

II

JANUARY, 1860

(ÆT. 42)

Jan. 2. 8 A. M. — 15° below.

Take the whole day, this is probably the coldest thus far.

The past December has been remarkable for steady cold, or coldness, and sleighing.

Jan. 3. P. M. — To Baker's Bridge *via* Walden.

As we passed the almshouse brook this pleasant winter afternoon, at 2.30 P. M. (perhaps 20°, for it was 10° when I got home at 4.45), I saw vapor curling along over the open part by the roadside.

The most we saw, on the pond and after, was a peculiar track amid the men and dog tracks, which we took to be a fox-track, for he trailed his feet, leaving a mark, in a peculiar manner, and showed his wildness by his turning off the road.

Saw four snow buntings by the railroad causeway, just this side the cut, quite tame. They arose and alighted on the rail fence as we went by. Very stout for their length. Look very pretty when they fly and reveal the clear white space on their wings next the body, — white between the blacks. They were busily eating the seed of the piper grass on the embankment there, and it was strewn over the snow by them like

oats in a stable. Melvin speaks of seeing flocks of them on the river meadows in the fall, when they are of a different color.

Melvin thinks that the musquash eat more clams now than ever, and that they leave the shells in heaps under the ice. As the river falls it leaves them space enough under the ice along the meadow's edge and bushes. I think he is right. He speaks of the mark of the tail, which is dragged behind them, in the snow, — as if made by a case-knife.

He does not remember that he ever sees the small hawk, *i. e.* pigeon hawk, here in winter. He shot a large hawk the other day, when after quails. Had just shot a quail, when he heard another utter a peculiar note which indicated that it was pursued, and saw it dodge into a wall, when the hawk alighted on an apple tree. Quails are very rare here, but where they are is found the hunter of them, whether he be man or hawk.

When a locomotive came in, just before the sun set, I saw a small cloud blown away from it which was a very rare but distinct violet purple.

I hear that one clearing out a well lately, perhaps in Connecticut, found one hundred and seventy and odd frogs and some snakes in it.

Jan. 4. P. M. — To second stone bridge and down river.

It is frozen directly under the stone bridge, but a few feet below the bridge it is open for four rods, and over that exceedingly deep hole, and again at that very swift and shallow narrow place some dozen rods lower.

These are the only places open between this bridge and the mouth of the Assabet, except here and there a crack or space a foot wide at the springy bank just below the Pokelogan.

It is remarkable that the deepest place in either of the rivers that I have sounded should be open, simply on account of the great agitation of the water there. This proves that it is the swiftness and not warmth that makes the shallow places to be open longest.

In Hosmer's pitch pine wood just north of the bridge, I find myself on the track of a fox — as I take it — that has run about a great deal. Next I come to the tracks of rabbits, see where they have travelled back and forth, making a well-trodden path in the snow; and soon after I see where one has been killed and apparently devoured. There are to be seen only the tracks of what I take to be the fox. The snow is much trampled, or rather flattened by the body of the rabbit. It is somewhat bloody and is covered with flocks of slate-colored and brown fur, but only the rabbit's tail, a little ball of fur, an inch and a half long and about as wide, white beneath, and the contents of its paunch or of its entrails are left, — nothing more. Half a dozen rods further, I see where the rabbit has been dropped on the snow again, and some fur is left, and there are the tracks of the fox to the spot and about it. There, or within a rod or two, I notice a considerable furrow in the snow, three or four inches wide and some two rods long, as if one had drawn a stick along, but there is no other mark or track whatever; so I conclude that a partridge, perhaps scared by the fox,

had dashed swiftly along so low as to plow the snow. But two or three rods further on one side I see more sign, and lo! there is the remainder of the rabbit, — the whole, indeed, but the tail and the inward or soft parts, — all frozen stiff; but here there is no distinct track of any creature, only a few scratches and marks where some great bird of prey — a hawk or owl — has struck the snow with its primaries on each side, and one or two holes where it has stood. Now I understand how that long furrow was made, the bird with the rabbit in its talons flying low there, and now I remember that at the first bloody spot I saw some of these quill-marks; and therefore it is certain that the bird had it there, and probably he killed it, and he, perhaps disturbed by the fox, carried it to the second place, and it is certain that he (probably disturbed by the fox again) carried it to the last place, making a furrow on the way.

If it had not been for the snow on the ground I probably should not have noticed any signs that a rabbit had been killed. Or, if I had chanced to see the scattered fur, I should not have known what creature did it, or how recently. But now it is partly certain, partly probable, — or, supposing that the bird could not have taken it from the fox, it is almost all certain, — that an owl or hawk killed a rabbit here last night (the fox-tracks are so fresh), and, when eating it on the snow, was disturbed by a fox, and so flew off with it half a dozen rods, but, being disturbed again by the fox, it flew with it again about as much further, trailing it in the snow for a couple of rods as it flew, and there

it finished its meal without being approached. A fox would probably have torn and eaten some of the skin.

When I turned off from the road my expectation was to see some tracks of wild animals in the snow, and, before going a dozen rods, I crossed the track of what I had no doubt was a fox, made apparently the last night, — which had travelled extensively in this pitch pine wood, searching for game. Then I came to rabbit-tracks, and saw where they had travelled back and forth in the snow in the woods, making a perfectly trodden path, and within a rod of that was a hollow in the snow a foot and a half across, where a rabbit had been killed. There were many tracks of the fox about that place, and I had no doubt then that he had killed that rabbit, and I supposed that some scratches which I saw might have been made by his frisking some part of the rabbit back and forth, shaking it in his mouth. I thought, Perhaps he has carried off to his young, or buried, the rest. But as it turned out, though the circumstantial evidence against the fox was very strong, I was mistaken. I had made him kill the rabbit, and shake and tear the carcass, and eat it all up but the tail (almost); but it seems that he did not do it at [all], and apparently never got a mouthful of the rabbit. Something, surely, must have disturbed the bird, else why did it twice fly along with the heavy carcass?

The tracks of the bird at the last place were two little round holes side by side, the dry snow having fallen in and concealed the track of its feet.

It was most likely an owl, because it was most likely that the fox would be abroad by night.

The sweet-gale has a few leaves on it yet in some places, partly concealing the pretty catkins.

Again see what the snow reveals. Opposite Dodge's Brook I see on the snow and ice some fragments of frozen-thawed apples under an oak. How came they there? There are apple trees thirty rods off by the road. On the snow under the oak I see two or three tracks of a crow, and the droppings of several that were perched on the tree, and here and there is a perfectly round hole in the snow under the tree. I put down my hand and draw up an apple [out] of each, from beneath the snow. (There are no tracks of squirrels about the oak.) Crows carried these frozen-thawed apples from the apple trees to the oak, and there ate them, — what they did not let fall into the snow or on to the ice.

See that long meandering track where a deer mouse hopped over the soft snow last night, scarcely making any impression. What if you could witness with owls' eyes the revelry of the wood mice some night, frisking about the wood like so many little kangaroos? Here is a palpable evidence that the woods are nightly thronged with little creatures which most have never seen, — such populousness as commonly only the imagination dreams of.

The circumstantial evidence against that fox was very strong, for the deed was done since the snow fell and I saw no other tracks but his at the first places. Any jury would have convicted him, and he would have been hung, if he could have been caught.

