

to whom Latin was vernacular. Yet doubtless the whole series of lectures was a much more adequate treatment of the subject; and we will close this article, which is already a kind of *pot-pourri*, with an extract from a letter written by one of that small audience, and which vies well with the eloquent passage that Dr. Bushnell has quoted from Prof. Gibbs, in the 31st page of his essay:—

“Language, before apparently a mere ordinary vehicle, became in his hands the chariot of Ezekiel, ‘celestial equipage instinct with spirit,’ the fabric not behind the noble uses. His science is to all who have the boon of speech what anatomy is to the painter. His descriptions of the structure and nature of vocal sounds charm like the explanations of Egyptian hieroglyphics. Indeed, they display a scheme of more subtle symbolism, and one which, if in its own region less beautiful, is richer than music.

“The common enjoyment of the study of languages, arising from their social character, their revelations of community of thought and sentiment, is greatly enhanced by Dr. Kraitsir’s lively and penetrating methods. The identity of roots presented by him affects the imagination with a sense of the closest fraternity, and recalled to my mind with new force the words of an eloquent advocate for the study of languages, who, in dwelling upon the sympathies it stirred up, exclaimed with the prophet, ‘Have we not all one Father? hath not one God created us?’”

ART. XII. — VEGETATION ABOUT SALEM, MASS.

THE vegetation of Salem is remarkably foreign. Two species belonging to different families, and both of exotic origin, threaten to take complete possession of the soil.

The first, the well-known wood-wax (*Ginista tinctoria*), is running rapidly over all the hills and dry pastures. This plant seems to occupy in this vicinity the place which the furze-bush occupies on the heaths and commons of England; or it may resemble, in its manner of possessing the soil, the

heather of the Highlands of Scotland. Not, indeed, in its appearance: in that particular it faintly resembles the yellow broom, the *Spartium*, so prettily celebrated by Mary Howitt in her juvenile sketches of natural history:—

“ Oh the broom, the yellow broom !
 The ancient poets sung it ;
 And dear it is on summer-day
 To lie at rest among it.”

The wood-wax, however, has found no favor in this vicinity. It is annually burned to the ground, in utter detestation; yet, phoenix-like, it springs from its ashes; and, by the height of summer, it laughs from the midst of its yellow flowers at all the efforts that have been made to destroy it. In England, this plant is useful in the arts; it is employed with woad, the *Isatis tinctoria*, another plant, to give a green color to woollen cloth. The wood-wax affords a yellow dye, the woad a blue coloring matter; and the admixture of the products of both plants produces a very fair green. The cheapness of indigo will always prevent the New England farmers from growing the *Isatis* for its blue color; otherwise we might hope for a market for the wood-wax; for, where the one is employed, the other becomes necessary. In former times, the *Genista* obtained some celebrity as a medical plant; but, on this head, I suppose that we must conclude with the naturalist of Almondsbury, that the mild assuasives of our forefathers are unequal to contention with the abused constitutions of these days.

Second among obnoxious intruders stands the white-weed. This plant is as great a nuisance in our mowing ground as the wood-wax in our pastures. Some fields are so infested as to present at haying-time the appearance of a waving ocean of white blossoms. I am not aware of any remedy for the evil, save the application of a more vigorous agriculture.

These foreigners seem to have chosen this vicinity as their favorite place of abode. There is a tradition, that they were introduced as garden ornaments, and that they have strayed away from the flower-border, and sought in the fields and pastures the wild liberty they so much love. It is somewhat

hazardous to impeach a popular tradition ; but it appears much more likely that they were brought over in some of the first grass-seed that came from England. Both plants are perennial, spreading rapidly from the root, and propagating with equal facility from the seed. These abundant powers of reproduction meeting with a genial soil and a loose husbandry, it is no wonder that they should produce the effects so obvious in our neighborhood. The white-weed belongs to that class of plants whose seeds are often furnished with feathery appendages, like the dandelion, thistle, and many others ; a race of wanderers that traverse the earth with astonishing rapidity.

Next to the wood-wax and white-weed, the knap-weed (*Centaurea nigra*) deserves attention. This plant, of recent introduction from Europe, is making rapid advances in our neighborhood. It should be pointed out to our farmers, who ought by all means to resist its invasion. It is a most villainous weed, utterly unfit for fodder, whether green or dry. It is sometimes called the thistle without thorns ; but it will prove a thorn in the sides of some of our husbandmen, difficult of expulsion, if it is suffered to continue its advances. It propagates by creeping roots and feathery seeds, much after the manner of the white-weed.

