V

JUNE, 1851

(ÆT. 33)

June 3. *Tuesday.* Lectured in Worcester last Saturday, and walked to *As-* or *Has*nebumskit Hill in Paxton the next day. Said to be the highest land in Worcester County except Wachusett.

Met Mr. Blake, Brown, Chamberlin, Hinsdale, Miss Butman (?), Wyman, Conant.

Returned to Boston yesterday. Conversed with John Downes, who is connected with the Coast Survey, is printing tables for astronomical, geodesic, and other uses. He tells me that he once saw the common sucker in numbers piling up stones as big as his fist (like the piles which I have seen), taking them up or moving them with their mouths.

Dr. Harris suggests that the mountain cranberry which I saw at Ktaadn was the *Vaccinium Vitis-Idæa*, cowberry, because it was edible and not the *Uva-Ursi*, or bear-berry, which we have in Concord.

Saw the *Uvularia perfoliata*, perfoliate bellwort, in Worcester near the hill; an abundance of mountain laurel on the hills, now budded to blossom and the fresh lighter growth contrasting with the dark green; an abundance of very large checkerberries, or partridge-berries, as Bigelow calls them, on Hasnebumskit. Sugar maples about there. A very extensive view, but

the western view not so much wilder as I expected. See Barre, about fifteen miles off, and Rutland, etc., etc. Not so much forest as in our neighborhood; high, swelling hills, but less shade for the walker. The hills are green, the soil springier; and it is written that water is more easily obtained on the hill than in the valleys. Saw a Scotch fir, the pine so valued for tar and naval uses in the north of Europe.

Mr. Chamberlin told me that there was no corporation in Worcester except the banks (which I suspect may not be literally true), and hence their freedom and independence. I think it likely there is a gas company to light the streets at least.

John Mactaggart finds the ice thickest not in the largest lakes in Canada, nor in the smallest, where the surrounding forests melt it. He says that the surveyor of the boundary-line between England and United States on the Columbia River saw pine trees which would require sixteen feet in the blade to a cross-cut saw to do anything with them.

I examined to-day a large swamp white oak in Hubbard's meadow, which was blown down by the same storm which destroyed the lighthouse. At five feet from the ground it was nine and three fourths feet in circumference; the first branch at eleven and a half feet from ground; and it held its size up to twenty-three feet from the ground. Its whole height, measured on the ground, was eighty feet, and its breadth about sixty-six feet. The roots on one side were turned up with the soil on them, making an object very conspicuous a great distance off, the highest root being eighteen feet from the ground

and fourteen feet above centre of trunk. The roots, which were small and thickly interlaced, were from three to nine inches beneath the surface (in other trees I saw them level with the surface) and thence extended fifteen to eighteen inches in depth (*i. e.* to this depth they occupied the ground). They were broken off at about eleven feet from the centre of the trunk and were there on an average one inch in diameter, the largest being three inches in diameter. The longest root was broken off at twenty feet from the centre, and was there three quarters of an inch in diameter. The tree was rotten within. The lower side of the soil (what was originally the lower), which clothed the roots for nine feet from the centre of the tree, was white and clayey to appearance, and a sparrow was sitting on three eggs within the mass. Directly under where the massive trunk had stood, and within a foot of the surface, you could apparently strike in a spade and meet with no obstruction to a free cultivation. There was no taproot to be seen. The roots were encircled with dark, nubby rings. The tree, which still had a portion of its roots in the ground and held to them by a sliver on the leeward side, was alive and had leaved out, though on many branches the leaves were shrivelled again. *Quercus bicolor* of Bigelow, *Q. Prinus discolor* Mx. f.

I observed the grass waving to-day for the first time, — the swift Camilla on it. It might have been noticed before. You might have seen it now for a week past on grain-fields.

Clover has blossomed.

I noticed the indigo-weed a week or two ago pushing up like asparagus. Methinks it must be the small andromeda (?), that dull red mass of leaves in the swamp, mixed perchance with the rhodora, with its dry fruit-like appendages, as well as the *Andromeda paniculata*, else called *ligustrina*, and the clethra. It was the golden senecio (*Senecio aureus*) which I plucked a week ago in a meadow in Wayland. The earliest, methinks, of the aster and autumnal-looking yellow flowers. Its bruised stems enchanted me with their indescribable sweet odor, like I cannot think what.

The *Phaseolus vulgaris* includes several kinds of bush beans, of which those I raised were one.

June 6. *Friday.* Gathered last night the strong, rank, penetrating-scented angelica.

Under the head of the *Cicuta maculata*, or American hemlock, — "It is a rule sanctioned by the observations of medical botanists, that umbelliferous plants, which grow in or about the water, are of a poisonous nature." [1] He does not say that the angelica is poisonous, but I suppose that it is. It has such a rank, offensive, and killing odor as makes me think of the ingredients of the witches' cauldron. It did not leave my hands, which had carried it, long after I had washed them. A strong, penetrating, lasting, and sickening odor.

Gathered to-night the *Cicuta maculata*, American hemlock, the veins of the leaflets ending in the notches and the root fasciculated.

[1] [Bigelow, *American Medical Botany*, vol. i.]

Bigelow says, "The leaves of the *Solidago odora* have a delightfully fragrant odor, partaking of that of anise and sassafras, but different from either." [1]

June 7. My practicalness is not to be trusted to the last. To be sure, I go upon my legs for the most part, but, being hard-pushed and dogged by a superficial common sense which is bound to near objects by beaten paths, I am off the handle, as the phrase is, — I begin to be transcendental and show where my heart is. I am like those guinea-fowl which Charles Darwin saw at the Cape de Verd Islands. He says, "They avoided us like partridges on a rainy day in September, running with their heads cocked up; and if pursued, they readily took to the wing." Keep your distance, do not infringe on the interval between us, and I will pick up lime and lay real terrestrial eggs for you, and let you know by cackling when I have done it.

When I have been asked to speak at a temperance meeting, my answer has been, "I am too transcendental to serve you in your way." They would fain confine me to the rum-sellers and rum-drinkers, of whom I am not one, and whom I know little about.

It is a certain faeryland where we live. You may walk out in any direction over the earth's surface, lifting your horizon, and everywhere your path, climbing the convexity of the globe, leads you between heaven and earth, not away from the light of the sun and stars and the habitations of men. I wonder that I ever get five miles on my way, the walk is so crowded with events and

[1] [Bigelow, *American Medical Botany*, vol. i.]

phenomena. How many questions there are which I have not put to the inhabitants!

But how far can you carry *your* practicalness? How far does your knowledge really extend? When I have read in deeds only a hundred years old the words "to enjoy and possess, he and his assigns, *forever*," I have seen how short-sighted is the sense which conducts from day to day. When I read the epitaphs of those who died a century ago, they seem deader even than they expected. A day seems proportionally a long part of your "forever and a day."

There are few so temperate and chaste that they can afford to remind us even at table that they have a palate and a stomach.

We believe that the possibility of the future far exceeds the accomplishment of the past. We review the past with the common sense, but we anticipate the future with transcendental senses. In our sanest moments we find ourselves naturally expecting or prepared for far greater changes than any which we have experienced within the period of distinct memory, only to be paralleled by experiences which are forgotten. Perchance there are revolutions which create an interval impassable to the memory.

With reference to the near past, we all occupy the region of common sense, but in the prospect of the future we are, by instinct, transcendentalists.

We affirm that all things are possible, but only these things have been to our knowledge. I do not even infer the future *from what I know of the past.* I am hardly better acquainted with the past than with the future.

What is new to the individual may be familiar to the experience of his race. It must be rare indeed that the experience of the individual transcends that of his race. It will be perceived that there are two kinds of change, — that of the race, and that of the individual within the limits of the former.

One of those gentle, straight-down rainy days, when the rain begins by spotting the cultivated fields as if shaken from a pepper-box; a fishing day, when I see one neighbor after another, having donned his oil-cloth suit, walking or riding past with a fish-pole, having struck work, — a day and an employment to make philosophers of them all.

When introduced to high life I cannot help perceiving how it is as a thing jumped at, and I find that I do not get on in my enjoyment of the fine arts which adorn it, because my attention is wholly occupied with the jump, remembering that the greatest genuine leap on record, due to human muscles alone, is that of certain wandering Arabs who cleared twenty-five feet on level ground. The first question which I am tempted to put to the proprietor of such great impropriety is, "Who boosts you?" Are you one of the ninety-nine who fail or the hundredth, who succeeds?

