

## THE POND IN WINTER

AFTER a still winter night I awoke with the impression that some question had been put to me, which I had been endeavoring in vain to answer in my sleep, as what — how — when — where? But there was dawning Nature, in whom all creatures live, looking in at my broad windows with serene and satisfied face, and no question on *her* lips. I awoke to an answered question, to Nature and daylight. The snow lying deep on the earth dotted with young pines, and the very slope of the hill on which my house is placed, seemed to say, Forward! Nature puts no question and answers none which we mortals ask. She has long ago taken her resolution. "O Prince, our eyes contemplate with admiration and transmit to the soul the wonderful and varied spectacle of this universe. The night veils without doubt a part of this glorious creation; but day comes to reveal to us this great work, which extends from earth even into the plains of the ether."

Then to my morning work. First I take an axe and pail and go in search of water, if that be not a dream. After a cold and snowy night it needed a divining-rod to find it. Every winter the liquid and trembling surface of the pond, which was so sensitive to every breath, and reflected every light and shadow, becomes solid to the depth

of a foot or a foot and a half, so that it will support the heaviest teams, and perchance the snow covers it to an equal depth, and it is not to be distinguished from any level field. Like the marmots in the surrounding hills, it closes its eyelids and becomes dormant for three months or more. Standing on the snow-covered plain, as if in a pasture amid the hills, I cut my way first through a foot of snow, and then a foot of ice, and open a window under my feet, where, kneeling to drink, I look down into the quiet parlor of the fishes, pervaded by a softened light as through a window of ground glass, with its bright sanded floor the same as in summer; there a perennial waveless serenity reigns as in the amber twilight sky, corresponding to the cool and even temperament of the inhabitants. Heaven is under our feet as well as over our heads.

Early in the morning, while all things are crisp with frost, men come with fishing-reels and slender lunch, and let down their fine lines through the snowy field to take pickerel and perch; wild men, who instinctively follow other fashions and trust other authorities than their townsmen, and by their goings and comings stitch towns together in parts where else they would be ripped. They sit and eat their luncheon in stout fear-naughts on the dry oak leaves on the shore, as wise in natural lore as the citizen is in artificial. They never consulted with books, and know and can tell much less than they have done. The things which they practice are said not yet to be known. Here is one fishing for pickerel with grown perch for bait. You look into his pail with wonder as into a summer pond, as if he kept summer locked up at home,

or knew where she had retreated. How, pray, did he get these in midwinter? Oh, he got worms out of rotten logs since the ground froze, and so he caught them. His life itself passes deeper in nature than the studies of the naturalist penetrate; himself a subject for the naturalist. The latter raises the moss and bark gently with his knife in search of insects; the former lays open logs to their core with his axe, and moss and bark fly far and wide. He gets his living by barking trees. Such a man has some right to fish, and I love to see nature carried out in him. The perch swallows the grub-worm, the pickerel swallows the perch, and the fisherman swallows the pickerel; and so all the chinks in the scale of being are filled.

When I strolled around the pond in misty weather I was sometimes amused by the primitive mode which some ruder fisherman had adopted. He would perhaps have placed alder branches over the narrow holes in the ice, which were four or five rods apart and an equal distance from the shore, and having fastened the end of the line to a stick to prevent its being pulled through, have passed the slack line over a twig of the alder, a foot or more above the ice, and tied a dry oak leaf to it, which, being pulled down, would show when he had a bite. These alders loomed through the mist at regular intervals as you walked half way round the pond.

Ah, the pickerel of Walden! when I see them lying on the ice, or in the well which the fisherman cuts in the ice, making a little hole to admit the water, I am always surprised by their rare beauty, as if they were fabulous fishes, they are so foreign to the streets, even to the

woods, foreign as Arabia to our Concord life. They possess a quite dazzling and transcendent beauty which separates them by a wide interval from the cadaverous cod and haddock whose fame is trumpeted in our streets. They are not green like the pines, nor gray like the stones, nor blue like the sky; but they have, to my eyes, if possible, yet rarer colors, like flowers and precious stones, as if they were the pearls, the animalized *nuclei* or crystals of the Walden water. They, of course, are Walden all over and all through; are themselves small Waldens in the animal kingdom, Waldenses. It is surprising that they are caught here, — that in this deep and capacious spring, far beneath the rattling teams and chaises and tinkling sleighs that travel the Walden road, this great gold and emerald fish swims. I never chanced to see its kind in any market; it would be the cynosure of all eyes there. Easily, with a few convulsive quirks, they give up their watery ghosts, like a mortal translated before his time to the thin air of heaven.

