi, they reached N. York. The owner, who travelled with them, for profit, brought me a letter of introduction. On examining the fragments of the skeleton, composed chiefly of vertebræ, ribs and one half of a lower jaw, I was enabled to pronounce upon them as belonging to the Spermaceti Whale, or species of the Physeter. The creature was apparently one of uncommonly large magnitude, and had got aground on a shoal of the river, where he died. The bones were afterwards covered by the alluvion of that vast stream, which is forming a delta below like that of the Nile in Lower Egypt.

*The Huge Bone Shark of the North Sea.*

From Lubeck, a seaport in Maine, was brought soon after, a stuffed skin, in the form of a dried preparation of an enormous fish. Capt. John Allen, the captor, immediately on its arrival at New York, invited me to see it. It was in good preservation,

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and being more than thirty feet long, and of corresponding proportions in other respects, was carried from place to place for show, on a wagon constructed for the purpose. I decided it to be one of the family called *squalus maximus*, "the great or basking Shark." The French zoologists have separated the individuals of this genus into three or four species. But, as I had not viewed their specimens, nor had any thing more than a dried specimen to examine for myself, I suppose, for the present at least, it will be best to continue the old denomination. It hence appears, that this huge creature, who inhabits the oceanic tracts of the North Atlantic, comes sometimes as far south as the aforesaid place; and indeed further, for I have come at intelligence that he has been often seen off Cape Cod. More, from a horny excrescences on one side of the gill-arches, having some resemblance to what is vulgarly called whalebone, this fish has been called thereabout, the *Bone Shark*. A straggler of the kind, found his way by Sandy Hook to Middletown Point, in the year —, and was there killed. The preparation was exhibited in the city as the Sea Serpent, and the inhabitants relished the notion very much. I have understood that this specimen for want of proper antiseptic and drying ingredients, has perished; this renders the surviving article the more interesting. Their journeying from place to place, affords zoologists exemplary opportunities for examination.

*A Whale killed in Cow Bay.*

Among the rarer occurrences in Zoology, is the capture during the spring of 1826, of a whale in East River Sound. The individual got aground in Cow Bay, on the north side of Long-Island, about twenty miles eastward of the city. It was living until after a rope had been attached to it for security. The finder then concluded to kill and cut it up, for the oil. As it was only about eighteen feet long, it may be considered as quite a young one. As far as our opinion could be formed from some of the garniture of the mouth which was saved, it was a *Balæna*, and probably from the appearance of the lower jaw bones, of the mysticetus, or right whale (blubber) species.—The event is here recorded, as one of rather an uncommon kind; the like having certainly never happened during the last half century, if indeed it ever was known before.

*The Trunk Tortoise near Sandy Hook.*

The capture of an individual of the hugest of the Tortoise family, near Sandy Hook, in the summer of 1828, deserves to be mentioned. Once in about five or six years, or sometimes not so often, a solitary Trunk Turtle makes its appearance along the coast. This is the *Testudo coriaria* of the books, called otherwise the Leathery Tortoise, weighing not unfrequently, eight hundred pounds, and even more.—

The flesh is stated by naturalists, to be rank and unsavoury: this is a mistake, as I know from my own experience, for I procured a good ration of one a few years ago. My family, children, servants and all, ate it with avidity, and asked for more. I recommend it therefore, as an excellent article for food, and worthy of higher consideration than it has received, both for the market and table.

*An uncommon Fish, the Centronotus, caught at Coney Island*

During the period of my ichthyological recollections, there have been, within perhaps eighteen or twenty years, three individuals caught of a singular fish, and one of them during August, 1828. This latter weighed twenty-two pounds, and was handsome and even splendid. When first brought to me, I examined the books and museums until I was tired, without finding any description or figure. I therefore found it necessary to make a new genus, which I named CENTRONOTUS, from two Greek words signifying *Prickly Back*, in consequence of a row of short, stiff and distinct spines to the number of seven or eight, situated in front of the dorsal fin. It has somewhat the general aspect of a mackerel; but the broad and flattish form of the head, the wide separation of the eyes, the unequal division of the tail, of which the upper portion is the largest, and the number and disposition of the teeth, seemed to offer a plenty of discriminating marks. My specimen after having been described and figured, was cooked and served up for dinner. One of the colloquial names given it by the people of my kitchen, from the great number of crabs found in the stomach, was Crab Eater; and the article was so well relished, a request was made that I would, as soon as possible, procure another Crab Eater, but it never has since been in my power.

*Great Show of Nereids at Brooklyn.*

During August, 1828, the tide-water in the bay of New-York, was enlivened by visitors whom I never saw before. They swam with remarkable agility near the surface, in sinuous and curvilinear courses. When my attention was first called to their sprightly motions, I soon decided they were not fish; and a little further observation, satisfied me they were not shrimps, nor any of the crustaceous tribe. However, on catching some of them and subjecting them to examination, they turned to be NEREIDS, about an inch and a half long, and as they moved through the water, appearing of a faint redish colour. These creatures, who made an exhibition novel to me, are said to come only at distant and irregular times, and that during the term of their continuance, fish in their neighbourhood, who are prone to take the baited hook, bite no more, by reason of having preferable food enough to satisfy their appetites. So the *Chic*

*Borealis* of the North Seas, the little mermaid, as the people along shore call it, enlivens our waters once in perhaps a dozen or fifteen years with its countless numbers.

*The Wild Tuberos Potato, or Solanum Tuberosum, from Chili.*

In the vegetable department, the introduction from Chili of the tubers formed there by the native potato plant, has established certainty where somewhat of a doubt remained before. It is now understood, that in that region the *Solanum tuberosum* is wild and grows spontaneously, producing small and inconsiderable knobs on the roots. I was much pleased on the receipt of these productions from Dr. Finslar, of the U. S. Navy. I planted some and distributed the rest of them among my horticultural friends. The germs vegetated very well; the stems were luxuriant and vigorous, and produced flowers; these latter fell off without producing a single berry or seed. Being disappointed in obtaining increase from the balls, I cherished the expectation of procuring the means of propagation from the roots; I nevertheless experienced a second reverse, when I undertook to dig my crop. There was not one tuber to be found! The roots were stringy and fibrous, like those of ordinary plants. The like destitution of tubers was observed by all the gentlemen to whom distribution had been made. Thus the experiment ended, by reason of a total inability to conduct it further. I cannot forbear to remark on this occasion, the wonderful power that man possesses to change the nature and character of vegetables. The poor little potato of the south has been transformed into the rich and large article we raise, by horticultural skill, in little more than two centuries. Never, perhaps, was there a more complete and admirable instance of the cultivator's triumph over scanty and imperfect nature. Had we been enabled to ripen the seeds so that we might have planted them, it is possible that by a series of plantings for a century and more, there might have been potatoes obtained of commendable quantity and quality. As the matter stands at present, all we have discovered about it is, that the plant, believed to be the parent of our cultivated round potato, is an indigenous product at this day, of South America.

*The Wild Potato of Peru, or Witheringia Montana, from St. Lorenzo Islands.*

Another tuberos root forwarded from the island of St. Lorenzo, in the Pacific Ocean, off Peru, by Commodore Hull, excited also considerable expectation. They were said to be esculent, and had been gathered for the ship's use. I planted some of them, and made distribution of others. They grew very well, and I caused delineations to be made of the stems, blossoms and fibre-furnished tubers. I then supposed I had found a new or undescribed species, and

called it accordingly the St. Lorenzo Potato, or *Solanum Laurentii*. I promptly and respectfully sent a despatch to a celebrated society in Europe, whose Secretary in a polite answer, informed me it was not ascertained to be horticultural enough for insertion in their transactions. From another society in this country, I received no answer at all, and have not learned that the smallest notice had been taken of it. Determined to keep the field in spite of these repulses, I sent through one of my friends some of the tubers to the distinguished Professor Hooker, of Glasgow University. He planted them and witnessed their growth and inflorescence. The result appeared to him important enough for insertion in the Botanical Magazine. The description and history, with a coloured figure, have accordingly made their appearance there. He considers that the species had been observed and named by the Spanish botanists, as the Mountain Potato, or *Solanum montanum*. Still, in pursuance of the botanical etiquette of multiplying genera and increasing names, this plant has been latterly termed *Witheringia*, on account of some difference in the stamens from the true *Solanum*. It is now the *Witheringia montana*, and my denomination of *Solanum Laurentii*, is retained as a synonyme.

*Vain attempts to cultivate the Aracacha of Bogota.*

The attempts to introduce and naturalize the Aracacha Plant of Bogota and New Grenada, in Columbia, have not that I know, been as yet attended with any promising results. From the failure to propagate it in maritime and northern regions, I despair of obtaining any benefit from its abundant and nutritious roots. The late Baron de Shack wrote me that although it vegetated in Trinidad Island, there was an expenditure of the whole vegetative effort in producing herbage and upper growth; while there was not a single tuber but only fibrous roots, under ground. Under this view of the case, I am inclined to the belief that, whether it be an *Apium* as commonly supposed, or a *Conium* as others say, it is a native of very elevated tracts, and will, in all likelihood, require a long and patient course of experiments to reconcile it to low lands and places near the sea, if indeed that object can be effected at all.

*Mortality among Peach Trees.*

I remember the time, nearly forty years ago, when I could boast nearly as many varieties of the peach; I even said that I would fatten or feed hogs on yellow clingstones. There has been since that time, a lamentable reverse. The peach trees of that plantation and of the neighbouring region, have been doomed to linger and perish. The disease has been considered by Mr. Prince as contagious, and communicated by morbid flowers; and by Mr. Adriance, as caused by a malign influence shed upon the peach tree by the lombardy poplar. Other discreet obser-

vers have ascribed the mortality to the ravages of the insect *Egeria extiosa*, infesting the trunk between air and earth, at the point where the ascending and descending caudex unite. Some again think there is an epidemic influence, which has not yet reached the end of its destructive term, invading the health and destroying the life of the peach tree. Whether the mortality is owing to either of these causes or to any other, it is quite a calamity in the region around New York and every place where its visitation extends.—The most approved rules against the disorder, seem to be these : to raise trees from the seed ; to cull out the best varieties of natural growth ; to destroy disordered trees and to plant new frequently, say once in five or other term of years, according to circumstances.

*Sheathing Ship's Bottoms with Seal Leather.*

During the summer of 1828, I was invited to witness the facts presented by the bottom of a ship then just returned from a whaling voyage of twenty-two months duration, in the Atlantic Ocean, chiefly between South America and Africa. She had not passed either of the noted capes of the South, and had the greater part of the time been at sea. The ravages made upon the bottom planks of ships by the *teredo navalis* or pipe-worm, had led to various economical expedients for guarding against them. Besmearing with tar, turpentine and brimstone, having been found inefficacious, recourse was had to sheathing with various substances as protectors—such as thin boards of wood, stout paper and sheets of copper. This latter is the most secure and effectual, but at the same time, the most expensive. The owners of ships, with a desire to cheapen their construction and outfit, determined to make experiments with sheathing of leather, or as the quaint expression is along shore, to put the vessel in leather breeches.

Of all known substances this material seems to be that to which certain animals of the ocean have the strongest propensity to attach themselves. Their numbers are so great as to render the bottom very foul, with rough projections, exceedingly retarding her way through the water. The spectacle on overhauling and cleaning this ship, was rare and curious to the naturalist. Among the animals adhering and accompanying, were

1. The bell barnacle, or *Iepas tintinnabulum*, of size large enough for an inkstand, and in very thick array. Some of these I caused to be boiled out and found them to taste well : having very much the flavour of scallops.

2. Some of these barnacles being dead, the upper valves had been washed away, while the main or principal shell adhered to its place and resembled a cup. In these cavities certain little fishes had taken their abode. A species of *Blonny*, somewhat more

than an inch long, was brought to me in very lively mood.

3. From other hollow and deserted barnacles were brought small fishes of the *Cyclopterus* family, that had in like manner, made their habitation there.

4. A species of *Buccinum* about two inches long, adhering alive by its operculum to the leather.

5. Another species of *Buccinum*, not so large as the former, but adhering in like manner.

6. *Serpulas* winding about on the shells and other bodies.

7. *Flustras*, overspreading other productions, like mats.

8. *Ascidias*, as I thought them, adhering to some of the other things.

9. *Mussels* (*Mytilus*) anchored by their byssus.

10. *Oysters*, in fast adhesion.

11. A crab of the *maja* division, usually termed the Sea Spider.

12. Species of *Otion*.

13. *Otion Cuvieri*.

14. *Otion Bloinwillii*, were also found on the bottom of the ship sheathed with leather.

A similar experiment was made a few years ago. I believe it was the first one. I examined this vessel's bottom after a voyage from Marseilles to New-York. It was much incumbered by these outside and unwelcome passengers, among whom the stemmed barnacles or *Lepas anatifera*, was the most conspicuous. (*To be Continued.*)

**ART. 158.**—*Fire Blight*, by J. BUEL, Esq. of Albany. (From the N. England Farmer.)

Fire blight is still employed to denote the new malady which destroys our pear and apple trees ; and the cause, by many, is imputed still to the malignant influence of the solar rays, which, since the world began, have given life, growth and maturity to the vegetable creation.

