Bowditch (Henry I.)

SKETCH

OF THE

LIFE AND CHARACTER

OF

NATHANIEL BOWDITCH, LL. D.

MADE AT THE

DEDICATION OF THE BOWDITCH SCHOOL,

JANUARY 7, 1862.

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PREFACE.

The following brief sketch of the life and character of Nathaniel Bowditch, LL. D., was prepared by me at the suggestion of the School Committee of Boston. They wished me to appear at the dedication of the Bowditch School, January 7, 1862, and make some remarks, as the representative of the family. I thought the subject appropriate, and therefore read the following. A few extra copies have been printed from the School Committee's Report.

H. I. B.

March 29, 1863.

SKETCH.

Gentlemen of the School Committee:

When your able and energetic Chairman informed me of the action of your Board relative to the bestowal of the name of my father and of my brother, on the magnificent building we have met to dedicate as one of the public schools of Boston, and when he requested me to appear here as the representative of my family, and to respond to this high tribute to the name we bear, I felt an inexpressible gratitude to your Board, but I shrunk from the task your Chairman presented to me. I well knew that no language I could use would fitly express either my own thoughts, or those of other members of my family, for this high honor the City of Boston thus pays to the memory of two of our most sacred dead.

On maturer consideration I decided that, in one point of view, I had no right thus to shrink from a path, which seemed providentially opened before me of doing some little service, at least, to the younger part of the audience on this occasion. I therefore gave notice that, if agreeable to the Committee, I would address some few words to the children of the school, and that my theme would be, The Life and Character of Nathaniel Bowditch, so far as it can be made a model for imitation by the pupils of the school, that is hereafter to bear his name. I am here therefore for this purpose, and, putting from my mind all thought of the many adult friends that I find around me, I intend, in the few remarks I shall offer, to devote myself exclusively to the children now present. I would fain hope that in what I shall say I shall perhaps influence for good not only these, but likewise, through them, others who will eventually occupy these benches.

It has seemed to me, Children, that you very naturally would like to hear something of the history of one whose name you will hereafter often necessarily repeat.

Nathaniel Bowditch was born March 26, 1773, about nine months before the far-famed destruction of the tea in Boston Harbor, previously to our Revolutionary struggle with Great Britain. His first breath was drawn amid the thrilling events of his country's birth in the same way that you are living in the stirring hours of this holy war, of what we may aptly call her *second* birth. His parents were very poor, but excellent. His grandmother he often, in after life, spoke of as a woman of great dignity of deportment and of exalted worth. Of his mother, no terms were ample enough to express his love. The influence of these two women over the boy was immense; kisses, rather than blows, were their chief mode of government, and a bright, cheerful, hard-working, truth-speaking, and truth-acting, religious life was the model they set before him in their daily walks. His father was by trade a cooper, and during the war of the Revolution often coasted along the New England shore, as captain of a small vessel. But he was unfortunate in more respects than one, and was ever poor.

Nathaniel had two sisters and three brothers, and he and they grew up together a family of love and of mutual respect.

It was somewhere during 1776 or 1777, or thereabouts, that Nathaniel first remembered to have awakened to a sense of the beautiful world we live in. It was on a fair summer evening, and the new moon was just setting in the west, when he, yet so young as to be held easily and fondly in his mother's arms, looked out from the window of their humble cottage upon the beautiful scene before them. He often, in after life, used to drive by the spot and point out to his children the small window at which his mother had stood. The house in which this occurrence took place, and also his first school-house, — quaint old relics of the past, — still remain. Only a few years since I was pleased to turn the old oaken latch which, doubtless, the boy had often turned

before. Both of the houses are in Danvers. They are, of course, very precious in our sight. Perhaps you, too, may like to see them there, if perchance you ever pass that way.