As I was desirous to recover the long lost bottom of Walden Pond, I surveyed it carefully, before the ice broke up, early in '46, with compass and chain and sounding line. There have been many stories told about the bottom, or rather no bottom, of this pond, which certainly had no foundation for themselves. It is remarkable how long men will believe in the bottomlessness of a pond without taking the trouble to sound it. I have visited two such Bottomless Ponds in one walk in this neighborhood. Many have believed that Walden reached quite through to the other side of the globe.

Some who have lain flat on the ice for a long time, looking down through the illusive medium, perchance with watery eyes into the bargain, and driven to hasty conclusions by the fear of catching cold in their breasts, have seen vast holes "into which a load of hay might be driven," if there were anybody to drive it, the undoubted source of the Styx and entrance to the Infernal Regions from these parts. Others have gone down from the village with a "fifty-six" and a wagon load of inch rope, but yet have failed to find any bottom; for while the "fifty-six" was resting by the way, they were paying out the rope in the vain attempt to fathom their truly immeasurable capacity for marvellousness. But I can assure my readers that Walden has a reasonably tight bottom at a not unreasonable, though at an unusual, depth. I fathomed it easily with a cod-line and a stone weighing about a pound and a half, and could tell accurately when the stone left the bottom, by having to pull so much harder before the water got underneath to help me. The greatest depth was exactly one hundred and two feet; to which may be added the five feet which it has risen since, making one hundred and seven. This is a remarkable depth for so small an area; yet not an inch of it can be spared by the imagination. What if all ponds were shallow? Would it not react on the minds of men? I am thankful that this pond was made deep and pure for a symbol. While men believe in the infinite some ponds will be thought to be bottomless.

A factory-owner, hearing what depth I had found, thought that it could not be true, for, judging from his acquaintance with dams, sand would not lie at so steep an

angle. But the deepest ponds are not so deep in proportion to their area as most suppose, and, if drained, would not leave very remarkable valleys. They are not like cups between the hills; for this one, which is so unusually deep for its area, appears in a vertical section through its centre not deeper than a shallow plate. Most ponds, emptied, would leave a meadow no more hollow than we frequently see. William Gilpin, who is so admirable in all that relates to landscapes, and usually so correct, standing at the head of Loch Fyne, in Scotland, which he describes as "a bay of salt water, sixty or seventy fathoms deep, four miles in breadth," and about fifty miles long, surrounded by mountains, observes, "If we could have seen it immediately after the diluvian crash, or whatever convulsion of nature occasioned it, before the waters gushed in, what a horrid chasm must it have appeared!

"So high as heaved the tumid hills, so low  
Down sunk a hollow bottom, broad, and deep,  
Capacious bed of waters —."

But if, using the shortest diameter of Loch Fyne, we apply these proportions to Walden, which, as we have seen, appears already in a vertical section only like a shallow plate, it will appear four times as shallow. So much for the *increased* horrors of the chasm of Loch Fyne when emptied. No doubt many a smiling valley with its stretching cornfields occupies exactly such a "horrid chasm," from which the waters have receded, though it requires the insight and the far sight of the geologist to convince the unsuspecting inhabitants of this fact. Often an inquisitive eye may detect the shores

of a primitive lake in the low horizon hills, and no subsequent elevation of the plain have been necessary to conceal their history. But it is easiest, as they who work on the highways know, to find the hollows by the puddles after a shower. The amount of it is, the imagination, give it the least license, dives deeper and soars higher than Nature goes. So, probably, the depth of the ocean will be found to be very inconsiderable compared with its breadth.

As I sounded through the ice I could determine the shape of the bottom with greater accuracy than is possible in surveying harbors which do not freeze over, and I was surprised at its general regularity. In the deepest part there are several acres more level than almost any field which is exposed to the sun, wind, and plow. In one instance, on a line arbitrarily chosen, the depth did not vary more than one foot in thirty rods; and generally, near the middle, I could calculate the variation for each one hundred feet in any direction beforehand within three or four inches. Some are accustomed to speak of deep and dangerous holes even in quiet sandy ponds like this, but the effect of water under these circumstances is to level all inequalities. The regularity of the bottom and its conformity to the shores and the range of the neighboring hills were so perfect that a distant promontory betrayed itself in the soundings quite across the pond, and its direction could be determined by observing the opposite shore. Cape becomes bar, and plain shoal, and valley and gorge deep water and channel.