Of all the plants that threaten the agriculturalist, perhaps none is more formidable than the Canada thistle (*Cnicus arvensis*), which has probably reached us from the great Western prairies. This plant is known to every one: it forms extensive beds by the road-sides, and frequently in the pastures. The hard, gravelly soil of this vicinity is not very favorable to its growth. It loves a rich loam, through which it can send its runners with ease and facility. Mr. Curtis, an English gentleman, in order to test the astonishing powers of reproduction possessed by this plant, deposited about two inches of a root in his garden. In the course of one summer, it had thrown out, under ground, runners on every side: some of these runners were eight feet long; and some of them had thrown up leaves eight feet from the original root. The whole together, when taken up and *washed*, weighed four pounds. In the spring following, it made its appearance,

on or about where the small piece was originally planted. There were between fifty and sixty young plants which must have eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may be readily conceived how difficult it is to extirpate this weed, when once it has taken possession of the soil.

Among our introduced plants, there are some that love to follow the footsteps of civilized man, and whose chosen locality is always around his dwelling. Among the most prominent of these, are the common shepherd's purse (*Thlaspi Bursa pastoris*); the chickweed of our gardens (*Stellaria media*); the knot-grass (*Polygonum aviculare*), that fringes every foot-path, and seems to grow the more for being trodden upon; the plantain (*Plantago major*), that is always found in city, town, or village, whether on the banks of the Ganges, the Thames, or the Missouri. It is said that the Indians of New England used to call this plant "Englishman's foot," because it always sprung up in the footsteps of the first settlers.

There is a beautiful little bluebell found between Danvers and Salem, the *Campanula glomerata*, brought, very likely, from the chalk hills of England, where it grows abundantly. It is now fairly naturalized, and appears to be as innocent as it is beautiful. It is yearly extending the bounds of its locality, though at present, I believe, it is not found in any other spot in the United States. It is a flower well worthy of cultivation, requiring a dry soil, approaching as much as possible the character of the Alpine region, of which it is a native.

In the vicinity of this city, the English white-thorn, the hawthorn of the poets, of which so much has been written, is slowly naturalizing itself. It is certainly a useful shrub, forming beautiful fences, and contributing much to the garden-like appearance of England. To the English it may well counterbalance the myrtle of more genial climes. To the people of this section of the United States, it can never become of much importance. Here there is abundance of stone; and, while such an indestructible material can be found, live fences ought not to be adopted. A live fence has certainly a tendency to beautify the scenery, and to give

a garden-like aspect to the land it encloses; but it cannot compare in point of utility with a firm stone wall. When a hedge becomes gapped, it requires years to repair it; but, if a stone wall falls down, it is very soon replaced. Live fences, however, may be used to advantage where stone is not to be found. Sometimes they may be introduced as ornaments, with very good effect.

There is a native shrub, abundant in this vicinity, most admirably adapted for fences, — the common cockspur-thorn (*Cratægus Crus galli*). In all the essentials of a fencing shrub it fully equals the English hawthorn, to which, indeed, it is closely allied. The spines of this shrub are more than an inch long; so that a hedge formed of it would present an almost impregnable barrier, bidding defiance to all intruders, whether biped or quadruped. Several plants of this shrub have been suffered to stand near the entrance of the Forest-river road, till they have assumed the size of trees. In the spring, they are covered with a profusion of white blossoms; and, in the fall, their rich scarlet fruit never fails to attract attention. In these particulars, this shrub strikingly resembles its English congener. Indeed, the points of resemblance are so many and so striking that it ought to be called the American hawthorn. Like the English haw, its fruit requires two years to vegetate.

The barberry, so very abundant in our vicinity, is supposed to be an introduced shrub. It corresponds exactly with the *Berberis vulgaris* of Europe. It has only a limited locality on the seaboard of New England, and is not found anywhere else on this continent. The vigor of its growth is especially note-worthy. It rises by the way-side; it grows in the chinks and crevices of the rocks; it spreads over neglected pastures, and looks around with a saucy confidence that seems to say, "All the world was made for barberry bushes."

It is doubtless the design of nature, that plants should be colonized; that there should be a change of localities; that, when any part of the earth is rendered unfit for producing one race of plants, it shall be furnished with seeds of another. The husbandman does but imitate this process of nature, when he pursues what is called a rotation of crops. Various

are the expedients to which nature resorts to produce this end. The seeds of lofty trees are often furnished with wings; and, by the aid of the autumnal winds, they are borne to a great distance. Sometimes birds are employed as the carriers of seeds; and they transport them with amazing rapidity. Nuttall tells us that "pigeons killed near the city of New York have been found with their crops full of rice collected in the plantations of Georgia or Carolina." The parasitical mistletoe, the once-sacred emblem of the Druids, bears a small white berry of an extremely viscid pulp. The birds, who are fond of this fruit, are apt to encumber their bills with the glutinous substance; and, to clean them, they rub them upon the branches of trees where they happen to alight, thus depositing the seeds in the very place where nature intended they should grow.

It is perhaps proper to observe, that the mistletoe is a parasitical plant that grows in Europe and the Southern States. It attaches itself to the oak, the apple, the maple, the ash, — indeed, to most deciduous trees, — and grows upon them, a suspended bush of evergreen, altogether unique in its appearance. It sustains itself by drinking the sap of its supporter.