This Danvers school was kept by a lady, and, from one of her descendants, I learn that the boy was considered a good child, a gentle and studious pupil. With his companions at a higher school, and when somewhat older, he was very active, and being full of life, was not unwilling to try his skill in wrestling with any one, and sometimes made trial of a real rough-and-tumble good-humored fight. Yet he was no bully. He scorned to attack a younger and a weaker companion; but sometimes his prowess led him into contests with boys much older and stronger than himself. One of these contests he remembered for life, for, having with an overweening self-esteem of his own powers, challenged the champion of the school, he met with a sad reverse, and received a sound thrashing for his folly. His self-esteem was quite nipped in the bud; but in after life, when alluding to the event, he used to laugh with the greatest glee at the memory of his crest-fallen appearance at the termination of the contest. To confess the truth, I believe he never forgot that lesson, any more than Franklin did his whistle. For, though no one could ever accuse him of being a coward in after life, he was *prudent* in his actions, and never *volunteered* to contend with any one more powerful than himself, although in case of necessity he did so in opposing injustice or in sustaining the right.

About eight or nine years of age, he attended a Grammar School for boys in his native town of Salem. The most noted event that occurred to him in that school, and one suggestive of a talent distinctly seen in his after-life, was as follows:

From his earliest years he had been fond of arithmetic, — cyphering was his delight, — and before going to Master Watson's school, he had studied with his older brother, and was far advanced beyond most boys of his age. Entering the school,

he was told by the master that he was too young to begin arithmetic. In vain he gently urged that he already knew something of the matter, — the master was determined. At length a written request was made by the father that the boy should have his wish gratified. Of course the master yielded, but apparently vexed at the interference with his arrangements, he thought to check the pupil's ardor by setting, as a task, a sum in one of the higher rules of arithmetic. Fortunately, Nathaniel had studied it, and promptly performed the duty assigned. You will readily imagine his terror and indignation when, instead of receiving praise, he was accused of lying, in pretending to have done the sum, when it was quite evident to the master that one of the older boys of the school had helped him. Already the ferule was raised to inflict condign punishment for the supposed fault, when, happily, his older brother came to the rescue and saved him.

It was too late to prevent the only bitter, almost vindictive, feeling which he carried with him for many years, that he had been outraged in the most sensitive part of his nature, — his love of truth; and he longed to have some opportunity of repaying, as he said, that master, in his own coin. I do not think the wish a very Christian one, but it was a very natural one. Fortunately, both for himself and his master, the opportunity never offered. I do not think that he ever really regretted this result, for as I knew him in after life, his heart was too tender, too noble and forgiving, long to bear real malice.

While attending this school, the poverty of the family continued as great as before. He wore his summer clothes in winter, because no warmer ones could be bought; and when the boys laughed at him for being in such a dress, he only laughed at them in return for needing any thicker materials. White bread was a luxury; a coarse brown loaf was all that he could commonly get. I mention these facts simply as illustrative of the extreme poverty of the family, and to show how, as in case of his summer clothing, he made the best of his fate.

This trait he always had through life, and a very happy one it is too. It would be well if we all had it more than, at times, we seem to possess it.

When ten years old, as poverty still glared upon him, he left school forever, and was entered as apprentice in a ship chandler's shop, kept by Ropes & Hodges. This was his first grand step in his life of *self*-education. He then left the parental roof, and lived with his employer. The shop was near one of the wharves, and contained all the articles usually needed by sailors. At one of the long counters he had a desk, where, when not attending to calls of customers, he employed himself in cyphering. It is said also that in very warm weather he was often seen standing at the door engaged in the same employment. Even holidays, such as independence and general muster days, were devoted to his darling pursuit; and frequently after the store was closed, he remained until late in the evening. During the long winter evenings he sat by the side of the huge old kitchen chimney, and, aided by his rude light, still pored over his slate, while gently rocking with his foot the cradle of the sleeping babe of his master. He never, either in early or later life, allowed his studies to interfere with his humanity.

