IX

NOVEMBER, 1853

(ÆT. 36)

Nov. 1. 6.30 A. M. — To Hubbard's Bridge to see the gossamer.

As I go up the back road (the sun rises about this hour), I am struck with [the] general stillness as far as birds are concerned. There is now no loud, cheerful effervescing with song as in the spring. Most are gone. I only hear some crows toward the woods. The road and ruts are all frosted and stiff, and the grass and clover leaves. At Swamp Bridge, I see crystals of ice six feet long, like very narrow and sharp spears, or like great window-sashes without glass between them, floating on the water. I see yarrow, autumnal dandelion, and I suppose that is turnip so freshly in flower in Hubbard's field. Now that the sun is fairly risen, I see and hear a flock of larks in Wheeler's meadow on left of the Corner road, singing exactly as in spring and twittering also, but rather faintly or suppressedly, as if their throats had grown up or their courage were less. The white birch seeds begin to fall and leave the core bare. I now hear a robin, and see and hear some noisy and restless jays, and a song sparrow chips faintly; and here on the willows is a little warbler (?), with a narrow, sharp bill and a forked tail, uttering a dry chip from time to time, and, I suspect,

picking up those little spiders which I saw yesterday, which spin this gossamer.

The gossamer does not show well against this sun. There is none now streaming from the bridge or across the causeway after this frosty night; only that which was firmly fastened and comparatively short remains still on the trees and bushes. The railing is covered with frost, and I see no spiders out. Plainly the best hour to observe this phenomenon is mid-afternoon or later, when the spiders are full of activity and the sun is in the most favorable position.

But yesterday, on the willows, it was a woof, without warp, of the finest conceivable texture, as it were made to strain the air and light, - catch all the grossness of the declining year and leave us the clear, strained November air, — fall-strained. I saw no insects caught in it. As if every prominence in every twig were connected with corresponding ones in every other by a fine line, entangling the rays of light, really catching and reflecting the light alone for all prey that I could see. Or is it a despairing effort? Now that the air is so cool and clear and free of insects, what possesses these little creatures to toil and spin so? Thus Nature gathers up her trail, and finely concludes. One six feet long, and invisible but in one position, in that was seen to stream or wave and flap a foot up and down while the light flashed along it, like a ribbon blown by the wind. You could even take hold of the end and hold it still. And the number of them was beyond conception. No industry is vain, and this must have a reason. It must be a perfect day that allows of so

fine a display. Any rain or a high wind and, I suspect, whatever makes a disagreeable day, would hinder it.

As I return, I notice crows flying southwesterly in a very long straggling flock, of which I see probably neither end. Λ small flock of red-wings singing as in spring.

P. M. — Went after pink azaleas and walnuts by boat.

Saw three of those birds (of which I saw one first on the 30th October) on the water's edge on the meadow, like the telltale. They must be either sandpipers, telltales (not the greater or lesser), or plovers (?). Or may they be the turnstone? They went off each time with a chuckling, not whistling, note. Λ rise of the river like this brings us new birds at once, apparently from the seaside. This locality is somewhat peculiar in this respect, that when our broad meadows are flooded, several new species of birds are added to our ordinary list. They are not so large as the other tattler I see, nor as a woodcock, quite.

It is a pleasant day but breezy, and now I can hardly detect any gossamer left on the willows. This wind, perchance, shaking the willows and the reeds, - shaking and bending their masts, — strains and breaks this fine cordage, and, moreover, the spiders cannot well walk on the surface of the water now. So, it would seem, it must not only be a perfectly fair Indian-summer day, but quite calm and the water smooth, to permit of this wonderful display, and, perchance, after one of those remarkable and memorable mornings when the air is peculiarly clear and resonant and that white vapor as of frost-steam hangs over the earth, — after a clear, cool, calm Indian-summer morning in November. And must it not always follow the fall of the leaf, when there is least motion to the twigs? The short time in which it must be produced, and for which it endures, is remarkable.

GATHERING PIGNUTS

As I paddle under the Leaning Hemlocks, the breeze rustles the boughs, and showers of their fresh winged seeds come wafted down to the water and are carried round and onward in the great eddy there.

Gathered five or six quarts of walnuts, -- pignuts, -partly by clubbing the trees, thinking they might furnish entertainment some evening the coming winter. Not more than half are out of the shells, but it is pleasant shelling them to have one's fingers scented with their fine aroma. The red squirrel reproves the while. It is not true, as I noticed to-day, that squirrels never gnaw an imperfect and worthless nut. Many years ago I came here nutting with some boys who came to school to me; one of them climbed daringly to the top of a tall walnut to shake. He had got the nickname of Buster for similar exploits, so that some thought he was christened so. It was a true Indian name, earned for once.

A striped squirrel out yet.

While getting the azaleas, I notice the shad-bush conspicuously leafing out. Those long, narrow, pointed buds, prepared for next spring, have anticipated their time. I noticed something similar when surveying the Hunt woodlot last winter. Remember in this connection

that at one period last spring this bud appeared the most forward.

About three weeks ago my indignation was roused by hearing that one of my townsmen, notorious for meanness, was endeavoring to get and keep a premium of four dollars which a poor Irish laborer whom he hired had gained by fifteen minutes' spading at our Agricultural Fair. To-night a free colored woman is lodging at our house, whose errand to the North is to get money to buy her husband, who is a slave to one Moore in Norfolk, Virginia. She persuaded Moore, though not a kind master, to buy him that he might not be sold further South. Moore paid six hundred dollars for him, but asks her eight hundred. My most natural reflection was that he was even meaner than my townsman. As mean as a slaveholder!

Nov. 2. What is Nature unless there is an eventful human life passing within her? Many joys and many sorrows are the lights and shadows in which she shows most beautiful.

P. M. — To Walden and Flint's.

What are those sparrows in loose flocks which I have seen two or three weeks, — some this afternoon on the railroad causeway, — with small heads and rather long necks in proportion to body, which is longish and slender, yellowish-white or olivaceous breast, striped with dark, ashy sides of neck, whitish over and beneath the eye, and some white observed in tail when they fly? I think a dark bill and legs. They utter a peculiar note, not heard here at other seasons, somewhat like

the linarias, a sort of shuffling or chuckling tehe-tche-tche-tche, quickly uttered. Can they be the grass-bird? They resemble it in marking. They are much larger than the tree sparrows. Methinks it [is] a very common fall bird.¹

C. says he saw succory yesterday, and a loon on the pond the 30th ult. The prinos berries are almost gone. I am somewhat surprised to find that the Aster undulatus at Walden is killed by the frost; only one low and obscure one has any flowers left. Therefore, though it is the latest aster that is abundant, I am not sure that it lasts absolutely longer than the A. puniceus, or even Tradescanti. I see no other flowers on the Peak. Poke berries there are still partly green, partly ripe, as usual. The leaves of the umbelled pyrola are as glossy as in the spring, which proves that they do not owe their glossiness in the spring to the influence of that season. Two ducks on Walden. The Canada snapdragon is still fresh and in flower by roadside near pond, and a sprig from root of Solidago nemoralis.

I gather some fine large pignuts by the wall (near the beech trees) on Baker's land. It is just the time to get these, and this seems to be quite early enough for most pignuts. I find that there have been plenty of beechnuts, and there are still some empty burs on the trees and many nuts on the ground, but I cannot find one with meat in it. The beech leaves have all fallen except some about the lower part of the trees, and they make a fine thick bed on the ground. They are very beautiful, firm, and perfect leaves, unspotted

¹ [Titlarks, perhaps.]

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and not eaten by insects, of a handsome, clear leathercolor, like a book bound in calf. Crisp and elastic; no wonder they make beds of them. Of a clear [space left in manuscript] or leather-color, more or less dark and remarkably free from stains and imperfections. They cover the ground so perfectly and cleanly as to tempt you to recline on it and admire the beauty of their smooth boles from that position, covered with lichens of various colors—green, etc.—which you think you never see elsewhere. They impress you as full of health and vigor, so that their bark can hardly contain their spirits but lies in folds or wrinkles about their ankles like a sock, with the embonpoint of infancy, wrinkles of fat.1

The pollen [sic] of the Lycopodium dendroideum falls in showers or in clouds when my foot strikes it. How long? The witch-hazel appears to be nearly out of bloom, most of the flowers withering or frost-bitten. The shrub oak cups which I notice to-day have lost their acorns. I examined a squirrel's nest in a tree which suggested to me (it having a foundation of twigs, coarse basketwork; above, shreds or fibres of bark and a few leaves) that perchance the squirrel, like the mouse, sometimes used a deserted bird's nest, - a crow's or hawk's. A red-tailed hawk.

Among the buds, etc., etc., to be noticed now, remember the alder and birch catkins, so large and conspicuous, -- on the alder, pretty red catkins dangling in bunches of three or four, — the minute red buds of the panicled andromeda, the roundish plump ones

¹ [Channing, p. 290.]

of the common hazel, the longish sharp ones of the witch-hazel, etc.

AUTUMN TWILIGHT

The sun sets. We come home in the autumn twilight, which lasts long and is remarkably light, the air being purer, - clear white light, which penetrates the woods, — is seen through the woods, — the leaves being gone. When the sun is set, there is no sudden contrast, no deep darkening, but a clear, strong white light still prevails, and the west finally glows with a generally diffused and moderate saffron-golden (?). Coming home by boat the other evening, I smelled a traveller's pipe very strongly a third of a mile distant. He was crossing Wood's Bridge. The evening star is now very bright; and is that Jupiter near it?

I might put by themselves the November flowers, - flowers which survive severe frosts and the fall of the leaf. I see hedge-mustard very fresh.

Those plants which are earliest in the spring have already made the most conspicuous preparation for that season. The skunk-cabbage spathes have started, the alder catkins, as I have said, hazel, etc.; and is there anything in the double scales of the maples, the prominent scales of willow and other catkins, sometimes burst (?)? Λ part of the lambkill is turned dull-reddish.

The last two, this and yesterday, fine days, but not gossamer ones.

Nov. 3. 6.30 A. M. — To Swamp Bridge Brook by river.

Considerable thin mist, high as two houses.