The oak, the walnut, the chestnut, and some other trees, produce ponderous seeds, too large for distribution by the feathered tribes. But a kind and watchful Providence has not been unmindful of their dispersion and deposition in spots favorable to their future growth. These trees are the favorite haunts of the squirrel; and to his charge is committed the planting of future forests of these varieties; among whose branches his own race may build their soft abodes, lick the morning dew, and pursue their innocent gambols, and finally provide for man a rich material for his industry and enterprise.

As a gentleman was one day walking in the woods, his attention was diverted by a squirrel, which sat very composedly on the ground. He stopped to observe his motions; in a few minutes the squirrel darted to the top of a noble oak, beneath which he was sitting. In an instant he was down with an acorn in his mouth; and, after finding a soft

spot, he quickly dug a small hole, deposited his charge, the germ of a future oak, covered it up, and then darted up the tree again. In a moment he was down with another, which he buried in the same manner; and thus he continued to labor as long as the observer thought proper to watch him.

The instinct of the little animal may be directed to a provision for his future wants; but the Giver of all good has endowed him with such an active and untiring industry, that he does more than supply all these; and the surplus rises to adorn the earth, and proclaim the wondrous works of Him who is perfect in knowledge.

The capsules of some plants burst with a spring, and the seeds are scattered broadcast by the impulse. The garden balsam, and all the violet race, are examples of this mode.

It is well known how the burdock and the burr marygold (*Bidens frondosa*) hook themselves by a mechanical contrivance to the clothes of persons and the coats of animals, illustrating in the most familiar manner the economy of nature in the dispersion of seeds.

But, after all, man is the great agent in promoting vegetable migration. It is by his agency that the most precious seeds are borne across the wide ocean. He carries them in all his wanderings among his richest treasures; while others follow his course, whether he will or not, mingling with his rarer seeds, or adhering unseen to his household stuff. The animal fleabane (*Erigeron Canadense*) was sent from Canada to France, in bales of fur, and from thence, by natural propagation, into all the countries of Europe. The tree primrose (*Oenothera biennis*), so common in our own vicinity, was first naturalized in the neighborhood of Liverpool, and from thence distributed by its own spontaneous effort all over the civilized world.

It is by the agency of man that the lofty forests are levelled to the ground, and the bosom of the earth laid bare for the reception of a new race of plants. Our own vicinity is a remarkable exemplification of the fact. All around us we see trees, shrubs, and herbacious plants, that once were strangers to the soil. A change is still sweeping over the face of nature. The noble race of forest-trees, and the beau-

tiful tribe of wild-wood flowers that nestle at their feet, and find shelter and shade beneath their boughs, are fast fading away. A few blows of the woodman's axe, and the tree whose branches have braved a hundred winters lies prostrate with the ground.

The time is not distant when public attention must be drawn to the planting of forest-trees in this country. Timber is growing scarce, while the arts and manufactures, which have taken such deep root among us, are calling for a more enlarged supply. Timber has now to be brought from afar, at an annually increasing expense; while large tracts of land are approaching a state of barrenness, by being laid bare to the searching influence of the sun and wind. *We have destroyed our forests with recklessness, and posterity must feel the consequences!* Indeed, our bleak pastures and bare hills begin to reproach us for not making some effort to shelter the one, and clothe the other.

The mechanics have a deep interest in this matter. How often does the profitable prosecution of a certain branch of business depend upon the abundance and cheapness of its staple material! Has the ship-builder no interest in the growth of our pasture oaks? Is the wheelwright insensible to the advantages of an abundant supply of ash and elm? When we see huge loads of barrels entering our cities, when we see high piles of chairs and other manufactures of wood coming from far back in the country, and, above all, when we observe our merchants building their ships on the banks of distant rivers, do not these things proclaim the growing scarcity of timber around us?

Societies of Natural History could not render a greater public service than that of ascertaining the comparative value of the different species of timber-trees suitable for this climate. In this pursuit they may be materially aided by intelligent and enterprising mariners. These ought to be requested to collect, in their voyages and travels, the seeds of all such forest-trees as are likely to grow in this latitude. Evelyn, who spent his life in an effort to enrich his native England by plantations, says, "I would encourage all imaginable industry in those that travel foreign countries, and especially

gentlemen who have concerns in our American settlements, to promote the culture of such plants and shrubs and trees, especially timber, as may yet add to those we find already agreeable to *our* climate." We all know with what patience, pains, and expense, the modern nations of Europe have searched the most distant climes for valuable vegetable productions.