It is a sound axiom that like causes produce like effects. If the sun does the mischief, why has it not done the like for centuries before? Has the benign influence of its rays changed ; or have the laws of vegetation altered, within the last few years? The tumors on the plum and Morello cherry, which in some districts have operated to the almost entire extinction of these valuable fruits, have been ascribed to a spontaneous extravasation of sap, and to other equally erroneous causes. But it has been satisfactorily shown, by eminent naturalists, as well as practical gardeners, that this disease originates from the poisonous puncture of an insect, probably but a short time among us, which operates upon the vegetable blood like the poison of a rabid animal upon the human system, causing disease and death. But as the

circulation is infinitely more rapid in the animal than in the vegetable, the cure in the latter is more easy and certain. Governed by this opinion I have persevered in cutting off and burning the diseased branches, until I have overcome the evil, although some gardens in the vicinity are as much afflicted as ever. I have some thousands of the plum and Morello cherry on my grounds, and have found but one diseased tree among them during the season, and that came into my possession last spring. Forty years ago the Hessian fly was unknown to us. New enemies to our crops are annually recognized in the insect tribes.

I do not believe this disease is produced by the Sun; because its attacks are indiscriminate, where the sun's rays are obstructed by foliage, as well as where exposed to its rays; on the north as well as the south; on horizontal as well as perpendicular shoots; and on the under as well as upper side.

I dissent equally from the theory, that it is occasioned by only deleterious matter in the soil; because it occurs where the soil has undergone no apparent change; and because, were this the case, the whole system of sap wood, through which the juices circulate before they become vegetable food, would be alike affected, and first the roots and trunk.

I object to every opinion which goes to ascribe it to atmospheric influence; because this influence would exert itself first on the leaves, the most sensitive and exposed organs, and the extremities would invariably give the first indications, which is not the case.

I do not believe it peculiar to any particular variety; because it attacks my apples as well as pears.—It most abounds where the wood is most thrifty and tender. My Poir d'Auch, Winter butter and Priestly apples have suffered most.

It ill becomes me, after objecting to other theories, to set up one of my own, without ample proof to support it. But as my only object is to excite investigation, and elicit truth, I hope I shall be pardoned for my presumption in suggesting it, unsupported as it is by any thing but casual observation and reflection.

My theory is, that the new disease of the pear and apple trees, like that of the plum and Morello cherry, is occasioned by an insect which injects a matter through the bark, that poisons or vitiates the descending sap, and causes disease and death. And my reasons for this opinion are briefly,—

1. That the progress of the disease is *down*, with the elaborated or proper sap, towards the trunk and root; and not *up*, with the ascending sap, towards the extremities and leaves; that it is perceptible to a greater extent on the cambium, and inner bark, than on the exterior surface. The former will be found brown, in longitudinal slips, sometimes an inch lower than the exterior is affected. The sap frequently

continues to ascend, is elaborated, and nourishes and preserves the verdure at the extremity, after the branch is affected, and the whole circle of the bark below become brown and withered; and in these cases it is not until the sap-wood under the blighted part is contracted by disease, and refuses to perform its office, that the extremity perishes.

2. That the commencement of the disease, from what I have stated, is in the descending sap, is communicated next to the bark, and finally to the wood.

3. That it is most common in thrifty branches, tender bark, and new wood. And

4. That it appears only when the sap is in full flow, and vegetation luxuriant; and extends in proportion to the vigor of circulation and growth.

What the insect is that does the mischief I will not pretend to determine. I have seen insects, in the morning, so firmly attached to a branch (at the commencement of the new growth) of an apple tree, that cutting off the limb did not disturb them; and at evening I have found many of them enveloped in the dead and curled leaves of a branch which they had probably destroyed in part. As I am no entomologist, I submitted them to a gentleman of science, who gave them the generic name of *saperda*, the specific name not being known.

J. BUEL.

*Albany, Nov. 7, 1828.*

[ORIGINAL.]

ART. 160.—*A short treatise on Botany.*—[Continued from page 188, No. 8.]

VIII.—OF THE CLASS OCTANDRIA.

One of the prettiest plants of this class, is the Nasturtium, or the great Indian Cress, *Tropaeolum majus*, which Linneus named the Trophy plant, from its leaves being shield-like, or peltate, and its flowers resembling a helmet. It is a native of South America, but is very commonly cultivated here: The Sugar, (*Acer saccharinum*), and other kinds of the Maple, are also found in this country. The cranberry, *Oxycoccus*, with its large scarlet leaves, that are brought in in large quantities to our markets, is an octandrous plant; so also are the Heaths, (*Erica*), a very large genus of plants, principally found at the Cape of Good Hope, and one or two species in Europe, which abound in uncultivated places. Further examples are the Lace wood, *Lagetta lintearia*, from the inner bark of which a kind of net work, similar to lace is produced; and the *Calanchoe*, a remarkable plant, native of the Isle of France, having a pinnate-winged leaf—the leaflets are toothed or indented, and from each of their indentures a radicle is put forth, which takes root and becomes a new plant.

IX.—OF THE CLASS ENNEANDRIA.

This is a small class. The Camphor tree, *Laurus camphore*, and the Clove tree, *Laurus cinnam-*

*num*, are enneandrous plants;—also the Sassafras, a species of *Laurus*, and the Rhubarb, whose root is extensively used in medicine, and its leaves for culinary purposes, particularly for pies.

X.—OF THE CLASS DECANDRIA.

The decandrous plants are numerous and interesting. Many leguminous productions are found in this country,—as the Sappan wood, *Casalpinia sappan* of the W. Indies—the wild Locust, or *Cassia fistula*—the Logwood, *Hæmatoxylon campeachianum*—and Mahogany, *Suietenia mahogoni* of S. America.

One of the most singular decandrous plants, is a native of N. Carolina, the Venus flytrap, *Dionea muscipula*, growing wild in the swamps, and now cultivated in all parts. Such is the remarkable nature of the leaves, which are furnished with long rigid fibres bent upwards, that when a fly or other insect touches them, they immediately close, and capture it between the two halves of the leaf:—this effect is owing, perhaps, to a property of irritability, similar to that observed in the sensitive plant. The splendid sheep Laurel, of our country, the lovely *Kalmia*, the pride of the American Flora, is also decandrous; and there are five species of the latter, which for the delicacy and elegance of its blossoms, are not to be surpassed by the productions of any other country.

The Corolla is shaped like a salver or wine glass, its upper part or limb having at the bottom five exterior knobs or projections; the anthers are at first bent down in their filaments so as to be lodged in the interior cavities, corresponding to the knobs. The family of Pinks, *Dianthus*, is also included in this class.

XI.—OF THE CLASS DODECANDRIA.

Of the dodecandria, the Mangostan *Garcinia mangostana*, is a remarkable example. The *Garcinia ambogia* produces the gum from which the yellow color called gamboge is obtained. The Purslane, *Portulaca*, although so common now with us, is supposed to have been introduced. The House-leek, *Sempervivum*, is also a foreign plant of this class.

XII.—OF THE CLASS ICOSANDRIA.

One of the first of this division is the *Cactus*, or prickly pear of our country. What at first sight might be taken for leaves, are only the broad flat-jointed stems, one growing at the top of another.—The place of the leaves is supplied by thorns, which grow on the sides in fascicles, and are very small like bristles. The *C. opuntia* bears a beautiful yellow flower, which is succeeded by a succulent fruit of agreeable flavor. There are several remarkable species of *Cactus*, particularly the wonderful night-blooming *C. grandiflorus*, which bears a most magnificent flower of a foot in diameter.

The Cherry, *Prunus cerasus*, the Plum, *P. do-*

*mestica*, the Peach, *Amygdalus persica*, the Almond, *A. communis*, the Apple, *Pyrus malus*, the Pear, *P. communis*,—all these are valuable fruits of foreign growth, that have been introduced into our country, and they thrive exceedingly well. We have however, wild fruit of these kinds—the Crab apple, *Malus Coronaria*, which if cultivated, would, without doubt, in time, produce a very excellent fruit;—our wild Cherry, *Prunus virginianus*, is a pleasant fruit even in the wild state; the Chickasaw plum, *P. chicasa*, promises to be a valuable addition to our stock of garden fruit. The Blackberry, *Rubus*, the Raspberry, *R. odoratus*, are delicious fruits. This class also includes the delightful Strawberry, *Fragaria*.

XIII.—OF THE CLASS POLYANDRIA.

The Poppy belongs to this class. From this plant is derived the opium, which is so generally used in medicine for its soporific effects. It is obtained by wounding the capsule while yet green, from which issues a milky juice that hardens.

This class is rich in elegant flowers. The beautiful Nymphaea, or water Lilly, which adorns our fresh water streams and lakes, is remarkable for the long petioles of its leaves. The singular *Sarracenia*, or side saddle flower, a swamp plant, with a leaf like a wine glass, capable of holding water; the delightful W. India plant *Mammea americana*; the fragrant Orange, *Citrus aurantium*; the Shaddock, *C. decumare*, the Tea tree, so remarkable for its refreshing beverage. There are three varieties of this plant, the *Thea viridis*, *T. bohea*, and *T. cochinchiniensis*.

The different kinds of green tea are all the products of one tree. The difference in the quality of the leaves is owing entirely to the different seasons in which they are gathered. The young leaves are of the better kind, and the larger or outside leaves inferior. The black tea is of a different species from the green, and the qualities are, in the same manner, owing to the different seasons of gathering.

There is no tree, which, in the elegance of the flower and leaf, can exceed the common forest tree of N. America, called White wood. Tulip tree, *Liriodendron tulipifera*. The flower is of a greenish yellow, resembling in form the tulip, and the leaf of a peculiar shape, unlike any other plant. It is three lobed, with the middle segment truncated or cut off square.

Our swamps are also variegated with the splendid, *Magnolia glauca*, with its large snow white flower, and its green leaf, with its under side of a silver hue. Several other magnificent species of this genus are found in the U. States, or are cultivated in our gardens and green houses; in particular the *M. macrophylla*, produces a flower of extraordinary magnitude. Another plant of this class, remarkable for its large size, is a species of *Nelumbium*, the flower of which



is frequently of the diameter of 12 inches, and grows in the waters of the U. States.

XIV.—OF THE CLASS DIDYNAMIA.

This is a very numerous class, and contains many plants of singular forms and valuable properties.—They are, in the natural arrangement, called *Labiata* or lipped plants, from the resemblance which the corollas of most of them have to the head of some animal, and the tops of them are cleft, so as to resemble a mouth with its two lips. Some of them take their names from such a fancied likeness as the Dragons head, *Dracocephalum*, and Turtles head, *Chelone*.—The Catmint, *Nepeta cataria*, is of this class, and a very valuable plant for its uses in domestic medicine. It grows every where, almost, and has its name from the fondness which cats have for it. It is said to intoxicate them. The Thyme, *Thymus vulgaris*, which is used so commonly as a culinary herb, and the mint *Mentha*, are of this class. The Scullcap, *scutellaria lateriflora* is a native plant, and was formerly celebrated for its virtues in curing the hydrophobia. This is so called from its singular capsule, which is formed of the calyx, enclosed so as to bear a resemblance to the ancient helmets. Of the second order, the elegant *Catalpa* tree, a native of the U. States, and naturalized in our northern sections, is a remarkable example. The Trumpet flower, *Bignonia radicans*, is also an elegant and splendid climbing plant, with its large scarlet blossoms and luxuriant foliage, found wild in the southern sections of the U. States. A singular division of this class consists of plants which resemble the *orobanche*, or beach drops, which grow from the roots of Beach trees, without leaves, but bearing a singular flower, appearing as if made of white wax. The *Sesamum orientale*, or Bene plant, bears seeds which produce a valuable oil, and is an E. India plant, but capable of cultivation here.

(To be continued.)

ART. 158.—Remarks on Mr. Wilson's sketch of the different kinds of Gardens in the United States, —by THOMAS BRIDGEMAN; Gardener, Seedsman, and Florist. New York.

SIR:—On perusing your last number, I find that your correspondent, Mr. Wilson, continues to amuse your readers with his descriptions of Gardens and Gardners; and, as is customary with him, makes comparisons that are not consistent with truth or honour. To be capable of holding an argument with a man possessed of his literary talents, is a qualification to which I do not aspire; but I am one of those who cannot swallow every thing I read, and consider ignorance as preferable to error: and that he is less re-

mote from the truth who believes nothing, than he who believes what is wrong.

I very much regret that you should have thought it necessary to curtail my last communication as you did; thereby depriving me of the opportunity of exposing some of Mr. Wilson's unguarded assertions and insinuations. In page 165, of your Repository, Mr. W. recommends such publications as the "New England Farmer," the "American Farmer," and the "New York Horticultural Repository," to the youth of this country. He says, "the value of such publications are above all price. Youth is the time when the mind is susceptible of impressions, and if those works of which youth is naturally fond, are properly digested, the effects on their future taste and habits are well known to be great." After such remarks, it is much to be lamented that Mr. Wilson should suffer envy or prejudice so to prevail over his better judgement, as to cause him to waste his time and talents in flattering and deceiving mankind.

I trust, therefore, that you will allow me to use my humble endeavors to guard your readers from being misled by a misrepresentation of facts. In page 165, Mr. Wilson would lead us to believe that the "guarded gates of the great and opulent, in England, enclose all the rural scenery of the country;" and in page 201, he would fain persuade us that the rich and great can, like Joshua of old, control the Sun, or cause the rain and the dew to descend on their darling spots at pleasure, to the exclusion of others:—or what does he mean, when he says that, "while a few of the rich and great, with their domestic retinue, wallow in the enjoyments of such garden produce as are there thought luxuries, and which the far greater portion of the inhabitants can never afford to taste of; Americans enjoy, in one universal festival, all the most choice and delicious fruits and vegetables of the temperate zone?" In page 232, he remarks that, "this is a free country, and that foreigners are not hindered from commencing upon their own superior models;" and insinuates that the European tenantry are the "habitual tools of overgrown landlords!" Does Mr. Wilson mean to say that the people of England are not as free to raise what they like, on their own ground, as the people of any other country in the world? Or would he have us believe that England is a barren desert, with the exception of the "highly ornamented domains that surround the palaces of many of the noblemen?" Edmunds, in his Political Economy, says that the "United Kingdoms of Great Britain and Ireland, contains 74 millions of acres, of which at least 64 millions of acres may be considered capable of cultivation. Half an acre, with ordinary cultivation, is sufficient to supply an individual with grain, and one acre is sufficient to maintain a horse;" but Mr. Wilson would have us to believe that the price of

vegetables is governed by Covent Garden Market, and that the prices there are beyond the reach of the greater part of the inhabitants. It is well known that nearly all kinds of vegetables are cheaper in England, by one half, than in New York; and particularly what are there called garden luxuries.