Jan. 5. P. M. — *Via* Turnpike to Smith's and back by Great Road.

How much the snow reveals! I see where the downy woodpecker has worked lately by the chips of bark and rotten wood scattered over the snow, though I rarely see him in the winter. Once to-day, however, I hear his sharp voice, even like a woodchuck's. Also I have occasionally seen where (probably) a flock of goldfinches in the morning had settled on a hemlock's top, by the snow strewn with scales, literally blackened or darkened with them for a rod. And now, about the hill in front of Smith's, I see where the quails have run along the roadside, and can count the number of the bevy better than if I saw them. Are they not peculiar in this, as compared with partridges, — that they run in company, while at this season I see but [one] or two partridges together?

A man receives only what he is ready to receive, whether physically or intellectually or morally, as animals conceive at certain seasons their kind only. We hear and apprehend only what we already half know. If there is something which does not concern me, which is out of my line, which by experience or by genius my attention is not drawn to, however novel and remarkable it may be, if it is spoken, we hear it not, if it is written, we read it not, or if we read it, it does not detain us. Every man thus *tracks himself* through life, in all his hearing and reading and observation and travelling. His observations make a chain. The phenomenon or fact that cannot in any wise be linked with the rest which he has observed, he does not observe. By and by we may be ready to receive what we cannot receive now. I find, for example, in Aristotle some-

thing about the spawning, etc., of the pout and perch, because I know something about it already and have my attention aroused; but I do not discover till very late that he has made other equally important observations on the spawning of other fishes, because I am not interested in those fishes.

I see the dead stems of the water horchound just rising above the snow and curving outward over the bank of the Assabet, near the stone-heaps, with its brown clusters of dry seeds, etc., every inch or two. These, stripped off or rubbed between the fingers, look somewhat like ground coffee and are agreeably aromatic. They have the fragrance of lemon-peel.

Jan. 7. A thaw begins, with a southerly wind. From having been about 20° at midday, it is now (the thermometer) some 35° quite early, and at 2 P. M. 45°. At once the snow, which was dry and crumbling, is softened all over the country, not only in the streets, but in the remotest and slightest sled-track, where the farmer is hauling his wood; not only in yards, but in every woodland hollow and on every hill. There is a softening in the air and a softening underfoot. The softness of the air is something tangible, almost gross. Some are making haste to get their wood home before the snow goes, sledding, *i. e.* sliding, it home rapidly. Now if you take up a handful, it holds together and is readily fashioned and compressed into a ball, so that an endless supply of one kind of missiles is at hand.

I find myself drawn toward this softened snow, even that which is stained with dung in the road, as

to a friend. I see where some crow has pecked at the now thawing dung here. How provident is Nature, who permits a few kernels of grain to pass undigested through the entrails of the ox, for the food of the crow and dove, etc.!

As soon as I reach the neighborhood of the woods I begin to see the snow-fleas, more than a dozen rods from woods, amid a little goldenrod, etc., where, methinks, they must have come up through the snow. Last night there was not one to be seen. The frozen apples are thawed again.

You hear (in the house) the unusual sound of the eaves running.

Saw a large flock of goldfinches¹ running and feeding amid the weeds in a pasture, just like tree sparrows. Then flitted to birch trees, whose seeds probably they eat.² Heard their twitter and mew.

Nature so fills the soil with seeds that I notice, where travellers have turned off the road and made a new track for several rods, the intermediate narrow space is soon clothed with a little grove which just fills it.

See, at White Pond, where squirrels have been feeding on the fruit of a pignut hickory, which was quite full of nuts and still has many on it. The snow for a great space is covered with the outer shells, etc.; and, especially, close to the base of this and the neighboring trees of other species, where there is a little bare ground, there is a very large collection of the shells, most of which have been gnawed quite in two.

¹ These *were* goldfinches [see p. 82].

² So it is possible that they *also* eat hemlock seed.

The white pine cones show still as much as ever, hanging sickle-wise about the tops of the trees.

I saw yesterday the track of a fox, and in the course of it a place where he had apparently pawed to the ground, eight or ten inches, and on the just visible ground lay frozen a stale-looking mouse, probably rejected by him. A little further was a similar hole with some fur in it. Did he smell the dead or living mouse beneath and paw to it, or rather, catching it on the surface, make that hollow in his efforts to eat it? It would be remarkable if a fox could smell and catch a mouse passing under the snow beneath him! You would say that he need not make such a hole in order to eat the mouse.

Jan. 8. Began to rain last evening, and rained some in the night. To-day it is very warm and pleasant.

2 P. M. — Walk to Walden.

Thermometer 48 at 2 P. M. We are suddenly surrounded by a warm air from some other part of the globe. What a change! Yesterday morning we walked on dry and squeaking snow, but before night, without any rain, merely by the influence of that warm air which had migrated to us, softening and melting the snow, we began to slump in it. Now, since the rain of last night, the softest portions of the snow are dissolved in the street, revealing and leaving the filth which has accumulated there upon the firmer foundation, and we walk with open coats, charmed with the trickling of ephemeral rills.

After December all weather that is not wintry is

springlike. How changed are our feelings and thoughts by this more genial sky!

When I get to the railroad I listen from time to time to hear some sound out of the distance which will express this mood of Nature. The cock and the hen, that pheasant which we have domesticated, are perhaps the most sensitive to atmospheric changes of any domestic animals. You cannot listen a moment such a day as this but you will hear, from far or near, the clarion of the cock celebrating this new season, yielding to the influence of the south wind, or the drawling note of the hen dreaming of eggs that are to be. These are the sounds that fill the air, and no hum of insects. They are affected like voyagers on approaching the land. We discover a new world every time that we see the earth again after it has been covered for a season with snow.

I see the jay and hear his scream oftener for the thaw.

Walden, which was covered with snow, is now covered with shallow puddles and slosh of a pale glaucous slate-color. The sloshy edges of the puddles are the frames of so many wave-shaped mirrors in which the leather-colored oak leaves, and the dark-green pines and their stems, on the hillside, are reflected.

We see no fresh tracks. The old tracks of the rabbit, now after the thaw, are shaped exactly like a horse-shoe, an unbroken curve. Those of the fox which has run along the side of the pond are now so many white snowballs, raised as much above the level of the water-darkened snow as at first they sank beneath it. The snow, having been compressed by their weight, resists

the melting longer. Indeed, I see far across the pond, half a mile distant, what looks like a perfectly straight row of white stones, — some fence or other work of art, — stretching twenty rods along the bare shore. There are a man's tracks, perhaps my own, along the pond-side there, looking not only larger than reality, but more elevated owing to the looming, and are referred to the dark background against which they are seen. When I know that they are on the ice, they look like white stepping-stones.

I hear the goldfinch notes (they *may* be linarias), and see a few on the top of a small black birch by the pond-shore, of course eating the seed. Thus they distinguish its fruit from afar. When I heard their note, I looked to find them on a birch, and lo, it was a black birch!¹

We have a fine moonlight evening after, and as by day I have noticed that the sunlight reflected from this moist snow had more glitter and dazzle to it than when the snow was dry, so now I am struck by the brighter sheen from the snow in the moonlight. All the impurities in the road are lost sight of, and the melting snow shines like frostwork.