We have noticed the astonishing exuberance with which our naturalized vegetation appears to flourish. It is a fact that ought to be regarded, and we may perhaps deduce from it an important lesson. It seems to point to a change of seed, to show that new seeds and a fresh soil are important conditions in vegetable economy. Perhaps we ought to take the hint from nature, and look beyond the old forest stocks of the neighborhood for timber-trees of a rapid and vigorous growth. I would not disparage the goodly race of trees that once adorned the county of Essex. I fear that we shall never look upon their like again. But it is doubtful whether they would take to the soil in the form of artificial plantations as kindly as some varieties brought from a distance. Every one knows that a new orchard cannot be raised on the site of an old one; and it is equally well known, that, when a forest of hard-wood trees is cut down, there the pines and softer woods succeed a spontaneous growth. The locust is here attacked by an insect, and is fast declining in our neighborhood, and I believe all along the Atlantic shore; while it is now appearing in its pristine vigor, a naturalized tree, in all the South of France. Michaux says that it is likely to become abundant in Europe, where it is a stranger, and scarce in America, its native clime.

A rotation of crops is as needful for forest-trees as for the more humble agricultural productions.

Where are the forests of Lebanon, into which Solomon sent his fourscore thousand hewers of wood? Dwindled at last to some half a dozen cedars, as if the earth was tired of producing, for so long a period, the same race of plants.

The larch plantations of Scotland are a striking example of the importance of a change of seed.

In the year 1738, a Scottish gentleman was seen wending

his way from the British metropolis to his paternal estate at Glenlyon, in Perthshire. He travelled on horseback, after the fashion of the times, with his servant well mounted, and bearing his portmanteau behind him. On the top of the portmanteau was lashed one of the richest treasures for Scotland that ever passed the Tweed. It was a few foreign larch-trees, the *Larix communis*, or common white larch of Germany. These few trees this public-spirited individual generously distributed on his route to those persons in Scotland who would give them that care and trial which it was desirable they should receive. The course of a few years soon began to demonstrate their superiority over the old Scotch pine. Growing side by side, these vigorous strangers soon over-topped and looked down upon the aborigines of the soil. The difference in favor of the German larch was found to be immense. "It bears," says Sang, a celebrated forest manager, "the ascendancy over the Scotch pine in the following important circumstances:—It brings double the price per foot, and arrives at a timber size in a half or a third part of the time. The timber of the larch at thirty or forty years is equal in quantity, and vastly superior in quality, to the Scotch pine of a hundred years. A larch-tree of fifty years' growth has been sold for twelve guineas, while a Scotch pine of the same age, and from the same soil, has not brought more than fifteen shillings."

Towards the close of the last century, when the arts, commerce, and manufactures, began to rise in Scotland, her nobles soon learned to calculate the value of an abundant supply of useful timber. Happily the experiment had been tried, and the species of timber-trees best suited to the climate and soil of Scotland was already known. In the year 1796, more than five millions of larch-trees were raised by one nurseryman in Edinburgh. The Duke of Athol planted two hundred thousand every year for a number of years, and on one occasion he set out more than a million within the year. Nor was it merely planting. In the year 1820, this patriotic nobleman had the satisfaction of seeing a thirty-six gun frigate launched, built entirely of larch timber of his own raising. Throughout the British Isles, the larch has been

planted by thousands and millions; and, what is very extraordinary, the most barren land is converted into fine pasturage by the process. The larch succeeds best on 'poor land, while the annual fall of its leaves soon gives rise to a fine natural grass that is highly valuable for grazing. Land has been let at a yearly rent of from ten shillings to three pounds the acre, that, before the planting of the larch, was not worth so many pence. It is calculated that in the next age the Highlands of Scotland alone will be able to furnish the whole commerce of Britain with timber for its shipping. The spirit for planting continues to the present time. In 1820, the London Society for the Promotion of the Arts presented a gold medal to one individual, for planting nearly two millions of forest-trees, one half of which were larch. Most assuredly, those individuals who have thus enriched their country deserve well of posterity.

The celebrated Coke, of Norfolk, has been a successful planter of forest-trees. It is said that, soon after this gentleman came into possession of his estate, the lease of a certain parcel of land expired. This land (eleven thousand acres) had been let at a yearly rent of three shillings per acre; but this the lessee thought too much, and offered only two shillings; to which Coke replied, "No, I will sooner turn it into a hunting-ground;" and he immediately set to planting it with oak, larch, and the Spanish chestnut. In a few years, the annual thinnings alone yielded him more than the former rental. At the time of his marriage, this magnificent woodlot was valued at £220,000.

The planting of trees is by no means such a hopeless or heartless affair as some people imagine. A short time since, I called upon an aged gentleman* of this county, and was politely invited to see his trees. As we passed beneath a noble range of plane-trees, whose bending boughs seemed to do homage to their planter, my friend informed me that the trees I was then admiring, some of which were sixty or seventy feet high, and five or six feet in circumference, were a fine seed between his thumb and finger, after he was five

* Dr. Kilham, of Wenham.

and forty years of age. When I alluded to his public spirit and disinterested benevolence, he replied in a tone of mingled satisfaction and regret, "I now wish that I had planted a hundred trees where I only planted one."