Just as the sun is rising, many undoubtedly of the same white-in-tail sparrows described four pages back are flying high over my head west and northwest, above the thin mist, perchance to where they see the sun on the wood-side; with that peculiar shelly note. I think it was the 27th October I saw a goldfinch. There are two or three tree sparrows flitting and hopping along amid the alders and willows, with their fine silvery tchip, unlike the dry loud chip of the song sparrow.

The Aster puniceus by brook is still common, though the worse for the wear, - low and more recent ones, - so that this, though a week ago it was less prevalent, must be set down as later than the A. undulatus. It bears the frosts much better, though it has been exposed to more severe ones from its position. And with this must be included that smooth and narrowerleaved kind, in other respects the same, one of which, at least, I think I have called A. longifolius. They seem to run into each other. I am inclined to think it a smoother A. longifolius.

Now is the time to observe the radical leaves of many plants, which put forth with springlike vigor and are so unlike the others with which we are familiar that



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it is sometimes difficult to identify them. What is that large circular green and reddish one, flat in the grass of upland which I have seen for a fortnight? 1

I love to see a man occasionally from whom the usnea

will hang as naturally as from a spruce. Cultivation exterminates the pine, but preserves the elm. Our frontyard evergreens are puny and trimmed up.

Heard a bluebird about a week ago.

There are very few phenomena which can be described indifferently as occurring at different seasons of the year, for they will occur with some essential difference.

P. M. — To Ministerial Swamp.

A warm westerly wind, the sky concealed and a storm gathering. A sober, cloudy afternoon. To-day I see yarrow, very bright; red clover; autumnal dandelion; the silvery potentilla, and one Canadensis and the Norvegica; and a dandelion; Veronica arvensis; and gnawel; one Aster lavis (!) by the Hosmer Ditch; and, to my surprise, that solidago of September 11th, still showing some fresh yellow petals and a very fresh stem and leaves. It must be later than the speciosa, and this makes me doubt if it can be the *stricta*. It has a very angled stem and erect narrow pyramidal corymb. Also S. nemoralis by roadside. This, though it was not so prevalent as the S. casia three weeks ago, is still to be seen, while I have not seen the other for some days. It may outlast it, as the A. puniceus does the Λ . undulatus, though, by the way, I saw a very fresh Λ . undulatus this afternoon. I hear a few crickets and locusts (?) and see a very small brown beetle. The thistle radical leaves and fragrant everlasting not to be forgotten. Perhaps I have made the everlastings too late! A small gyrinus in Nut Meadow Brook.

¹ It is the great primrose. There are none (but by chance) about the base of this year's stalks, i. e. perhaps unless there is an offshoot.

Nov. 5. P. M. — To Hubbard Bathing-Place for shrubs.

MUSKRAT-CABINS

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Most of the muskrat-cabins were lately covered by the flood, but now that it has gone down in a great measure, leaving the cranberries stranded amid the wreck of rushes, reeds, grass, etc., I notice that they have not been washed away or much injured, as a heap of manure would have been, they are so artificially constructed. Moreover, for the most part they are protected, as well as concealed, by the button-bushes, willows, or weeds about them. What exactly are they for? This is not their breeding season. I think that they are merely an artificial bank, an air-chamber near the water, houses of refuge. But why do they need them more at this season than in the summer, it may be asked. Perhaps they are constructed just before the rise of the water in the fall and winter, so that they may not have to swim so far as the flood would require in order to eat their clams.

I heard some pleasant notes from tree sparrows on the willows as I paddled by. The buds of the rhodora are among the more conspicuous now, and yet more its seed-vessels, many if not most of which are not yet dry, but purplish.

Nov. 6. Sunday. 2.30 P. M. — To Lee's Cliff.

I saw yesterday for a moment by the river a small olivaceous-yellow bird; possibly a goldfinch, but I think too yellow. I see *some* gossamer on the causeway this afternoon, though it is very windy; but it requires such a day as October 31st. It is remarkable how little

Since the change and fall of the leaf a remarkable prominence is given to the evergreens; their limits are more distinctly defined as you look at distant woods, since the leaves of deciduous trees ceased to be green and fell. Very small pollywogs in pools, one and a half or two inches long. I see many white pine cones fallen and open, with a few seeds still in them. The cones of the spruce are nearly empty, hanging downward; ¹ those of the larch are also open, but, being upright, appear to have a few more seeds in them.

I make it my business to extract from Nature whatever nutriment she can furnish me, though at the risk of endless iteration. I milk the sky and the earth.

The potamogeton seeds in Nut Meadow Brook have partly left the stem.

I hear the sound of the woodchopper's axe.

Nov. 4. P. M. — To Hubbard's Close.

I find no traces of the fringed gentian there, so that in low meadows I suspect it does not last very late. Hear a nuthatch. The fertile catkins of the yellow birch appear to be in the same state with those of the white, and their scales are also shaped like birds, but

much larger. The great osmundas in Hubbard's Swamp have universally lost their leafets, except perhaps one or two small crisped brown ones at the extremity, and the bare midribs

alone are left. They look thin and Novemberish.

¹ Probably old ones.

we attend to what is passing before us constantly, unless our genius directs our attention that way. There are these little sparrows with white in tail, perhaps the prevailing bird of late, which have flitted before me so many falls and springs, and yet they have been as it were strangers to me, and I have not inquired whence they came or whither they were going, or what their habits were. It is surprising how little most of us are contented to know about the sparrows which drift about in the air before us just before the first snows. I hear the downy woodpecker's metallic tchip or peep. Now I see where many a bird builded last spring or summer. These are leaves which do not fall. How similar in the main the nests of birds and squirrels and mice! I am not absolutely certain that the mice do not make the whole nest in a bush sometimes, instead of building on a bird's nest. There is in the squirrel in this respect an approach to the bird, and, beside, one of his family is partially winged. Here, too, is a sort of link between quadrupeds and birds. I perceive that the starting of the amelanchier buds is a very common phenomenon, this fall at least, and when partially unfolded they are frost-bitten. See a few robins.

Climbed the wooded hill by Holden's spruce swamp and got a novel view of the river and Fair Haven Bay through the almost leafless woods. How much handsomer a river or lake such as ours, seen thus through a foreground of scattered or else partially leafless trees, though at a considerable distance this side of it, especially if the water is open, without wooded shores or isles! It is the most perfect and beautiful of all frames, which yet the sketcher is commonly careful to brush aside. I mean a pretty thick foreground, a view of the distant water through the near forest, through a thousand little vistas, as we are rushing toward the former, — that intimate mingling of wood and water which excites an expectation which the near and open view rarely realizes. We prefer that some part be concealed, which our imagination may navigate.

Still the Canada snapdragon, yarrow, autumnal dandelion, tansy, shepherd's-purse, silvery cinquefoil, witch-hazel. The sweet-briar hips are abundant and fresh, a dozen sometimes crowded in a space of two inches square. Their form is a handsome oval with a flat apex. Is it not somewhat like an olive-jar? The hips hold on, then, though the haws have fallen, and the prinos, too, for the most part. There are also some fragrant and green leaves left. These are about the prettiest red berries that we have.

Gathered some of those fine large mocker-nut (?) hickory nuts, which are now in their prime (Carya tomentosa?). I perceived a faint sweetness in the dry, crisp leaves on the ground (there were some also on the tree), and I perceive that Emerson speaks of their resinous-scented leaves.

The witch-hazel spray is peculiar and interesting, with little knubs at short intervals, zigzag, crinkle-crankle. How happens it? Did the leaves grow so close? The bud is long against the stem, with a neck to it. The fever-bush

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has small roundish buds, two or three commonly together, probably the blossom-buds. The rhodora buds are purplish, as well as the not yet dry seed-vessels, smaller but somewhat like the swamp-pink. The alternate cornel, small, very dark reddish buds, on forking, smooth, slender twigs at long intervals. The panicled andromeda, minute pointed red buds, hugging the curving stems. The plump, roundish, club-shaped, well-protected buds of the alders, and rich purplish or mulberry catkins, three, four, or five together. The red maple buds, showing three or more sets of scales. The remarkable roundish, plump red buds of the high

> blueberry. The four-sided, long (five eighths of an inch), spear-head-shaped buds of the Viburnum Lentago, at the end of forked twigs, probably blossom-buds, with minute leaf-buds

lower on sides of twigs. Some sallow buds already burst their scales and show the woolly catkins, reddish at base. Little brownish, scale-like buds on the ends of the red cedar leaves or leafets (branchlets), probably male blossom-buds. The creeping juniper berries are yet green, with three white, swelling lips at apex and very minute buds in the axils of the leaves.

I am struck with the variety in the form and size of the walnuts in shells, - some with a slight neck and slightly club-shaped perhaps the most common; some much longer, nearly twice as long as wide; some, like the mocker-nut, slightly depressed or rather flattened above: some pignuts very large and regularly obovate, an inch and a quarter in diameter.

A sweet-briar hip; but most are more regular jar-shape.

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Nov. 7. 6.15 A. M. — To Cliffs.

A clear, cold, as well as frosty, morning. I have to walk with my hands in my pockets. Hear a faint chip, probably from a tree sparrow, which I do not see in the garden.

THE FROST ON THE CISTUS

I find the cistus or frostweed, abundantly surrounded with crystals by the Spring Path. How long? And also by the wall this side the orchard on Fair Haven the ground is spotted with it,—like little pouches [?] or fingers full of purest white cotton, tucked about the bases of their stems. These crystals are low in the withered grass, close to the ground, and fast attached to the stems, as if they grew so. They extend about an inch upward, and are from one half to one inch wide. I saw them on no other plants, and not on all

the cistuses. Those which had them had their bark invariably split up a short distance at the base and thrown off, as if forced up by the frost, and the crystals were close beneath this, adhering both to stem and bark.

others were sound in this respect. It appeared as if they were a vapor which had curled up from the root and clung about the stem in the night, frozen as it ascended, — shell-like, dimpled crystals, the frozen shells of vaporous whirlpools in the air. The stems were dead, with their seed-vessels and seeds still atop, though perhaps there was a little moisture or sap in them close to the ground; and directly beneath in the earth was a little reddish-green shoot, already started, ready to 482

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burst up in the spring. Oftenest it appeared as if two curls of vapor from different sides of the stem had united and frozen together at their extremities, forming little white, sugar-like horns, open upward and down-

ward, or the of the bark of about the base looking thus: on close incrystals had the appearance the willow-herb, cracked of the stem. A section These were very beautiful spection, like the finest im-

aginable white silk or glass, floss-like, of the finest staple, or like asbestos of a very fine and loose grain. It is not a particularly frosty morning. Whence does this vapor come from? The cistus has thus not only its second flowering, but its third frost flowering. Will it form again about the same stem, the bark being rent? It is a sort of incense offering in behalf of the young shoot ready to spring.