When I had mapped the pond by the scale of ten

rods to an inch, and put down the soundings, more than a hundred in all, I observed this remarkable coincidence. Having noticed that the number indicating the greatest depth was apparently in the centre of the map, I laid a rule on the map lengthwise, and then breadthwise, and found, to my surprise, that the line of greatest length intersected the line of greatest breadth *exactly* at the point of greatest depth, notwithstanding that the middle is so nearly level, the outline of the pond far from regular, and the extreme length and breadth were got by measuring into the coves; and I said to myself, Who knows but this hint would conduct to the deepest part of the ocean as well as of a pond or puddle? Is not this the rule also for the height of mountains, regarded as the opposite of valleys? We know that a hill is not highest at its narrowest part.

Of five coves, three, or all which had been sounded, were observed to have a bar quite across their mouths and deeper water within, so that the bay tended to be an expansion of water within the land not only horizontally but vertically, and to form a basin or independent pond, the direction of the two capes showing the course of the bar. Every harbor on the sea-coast, also, has its bar at its entrance. In proportion as the mouth of the cove was wider compared with its length, the water over the bar was deeper compared with that in the basin. Given, then, the length and breadth of the cove, and the character of the surrounding shore, and you have almost elements enough to make out a formula for all cases.

In order to see how nearly I could guess, with this

experience, at the deepest point in a pond, by observing the outlines of its surface and the character of its shores alone, I made a plan of White Pond, which contains about forty-one acres, and, like this, has no island in it, nor any visible inlet or outlet; and as the line of greatest breadth fell very near the line of least breadth, where two opposite capes approached each other and two opposite bays receded, I ventured to mark a point a short distance from the latter line, but still on the line of greatest length, as the deepest. The deepest part was found to be within one hundred feet of this, still farther in the direction to which I had inclined, and was only one foot deeper, namely, sixty feet. Of course, a stream running through, or an island in the pond, would make the problem much more complicated.

If we knew all the laws of Nature, we should need only one fact, or the description of one actual phenomenon, to infer all the particular results at that point. Now we know only a few laws, and our result is vitiated, not, of course, by any confusion or irregularity in Nature, but by our ignorance of essential elements in the calculation. Our notions of law and harmony are commonly confined to those instances which we detect; but the harmony which results from a far greater number of seemingly conflicting, but really concurring, laws, which we have not detected, is still more wonderful. The particular laws are as our points of view, as, to the traveller, a mountain outline varies with every step, and it has an infinite number of profiles, though absolutely but one form. Even when cleft or bored through it is not comprehended in its entirety.

What I have observed of the pond is no less true in ethics. It is the law of average. Such a rule of the two diameters not only guides us toward the sun in the system and the heart in man, but draw lines through the length and breadth of the aggregate of a man's particular daily behaviors and waves of life into his coves and inlets, and where they intersect will be the height or depth of his character. Perhaps we need only to know how his shores trend and his adjacent country or circumstances, to infer his depth and concealed bottom. If he is surrounded by mountainous circumstances, an Achillean shore, whose peaks overshadow and are reflected in his bosom, they suggest a corresponding depth in him. But a low and smooth shore proves him shallow on that side. In our bodies, a bold projecting brow falls off to and indicates a corresponding depth of thought. Also there is a bar across the entrance of our every cove, or particular inclination; each is our harbor for a season, in which we are detained and partially land-locked. These inclinations are not whimsical usually, but their form, size, and direction are determined by the promontories of the shore, the ancient axes of elevation. When this bar is gradually increased by storms, tides, or currents, or there is a subsidence of the waters, so that it reaches to the surface, that which was at first but an inclination in the shore in which a thought was harbored becomes an individual lake, cut off from the ocean, wherein the thought secures its own conditions, — changes, perhaps, from salt to fresh, becomes a sweet sea, dead sea, or a marsh. At the advent of each individual into this

life, may we not suppose that such a bar has risen to the surface somewhere? It is true, we are such poor navigators that our thoughts, for the most part, stand off and on upon a harborless coast, are conversant only with the bights of the bays of poesy, or steer for the public ports of entry, and go into the dry docks of science, where they merely refit for this world, and no natural currents concur to individualize them.