There is reason to believe, that the late Timothy Pickering held the larch-tree in high estimation, and thought of it as a suitable tree for covering the bare hills of his native county. At any rate, he was among the first to give it a trial. Something like five and twenty years ago, he imported two hundred of these trees. They now form the ornament of his late estate at Wenham. I have known them for more than eighteen years; and, during that period, they have exhibited a growth of great promise. Their seeds ripen kindly in this climate, and a second generation of spontaneous growth has arisen from these imported trees. We may now reckon this valuable timber-tree among the naturalized products of New England.

If the individual who plants a common tree deserves the thanks of posterity, how much larger is the debt of gratitude due to him who introduces and blesses his country with a new and useful *race* of trees!

Those who visit Wenham in the middle of the summer, and behold the original range of larch-trees, cannot fail to be struck with their appearance. Their light foliage and fine pyramidal forms, differing materially from the pines around us, suggest at once their exotic origin; while the richly ornamental and tasteful manner in which they are disposed, tells at once that their planter was no ordinary individual.

There is something peculiarly affectionate and grateful in associating the remembrance of a great man with some particular tree. Who has not heard of Pope's willow, or of the mulberry that Shakspeare planted?—and who could have stood beneath the shade of the one, or have gazed upon the other, with ordinary emotion? Something of this reverence will be felt by those who ride by the larches of a Pickering's planting; and time will not diminish the interest. I do not wish to be understood as particularly recommending the German larch, though I think it highly worthy of a trial on poor land. Nothing but experiment can determine the trees

best suited to this climate, if indeed any can be found superior to the old stocks. It is time that attention was awakened to the subject; for who can calculate the advantages of an abundant supply of useful timber to a commercial and manufacturing people?

We possess one tree, among many that are richly ornamental, of surpassing beauty. I allude to our common elm (*Ulmus Americana*). The grace, the beauty, the magnificence of this tree is only to be exceeded by the princely palm. Planted in rows along the streets, it is the pride of our towns, suggesting to the mind a far better idea of ease and comfort than it could derive from the most exquisite statuary.

In Danvers, a little on this side of Aborn-street, in a barn-yard on the land of the late Benjamin Putman, stands an elm of great beauty. A finer specimen of the elm, a more perfect tree, is seldom seen. Such is the vigor, the healthiness, and unshorn symmetry of its form, that it appears not yet to have arrived at maturity. There is a remarkable boldness in the manner in which the numerous branches spring from the parent stem, and form its fine symmetrical head. During a ride of six or seven hundred miles along the turnpike roads of England, the summer before last, I carried this tree in the eye of my mind as a standard; and truly in all that long ride I could not find one that appeared so perfect.

The Boston elm is a larger tree; but it is braced and bolted with bars of iron, and the mind is pained with the symptoms of approaching decay. To the lone farm-house or the detached villa, the elm is a most graceful appendage. I hope, however, I shall be forgiven if I say a word on the manner in which it is sometimes planted. It is too common to plant trees, while young, close before the dwelling, so that in a few years they totally obscure the building they were designed to ornament. Trees should be planted so as to flank the building, if it be a detached cottage or villa: in this position they will usually furnish sufficient shade, without obscuring the view, either from within or without the dwelling.

This climate does not possess an evergreen ivy; but our common creeper (*Vitis hederacea*) is a most excellent substi-

tute. In many respects it surpasses the ivy of Europe. Being deciduous, it never becomes a gathering-place for snow in winter, or dampness in spring. I am surprised that it does not work its way into favor. The ivy has always been a favorite. It was held in reverence by the ancients; and in the elder world it is associated with all that is venerable. It mantles the lonely abbey ruin, and creeps over the mouldering remains of feudal power. I think our creeper would be more generally admired, were we more discriminating in the use of it. It is very often trained against a newly painted vestibule of much architectural spruceness; and it soon begins to obscure those embellishments that cost the owner no small sum, and then down comes the creeper in disgrace. Its proper place is to cover up the blank side of an out-house, or to give grace to some rustic wall or fence. Perhaps I shall better convey my idea of its use by observing that the ivy or creeper would be a beautiful ornament to the Gothic style of the Episcopal Church of Salem. The wild beauty of its pendant laterals would be in correct keeping with the Gothic arch, and add much to the remarkable appearance of the building. But, on the other hand, it would be altogether out of place to allow it to creep over, and mar, the delicate proportions, and obscure the fine architecture, of the South Meeting-house.