In page 760, of Loudon's Gardener's Magazine, it is stated, "that on the 26th of January last, a supply of all common vegetables, in Covent Garden Market, were abundant and cheap. Fine white Brocoli, at from 1s to 2s per bunch, of 6 to 8 heads. Purple Brocoli at the same price per bunch, of eight to ten heads. Sea Kale from 1s to 4s per punnet, or dish. Asparagus plentiful and cheap, from 1s to 3s per hundred. Onions from 2s to 3s 6d per bushel. Savoy cabbage from 1s 6d to 3s per dozen heads." On the eighth of March, "Green, purple, and Cape Brocoli, is stated as low as 9d per bunch. Artichokes from 1s 6d to 2s 6d per half seive, (of from nine to ten quarts.) Brussel's sprouts 1s per seive, (over half a bushel.) Red Radishes from 1s to 1s 6d per dozen hands, (24 to 30 in a hand.) Musarooms from 9d to 15d per bottle. Coleworts from 1s 6d to 2s 6d per dozen bunches. It is also stated that Brussel's sprouts were brought in, in such abundance, that a cart load was thrown down in the market, and left there by the owner, who could find no purchasers at any price." This profusion was in the month of March, and in the midst of a city containing nearly a million and a half of inhabitants.

In my last communication, you omitted an extract in which was mentioned upwards of thirty kinds of Beans, cultivated in England. The reader, by perusing the works there alluded to, may be convinced that many of the kinds of kidney beans are not much known here, and they are to be obtained in England eight or nine months of the year. If it were necessary I could enlarge on this subject, but I trust the candid reader is convinced already, of the absurdity of making comparisons between the two countries, to the prejudice of England. I have already proved that a regular succession of vegetables may be obtained from the natural ground in England, in every month of the year. Mr. W. acknowledges, page 232, that "our winter here, for two or three months, checks the progress of every vegetable substance;" but I think very few of our citizens will agree with him, that this is "absolutely an advantage of the American climate." "What kind of appetite," says Mr. W., "could they possess, who would wish to see our markets constantly stocked with such a variety and profusion, as fill them to overflowing during the summer and fall months?"—and, "that no appetite, short of downright gormandizing, could crave more." These remarks remind us of the fable of the Fox and the Grapes.—

Mr. W. seems to have quite forgotten, that with some people, (the English in particular,) suitable vegetables are indispensable with certain dishes of meat.—An Englishman in his native country, considers a leg of mutton, for instance, but half a dish, without turnips, which may be obtained there at any time of the year. If Mr. Wilson's remarks about "six months gloom of clouds, rains, and fogs, with all their *exhilarating auxiliaries*," are intended for England, I can assure him that they do not apply to that country, nor are they over *blessed* with that intense heat, which renders many of our fruits and vegetables here unwholesome, by engendering such immense quantities of lice, worms, caterpillars, and other insects in our gardens, and such swarms of flies, bugs, and mosquitoes, about our dwellings. It is however, evident, that whatever the climate of England may be, it is capable of producing an abundant supply of upwards of thirty varieties of *garden luxuries*, that are scarcely known by the inhabitants of this part of America.

I am at a loss to account for Mr. Wilson's remarks about gardeners. He has repeatedly told us that we may obtain our vegetables, "not by any superior art or skill in Horticulture, on the part of the cultivator; the favourableness of the climate rendering no other degree of either necessary, than such as is exercised in the cultivation of a field of corn."

He now informs us, page 232, that, "those men of more affluence and taste, who have their places cultivated on a more refined scale, have invariably to depend on the services of Europeans." And "that they, (the Europeans,) have done, and are still doing a great deal of good, in the introduction of new and superior kinds of fruit and vegetables." Can this be possible, when Mr. Wilson has assured us, that the horse-bean is the only esculent vegetable in the known world, that refuses to yield an abundant produce in America? Can such men be capable of introducing vegetables that hitherto have refused to grow here, with no other skill than such as is required in field cultivation? It is well known that our markets, in the Spring of the year, (which is the most profitable time for gardeners, and the most difficult time to raise vegetables,) are supplied almost altogether, by European gardeners; and yet we are told that these men have much to learn of the natives; very few of whom, until of late years, have scarcely attempted to raise many kinds of early vegetables at all.

Before I take my leave, Mr. Editor, I would ask Mr. Wilson who those "vain boasting foreigners" are, that he alludes to. Not having seen any of their writings, I am at a loss to know who they can be; does he mean himself for one? It does not become any one to boast, who lived upwards of twenty years in the country before he became naturalized, and could

not make up his mind to become a citizen until after the war was concluded. As to Mr. Wilson's comparisons between what he calls "Yankees" and Europeans, they are not worth notice. It is well known that an American going to Europe, would have something to learn there, whatever may be his previous acquirements: and if the Americans have arrived to such perfection in knowledge on Horticultural subjects, pray what is the use, Mr. Editor, of yourself and others wasting their time and talents to publish books on the subject?

I am Sir, with the highest respect,  
yours, &c.

T. BRIDGEMAN.

Bowery road, New York, Nov. 1828.

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**ART. 159.**—*Remarks in answer to a "Squash."*

By BETULA ALBA. [Addressed to the Editor of the New-York Farmer and Horticultural Repository.]

SIR:—I hope the following observations, on article 131, page 191, of your Repository, will not be considered so uninteresting, as to prevent an early insertion of them in your columns. The writer of that article endeavors to vindicate the assertions and sentiments of the American Horticulturalist, as stated in pages 191 and 192. How far that writer has succeeded in convincing your readers of the truth of these assertions and sentiments, I am unable to judge. To me, however, it does appear that he has proved nothing, except that which is in favor of what is advanced by the author of Critical Remarks. Let me, for one moment, shortly state to the reader, the point in dispute. It is stated by the Am. Hort. that the climate of this country is superior, in point of congeniality, to that of England; and that it is on this account, that her garden products, in many respects, exceed those of England. Now your critic does not deny that there are both fruits and vegetables that succeed better in this climate than in that of England; but this is not at all the point in dispute. The dispute is, whether the climate of this country is superior to England, in point of congeniality for garden products. The Am. Hort. says that it is. In order to prove this assertion, he refers us to a list of what he terms superior garden products, which are brought to maturity in this climate; and then in an exulting manner, exclaims, "what has England to compare with these?" In answer to this, your critic maintains the proof to be insufficient; because, that many of the articles enumerated by him do actually grow in England, and in as great perfection as they do here. Your critic says; "allowing that none of these things could be brought to perfection in that climate, it by no means

proves that the climate is inferior." I deem it altogether unnecessary to point out to the reader the difference that exists in the two climates: every one is acquainted, by well authenticated evidence, of the mild and temperate climate of England. Did I for a moment think any of your readers were ignorant of this fact, I could show volumes of evidence, to convince them of its truth. Let them examine any or all of the works that have been written on English horticulture, and if they are not then convinced, I should call in question the sanity of their minds. Your American Hort. has given us a very erroneous impression respecting the nature and state of horticulture in England. He would make us believe that the great care and expense bestowed upon gardening in that country, is owing to the uncongeniality of the climate; this however is altogether a mistake. The great care and expense bestowed, is to procure a supply of vegetables and fruits out of the usual season. I might here digress and point out the benefits that we in this country might derive from an adoption of the same system, for it is self-evident that it is as necessary here as it is there. Perhaps on some future occasion, I may say something more on this subject. I shall now take notice of the attempt that the writer makes to prove that the people in England esteem summer or winter squashes as garden luxuries. The testimony of the celebrated Mr. Loudon is brought forward in proof of this assertion. Let me ask, does his testimony prove any thing of the kind? No, in no wise, for not one word is said about their being esteemed luxuries, nor does any writer on English horticulture with whom I am acquainted, say that this is the case; I believe there is not an Englishman that will give his testimony in favor of such an assertion. The truth is, that in some parts of England, the cottagers grow pumpkins and occasionally have them for pies.

As to Mr. Sabine's testimony, it goes for nothing, the vegetable marrow being neither a summer nor winter squash. Our author seems perfectly sensible of the weakness of his cause and of his incapability to support it, for in the agony of distress, he calls aloud for help. "We must confess (says he) we blush at the apathy of the cultivators of American soil in suffering so long in quietness, the reproaches which are thrown upon their valuable and abundant products, by the most gross impositions; more glaring samples of which was certainly never offered to the public, than those advanced by your horticultural Critic, both respecting the luxurious productions of English cottage gardens as well as the fallacious assertion respecting the value of that most simple and pliable production, the fruit of a squash."

The-e my friends are the last struggles of our departing friend.

“What groan was that I heard? Deep groan indeed,  
With anguish heavy laden,  
——The strong man  
By stronger arm o’erpowered, gasps for breath  
Like a hard hunted beast.  
See! how he tugs for life, and lays about him  
Mad with his pain! Eager he catches hold  
Of what comes next to hand and grasps it hard  
Just like a creature drowning.”—BLAIR.

In the preceding paragraph your critic is charged with reproaching the valuable and abundant products of this country. With what justice this charge is made, I shall leave it for the public to decide; for my own part, I deny it in toto. I have neither reproached the country, its climate, nor its products; I have merely asserted that certain of its products are not esteemed valuable or delicious by the people of England. Is this at all saying they are not so to the inhabitants of this or any other country, who may consider them as such? A man may prefer a *toad-stool* to any other vegetable, and to him such a production is both delicious and valuable.

Our author might have saved himself the trouble of quoting what he has done from Mr. Loudon, respecting the cottage gardens of England; such quotations only serve to lengthen his story, without producing any thing else, and therefore reminds us of the well known fable, the Mountain in labor.

In addition to my former assertions upon this subject, I say that owing to the superior mild winters and the absence of intense heat in summer, the inhabitants of England enjoy more of the luxuries of the garden, than the inhabitants of those countries whose winters are long and severe, and whose summers are intensely hot.

I conclude these remarks by calling upon the Am. Hort. as a gentleman, to inform us who are the foreigners he alludes to as hooting and sneering, &c.— If he does not so, I shall ever consider him as having made an unjust, insinuating and cowardly attack upon all foreign horticulturists.

BETULA ALBA:

ART. 160.—On use of Gypsum in Agriculture.

By J. BUZZI, Esq. of Albany. [Addressed to the Editor of the N. Y. Farmer & Hor. Repository.]

SIR—The extensive application of Plaster of Paris in the interior of this state, to the purposes of husbandry, induces me to hazard a few remarks upon the causes of its fertility, and the soils and crops to which it may be advantageously applied. I perceive that many of our farmers, although slow to adopt this or any other innovation upon old habits, now that they have become satisfied of the benefit of plaster in some cases, seem to infer that it is useful in all, and thus apply it without “rhyme or reason.” The

consequence, I fear, will be to bring it into disrepute and lead to its rejection in cases where its utility is unquestionable.

The most common opinion is, that this substance benefits crops by drawing moisture from the atmosphere. This theory proves too much: for if it has so strong an affinity for moisture, it will attract it from the soil as well as from the atmosphere; and thus rob the plants, instead of increasing their supply, of this essential agent of vegetable development. But it has been proved that gypsum absorbs moisture far less powerfully than putrissible manures, or even common soils, and retains it a shorter time. Johnson has given us, in his essay on the use of salt in agriculture, tables exhibiting the absorbent and retentive powers of different substances. I subjoin an extract in proof of my position:

1000 parts.	“Horse dung evaporated previously to dryness, at a temperature of 100°, absorbed, during an exposure of three hours to air saturated with moisture at 62°,	parts.	145
	Putrified tan bark, under like circumstances, (66°),		145
	Unputrified do.		115
	Cow dung do.		180
	Pig do. do.		120
	Sheep do. do.		31
	Refuse Salt (60°)		49
	Burnt Clay,		29
	The richest soil (in one hour)		23
	Lime (part carbonate)		11
10 parts.	Gypsum,		9
	Pig dung, evaporated to dryness, at a temperature of 106° (the heat of a meridian sun at midsummer) and then moistened with six parts of water, required for being reduced to dryness again, at the above temperature,	min.	135
	Horse dung, under similar circumstances,		90
	Common Salt,		75
	Rich Soil,		32
	Poor Soil (sileicious),		25
	Gypsum,		18

Thus it appears, that the absorbent power of horse dung is sixteen times greater than that of gypsum, and its retaining power seven times greater. Let us not lose sight of another important fact which these experiments suggest, viz: That the power of a soil for absorbing and retaining moisture, and of course of resisting draught, is in the ratio of the dung and vegetable matter which it contains—rich soils suffering least and poor soils most, in dry weather.—Ploughing and hoeing frequently tend very much to increase, or rather to bring into full operation, these qualities of soils for absorbing and retaining moisture.

After water has been expelled from plaster of paris by burning or heating, it then again absorbs it powerfully—and not only absorbs, but solidifies it. It is by this process that it is fitted for cornices, busts, &c

Another agency which has been ascribed to plaster in the process of vegetation, is that of accelerating putrefaction in the soil—of rendering inert vegetable matter soluble, and thus increasing the supply of vegetable food. The experiments of Sir H. Davy disprove this theory, and show that gypsum rather retards than increases animal and vegetable putrefaction.