The notes of one or two small birds, this cold morning, in the now comparatively leafless woods, sound like a nail dropped on an anvil, or a glass pendant tinkling against its neighbor.

The sun now rises far southward. I see westward the earliest sunlight on the reddish oak leaves and the pines. The former appear to get more than their share. How soon the sun gets above the hills, as if he would accomplish his whole diurnal journey in a few hours at this rate! But it is a long way round, and these are nothing to the hill of heaven. Whether we are idle or industrious, the sun is constantly travelling through the sky, consuming are after arc of this great circle at this same rapid pace.

Nightshade berries still in water or over it. Great straggling flocks of crows still flying westerly.

P. M. — To Conantum by boat, nutting.

October 31st, when the river was at its height after the rains of the 24th and 28th, our first fall flood, the wreck of the river and meadow with an unusual quantity of cranberries was washed up, and is now left high and dry, forming the first water-mark of the season, an endless meandering light-brown line, further from or nearer to the river. It is now very fresh, and it is comparatively easy to distinguish the materials which compose it. But I love to see it even in midsummer, the old water-line of the last year, far away from the edge of the shrunken stream, in some meadow, perchance in the woods, reminding me of the floods and the windy days of the fall and spring, of ducks and geese and gulls, of the raw and gusty days which I have spent on the then wilderness of water, of the origin of things, as it were, when water was a prevailing element. The flood comes and takes all the summer's waste, all that lies loose, from the riverside and meadows and floats it, not to ocean, but as far toward the upland as the water reaches; there it plants again and again the seeds of fluviatile shrubs and trees and flowers. A new line of wreckage is formed every year. I looked this afternoon to see what it was composed of. Where I looked the most prominent part was different lengths of a large three-sided cellular reed (?), perchance the Sparganium ramosum (?), for ¹ Though Gray says its leaves are one to two feet high, I saw some

the most part faded, but some still a little juicy, pieces of rushes and eel-grass, and cranberry leaves which the rake has torn off with cranberries, I believe some flags, wool-grass and various sedges, pads, potamogeton, water ranunculus, and various other weeds of the riverside and meadows, the radical leaves (?) of heartleaf very delicate and transparent (but this is more conspicuous, at least, still floating in water along the edge); and there was a quantity of what looked like the stems of buttonwood leaves, which I now suspect were polygonum stems. There was not much, if any, pontederia where I looked, for that, though long dead, still holds to the bottom. More of this in other places, however; also small flat shells? 1 6

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I perceive, when I look, that some of the most enduring of the river weeds are the Polygonum hydropiperoides (one still in bloom), which stand withered still above the flood, and also wool-grass, and the Scirpus lacustris and Juneus militaris, both curved downward But in other places, less open, there is an abundance of sere meadow-grasses standing. The seeds of the sweet flag are now coming off by degrees, like coarse chaff.

Under the warm south side of Bittern Cliff, where I moor my boat, I hear one cricket singing loudly and undauntedly still, in the warm rock-side.

I shook two mocker-nut trees; one just ready to drop its nuts, and most came out of the shells. But the other tree was not ready; only a part fell, and those mostly in the shells. This is the time for our best walnuts; the smallest, say the last of October. Got a peck and a half shelled. I did not wish to slight any of Nature's gifts. I am partial to the peculiar and wholesome sweetness of a nut, and I think that some time is profitably spent every autumn in gathering even such as our pignuts. Some of them are a very sizable, richlooking, and palatable fruit. How can we expect to understand Nature unless we accept like children these her smallest gifts, valuing them more as her gifts than for their intrinsic value? I love to get my basket full, however small and comparatively worthless the nut. It takes very severe frosts, and sun and wind thereafter, to kill and open the shells so that the nuts will drop out. Many hold on all winter. I climbed to the tops of the trees, and then found that shaking would not do, only jarring the limbs with my feet. It is remarkable how these nuts are protected, some with an outer shell about a quarter of an inch thick, and an inner nearly as thick as the other, and when cracked open the meat is still hard to extract. I noticed, however, that the nuts on one tree, the second, notwithstanding these thick shells, were now full of fine cracks, as if, now that they were ripe, they had made themselves ready to be cracked by man or squirrels or the frost. They really crack much easier. It is a hard, tough tree, whose fruit is stones, fit to have been the food of man in the iron age. I should like to see a man whose diet was berries and nuts alone. Yet I would not rob the squirrels, who, before any man, are the true owners. I am pretty sure I heard a striped

of this, still greenish, in the water where I keep my boat, six feet high! It lasts longer than flags, which it resembles.

¹ Vide Nov. 8.

squirrel in the wall near me, as if he blowed a short blast on a dry leaf. They will not be in a hurry to go into winter quarters until they have laid up some of these nuts.

The shallow pools in woods were skimmed over this morning, and there was a little ice along the riverside, which can still be detected at sundown. Three bluebirds still braving the cold winds, — Acton Blues, not gone into winter quarters. Their blue uniform makes me think of soldiers who have received orders to keep the field and not go into winter quarters.

A muskrat-house on the top of a rock, too thin round the sides for a passage beneath, yet a small cavity at top, which makes me think that they use them merely as a sheltered perch above water. They seize thus many cores to build on, as a hummock left by the ice. (Red clover.) The wads of which this muskrathouse was composed were about six inches by four, rounded and massed at one end, flaking off at the other, and were composed chiefly of a *little* green (for the most part withered dark-brown) moss-like weed, and had the strong odor of the fresh-water sponge and conferva.

Nov. 8. Mayweed and shepherd's-purse.

10 a. m.—Our first snow, the wind southerly, the air chilly and moist; a very fine snow, looking like a mist toward the woods or horizon, which at 2 o'clock has not whitened the ground. The children greet it with a shout when they come out at recess.

P. M. - To riverside as far down as near Peter's,

to look at the water-line before the snow covers it. By Merrick's pasture it is mainly a fine, still more or less green, thread-like weed or grass of the river bottom (?), sedges, utricularias (that coarse one especially, whose name I am not sure of, with tassels (?)), yellow water ranunculus, potamogeton's translucent leaves, a few flags and pontederia stems. By Peter's there was much of that coarse triangular cellular stem mentioned yesterday as sparganium (?). I would not have thought it so common. There is not so much meadow grass or hay as I expected, for that has been raked and carried off. The pads, too, have wasted away and the pontederias' leaves, and the stems of the last for the most part still adhere to the bottom.

Three larks rise from the sere grass on Minott's Hill before me, the white of their outer tail-feathers very conspicuous, reminding me of arctic snowbirds by their size and form also. The snow begins to whiten the plowed ground now, but it has not overcome the russet of the grass ground. Birds generally wear the russet dress of nature at this season. They have their fall no less than the plants; the bright tints depart from their foliage or feathers, and they flit past like withered leaves in rustling flocks. The sparrow is a withered leaf.²

The Stellaria media still blooms in Cheney's garden, and the shepherd's[-purse] looks even fresher. This must be near the end of the flower season. Perchance I heard the last cricket of the season yesterday. They chirp here and there at longer and longer intervals, till

¹ Utricularia vulgaris?

² [Channing, p. 105.]

the snow quenches their song. And the last striped squirrel, too, perchance, yesterday. They, then, do not go into winter quarters till the ground is covered with snow.

The partridges go off with a whir, and then sail a long way level and low through the woods with that impetus they have got, displaying their neat forms perfectly.

The yellow larch leaves still hold on, — later than those of any of our pines.

I noticed the other day a great tangled and netted mass of an old white pine root lying upon the surface, nearly a rod across and two feet or more high, too large even to be turned up for a fence. It suggested that the roots of trees would be an interesting study. There are the small thickly interwoven roots of the swamp white oaks on the Assabet.

At evening the snow turned to rain, and the sugaring soon disappeared.

Nov. 9. High wind and rain in the night. Still more strong and gusty but remarkably warm southwest wind during the day.

P. M. — To Fair Haven Hill by boat with W. E. C. We rowed against a very powerful wind, sometimes scarcely making any headway. It was with difficulty often that we moved our paddles through the air for a new stroke. As C. said, it seemed to blow out of a hole. We had to turn our oars edgewise to it. But we worked our way slowly upward, nevertheless, for we came to feel and hear it blow and see the waves run. There was quite a sea running on the lee shore, - broad black waves with white crests, which made our boat toss very pleasantly. They wet the piers of the railroad bridge for eighteen inches up. I should guess that the whole height from the valley between to the top of a wave was nearer fifteen inches.

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The muskrats have added a new story to their houses since the last flood which covered them; I mean that of October 31st and thereabouts. They are uncommonly high, methinks, full four feet by five or more in diameter, a heaping ox-cart load. There are at least eight such within half a mile from Clamshell Hill to Hubbard's Wood. It is remarkable how little effect the waves have on them, while a heap of manure or a haycock would be washed away or undermined at once. I opened one. It was composed of coarse grass, pontederia stems, etc., etc., not altogether in mouthfuls. This was three feet and a half above water, others quite four. After taking off a foot I came to the chamber. It was a regularly formed oval or elliptical chamber, about eighteen inches the longest way and seven or eight inches deep, shaped like a pebble, with smooth walls of the weeds, and bottomed or bedded with a very little drier grass, a mere coating of it. It would hold four or five, closely packed. The entrance, eight or nine inches wide, led directly from this to the water at an angle of 45°, and in the water there I saw some green and white stub ends of pontederia (?) stems, I think, looking like flagroot. That thick wall, a foot quite or more above and eighteen inches or two feet around, being of these damp mate-

rials, soon freezes and makes a tight and warm house. The walls are of such [thickness at] the bottom that the water in the gallery probably never freezes. If the height of these houses is any sign of high or low water, this winter it will be uncommonly high.