June 8. *Sunday.* In F. A. Michaux's, *i. e.* the younger Michaux's, "Voyage à l'ouest des Monts Alléghanys, 1802," printed at Paris, 1808: —

He says the common inquiry in the newly settled

West was, "'From what part of the world have you come?' As if these vast and fertile regions would naturally be the point of union (*réunion*, meeting) and the common country of all the inhabitants of the globe."[1]

The current of the Ohio is so swift in the spring that it is not necessary to row. Indeed rowing would do more harm than good, since it would tend to turn the ark out of the current on to some isle or sand-bar, where it would be entangled amid floating trees. This has determined the form of the bateaux, which are not the best calculated for swiftness but to obey the current. They are from fifteen to fifty feet long by ten to twelve and fifteen, with square ends, and roof of boards like a house at one end. The sides are about four and a half feet above the water. "I was alone on the shore of the Monongahela, when I perceived, for the first time, in the distance, five or six of these bateaux which were descending this river. I could not conceive what those great square boxes were, which, abandoned to the current, presented alternately their ends, their sides, and even (or also (?), *et même*) their angles. As they came nearer, I heard a confused noise but without distinguishing anything, on account of the elevation of the sides. It was only on ascending the bank of the river that I perceived, in these bateaux, many families carrying with them their horses, cows, poultry, dismounted carts (*charrettes*), plows, harnesses, beds, agricultural implements, in short all that constitute the movables of a household (*ménage*) and the carrying

[1] [*Excursions*, p. 221; Riv. 271.]

on (*exploitation*) of a farm." But he was obliged to paddle his log canoe "*sans cesse*" because of the sluggishness of the current of the Ohio in April, 1802.

A Vermonter told him that the expense of clearing land in his State was always defrayed by the potash obtained from the ashes of the trees which were burnt, and sometimes people took land to clear on condition that they should have what potash they could make.

After travelling more than three thousand miles in North America, he says that no part is to be compared for the "*force végétative des forêts*" to the region of the Ohio between Wheeling and Marietta. Thirty-six miles above the last place he measured a plane tree on the bank of the Ohio which, at four feet from the ground, was forty-seven in circumference. It is true it was "*renflé d'une manière prodigieuse.*" Tulip and plane trees, his father had said, attained the greatest diameter of North American trees.

Ginseng was then the only "territorial" production of Kentucky which would pay the expense of transportation *by land* to Philadelphia. They collected it from spring to the first frosts. Even hunters carried for this purpose, beside their guns, a bag and a little "*pioche.*" From twenty-five to thirty "*milliers pesant*" were then transported annually, and this commerce was on the increase. Some transported it themselves from Kentucky to China, *i. e.* without selling it [to] the merchants of the seaboard. Traders in Kentucky gave twenty to twenty-four "sous" the pound for it.

They habituated their wild hogs to return to the house from time to time by distributing corn for them

once or twice a week. So I read that in Buenos Ayres they collect the horses into the corral twice a week to keep them tame in a degree.

Gathered the first strawberries to-day.

Observed on Fair Haven a tall pitch pine, such as some call yellow pine, — very smooth, yellowish, and destitute of branches to a great height. The outer and darker-colored bark appeared to have scaled off, leaving a fresh and smooth surface. At the ground, all round the tree, I saw what appeared to be the edges of the old surface scales, extending to two inches more in thickness. The bark was divided into large, smooth plates, one to two feet long and four to six inches wide.

I noticed that the cellular portion of the bark of the canoe birch log from which I stripped the epidermis a week or two ago was turned a complete brick-red color very striking to behold and reminding me of the red man and all strong, natural things, — the color of our blood somewhat. Under the epidermis it was still a sort of buff. The different colors of the various parts of this bark, at various times, fresh or stale, are extremely agreeable to my eye.

I found the white-pine-top full of staminate blossom-buds not yet fully grown or expanded, with a rich red tint like a tree full of fruit, but I could find no pistillate blossom.

The fugacious-petalled cistus, and the pink, and the lupines of various tints are seen together.

Our outside garments, which are often thin and fanciful and merely for show, are our epidermis, hang-

ing loose and fantastic like that of the yellow birch, which may be cast off without harm, stripped off here and there without fatal injury; sometimes called cuticle and false skin. The vital principle wholly wanting in it; partakes not of the life of the plant. Our thicker and more essential garments are our cellular integument. When this is removed, the tree is said to be girdled and dies. Our shirt is the cortex, liber, or true bark, beneath which is found the alburnum or sap-wood, while the heart in old stocks is commonly rotten or has disappeared. As if we grew like trees, and were of the exogenous kind.

June 9. James Wood, Senior, told me to-day that Asa (?) Melvin's father told him that he had seen alewives caught (many of them) in the meadow which we were crossing, on the west of Bateman's Pond, where now there is no stream, and though it is wet you can walk everywhere; also one shad. He thinks that a great part of the meadow once belonged to the pond.

Gathered the *Linnæa borealis.*

June 11. *Wednesday.* Last night a beautiful summer night, not too warm, moon not quite full, after two or three rainy days. Walked to Fair Haven by railroad, returning by Potter's pasture and Sudbury road. I feared at first that there would be too much white light, like the pale remains of daylight, and not a yellow, gloomy, dreamier light; that it would be like a candlelight by day; but when I got away from the town and deeper into the night, it was better. I hear whip-poor-wills, and see a few fireflies in the meadow.

I saw by the shadows cast by the inequalities of the clayey sand-bank in the Deep Cut that it was necessary to see objects by moonlight as well as sunlight, to get a complete notion of them. This bank had looked much more flat by day, when the light was stronger, but now the heavy shadows revealed its prominences. The prominences are light, made more remarkable by the dark shadows which they cast.

When I rose out of the Deep Cut into the old pigeon-place field, I rose into a warmer stratum of air, it being lighter. It told of the day, of sunny noontide hours, — an air in which work had been done, which men had breathed. It still remembered the sunny banks, — of the laborer wiping his brow, of the bee humming amid flowers, the hum of insects. Here is a puff of warmer air which has taken its station on the hills; which has come up from the sultry plains of noon.[1]

I hear the nighthawks uttering their squeaking notes high in the air now at nine o'clock P. M., and occasionally — what I do not remember to have heard so late — their booming note. It sounds more as if under a cope than by day. The sound is not so fugacious, going off to be lost amid the spheres, but is echoed hollowly to earth, making the low roof of heaven vibrate. Such a sound is more confused and dissipated by day.

The whip-poor-will suggests how wide asunder [are] the woods and the town. Its note is very rarely heard by those who live on the street, and then it is thought to be of ill omen. Only the dwellers on the outskirts of the village hear it occasionally. It sometimes comes

[1] [*Excursions*, p. 328 ; Riv. 403.]

into their yards. But go into the woods in a warm night at this season, and it is the prevailing sound. I hear now five or six at once. It is no more of ill omen therefore here than the night and the moonlight are. It is a bird not only of the woods, but of the night side of the woods.

New beings have usurped the air we breathe, rounding Nature, filling her crevices with sound. To sleep where you may hear the whip-poor-will in your dreams!

I hear from this upland, from which I see Wachusett by day, a wagon crossing one of the bridges. I have no doubt that in some places to-night I should be sure to hear every carriage which crossed a bridge over the river within the limits of Concord, for in such an hour and atmosphere the sense of hearing is wonderfully assisted and asserts a new dignity, and [we] become the Hearalls of the story. The late traveller cannot drive his horse across the distant bridge, but this still and resonant atmosphere tells the tale to my ear. Circumstances are very favorable to the transmission of such a sound. In the first place, planks so placed and struck like a bell swung near the earth emit a very resonant and penetrating sound; add that the bell is, in this instance, hung over water, and that the night air, not only on account of its stillness, but perhaps on account of its density, is more favorable to the transmission of sound. If the whole town were a raised planked floor, what a din there would be!

I hear some whip-poor-wills on hills, others in thick wooded vales, which ring hollow and cavernous, like an apartment or cellar, with their note. As when I hear

the working of some artisan from within an apartment.

I now descend round the corner of the grain-field, through the pitch pine wood into a lower field, more inclosed by woods, and find myself in a colder, damp and misty atmosphere, with much dew on the grass. I seem to be nearer to the origin of things. There is something creative and primal in the cool mist. This dewy mist does not fail to suggest music to me, unaccountably; fertility, the origin of things. An atmosphere which has forgotten the sun, where the ancient principle of moisture prevails. It is laden with the condensed fragrance of plants and, as it were, distilled in dews.

The woodland paths are never seen to such advantage as in a moonlight night, so embowered, still opening before you almost against expectation as you walk; you are so completely in the woods, and yet your feet meet no obstacles. It is as if it were not a path, but an open, winding passage through the bushes, which your feet find.

Now I go by the spring, and when I have risen to the same level as before, find myself in the warm stratum again.

The woods are about as destitute of inhabitants at night as the streets. In both there will be some night-walkers. There are but few wild creatures to seek their prey. The greater part of its inhabitants have retired to rest.

Ah, that life that I have known! How hard it is to remember what is most memorable! We remember

how we itched, not how our hearts beat. I can sometimes recall to mind the quality, the immortality, of my youthful life, but in memory is the only relation to it.

The very cows have now left their pastures and are driven home to their yards. I meet no creature in the fields.