As he grew older, he read larger works that he could borrow. Chambers' Cyclopædia, in four large folio volumes, he used to say, first opened to him real knowledge. I have a copy of that work now in my library, which I prize very highly, because when, an old man, he bought a rare copy of it and gave to me as an affectionate memorial of his boyhood. Some smaller works of two or three hundred pages, on arithmetic, he *actually copied entire*. These, with other manuscripts, are now in the Public Library of the city of Boston; and very beautiful they always seemed to me, as evidences of his early learning, his poverty, and his indomitable energy in overcoming all the difficulties of his life. I say to myself, "A boy who would do all this, could not have had much time to do wrong." He also made dials, and at fourteen calculated and arranged a perfect almanac

for 1790, years before any other was published. Whilst engaged in this undertaking, he was more than usually busy. At early dawn or late at night, if any one asked for him, the reply was, "He is working at his almanac." This manuscript is likewise in your City Library.

About the same period, he first heard of algebra. One of his brothers told him that he had seen a singular book, in which letters instead of numbers were used for cyphering. Nathaniel's curiosity was greatly aroused, and he begged the owner to let him see the work. It is said that he scarcely slept that night. An old English sailor also taught him something in relation to mathematics and navigation. When leaving Salem, he patted the boy's head, saying, "Study well as you are doing now, and you will be a great man one of these days."

His industry, honesty, and studious habits, of course gained for him many friends, and the respect of even those older than himself. He was sometimes called upon as umpire in the disputes of his elders. He was noticed likewise by two clergymen of Salem, Drs. Prince and Bentley, both of them learned in the science of the day, and having a European correspondence. Both helped him very much by lending to him books. But the most importance assistance came from an event, which had happened years before, and of which, between the ages of sixteen and twenty-one, he was to avail himself most fully. As this event always has seemed to me providential in its effect upon the young man's career, and in reality upon all his subsequent life, I want to allude particularly to it. Sometime during our Revolutionary war, Dr. Kirwan, a learned chemist of Ireland, sent a part of a valuable scientific library across the British Channel. The vessel bearing it was seized by an American cruiser, and brought into Salem. The books were put up for sale at auction, and consisted of the best works of the day on mathematical subjects, — a body, so to speak, of European science. It is reported that so few felt interested in them, that an apothecary actually made a bid for them, for the purpose of

using them as wrapping-paper for his drugs! Fortunately, Dr. Prince persuaded a few more to join with him, and purchased the whole. From this nucleus arose the Salem Athenæum. Now, mark the sequel.

These volumes were just those most neeeded to perfect the education of the young mathematician. He was allowed to borrow them. He not only read, but *copied all the mathematical papers* he found in them, besides several single volumes. These relics of his industry are now, with the others already named, in our City Library. Some may think it owing to mere chance that just such books should have been taken to exactly this spot, as it were, to meet just such a youth. I prefer to think it the hand of God, which thus enabled an obscure youth of eighteen summers, thirsting for knowledge, in a small town on the New England coast, to be thus drawn within the very focus of the brightest of European scientific intellect. Remember, too, that while thus studious, he was all the time engaged during the day in the active duties of his store. How many of you, think you, could have done so?

Finding that references were frequently made to books in Latin, on his favorite subject, he commenced June, 1790, when seventeen years old, to study that language. He had no instruction, and was soon puzzled. Nothing daunted, however, he appealed to some collegians in their vacation to help him over the most difficult passages. But they were soon as puzzled as he. Finally, by dint of his own splendid energy of mind, and fixed purpose of soul, and aided by the admirable Dr. Bentley, he mastered in the original the greatest work of modern times, the "Principia," so called, by Sir Isaac Newton. He moreover discovered an error in it, which, however, he did not publish at that time, because a professor of Harvard said that the apprentice was himself in error.

When nineteen years old, he began the study of French, for the purpose of reading the works of French mathematicians. As this was his object, he did not wish to waste time, as he

thought about the pronunciation of the language. His teacher, however, would not consent to this, and the young man subsequently found to his great advantage that he had fortunately deferred to the superior judgment of his instructor, inasmuch as it was only a few years afterwards that he was the only one, on board a ship in which he had sailed to Spain, who could act as interpreter in French. He always said that a useful lesson had been then taught him, namely, to believe that any useful learning, even if not apparently of great present service, will, or may in the end, prove of paramount importance.