Soon after, we saw a mink swimming in the agitated water close to the shore, east side, above Nut Meadow Brook. It showed the whole top of the back and part of the tail, unlike the muskrat, and did not dive. Stopped a moment when we headed toward it, and held up its head at the end of its long neck toward us, reminding me of pictures of the otter, then turned and swam and ran the other way; dark-brown. We see no birds, unless one crow; the wind is too strong for them. I must know what that tall, coarse grass is which stands withered so abundantly amid the button-bushes all along the shore. It escapes the mower by its position. The water milkweed stands withered amid the button-bushes, the pods still erect, though open and empty.

Landed and walked over Conant's Indian rye-field, and I picked up two good arrowheads. The river with its waves has a very wild look southward, and I see the white caps of the waves in Fair Haven Bay. Went into the woods by Holden Swamp and sat down to hear the wind roar amid the tree-tops. What an incessant straining of the trees! It is a music that wears better than the opera, methinks. This reminds me how the telegraph-wire hummed coarsely in the tempest as we passed under it.

Hitherto it had only rained a little from time to time, but now it began suddenly in earnest. We hastily rowed across to the firm ground of Fair Haven Hillside, drew up our boat and turned it over in a twinkling on to a clump of alders covered with cat-briars which kept up the lee side, and crawled under it. There we lay half an hour on the damp ground and cat-briars, hardly able to see out to the storm which we heard on our roof, through the thick alder stems, much pleased with the tightness of our roof, which we frequently remarked upon. We took immense satisfaction in the thoroughness of the protection against the rain which it afforded. Remembered that such was the origin of the Numidian architecture and, as some think, of the nave (ship) in Gothic architecture, and if we had had a dry bed beneath us, and an ugly gap under the windward side of the boat through [which] the wind drew had been stopped, we should have lain there longer. At length, as it threatened to be an all-night storm, we crawled out again and set sail homeward.

It now began to rain harder than ever, and the wind was so strong and gusty, and blew so nearly at right angles with the river, that we found it impossible to keep the stream long at a time with our sail set, sitting on one side till the water came in plentifully, that the side might act as a keel, but were repeatedly driven ashore amid the button-bushes, and then had to work our way to the other side slowly and start again. What with water in the boat and in our clothes, we were now indifferent to wet. At length it began to rain so much harder than before, the great drops seeming to flat down the waves and suppress the wind, and feeling like hail on our hands and faces, that, as we remembered, it

had only sprinkled before. By this time of course we were wet quite through and through, and C. began to inquire and jest about the condition of our money—a singular prudence methought—and buried his wallet in his pocket-handkerchief and returned it to his pocket again. He thought that bank-bills would be spoiled. It had never occurred to me if a man got completely wet through how it might affect the bank-bills in his wallet, it is so rare a thing for me to have any there. At length we both took to rowing vigorously to keep ourselves warm, and so got home just after candlelight.

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Nov. 11. 7 A. M. — To Hubbard Bathing-Place.

A fine, calm, frosty morning, a resonant and clear air except a slight white vapor which escaped being frozen or perchance is the steam of the melting frost. Bracing cold, and exhilarating sunlight on russet and frosty fields. I wear mittens now. Apples are frozen on the trees and rattle like stones in my pocket. Aster puniceus left. A little feathery frost on the dead weeds and grasses, especially about water,—springs and brooks (though now slightly frozen),—where was some vapor in the night. I notice also this little frostwork about the mouth of a woodchuck's hole, where, perhaps, was a warm, moist breath from the interior, perchance from the chuck!

9 A. M. - To Fair Haven Pond by boat.

The morning is so calm and pleasant, winter-like, that I must spend the forenoon abroad. The river

is smooth as polished silver. A little ice has formed along the shore in shallow bays five or six rods wide. It is for the most part of crystals imperfectly united, shaped like birds' tracks, and breaks with a pleasant crisp sound when it feels the undulations produced by my boat. I hear a linaria-like mew from some birds that fly over. Some muskrat-houses have received a slight addition in the night. The one I opened day before yesterday has been covered again, though not yet raised so high as before. The hips of the late rose still show abundantly along the shore, and in one place nightshade berries. I hear a faint cricket (or locust?) still, even after the slight snow. I hear the cawing of crows toward the distant wood through the clear, echoing, resonant air, and the lowing of cattle. It is rare that the water is smooth in the forenoon. It is now as smooth as in a summer evening or a September or October afternoon. There is frost on all the weeds that rise above the water or ice. The Polygonum Hydropiper is the most conspicuous, abundant, and enduring of those in the water. I see the spire of one white with frost-crystals, a perfect imitation at a little distance of its loose and narrow spike of white flowers, that have withered. I have noticed no turtles since October 31st, and no frogs for a still longer time. At the bathing[-place] I looked for clams, in summer almost as thick as paving-stones there, and found none. They have probably removed into deeper water and into the mud (?). When did they move?

The jays are seen and heard more of late, their plumage apparently not dimmed at all.

I counted nineteen muskrat-cabins between Hubbard Bathing-Place and Hubbard's further wood, this side the Hollowell place, from two to four feet high. They thus help materially to raise and form the river-bank. I opened one by the Hubbard Bridge. The floor of chamber was two feet or more beneath the top and one foot above the water. It was quite warm from the recent presence of the inhabitants. I heard the peculiar plunge of one close by. The instant one has put his eyes noiselessly above water he plunges like a flash, showing tail, and with a very loud sound, the first notice you have of his proximity, - that he has been there, — as loud as if he had struck a solid substance. This had a sort of double bed, the whole about two feet long by one foot wide and seven or eight inches high, floored thinly with dry meadowgrass. There were in the water green butts and roots of the pontederia, which I think they eat. I find the roots gnawed off. Do they eat flagroot? A good deal of a small green hypnum-like river-weed forms the mouthfuls in their masonry. It makes a good sponge to mop the boat with.

The wind has risen and sky overcast. I stop at Lee's Cliff, and there is a *Veronica serpyllifolia* out. Sail back. Scared up two small ducks, perhaps teal. I had not seen any of late. They have probably almost all gone south.

Nov. 19. I cannot but regard it as a kindness in those who have the steering of me that, by the want of pecuniary wealth, I have been nailed down to this

my native region so long and steadily, and made to study and love this spot of earth more and more. What would signify in comparison a thin and diffused love and knowledge of the whole earth instead, got by wandering? The traveller's is but a barren and comfortless condition. Wealth will not buy a man a home in nature, - house nor farm there. The man of business does not by his business earn a residence in nature, but is denaturalized rather. What is a farm, house and land, office or shop, but a settlement in nature under the most favorable conditions? It is insignificant, and a merely negative good fortune, to be provided with thick garments against cold and wet, an unprofitable, weak, and defensive condition, compared with being able to extract some exhilaration, some warmth even, out of cold and wet themselves, and to clothe them with our sympathy. The rich man buys woollens and furs, and sits naked and shivering still in spirit, besieged by cold and wet. But the poor Lord of Creation, cold and wet he makes to warm him, and be his garments.

Tansy is very fresh still in some places. Tasted to-day a black walnut, a spherical and corrugated nut with a large meat, but of a strong oily taste.

8 P. M. — Up river to Hubbard Bathing-Place.

Moon nearly full. A mild, almost summer evening after a very warm day, alternately clear and overcast. The meadows, with perhaps a little mist on them, look as if covered with frost in the moonlight. At first it is quite calm, and I see only where a slight wave or piece of wet driftwood along the shore reflects a

flash of light, suggesting that we have come to a season of clearer air. This occasional slight sparkling on either hand along the water's edge attends me. I come out now on the water to see our little river broad and stately as the Merrimack or still larger tides, for though the shore be but a rod off, the meeting of land and water being concealed, it is as good as if a quarter of a mile distant, and the near bank is like a distant hill. There is now and of late months no smell of muskrats, which is probably confined to the spring or rutting season. While the sense of seeing is partly slumbering, that of hearing is more wide awake than by day, and, now that the wind is rising, I hear distinctly the chopping of every little wave under the bow of my boat. Hear no bird, only the loud plunge of a muskrat from time to time. The moon is wading slowly through broad squadrons of clouds, with a small coppery halo, and now she comes forth triumphant and burnishes the water far and wide, and makes the reflections more distinct. Trees stand bare against the sky again. This the first month in which they do. I hear one cricket singing still, faintly deep in the bank,1 now after one whitening of snow. His theme is life immortal. The last cricket, full of cheer and faith, piping to himself, as the last man might. The dark squadrons of hostile clouds have now swept over the face of the moon, and she appears unharmed and riding triumphant in her chariot. Suddenly they dwindle and melt away in her mild and all-pervading light, dissipated like the mists of ¹ Was it not a frog?

the morning. They pass away and are forgotten like bad dreams.

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Landed at the bathing-place. There is no sound of a frog from all these waters and meadows which a few months ago resounded so with them; not even a cricket or the sound of a mosquito. I can fancy that I hear the sound of peeping hylodes ringing in my ear, but it is all fancy. How short their year! How early they sleep! Nature is desert and iron-bound; she has shut her door. How different from the muggy nights of summer, teeming with life! That resounding life is now buried in the mud, returned into Nature's womb, and most of the birds have retreated to the warm belt of the earth. Yet still from time to time a pickerel darts away. And still the heavens are unchanged; the same starry geometry looks down on their active and their torpid state. And the first frog that puts his eye forth from the mud next spring shall see the same everlasting starry eyes ready to play at bo-peep with him, for they do not go into the mud.

However, you shall find the muskrats lively enough now at night, though by day their cabins appear like deserted cabins. When I paddle near one, I hear the sudden plunge of one of its inhabitants, and sometimes see two or three at once swimming about it. Now is their day. It is remarkable that these peculiarly aboriginal and wild animals, whose nests are perhaps the largest of any creatures' hereabouts, should still so abound in the very midst of civilization and erect their large and conspicuous cabins at the foot of our gardens. However, I notice that unless there is a strip

of meadow and water on the garden side they erect their houses on the wild side of the stream.