Some, supposing that plants are gifted with sensation, contend, that gypsum acts as a condiment to the vegetable, as spices do to the animal system, and benefit by stimulating their absorbent and assimilating organs. I am not physiologist enough to discuss this point, and will therefore barely observe, that if this is so, all plants are not equally sensitive; for many are certainly not affected by this stimulus.

Others again have maintained, that plaster owes its utility to the sulphuric acid (oil of vitriol) which it contains; and of course that a decomposition or separation of parts, takes place in the soil. Sulphuric acid has been applied, blended with different parts of water, without seeming to confirm this theory. But a sufficient objection is found in the fact, that gypsum is detected in the clovers and other plants, showing that no decomposition has taken place, and that the sulphuric acid, remaining chemically combined with its base, could not have acted separately.

Sir H. Davy, I think, has suggested the true cause of the fertility in gypsum: That it forms as necessary constituent of some plants, as a few drops of peppermint do to a mint sling; and that when the soil does not contain it, in the small proportion needed, its application is necessary for their complete development and perfection—and that it is only useful to such crops as yield it on analysis, and on soils where it is deficient. Of the plants which contain gypsum, Sir H. Davy has enumerated the clovers, luzern, sainfoin and some other grasses; in which he believes it may exist to the amount of three or four bushels on an acre of these plants. The turnip crop yields it in small quantities; and if this theory is correct, Indian corn and potatoes will afford it, as it evidently benefits these crops. He adds, that gypsum is not taken up in corn crops, such as wheat, rye, barley, &c. A course of experiments during ten years, has satisfied me that these crops are not benefitted, directly, by its application, but often indirectly, by increasing the growth of other vegetables, which ultimately enrich the soil.

The soils which plaster most benefits, are the poor lean sands and sand loams; and its effects diminish in proportion as these become more rich, adhesive or wet. The dung of cattle contains gypsum; so does peat or bog earth. To lands often dunged, its effects are consequently less perceptible. That it does not prove efficacious upon wet lands may be accounted

for by their generally abounding in bog soil, and not usually producing plants which contain gypsum.

As to the time and manner of applying plaster, different opinions prevail. It cannot enter the mouths of plants until it is dissolved, or become soluble. To effect this, 500 times its weight of water is found to be requisite. This would seem to indicate that it should be sown early on grass lands. My practice has been to sow in March, or early in April, and if practicable, upon a light snow. When sown late, and a dry summer ensues, its benefits are frequently not perceptible, probably from the circumstance of its not having been dissolved. I have followed the example of two great pioneers in the improvement of American husbandry, the late Judge Peters and John Taylor, in sowing it for Indian corn and potatoes before the last ploughing. I consider the benefit in this method more certain and the labor less, than in that of strewing it on the hills of the growing crop.

The experience of practical men seems to have fixed the proper quantity at from one to two bushels the acre.

Plaster appears partially to have lost its efficacy in some parts of Pennsylvania, where it has been longest and most successfully used. It is said, to adopt the common language, that the soil has become tired of it. I suspect too much reliance has been placed upon it; and that it has been used as a substitute rather than as an auxiliary, for old fashioned barn yard dung. There is another way of accounting for its apparent failure. Has not the soil become tired of the plants which it aids, and which may have exhausted it of some other constituent? In the Norfolk system of alternate husbandry, it was long ago ascertained that clover could not be sown to advantage oftener than every second course, or once in eight or ten years, and other grasses were consequently alternated with it. The practice in Pennsylvania has been, I believe, to continue sowing clover every four or five years.

The preceding view of the subject and my personal experience, induce me to offer the following rules for the consideration of the farmer:

1. That plaster may be applied to pasture and meadow lands, not absolutely wet, with strong probability of profit—as it undoubtedly forms a constituent of many of the grasses, increases their vigor and thickens the sole.

2. That it may be applied, with equal prospect of success, to the maize and potato crops, and I think, to legumes, such as peas, beans, &c. These being sown, as good husbandry implies, upon lands naturally free from surface water, or rendered so by draining.

3. That its benefits are greatest upon sands, gravels and light loams; and that these benefits dimin-

ish in proportion as the soil becomes rich, either naturally or by the application of dung.

4. That plaster can never become a substitute for dung, but may be rendered a valuable auxiliary—benefitting some crops directly, and all remotely, by increasing the volume of vegetable matter, which ultimately becomes the food of plants.

5. That from one to two bushels per acre is a sufficient annual dressing for lands.

6. That upon grass it is most profitably sown early, that the vernal rains may render it soluble; and upon tilled crops before the last ploughing, that the moisture in the soil may perform this office in season, in both cases, to benefit the summer's growth.

And, finally, That its use can be best regulated by the farmer himself carefully noting its effects upon different crops, soils, &c. always leaving a strip unplastered upon crops which it is supposed to benefit, and plastering a strip upon those on which its benefits are doubtful.

Very respectfully, J. BUEL.  
Albany Nursery, Nov. 24.

**ART. 161.**—*A Sketch of the different kinds of Gardens in the United States, particularly those of the Middle and Eastern States.* By WILLIAM WILSON, Nurseryman. Continued from page 232.

The list of vegetables (published in our last) with which our markets are abundantly supplied during the winter and spring months, contains those that falsely informed Europeans have been led to believe were swept from our possession by the severity of our winters. To that list might have been added the spinage, which, with a very little trouble in covering, is frequently cut for market during the greater part of the season, and our crops of Savoy cabbage, which, it is presumed, are not surpassed in point of quality and size by those of any other country, remain in the finest order for table, the whole winter season, until the teeming shoots of the asparagus burst through the mellow clods. Savoys, like other cabbage, have only to be taken up at the approach of a severe frost and laid in the ground close together up to their necks and covered over with straw, salt hay or cedar brush, to prevent the cutting winds from blowing directly upon them. And it is no more trouble to cut them for use at any period, from this position, with the earth around them frozen like the adamant rock, than it is in some European countries to have to wade up to the knees in dirt and mud, to procure the half rotten prize. But this is not all, modern experience has proved that, with very little care, a continual supply of that first rate vegetable, the Cape Brocoli, can be obtained from the month of September until April. This I state from the facility with which I have for

several years, been enabled to continue a regular succession of its flowers during that period. It has only to be laid in the natural ground like cabbage, but must be sheltered by a garden frame and glazed sashes, and the whole managed in the same way as the frames for protecting cauliflower plants. The market gardeners generally employ considerable quantities of these kinds of garden frames for growing winter lettuces, parsley and young cabbage plants, &c. And green houses are now almost as common amongst them as their horse stables, and without undergoing any initiary instructions in the mysterious science of propagating or cultivating the far fetched vegetable dandies, they have for several years past glutted the markets with multitudes of various kinds of green house plants, natives of every quarter of the globe. Very few of these market men who lease their ground cultivate much fruit, at least of the tree kind. This is to be attributed to the very general distribution of orchards that are to be found decorating the ground of perhaps every farmer in the country. To do justice to the true character of these invaluable sources of American enjoyments, would require a volume, and they are well deserving the pen of a Cox to illustrate their value. We need only here remark, that the very reasonable price for which their produce can be purchased in our markets, is a good proof of the great facility with which they yield their abundant crops; and the high price which our Newtown Pippins bring in England, proves that their qualities are not altogether of that degenerated stamp with which many would wish to stigmatize every thing of American origin. Newtown Pippins can generally be bought in our markets during the fall and winter months, for one dollar and a half to two dollars per barrel of two bushels and a half each. In Covent Garden market, I have never seen their price quoted at a less rate than six dollars and a half per barrel.

The price of baking apples of best quality in the same market, at this season, is generally sixteen shillings sterling per bushel, equal to three dollars and fifty-five cents. In our markets, the best cooking apples at this season, generally sell at less than fifty cents per bushel. They are cultivated very extensively all over the country, and our markets are often so overstocked with their supplies, that Spitzenburgh's and other good table apples are sold for forty cents per bushel.

The cultivation of the Peach Tree for the supply of our markets, is rapidly increasing towards the extensive scale of former years; considerable numbers of our farm market men being in possession of many hundreds of these trees in a fine bearing state, and some of them have several thousands, whose delicious and abundant produce have for years past

brought their enterprising cultivators many thousands of dollars. They are sold in our markets at an average price of from two to four dollars per bushel.

It may be entertaining to the inhabitants of this country, to know that the average price of the best peaches in Covent Garden market, London, in the month of August, is twelve shillings sterling per dozen, which is equal to two dollars and sixty-six cents. Allowing each peach to fill the measure of half a pint, a bushel would contain 128, which at one shilling sterling each, amounts to the sum of near twenty-eight and a half dollars. During the three following months their price is two thirds less. But in July it is double, and upon a very moderate calculation, we may conclude that the price of the best peaches in London is from three to four times higher than the best in this country; and when we take into consideration the superior flavour which the cheering rays of our summer sun imparts to this delicious fruit by ripening it to great perfection on standard trees exposed to the free open air of the most congenial clime, we think we may well employ our public pen to elucidate the true value of those natural advantages which a kind Providence has so liberally granted us.

Our Pears, our Cherries, our Plums, and a great variety of small fruits, are generally excellent and abundant, and sold at as proportionally low prices as our apples. They are cultivated extensively with little trouble, and brought to our markets from all quarters, where they generally meet a ready sale, and although sold at low prices, they well repay the industry of their cultivators.

There are several other kinds of fruit whose value entitles them to be particularly mentioned in this sketch, but we shall at present only notice the melon (*Cucumis melo* of Botanists.) This fruit is ranked by Loudon in his Encyclopedia of Gardening, page 747, paragraph 4723, as one of the three first fruits in the world, and in his judgment so far we freely coincide, and are proud to contemplate that congeniality of American climate by which this interesting plant extends her fruitful vines over every field where faithful man bestows the care of simplest culture. The quantities of this most delicious vegetable production the earth ever bore, and with which our markets are supplied in the months of August and September, is astonishing, and the ease with which it is cultivated, enables its growers to sell the fruit at an average price of twelve and a half cents a piece, and I have myself sold many a cart load of Murray's pine apple and other first rate sorts of melons at six cents each. The average price of a single melon in Covent Garden market in the month of August, is five shillings sterling. In the two following months they sell for three shillings each, but in July they

bring from five to fifteen shillings. At a moderate calculation, six times higher than with us, although in point of flavour far inferior to ours. This I have frequently heard acknowledged by gentlemen of this city, who have had the opportunity of testing the qualities of those of both countries, and which the observation of every sagacious horticulturist of experience might enable him to account for, from the circumstance of those of this country being grown and brought to maturity in the open air, whereas those in England have to be grown and generally matured by the aid of glass, even during the warmest periods of their short lived summers. In some of Loudon's works I lately saw an account of some melons which were ripened in a more exposed position than usual, and which was said to have resulted in the improvement of their flavour. The sentiments too, of Mr. Knight seem to be in accordance with the idea of fruits being improved by an increase of its exposure to the open air. In Loudon's Encyclopedia, page 715, paragraph 4497, is the following: "Final planting—The peach is almost universally planted against walls in Britain; in some few warm situations they have been tried as dwarf standards—and Knight, (Hort. Trans. vol. ii. p. 219,) "thinks they may be grown in some cases as low as espalleirs covering with mats in spring to protect the blossom. In every warm season there *can be no doubt* the fruit of the hardier sorts so grown, would be higher colored and of superior flavour."

Very little attention has as yet been paid to the cultivation of the grape vine for the supply of our markets, although very fine samples of various kinds cultivated in Europe, are produced in many places, and the universal distribution of our native sorts all over the country, exhibit the clearest evidences of the practicability of the United States being made the most abundant wine country in the world.



ART. 162.—*Landscape Gardening.*—Answers by WM. WILSON to the Queries put to him by "ANTI INDIGENOUS CONCEIT."

Query 1st. "What are the European limited rules alluded to; and in whose writings are they to be found?"

Answer.—They are those that are generally (but not always) bounded by the limits of an individual gentleman's country residence, unconnected by any intermediate continuation to that of any other, and are to be found in the writings of Loudon, in his Encyclopedia of Gardening, at page 1006, as follows: "When artificial scenes join other artificial scenes, nothing can be easier than by the reciprocal continuation of avenues, strips or masses, so far to unite the two seats as to conceal the boundaries of each while

the two mansions will thus each borrow a splendour from the other. There are still existing proofs of the attention paid to this subject in former times, an instance of which occurs in the apparent connection by avenues between Blenheim Ditchley and Heythrop, though the last mansion is nearly ten miles distant from the first." —

Query 2d. "How are we to understand Mr. Wilson when he says, "Our remarks will be in accordance with the idea of our maintaining and improving one natural, grand, noble and national characteristic of rural excellencies." Does he mean there is something more natural, grand, noble, national and excellent in American rural scenery, than what is to be found in Europe, or are we understand by this sentence, the mere clink and jingle of words?"