The indigenous vegetation of our immediate vicinity does not, indeed, present a landscape of the most luxuriant growth. We cannot boast the palm, the lemon, the orange, the clove, and the cinnamon-tree. But, if the eye is not allowed to behold a perpetual spring, it is permitted, during our fleeting summers, to enjoy a beautiful variety of flowers, that spring up in rapid succession, and pass like a shifting scene before it; filling the heart with joy and gladness, and the imagination with a thousand forms of grace and beauty, on which it may love to linger when the charming reality has passed away. From the time that the little *Draba* opens its tiny petals to cheer us with the hope of returning spring, till the last flower of the summer, the blue-eyed gentian, weeps over the departed year, it is one succession of bright hues and beautiful forms. At least, it is so to all who have eyes to behold,

and souls to enjoy, the pure pleasures that flow from a contemplation of the works of God in creation.

How beautiful is all nature in the springtime of flowers! How lovely are the woods when the young leaves are expanding, — when the first green garniture of summer is bursting into existence! The lowly hepatica opens its gemlike flowers at the foot of some lofty tree, eager to greet the first ray of summer-like sunshine that visits the earth. The tinted petals of the anemone quiver in the breeze, as the winds of the spring pass by. The early thalictrum exhibits its singular, flower-like tassels of purple and yellow. The delicate corydalis blooms on the bare rock; and the stranger who beholds it for the first time wonders that a flower of so much beauty should be born to “blush unseen.” Who can tread the green carpet of the earth, in the spring of the year, and not feel delighted at the first appearance of the modest houstonia, peeping out from among the young grass, and seeming, as an eminent naturalist beautifully expresses it, “like handfuls of the pale scattered flowers of the lilac, which had come too early to maturity”? The “wee, modest, crimson-tipped flower,” the mountain daisy, which the poet Burns buried with his ploughshare, and then sung its requiem in never-dying rhyme, was not more worthy of a poet’s effort than this graceful harbinger of a New England summer.

A love of flowers has always ranked among the refined pleasures of a polished people. “Let us crown ourselves with rosebuds before they be withered; let no flower of the spring pass by us,” were the words of the royal sage, in the days of Israel’s glory, when the sons of Jacob sat every man beneath his own vine and fig-tree, — when the roses of Sharon bloomed in the palaces of Jerusalem, and the daughters of Judah gathered lilies by the waters of Kedron, to scatter them in the courts of the Temple. No sooner had the warlike Roman conquered and incorporated the surrounding states, and made Rome the mistress of all Italy, than the villas of the Roman citizens studded the whole country, from the Straits of Messina to the mountains that formed her northern barrier. It was to embellish these, that the fruits and the flowers of the East were gathered by the Ro-

man soldiers, in their martial expeditions, and poured into the lap of Italy. Nor is the savage insensible to the charms of nature. We are told that an Otaheitean was once taken to Paris, and shown all the splendors of that gay metropolis; but his heart yearned for the simple beauties of his own native isle. On being taken to the Garden of Plants, the unexpected sight of a banana-tree so reminded him of the hills and streams of his distant home, that he sprang forward to embrace it; and, with his eyes bathed in tears, he exclaimed in a voice of joy, "Ah! tree of my country!" and seemed by a delightful illusion to be transported to the land of his birth.

But to return to our own loved hills, and the flowers that cover them. Among these the blood-root (*Sanguinaria Canadensis*) well deserves a passing notice. It puts up from the ground with remarkable caution. A single leaf of a white and woolly texture rises from the ground, and enfolds a little flower-bud, wrapping it round as with a mantle. In this guarded manner, it abides the vicissitudes of our spring weather. When a warm day arrives, a milk-white flower, of singular delicacy, shoots up, and bares its lovely bosom to the sun. When clouds obscure the sky, or when night falls, the little flower closes its milk-white petals, the single leaf gathers closer round the flower-stem; and thus, like a fairy taking her rest, it awaits the touch of another sunbeam. We import the snow-drop, we cherish it with care, and it well repays our attention; but this delicate native, equally worthy of our regard, is seldom seen in our gardens. So true is it that flowers, like prophets, have no honor in their own country.

In the earlier part of spring, the columbine (*Aquilegia Canadensis*) shakes its gay bells over all our rocky hills. Starting from every chink and crevice, it clothes the rude features of our ancient rocks in a vernal robe of scarlet and gold. This flower seems, in a peculiar manner, to have gained the regard of the young. On the first fine days of spring, the youth of both sexes may be observed returning into town, laden with ample bouquets of its pendulous flowers; while ever and anon they drop them on the side-walks, as if

to invite the busy crowd of care-worn citizens to leave the town's dull smoke, — to forget for a while their ponderous ledgers, and to go forth into the fields to sympathize with the spirit of loveliness which is abroad in all the land. Would this be waste or improvement of time? Let Wordsworth reply: —

“ Nature never did betray
The heart that loved her. 'Tis her privilege,
Through all the years of this our life, to lead
From joy to joy; for she can so inform
The *mind* that is *within us*, so impress
With quietness and beauty, and so feed
With *lofty thoughts*, that neither *evil* tongues,
Rash judgments, nor the *sneers* of selfish men,
Nor *greetings* where no kindness is, nor all
The dreary intercourse of *common* life,
Shall e'er prevail against us, or disturb
Our *cheerful faith* that all that we behold
Is FULL of BLESSINGS.”