I hear the night-warbler [1] breaking out as in his dreams, made so from the first for some mysterious reason.

Our spiritual side takes a more distinct form, like our shadow which we see accompanying us.

I do not know but I feel less vigor at night; my legs will not carry me so far; as if the night were less favorable to muscular exertion, — weakened us, somewhat as darkness turns plants pale. But perhaps my experience is to be referred to being already exhausted by the day, and I have never tried the experiment fairly. Yet sometimes after a hard day's work I have found myself unexpectedly vigorous. It was so hot summer before last that the Irish laborers on the railroad worked by night instead of day for a while, several of them having been killed by the heat and cold water. I do not know but they did as much work as ever by day. Yet methinks Nature would not smile on such labors.

Only the Hunter's and Harvest moons are famous, but I think that each full moon deserves to be and has its own character well marked. One might be called the Midsummer-Night Moon.

[1] [The first mention in the Journal of a bird the identity of which Thoreau seems never to have made out. See *Journal*, vol. i, Introduction, p. xlvi.]

The wind and water are still awake. At night you are sure to hear what wind there is stirring. The wind blows, the river flows, without resting. There lies Fair Haven Lake, undistinguishable from fallen sky. The pines seem forever foreign, at least to the civilized man, — not only their aspect but their scent, and their turpentine.

So still and moderate is the night! No scream is heard, whether of fear or joy. No great comedy nor tragedy is being enacted. The chirping of crickets is the most universal, if not the loudest, sound. There is no French Revolution in Nature, no excess. She is warmer or colder by a degree or two.

By night no flowers, at least no variety of colors. The pinks are no longer pink; they only shine faintly, reflecting more light. Instead of flowers underfoot, stars overhead.

My shadow has the distinctness of a second person, a certain black companion bordering on the imp, and I ask, "Who is this?" which I see dodging behind me as I am about to sit down on a rock.

No one, to my knowledge, has observed the minute differences in the seasons. Hardly two nights are alike. The rocks do not feel warm to-night, for the air is warmest; nor does the sand particularly. A book of the seasons, each page of which should be written in its own season and out-of-doors, or in its own locality wherever it may be.

When you get into the road, though far from the town, and feel the sand under your feet, it is as if you had reached your own gravel walk. You no longer

hear the whip-poor-will, nor regard your shadow, for here you expect a fellow-traveller. You catch yourself walking merely. The road leads your steps and thoughts alike to the town. You see only the path, and your thoughts wander from the objects which are presented to your senses. You are no longer in place. It is like conformity, — walking in the ways of men.

In Charles Darwin's "Voyage of a Naturalist round the World," commenced in 1831: —

He gave to Ehrenberg some of an impalpably fine dust which filled the air at sea near the Cape de Verd Islands, and he found it to consist in great part of "infusoria with siliceous shields, and of the siliceous tissue of plants;" found in this sixty-seven different organic forms. The infusoria with two exceptions inhabitants of fresh water. Vessels have even run on shore owing to the obscurity. Is seen a thousand miles from Africa. Darwin found particles of stone above a thousandth of an inch square.

Speaking of St. Paul's Rocks, Lat. 58′ N., Long. 29° 15′ W., "Not a single plant, not even a lichen, grows on this islet; yet it is inhabited by several insects and spiders. The following list completes, I believe, the terrestrial fauna: a fly (Olfersia) living on the booby, and a tick which must have come here as a parasite on the birds; a small brown moth, belonging to a genus that feeds on feathers; a beetle (Quedius), and a wood-louse from beneath the dung; and lastly numerous spiders, which I suppose prey on these small attendants and scavengers of the waterfowl. The often-repeated description of the stately palm and other noble tropical

plants, then birds, and lastly man, taking possession of the coral islets as soon as formed, in the Pacific, is probably not quite correct; I fear it destroys the poetry of this story, that feather and dirt-feeding and parasitic insects and spiders should be the first inhabitants of newly-formed oceanic land."

At Bahia or San Salvador, Brazil, took shelter under a tree "so thick that it would never have been penetrated by common English rain," but not so there.

Of a partridge near the mouth of the Plata, "A man on horseback, by riding round and round in a circle, or rather in a spire, so as to approach closer each time, may knock on the head as many as he pleases." Refers to Hearne's Journey, page 383, for "In Arctic North America the Indians catch the Varying Hare by walking spirally round and round it, when on its form: the middle of the day is reckoned the best time, when the sun is high, and the shadow of the hunter not very long."

In the same place, "General Rosas is also a perfect horseman — an accomplishment of no small consequence in a country where an assembled army elected its general by the following trial: A troop of unbroken horses being driven into a corral, were let out through a gateway, above which was a cross-bar: it was agreed whoever should drop from the bar on one of these wild animals, as it rushed out, and should be able, without saddle or bridle, not only to ride it, but also to bring it back to the door of the corral, should be their general. The person who succeeded was accordingly elected, and doubtless made a general fit for such an army. This extraordinary feat has also been performed by Rosas."

Speaks of the Gaucho sharpening his knife on the back of the armadillo before he kills him.

Alcide d'Orbigny, from 1825 to 1833 in South America, now (1846) publishing the results on a scale which places him second to Humboldt among South American travellers.

Hail in Buenos Ayres as large as small apples; killed thirteen deer, beside ostriches, which last also it blinded, etc., etc. Dr. Malcomson told him of hail in India, in 1831, which "much injured the cattle." Stones flat, one ten inches in circumference; passed through windows, making round holes.

A difference in the country about Montevideo and somewhere else attributed to the manuring and grazing of the cattle. Refers to Atwater as saying that the same thing is observed in the prairies of North America, "where coarse grass, between five and six feet high, when grazed by cattle, changes into common pasture land." (*Vide* Atwater's words in Silliman's *North American Journal*, vol. i, p. 117.)

I would like to read Azara's Voyage.

Speaks [1] of the fennel and the cardoon (*Cynara cardunculus*), introduced from Europe, now very common in those parts of South America. The latter occurs now on both sides the Cordilleras across the continent. In Banda Oriental alone "very many (probably several hundred) square miles are covered by one mass of these prickly plants, and are impenetrable by man or beast. Over the undulating plains, where these great beds occur, nothing else can now live. . . . I doubt whether

[1] [That is, Darwin.]

any case is on record of an invasion on so grand a scale of one plant over the aborigines."

Horses first landed at the La Plata in 1535. Now these, with cattle and sheep, have altered the whole aspect of the country, — vegetation, etc. "The wild pig in some parts probably replaces the peccari; packs of wild dogs may be heard howling on the wooded banks of the less frequented streams; and the common cat, altered into a large and fierce animal, inhabits rocky hills."

At sea, eye being six feet above level, horizon is two and four fifths miles distant. "In like manner, the more level the plain, the more nearly does the horizon approach within these narrow limits; and this, in my opinion, entirely destroys that grandeur which one would have imagined that a vast level plain would have possessed."

Darwin found a tooth of a *native horse* contemporary with the mastodon, on the Pampas of Buenos Ayres, though he says there is good evidence against any horse living in America at the time of Columbus. He speaks of their remains being common in North America. Owen has found Darwin's tooth similar to one Lyell brought from the United States, but unlike any other, fossil or living, and named this American horse *Equus curvidens*, from a slight but peculiar curvature in it.

The great table-land of southern Mexico makes the division between North and South America with reference to the migration of animals.

Quotes Captain Owen's "Surveying Voyage" for saying that, at the town of Benguela on the west coast of

Africa in a time of great drought, a number of elephants entered in a body to possess themselves of the wells. After a desperate conflict and the loss of one man, the inhabitants — three thousand — drove them off. During a great drought in India, says Dr. Malcomson, "a hare drank out of a vessel held by the adjutant of the regiment."

The guanacos (wild llama) and other animals of this genus have the habit of dropping their dung from day to day in the same heap. The Peruvian Indians use it for fuel, and are thus aided in collecting it.

Rowing up a stream which takes its rise in a mountain, you meet at last with pebbles which have been washed down from it, when many miles distant. I love to think of this kind of introduction to it.

The only quadruped native to the Falkland Islands is a large wolf-like fox. As far as he is aware, "there is no other instance in any part of the world of so small a mass of broken land, distant from a continent, possessing so large an aboriginal quadruped peculiar to itself."

In the Falkland Isles, where other fuel is scarce, they frequently cook their beef with the bones from which the meat has been scraped. Also they have "a green little bush about the size of common heath, which has the useful property of burning while fresh and green."

Saw a cormorant play with its fishy prey as a cat with a mouse, — eight times let it go and dive after it again.

Seminal propagation produces a more original individual than that by buds, layers, and grafts.

Some inhabitants of Tierra del Fuego having got some putrid whale's blubber in time of famine, "an old man cut off thin slices and muttering over them, broiled them for a minute, and distributed them to the famished party, who during this time preserved a profound silence." This was the only evidence of any religious worship among them. It suggests that even the animals may have something divine in them and akin to revelation, — some inspirations allying them to man as to God.