When returning from Walden at sunset, the only cloud we saw was a small purplish one, exactly conforming to the outline of Wachusett, — which it concealed, — as if on that mountain only the universal moisture was at that moment condensed.

The commonest difference between a public speaker who has not enjoyed the advantage of the highest

¹ Were they not linarias? *Vide* Jan. 24, 27, 29.

education in the popular sense, at school and college, and one who has, is that the former will pronounce a few words, and use a few more, in a manner in which the scholars have agreed not to, and the latter will occasionally quote a few Latin and even Greek words with more confidence, and, if the subject is the derivation of words, will maintain a wise silence.

Jan. 9. Another fine warm day, — 48° at 2 P. M.

P. M. — To Walden.

I call that ice marbled when shallow puddles of melted snow and rain, with perhaps some slosh in them, resting on old ice, are frozen, showing a slightly internal marbling, or alternation of light and dark spots or streaks.

I see, on a slender oak (not white oak) overhanging the pond, two knots which, though near, I at first mistook for vireo nests. One was in a fork, too, and both were just the right size and color, if not form. Thus, too, the nests may be concealed to some eyes.

I am interested by a clump of young canoe birches on the hillside shore of the pond. There is an interesting variety in the colors of their bark, passing from bronze at the earth, through ruddy and copper colors to white higher up, with shreds of different color from that beneath peeling off. Going close to them, I find that at first, or till ten feet high, they are a dark bronze brown, a wholly different-looking shrub from what they afterward become, with some ruddy tinges, and, of course, regular white specks; but when they get to be about two inches in diameter, the outmost

cuticle bursts up and down the tree on the south side, and peels off each way, under the influence, probably, of the sun and rain and wind, and perhaps aided sometimes by birds. It is as if the tree unbuttoned a thin waistcoat and suffered it to blow aside, revealing its bosom or inner garment, which is a more ruddy brown, or sometimes greenish or coppery; and thus one cuticle peels off after another till it is a ruddy white, as if you saw to a red ground through a white wash; and at length it is snow-white, about five or six feet from the ground, for it is first white there, while the top, where it is smaller and younger, is still dark-brown. It may be, then, half a dozen years old before it assumes the white toga which is its distinctive dress.

After the January thaw our thoughts cease to refer to autumn and we look forward to spring.

I hear that R. M——, a rich old farmer who lives in a large house, with a male housekeeper and no other family, gets up at three or four o'clock these winter mornings and milks seventeen cows regularly. When asked why he works so hard he answers that the poor are obliged to work hard. Only think, what a creature of fate he is, this old Jotun, milking his seventeen cows though the thermometer goes down to -25° , and not knowing why he does it, — draining sixty-eight cows' teats in the dark of the coldest morning! Think how helpless a rich man who can only do as he has done, and as his neighbors do, one or all of them! What an account he will have to give of himself! He spent some time in a world, alternately cold and warm, and every winter morning, with lantern in hand, when the frost

goblins were playing their tricks, he resolutely accomplished his task and milked his seventeen cows, while the man housekeeper prepared his breakfast! If this were original with him, he would be a hero to be celebrated in history. Think how tenaciously every man does his deed, of some kind or other, though it be idleness! He is rich, dependent on nobody, and nobody is dependent on him; has as good health as the average, at least, can do as he pleases, as we say. Yet he gravely rises every morning by candle-light, dons his cowhide boots and his frock, takes his lantern and wends to the barn and milks his seventeen cows, milking with one hand while he warms the other against the cow or his person. This is but the beginning of his day, and his Augean stable work. So serious is the life he lives.

Jan. 12. The very slight rain of yesterday afternoon turned to snow in the night, and this morning considerable has fallen and is still falling. At noon it clears up. About eight inches deep.

I go forth to walk on the Hill at 3 P. M. Thermometer about 30° .

It is a very beautiful and spotless snow now, it having just ceased falling. You are struck by its peculiar tracklessness, as if it were a thick white blanket just spread. As it were, each snowflake lies as it first fell, or there is a regular gradation from the denser bottom up to the surface, which is perfectly light, and as it were fringed with the last flakes that fell. This was a star snow, dry, but the stars of considerable size. It lies up light as down. When I look closely it seems to

be chiefly composed of crystals in which the six rays or leaflets are more or less perfect, with a cottony powder intermixed. It is not yet in the least melted by the sun. The sun is out very bright and pretty warm, and, going from the sun, I see a myriad sparkling points scattered over its surface, — little mirror-like facets, which on examination I find to be one of those star wheels (more or less entire) from an eighth to a third of an inch in diameter, which has fallen in the proper position, reflecting an intensely bright little sun, as if it were a thin and uninterrupted scale of mica. Such is the glitter or sparkle on the surface of such a snow freshly fallen when the sun comes out and you walk from it, the points of light constantly changing. I suspect that these are good evidence of the freshness of the snow. The sun and wind have not yet destroyed these delicate reflectors.

The aspect of the pines now, with their plumes and boughs bent under their burden of snow, is what I call *glyphic*, like lumpish forms of sculpture, — a certain dumb sculpture.

There is a wonderful stillness in the air, so that you hear the least fall of snow from a bough near you, suggesting that perhaps it was of late equally still in what you called the snow-storm, except for the motion of the falling flakes and their rustling on the dry leaves, etc.

Looking from the hilltop, the pine woods half a mile or a mile distant north and northwest, their sides and brows especially, snowed up like the fronts of houses, look like great gray or grayish-white lichens, cetrarias maybe, attached to the sides of the hills. Those oak

woods whose leaves have fallen have caught the snow chiefly on their lower and more horizontal branches, and these look somewhat like ramalina lichens.

As I stand by the hemlocks, I am greeted by the lively and unusually prolonged *tche de de de de de* of a little flock of chickadees. The snow has ceased falling, the sun comes out, and it is warm and still, and this flock of chickadees, little birds that perchance were born in their midst, feeling the influences of this genial season, have begun to flit amid the snow-covered fans of the hemlocks, jarring down the snow, — for there are hardly bare twigs enough for them to rest on, — or they plume themselves in some snug recess on the sunny side of the tree, only pausing to utter their *tche de de de*.

The locust pods, which were abundant, are still, part of them, unopened on the trees.

I notice, as I am returning half an hour before sunset, the thermometer about 24°, much vapor rising from the thin ice which has formed over the snow and water to-day by the riverside. Here, then, I actually see the vapor rising *through* the ice.

Jan. 13. Tuttle was saying to-day that he did remember a certain man's living with him once, from something that occurred. It was this: The man was about starting for Boston market for Tuttle, and Mrs. Tuttle had been telling him what to get for her. The man inquired if that was all, and Mrs. Tuttle said no, she wanted some nutmegs. "How many," he asked. Tuttle, coming along just then, said, "Get a bushel."

When the man came home he said that he had had a good deal of trouble about the nutmegs. He could not find so many as were wanted, and, besides, they told him that they did not sell them by the bushel. But he said that he would take a bushel by the weight. Finally he made out to get a peck of them, which he brought home. It chanced that nutmegs were very high just then, so Tuttle, after selecting a few for his own use, brought the remainder up to town and succeeded in disposing of them at the stores for just what he gave for them.