You perhaps may think that amid all these studies he ceased to be social, and to enjoy the companionship of others. Far from it. He was, during his whole life, one of the most social of beings. At the period we are now speaking of, he became a member of a debating society, and it was remarked of him that he spoke but seldom, and then much to the purpose, and because he had something to say. What a blessing it would be if some of our politicians and others would follow this rule!

He moreover dearly loved music, and for a time used to practice it with others. But in those days music, and intemperance, and other vices, were prone to go together. He soon found that his companions were no exception to the rule, and his temptations were great. Suddenly he arrested his career, by saying decidedly, "I will not be led downward, even by music."

From that moment he quitted these companions, and from fear of the like danger to his children, he would never allow them to study music. I think he was wrong in checking them, perfectly right in regard to his own course. At the present day, when music does not tend to this evil, he doubtless would have held a different opinion. The flute, however, which he threw aside at that time, I have in my study, and it is always to my soul a sweet, silent monitor to avoid temptation, from whatever source it may come.

At the age of twenty-one, he left his store, and during the

following summer was engaged as mathematical assistant to the surveyor of the town of Salem. Having finished this engagement, he accepted the offer of going as clerk to the East Indies. During this voyage, as he was to act as mate, and occasionally as seaman, he took few books, but was able to learn practical navigation.

His journal commences with a Latin motto, which literally translated means, "I will do what is right, and will not obey the dictates of any man." He afterwards made four more voyages during eight years, namely, to Lisbon, Cadiz, to India and Sumatra. In the last vessel he was captain and joint owner. Journals of all these voyages are now in the City Library. They consist chiefly of ship accounts, a few anecdotes and remarks on incidents, met with in the places he visited. During the last four years he was continuing his mathematical studies, and in making notes to the immortal work of Laplace on the "Mechanism of the Heavens." These notes were published, with a translation of the French work, nearly thirty years afterwards, but the principal part of these labors was done at times when many persons are either asleep or idle, namely, while sluggishly sailing on long voyages, or in early morning. One or two anecdotes are related of his sea-life, which I cannot help repeating, in the words of another.*

"During his third voyage, on the passage from Cadiz to Alicant, they were chased by a French privateer, and being well armed and manned, they determined on resistance. The duty assigned to Mr. Bowditch was that of handing up the powder upon deck. And in the midst of the preparations the captain looked into the cabin, where he was no less surprised than amused at finding his supercargo quietly seated by his powder, but busily occupied with his slate and pencil. He said to him, 'I suppose now you could make your will;' to which he smilingly assented. Afterwards, however, Mr. Bowditch

* Memoir of Nathaniel Bowditch, by his son, N. I. Bowditch, 1840.

requested a station near a gun, in case a privateer hove in sight."

The second anecdote shows the admirable skill in navigation to which he had attained. In his last voyage, Mr. Bowditch arrived off the coast on Christmas night, and in the height of a northeast snow storm. He had been unable to obtain any observation of the sun or stars for two days, and the wind, all the while, had been blowing in shore. He felt very anxious. On the afternoon of December 25, he came on deck, and took the management of the ship into his own hands. Feeling nearly confident, (as far as he could be so by merely calculating the direction and rate of the ship's course, during the previous two days,) of the precise distance of the vessel from land, he kept his eyes directed upon the spot where he presumed the light-house would show itself at the entrance of Salem harbor. For a moment the clouds of drifting snow ceased, and he saw the light for an instant only. "I am right," said he; and, keeping on the same course, in about an hour was anchored safely in Salem harbor.

Immediately after this last voyage, he was chosen president of a marine insurance company in Salem, and there he continued until his removal to Boston, in 1823, nearly forty years ago.

During his residence in Salem, he continued his studies, wrote many articles for learned societies, published various editions of his "Navigator," which for sixty-three years has held undoubted sway in the good opinion of American seamen. These various works drew the attention of learned Europeans in England, France, and Germany, and they enrolled his name as a member of most of their societies. Some corresponded with him.