Answer.—I mean the preservation of the remains of our native forest trees and flowering shrubs, &c. which are still so universally scattered throughout even our oldest settlements. Loudon in his work above quoted, says, at page 1005, "Trees whether in scattered forests, thickets, or groups, or in compact geometre squares, avenues or rows, constitute the greatest charm of every country." And in the same work, page 993, he says, "The great source of the beauty of every verdant landscape is wood, and so much of the beauty of all woods depends on accidental circumstances in their progress from the time of planting till they attain a considerable age, and which circumstances cannot be said practically to be under the control of the gardener; that however high our aim, however we may study the natural effects of time, and however correctly we may imitate them, at the end of all our labours, any wood of art will always be far inferior to a wood of nature under the same circumstances." Michaux, page 106, has described one hundred and thirty-seven trees which in America grow above thirty feet high, of which eighty-five are employed in the arts. In France there are only thirty-seven which rise to that height, of which eighteen serve to form timber plantations, and of these seven only are employed in civil and marine constructions. But the preeminence of America, in the beauty, variety and magnificence of her forest trees, is universally known; and while a good proportion, as at present, of these are still preserved throughout the country in scattered forests, thickets, groups, &c. so long will she continue to exhibit to every unprejudiced eye, one natural, grand, noble and national characteristic of rural excellencies, with which Europe nor any other country upon earth, ever afforded a parallel.

I did not intend that any of my sentences should be understood to mean merely "a clink and jingle of words," and I should be extremely sorry if any of my answers should make the ears of "Anti Indigenous

Conceit" tingle. The meaning of my sentence which is the cause of the third query, is precisely what Mr. "Anti Indigenous Conceit" has guessed it to be: "That in entering the precincts of public roads in Europe, we cannot equally obtain the view of a country ornamented with the majestic and varied beauties of the hand of nature, as is to be seen in our own country."



**ART. 163.**—*The dignity and importance of agricultural pursuits must direct the policy and manners of the people, to secure the perpetuity of our civil privileges.*

The pursuit of national objects, is directed by the influence of public opinion; and it is by this influence that habits prevail which eventuate in the formation of national character. In every country which has been called civilized, the splendour of wealth has engaged the attention of vulgar minds, and attached to its possessor a superiority to which merit or talents could have no claim. This senseless admiration of the show and parade of wealth, has been too much encouraged, by the influence of public opinion, in states which have been reputed to be virtuous and free. The possession of wealth does not necessarily tend to improve the virtues or capacities of men; these are to be improved by the pursuits and the exercises in which they are engaged.—Hitherto, a large portion of the American people have been amused with the idea, that the duration and perfection of political happiness depend entirely on a free constitution, written on paper. But many have ever believed, that when the manners of the people arrive to a certain degree of degeneracy, the laws which have usually governed human actions and passions, will decide its fate; and that such a state of degeneracy can be prevented only by habits of industry in the pursuit of objects best calculated to meliorate the human condition. Should our republic exhibit the phenomenon, which has never yet been exhibited in the civilized world, that of a nation of husbandmen making commerce and the mechanical arts wholly subservient to the interests of agriculture, and enforcing upon our citizens, as it were by a national discipline and the influence of public opinion, habits of rigid temperance and industry, we might indulge more sanguine hopes of its immortal duration. History, that monumental record of national rise and national ruin, has taught us that through every stage of civil society, the miseries attending the condition of man, have been accumulated, in proportion to their neglect of the peaceful and happy employment of cultivating the earth. It has been justly remarked by one who has heretofore directed the destinies of our country, "that God has made the



breasts of those that labour in the earth his peculiar deposit for substantial virtue ; the focus in which he keeps alive the sacred fire, which otherwise might escape from the face of the earth : that corruption of morals in the mass of cultivators, is a phenomenon of which no age or nation has furnished an example ; it is the mark set on those, who, not looking up to Heaven, to their own soil and industry, as does the husbandman, depend for it on the casualties and caprice of customers : and that the proportion which the aggregate of the other classes of citizens bears, in any state, to that of its husbandmen, is the proportion of its unsound to the healthy parts." The voice of reason and nature confirm the truth of these remarks. There is no occupation, which, like agriculture, contributes to the health and energy of the human constitution ; and when attended to as a science, it presents a vast field for the display of intellectual improvement and philosophical investigation. The mechanical arts, such as of masons, carpenters and smiths, particularly, are necessary, not only to aid the farmer in the progress of his occupation, but contribute essentially to his convenience and comfort. But a small proportion of this class of citizens, is however sufficient for all the necessary purposes of their respective arts. It is very obvious that without the plough, the hoe, and the harrow, the productive powers of the soil would never have been developed in any degree adequate to the great objects of civilization, and of improving the natural condition of man. But in the invention of these arts, which were necessary to improve the science of agriculture, mankind were gradually led to the discovery of those which increased their riches ; and when by the acquisition of a surplus of the produce of the earth, and the introduction of commerce, money was invented as the representation of property, and by that means it was found practicable to purchase not only the necessaries but the conveniences of life, the natural indolence of the human disposition began to yield to the fascinating charms of luxurious ease.— According to the christian chronology, it was more than three thousand years from the creation of our world, before the use of silver and gold metals were introduced as a circulating medium, and a substitute for the value of property ; during which period empires rose, and flourished, and fell. It would be a curious subject to investigate the history of the origin and use of money, and its progressive influence on the manners of civil society. But for any important practical use to Americans, in their present condition, it is sufficient for them to learn whether its present use, or the means which are practised to accumulate it, have a tendency to advance our political happiness, or to perpetuate the duration of our own republican privileges. If the great object of accumu-

lating money is not to meliorate the condition of our country, by facilitating the means of subsistence generally, and making our citizens wiser and better, is it not questionable, whether the increase of our money capital, and our population, will essentially advance the happiness, and the durable strength of our republic ? It has been remarked that the strength of a nation is derived from the character, not from the wealth, nor from the number of its people. And of the truth of this remark, ancient Sparta has furnished us with an example. The republic of Sparta, after Lycurgus had suppressed the circulation of gold and silver coins, and introduced money made of iron, as the only circulating medium, and enforced by law such a distribution of property, that there were no citizens either rich or poor, and with a less population than the surrounding nations, flourished for ages, the most powerful and happy republic of Greece, and perhaps of any other that has ever existed. The object of the celebrated institutions of Lycurgus, was to make her citizens powerful and happy ; by making them wiser and better ; by improving their manners and habits, rather than by accumulating their wealth, extending their dominion, and increasing their population. And Americans should not forget the policy of Lycurgus, so far as it relates to the importance of forming the habits of our citizens to industry, and their morals to virtue, in establishing a national character, was enjoined on us by the advice, and exemplified in the character, of our Washington. When on the occasion of his inauguration to the office of our first chief magistrate, he admonished them to honour the men who with their own hands maintain their families, and raise up children who are inured to toil, he doubtless saw in this class of citizens the surest pledges of their welfare, and the permanency of our privileges. This remark of our illustrious chief was a salutary reproof to that class of overgrown planters and farmers, who would degrade the condition of the labouring husbandman to that of the slave. In giving lessons to posterity, his exalted policy was not influenced by partial views nor personal motives ; nor by the pride or prejudices of the world. In the experience of a life devoted to the welfare and glory of his country, he found in the employment of agriculture, the best resources of individual happiness and national prosperity. But although there have been characters renowned for wisdom, for intellectual capacity, and for patriotism, who have in every age and country, been disposed to raise the dignity, and improve the science of agricultural pursuits, yet, strange as it may appear, in Republican America, to labour in the field is unfashionable ! Cincinnatus was called from the plough to direct the destinies of an empire, that gave laws to the world ; and to the proffer of unbounded wealth, and the splendours of

ambition and of power, preferred his cottage and the cultivation of his little farm; yet among Americans, a large class of our citizens, who would claim the exclusive right to the title of gentlemen, would think it degrading to their dignity to be found, as the deputies of the senate found Cincinnatus, holding the plough and dressed in the mean attire of a labouring husbandman! In Republican America, too, many of our sons and daughters would excuse themselves from honest industry, because it is supposed to be unworthy of the capacity improved by science. But Americans should not forget what the lessons of history and experience have taught, that degeneracy of morals and manners have invariably originated in that class of citizens who have shunned honest industry as degrading; and that when that class becomes so numerous as to controul the current of popular opinion, the ruin of political happiness and of liberty is inevitable. If then we love our country, and would transmit to our posterity the blessings we enjoy, we should adopt the advice of our greatest political benefactor, honour the men, who with their own hands maintain their families, and thereby render agricultural pursuits popular, render them fashionable, and raise them to that dignity, to which they should be elevated, and to which they must be elevated, to preserve the happiness, and secure the permanency of our republic.—*Farmer's Lib.*

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**ART. 164.—Recent Valuable Patents.**

IMPROVEMENT IN THE HORSE-SHOE.

*Specification.*—Be it known, that I, Stephen R. Kean, of the City of Washington, in the District of Columbia, have invented and applied to use, a new and useful improvement in the horse-shoe, called "*The self-expanding, or swivel-joint horse-shoe,*" not known or used before this, my said discovery; specified and described in the words following, viz.

This shoe is formed, by simply uniting two sections (one for each side of the hoof,) in the centre, at the toe, by means of a rivet, which may be a separate piece of iron or steel; or it may be a projection from the upper side of the lower half of the hinge joint.—The rivet must be counter-sunk into the shoe, at the upper end, and made flush with the upper surface of the shoe, to prevent it from bearing too hard, or sinking into the hoof; and must be made to work freely in the joint—laterally.

The benefits of this kind of shoe are practically known to the inventor, and consist in the certainty of its obviating or removing the difficulty too often experienced, of the horse becoming what is called "*hoof bound,*" by the shoe of the usual form now used.—The frog, in the centre of the hoof, naturally endeavors to expand; but, being confined, by reason of the

shoe binding the hoof close upon it, often produces lameness in the horse, of the above description, which no doubt, is frequently attributed to quite different causes than the real one; and which might be completely prevented or removed, by using shoes of the form here proposed; as the following facts will more satisfactorily prove:—

The circumstances which led to this discovery are briefly these:—A very elegant and valuable horse, belonging to a distinguished individual in this District, had become very lame. His lameness was attributed to a founder, and he was, for a long time treated for this complaint, by different farriers, under whose charge he had been placed; but all remedies having finally failed, he was pronounced "*incurable,*" and was accordingly sold for a trifle to a horse-dealer. He finally (after having been hawked about for some time, his lameness still increasing) came into the possession of the inventor, who soon discovered, that his lameness proceeded from bad shoeing, or from shoeing in the usual manner. As a remedy, he had the shoes taken off, the frogs pared down, and in this situation turned the horse out into the fields, where he remained for several weeks, till his hoofs became sufficiently expanded; when, on having him re-shod, the idea occurred to him, that a shoe, so constructed, as to allow the hoof to expand freely, would effectually prevent a return of lameness in the horse. He accordingly had him shod with shoes of the construction herein before described; and the consequence has been, that his lameness never returned, and he has become one of the most valuable horses in the District of Columbia.

Another advantage resulting from this mode of shoeing, (of no small consequence, on the score of economy, to persons who keep a large number of horses,) is, that the shoes, if they are well put on in the first instance, never require removing, till they are worn out—an advantage which the present method of shoeing does not possess, as the horse will become hoof-bound if the shoe remains too long in one position. It is also evident, that the same shoe will fit almost any hoof.

In testimony that the foregoing is a true description of my said improvement in the horse-shoe, as by me described, I hereunto set my hand and seal, this 9th day of June, in the year of our Lord, 1828.

STEPHEN R. KEAN.

In presence of

URIAH BROWN,

JOHN F. FOSTER.

CAST IRON BUSH FOR GRIST MILLS.

This article has been patented by Mr. N. Taylor, and is said to be a great improvement. Its chief excellence consists in its preventing heat, keeping the spindle firm, and when once properly fixed in the bed

stone, saves the expense and trouble that attends the taking up, renewing and wedging those now in use. The inconvenience of repairing the common ones, often induces the millers to leave them in long after the spindle begins to warble, and thus much inferior flour finds its way to market; but Mr. Taylor's improvement does away this objection. (It can be seen at this office.)

## CAST IRON FIRE TONGS.

High polish and cheapness, and also strength, appear to be the recommendations of this improvement. They are particularly adapted for kitchen use. (They can be seen at 113 Beekman-st.)

## MACHINE FOR PLANTING SEEDS.

The patent for this improvement was taken out in August last, by two persons of the name of Roberts, residents of Denmark, N. York. The machine has been sometime in operation, and has, says the editor of the Franklin Journal "been found to answer the intended purpose in the most perfect manner." An intelligent gentleman who resides in the neighbourhood of the patentees, writes thus, "there can be no difficulty in the application of this machine to the planting of any kind of seed, and any number of them at a time, at any required distance, as fast as a man can walk. When the rows are set four feet apart one way, and eighteen inches the other; there is no difficulty, nor is it a very hard day's work for a man to plant ten acres after the ground is properly prepared to receive the seeds."

ART. 164.—On a method of Cleaning Silk, Woollen, and Cotton Goods. By MRS. ANNE MORRIS.

Take raw potatoes, in the state they are taken out of the earth; wash them well; then rub them on a grater, over a vessel of clean water, to a fine pulp; pass the liquid through a coarse sieve, into another tub of clear water: let the mixture stand, till the fine white particles of the potatoes (the *fæcula*) are precipitated: then pour the *mucilaginous potato-liquor* from the *fæcula*, and preserve this liquor for use.

The article to be cleaned should be laid upon a linen cloth, on a table; and, having provided a clean sponge, dip it into the potato-liquor, and apply the sponge thus wet upon the article to be cleaned, and rub it well upon it, repeatedly, with fresh portions of the potato-liquor, till the dirt is perfectly loosened: then wash the article in clean water several times, to remove the loose dirt: it may afterwards be smoothed and dried.

Two middle-sized potatoes will be sufficient for a pint of water.

The white *fæcula*, which separates in making the *mucilaginous liquor*, will answer the purpose of *tapi-*

*oca*; will make a useful nourishing food, with soup or milk; or serve to make starch and hair-powder.