One man at the post-office said that a crow would drive a fox. He had seen three crows pursue a fox that was crossing the Great Meadows, and he fairly ran from [them] and took refuge in the woods.

Farmer says that he remembers his father's saying that as he stood in a field once, he saw a hawk soaring above and eying something on the ground. Looking round, he saw a weasel there eying the hawk. Just then the hawk stooped, and the weasel at the same instant sprang upon him, and up went the hawk with the weasel; but by and by the hawk began to come down as fast as he went up, rolling over and over, till he struck the ground. His father, going up, raised him up, when out hopped the weasel from under his wing and ran off none the worse for his fall.

The surface of the snow, now that the sun has shone on it so long, is not so light and downy, almost impalpable, as it was yesterday, but is somewhat flattened down and looks even as if [it] had had a skim-coat of some whitewash. I can see sparkles on it, but they are finer than at first and therefore less dazzling.

The thin ice of the Mill Brook sides at the Turnpike bridge is sprinkled over with large crystals which look like asbestos or a coarse grain. This is no doubt the vapor of last evening crystallized. I see vapor rising from and curling along the open brook and also rising from the end of a plank in the sun, which is wet with melted snow, though the thermometer was 16° only when I left the house.

I see in low grounds numerous heads of bidens, with their seeds still.

I see under some sizable white pines in E. Hubbard's wood, where red squirrels have run about much since this snow. They have run chiefly, perhaps, under the surface of the snow, so that it is very much undermined by their paths under these trees, and every now and then they have come to the surface, or the surface has fallen into their gallery. They seem to burrow under the snow about as readily as a meadow mouse. There are also paths raying out on every side from the base of the trees. And you see many holes through the snow into the ground where they now are, and other holes where they have probed for cones and nuts. The scales of the white pine cones are scattered about here and there. They seek a dry place to open them, — a fallen limb that rises above the snow, or often a lower dead stub projecting from the trunk of the tree.

Jan. 14. About an inch more snow fell this morning. An average snow-storm is from six to eight inches deep on a level.

The snow having ceased falling this forenoon, I go

to Holden Wood, Conantum, to look for tracks. It is too soon. I see none at all but those of a hound, and also where a partridge waded through the light snow, apparently while it was falling, making a deep gutter.

Yesterday there was a broad field of bare ice on each side of the river, *i. e.* on the meadows, and now, though it is covered with snow an inch deep, as I stand on the river or even on Fair Haven Hill a quarter to half a mile off, I can see where the ice is through the snow, *plainly*, trace its whole outline, it being quite dark compared with where the snow has fallen on snow. In this case a mantle of light snow even an inch thick is not sufficient to conceal the darkness of the ice beneath it, where it is contrasted with snow on snow.

Those little groves of sweet-fern still thickly leaved, whose tops now rise above the snow, are an interesting warm brown-red now, like the reddest oak leaves. Even this is an agreeable sight to the walker over snowy fields and hillsides. It has a wild and jagged leaf, alternately serrated. A warm reddish color revealed by the snow.

It is a mild day, and I notice, what I have not observed for some time, that blueness of the air only to be perceived in a mild day. I see it between me and woods half a mile distant. The softening of the air amounts to this. The mountains are quite invisible. You come forth to see this great blue presence lurking about the woods and the horizon.

Jan. 16. P. M. — Down Boston road around Quail Hill.

Very warm, — 45° at 2 P. M.

There is a tender crust on the snow, and the sun is brightly reflected from it. Looking toward Billerica from the cross-road near White's, the young oaks on the top of a hill in the horizon are very red, perhaps seven or eight miles off and directly opposite to the sun, far more red, no doubt, than they would appear near at hand, really bright red; but nowhere else that I perceive. It is an aerial effect, depending on their distance and elevation and being opposite to the sun, and also contrasted with the snowy ground.

Looking from Smith's Hill on the Turnpike, the hills eight or ten miles west are white, but the mountains thirty miles off are blue, though both may be equally white at the same distance.

I see a flock of tree sparrows busily picking something from the surface of the snow amid some bushes. I watch one attentively, and find that it is feeding on the very fine brown chaffy-looking seed of the panicked andromeda. It understands how to get its dinner, to make the plant *give down*, perfectly. It flies up and alights on one of the dense brown panicles of the hard berries, and gives it a vigorous shaking and beating with its claws and bill, sending down a shower of the fine chaffy-looking seed on to the snow beneath. It lies very distinct, though fine almost as dust, on the spotless snow. It then hops down and briskly picks up from the snow what it wants. How very clean and agreeable to the imagination, and withal abundant, is this kind of food! How delicately they fare! These dry persistent seed-vessels hold their crusts of bread

until shaken. The snow is the white table-cloth on which they fall. No anchorite with his water and his crust fares more simply. It shakes down a hundred times as much as it wants at each shrub, and shakes the same or another cluster after each successive snow. How bountifully Nature feeds them! No wonder they come to spend the winter with us, and are at ease with regard to their food. These shrubs ripen an abundant crop of seeds to supply the wants of these immigrants from the far north which annually come to spend the winter with us. How neatly and simply it feeds!

This shrub grows unobserved by most, only known to botanists, and at length matures its hard, dry seed-vessels, which, if noticed, are hardly supposed to contain seed. But there is no shrub nor weed which is not known to some bird. Though you may have never noticed it, the tree sparrow comes from the north in the winter straight to this shrub, and confidently shakes its panicle, and then feasts on the fine shower of seeds that falls from it.

Jan. 17. Another mild day.

P. M. — To Goose Pond and Walden.

Sky overcast, but a crescent of clearer in the northwest.

I see on the snow in Hubbard's Close one of those rather large flattish black bugs some five eighths of an inch long, with feelers and a sort of shield at the forward part with an orange mark on each side of it. In the spring-hole ditches of the Close I see many



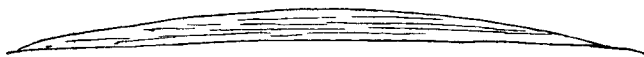
little water-bugs (*Gyrimus*) gyrating, and some under

water. It must be a common phenomenon there in mild weather in the winter.

I look again at that place of squirrels (of the 13th). As I approach, I have a glimpse of one or two red squirrels gliding off silently along the branches of the pines, etc. They are gone so quickly and noiselessly, perhaps keeping the trunk of the tree between you and them, that [you] would not commonly suspect their presence if you were not looking for them. But one that was on the snow ascended a pine and sat on a bough with its back to the trunk as if there was nothing to pay. Yet when I moved again he scud up the tree, and glided across on some very slender twigs into a neighboring tree, and so I lost him. Here is, apparently, a settlement of these red squirrels. There are many holes through the snow into the ground, and many more where they have probed and dug up a white pine cone, now pretty black and, for aught I can see, with abortive or empty seeds; yet they patiently strip them on the spot, or at the base of the trees, or at the entrance of their holes, and evidently find some good seed. The snow, however, is strewn with the empty and rejected seeds. They seem to select for their own abode a hillside where there are half a dozen rather large and thick white pines near enough together for their aerial travelling, and then they burrow numerous holes and depend on finding (apparently) the pine cones which they cast down in the summer, before they have opened. In the fall they construct a nest of grass and bark-fibres, moss, etc., in one of the trees for winter use, and so apparently have two resources.