The hylodes, as it is the first frog heard in the spring, so it is the last in the autumn. I heard it last, methinks, about a month ago. I do not remember any hum of insects for a long time, though I heard a cricket to-day.

Nov. 13. Rain all day.

Nov. 14. Methinks I have not seen any of those white-in-tail birds for a week (?); but I see a little sparrow or two to-day, maybe a song sparrow? Mallows still in bloom, and hedge-mustard.

P. M. — To Annursnack and Cedar Swamp.

There is a clear air and a strong northwest wind drying up the washed earth after the heavy rain of yesterday. The road looks smooth and white as if washed and swept. It is surprising how rapidly our sandy soil dries up. We walk dry-shod the day after a rain which raises the river three feet. I am struck by the dark blue of the agitated river.

Saw yarrow apparently just opened and tansy still fresh, but the fringed gentian in P. Barrett's meadow has long since withered. It falls before the first severe frosts. It is remarkable how short a career it has, in our meadows at least. Its stem and leaves never conspicuous, it is not to be detected at all, perhaps, before the middle of September, and by about the middle of October with us it has already succumbed to the frosts. It came very near not being an inhabitant

of our latitude, perhaps our globe, at all. The witch-hazel lasts much longer. However, I have seen it in November on a high hillside in Weston. When the flower season is over, when the great company of flower-seekers have ceased their search, this just raises its blue face above the withering grass beside the brooks for a moment, having at the eleventh hour made up its mind to join this planet's floral exhibition.¹

I climb Annursnack. Under this strong wind more dry oak leaves are rattling down. All winter is their fall. A distinction is to be made between those trees whose leaves fall as soon as the bright autumnal tints are gone and they are withered and those whose leaves are rustling and falling all winter even into spring.

October is the month of painted leaves, of ripe leaves, when all the earth, not merely flowers, but fruits and leaves, are ripe. With respect to its colors and its season, it is the sunset month of the year, when the earth is painted like the sunset sky. This rich glow flashes round the world. This light fades into the clear, white, leafless twilight of November, and whatever more glowing sunset or Indian summer we have then is the afterglow of the year.² In October the man is ripe even to his stalk and leaves; he is pervaded by his genius, when all the forest is a universal harvest, whether he possesses the enduring color of the pincs, which it takes two years to ripen and wither, or the brilliant color of the deciduous trees, which fade the first fall.

From this hill I am struck with the smoothness and [Excursions, p. 251; Riv. 307.] [Channing, p. 105.]

washed appearance of all the landscape. All these russet fields and swells look as if the withered grass had been combed by the flowing water. Not merely the sandy roads, but the fields are swept. All waters — the rivers and ponds and swollen brooks — and many new ones are now seen through the leafless trees — are blue as indigo, reservoirs of dark indigo amid the general russet and reddish-brown and gray.¹

October answers to that period in the life of man when he is no longer dependent on his transient moods, when all his experience ripens into wisdom, but every root, branch, leaf of him glows with maturity. What he has been and done in his spring and summer appears. He bears his fruit.

Now for the bare branches of the oak woods, where hawks have nested and owls perched, the sinews of the trees, and the brattling (?) of the wind in their midst. For, now their leaves are off, they've bared their arms, thrown off their coats, and, in the attitude of fencers, await the onset of the wind, to box or wrestle with it. Such high winds would have done much harm six weeks ago.

The top of Annursnack has been burned, and sown with winter rye, and the green blade contrasts with the black ground there. It is the most conspicuous radical leaf.

Went through the white cedar swamp. There are white cedars, larch (now bare), spruce, etc.; cedars two feet through, the only ones I know in Concord. It was here were cut the cedar posts which Λ lcott

⁺ [Channing, p. 108,]

put into Emerson's summer-house. They could not be spared even for that. It is a stout tree here, tapering with singular abruptness. Its small flattish leaves, dispersed crosswise and at other or different angles with each other, give it a peculiarly light, fantastic look. Myriads of little ones are springing in the more open parts of the swamp. They are turned a reddish green now. The large trees have a very rough bark, regularly furrowed perpendicularly, and a brightyellow resin between the furrows. I find that the inner bark makes a good lye. Is this used by the Indians? Methinks these are flower-buds which are formed at the ends of the leafets and will open early in the spring. This swamp must be visited in midsummer. You see great shelf-shaped fungi, handsomely buttressed and perfectly horizontal, on the under side of slanting dead trees, at different stages one above another. Do lichens or fungi grow on you? Sometimes the one side of a man is pasture for fungi while the other is clothed with lichens, he being partially rotten.

Our arbor-vitæ cones are full of broadly winged seeds.

6.30 P. M. — To Baker Farm by boat.

It is full moon, and a clear night, with a strong northwest wind; so C. and I must have a sail by moonlight. The river has risen surprisingly, to a spring height, owing to yesterday's rain, higher than before since spring. We sail rapidly upward. The river apparently, almost actually, as broad as the Hudson. Venus remarkably bright, just ready to set. Not a cloud in

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the sky, only the moon and a few faint unobtrusive stars here and there, and from time to time a meteor. The water washes against our bows with the same sound that one hears against a vessel's prow by night on the ocean. If you had waked up here, you would not know at first but you were there. The shore-lines are concealed; you look seemingly over an almost boundless waste of waters on either hand. The hills are dark, vast, lumpish. Some near, familiar hill appears as a distant bold mountain, for its base is indefinitely removed. It is very pleasant to make our way thus rapidly but mysteriously over the black waves, black as ink and dotted with round foamspots with a long moonlight sheen on one side — to make one's way upward thus over the waste of waters, not knowing where you are exactly, only avoiding shores. The stars are few and faint in this bright light. How well they wear! C. thought a man could still get along with them who was considerably reduced in his circumstances, that they were a kind of bread and cheese that never failed.1 Fair Haven Hill never looked more grand and mountain-like than now that all its side is dark and we only see its bold outline at an indefinite distance. Under the lee of the Holden wood we found unexpectedly smooth and pleasant water and stillness, where we heard the wind roar behind us. The night is cool but not damp, and methinks you can be abroad with more impunity than in summer nights even. The walls on Conantum are merely black streaks, inky lines running over the hill.

¹ [Excursions, p. 328; Riv. 403, 404.]

The wind goes down somewhat. The features of the landscape are simpler and lumped. We have the moon with a few stars above, a waste of black, dashing waves around, reflecting the moon's sheen on one side, and the distant shore in dark swelling masses, dark floating isles between the water and the sky, on either hand. Moored our boat under Fair Haven Hill.

The light is so strong that colors of objects are not much changed from the day. The water seen from the hill is still blue, and the fields are russet.

How can we omit to go forth on the water these windy days and nights, to be tossed by the waves? It is some such novelty to a landsman as an earthquake. To take the hand of Nature and be shaken. Heard one cricket to-night.

Nov. 15. P. M. — To Fair Haven Hill and by boat to witch-hazel bush.

Were they not the white-in-tail birds I saw this afternoon? Cricket still. After yesterday's clear, windy weather we have to-day less wind and much haze. It is Indian-summer-like. The river has risen yet higher than last night, so that I cut across Hubbard's meadow with ease. Took up a witch-hazel with still some fresh blossoms; also a barberry bush. What appeared to be the minute fibrous roots of the last covered one side of a rock thickly like a piece of rotten flannel. How conspicuous its bright-yellow roots in the soil!

The flood has covered most muskrat-cabins again. It has also reached and floated higher yet the last

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week. Just after sundown, though it had been windy before, the waters became suddenly smooth, and the clear yellow light of the western sky was handsomely reflected in the water, making it doubly light to me on the water, diffusing light from below as well as above.

Were those insects on the surface after the moon rose skaters or water-bugs?

After having some business dealings with men, I am occasionally chagrined, and feel as if I had done some wrong, and it is hard to forget the ugly circumstance. I see that such intercourse long continued would make one thoroughly prosaic, hard, and coarse. But the longest intercourse with Nature, though in her rudest moods, does not thus harden and make coarse. A hard, insensible man whom we liken to a rock is indeed much harder than a rock. From hard, coarse, insensible men with whom I have no sympathy, I go to commune with the rocks, whose hearts are comparatively soft.

I was the other night elected a curator of our Lyceum, but was obliged to decline, because I did not know where to find good lecturers enough to make a course for the winter. We commonly think that we cannot have a good journal in New England, because we have not enough writers of ability; but we do not suspect likewise that we have not good lecturers enough to make a Lyceum.

The tall wool-grass, with its stately heads, still stands above and is reflected in the smooth water.

Together with the barberry, I dug up a brake root by chance. This, too, should have gone into the witches'

caldron. It is large and black, almost like a cinder without, and within curiously black and white in parallel fibres, with a sort of mildewiness as if it were rotting; yet fresh shoots are ready for the spring with a cottony point.

1853]

Goodwin says he killed a mink the other day on a small white pine tree. Some years ago, about this season, he dug out fifteen muskrats in one nest in the ground at Goose Pond. He says the white rabbit does not run to his hole, but the gray one does.

This evening at sundown, when I was on the water, I heard come booming up the river what I suppose was the sound of cannon fired in Lowell to celebrate the Whig victory, the voting down the new Constitution. Perchance no one else in Concord heard them, and it is remarkable that I heard them, who was only interested in the natural phenomenon of sound borne far over water. The river is now so full and so high over the meadows, and at that hour was so smooth withal, that perchance the waves of sound flowed over the smooth surface of the water with less obstruction and further than in any other direction.

I also noticed this afternoon that, before the water generally was smoothed, those parts of the inundated meadow where spires of grass rose thinly above the surface were already quite smooth and glossy, so effectually did they break and dissipate the wavelets. A multitude of fine grass stems were a sufficient breakwater to render the surface smooth.

This afternoon has wanted no condition to make it a gossamer day, it seems to me, but a calm atmosphere. Plainly the spiders cannot be abroad on the water unless it is smooth. The one I witnessed this fall was at time of flood. May it be that they are driven out of their retreats like muskrats and snow-fleas, and spin these lines for their support? Yet they work on the causeway, too.