"Nor is it easy to teach them our superiority except by striking a fatal blow. Like wild beasts, they do not appear to compare numbers; for each individual, if attacked, instead of retiring, will endeavor to dash your brains out with a stone, as certainly as a tiger under similar circumstances would tear you."

"We were well clothed, and though sitting close to the fire, were far from too warm; yet these naked savages, though further off, were observed, to our great surprise, to be streaming with perspiration at undergoing such a roasting." [1]

Ehrenberg examined some of the white paint with which the Fuegians daub themselves, and found it to be composed of infusoria, including fourteen polygastrica, and four phytolitharia, inhabitants of fresh water, all old and known forms! !

Again of the Fuegians: "Simple circumstances — such as the beauty of scarlet cloth or blue beads, the absence of women, our care in washing ourselves — excited their admiration far more than any grand or

[1] [*Walden*, p. 14; Riv. 22.]

complicated object, such as our ship. Bougainville has well remarked concerning these people, that they treat the 'chef-d'œuvres de l'industrie humaine, comme ils traitent les loix de la nature es ses phénomènes.'"

He was informed of a tribe of foot Indians now changing into horse Indians apparently in Patagonia.

"With the exception of a few berries, chiefly of a dwarf arbutus, the natives [*i. e.* of Tierra del Fuego][1] eat no vegetable food besides this fungus" (*Cyttaria Darwinii*). The "only country . . . where a cryptogamic plant affords a staple article of food."

No reptiles in Tierra del Fuego nor in Falkland Islands.

Describes a species of kelp there, — *Macrocystis pyrifera*. "I know few things more surprising than to see this plant growing and flourishing amidst those great breakers of the Western Ocean, which no mass of rock, let it be ever so hard, can long resist. . . . A few [stems][2] taken together are sufficiently strong to support the weight of the large loose stones to which, in the inland channels, they grow attached; and yet some of these stones were so heavy that, when drawn to the surface, they could scarcely be lifted into a boat by one person." Captain Cook thought that some of it grew to the length of three hundred and sixty feet. "The beds of this sea-weed, even when not of great breadth," says D., "make excellent natural floating breakwaters. It is quite curious to see, in an exposed

[1] [The brackets are Thoreau's.]

[2] [The word is supplied by Thoreau.]

harbor, how soon the waves from the open sea, as they travel through the straggling stems, sink in height, and pass into smooth water."

Number of living creatures of all orders whose existence seems to depend on the kelp; a volume might be written on them. If a forest were destroyed anywhere, so many species would not perish as if this weed were, and with the fish would go many birds and larger marine animals, and hence the Fuegian himself perchance.

Tree ferns in Van Diemen's Land (lat. 45°) six feet in circumference.

Missionaries encountered icebergs in Patagonia in latitude corresponding to the Lake of Geneva, in a season corresponding to June in Europe. In Europe, the most southern glacier which comes down to the sea is on coast of Norway, latitude 67°, — 20°, or 1230 [geographical miles] nearer the pole.

Erratic boulders not observed in the intertropical parts of the world; due to icebergs or glaciers.

Under soil perpetually frozen in North America in 56° at three feet; in Siberia in 62° at twelve to fifteen feet.

In an excursion from Valparaiso to the base of the Andes: "We unsaddled our horses near the spring, and prepared to pass the night. The evening was fine, and the atmosphere so clear that the masts of the vessels at anchor in the bay of Valparaiso, although no less than twenty-six geographical miles distant, could be distinguished clearly as little black streaks." Anson had been surprised at the distance at which his vessels

were discovered from the coast without knowing the reason, — the great height of the land and the transparency of the air.

Floating islands from four to six feet thick in Lake Tagua-tagua in central Chile; blown about.

June 12. Listen to music religiously, as if it were the last strain you might hear.[1]

There would be this advantage in travelling in your own country, even in your own neighborhood, that you would be so thoroughly prepared to understand what you saw you would make fewer travellers' mistakes.

Is not he hospitable who entertains thoughts?

June 13. Walked to Walden last night (moon not quite full) by railroad and upland wood-path, returning by Wayland road. Last full moon the elms had not leaved out, — cast no heavy shadows, — and their outlines were less striking and rich in the streets at night.

I noticed night before night before last from Fair Haven how valuable was some water by moonlight, like the river and Fair Haven Pond, though far away, reflecting the light with a faint glimmering sheen, as in the spring of the year. The water shines with an inward light like a heaven on earth. The silent depth and serenity and majesty of water! Strange that men should distinguish gold and diamonds, when these precious elements are so common. I saw a distant river by moonlight, making no noise, yet flowing, as by day, still to the sea, like melted silver reflecting the moon-

[1] [Channing, p. 78.]

light. Far away it lay encircling the earth. How far away it may look in the night, and even from a low hill how miles away down in the valley! As far off as paradise and the delectable country! There is a certain glory attends on water by night. By it the heavens are related to the earth, undistinguishable from a sky beneath you. And I forgot to say that after I reached the road by Potter's bars, — or further, by Potter's Brook, — I saw the moon suddenly reflected full from a pool. A puddle from which you may see the moon reflected, and the earth dissolved under your feet. The magical moon with attendant stars suddenly looking up with mild lustre from a window in the dark earth.

I observed also the same night a halo about my shadow in the moonlight, which I referred to the accidentally lighter color of the surrounding surface; I transferred my shadow to the darkest patches of grass, and saw the halo there equally. It serves to make the outlines of the shadow more distinct.

But now for last night. A few fireflies in the meadow. Do they shine, though invisibly, by day? Is their candle lighted by day? It is not nightfall till the whip-poor-wills begin to sing.

As I entered the Deep Cut, I was affected by beholding the first faint reflection of genuine and unmixed moonlight on the eastern sand-bank while the horizon, yet red with day, was tingeing the western side. What an interval between those two lights! The light of the moon, — in what age of the world does that fall upon the earth? The moonlight was as the earliest and dewy morning light, and the daylight tinge reminded me

much more of the night. There were the old and new dynasties opposed, contrasted, and an interval between, which time could not span. Then is night, when the daylight yields to the nightlight. It suggested an interval, a distance not recognized in history. Nations have flourished in that light.

When I had climbed the sand-bank on the left, I felt the warmer current or stratum of air on my cheek, like a blast from a furnace.

The white stems of the pines, which reflected the weak light, standing thick and close together while their lower branches were gone, reminded me that the pines are only larger grasses which rise to a chaffy head, and we the insects that crawl between them. They are particularly grass-like.

How long do the gales retain the heat of the sun? I find them retreated high up the sides of hills, especially on open fields or cleared places. Does, perchance, any of this pregnant air survive the dews of night? Can any of it be found remembering the sun of yesterday even in the morning hours. Does, perchance, some puff, some blast, survive the night on elevated clearings surrounded by the forest?

The bullfrog belongs to summer. The different frogs mark the seasons pretty well, — the peeping hyla, the dreaming frog,[1] and the bullfrog. I believe that all may be heard at last occasionally together.

I heard partridges drumming to-night as late as 9 o'clock. What singularly space penetrating and filling sound! Why am I never nearer to its source?

[1] Toad.

We do not commonly live our life out and full; we do not fill all our pores with our blood; we do not inspire and expire fully and entirely enough, so that the wave, the comber, of each inspiration shall break upon our extremest shores, rolling till it meets the sand which bounds us, and the sound of the surf come back to us. Might not a bellows assist us to breathe? That our breathing should create a wind in a calm day! We live but a fraction of our life. Why do we not let on the flood, raise the gates, and set all our wheels in motion? He that hath ears to hear, let him hear. Employ your senses.

The newspapers tell us of news not to be named even with that in its own kind which an observing man can pick up in a solitary walk, as if it gained some importance and dignity by its publicness. Do we need to be advertised each day that such is still the routine of life? [1]

The tree-toad's, too, is a summer sound.

I hear, just as the night sets in, faint notes from time to time from some sparrow (?) falling asleep, — a vesper hymn, — and later, in the woods, the chuckling, rattling sound of some unseen bird on the near trees. The nighthawk booms wide awake.

By moonlight we see not distinctly even the surface of the earth, but our daylight experience supplies us with confidence.