I walk about Ripple Lake and Goose Pond. I see the old tracks of some foxes and rabbits about the edge of these ponds (over the ice) within a few feet of the shore. I think that I have noticed that animals thus commonly go round by the shore of a pond, whether for fear of the ice, or for the shelter of the shore, *i. e.* not to be seen, or because their food and game is found there. But a dog will oftener bolt straight across.

When I reached the open railroad causeway returning, there was a splendid sunset. The northwest sky at first was what you may call a lattice sky, the fair weather establishing itself first on that side in the form of a long and narrow crescent, in which the clouds, which were uninterrupted overhead, were broken into long bars parallel to the horizon, thus: —



Alcott said well the other day that this was his definition of heaven, "A place where you can have a little conversation."

Jan. 18. 2 P. M. — To Fair Haven Pond, on river.

Thermometer 46; sky mostly overcast.

The temperature of the air and the clearness or serenity of the sky are indispensable to a knowledge of a day, so entirely do we sympathize with the moods of nature. It is important to know of a day that is past whether it was warm or cold, clear or cloudy, calm or windy, etc.

They are very different seasons in the winter when the ice of the river and meadows and ponds is bare, — blue or green, a vast glittering crystal, — and when it is all covered with snow or slush; and our moods correspond. The former may be called a crystalline winter.

Standing under Lee's Cliff, several chickadees, uttering their faint notes, come flitting near to me as usual. They are busily prying under the bark of the pitch pines, occasionally knocking off a piece, while they cling with their claws on any side of the limb. Of course they are in search of animal food, but I see one suddenly dart down to a seedless pine seed wing on the snow, and then up again. C. says that he saw them busy about these wings on the snow the other [day], so I have no doubt that they eat this seed.

There is a springy place in the meadow near the Conantum elm.

The sky in the reflection at the open reach at Hubbard's Bath is more green than in reality, and also darker-blue, and the clouds are blacker and the purple more distinct.

Jan. 19. P. M. — Down river.

2 P. M. — Thermometer 38. Somewhat cloudy at first.

The open water at Barrett's Bar is very small compared with that at Hubbard's Bath yesterday, and I think it could not have frozen much last night.

It is evident mere shallowness is not enough to prevent freezing, for that shallowest space of all, in middle of river at Barrett's Bar, has been frozen ever since the

winter began. It is the swifter though *deeper*, but not *deep*, channels on each side that remain open.

When I reached the lowest part of the Great Meadows, the neck of the Holt, I saw that the ice, thickly covered with snow, before me was of two shades, white and darker, as far as I could see in parallel sections. This was owing to fine snow blown low over the first — hence white — portion. I noticed it when I was returning toward the sun. This snow looks just like vapor curling along over the surface, — long waving lines producing the effect of a watered surface, very interesting to look at, when you face the sun, waving or curving about swellings in the ice like the grain of wood, the whole surface in motion, like a low, thin, but infinitely broad stream made up of a myriad meandering rills of vapor flowing over the surface. It *seemed* to rise a foot or two, yet when I laid my finger on the snow I did not perceive that any of the drifting snow rose above it or passed over it; it rather turned and went round it. It was the snow, probably the last light snow of the morning (when half an inch fell), blown by the strong northwest wind just risen, and apparently blown only where the surface beneath was smooth enough to let it slide. On such a surface it would evidently be blown a mile very quickly. Here the distance over which it was moving may have been half a mile. As you look down on it around you, you only see it moving straight forward in a thin sheet; but when you look at it several rods off in the sun, it has that waving or devious motion like vapor and flames, very agreeable and surprising.



Jan. 20. 2 P. M. — 39°. Up Assabet.

The snow and ice under the hemlocks is strewn with cones and seeds and tracked with birds and squirrels. What a bountiful supply of winter food is here provided for them! No sooner has fresh snow fallen and covered up the old crop than down comes a new supply all the more distinct on the spotless snow. Here comes a little flock of chickadees, attracted by me as usual, and perching close by boldly; then, descending to the snow and ice, I see them pick up the hemlock seed which lies all around them. Occasionally they take one to a twig and hammer at it there under their claws, perhaps to separate it from the wing, or even the shell. The snowy ice and the snow on shore have been blackened with these fallen cones several times over this winter. The snow along the sides of the river is also all dusted over with birch and alder seed, and I see where little birds have picked up the alder seed.

At R. W. E.'s red oak I see a gray squirrel, which has been looking after acorns there, run across the river. The half-inch snow of yesterday morning shows its tracks plainly. They are much larger and more like a rabbit's than I expected.



The squirrel runs in an undulating manner, though it is a succession of low leaps of from two and a half to three feet. Each four tracks occupy a space some six

or seven inches long. Each foot-track is very distinct, showing the toes and protuberances of the foot, and is from an inch and a half to an inch and three quarters long. The clear interval between the hind and fore feet is four to five inches. The fore feet are from one and a half to three inches apart in the clear; the hind, one to two inches apart. I see that what is probably the track of the same squirrel near by is sometimes in the horseshoe form, *i. e.*, when its feet are all brought close together:  the open side still forward. I must have often  mistaken this for a rabbit. But is not the bottom of the rabbit's foot so hairy that I should never see these distinct marks or protuberances?

This squirrel ran up a maple till he got to where the stem was but little bigger than his body, and then, getting behind the gray-barked stem, which was almost exactly the color of its body, it clasped it with its fore feet and there hung motionless with the end of its tail blowing in the wind. As I moved, it steadily edged round so as to keep the maples always between me and it, and I only saw its tail, the sides of its body projecting, and its little paws clasping the tree. It remained otherwise perfectly still as long as I was thereabouts, or five or ten minutes. There was a leafy nest in the tree.


Jan. 22. P. M. — Up river to Fair Haven Pond; return *via* Andromeda Ponds and railroad.

Overcast, but some clear sky in southwest horizon; mild weather still.

Where the sedge grows rankly and is uncut, as along the edge of the river and meadows, what fine coverts

are made for mice, etc., at this season! It is arched over, and the snow rests chiefly on its ends, while the middle part is elevated from six inches to a foot and forms a thick thatch, as it were, even when all is covered with snow, under which the mice and so forth can run freely, out of the way of the wind and of foxes. After a pretty deep snow has just partially melted, you are surprised to find, as you walk through such a meadow, how high and lightly the sedge lies up, as if there had been no pressure upon it. It grows, perhaps, in dense tufts or tussocks, and when it falls over, it forms a thickly thatched roof.

Nature provides shelter for her creatures in various ways. If the musquash, etc., has no longer extensive fields of weed and grass to crawl in, what an extensive range it has under the ice of the meadows and riversides! for, the water settling directly after freezing, an icy roof of indefinite extent is thus provided for it, and it passes almost its whole winter under shelter, out of the wind and invisible to men.

The ice is so much rotted that I observe in many places those lunar-shaped holes, and dark places in the ice, convex up-stream, sometimes double-lunar. 