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I see many cranberries on the vines at the bottom, making a great show. It might be worth the while, where possible, to flood a cranberry meadow as soon as they are ripe and before the frosts, and so preserve them plump and sound till spring.

Nov. 16. P. M. — To Nawshawtuct by boat with Sophia, up Assabet.

The river still higher than yesterday. I paddled straight from the boat's place to the Island. I now take notice of the green polypody on the rock and various other ferns, one the marginal (?) shield fern and one the terminal shield fern, and this other, here inserted, on the steep bank above the Hemlocks.

I admire the fine blue color of the cedar berries.

Nov. 17. I notice that many plants about this season of the year or earlier, after they have died down at top, put forth fresh and conspicuous radical leaves against another spring. So some human beings in the November of their days exhibit some fresh radical greenness, which, though the frosts may soon nip it, indicates and confirms their essential vitality. When their summer leaves have faded and fallen, they put forth fresh radical leaves which sustain the life in their

root still, against a new spring. The dry fields have for a long time been spotted with the small radical leaves of the fragrant life-everlasting, not to mention the large primrose, johnswort, etc., etc. And almost every plant, although it may show no greenness above ground, if you dig about it, will be found to have fresh shoots already pointing upward and ready to burst forth in the spring.

Are not more birds crushed under the feet of oxen than of horses?

Nov. 18. Conchologists call those shells "which are fished up from the depths of the ocean" and are never seen on the shore, which are the rarest and most beautiful, Pelagii, but those which are cast on shore and are never so delicate and beautiful as the former, on account of exposure and abrasion, Littorales. So it is with the thoughts of poets: some are fresh from the deep sea, radiant with unimagined beauty, — Pelagii; but others are comparatively worn, having been tossed by many a tide, — Littorales, — scaled off, abraded, and eaten by worms.

Nov. 19. P. M. Up river in boat to Hubbard's meadow, cranberrying.

They redden all the lec shore, the water being still apparently at the same level with the 16th. This is a very pleasant and warm Indian-summer afternoon. Methinks we have not had one like it since October. 31st. This, too, is a gossamer day, though it is not particularly calm. If it were, it would be still more

perfect. My boat I find to be covered with spiders, whose fine lines soon stretch from side to side. Got a bushel and a half of cranberries, mixed with chaff.

Brought home one of those little shells found in the shore wreck, which look like a bugle-horn. I notice that at the bridges

there is now a slight rapid, and the water is perceptibly several inches lower on the down-stream side, the piers acting as a dam, the stream being somewhat narrowed there withal by the abutments. What is the peculiarity of the Indian summer? From the 14th to the 21st October inclusive, this year, was perfect Indian summer; and this day the next? Methinks that any particularly pleasant and warmer weather after the middle of October is thus called. Has it not fine, calm spring days answering to it? Autumnal dandelion quite fresh. Tansy very fresh yesterday.

Nov. 20. 7.30 а. м. — To Hubbard's meadow, cranberrying.

Still quite warm as yesterday. I wear no greatcoat. There has been no freezing in the night. I hear a single hylodes in the wood by the water, while I am raking the cranberries. This warmth has aroused him. While raking, I disturbed two bullfrogs, one quite small. These, too, the warm weather has perhaps aroused. They appear rather stupid. Also I see one painted tortoise, but with no bright markings. Do they fade?

I observe on some muskrat-cabins much of that bleached and withcred long grass, strewn as if preparatory to raising them, for almost all are covered

with water now. It apparently is used as a binder. I find, washed up with the cranberries and also floating over the meadow and about the cabins, many fragments of a root, often with that green, somewhat pellucid, roundish pad attached. This appears to be the muskrats' principal vegetable food now. It is not flagroot, but either yellow lily, pontederia, white lily, — or can it be heart-leaf root?

The shore is so reddened with cranberries that I perceive them fifteen rods off, tingeing it. Many of them being frost-bitten, they have now the pleasant taste of spring cranberries, which many prefer. They, as well as the wreck generally, are covered, as if peppered, with the skipping snow-fleas. In the wreck I find also the common little trumpet-shaped cockle, and some caddis-worms out of their cases. There is an abundance of chaff, *i. e.* broken meadow-grass and cranberry leaves, in it now.

Minott said he heard geese going south at day-break the 17th, before he came out of the house, and heard and saw another large flock at 10 A. M. Those I heard this afternoon were low and far in the western horizon. I did [not] distinctly see them, but heard them farther and farther in the southwest, the sound of one which did the honking guiding my eyes. I had seen that a storm was brewing before, and low mists already gathered in the northeast. It rained soon after I got home. The 18th was also a drizzling day. Methinks the geese are wont to go south just before a storm, and, in the spring, to go north just after one, say at the end of a long April storm.

I have not seen any tree sparrows of late, nor whitein-tails. Would it not be worth the while to flood a cranberry meadow just before the frosts come, and so preserve them plump and fresh till spring? $^{\scriptscriptstyle 1}$ I once came near speculating in cranberries. Being put to it to raise the wind to pay for "A Week on the Concord and Merrimack Rivers," and having occasion to go to New York to peddle some pencils which I had made, as I passed through Boston I went to Quincy Market and inquired the price of cranberries. The dealers took me down cellar, asked if I wanted wet or dry, and showed me them. I gave them to understand that I might want an indefinite quantity. It made a slight sensation among them and for aught I know raised the price of the berry for a time. I then visited various New York packets and was told what would be the freight, on deck and in the hold, and one skipper was very anxious for my freight. When I got to New York, I again visited the markets as a purchaser, and "the best of Eastern Cranberries" were offered me by the barrel at a cheaper rate than I could buy them in Boston. I was obliged to manufacture a thousand dollars' worth of pencils and slowly dispose of and finally sacrifice them, in order to pay an assumed debt of a hundred dollars.

What enhances my interest in dew — I am thinking of the summer — is the fact that it is so distinct from rain, formed most abundantly after bright, starlit nights, a product especially of the clear, screne air. The manna of fair weather; the upper side of rain,

¹ [See p. 508.]

as the country above the clouds. That nightly rain called dew, which gathers and falls in so low a stratum that our heads tower above it like mountains in an ordinary shower. It only consists with comparatively fair weather above our heads. Those warm volumes of air, forced high up the hillsides in summer nights, are driven thither to drop their dew there, like kine to their yards to be milked; that the moisture they hold may be condensed and so dew formed before morning on the tops of the hills. A writer in Harper's Magazine (vol. vii, page 505) says that the mist at evening does not rise, "but gradually forms higher up in the air." He calls it the moisture of the air become visible. Says there is most dew in clear nights, because clouds prevent the cooling down of the air; they radiate the heat of the earth back to it; and that a strong wind, by keeping the air in motion, prevents its heat from passing off. Therefore, I procced, for a plentiful dew it must not only be clear but calm. The above writer says bad conductors of heat have always most dew on them, and that wool or swan's-down is "good for experimenting on the quantity of dew falling," - weight before and after. Thinks it not safe to walk in clear nights, especially after midnight, when the dew is most abundantly forming; better in cloudy nights, which are drier. Also thinks it not prudent to venture out until the sun begins to rise and warms the air. But methinks this prudence begets a tenderness that will catch more cold at noonday than the opposite hardiness at midnight.

Nov. 21. Monday. A fine misty rain all night and to-day.

Raking so many cranberries has made me quite conversant with the materials of the river wreck. There are many middle-sized living black dor-bugs in it, as well as bugle-horn shells, as I find on washing out my cranberries in the kitchen to-day. I have got about two and a half bushels of clear cranberries, and added those of Saturday afternoon makes about three and a half. I find my best way of getting cranberries is to go forth in time of flood, just before the water begins to fall and after strong winds, and, choosing the thickest places, let one, with an instrument like a large coarse dung-fork, hold down the floating grass and other coarser part of the wreck mixed with [it], while another, with a common iron garden rake, rakes them into the boat, there being just enough chaff left to enable you to get them into the boat, yet with little water. When I got them home, I filled a half-bushel basket a quarter full and set it in a tub of water, and, stirring the cranberries, the coarser part of the chaff was held beneath by the berries rising to the top. Then, raising the basket, draining it, and upsetting it into a bread-trough, the main part of the chaff fell uppermost and was cast aside. Then, draining off the water, I jarred the cranberries alternately to this end and then to that of the trough, each time removing the fine chaff — cranberry leaves and bits of grass -- which adhered to the bottom, on the principle of gold-washing, except that the gold was what was thrown away, and finally I spread and dried and winnowed them. It would have been better if the basket had been a very coarse riddle and the trough had had a rough bottom.

The last two nights, at least, there has been no freezing.

Is not the dew but a humbler, gentler rain, the nightly rain, above which we raise our heads and unobstructedly behold the stars? The mountains are giants which tower above the rain, as we above the dew in the grass; it only wets their feet.

Nov. 22. Geese went over yesterday, and to-day also.

The drizzling rain of yesterday has not checked the fall of the river. It was raised by the rain of Sunday, the 13th, and began to fall the 20th.

P. M. — Up river by boat. ·

I think it must be the white lily root I find gnawed by the rats, though the leaves are pellucid. It has large roots with eyes and many smaller rootlets attached, white tinged with a bluish slate-color. The radical leaves appear to have started again. Turnip freshly in bloom in cultivated fields; knawel still; yarrow is particularly fresh and innocent; but I find no blossom on the *Arenaria serpyllifolia*.

If there is any one with whom we have a quarrel, it is most likely that that one makes some just demand on us which we disappoint.

I see still, here and there, a few deep-sunk yellow and decayed pads, the bleared, dulled, drowned eyes of summer.

I was just thinking it would be fine to get a specimen leaf from each changing tree and shrub and plant in autumn, in September and October, when it had got its brightest characteristic color, the intermediate ripeness in its transition from the green to the russet or brown state, outline and copy its color exactly with paint in a book,—a book which should be a memorial of October, be entitled October Hues or Autumnal Tints. I remember especially the beautiful yellow of the Populus grandidentata and the tint of the scarlet maple. What a memento such a book would be, beginning with the earliest reddening of the leaves, woodbine and ivy, etc., etc., and the lake of radical leaves, down to the latest caks! ¹ I might get the impression of their veins and outlines in the summer with lampblack, and after color them.