And again,

“ Therefore, let the moon
Shine on thee in thy solitary walk,
And let the misty mountain winds be free
To blow against thee; and, in after-years,
When these wild ecstasies shall be matured
Into a *sober* pleasure, when thy mind
Shall be a *mansion* for all lovely forms,
Thy memory be a *dwelling-place*
For all sweet sounds and harmonies; oh! then,
If solitude or fear or pain or grief
Should be thy portion, with what healing thoughts
Of tender joy wilt thou remember nature,
And these her benedictions!”

I do not know that a more delightful task could be assigned to any one, than that of observing the vegetation of this vicinity. Among our plants are many of great interest and beauty; and certainly nothing can be more fraught with instruction and delight than occasional visits to the charming localities in which they grow. Who is there that has ever pursued this branch of natural history, that does not recollect the many scenes of rural beauty and loveliness into which it has led him? How often, when gathering his floral treasures, has he not paused to admire the silent and sylvan

retreats in which he has found them! All around this neighborhood, there are scenes that challenge the best efforts of the painter; and he who holds converse with the flowers soon learns the best points of view, and becomes a privileged spectator.

Among our native plants are many that deserve a place in the flower-border, and none more so than the lily tribe. The superb lily, which is rarely found in this vicinity, and the Canada and Pennsylvanian lilies, are among the most beautiful flowers that bloom. There is something exceedingly graceful in the general aspect of the Canada lily, when it assumes a good size in the rich soil of a garden. It rises with a clean stem, throwing off whorls of green and beautiful leaves, at regular intervals, to the height of five or six feet; crowning the whole with a pyramidal cluster of drooping bells. Many of the foreign lilies excel the Canadense in the beauty of their flowers; but none approach the delicate and tropical symmetry of its habit.

The superb cardinal flower will be remembered by every one: it is the ornament of our water-courses in the long days of summer. It has been cultivated to high perfection, and should always occupy a place in our gardens.

We have growing among us one of the neatest little garden hedge-plants that the earth produces, the little privet (*Ligustrum*). It is found abundantly on the road to Manchester. It is of beautiful foliage, and in summer produces spikes of sweet-smelling flowers, like miniature bunches of white lilac. In the days of Parkinson and Evelyn, this shrub used to be clipped into the forms of birds, beasts, and fishes, and nobody knows what. Time, however, has not diminished the estimation in which it is held. I have often observed it forming the screen hedges within the iron railings that surround the public gardens in the great squares of London. For the formation of interior or garden hedges, there are few shrubs that approach it in appearance of neatness and beauty.

We have plants all around us of singular habits and strange propensities.

The *Cuscuta*, or Dodder, which is found in the moist land of this neighborhood, affords a specimen of the parasitic tribe

of plants, which fasten and feed upon others. The *Cuscuta* is a bright yellow leafless vine, bearing a profusion of small white flowers. It rises from the ground like any other vegetable; and, after attaining a certain height, it looks round, and seizes upon the first plant that comes in its way. Like a little vegetable boa constrictor, it takes a few spiral turns round its victim; and, when it finds itself firmly fixed, it disengages itself from its own root, lets go its hold upon the earth, and depends for the future on the plant upon which it is seated. In this way it blooms and perfects its seed, without any direct communication with the earth. If the seeds of this plant are sown, they will come up and grow for a season; but they soon die, if they have no plant to which they can attach themselves. Pope, in his "Essay on Man," says:—

"That thus to man the voice of Nature spake:—
Go, from the creatures thy instruction take;
Learn from the birds what food the thickets yield;
Learn from the beasts the physic of the field;
Thy arts of building from the bee receive;
Learn of the mole to plough, the worm to weave;
Learn of the little nautilus to sail,
Speed the thin oar, and catch the driving gale."

Who knows but man caught the idea of multiplying choice fruits by grafting, from observing with what facility parasitic plants attach themselves to others, and draw nourishment from roots that are not their own?

The dog's-bane that is found all around us, the silk-weed that grows by the way-side, and the sundew that is found in every old peat meadow, are all strongly sensitive, and strangely destructive of insect life.

The dog's-bane opens its nipper-like filaments; and when a fly puts in his proboscis in search of honey, they close like a steel trap, and the little victim remains a provision till he dies.

The leaves of the *Drosera*, or sundew, are furnished with a sort of hair-like spines, which support minute globules of a clear liquor; and, when thirsty insects descend to drink this nectar, the spines fall upon them and entangle them, and the whole leaf bends with a sort of muscular effort to secure the intruder; nor is there any escape from the irritated plant.

These strange propensities are not to be construed as instances of wickedness or cruelty in plants. Our profound ignorance of the causes and motives of action of all created things should teach us to humble ourselves before the great Creator, whose ways are wondrous and past finding out. "Certainly we do know that all unnecessary sufferings, sufferings that have no salutary tendency, or subserviency to the happiness or welfare of created beings, can find no place under the government of an infinitely perfect and gracious Ruler."