I perceive that the open places in the river do not preserve the same relative importance that they had December 29th. Then the largest four or five stood in this order: (1) below boat's place, (2) below junction, (3) Barrett's Bar, (4) Clamshell or else Hubbard's Bath. Now it is (1) below junction, (2) Hubbard's Bath or else Clamshell. I do not know but Clamshell is as

large as Hubbard's Bath. Which of the others is largest I am not quite sure. In other words, below junction and Hubbard's Bath (if not also Clamshell, not seen) retain about their former size, while below boat's place and Barrett's Bar have been diminished, especially below boat's place.

Birds are commonly very rare in the winter. They are much more common at some times than at others. I see more tree sparrows in the beginning of the winter (especially when snow is falling) than in the course of it. I think that by observation I could tell in what kind of weather afterward these were most to be seen. Crows come about houses and streets in very cold weather and deep snows, and they are heard cawing in pleasant, thawing winter weather, and their note is then a pulse by which you feel the quality of the air, *i. e.*, when cocks crow. For the most part, lesser redpolls and pine grosbeaks do not appear at all. Snow buntings are very wandering. They were quite numerous a month ago, and now seem to have quit the town. They seem to ramble about the country at will.

C. says that he followed the track of a fox all yesterday afternoon, though with some difficulty, and then lost it at twilight. I suggested that he should begin next day where he had left off, and that following it up thus for many days he might catch him at last. "By the way," I asked, "did you go the same way the fox did, or did you take the back track?" "Oh," said he, "I took the back track. It would be of no use to go the other way, you know."

Minott says that a hound which pursues a fox by

scent cannot tell which way he is going; that the fox is very cunning and will often return on its track over which the dog had already run. It will ascend a high rock and then leap off very far to one side; so throw the dogs off the scent for a while and gain a breathing-spell.

I see, in one of those pieces of drifted meadow (of last spring) in A. Wheeler's cranberry meadow, a black willow thus transplanted more than ten feet high and five inches in diameter. It is quite alive.

The snow-fleas are thickest along the edge of the wood here, but I find that they extend quite across the river, though there are comparatively few over the middle. There are generally fewer and fewer the further you are from the shore. Nay, I find that they extend quite across Fair Haven Pond. There are two or three inches of snow on the ice, and thus they are revealed. There are a dozen or twenty to a square rod on the very middle of the pond. When I approach one, it commonly hops away, and if it gets a good spring it hops a foot or more, so that it is at first lost to me. Though they are scarcely the twentieth of an inch long they make these surprising bounds, or else conceal themselves by entering the snow. We have now had many days of this thawing weather, and I believe that these fleas have been gradually hopping further and further out from the shore. To-day, perchance, it is water, a day or two later ice, and no fleas are seen on it. Then snow comes and covers the ice, and if there is no thaw for a month, you see no fleas for so long. But, at least soon after a thaw, they are to be seen on the centre

of ponds at least half a mile across. Though this is my opinion, it is by no means certain that they come here thus, for I am prepared to believe that the water in the middle may have had as many floating on it, and that these were afterward on the surface of the ice, though unseen, and hence under the snow when it fell, and ready to come up through it when the thaw came. But what do they find to eat in apparently pure snow so far from any land? Has their food come down from the sky with the snow? They must themselves be food for many creatures. This must be as peculiarly a winter animal as any. It may truly be said to live in snow.

I see some insects  of about this form on the snow:

I scare a partridge that was eating the buds and ends of twigs of the *Vaccinium vacillans* on a hillside.

At the west or nesæa end of the largest Andromeda Pond, I see that there has been much red ice, more than I ever saw, but now spoiled by the thaw and snow.

The leaves of the water andromeda are evidently more appressed to the twigs, and showing the gray under sides, than in summer.

Jan. 23. 8 A. M. — On river.

Walking on the ice by the side of the river this very pleasant morning, I see many minnows (may be dace) from one and a half to four inches long which have come out, through holes or cracks a foot wide more or less, where the current has worn through and shows

the dark stream, and the water has flown over the adjacent ice, sinking it down so as to form a shallow water four or five feet wide or more, and often several rods long, and four or five inches deep on the side next the crack, or deepest side. This water has a yellowish color, and a fish or anything else in it is at once seen. I think that they come out into this thin water overlying the ice for the sake of the sun's warmth. Much heat must be reflected from the icy bottom this sunny morning, — a sort of anticipation of spring to them. This shallow surface water is also thinly frozen over, and I can sometimes put my hand close over the minnow. When alarmed they make haste back to the dark water of the crack, and seek the depths again.

Each pleasant morning like this all creatures recommence life with new resolutions, — even these minnows, methinks.

That snow which in the afternoons these days is thawing and dead — in which you slump — is now hard and crisp, supporting your weight, and has a myriad brilliant sparkles in the sunlight.

When a thaw comes, old tracks are enlarged in every direction, so that an ordinary man's track will look like the track of a snow-shoe, and a hound's track will sometimes have spread to a foot in diameter (when there is a thin snow on ice), with all the toes distinct, looking like the track of a behemoth or megalonyx.

Minott says that pigeons alight in great flocks on the tops of hemlocks in March, and he thinks they eat the seed. (But he also thought for the same reason

that they ate the white pine seed at the same season, when it is not there! They might find a little of the last adhering to the pitch.)

Says he used to shoot the gray squirrel thus: he put his hat or coat upon a stick while the squirrel hung behind an upright limb, then, going round to the side, he shot him, for the squirrel avoided exposing himself to the coat as much as to the man.

He has stood on the steep hill southwest side of Moore's Swamp and seen two foxes chase a white rabbit all about it. The rabbit would dodge them in the thicket, and now and then utter a loud cry of distress. The foxes would burst out on the meadow and then dash into the thicket again. This was when the wood had been cut and he could see plainly. He says that the white rabbit loves to sit concealed under the over-arching cinnamon ferns (which he calls "buck-horns") on the sunny side of a swamp, or under a tuft of brakes which are partly fallen over. That a hound in its head-long course will frequently run over the fox, which quickly turns and gets off three or four rods before the former can stop himself.

For Spring and Blossoming *vide* Pliny, vol. ii, page 163.

Jan. 24. 2 P. M. — To Tarbell, river, *via* railroad.

Thermometer 46. Sky thinly overcast, growing thicker at last as if it would rain. Wind northwest.

See a large flock of lesser redpolls, eating the seeds of the birch (and perhaps alder¹) in Dennis Swamp

¹ *Vide* the 29th.

by railroad. They are distinct enough from the gold-finch, their note more shelly and general as they fly, and they are whiter, without the black wings, beside that some have the crimson head or head and breast. They alight on the birches, then swarm on the snow beneath, busily picking up the seed in the copse.

The Assabet is open above Derby's Bridge as far as I go or see, probably to the factory, and I know not how far below Derby's. It opens up here sooner than below the Assabet Bath to its mouth.

The blue vervain stands stiffly and abundant in one place, with much rather large brown seed in it. It is in good condition.

Scare a shrike from an apple tree. He flies low over the meadow, somewhat like a woodpecker, and alights near the top twig of another apple tree. See a hawk sail over meadow and woods; not a hen-hawk; possibly a marsh hawk. A grasshopper on the snow. The droppings of a skunk left on a rock, perhaps at the beginning of winter, were full of grasshoppers' legs.