As I was returning down the river toward night, I mistook the creaking of a plow-wheel for a flock of blackbirds passing overhead, but it is too late for them. The farmers plow considerably this month. No doubt it destroys many grubs in the earth.

Nov. 23. 6 a. m. — To Swamp Bridge Brook mouth. The cocks are the only birds I hear, but they are a host. They crow as freshly and bravely as ever, while poets go down the stream, degenerate into science and prose. I have not seen a flock of small birds, either tree sparrows or F. hyemalis or white-in-tails, etc., for about a fortnight. There is now no sound of early birds on the leafless trees and bushes — willows and

¹ [Excursions, p. 251; Riv. 307, 308.]

alders—along this watercourse. The few that are left probably roost in the evergreen woods. Yet I hear, or seem to hear, the faintest possible lisp or creak from some sparrow, as if from a crack in the mist-clad earth, or some ox-yoke or distant wain. I suspect that the song sparrow lingers as late, here and there alone, as any migrating bird.

By 8 o'clock the misty clouds disperse, and it turns out a pleasant, calm, and springlike morning. The water, going down, but still spread far over the meadows, is seen from the window perfectly smooth and full of reflections. What lifts and lightens and makes heaven of the earth is the fact that you see the reflections of the humblest weeds against the sky, but you cannot put your head low enough to see the substance so. The reflection enchants us, just as an echo does.

If I would preserve my relation to nature, I must make my life more moral, more pure and innocent. The problem is as precise and simple as a mathematical one. I must not live loosely, but more and more continently.¹

What an engineer this water is! It comes with its unerring level, and reveals all the inequalities of the meadow. The farmer may see now what route to take

to get the driest and firmest ground for his hay-carts, how to cut his ditches, and where to drop more sand. It is an obvious piece of geometry in nature. Every peculiar curve in the limbs of the trees is doubly

conspicuous seen both above and beneath, yet the

¹ [Channing, pp. 87, 88.]

rhyme makes even what was odd, regular what was irregular. For a week or more there has been no freezing day or night. The springs and swamps are getting filled.

The Indian summer itself, said to be more remarkable in this country than elsewhere, no less than the reblossoming of certain flowers, the peep of the hylodes, and sometimes the faint warble of some birds, is the reminiscence, or rather the return, of spring, — the year renewing its youth.

At 5 P. M. I saw, flying southwest high overhead, a flock of geese, and heard the faint honking of one or two. They were in the usual harrow form, twelve in the shorter line and twentyfour in the longer, the latter abutting on the former at the fourth bird from the front. I judged hastily that the interval between the geese was about double their alar extent, and, as the last is, according to Wilson, five feet and two inches, the former may safely be called eight \varkappa feet. I hear they were fired 👞 at with a rifle from Bunker 🔸 Hill the other day. This is the sixth flock I have seen or heard of since the morning of the 17th, i. e. within a week.

Nov. 24. At noon, after a drizzling forenoon, the weather suddenly changed to clear and wintry, freezing cold with strong wind from a northerly quarter. It seems like the beginning of winter. Ice forms in my boat at 5 p. m., and what was mud in the street is fast becoming a rigid roughness. This after more than a week of mild and much drizzly weather without frost, one or two of the fairest days being Indian-summerish.

Methinks we have had clear yellow sunsets and afterglows this month, like this to-night (not glowing red ones), with perhaps an inclination to blue and greenish clouds.

Nov. 25. Frost on the windows.

10 A. M. — To Cliffs.

A clear, cold, windy day. The water on the meadows, which are rapidly becoming bare, is skimmed over and reflects a whitish light, like silver plating, while the unfrozen river is a dark blue. In plowed fields I see the asbestos-like ice-crystals, more or less mixed with earth, frequently curled and curved like crisped locks, where the wet ground has frozen dry. By the spring under Fair Haven Hill, I see the frost about the cistus now at 11 A. M. in the sun. For some weeks I have heard occasionally the hounding of hounds, like a distant natural horn in the clear resonant air. Though the grass has but little life, even in its roots, cattle are still turned out more or less.

The landscape, seen from the side of the hill looking westward to the horizon through this clear and sparkling air, though simple to barrenness, is very

handsome. There is first the clean light-reflecting russet earth, the dark-blue water, the dark or dingy green evergreens, the dull reddish-brown of young oaks and shrub oaks, the gray of maples and other leafless trees, and the white of birch stems. The mountains are remarkably distinct and appear near and elevated, but there is no snow on them. The white houses of the village, also, are remarkably distinct and bare and brought very near.

Going through the orchard, I saw two birds like jays and soon heard a whistle-like note of alarm, between a robin and a downy woodpecker. Perhaps it was a butcher-bird. A heavy-shouldered hawk sails over. A Solidago nemoralis with flowers still at root.

Just after the sun set to-night, I observed that the northern hemisphere of the heavens was covered with fleecy clouds, which abruptly terminated in a straight line, stretching east and west from one horizon to the other directly over my head, the western end being beautifully rose-tinted. Half an hour later this cloud had advanced southward, showing clear sky behind it in the north, until its southern edge was seen at an angle of 45° by [sic] me, but though its line was as straight as before, it now appeared regularly curved like a segment of a melon-rind, as usual.

Nov. 27. Now a man will eat his heart, if ever, now while the earth is bare, barren and cheerless, and we have the coldness of winter without the variety of ice and snow; but methinks the variety and com-

⁴ [See Journal, vol. iv, p. 405.]

pensation are in the stars now. How bright they are now by contrast with the dark earth! The days are short enough now. The sun is already setting before I have reached the ordinary limit of my walk, but the 21st of next month the day will be shorter still by about twenty-five minutes. In December there will be less light than in any month in the year.

1853] MUNROE'S ACCOUNT SETTLED

It is too cold to-day to use a paddle; the water freezes on the handle and numbs my fingers. I observe the *Lycopodium lucidulum* still of a fresh, shining green. Checkerberries and partridge-berries are both numerous and obvious now.

Nov. 28. Monday. Saw boys skating in Cambridge-port, — the first ice to bear. Settled with J. Munroe & Co., and on a new account placed twelve of my books with him on sale. I have paid him directly out of pocket since the book was published two hundred and ninety dollars and taken his receipt for it. This does not include postage on proof-sheets, etc., etc. I have received from other quarters about fifteen dollars. This has been the pecuniary value of the book. Saw at the Natural History rooms the skeleton of a moose with horns. The length of the spinal processes (?) over the shoulder was very great. The hind legs were longer than the front, and the horns rose about two feet above the shoulders and spread between four and five, I judged.

Dr. Harris described to me his finding a species of cicindela at the White Mountains this fall (the same he had found there one specimen of some time ago),

¹ [Maine Woods, p. 127; Riv. 154.]

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supposed to be very rare, found at St. Peter's River and at Lake Superior; but he proves it to be common near the White Mountains.

Nov. 29. On Saturday, the 26th, a dog on whose collar the words "Milton Hill," or equivalent ones, were engraved ran through the town, having, as the story went, bitten a boy in Lincoln. He bit several dogs in this town and was finally shot. Some of the dogs bitten have been killed, and rumor now says that the boy died yesterday. People are considerably alarmed. Some years ago a boy in Lincoln was bitten by a raccoon and died of hydrophobia. I observed to Minott to-night that I did not think that our doctors knew how to cure this disease, but he said they could cure it, he had seen a man bitten who was cured. The story is worth telling, for it shows how much trouble the passage of one mad dog through the town may produce.

It was when he was a boy and lived down below the old Ben Prescott house, over the cellar-hole on what is now Hawthorne's land. The first he remembers a couple of men had got poles and were punching at a strange dog toward night under a barn in that neighborhood. The dog, which was speckled and not very large, would growl and bite the pole, and they ran a good deal of risk, but they did not know that he was mad. At length they routed him, and he took to the road and came on towards town, and Minott, keeping his distance, followed on behind. When the dog got to the old Ben Prescott place, he turned up into the

yard, where there were a couple of turkeys, drove them into a corner, bit off the head of one, and carried the body off across the road into the meadow opposite. They then raised the cry of "Mad dog." He saw his mother and Aunt Prescott, two old ladies, coming down the road, while the dog was running the other way in the meadow, and he shouted to them to take care of themselves, for that dog was mad. The dog soon reëntered the road at some bars and held on toward town. Minott next saw Harry Hooper coming down the road after his cows, and he shouted to him to look out, for the dog was mad, but Harry, who was in the middle of the road, spread his arms out, one on each side, and, being short, the dog leaped right upon his open breast and made a pass at his throat, but missed it, though it frightened him a good deal; and Minott, coming up, exclaimed, "Why, you're crazy, Harry; if he 'd 'a' bitten ye, 't would 'a' killed ye." When he got up as far as the red house or Curtis place, the dog was about in the middle of the road, and a large and stout old gentleman by the name of Fay, dressed in small-clothes, was coming down on the sidewalk. M. shouted to him also to take care of himself, for the dog was mad, and Fay said afterward that he heard him but he had always supposed that a mad dog would n't turn out for anything; but when this dog was nearly abreast of him, he suddenly inclined toward him, and then again inclined still more, and seized him by the left leg just below the knee, and Fay, giving him a kick with the other leg, tripped himself up; and when he was down, the dog bit him

THE STORY OF A MAD DOG

in the right leg in the same place. Being by this time well frightened, and fearing that he would spring at his throat next, Fay seized the dog himself by his throat and held him fast, and called lustily for somebody to come and kill him. A man by the name of Lewis rushed out of the red house with an old axe and began to tap on the dog's nose with it, but he was afraid to strike harder, for Fay told him not to hit him. Minott saw it all, but still kept his distance. Suddenly Fay, not knowing what he did, let go, and the man, giving the dog a blow across the back, ran into the house; but, it being a dull meat axe, the dog trotted along, still toward town.