As I approached the pond down Hubbard's Path, after coming out of the woods into a warmer air, I saw the shimmering of the moon on its surface, and, in the

[1] [See *Cape Cod, and Miscellanies*, pp. 471, 472 ; *Misc.*, Riv. 274.]

near, now flooded cove, the water-bugs, darting, circling about, made streaks or curves of light. The moon's inverted pyramid of shimmering light commenced about twenty rods off, like so much micaceous sand. But I was startled to see midway in the dark water a bright flamelike, more than phosphorescent light crowning the crests of the wavelets, which at first I mistook for fireflies, and thought even of cucullos.[1] It had the appearance of a pure, smokeless flame a half-dozen inches long, issuing from the water and bending flickeringly along its surface. I thought of St. Elmo's lights and the like. But, coming near to the shore of the pond itself, these flames increased, and I saw that even this was so many broken reflections of the moon's disk, though one would have said they were of an intenser light than the moon herself; from contrast with the surrounding water they were. Standing up close to the shore and nearer the rippled surface, I saw the reflections of the moon sliding down the watery concave like so many lustrous burnished coins poured from a bag with inexhaustible lavishness, and the lambent flames on the surface were much multiplied, seeming to slide along a few inches with each wave before they were extinguished; and I saw how farther and farther off they gradually merged in the general sheen, which, in fact, was made up of a myriad little mirrors reflecting the disk of the moon with equal brightness to an eye rightly placed. The pyramid or sheaf of light which we see springing from near where we stand only, in fact, is the outline of that portion of the shimmering surface which

[1] [Otherwise spelled "cucuyo," a West Indian firefly.]

an eye takes in. To myriad eyes suitably placed, the whole surface of the pond would be seen to shimmer, or rather it would be seen, as the waves turned up their mirrors, to be covered with those bright flame-like reflections of the moon's disk, like a myriad candles everywhere issuing from the waves; *i. e.* if there were as many eyes as angles presented by the waves, the whole surface would appear as bright as the moon; and these reflections are dispersed in all directions into the atmosphere, flooding it with light. No wonder that water reveals itself so far by night; even further in many states of the atmosphere than by day. I thought at first it [was] some unusual phosphorescence. In some positions these flames were star-like points, brighter than the brightest stars. Suddenly a flame would show itself in a near and dark space, precisely like some inflammable gas on the surface, — as if an inflammable gas made its way up from the bottom.

I heard my old musical, simple-noted owl. The sound of the *dreaming* frogs[1] prevails over the others. Occasionally a bullfrog near me made an obscene noise, a sound like an eructation, near me. I think they must be imbodied eructations. They suggest flatulency.

The pond is higher than ever, so as to hinder fishermen, and I could hardly get to the true shore here on account of the bushes. I pushed out in a boat a little and heard the chopping of the waves under its bow. And on the bottom I saw the moving reflections of the shining waves, faint streaks of light revealing the shadows of the waves or the opaqueness of the water.

[1] [Toads. See p. 250.]

As I climbed the hill again toward my old bean-field, I listened to the ancient, familiar, immortal, dear cricket sound under all others, hearing at first some distinct chirps; but when these ceased I was aware of the general earth-song, which my hearing had not heard, amid which these were only taller flowers in a bed, and I wondered if behind or beneath this there was not some other chant yet more universal. Why do we not hear when this begins in the spring? and when it ceases in the fall? Or is it too gradual?

After I have got into the road I have no thought to record all the way home, — the walk is comparatively barren. The leafy elm sprays seem to droop more by night (??).

June 14. *Saturday.* Full moon last night. Set out on a walk to Conantum at 7 P. M. A serene evening, the sun going down behind clouds, a few white or slightly shaded piles of clouds floating in the eastern sky, but a broad, clear, mellow cope left for the moon to rise into. An evening for poets to describe. Met a man driving home his cow from pasture and stopping to chat with his neighbor; then a boy, who had set down his pail in the road to stone a bird most perseveringly, whom I heard afterward behind me telling his pail to be quiet in a tone of assumed anger, because it squeaked under his arm. As I proceed along the back road I hear the lark still singing in the meadow, and the bobolink, and the gold robin on the elms, and the swallows twittering about the barns. A small bird chasing a crow high in the air, who is going home at night. All nature is in an

expectant attitude. Before Goodwin's house, at the opening of the Sudbury road, the swallows are diving at a tortoise-shell cat, who curvets and frisks rather awkwardly, as if she did not know whether to be scared or not. And now, having proceeded a little way down this road, the sun having buried himself in the low cloud in the west and hung out his crimson curtains,[1] I hear, while sitting by the wall, the sound of the stake-driver at a distance, — like that made by a man pumping in a neighboring farmyard, watering his cattle, or like chopping wood before his door on a frosty morning,[2] and I can imagine like driving a stake in a meadow. The pumper. I immediately went in search of the bird, but, after going a third of a mile, it did not sound much nearer, and the two parts of the sound did not appear to proceed from the same place. What is the peculiarity of these sounds which penetrate so far on the keynote of nature? At last I got near to the brook in the meadow behind Hubbard's wood, but I could not tell if [it] were further or nearer than that. When I got within half a dozen rods of the brook, it ceased, and I heard it no more. I suppose that I scared it. As before I was further off than I thought, so now I was nearer than I thought. It is not easy to understand how so small a creature can make so loud a sound by merely sucking in or throwing out water with pump-like lungs.[3] As

[1] How quietly we entertain the possibility of joy, of recreation, of light into [*sic*] our souls! We should be more excited at the pulling of a tooth.

[2] [*Excursions*, p. 111; Riv. 137.]

[3] [No water is used in producing the sound. Thoreau had been misinformed by one of his neighbors. See *Excursions*, p. 111; Riv. 137.]

yet no moon, but downy piles of cloud scattered here and there in the expectant sky.

Saw a blue flag blossom in the meadow while waiting for the stake-driver.

It was a sound as of gulping water.

Where my path crosses the brook in the meadow there is a singularly sweet scent in the heavy air bathing the brakes, where the brakes grow, — the fragrance of the earth, as if the dew were a distillation of the fragrant essences of nature. When I reach the road, the farmer going home from town invites me to ride in his high-set wagon, not thinking why I walk, nor can I shortly explain. He remarks on the coolness of the weather. The angelica is budded, a handsome luxuriant plant. And now my senses are captivated again by a sweet fragrance as I enter the embowered willow causeway, and I know not if it be from a particular plant or all together, — sweet-scented vernal grass or sweet-briar. Now the sun is fairly gone, I hear the dreaming frog,[1] and the whip-poor-will from some *darker* wood, — it is not far from eight, — and the cuckoo. The song sparrows sing quite briskly among the willows, as if it were spring again, and the blackbird's harsher note resounds over the meadows, and the veery's comes up from the wood. Fishes are dimpling the surface of the river, seizing the insects which alight. A solitary fisherman in his boat inhabits the scene. As I rose the hill beyond the bridge, I found myself in a cool, fragrant, dewy, up-country, mountain morning air, a new region. (When I had issued from the willows on to the bridge,

[1] Toad?

it was like coming out of night into twilight, the river reflected so much light.) The moon was now seen rising over Fair Haven and at the same time reflected in the river, pale and white like a silvery cloud, barred with a cloud, not promising how it will shine anon. Now I meet an acquaintance coming from a remote field in his hay-rigging, with a jag of wood; who reins up to show me how large a woodchuck he has killed, which he found eating his clover. But now he must drive on, for behind comes a boy taking up the whole road with a huge roller drawn by a horse, which goes lumbering and bouncing along, getting out of the way of night, — while the sun has gone the other way, — and making such a noise as if it had the contents of a tinker's shop in its bowels, and rolls the whole road smooth like a newly sown grain-field.

In Conant's orchard I hear the faint cricket-like song of a sparrow saying its vespers, as if it were a link between the cricket and the bird. The robin sings now, though the moon shines silverly, and the veery jingles its trill. I hear the fresh and refreshing sound of falling water, as I have heard it in New Hampshire. It is a sound we do not commonly hear. I see that the whiteweed is in blossom, which, as I had not walked by day for some time, I had not seen before.

How moderate, deliberate, is Nature! How gradually the shades of night gather and deepen, giving man ample leisure to bid farewell to-day, conclude his day's affairs, and prepare for slumber! The twilight seems out of proportion to the length of the day. Perchance it

saves our eyes. Now for some hours the farmers have been getting home.

Since the alarm about mad dogs a couple of years ago there are comparatively few left to bark at the traveller and bay the moon. All nature is abandoned to me.

You feel yourself — your body, your legs, — more at night, for there is less beside to be distinctly known, and hence perhaps you think yourself more tired than you are. I see indistinctly oxen asleep in the fields, silent in majestic slumber, like the sphinx, — statuesque, Egyptian, reclining. What solid rest! How their heads are supported! A sparrow or a cricket makes more noise. From Conant's summit I hear as many as fifteen whip-poor-wills — or whip-or-I-wills — at once, the succeeding cluck sounding strangely foreign, like a hewer at work elsewhere.

The moon is accumulating yellow light and triumphing over the clouds, but still the west is suffused here and there with a slight red tinge, marking the path of the day. Though inexperienced ones might call it night, it is not yet. Dark, heavy clouds lie along the western horizon, exhibiting the forms of animals and men, while the moon is behind a cloud. Why do we detect these forms so readily? — whales or giants reclining, busts of heroes, Michael-Angelic. There is the gallery of statuary, the picture gallery of man, — not a board upon an Italian's head, but these dark figures along the horizon, — the board some Titan carries on his head. What firm and heavy outlines for such soft and light material!