The coarse pulp, which does not pass the sieve, is of great use in cleaning worsted or woollen curtains, tapestry, carpets, or other coarse goods.

The *mucilaginous liquor* of the potatoes will clean all sorts of silk, cotton, or woollen goods, without hurting the texture of the articles, or spoiling their colours.

It is also useful in cleaning oil-paintings, or furniture that is soiled.

Dirty painted wainscots may be cleaned, by wetting a sponge in the liquor, then dipping it into a little fine clean sand, and afterwards rubbing the wainscot therewith.—*Trans. Eng. of Arts.*

[Under the impression that no information which our columns could convey, will be more acceptable to farmers than that on neat cattle, we commence the following as the beginning of a series of articles, each of which will be accompanied by one or more cuts of the most improved breeds of English bulls. Our readers may rely on the accuracy of the drawings, taken from that celebrated work, Loudon's Encyclopedia of Agriculture.]

## ART. 165.—Neat or Horned Cattle.

The neat or horned cattle used in agriculture are included under two species of *Bos*; the *B. taurus* or Ox, and the *B. bubalus* or Buffalo; the latter less used in Britain than on the continent and in other countries. These animals are more universally used as beasts of draught and burthen than the horse, and have the additional advantage of furnishing excellent food and other valuable products. There is scarcely a country in which the ox or the buffalo is not either indigenous, or naturalized and cultivated; while in many parts of the world, the horse is either wanting, or reserved for the purposes of war or the saddle.

The Ox.—*Bos Taurus*, L. Ochs, Ger.; Bœuf, Fr.; Buey, Span.; and Bue, Ital.

The male ox is the Bull, *Taureau*, Fr.; *Stier*, Ger.; *Toro*, Span. and Ital.; and the female the Cow, *Vache*, Fr.; *Kuh*, Ger.; and *Vaca*, Span. and Ital. The bull and cow inhabit various parts of the world, and, as already observed, are domesticated every where. In most countries, however, they are the mere creatures of soil and climate, the same attention in breeding and rearing that is bestowed on the horse being withheld; the natural habits little restrained or the form improved for the purposes of milking, fattening, or for labor. It is almost exclusively in Britain that this race of animals have been improved so as to present breeds for each of these

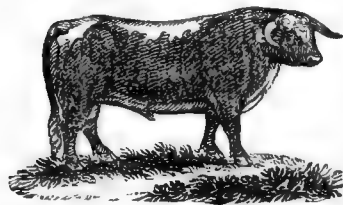
purposes, far superior to what are to be found in a state of nature or in any other country. Notwithstanding this, however, much certainty remains to be known regarding the nutriment afforded by different kinds of herbage and roots; the quantity of food consumed by different breeds, in proportion as well to their weight at the time, as to the ratio of their increase, and the propriety of employing large or small animals in any given circumstances. Even with regard to the degrees of improvement made by fattening cattle generally, from the consumption of a given weight of roots or herbage, no great accuracy is commonly attempted; machines for weighing the cattle themselves and their food, from time to time, not being yet in general use in any part of Britain. We shall consider the bull family as to his variety, criteria, breeding, rearing, feeding, working, fattening, and milking.

*Of the varieties and breeds of the Bull.*

The varieties of the wild ox are the Bonasus and the Bison; the first with a long mane, and the last with a gibbous back. They inhabit the woods in Madagascar and many other countries of the east; and the bison is even said to be found in Poland.

The varieties of the cultivated ox are the European, Indian, Zebu, Surat, Abyssinian, Madagascar, Tinian, and African. From the European variety have been formed the different breeds cultivated in Britain. They are very numerous, but we shall only notice such as are in most esteem. These different breeds are generally distinguished by the length or flexure of their horns, by the absence of horns, by the districts where they are supposed to have originated, abound, or exist in the greatest purity, or by the name of the breeder.

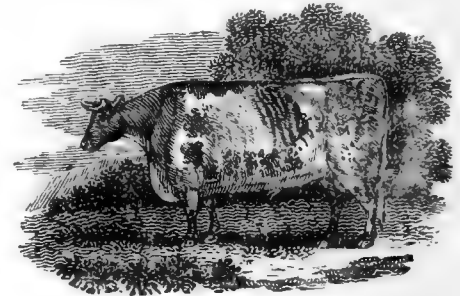
(fig. 1.)



The long-horned or Lancashire breed of cattle (fig. 1.) is distinguished from others by the length of their horns, the thickness and firm texture of their hide, the length and closeness of their hair, the large size of their hoofs, and coarse, leathery, thick necks: they are likewise deeper in their fore quarters, and lighter in their hind quarters than most other breeds; narrower in their shape, less in point of weight than the short horns, though better weighers in proportion to their size; and though they give considerably less milk, it is said to afford more cream in proportion to its quantity. They are more varied in their color than any of the other breeds; but, whatever the color be, they have in general a white streak along their

back, which the breeders term finched, and mostly a white spot on the inside of the hough. In a general view, this race, notwithstanding the singular efforts that have been made towards its improvement, remains with little alteration; for, excepting in Leicestershire, none of the subvarieties (which differ a little in almost every one of those counties where the long horns prevail) have undergone any radical change or any obvious improvement.

(Fig. 2.)



The improved breed of Leicestershire (fig. 2.) is said to have been formed by Webster, of Cauley near Coventry, in Warwickshire, by means of six cows brought from the banks of the Trent, about the beginning of the present century, which were crossed with bulls from Westmoreland and Lancashire.—Bakewell, of Dishley in Leicestershire, afterwards got the lead as a breeder, by selecting from the Cauley stock; and the stocks of several other eminent breeders have been traced to the same source.

*Criteria of Cattle for various objects and purposes.*

The criteria of a well-made bull, to whatever breed he belongs, are according to Culley as follows: the head should be rather long, and the muzzle fine; his eyes lively and prominent, his ears long and thin, his horns wide, his neck rising with a gentle curve from the shoulders, and small and fine where it joins the head; the shoulders moderately broad at the top, joining full to his chine or crops and chest backwards, and to the neck-vein forwards; his bosom open, breast broad, and projecting well before his legs; his arms or fore-thighs muscular, and tapering to his knee; his legs strait, clean, and very fine boned; his chine and chest so full as to leave no hollows behind the shoulders; the plates strong, to keep his belly from sinking below the level of his breast; his back or loin broad, straight, and flat; his ribs rising one above another in such a manner that the last rib shall be rather the highest, leaving only a small space to the hips or hooks, the whole forming a round or barrel-like carcass; his hips should be wide placed, round, or globular, and a little higher than the back; the quarters from the hip to the rump long, and instead of being square, as recommended by some, they should taper gradually from the hips backward, and the turls or pott-bones not in the least

protuberant; rumps close to the tail, the tail broad, well haired, and set on so high as to be in the same horizontal line with his back. Bulls should be constantly well fed, and kept in proper enclosures, never being suffered to ride before they are three years old, as when the contrary is the practice, they never attain so perfect a growth. It is observed by Lawrence, that the above description delineates that barrel-shape, which Bakewell supposed most advantageous for all kinds of animals intended to be fed for slaughter, or even used for labor.

The criteria of excellence in neat cattle in general are thus given by John Wilkinson of Linton, near Nottingham, an eminent breeder. "The head ought to be rather long, and muzzle fine; the countenance calm and placid, which indicates a disposition to get fat; the horns fine; the neck light, particularly where it joins the head; the breast wide and projecting well before the legs; the shoulders moderately broad at the top, and the joints well in, and when the animal is in good condition, the chine so full as to leave no hollow behind them; the fore flank well filled up, and the girth behind the shoulders deep; the back straight, wide and flat; the ribs broad, and the space between them and the hips small; the flank full and heavy; the belly well kept in, and not sinking low in the middle, or so formed that a cross section of it would resemble an oval, whose two ends are of the same width, and whose form approaches to that of a circle, or of an ellipsis, whose eccentricity is not great; the whole forming, not a round or barrel like carcase, as some have expressed it, for this would leave a deficiency both in the upper and lower part of the ribs; the hips globular, wide across and on a level with the back itself; the hind quarters, that is, from the hips to the extremity of the rump, long and straight; the rump points fat, and coming well up to the tail; the twist wide, and the seam in the middle of it so well filled, that the whole may very nearly form a plane, perpendicular to the line of the back; the lower part of the thigh small; the tail broad and fat towards the top, but the lower part thin; the legs straight, clean, and fine boned; and when the animal is in high condition, the skin of a rich and silky appearance. These appear to be the most material points for the formation of true symmetry in cattle: there are others of a minor consideration, which will readily be suggested by attention and experience."

The criteria of an ox well adapted to labor, differ from the above only in requiring long and strong legs, and broad hardy feet and hoofs.

Culley's marks of a good cow are these: wide horns, a thin head and neck, dewlap large, full breast, broad back, large deep belly; the udder capacious, but not too fleshy; the milk-veins prominent, and the

bag tending far behind; teats long and large, buttocks broad and fleshy, tail long and pliable, legs proportionable to the size of the carcase, and the joints short. To these outward marks may be added a gentle disposition, a temper free from any vicious tricks, and perfectly manageable on every occasion. On the other hand, a cow with a thick head and a short neck, prominent back bone, slender chest, belly tucked up, small udder or a fleshy bag, short teats, and thin buttocks, is to be avoided as totally unfit for the purposes either of the dairy-man, the suckler, or the grazier. The most valuable cows are those which are bred in Yorkshire, Staffordshire, and upon the strong lands in other parts of England, and in Ayrshire in Scotland.

The criteria of excellence in cattle as derived from color, is of no importance, and all that can be said is, that white and red cattle are less hardy than the black haired.

The criteria of age in cattle is derived from the teeth and horns. At the end of about ten years they shed their first four teeth, which are replaced by others, larger, but not so white; and before five years all the incisive teeth are renewed. These teeth are at first equal, long, and pretty white; but as the animals advance in years, they wear down, become unequal, and black. These animals likewise shed their horns at the end of three years; and they are replaced by other horns, which, like the second teeth, continue. The manner of the growth of these horns is not uniform, nor the shooting of them equal. The first year, that is, the fourth year of the animal's age, two small pointed horns make their appearance, neatly formed, smooth, and towards the head terminated by a kind of button. The following year this button moves from the head, being impelled by a horny cylinder, which lengthening in the same manner, is also terminated by another button, and so on: for the horns continue growing as long as the animal lives. The buttons become annular joints or rings, which are easily distinguished in the horn, and by which the age of the creature may be easily known; counting three years for the point of the horn, and one for each of the joints or rings. The cow continues useful for more than twenty years, but the bull loses his vigor much sooner. It is common with dealers to obliterate these rings, by shaving the horns, in order to conceal the age of the beast.

The terms applied to different ages are as follow. A young castrated male, after the first year, is called a stot, stirk, or steer; at five years old an ox. A female, after the first year, is called a heifer, or quey; at five years old, a cow. And afterwards, a castrated female is called a spayed heifer or cow.—Certain of the Welsh and Scots cattle, of rather a coarse and sturdy kind, are denominated runts. Bul-

lock is the general term for any full grown cattle, male or female, fat or lean.

The natural duration of life with the bull and cow may be stated at upwards of twenty years, to nearly the end of which the latter is useful with her milk, but the former usually loses his vigor, consequently his use, many years sooner.

(To be continued.)

**ART. 166**—*Remarks upon the treatment of Swine, read before the Farmer's Society in the town of Florida, N. Y. November, 1828, by Dr. S. REYNOLDS.* [Communicated for the N. Y. Farmer and Horticultural Repository.]

The man who undertakes farming as a profession, with a view of maintaining and securing a competence for his family, should keep constantly in mind, that his profits are made up of trifling items, which he must assiduously attend to, and collect in their proper season. In no part of his business is this fact more evident than in raising and fattening swine.

In this town, where grain of every description always brings a good price, I have been long ago convinced, that we cannot advantageously make pork for the Albany or New-York markets. The farmers to the West, where Indian corn is cheap, can now, assisted by the canal, afford to undersell us. Yet notwithstanding this, we must raise many hogs and make large quantities of pork, for our own use, and that of the mechanics who reside among us—and the great question is, how is this to be done with the least expense, or with the greatest neat profits?

To be able satisfactorily to answer this inquiry, we must be well acquainted with the nature and habits of the animal we are about to fatten—for that treatment which would be proper for any other domestic animal, would not be so for the hog. They bear confinement better, and furnished with a dry bed and sufficiency of food, very soon become reconciled to their prison, however narrow the limits.

There is no class of animals which abound with greater or more distinct varieties, than the hog.—They have become naturalised to all the climates of the globe,

“Differing in all and yet in all the same.”

Every where offering to man a salutary food and a delicious repast, upon the most reasonable terms; for they ask nothing more than that we should

“Feast well the animal we doom our feast,

“And 'till we end the being make it blest.”

In accordance to this, the skillful farmer will never permit his hogs to complain of hunger, or languish for want of drink. While the pigs are small and obtain their sustenance from the sow, he takes care that she is well fed with milk and other nutritious food,

and when they become larger, should they grow clamorous or unruly, he will not starve them in the sty, or punish them with yokes.

Of all the expedients for keeping swine out of mischief, to which slovenly farmers have recourse, that of yoking them, is certainly the most absurd and unprofitable—to say nothing of the cruelty that usually attends it. If the yokes are loosely put on, they are very soon off, and all the labour and noise expended, without the least benefit. On the other hand, if they are heavy and tightly put on, the poor animal is doomed to perpetual distress; he can neither walk or lie down with ease; his neck is galled, becomes inflamed and swells, and although he may for a while eat his scanty allowance, it is quite impossible for him to grow—pain and want of rest occasion a fever, and the fever emaciation, and unless the yoke is seasonably removed, the death of the ill-fated animal soon follows.