As I stand at the south end of J. P. B.'s moraine, I watch six tree sparrows, which come from the wood and alight and feed on the ground, which is there bare. They are only two or three rods from me, and are incessantly picking and eating an abundance of the fine grass (short-cropped pasture grass) on that knoll, as a hen or goose does. I see the stubble an inch or two long in their bills, and how they stuff it down. Perhaps they select chiefly the green parts. So they vary their fare and there is no danger of their starving. These six hopped round for five minutes over a space a rod square

before I put them to flight, and then I noticed, in a space only some four feet square in that rod, at least eighteen droppings (white at one end, the rest more slate-colored). So wonderfully active are they in their movements, both external and internal. They do not suffer for want of a good digestion, surely. No doubt they eat some earth or gravel too. So do partridges eat a great deal. These birds, though they have bright brown and buff backs, hop about amid the little inequalities of the pasture almost unnoticed, such is their color and so humble are they.

Solomon thus describes the return of Spring (Song of Solomon, ii, 10-12):—

“Rise up, my love, my fair one, and come away.

“For, lo, the winter is past, the rain is over and gone;

“The flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land.”

Jan. 25. In keeping a journal of one's walks and thoughts it seems to be worth the while to record those phenomena which are most interesting to us at the time. Such is the weather. It makes a material difference whether it is foul or fair, affecting surely our mood and thoughts. Then there are various degrees and kinds of foulness and fairness. It may be cloudless, or there may be sailing clouds which threaten no storm, or it may be partially overcast. On the other hand it may rain, or snow, or hail, with various degrees of intensity. It may be a transient thunder-storm, or a shower, or a flurry of snow, or it may be a prolonged

storm of rain or snow. Or the sky may be overcast or rain-threatening. So with regard to temperature. It may be warm or cold. Above 40° is warm for winter. One day, at 38 even, I walk dry and it is good sleighing; the next day it may have risen to 48, and the snow is rapidly changed to slosh. It may be calm or windy. The finest winter day is a cold but clear and glittering one. There is a remarkable life in the air then, and birds and other creatures appear to feel it, to be excited and invigorated by it. Also warm and melting days in winter are inspiring, though less characteristic.

I will call the weather fair, if it does not threaten rain or snow or hail; foul, if it rains or snows or hails, or is so overcast that we expect one or the other from hour to hour. To-day it is fair, though the sky is slightly overcast, but there are *sailing* clouds in the southwest.

The river is considerably broken up by the recent thaw and rain, but the Assabet much the most, probably because it is swifter and, owing to mills, more fluctuating.

When the river begins to break up, it becomes clouded like a mackerel sky, but in this case the blue portions are where the current, clearing away the ice beneath, begins to show dark. The current of the water, striking the ice, breaks it up at last into portions of the same form with those which the wind gives to vapor. First, all those open places which I measured lately much enlarge themselves each way.

Saw A. Hosmer approaching in his pung. He cal-

culated so that we should meet just when he reached the bare planking of the causeway bridge, so that his horse might as it were stop of his own accord and no other excuse would be needed for a talk. He says that he has seen that little bird (evidently the shrike) with mice in its claws. Wonders what has got all the rabbits this winter. Last winter there were hundreds near his house; this winter he sees none.

Jan. 26. Fair, but overcast. Thermometer about 32°. Pretty good skating on the Great Meadows, slightly raised and smoothed by the thaw and also the rain of (I think) the 23d-24th.

Great revolutions of this sort take place before you are aware of it. Though you walk every day, you do not foresee the kind of walking you will have the next day. Skating, crusted snow, slosh, etc., are wont to take you by surprise.

P. M. — To Eleazer Davis's Hill, and made a fire on the ice, merely to see the flame and smell the smoke. We soon had a slender flame flashing upward some four feet, — so many parallel undulating tongues. The air above and about it was all in commotion, being heated so that we could not see the landscape distinctly or steadily through it. If only to see the *pearl* ashes and hear the brands sigh.

Jan. 27. 2 P. M. — Up river to Fair Haven Pond, and return by Walden.

Half a dozen redpolls busily picking the seeds out of the larch cones behind Monroe's. They are pretty

tame, and I stand near. They perch on the slender twigs which are beaded with cones, and swing and teeter there while they perseveringly peck at them, trying now this one, now that, and sometimes appearing to pick out and swallow them quite fast. I notice no redness or carmine at first, but when the top of one's head comes between me and the sun it unexpectedly glows.

Fair and hardly a cloud to be seen. Thermometer 28. (But it is overcast from the northwest before sunset.)

After the January thaw we have more or less of crusted snow, *i. e.* more consolidated and crispy. When the thermometer is not above 32 this snow for the most part bears, — if not too deep.

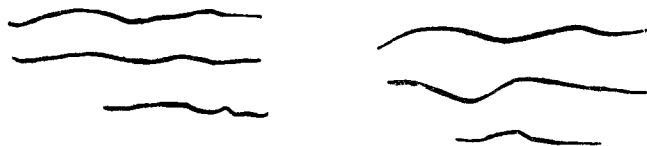
Now I see, as I am on the ice by Hubbard's meadow, some wisps of vapor in the west and southwest advancing. They are of a fine, white, thready grain, curved



like skates at the end. Have we not more finely divided clouds in winter than in summer? flame-shaped, asbestos-like? I doubt if the clouds show as fine a grain in warm weather. They are wrung dry now. They are not expanded but contracted, like spiculæ. What hieroglyphics in the winter sky!

Those wisps in the west advanced and increased like white flames with curving tongues, — like an aurora by

day. Now I see a few hard and distinct ripple-marks at right angles with them, or parallel with the horizon, the



lines indicating the ridges of the ripple-marks. These are like the abdominal plates of a snake. This occupies only a very small space in the sky. Looking right up overhead, I see some gauzy cloud-stuff there, so thin as to be grayish, — brain-like, finely reticulated; so thin yet so firmly drawn, membranous. These, methinks, are always seen overhead only. Now, underneath the flamy asbestos part, I detect an almost imperceptible rippling in a thin lower vapor, — an incipient mackerel-ling (in *form*). Now, nearly to the zenith, I see, not a mackerel sky, but blue and thin, blue-white, finely mixed, like fleece finely picked and even strewn over a blue ground. The white is in small roundish flocks. In a mackerel sky there is a parallelism of oblongish scales. This is so remote as to appear stationary, while a lower vapor is rapidly moving eastward.

Such clouds as the above are the very thin advance-guard of the cloud behind. It soon comes on more densely from the northwest, and darkens all.

No bright sunset to-night.

What fine and pure reds we see in the sunset sky! Yet earth is not ransacked for dye-stuffs. It is all accomplished by the sunlight on vapor at the right angle, and the sunset sky is constant if you are at the

right angle. The sunset sky is sometimes more northerly, sometimes more southerly. I saw one the other day occupying only the south horizon, but very fine, and reaching more than half-way to the zenith from west to east. This may either be for want of clouds or from excess of them on certain sides.

As I go along the edge of Hubbard's Wood, on the ice, it is very warm in the sun — and calm there. There are certain spots I could name, by hill and wood sides, which are always thus sunny and warm in fair weather, and have been, for aught I know, since the world was made. What a distinction they enjoy!

How many memorable localities in a river walk! Here is the warm wood-side; next, the good fishing bay; and next, where the old settler was drowned when crossing on the ice a hundred years ago. It is all storied.