How sweet and encouraging it is to hear the sound of some artificial music from the midst of woods or from the top of a hill at night, borne on the breeze from some distant farmhouse, — the human voice or a flute! That is a civilization one can endure, worth having. I could go about the world listening for the strains of music. Men use this gift but sparingly, methinks. What should we think of a bird which had the gift of song but used it only once in a dozen years, like the tree which blossoms only once in a century?

Now the dorbug comes humming by, the first I have heard this year. In three months it will be the Harvest Moon. I cannot easily believe it. Why not call this the Traveller's Moon? It would be as true to call the last (the May) the Planter's Moon as it is to call September's the Harvest Moon, for the farmers use one about as little as the other. Perhaps this is the Whip-poor-will's Moon. The bullfrog now, which I have not heard before, this evening. It is nearly nine. They are much less common and their note more intermittent than that of the dreamers. I scared up a bird on a *low* bush, perchance on its nest. It is rare that you start them at night from such places.

Peabody says that the nighthawk retires to rest about the time the whip-poor-will begins its song. The whip-poor-will begins now at 7.30. I hear the nighthawk after 9 o'clock. He says it flies low in the evening, but it also flies high, as it must needs do to make the booming sound.

I hear the lowing of cows occasionally, and the barking of dogs. The pond by moonlight, which may make

the object in a walk, suggests little to be said. Where there was only one firefly in a dozen rods, I hastily ran to one which had crawled up to the top of a grass-head and exhibited its light, and instantly another sailed in to it, showing its light also; but my presence made them extinguish their lights. The latter retreated, and the former crawled slowly down the stem. It appeared to me that the first was a female who thus revealed her place to the male, who was also making known his neighborhood as he hovered about, both showing their lights that they might come together. It was like a mistress who had climbed to the turrets of her castle and exhibited there a blazing taper for a signal, while her lover had displayed his light on the plain. If perchance she might have any lovers abroad.

Not much before 10 o'clock does the moonlight night begin. When man is asleep and day fairly forgotten, then is the beauty of moonlight seen over lonely pastures where cattle are silently feeding.[1] Then let me walk in a diversified country, of hill and dale, with heavy woods one side, and copses and scattered trees and bushes enough to give me shadows. Returning, a mist is on the river. The river is taken into the womb of Nature again.

Now is the clover month, but haying is not yet begun.

Evening. — Went to Nawshawtuct by North Branch.

Overtaken by a slight shower. The same increased fragrance from the ground — sweet-fern, etc. — as in the night, and for the like reason probably. The houstonias

[1] [*Excursions*, p. 326 ; Riv. 401.]

still blossom freshly, as I believe they continue to do all summer. The fever-root in blossom; pictured in Bigelow's "Medical Botany." *Triosteum perfoliatum*, near the top of Hill, under the wall, looks somewhat like a milkweed. The *Viburnum dentatum*, very regularly toothed, just ready to blossom; sometimes called arrow-wood.

Nature seems not [to] have designed that man should be much abroad by night, and in the moon proportioned the light fitly. By the faintness and rareness of the light compared with that of the sun, she expresses her intention with regard to him.

June 15. *Sunday.* Darwin still: —

Finds runaway sailors on the Chonos Archipelago, who he thought "had kept a very good reckoning of time," having lost only four days in fifteen months.

Near same place, on the islands of the archipelago, he found wild potato, the tallest four feet high, tubers generally small but one two inches in diameter; "resembled in every respect, and had the same smell as English potatoes; but when boiled they shrunk much, and were watery and insipid, without any bitter taste."

Speaking of the surf on the coast of Chiloe, "I was assured that, after a heavy gale, the roar can be heard at night even at Castro, a distance of no less than twenty-one sea-miles, across a hilly and wooded country."

Subsidence and elevation of the west coast of South America and of the Cordilleras. "Daily it is forced home on the mind of the geologist, that nothing, not

even the wind that blows, is so unstable as the level of the crust of this earth."

Would like to see Sir Francis Head's travels in South America, — Pampas perhaps.[1] Also Chambers' "Sea Levels." Also travels of Spix and Von Martius.

It is said that hydrophobia was first known in South America in 1803.

At the Galapagos, the tortoises going to any place travel night and day and so get there sooner than would be expected, — about eight miles in two or three days. He rode on their backs.

The productions of the Galapagos Archipelago, from five to six hundred miles from America, are still of the American type. "It was most striking to be surrounded by new birds, new reptiles, new shells, new insects, new plants, and yet, by innumerable trifling details of structure, and even by the tones of voice and plumage of the birds, to have the temperate plains of Patagonia, or the hot, dry deserts of Northern Chile, vividly brought before my eyes." What is most singular, not only are the plants, etc., to a great extent peculiar to these islands, but each for the most part has its own kinds, though they are within sight of each other.

Birds so tame that they can be killed with a stick. *I* would suggest that, from having dealt so long with the inoffensive and slow-moulded tortoise, they have not yet acquired an instinctive fear of man, who is a newcomer. Methinks tortoises, lizards, etc., for wild creatures are remarkable for the nearness to which man approaches them and handles them, as logs, — cold-

[1] [*Rough Notes of Journeys in the Pampas and Andes.*]

blooded, lumpish forms of life, — only taking care not to step into their mouths. An alligator has been known to have come out of the mud like a mud volcano where was now the floor of a native's hut.

"The common dock is . . . widely disseminated, [in New Zealand] [1] and will, I fear, forever remain a proof of the rascality of an Englishman, who sold the seeds for those of the tobacco plant."

The New-Hollanders a little higher in the scale of civilization than the Fuegians.

Puzzled by a "well rounded fragment of greenstone, rather larger than a man's head," which a captain had found on a small coral circle or atoll near Keeling Island, "where every other particle of matter is calcareous," about six hundred miles from Sumatra. D. agrees with Kotzebue (*vide* Kotzebue) who states that (Darwin's words) "the inhabitants of the Radack Archipelago, a group of lagoon-islands in the midst of the Pacific, obtained stones for sharpening their instruments by searching the roots of trees which are cast upon the beach," and "laws have been established that such stones belong to the chief, and a punishment is inflicted on any one who attempts to steal them." Let geologists look out. "Some natives carried by Kotzebue to Kamtschatka collected stones to take back to their country."

Found no bottom at 7200 feet, and 2200 yards from shore of Keeling Island, a coral isle.

His theory of the formation of coral isles by the subsidence of the land appears probable. He concludes

[1] [Supplied by Thoreau.]

that "the great continents are, for the most part, rising areas; and . . . the central parts of the great oceans are sinking areas."

Not a *private* person on the island of Ascension; the inhabitants are paid and victualled by the British government. Springs, cisterns, etc., are managed by the same. "Indeed, the whole island may be compared to a huge ship kept in first-rate order."

Vide "Circumnavigation of Globe up to Cook."

Vide "Voyages Round the World since Cook."

The author of the article on Orchids in the *Eclectic* says that "a single plant produced three different flowers of genera previously supposed to be quite distinct."

Saw the first wild rose to-day on the west side of the railroad causeway. The whiteweed has suddenly appeared, and the clover gives whole fields a rich and florid appearance, — the rich red and the sweet-scented white. The fields are blushing with the red species as the western sky at evening. The blue-eyed grass, well named, looks up to heaven. And the yarrow, with its persistent dry stalks and heads, is now ready to blossom again. The dry stems and heads of last year's tansy stand high above the new green leaves.

I sit in the shade of the pines to hear a wood thrush at noon. The ground smells of dry leaves; the heat is oppressive. The bird begins on a low strain, *i. e.* it first delivers a strain on a lower key, then a moment after another a little higher, then another still varied from the others, — no two successive strains alike, but

either ascending or descending. He confines himself to his few notes, in which he is unrivalled, as if his kind had learned this and no more anciently.

I perceive, as formerly, a white froth dripping from the pitch pines, just at the base of the new shoots. It has no taste. The pollywogs in the pond are now full-tailed. The hickory leaves are blackened by a recent frost, which reminds me that this is near their northern limit.

It is remarkable the rapidity with which the grass grows. The 25th of May I walked to the hills in Wayland, and when I returned across lots do not remember that I had much occasion to think of the grass, or to go round any fields to avoid treading on it; but just a week afterward, at Worcester, it was high and waving in the fields, and I was to some extent confined to the road; and the same was the case here. Apparently in one month you get from fields which you can cross without hesitation, to haying time. It has grown you hardly know when, be the weather what it may, sunshine or storm. I start up a solitary woodcock in the shade, in some copse; goes off with a startled, rattling, hurried note.

After walking by night several times I now walk by day, but I am not aware of any crowning advantage in it. I see small objects better, but it does not enlighten me any. The day is more trivial.