If the yoking of swine is a needless cruelty, and improper, so is the practice of worrying and tearing them with dogs—but this is attended with such immediate and evident injury, that very few farmers permit it upon their own hogs, reserving this dreadful severity for those which are turned into the highway for the purpose of living and preying upon their neighbours. This alone, if there were no other reasons, should deter every prudent man from permitting his hogs to run at large in the streets. But this is not all, here they are constantly exposed to be bruised, run over, and killed, by horses and carriages; but should they escape, they can derive very little benefit from the scanty pasture afforded in the highway; the natural grasses which grow here, are usually short and always hard and wiry, and quite unfit for this species of animals, for as they cannot ruminant or chew their food a second time, their digestive organs act feebly upon it, consequently the labour of procuring a meal, is scarcely compensated by the nourishment it affords.

Hogs (like all other creatures) require a certain quantity of food to supply the constant wants and wastes of animal life—all that they eat beyond this, is converted into fat, and neatly and securely laid up in the adipous cells, for their own and our future benefit. Why should we then stint them in their meals or compel them to labour that is worse than useless? Their almost insatiable appetite will cause them to eat and thrive upon the coarsest garbage, if that can be obtained with ease and abundance. But if we would fatten them, they must be supplied with clean nutritious food. Filled with this, all their wants are satisfied, they lie directly down and sleep soundly, until a desire for food awakens them; this they should find without delay or much labour. Only notice for a moment their form and peculiar organization, and

you will see most plainly, that it was never the intention of nature they should plough or work in any other way. The more they exercise, the more they must expend of that oil in which all their riches consists, and which at rest, they would treasure up. It is therefore a great mistake and want of economy, to confine hogs in the sty and leave them a single hour unsatisfied with food. If their troughs are properly made and fixed, they will not waste whatever you may give, although they may not devour the whole immediately; nor will they cloy or sicken like the ox by having too large a mess. In a short time their appetites return, and the remainder is devoured with the same avidity as the first. It is this innate and insatiable desire for food, that renders the hog so extremely useful to man.

That kind of hogs therefore, which have the greatest appetites, joined with the earliest disposition to fatten, are the best. There is a small kind lately imported from China, and now fed by Mr. Storm in N. York and Mr. Dun in Albany, which more than any other that I have seen, have these requisite qualities in perfection.

The small grass breed so common about this town, are also a valuable, race, and deserve more particular attention, than has hitherto been given to them. They have a peculiar relish for clover, and will fatten considerably upon it. I bought a pig of this kind about a year ago; it had been confined in a pen, and there half starved, and although four months old, weighed no more than forty pounds. Last winter it was kept in the sty and fed with the refuse of the kitchen. In the spring, a ring was put into his nose, and he was turned out to feed in the orchard, where the clover was fresh and abundant—when the apples began to fall, he feasted upon them. About the middle of September, I began to feed him on old corn; this was boiled and fed to him freely, yet did not prevent his eating clover and apples. About the 15th of October he was shut from the orchard, but permitted to run at large in an adjoining pasture, until a few days, when he was killed, and declared by an experienced butcher to be the fattest hog he ever saw. The hairs upon his belly, swept the ground as he walked. He measured more than six feet round the breast, and the meat only weighed 418 lbs.

This at \$6 per hundred, is	\$25
The lard not included with the carcase,	3
	—
	\$28

I do not know the exact quantity of corn he consumed in the last two months, but as he had always a good appetite, should estimate at least ten bushels; this might be worth 5 dollars—all my other charges against him, could not be more than 5 dollars, including the purchase money. I have then you see, a

neat saving of 18 dollars; a bountiful return for all my care and expence!

Had the same treatment been given to a hog of the long-legged, long-nosed breed, the result I am quite certain, would have been very different. But, gentlemen, when you have selected the best breed, when you have fattened them in the best manner, and when you have killed and brought them into the cellar, you have not done *all* that is necessary to make their flesh palatable, and to give it that fine and exquisite relish, of which it is so peculiarly susceptible. As it is usually laid down in many families, it is worth but little; and before that time of the year arrives, when it should be the principal meat upon every farmer's table, it becomes rusty and ill-flavoured, if not absolutely spoiled and lost. Pork is perhaps the only flesh that improves by salting, and grows better by the means taken to preserve it.

Before the carcase has become entirely cold, it should be smoothly and skilfully cut up. The chine and ribs should be nicely separated from the sides, and the sides from the shoulders and hams. The sides intended for summer use, must be packed alone in a cask—cover the bottom of this an inch deep, with coarse salt, then put in a laying of the sides firmly pressed down; next fill all the crevices, and level the surface with more salt; in this way alternately, put down all your sides with the salt, and finish the work by throwing upon the top a peck of salt and as much cold water as will cover the whole. Laid up in this manner, your summer meat will be safe and good, until wanted for use; but the shoulders and hams must be treated very differently, or they will be too salt, dry and unsavoury—put these into another cask, pack them as close as possible, without any salt, and then cover them with a pickle made in this manner. To every gallon of hot water, put one pound and a half of salt and half an ounce of salt petre—if the weather is cool, this may be put upon the meat as soon as the salt is dissolved; take care that you have enough to cover every part of it. Here your hams may lie five or six weeks, then take them to the smoke house, having a care that they are not made too warm while smoking, for this would injure them much.—To prevent any danger from this, let the smoke be made with corn-cobs: when they are smoked to your liking, take them out, and those intended for summer use, should be neatly and closely sewed up in a coarse cotton or linen cloth, in such a manner that no fly can have access to any part of them—then dip the hams so covered, into a very strong lye of wood ashes, and immediately return them to the smoke house. or hang them in any other dry and cool place. Here they will be safe from the depredations of insects, and when wanted upon the table, will be found a luxury.

[We are much pleased in being enabled to lay before our readers the following letter, not doubting that it will be read with all the interest that was given to the former one, from the same source. We certainly agree with the writer, that the choice of species in the vine, like that of the best breeds and crossings in the animal tribe, is of primary importance. The deductions with respect to the sorts of vines which he recommends, seem to us so clear, that we hope the public will coincide with us in the value of the information, which appears to be the result of personal observation, corroborated by practical results.]

ART. 167.—Copy of a letter from W. ELDERTON ALLEN, Esq. to Dr Samuel L. Mitchill, on the cultivation of the Vine, dated N. York, Nov. 1828. (Communicated for the N. Y. Farmer & Hor. Repository.)

SIR—Since you honored me by causing my letter to you of the 2d of April last, on the subject of the *Grape Vine*, to be published in the New-York Horticultural Repository, I have taken a cursory view of the state of the vine, wherever it happened to fall in my way in or about the environs of this city, including part of Long Island, the Jerseys, &c. &c. and I must confess to you it struck me, though perhaps erroneously, that there was at present neither sufficient progress made in the planting, nor such an appearance of desire to attain perfection either in the partial or general cultivation and pruning of the few which exist, to render it worth my trespassing on you or the public, for the present, with any detailed plans on the subject, as I had at first proposed.

It is my intention now merely to submit to you two observations relating to the object in question—the one in confirmation, in part, of what I have in my last referred to with respect to the impossibility of determining, other than by experience and time, *what sort of wine* “may be expected to be produced in this or any other of the United States, from any particular selected grape,” which however I shall now venture to follow up by a recommendation (founded on the experience of this as well as other climates,) of the *Burgundy Grape*, as that which is most likely to turn out the best for a wine crop.

The other observation will be, on the preference to be given to autumnal and winter, instead of spring pruning. With regard to the former, namely, the probable “production in wine either as to quantity or quality, or the sort of grape most likely to produce the best wine,” referred to in my former letter; on casting my eye the other day over Sterne’s *Sentimental Journey*, a book which I had not looked at for the last 20 years at least, I accidentally observed him also to have laid a foundation for this theory of uncertainty in production, which I in some measure, exhibited in my former letter, but which Mr. Sterne’s doc-

trine, accompanied with some few facts which I intend to state, seem to me so perfectly to confirm in favour of the *Burgundy Grape*, that I cannot avoid so far digressing from the subject, as to give you his observations, which I shall do as briefly as is necessary to explain the introduction by him into his book, of matter so apparently unconnected with the memoirs of a Sentimental Traveller, as is the planting of the vine, especially in a country many thousand miles distant from the land of his travels.

Mr. Sterne, by way of sarcasm on the general discontent of man and the motives which induce all classes to leave their homes in search of novelty, appears to have been desirous of establishing as a great leading principle, that all were reduced to one general level of absolute uncertainty in the result of their most flattering expectations; and with this view, he proceeds to say, that, “The man who first transplanted the grape of Burgundy to the Cape of Good Hope (observe he was a Dutchman) never dreamt of drinking the same wine at the Cape, that the same grape produced upon the French mountains—he was too phlegmatic for that—but undoubtedly he expected to drink some sort of vinous liquor: but whether good, bad, or indifferent—he knew enough of this world to know, that it did not depend upon his choice, but that what is generally called *chance* was to decide his success: however, he hoped for the best; and in these hopes, by an intemperate confidence in the fortitude of his head, and the depth of his discretion, Mynheer might possibly overset both in his new vineyard; and by discovering his nakedness, become a laughing-stock to his people.”

Mr. Sterne’s journey on the continent of Europe, took place about the year 1760, and the first edition of his book appeared some where about 1767, and it is a curious fact that the *Burgundy Grape* mentioned by him as planted at the Cape of Good Hope, has never produced Burgundy (meaning the wine so called) at the Cape, but its product was a light kind of Madeira, in great quantities, of a bright straw or pale sherry colour, of excellent flavour and much esteemed and used in London by economical persons, as a common dinner wine, from its great cheapness, being sold retail at about 18s. sterling (or \$4) the dozen, owing to its being subject to a very low duty, as coming from a British colony.

This circumstance, added to those mentioned in my former letter, will, I think, induce you to agree with me, that the success which the *Burgundy Grape* has met, in *uniformly producing a good wine*, under the several changes of climate in which it has been tried during the last half century and upwards, (although not a precise Burgundy wine,) affords at least a fair inference that it would be the best grape to plant, on a large scale, for wine, in this country, es-



pecially as the fruit is excellent, though not possessing the elegance of bunch for gracing a desert, which is peculiar to the black Hamburgh, black Muscat, black Prince, and some other kinds.

In further confirmation of the probable success of the Burgundy Grape, in this and other northern states of the Union, I have the pleasure of being able to add, that in my visits to the Horticultural and Botanical Garden, established by Mr. A. Parmentier, at Brooklyn, (which I have repeated with more than common satisfaction, from his extreme politeness and great readiness to shew and explain every thing in it—and that without the slightest view to personal advantage,) I was much gratified in observing that the three best specimens, both of wood and fruit, among all his numerous varieties, were of the Burgundy species. One, which he called the black Orleans, and which is of Burgundy origin, being a species of the Pineau, had the bunches as perfect and as healthy as I have generally seen them in Europe. Another, the “Meunier” or Miller Grape (from its powdered-like leaves as before explained,) was not only particularly healthy but very prolific—and a third sort closely allied to the Burgundy: if not the same as the vine called the white Burgundy; namely, the “Meslier Blanc” or white Mesleir, which he appears to have obtained from Champagne, was also very fine and particularly productive—all the three having no appearance of disposition to mildew.

I am perfectly acquainted with the product of the black Orleans species of the Pineau vine, which the French call “Vin de Beaugency,” and I consider it of all the “Vins-ordinaires,” the most agreeable, where a real Burgundy or Bordeaux-ordinaire is not met with; and this quality in a native of Burgundy, grown in that indifferent wine country, Orleans, Tours and the neighbourhood, is an additional proof, I think, of the probable success of the Burgundy species of the grape here, or indeed almost any where.

I shall have fatigued you, I fear, with the length of details into which I have been unintentionally led on this point, but the choice of that species of the vine which has the best chance of success, seems to me of the first importance.

Besides the Burgundy, the Madeira Grape (meaning that which produces the Madeira Wine at the island of Madeira) appears also to have met with its share of success, for in addition to the lighter wine mentioned in my last, as being its product in the Neapolitan dominions, there is a great quantity of wine grown in Sicily, which I have frequently drank at the tables of Italians even in Paris, which they call “Maddere de Sicile,” or Sicilian Madeira, but the wine being more known in France than England, I give you the name by which it can be easiest procured through any French or Italian house. It is usually call-

ed Bronte Madeira, in compliment to Lord Nelson, who was created, as you recollect, Duke of Bronte, by the Queen of Naples, and I first drank it in England by that name. It is excellent as a lighter white wine than Madeira, but of the character or family, if I may use the word, of the Madeiras, Sherries, Teneriffes, dry Lisbons, and the like.

Before I quit this part of the subject, I will beg your excuse for making a remark which I dare say is unnecessary to your observing eye, namely, that the handsomest grapes which I have seen as fruit in this neighbourhood, are those of the black Hamburgh species, in the garden of Mr. Smith, Seedsman, of Broadway. I consider the vine as the true black Hamburgh, and if I may judge from its success in his hands, a valuable species for good sheltered aspects, trained high. The bunches were fully equal in their generic character, so peculiar to that and some others, of a lobe-like, ramifying breadth at top and narrow point at bottom, producing a triangle in the general contour, and giving that beauty so attractive to the eye. Its variety of tint of dark and light purple and green, were also well marked, though the season was far from good for grapes in general.

The famous vine at Hampton Court Palace, near London, is of this kind, and produces sometimes, 2000 lbs. weight in a year.