As for the inlet or outlet of Walden, I have not discovered any but rain and snow and evaporation, though perhaps, with a thermometer and a line, such places may be found, for where the water flows into the pond it will probably be coldest in summer and warmest in winter. When the ice-men were at work here in '46-7, the cakes sent to the shore were one day rejected by those who were stacking them up there, not being thick enough to lie side by side with the rest; and the cutters thus discovered that the ice over a small space was two or three inches thinner than elsewhere, which made them think that there was an inlet there. They also showed me in another place what they thought was a "leach-hole," through which the pond leaked out under a hill into a neighboring meadow, pushing me out on a cake of ice to see it. It was a small cavity under ten feet of water; but I think that I can warrant the pond not to need soldering till they find a worse leak than that. One has suggested, that if such a "leach-hole" should be found, its connection with the meadow, if any existed, might be proved by conveying some colored powder or sawdust to the mouth of the hole, and then putting a strainer over the spring in the meadow, which

would catch some of the particles carried through by the current.

While I was surveying, the ice, which was sixteen inches thick, undulated under a slight wind like water. It is well known that a level cannot be used on ice. At one rod from the shore its greatest fluctuation, when observed by means of a level on land directed toward a graduated staff on the ice, was three quarters of an inch, though the ice appeared firmly attached to the shore. It was probably greater in the middle. Who knows but if our instruments were delicate enough we might detect an undulation in the crust of the earth? When two legs of my level were on the shore and the third on the ice, and the sights were directed over the latter, a rise or fall of the ice of an almost infinitesimal amount made a difference of several feet on a tree across the pond. When I began to cut holes for sounding there were three or four inches of water on the ice under a deep snow which had sunk it thus far; but the water began immediately to run into these holes, and continued to run for two days in deep streams, which wore away the ice on every side, and contributed essentially, if not mainly, to dry the surface of the pond; for, as the water ran in, it raised and floated the ice. This was somewhat like cutting a hole in the bottom of a ship to let the water out. When such holes freeze, and a rain succeeds, and finally a new freezing forms a fresh smooth ice over all, it is beautifully mottled internally by dark figures, shaped somewhat like a spider's web, what you may call ice rosettes, produced by the channels worn by the water flowing from all sides to a centre. Sometimes,

also, when the ice was covered with shallow puddles, I saw a double shadow of myself, one standing on the head of the other, one on the ice, the other on the trees or hillside.

While yet it is cold January, and snow and ice are thick and solid, the prudent landlord comes from the village to get ice to cool his summer drink; impressively, even pathetically, wise, to foresee the heat and thirst of July now in January, — wearing a thick coat and mittens! when so many things are not provided for. It may be that he lays up no treasures in this world which will cool his summer drink in the next. He cuts and saws the solid pond, unroofs the house of fishes, and carts off their very element and air, held fast by chains and stakes like corded wood, through the favoring winter air, to wintry cellars, to underlie the summer there. It looks like solidified azure, as, far off, it is drawn through the streets. These ice-cutters are a merry race, full of jest and sport, and when I went among them they were wont to invite me to saw pit-fashion with them, I standing underneath.

In the winter of '46-7 there came a hundred men of Hyperborean extraction swoop down on to our pond one morning, with many carloads of ungainly-looking farming tools, — sleds, plows, drill-barrows, turf-knives, spades, saws, rakes, and each man was armed with a double-pointed pike-staff, such as is not described in the New-England Farmer or the Cultivator. I did not know whether they had come to sow a crop of winter rye, or some other kind of grain recently intro-

duced from Iceland. As I saw no manure, I judged that they meant to skim the land, as I had done, thinking the soil was deep and had lain fallow long enough. They said that a gentleman farmer, who was behind the scenes, wanted to double his money, which, as I understood, amounted to half a million already; but in order to cover each one of his dollars with another, he took off the only coat, ay, the skin itself, of Walden Pond in the midst of a hard winter. They went to work at once, plowing, harrowing, rolling, furrowing, in admirable order, as if they were bent on making this a model farm; but when I was looking sharp to see what kind of seed they dropped into the furrow, a gang of fellows by my side suddenly began to hook up the virgin mould itself, with a peculiar jerk, clean down to the sand, or rather the water, — for it was a very springy soil, — indeed all the *terra firma* there was, — and haul it away on sleds, and then I guessed that they must be cutting peat in a bog. So they came and went every day, with a peculiar shriek from the locomotive, from and to some point of the polar regions, as it seemed to me, like a flock of arctic snowbirds. But sometimes Squaw Walden had her revenge, and a hired man, walking behind his team, slipped through a crack in the ground down toward Tartarus, and he who was so brave before suddenly became but the ninth part of a man, almost gave up his animal heat, and was glad to take refuge in my house, and acknowledged that there was some virtue in a stove; or sometimes the frozen soil took a piece of steel out of a plowshare, or a plow got set in the furrow and had to be cut out.