What a careful gardener Nature is! She does not let the sun come out suddenly with all his intensity after rain and cloudy weather, but graduates the change to suit the tenderness of plants.

I see the tall crowfoot now in the meadows (*Ranunculus acris*), with a smooth stem. I do not notice the *bulbosus*, which was so common a fortnight ago. The rose-colored flowers of the *Kalmia angustifolia*, lambkill, just opened and opening. The *Convallaria bifolia* growing stale in the woods. The *Hieracium venosum*, veiny-leaved hawkweed, with its yellow blossoms in the woodland path. The *Hypoxis erecta*, yellow Bethlehem-star, where there is a thick, wiry grass in open paths; should be called yellow-eyed grass, methinks. The *Pyrola asarifolia*, with its pagoda-like stem of flowers, *i. e.* broad-leaved wintergreen. The *Trientalis Americana*, like last, in the woods, with its star-like white flower and pointed whorled leaves. The prunella too is in blossom, and the rather delicate *Thesium umbellatum*, a white flower. The Solomon's-seal, with a greenish drooping raceme of flowers at the top, I do not identify.

I notice to-day the same remarkable bushy growth on the fir (in Wheildon's garden) that I have noticed on the pines and cedars. The leaves are not so thickly set and are much stiffer.

I find that I postpone all actual intercourse with my friends to a certain real intercourse which takes place commonly when we are actually at a distance from one another.

June 22. *Sunday.* Is the shrub with yellow blossoms which I found last week near the Lincoln road while surveying for E. Hosmer and thought to be *Xylosteum ciliatum*, or fly honeysuckle, the same

with the yellow diervilla which I find in Laurel Glen to-day?

The birch is the surveyor's tree. It makes the best stakes to look at through the sights of a compass, except when there is snow on the ground. Their white bark was not made in vain. In surveying wood-lots I have frequent occasion to say this is what they were made for.

I see that Dugan has trimmed off and peeled the limbs of the willows on the Turnpike to sell at the Acton powder-mill. I believe they get eight dollars a cord for this wood.

I. Hapgood of Acton got me last Friday to compare the level of his cellar-bottom with his garden, for, as he says, when Robbins & Wetherbee keep the water of Nashoba Brook back so as to flood his garden, it comes into his cellar. I found that part of the garden five inches lower than the cellar-bottom. Men are affected in various ways by the actions of others. If a man far away builds a dam, I have water in my cellar. He said that the water was sometimes a foot deep in the garden.

We are enabled to criticise others only when we are different from, and in a given particular superior to, them ourselves. By our aloofness from men and their affairs we are enabled to overlook and criticise them. There are but few men who stand on the hills by the roadside. I am sane only when I have risen above my common sense, when I do not take the foolish view of things which is commonly taken, when I do not live for the low ends for which men commonly live. Wisdom is not common. To what purpose have I senses, if I

am thus absorbed in affairs? My pulse must beat with Nature. After a hard day's work without a thought, turning my very brain into a mere tool, only in the quiet of evening do I so far recover my senses as to hear the cricket, which in fact has been chirping all day. In my better hours I am conscious of the influx of a serene and unquestionable wisdom which partly unfits, and if I yielded to it more rememberingly would wholly unfit me, for what is called the active business of life, for that furnishes nothing on which the eye of reason can rest. What is that other kind of life to which I am thus continually allured? which alone I love? Is it a life for this world? Can a man feed and clothe himself gloriously who keeps only the truth steadily before him? who calls in no evil to his aid? Are there duties which necessarily interfere with the serene perception of truth? Are our serene moments mere foretastes of heaven, — joys gratuitously vouchsafed to us as a consolation, — or simply a transient realization of what might be the whole tenor of our lives?

To be calm, to be serene! There is the calmness of the lake when there is not a breath of wind; there is the calmness of a stagnant ditch. So is it with us. Sometimes we are clarified and calmed healthily, as we never were before in our lives, not by an opiate, but by some unconscious obedience to the all-just laws, so that we become like a still lake of purest crystal and without an effort our depths are revealed to ourselves. All the world goes by us and is reflected in our deeps. Such clarity! obtained by such pure means! by simple living, by honesty of purpose. We live and

rejoice. I awoke into a music which no one about me heard. Whom shall I thank for it? The luxury of wisdom! the luxury of virtue! Are there any intemperate in these things? I feel my Maker blessing me. To the sane man the world is a musical instrument. The very touch affords an exquisite pleasure.

As I walk the railroad causeway, I notice that the fields and meadows have acquired various tinges as the season advances, the sun gradually using all his paints. There is the rosaceous evening red tinge of red clover, — like an evening sky gone down upon the grass, — the whiteweed tinge, the white clover tinge, which reminds me how sweet it smells. The tall buttercup stars the meadow on another side, telling of the wealth of dairies. The blue-eyed grass, so beautiful near at hand, imparts a kind of slate or clay blue tinge to the meads.

It is hot noon. The white pines are covered with froth at the base of the new shoots, as I noticed the pitch pines were a week ago; as if they perspired. I am threading an open pitch and white pine wood, easily traversed, where the pine-needles redden all the ground, which is as smooth as a carpet. Still the blackberries love to creep over this floor, for it is not many years since this was a blackberry-field. And I hear around me, but never in sight, the many wood thrushes whetting their steel-like notes. Such keen singers! It takes a fiery heat, many dry pine leaves added to the furnace of the sun, to temper their strains! Always they are either rising or falling to a new strain. After what a moderate pause they deliver themselves again! saying ever a new thing, avoiding repetition, methinks answering one

another. While most other birds take their siesta, the wood thrush discharges his song. It is delivered like a bolas, or a piece of jingling steel.

The domestic ox has his horns tipped with brass. This and his shoes are the badges of servitude which he wears; as if he would soon get to jacket and trousers. I am singularly affected when I look over a herd of reclining oxen in their pasture, and find that every one has these brazen balls on his horns. They are partly humanized so. It is not pure brute; there is art added. Where are these balls sold? Who is their maker? The bull has a ring in his nose.

The *Lysimachia quadrifolia* exhibits its small yellow blossoms now in the wood-path. Butter-and-eggs has blossomed. The *Utricularia vulgaris*, or bladderwort, a yellow pea-like flower, has blossomed in stagnant pools.

June 23. It is a pleasant sound to me, the squeaking and the booming of nighthawks flying over high open fields in the woods. They fly like butterflies, not to avoid birds of prey but, apparently, to secure their own insect prey. There is a particular part of the railroad just below the shanty where they may be heard and seen in greatest numbers. But often you must look a long while before you can detect the mote in the sky from which the note proceeds.

The common cinquefoil (*Potentilla simplex*) greets me with its simple and unobtrusive yellow flower in the grass. The *P. argentea*, hoary cinquefoil, also is now in blossom. *P. sarmentosa*, running cinquefoil, we had common enough in the spring.

June 26. *Thursday.* The slight reddish-topped grass (red-top?) now gives a reddish tinge to some fields, like sorrel.

Visited a menagerie this afternoon. I am always surprised to see the same spots and stripes on wild beasts from Africa and Asia and also from South America, — on the Brazilian tiger and the African leopard, — and their general similarity. All these wild animals — lions, tigers, chetas, leopards, etc. — have one hue, — tawny and commonly spotted or striped, — what you may call pard-color, a color and marking which I had not associated with America. These are wild beasts. What constitutes the difference between a wild beast and a tame one? How much more human the one than the other! Growling, scratching, roaring, with whatever beauty and gracefulness, still untamable, this royal Bengal tiger or this leopard. They have the character and the importance of another order of men. The majestic lion, the king of beasts, — he must retain his title.

I was struck by the gem-like, changeable, greenish reflections from the eyes of the grizzly bear, so glassy that you never saw the surface of the eye. They [were] quite demonic. Its claws, though extremely large and long, look weak and made for digging or pawing the earth and leaves. It is unavoidable, the idea of transmigration; not merely a fancy of the poets, but an instinct of the race.

June 29. There is a great deal of white clover this year. In many fields where there has been no clover seed

sown for many years at least, it is more abundant than the red, and the heads are nearly as large. Also pastures which are close cropped, and where I think there was little or no clover last year, are spotted white with a humbler growth. And everywhere, by roadsides, garden borders, etc., even where the sward is trodden hard, the small white heads on short stems are sprinkled everywhere. As this is the season for the swarming of bees, and this clover is very attractive to them, it is probably the more difficult to secure them; at any rate it is the more important to secure their services now that they can make honey so fast. It is an interesting inquiry why this year is so favorable to the growth of clover!

I am interested to observe how old-country methods of farming resources are introduced among us. The Irish laborer, for instance, seeing that his employer is contemplating some agricultural enterprise, as ditching or fencing, suggests some old-country mode with [which] he has been familiar from a boy, which is often found to be cheaper as well as more ornamental than the common; and Patrick is allowed to accomplish the object his own way, and for once exhibits some skill and has not to be shown, but, working with a will as well as with pride, does better than ever in the old country. Even the Irishman exhibits what might be mistaken for a Yankee knack, exercising a merely inbred skill derived from the long teachings and practice of his ancestors.