I will conclude by adding that its name originates from our having first got it in England, by way of Hamburgh. It is the most general run of our green and hot-houses. It is very prolific but will not ripen out of doors in England and is very little grown in France.

With regard to the second subject, viz. The pruning vines in autumn and winter instead of spring, as now generally performed, I would recommend in this and other northern and middle states, where the cold is severe, the winter long, and the latter succeeded, as it generally is, by immediate summer rather than spring, that the pruning should be done at any time after the leaf has fallen.

The advantages of pruning at this season, will, I think, be obvious to you, if a few circumstances are considered. First, the facility which the diminished and consequently more manageable size of the vine, affords to the laying down and covering with earth for protection during winter, where that practice is desired to be adopted, especially in vineyards on a large scale, where, by cutting back the vine to a stump of a few stools of the current year with one or two eyes or buds at most to each, (which is the French plan) a common hoe, or a moulding plough even, will raise as much ground from between the rows as will effectually cover them from frost.

Here I should observe, that the first time I saw Mr. Parmentier cover his vines in winter, I took the

liberty of remarking, that I thought the precaution not only unnecessary, but that the constant and frequent transitions to which their covering was subjected, from thawed to frozen, alternately, day and night, much more dangerous than any degree of dry cold, when wholly uncovered. He told me on my last visit to his garden, that he had given up the covering system altogether.

Secondly—The unripe ends or parts of the shoots which have not attained the torpid state necessary to endure frost, and which often remain very late in a growing state, are by this pruning, disposed of, and only the hardy full ripe wood left; and presuming, as many persons do, that an attack of frost to those unripe parts is liable to affect the whole vine, the removal of this cause of injury, affords an additional protection.

Thirdly—The spring (if it can be so called, as the season so named is more properly summer here) is so much retarded by phenomena, producing effects of climate wholly in opposition with the continent of Europe in similar latitudes; that before the frost has sufficiently left the ground for the gardener's attention to be called either to pruning or cultivation, the sap of the vine is forced into rising, with a promptitude unknown in the vineyard countries; and before the season usually considered that in which spring pruning should be performed, the sap is so far advanced that the vine bleeds at every cut, and sustains considerable injury, to the frequent, if not certain diminution of the expected crop of fruits, and the retarding and weakening of the new shoot.

I am fully aware that in attempting to lay down any general undeviating rule for a new production, in a new country, (new, I mean, as to that and many other European fruits) little better than a supposed last theory can be professed to be submitted to public choice. Practice alone can prove the rectitude of any opinion.

The result of that which I recommend, is, however, easily attained, by cutting every other vine, or every other row of vines, more or less; the one in autumn or winter, and the other in spring, for two or three seasons, whereby the best system will most certainly be discovered.

I cannot close my letter without expressing my sincere regret that our New-York Horticultural Society should still be without a garden. Were that long desired and indispensable appendage obtained, little room would be left for theorists to intrude their opinions, as there can be little doubt but that some of the many able practical horticulturists of our society, would soon exhibit the vine in all its native perfection and under every shape of training and cultivation, which any situation or aspect could require, in which I need not assure you, I should be most ready to lend

my minor aid in any way that my own experience or my observations in England and France, might enable me.

Believe me, dear sir, with the purest regard and esteem, your very faithful humble servant,

W. ELDERTON ALLEN.

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**ART. 168.**—*Proceedings of the New-York Horticultural Society.*

November 4.—Mr. W. Curt exhibited 6 plants of celery, blanched 20 inches and weighing 13 lbs. 6 oz. The whole length of the plants was 2 feet 10 inches.

Mr. John Curr, 12 roots of salsify, wg. 2 lbs. 2 oz.

Mr. Wm. R. Cooke, a bunch of gamet grapes and also a bunch of 2d crop Isabella grape.

Mr. Wilson, 2 heads of Brocoli, wg. 5 lbs. 12 1-2 oz.

Mr. Jno. Curr, 2 heads of Brocoli, wg. 7 lbs. 6 oz.

Mr. Geo. Still, 3 do do do. wg. 9 lbs. 11 oz.

November 11.—Mr. Ingle Fisk presented 3 heads of Savoy Cabbage, wg. 23 lbs. 12 oz.; 1 drum head, wg. 18 lbs. 12 oz.; 6 other heads, wg. from 15 to 18 lbs. each; 6 orange carrots wg. 11 lbs. 4 oz.

Mr. Wm. Curr, 1 drum head cabbage, wg. 13 lbs.

Mr. Jno. Curr, 1 head of brocoli, wg. 3 lbs. 10 1-2 oz.

Mr. Aymar, a bunch of 2d crop Isabella grape; specimen of *Mimosa scandens*; and some beautiful chysanthemums.

Mr. Wilson, Monthly China Roses; & Monthly Honey Suckles, in full flower, from the open border.

November 18.—Mr. Still presented 2 heads of Savoy, wg. 7 lbs. 15 oz.; 1 do. Mongrel inferior do. wg. 7 lbs. 15 oz.; and 6 beets, wg. 13 lb. 7 oz.

This terminates the exhibitions for the season.

The reports of the committee will be given in a future number.

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*Beech Trees proof against the Electric Fluid.*

A correspondent of the American Farmer states, that it is a very common opinion among surveyors and woodsmen of the western states, that the beech tree possesses the non-conducting power ascribed to the cedar; "I presume," says he, "I have passed a hundred oaks which have been stricken, and although beech is more common than any other timber, I have not discovered one of that kind." It would be highly satisfactory to ascertain the correctness of this opinion. One well attested fact of the beech being struck, would settle the question. Although it should be found not to be a perfect non-conductor, still it is desirable to know if it is less liable than other trees of the forest.



## ADVERTISEMENTS.



### BOWERY GREEN-HOUSE AND SEED STORE,

*Immediately north of the junction of Broadway and Bowery.*

T. BRIDGEMAN respectfully informs his friends and the public, that he keeps for sale a general assortment of Garden and Flower Seeds, Green-house Plants, Orange and Lemon Trees, Moss Roses, and Chinese Chrysanthemums in Pots, &c. Also, Annual Biennial, and Perennial Flower Plants, Cabbage, Broccoli, Kale, Leek, and Endive Plants.

T. B. having been a practical market gardener for the last eight years, flatters himself that the seeds sold by him will give general satisfaction, the greater part being raised by himself; and he is determined to sell no other seeds than such as he would plant in his own garden.

#### GARDEN SEEDS.



THE Subscribers have on hand an extensive assortment of Garden and Fruit Seeds, the growth of the present year. Southern dealers supplied on liberal terms, and every thing warranted fresh and genuine. Among them are many varieties of early and late Peas, Gabbages, Cauliflowers, Broccoli, Beets, Radishes, Turnips, Lettuce, Snap Beans, &c. &c.—Those who prefer having their seeds put up ready for retailing, can be accommodated on reasonable terms—every paper neatly tied and the name distinctly written on. Catalogues or particulars to be had at the store.

Among the Field Seeds, are Blue Grass, Herd's Grass, Timothy, Orchard Grass, Red and White Clover, Lucern, Buckwheat, &c. &c. Also, exotic Flower Seeds in great variety. Also, a seasonable supply of Bulbous Flower Roots, such as Double Hyacinths, (100 varieties by name), Crown Imperials, Double Jonquilles, Polyanthus Narcissus, Double and Single Tulips, (of the choicest sorts,) Crocus, &c. &c.—Garden tools of every description—Many of the best modern works, on the subject of Agriculture, Horticulture and Potany—Garden Flower pots by the crate or dozen—Bird Seeds of every sort—Pulverised Thyme, Sage, Sweet Majoran, Summer Savory, and Celery Seed in bottles for sea stores, or any other culinary purpose; price 25 cents each, or \$2 25 per dozen. A constant supply of medicinal Herbs cured by the Shakers. Oat Meal and Embden Groats, London Split Peas—with every article appertaining to their business, which are disposed of wholesale and retail on moderate terms.

GREEN-HOUSE PLANTS.—In this department of our business great pains have been taken to have our assortments very rare and select. Many of the choicest plants known can be obtained on as favorable terms as at any other establishment on the continent; and as our collection is in the midst of the city, they can be viewed without the fatigue of a long walk or the expense of a ride. Our plants are all arranged so as to be shown in a moment. Any person is welcome to call and walk through the garden, on whom no other restraint is laid, than not to handle or break any of the flowers and fruit.

**G. THORBURN & SON,**

67 Liberty-st. New-York.

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### GARDEN SEEDS & FRUIT TREES.



A general assortment of esculent vegetable seeds, warranted of the best quality, the greater part raised by the subscribers, such as grow to any advantage in this country. Such as are necessary to import, are from the best establishments in England, on which the utmost reliance can be placed. Also a general assortment of Fruit trees, true to their kinds, all propagated under our own inspection, worked from trees off our own premises in full bearing. Those who may favour us with their orders, may rely on what they receive. Orders left at our store, No 272 Broadway, or at our Nursery, Lodi, New-Jersey, near Newark bridge, will meet with prompt attention, and be executed on reasonable terms.

ALEXANDER SMITH & CO. Seedsmen.

### IMPORTANT TO BREEDERS OF SHEEP.

IMPORTED, per the British Bark *Dianna* from Hull, One Ram and Two EWES, (a cross with the Leicestershire and Yorkshire breeds) from the celebrated stock of Watson Harrison, of Kynsington Marsh, York hire. The said Sheep are for Sale, and may be seen at Mr. A. C. Wheeler's, No. 2 second Avenue, two doors from North street.

Application to be made to Cap. Sudden of the *Diana*, or to Geo. Alexander, at No. 103 Nassau St. New-York.

### HORTICULTURAL BOTANIC GARDEN.

MR. ANDREW PARMENTIER, proprietor of the Horticultural Botanic Garden, Brooklyn, L. I. two miles from New-York, offers for sale a very large assortment of the most approved Pear, Apple, Plum, Peach, Cherry, Apricot, Nectarines, Gooseberries, &c. &c. some of them very handsome standard trees, some pear trees on Quince stock for dwarf, and some apple trees on Paradise stock.

Also, Forest trees of large size, very good for planting in streets, such as Horse-chesnut, European Lime or Linden-tree, Weeping-willow, European Birch, European Larix, European Ash and Elm, Paper Mulberry, Catalpa, Japan Aly, Anthus, Laburnum, European White Poplar, Balsam Poplar, &c. Mr. P. in delivering his trees will give directions for planting them.

Also, a very large collection of hardy Rose trees and monthly Roses, Herbaceous plants, Shrubs, &c. and a fine collection of Green-house plants. Strawberries of fine kinds, including the monthly ever-bearing without runners. Very fine Hawthorn, three years old at 6 dollars per 1,000.

Subscriptions for one dozen kinds of select table Grapes, containing the White, the Fontainebleau the Yellow Thomery, the Golden, the musk and the royal Chapellas, the white, the violet, the black and the grey Muscat, the large Maroc, and the large Frankenthal; for 6 dollars per dozen, with directions for planting, cultivating, &c. The vines well packed in moss and matts, in such a manner as to go several hundred miles farther than New-York.

Mr. P. will furnish in a certain quantity grape vines at 25 cents each root, for vineyards, warranted to grow.

Provisional Catalogues can be had gratis at Mr. Charles Swan's grocery and tea store No. 357 Broadway, or at Messrs Thorburn & Sons, 67 Liberty street, N. Y. where orders can be left, or directed by the Post-Office to his establishment at Brooklyn.



### SUBSCRIPTION

*For importing Grape Vine Roots from France at a moderate price, and encouraging the introduction of that culture into the United States.*

MR. ALPHONSE LOUBAT, having considerably enlarged his Vineyard on Long Island, where he has now in full cultivation thirty-five acres of ground, containing 72,000 Grape Vine Roots, of which 60,000 are to form his Vineyard Stock, and 22,000 are to be delivered to his subscribers in October next; and having also the peculiar advantage of being enabled to procure the best species of Roots from his Father's extensive Vineyard and Nurseries in the districts of Bourclais, Clerc and Buzet, departments of Gironde and Lot Garonne, in France. (45 deg. N. lat.), proposes to the numerous friends to the cultivation of the Grape Vine in the United States, a Subscription, which will be opened on the first of August, 1828.

Mr. A. L. will engage to furnish subscribers with their Grape Vine Roots, before the first of March next, and forward them free of expense to the different cities where subscription lists shall have been opened. The roots will be three years old, and will produce considerable fruit the second year from the time of their being planted. They will be carefully classed and packed in boxes, with some of the original soil in which they have been raised, which will greatly facilitate the thriving of the roots when transplanted.

Orders will be punctually attended to—the subscribers designating the quantities and species of the Grape Vine Roots they wish to have. They will engage to pay, for 1000 roots or more at the rate of 12 1-2 cents for each root; for less than 1000, at the rate of 15 cents, and 25 cents per root for less than 50. Roots only two years old shall be paid at the rate of 9 cents each for 1000 or more; 12 1-2 cents for less than 1000; and 18 cents for less than 50 roots.

Payment to be made on delivery of the roots. Letters not received unless post-paid.

Subscription lists are opened at New-York, with Alphonse Loubat, 85 Wall-st.; Boston, E. Copeland, Jr.; Albany, R. McMichael; Philadelphia, Van Anringe; Baltimore, Willard Rhoads; Washington City, Wm. Pairo; Richmond, Davenport, Allen & Co.; Savannah, Hall Shaper and Tupper; New-Orleans, Foster and Hutton; Charleston, T. & T. Street & Co.

Mr. A. Loubat's Book on the culture of the Grape Vine and on the making of Wine, may be found at the principal Booksellers of the United States; and his Agents will furnish them gratis, to subscribers.