It was noticed by Linnæus, that the flowers of the barberry are remarkably sensitive. If the filament of the flower be touched by any substance, as the blade of a penknife or a bit of stick, it instantly falls upon the stigma with apparent violence.

The common locust is remarkably sensitive of light. In the glory of a noonday sun, its foliage appears enlivened. The little leaflets that form its wing-like leaves look upward, as if they were anxious to drink in the light and warmth of his reviving rays. At night, or in cloudy weather, they all hang their heads as if asleep. The whole tree wears altogether a different aspect at eventide. I very well remember the first time that I observed this sensitiveness in some young trees of this genus. I thought they had met with some accident, and were dying. The next morning, however, I was pleasingly surprised to find that they all looked up to the sun as joyously as ever. Like some young animal, they appeared heartily refreshed by a good night's sleep. A little girl who had observed this phenomenon in a locust that grew before her nursery window, upon being required to go to bed a little earlier than usual, replied with much acuteness, "O mother! it is not yet time to go to bed: the locust-tree has not yet begun to say its prayers."

Some of our most common plants are remarkable in the choice of their localities. The hemlock loves to luxuriate in the ruin and desolation of cities. Wherever there is a deserted mansion, with its garden in ruins, there is sure to be found the fatal hemlock, as if the very ground were accursed, and brought forth poisonous plants. The ghostly mullein stalks over worn-out and neglected pastures, the emblem of sterility. The black nightshade and the dubious

form of the thorn-apple rise from neglected heaps of rubbish, as if the noxious exhalations had assumed a material form, to warn man of the consequences of uncleanness.

There is a spot within the bounds of our county, that is classic ground to the naturalist, — where grow some plants that are not common to these northern regions. I am sure that I need only mention the laurel woods of Manchester, the farthest northern boundary of the Magnolia, to awaken the most pleasing recollections. Those who have seen these *Kalmia* groves, at the time of their flowering, cannot soon forget the scene they present. The whole appears like an enchanted land. I have sometimes thought that this wild wood garden, full of sweet odors and graceful forms, must have been torn from some more genial clime, wafted across the calm bosom of our bay, and placed, some stilly night, just where it is, to give us a glimpse of a more favored creation. There, in the low ground, is found the *Cymbidium*, the *Pogonia*, and the beautiful *Orchis fimbriata*; plants that may vie with the proudest exotics, and which, in another hemisphere, are cherished among the most favored children of the earth. And shall I forget the *Rhodora*, that, like the almond, gives forth its lively purple flowers ere yet its leaves are expanded, — a shrub better known and more valued abroad than in its own native land? Above all, there, too, is found the *Magnolia*, with its unrivalled foliage, saturating the air for miles with the odor of its flowers. We are certainly favored beyond measure in having within our borders a type of that genus of plants which is esteemed for flower and foliage the most magnificent the earth produces.

The pencil can give but a faint idea of the splendor of the *Magnolia grandiflora*; and the pen altogether fails in the effort to describe its charms. The South may well be proud of the possession of a tree of such noble bearing. The leaves are glossy, and of a most luxuriant softness. The young branches are of a fine, purplish brown, producing flowers at the extremity of each; and, when the tree rises to the height of sixty or seventy feet, and each branch holds up its petalled vase of ivory whiteness, as if presenting incense to the sun, it affords an appearance of beauty and grandeur that rivals the proudest productions of man.

Many of the nations of the earth have chosen a flower for their emblem. The roses of England are well known in story. Ireland has chosen the lowly shamrock, which is found in every field; and its adoption is said to be as old as the introduction of Christianity into the island.

Dear is the thistle to the heart of the Scotchman; but faded for ever are the lilies of France.

The Carolinian rallies beneath the palmetto; and on the earliest coins of old Massachusetts we find a pine-tree,— emblematic, no doubt, of the source from which she drew her earliest wealth. If ever these United States should choose a symbol from the vegetable world, let that symbol be the magnolia!

THE TWOFOLD BEING.

THE dew of youth on her pure brow lay;
Her smile was the dawn of Spring's softest day;
Spring's rosy light was on all her way.

She seem'd an oasis in desert lands;
We thank'd God for her with lifted hands,
Then turn'd again to the weary sands.

But Life came on with its withering glare,
And swept down all the sweet beauty there,
And left the fount dry and the branches bare.

When I look'd again on her alter'd face,
The glow had all vanish'd, and left no trace,—
Not a lingering gleam of her maiden grace.

Yet that form, as in earliest beauty fair,
Can my mind shape out, in this evening air:
Not a trait, not a shadow, is wanting there.

So now two beings for one I find;
One walks on earth, one lives in my mind;
Yet mystic relations these two still bind.