I saw an Irishman building a bank of sod where his employer had contemplated building a bank wall, piling up very neatly and solidly with his spade and a line the sods taken from the rear, and coping the face at a very small angle from the perpendicular, intermingling the sods with bushes as they came to hand, which would grow and strengthen the whole. It was much more agreeable to the eye, as well as less expensive, than stone would have been, and he thought that it would be equally effective as a fence and no less durable. But it is true only experience will show when the same practice may be followed in this climate and in Ireland, — whether our atmosphere is not too dry to admit of it. At any rate it was wise in the farmer thus to avail himself of any peculiar experience which his hired laborer possessed. That was what he *should* buy.

Also I noticed the other day where one who raises seeds, when his ropes and poles failed, had used ropes twisted of straw to support his plants, — a resource probably suggested and supplied by his foreign laborers. It is only remarkable that so few improvements or resources are or are to be adopted from the Old World.

I look down on rays of prunella by the roadsides now. The panicled or privet andromeda with its fruit-like white flowers. Swamp-pink I see for the first time this season.

The tree-primrose (scabish) [1] (*Œnother biennais*), a rather coarse yellow flower with a long tubular calyx,

[1] [Bigelow, in his *Florula Bostoniensis*, says of this plant, now generally called the evening-primrose, "In the country it is vulgarly known by the name of *Scabish*, a corruption probably of *Scabious*, from which however it is a very different plant." Josselyn gives a quaint description of it under the name of Lysimachus or Loose-strife in his *Two Voyages*, and says it "is taken by the English for Scabious."]

naturalized extensively in Europe. The clasping bell-flower (*Campanula perfoliata*, from the heart-shaped leaves clasping the stalk), an interesting flower.

The *Convolvulus sepium*, large bindweed, make a fresh morning impression as of dews and purity. The adder's-tongue arethusa, a delicate pink flower.

How different is day from day! Yesterday the air was filled with a thick fog-like haze, so that the sun did not once shine with ardor, but everything was so tempered under this thin veil that it was a luxury merely to be outdoors, — you were less out for it. The shadows of the apple trees even early in the afternoon were remarkably distinct. The landscape wore a classical smoothness. Every object was as in [a] picture with a glass over it. I saw some hills on this side the river, looking from Conantum, on which, the grass being of a yellow tinge, though the sun did not shine out on them, they had the appearance of being shone upon peculiarly. It was merely an unusual yellow tint of the grass. The mere surface of water was an object for the eye to linger on.

The panicled cornel, a low shrub, in blossom by wall-sides now.

I thought that one peculiarity of my "Week" was its *hypæthral* character, to use an epithet applied to those Egyptian temples which are open to the heavens above, *under the ether*. I thought that it had little of the atmosphere of the house about it, but might wholly have been written, as in fact it was to a considerable extent, out-of-doors. It was only at a late period in writing it, as it happened, that I used any phrases implying that

I lived in a house or led a *domestic* life. I trust it does not smell [so much] of the study and library, even of the poet's attic, as of the fields and woods; that it is a hypæthral or unroofed book, lying open under the ether and permeated by it, open to all weathers, not easy to be kept on a shelf.

The potatoes are beginning to blossom.

Riding to survey a wood-lot yesterday, I observed that a dog accompanied the wagon. Having tied the horse at the last house and entered the woods, I saw no more of the dog while there; but when riding back to the village, I saw the dog again running by the wagon, and in answer to my inquiry was told that the horse and wagon were hired and that the dog always accompanied the horse. I queried whether it might happen that a dog would accompany the wagon if a strange horse were put into it; whether he would ever attach himself to an inanimate object. Methinks the driver, though a stranger, as it were added intellect to the mere animality of the horse, and the dog, not making very nice distinctions, yielded respect to the horse and equipage as if it were human. If the horse were to trot off alone without a wagon or driver, I think it doubtful if the dog would follow; if with the wagon, then the chances of his following would be increased; but if with a driver, though a stranger, I have found by experience that he would follow.

At a distance in the meadow I hear still, at long intervals, the hurried commencement of the bobolink's strain, the bird just dashing into song, which is as suddenly checked, as it were, by the warder of the

seasons, and the strain is left incomplete forever. Like human beings they are inspired to sing only for a short season.[1]

That little roadside pea-like-blossomed blue flower [2] is interesting to me. The mulleins are just blossoming.

The voice of the crickets, heard at noon from deep in the grass, allies day to night. It is unaffected by sun and moon. It is a midnight sound heard at noon, a midday sound heard at midnight.

I observed some mulleins growing on the western slope of the sandy railroad embankment, in as warm a place as can easily be found, where the heat was reflected from the sand oppressively at 3 o'clock P. M. this hot day; yet the green and living leaves felt rather cool than otherwise to the hand, but the dead ones at the root were quite warm. The living plant thus preserves a cool temperature in the hottest exposure, as if it kept a cellar below, from which cooling liquors were drawn up.

Yarrow is now in full bloom, and elder, and a small many-headed white daisy like a small whiteweed. The epilobium, too, is out.

The night-warbler sings the same strain at noon. The song sparrow still occasionally reminds me of spring.

I observe that the high water in the ponds, which have been rising for a year, has killed most of the pitch pines and alders which it had planted and merely watered at its edge during the years of dryness. But now it comes to undo its own work.

[1] I have since heard some complete strains. [2] Pale lobelia.

How awful is the least unquestionable meanness, when we cannot deny that we have been guilty of it. There seem to be no bounds to our unworthiness.

June 30. Haying has commenced. I see the farmers in distant fields cocking their hay now at six o'clock. The day has been so oppressively warm that some workmen have lain by at noon, and the haymakers are mowing now in the early twilight.

The blue flag (*Iris versicolor*) enlivens the meadow. The lark sings at sundown off in the meadow. It is a note which belongs to a New England summer evening. Though so late, I hear the summer hum of a bee in the grass, as I am on my way to the river behind Hubbard's to bathe. After hoeing in a dusty garden all this warm afternoon, — so warm that the baker says he never knew the like and expects to find his horses dead in the stable when he gets home, — it is very grateful to wend one's way at evening to some pure and cool stream and bathe therein.

The cranberry is now in blossom. Their fresh shoots have run a foot or two over the surface.

I have noticed an abundance of poison sumach this season. It is now in blossom. In some instances it has the size and form of a healthy peach tree.

The cuckoo is faintly heard from a neighboring grove. Now that it is beginning to be dark, as I am crossing a pasture I hear a happy, cricket-like, shrill little lay from a sparrow, either in the grass or else on that distant tree, as if it were the vibrations of a watch-spring; its vespers. The tree-primrose, which was so abundant

in one field last Saturday, is now all gone. The cattle on Bear Garden Hill, seen through the twilight, look monstrously large. I find abounding in the meadows the adder's-tongue arethusa and occasionally with it the *Cymbidium tuberosum* of the same tint. The obtuse galium is a delicate vine-like plant with a minute white blossom in the same places. The St. John's-wort has blossomed. The *Œnothera pumila*, or dwarf tree-primrose, a neat yellow flower, abounds in the meadows; which the careless would mistake at a distance for buttercups. The white buds of the clethra (alder-leaved) rise above their recent shoots. The narrow-leaved cotton-grass spots the meadow with white, seeming like loose down, its stems are so slight. The carrot growing wild which I observed by the railroad is now blossoming, with its dishing blossom. I found by the railroad, a quarter of a mile from the road, some common garden catch-fly, the pink flower, growing wild. Angelica is now in blossom, with its large umbels. Swamp rose, fugacious-petalled. The prinos, or winterberry, budded, with white clustered berry-like flower-buds, is a pretty contrast to itself in the winter, — wax-like. While bathing I plucked the common floating plant like a small yellow lily, the yellow water ranunculus (*R. multifidus*). What I suppose is the *Aster miser*, small-flowered aster, like a small many-headed whiteweed, has now for a week been in bloom; a humble weed, but one of the earliest of the asters.[1] The umbelled thesium, a simple white flower, on the

[1] [Evidently not *Aster miser*, or, as it is now called *A. lateriflorus*, which flowers much later in the season.]

edge of the woods. *Erysimum officinale*, hedge mustard, with its yellow flowers.

I first observed about ten days ago that the fresh shoots of the fir balsam (*Abies balsamifera*), found under the tree wilted, or plucked and kept in the pocket or in the house a few days, emit the fragrance of strawberries, only it is somewhat more aromatic and spicy. It was to me a very remarkable fragrance to be emitted by a pine. A very rich, delicious, aromatic, spicy fragrance, which if the fresh and living shoots emitted, they would be still more to be sought after.

Saw a brood of young partridges yesterday, a little larger than robins.