He turned and went round the pond by Bowers's and, going down to the brook by the roadside, lapped some water. Just then, Peter coming over the bridge, the dog reared up and growled at him, and he, seeing that he was mad, made haste through the bars out of his way and cut across the fields to Reuben Brown's. The dog went on, it being now between sundown and dark, to Peter Wheeler's, and bit two cows, which afterward died of hydrophobia, and next he went to where Nathan Stow now lives, and bit a goose in the wing, and so he kept on through the town. The next that was heard of him, Black Cato, that lived at the Lee place, now Sam Wheeler's, on the river, was waked up about midnight by a noise among the pigs, and, having got up, he took a club and went out to see what was the matter. Looking over into the pen, this dog reared up at him, and he knocked him back into it, and, jumping over, mauled him till he thought he was dead

and then tossed him out. In the morning he thought he [would] go out and see whose dog he had killed, but lo! he had picked himself up, and there was no dog to be found.

Cato was going out into the woods chopping that day, and as he was getting over a wall lined with brush, the same dog reared up at him once more, but this time, having heard of the mad dog, he was frightened and ran; but still the dog came on, and once or twice he knocked him aside with a large stone, till at length, the dog coming close to him, he gave him a blow which killed him; and lest he should run away again, he cut off his head and threw both head and body into the river.

In the meanwhile Fay went home (to the Dr. Heywood house), drank some spirit, then went straight over to Dr. Heywood's office and stayed there and was doctored by him for three weeks. The doctor cut out the mangled flesh and made various applications, and Fay cried like a baby, but he never experienced any further ill effects from the bite.

P. M. — To J. P. Brown's pond-hole.

J. Hosmer showed me a pestle which his son had found this summer while plowing on the plain between his house and the river. It has a rude bird's head, a hawk's or eagle's, the beak and eyes (the latter a mere prominence) serving for a knob or handle. It is affecting, as a work of art by a people who have left so few traces of themselves, a step beyond the common arrowhead and pestle and axe. Something more fanciful, a step beyond

pure utility. As long as I find traces of works of convenience merely, however much skill they show, I am not so much affected as when I discover works which evince the exercise of fancy and taste, however rude. It is a great step to find a pestle whose handle is ornamented with a bird's-head knob. It brings the maker still nearer to the races which so ornament their umbrella and cane handles. I have, then, evidence in stone that men lived here who had fancies to be pleased, and in whom the first steps toward a complete culture were taken. It implies so many more thoughts such as I have. The arrowhead, too, suggests a bird, but a relation to it not in the least godlike. But here an Indian has patiently sat and fashioned a stone into the likeness of a bird, and added some pure beauty to that pure utility, and so far begun to leave behind him war, and even hunting, and to redeem himself from the savage state. In this he was leaving off to be savage. Enough of this would have saved him from extermination.

JOURNAL

I dug for frogs at Heart-leaf Pond, but found none. The ice is two inches thick there, and already, the day being warm, is creased irregularly but agreeably on the upper surface. What is the law of these figures as on watered silks? Has it anything to do with the waves of the wind, or are they the outlines of the crystals as they originally shot, the bones of the ice? It would be worth the while to watch some water while freezing. What is that low yellowish, straw-colored sedge which is so dense in this pond now? I must look for frogs about springs, where Minott says he has dug them

out. The andromeda leaves are a rich brown color now.

It has been cloudy and milder this afternoon, but now I begin to see, under the clouds in the west horizon, a clear crescent of yellowish sky, and suddenly a glorious yellow sunlight falls on all the eastern landscape - russet fields and hillsides, evergreens and rustling oaks and single leafless trees. In addition to the clearness of the air at this season, the light is all from one side, and, none being absorbed or dissipated in the heavens, but it being reflected both from the russet earth and the clouds, it is intensely bright, and all the limbs of a maple seen far eastward rising over a hill are wonderfully distinct and lit. I think that we have some such sunsets as this, and peculiar to the season, every year. I should call it the russet afterglow of the year. It may not be warm, but must be clear and comparatively calm. I see now large insects in the calm, sunlit air over the sprout-lands.

Cattle still abroad in the fields, though there is little to be got there. They say that young cattle can stand the cold and starvation best. If I am not mistaken, their coats have less sleekness than in the spring; they have a shaggy, frowzy, and nipped look, their hair standing on end, and the sorrel color seems to predominate. Their pastures look as barren of nutriment as their own backs.

Nov. 30. 8 A. M. — To river, to examine roots.

I rake up almost everywhere from the bottom of the river that very fresh and bright green ranunculus,

the handsomely divided leaf. I ascertain this morning that that white root with eyes and slaty-tinged fibres and sharp leaves rolled up, found gnawed off and floating about muskrat-houses, is the root of the great yellow lily. The leaf-stalk is yellow, while that of the white lily is a downy or mildewy blue black. The yellow lily root is, then, a principal item, it would seem, in their vegetable diet. I find that those large triangular or rhomboidal or shell-shaped eyes or shoulders on this root are the bases of leaf-stalks which have rotted off, but toward the upper end of the root are still seen decaying. They are a sort of abutment on which the leaf-stalk rested, and the fine black dots on them are the bases of the fine threads or fibres of the leaf-stalk, which, in the still living leaf-stalk, are distinguished by their purple color. These eyes, like the leaves, of course, are arranged spirally around the roots in parallel rows, in quincunx order, so that four make a diamond figure. The slate-tinged fibres spring from the bare white intervals between the bases of the leaves. Closely packed between, and protected by the under leafstalk, I find already the tender club-shaped yellow flower-bud a quarter of an inch in diameter, with a stem two inches long and wider than the bud. I am surprised to find these roots, even within to the bases of the leaves about the buds, infested with white grubs nearly half an inch long and minute, threadlike reddish and speckled worms. Also on the fibres are transparent elliptical chrysalids, the color of a snail-shell, containing insects apparently just ready to fly.

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The white lily roots are more enveloped in down

and fibre, a dark-blue or blackish down. I raked up one dark-brown root somewhat like a white lily, except that it was smooth and the leaf-stalks were very slender and the leaf-buds minute. Perhaps it was the kalmiana lily. I raked up one live clam in deep water, and could feel them like stones on the bottom.

All these leaves are lightly rolled up in the form of arrowheads, as thus best prepared to pierce whatever obstacles the mud or water may present. There is a vast amount of decaying vegetable matter at the bottom of the river, and what I draw up on my rake emits a very offensive odor.

P. M. — Down river by boat and inland to the green house beyond Blood's.

A mild and summery afternoon with much russet light on the landscape.

I think it was a flock of low-warbling tree sparrows ¹ which I saw amid the weeds beyond the monument, though they looked larger.

I am attracted nowadays by the various withered grasses and sedges, of different shades of straw-color and of various more or less graceful forms. That which I call fescue grass is quite interesting, gracefully bending to the zephyr, and many others are very perfect and pure. Wool-grass is one of the largest and most conspicuous. I observe it rising thinly above the water in which it is reflected, two or three feet, and all its narrow rustling leaves stream southeasterly from the stems, though it is now quite calm, proving the preva-

¹ Undoubtedly; also Dec. 3d.

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lence of northwesterly winds. An abundance of withered sedges and other coarse grasses, which in the summer you scarcely noticed, now cover the low grounds, - the granary of the winter birds. A very different end they serve from the flowers which decay so early. Their rigid culms enable them to withstand the blasts of winter. Though divested of color, fairly bleached, they are not in the least decayed but seasoned and living like the heart-wood.

Now, first since spring, I take notice of the cladonia lichens, which the cool fall rains appear to have started. The Callitriche verna is perfectly fresh and green, though frozen in, in the pools.

We are going across the Hunt and Mason pastures. The twigs of young cedars with apparently staminate buds have even a strawberry-like fragrance, and what a heavenly blue have the berries! — a peculiar light blue, whose bloom rubs off, contrasting with the green or purplish-brown leaves.

I do not know so fine a pine grove as that of Mason's. The young second-growth white pines are peculiarly soft, thick, and bushy there. They branch directly at the ground and almost horizontally, for the most part four or five large stems springing from the ground together, as if they had been broken down by cattle originally. But the result is a very dark and dense, almost impenetrable, but peculiarly soft and beautiful grove, which any gentleman might covet on his estate.

We returned by the bridle-road across the pastures. When I returned to town the other night by the Walden road through the meadows from Brister's Hill to the poorhouse, I fell to musing upon the origin of the meanders in the road; for when I looked straight before or behind me, my eye met the fences at a short distance, and it appeared that the road, instead of being built in a straight line across the meadows, as one might have expected, pursued a succession of curves like a cow-path. In fact, it was just such a meandering path as an eye of taste requires, and the landscape-gardener consciously aims to make, and the wonder is that a body of laborers left to themselves, without instruments or geometry, and perchance intending to make a straight road, — in short, that circumstances ordinarily, - will so commonly make just such a meandering road as the eye requires. A man advances in his walk somewhat as a river does, meanderingly, and such, too, is the progress of the race. The law that plants the rushes in waving lines along the edge of a pond, and that curves the pondshore itself, incessantly beats against the straight fences and highways of men and makes them conform to the line of beauty which is most agreeable to the eye at last.

But to return to the walk of the day. Though there were some clouds in the west, there was a bright silver twilight before we reached our boat. C. remarked it descending into the hollows immediately after sunset. A red house could hardly be distinguished at a distance, but a white one appeared to reflect light on the landscape. At first we saw no redness in the sky, but only some peculiar dark wisp-like clouds in the west, but on rising a hill I saw a few red stains like veins of red quartz on a ground of feldspar.

The river was perfectly smooth except the upwelling of its tide, and as we paddled home westward, the dusky yellowing sky was all reflected in it, together with the dun-colored clouds and the trees, and there was more light in the water than in the sky. The reflections of the trees and bushes on the banks were wonderfully dark and distinct, for though frequently we could not see the real bush in the twilight against the dark bank, in the water it appeared against the sky. We were thus often enabled to steer clear of the overhanging bushes.

It was an evening for the muskrats to be abroad, and we saw one, which dove as he was swimming rapidly, turning over like a wheel.

END OF VOLUME V