I occasionally hear a musquash plunge under the ice next the shore.

These winter days I occasionally hear the note of a goldfinch, or maybe a redpoll, unseen, passing high overhead.

When you think that your walk is profitless and a failure, and you can hardly persuade yourself not to return, it is on the point of being a success, for then you are in that subdued and knocking mood to which Nature never fails to open.

Jan. 29. Colder than before, and not a cloud in the sky to-day.

P. M. — To Fair Haven Pond and return *via* Andromeda Ponds and railroad.

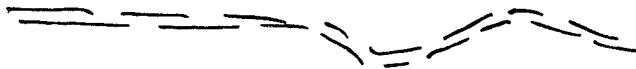
Half an inch or more of snow fell last night, the ground being half bare before. It was a snow of small flakes not star-shaped.

As usual, I now see, walking on the river and river-meadow ice, thus thinly covered with the fresh snow, that conical rainbow, or parabola of rainbow-colored reflections, from the myriad reflecting crystals of the snow, *i. e.*, as I walk toward the sun, —



always a little in advance of me, of course, angle of reflection being equal to that of incidence.

To-day I see quite a flock of the lesser redpolls eating the seeds of the alder, picking them out of the cones just as they do the larch, often head downward; and I see, under the alders, where they have run and picked up the fallen seeds, making chain-like tracks, two parallel lines.



Not only the Indian, but many wild birds and quadrupeds and insects, welcomed the apple tree to these shores. As it grew apace, the bluebird, robin, cherry-bird, kingbird, and many more came with a rush and built their nests in it, and so became orchard-birds.

The woodpecker found such a savory morsel under its bark that he perforated it in a ring quite round the tree, a thing he had never done before. It did not take the partridge long to find out how sweet its buds were, and every winter day she flew and still flies from the wood to pluck them, much to the farmer's sorrow. The rabbit too was not slow to learn the taste of its twigs and bark. The owl crept into the first one that became hollow, and fairly hooted with delight, finding it just the place for him. He settled down into it, and has remained there ever since. The lackey caterpillar saddled her eggs on the very first twig that was formed, and it has since divided her affections with the wild cherry; and the canker-worm also in a measure abandoned the elm to feed on it. And when the fruit was ripe, the squirrel half carried, half rolled, it to his hole, and even the musquash crept up the bank and greedily devoured it; and when it was frozen and thawed, the crow and jay did not disdain to peck it.¹ And the beautiful wood duck, having made up her mind to stay a while longer with us, has concluded that there is no better place for her too.

Jan. 30. 2 P. M. — To Nut Meadow and White Pond road.

Thermometer 45°. Fair with a few cumuli of indefinite outline in the north and south, and dusky under sides. A gentle west wind and a blue haze. Thaws.

The river has opened to an unusual extent, owing to the very long warm spell, — almost all this month.

¹ [Excursions, pp. 293, 294; Riv. 360, 361.]

Even from Hubbard's Bridge up and down it is breaking up, is all mackerelled, with lunar-shaped openings and some like a thick bow.

 They [are] from one to twelve feet long.

Yesterday's slight snow is all gone, leaving the ice, old snow, and bare ground; and as I walk up the riverside, there is a brilliant sheen from the wet ice toward the sun, instead of the crystalline rainbow of yesterday. Think of *that* (of yesterday), — to have constantly before you, receding as fast as you advance, a bow formed of a myriad crystalline mirrors on the surface of the snow!! What miracles, what beauty surrounds us! Then, another day, to do all your walking knee-deep in perfect six-rayed crystals of surpassing beauty but of ephemeral duration, which have fallen from the sky.

The ice has so melted on the meadows that I see where the musquash has left his clamshells in a heap near the riverside, where there was a hollow in the bank.



The small water-bugs are gyrating abundantly in Nut Meadow Brook. It is pleasant also to see the very distinct ripple-marks in the sand at its bottom, of late so rare a sight.

I go through the piny field northwest of M. Miles's. There are no more beautiful natural parks than these pastures in which the white pines have sprung up spontaneously, standing at handsome intervals, where the wind chanced to let the seed lie at last, and the grass and blackberry vines have not yet been killed by them.

There are certain sounds invariably heard in warm

and thawing days in winter, such as the crowing of cocks, the cawing of crows, and sometimes the gobbling of turkeys. The crow, flying high, touches the tympanum of the sky for us, and reveals the tone of it. What does it avail to look at a thermometer or barometer compared with listening to his note? He informs me that Nature is in the tenderest mood possible, and I hear the very flutterings of her heart.

Crows have singular wild and suspicious ways. You will [see] a couple flying high, as if about their business, but lo, they turn and circle and caw over your head again and again for a mile; and this is their business, — as if a mile and an afternoon were nothing for them to throw away. This even in winter, when they have no nests to be anxious about. But it is affecting to hear them cawing about their ancient seat (as at F. Wheeler's wood) which the choppers are laying low.

I saw the other day (apparently) mouse(?)-tracks which had been made in slosh  on the Andromeda Ponds and  then frozen, — little gutters about two inches wide and nearly one deep, looking very artificial with the nicks on the sides.

I sit on the high hilltop south of Nut Meadow, near the pond. This hazy day even Nobscot is so blue that it looks like a mighty mountain. See how man has cleared commonly the most level ground, and left the woods to grow on the more uneven and rocky, or in the swamps. I see, when I look over our landscape from any eminence as far as the horizon, certain rounded hills, amid the plains and ridges and cliffs, which have

a marked family likeness, like eggs that belong to one nest though scattered. They suggest a relation geologically. Such are, for instance, Nashoba, Annursnack, Nawshawtuct, and Ponkawtasset, all which have Indian names, as if the Indian, too, had regarded them as peculiarly distinct. There is also Round Hill in Sudbury, and perhaps a hill in Acton. Perhaps one in Chelmsford. They are not apparently rocky.

The snow-flea seems to be a creature whose summer and prime of life is a thaw in the winter. It seems not merely to enjoy this interval like other animals, but then chiefly to exist. It is the creature of the thaw. Moist snow is its element. That thaw which merely excites the cock to sound his clarion as it were calls to life the snow-flea.

Jan. 31. 2 P. M. — To Bedford Level.

Thermometer 45. Fair but all overcast. Sun's place quite visible. Wind southwest.

Went to what we called Two-Boulder Hill, behind the house where I was born. There the wind suddenly changed round 90° to northwest, and it became quite cold (had fallen to 24° or 24° [*sic*] at 5.30). Called a field on the east slope Crockery Field, there were so many bits in it. Saw a pitch pine on a rock about four feet high, but two limbs flat on the ground. This spread much and had more than a hundred cones of different ages on it. Such are always the most fertile.

Can look a great way northeast along the Bedford Swamp. Saw a large hawk, probably hen-hawk.

The ice that has been rotting and thawing from time

to time on the meadows — the water run out from below — has many curious marks on it. There are many ingrained waving lines more or less parallel. Often they make circular figures, or oval, and are concentric, as if they marked the edge of a great bubble or the like.



I notice the ice on a ditched brook so far worn by the current as to be mackerelled in color, white and dark, all along the middle, making a figure two or three rods long which reminds me forcibly of the flat skin of a boa-constrictor, — marked just like it.