To speak literally, a hundred Irishmen, with Yankee overseers, came from Cambridge every day to get out the ice. They divided it into cakes by methods too well known to require description, and these, being sledged to the shore, were rapidly hauled off on to an ice platform, and raised by grappling irons and block and tackle, worked by horses, on to a stack, as surely as so many barrels of flour, and there placed evenly side by side, and row upon row, as if they formed the solid base of an obelisk designed to pierce the clouds. They told me that in a good day they could get out a thousand tons, which was the yield of about one acre. Deep ruts and "cradle-holes" were worn in the ice, as on *terra firma*, by the passage of the sleds over the same track, and the horses invariably ate their oats out of cakes of ice hollowed out like buckets. They stacked up the cakes thus in the open air in a pile thirty-five feet high on one side and six or seven rods square, putting hay between the outside layers to exclude the air; for when the wind, though never so cold, finds a passage through, it will wear large cavities, leaving slight supports or studs only here and there, and finally topple it down. At first it looked like a vast blue fort or Valhalla; but when they began to tuck the coarse meadow hay into the crevices, and this became covered with rime and icicles, it looked like a venerable moss-grown and hoary ruin, built of azure-tinted marble, the abode of Winter, that old man we see in the almanac, — his shanty, as if he had a design to estivate with us. They calculated that not twenty-five per cent. of this would reach its destination, and that two or three per cent. would be

wasted in the cars. However, a still greater part of this heap had a different destiny from what was intended; for, either because the ice was found not to keep so well as was expected, containing more air than usual, or for some other reason, it never got to market. This heap, made in the winter of '46-7 and estimated to contain ten thousand tons, was finally covered with hay and boards; and though it was unroofed the following July, and a part of it carried off, the rest remaining exposed to the sun, it stood over that summer and the next winter, and was not quite melted till September, 1848. Thus the pond recovered the greater part.

Like the water, the Walden ice, seen near at hand, has a green tint, but at a distance is beautifully blue, and you can easily tell it from the white ice of the river, or the merely greenish ice of some ponds, a quarter of a mile off. Sometimes one of those great cakes slips from the ice-man's sled into the village street, and lies there for a week like a great emerald, an object of interest to all passers. I have noticed that a portion of Walden which in the state of water was green will often, when frozen, appear from the same point of view blue. So the hollows about this pond will, sometimes, in the winter, be filled with a greenish water somewhat like its own, but the next day will have frozen blue. Perhaps the blue color of water and ice is due to the light and air they contain, and the most transparent is the bluest. Ice is an interesting subject for contemplation. They told me that they had some in the ice-houses at Fresh Pond five years old which was as good as ever. Why is it that a bucket of water soon becomes putrid, but



frozen remains sweet forever? It is commonly said that this is the difference between the affections and the intellect.

Thus for sixteen days I saw from my window a hundred men at work like busy husbandmen, with teams and horses and apparently all the implements of farming, such a picture as we see on the first page of the almanac; and as often as I looked out I was reminded of the fable of the lark and the reapers, or the parable of the sower, and the like; and now they are all gone, and in thirty days more, probably, I shall look from the same window on the pure sea-green Walden water there, reflecting the clouds and the trees, and sending up its evaporations in solitude, and no traces will appear that a man has ever stood there. Perhaps I shall hear a solitary loon laugh as he dives and plumes himself, or shall see a lonely fisher in his boat, like a floating leaf, beholding his form reflected in the waves, where lately a hundred men securely labored.

Thus it appears that the sweltering inhabitants of Charleston and New Orleans, of Madras and Bombay and Calcutta, drink at my well. In the morning I bathe my intellect in the stupendous and cosmogonical philosophy of the Bhagvat-Geeta, since whose composition years of the gods have elapsed, and in comparison with which our modern world and its literature seem puny and trivial; and I doubt if that philosophy is not to be referred to a previous state of existence, so remote is its sublimity from our conceptions. I lay down the book and go to my well for water, and lo! there I meet the servant of the Bramin, priest of Brahma and Vishnu and

Indra, who still sits in his temple on the Ganges reading the Vedas, or dwells at the root of a tree with his crust and water jug. I meet his servant come to draw water for his master, and our buckets as it were grate together in the same well. The pure Walden water is mingled with the sacred water of the Ganges. With favoring winds it is wafted past the site of the fabulous islands of Atlantis and the Hesperides, makes the periplus of Hanno, and, floating by Ternate and Tidore and the mouth of the Persian Gulf, melts in the tropic gales of the Indian seas, and is landed in ports of which Alexander only heard the names.