I think that none will deem it indelicate on my part, if I mention the following fact. His name had become so well known in Europe, that though his modesty prevented him from giving any letters of introduction to me, when I visited that

continent, thirty years since, I found that I had simply to name myself as his son, to be received as one worthy of the kindest personal attentions from some, who shall be nameless, but they stand in the front rank of science in England, Scotland, and France. Harvard College early appreciated him, and repeatedly bestowed unsought-for honors upon him. The government of the United States twice offered to make him Professor at West Point.

In 1823 he removed to Boston, having been invited by some of the chief business men of this city to take charge of a new life insurance and trust company. That institution he had charge of at his death, and I may say, I believe, with truth that, having commenced as one of the smallest, it terminated in being one of the largest of the kind in State Street.

I think it best to leave to others to tell how much beloved and respected he became, the longer he lived in Boston. He was, at one time, the first mathematician in America. A star of greater magnitude in mathematics, and of a more peerless lustre has since risen to its zenith in our hemisphere; but at the time he lived, I think Mr. Bowditch may be said to have been first in America. Mr. Bowditch was also one of the ablest of business men in State Street. His integrity was ever without a stain. He was always foremost in any good work, either of private or public benevolence, and never failed to lend an eager ear to literary merit, struggling for existence. In his family he was not only a father, but the dearest, kindest, and most loving of friends. I do not believe he ever inflicted upon us any bodily punishment; yet we could not have disobeyed him any more than we could that which we believed to be the absolute mandates of God. His rewards were drawn from his beautiful science of astronomy. Our greatest griefs were not to receive, at our usual morning visits to his study, his peculiar mark of approbation of Orion's belt, or the Great Bear, as traced on our arms by his ever industrious pen. His delight in the evening was to study with us around him, engaged in our

various occupations. Conversation, so long as it was kindly, never disturbed him. But no sharp retorts, no ill-natured conversation were for a moment tolerated. Banishment from his presence, if need be, was threatened, and that always brought the culprit to penitence. His personal habits were to rise at six or six and a half o'clock in the morning, throughout the year, when he immediately breakfasted on simple dry-toasted bread and tea. Of course, this meal was by candlelight during about half the year. At noon, he for years, for his health's sake, and by medical advice, took only the simplest of meats. He believed in active exercise of the body, as well as of the mind. Three walks a day were his constant rule. This custom originated in 1808, when being threatened with consumption he was advised to adopt it. He continued it until his last illness. In 1834 his excellent wife died. They had been happily united many years. He never wholly recovered from this blow. His own health did not however begin to fail until sometime in the autumn of 1837. In January, 1838, he first took medical advice, but a fatal and far advanced disease had already its grasp upon him. He still kept at work, and visited his office in State Street until within a few weeks of his death. Then becoming more ill, and satisfied that he should never recover, he took leave, day after day, of most of his friends. His conversation with them was of the most simple and yet elevating character. He spoke of his past life, of his prospects of death, of his perfect calmness, and of his reliance on God. To one he spoke of the beauty of real goodness.

"Talents without goodness, and moral worth, I care little for," he remarked. Towards us, his children, as he said on one occasion, "fountains of love gushed out" whenever any one of us approached him.

It was my blessed privilege to be his sole attendant at night during the last six weeks of life. I cannot reveal to you the crowd of sweet memories that hover around these, to me, most sacred hours. How often did he awaken "at the dead of

night," pleasant as a little child, yet with the bright, clear mind of a philosopher. He told me of his past life, of his desire to be always innocent, to be active in every duty, and in the acquirement of all knowledge; and, on one occasion, he alluded to a saying that he remarked he had had impressed upon his mind when a youth, and when reading the life of a good man, namely, that a good man must have a happy death. Like the great German poet, Schiller, he became "calmer and calmer" as death drew near. Time would fail me were I to continue, and I forbear.

On March 16, 1838, he quietly passed away, conscious and serene, and hopeful, playful, even to the last moment. We buried him by the side of our mother, under Trinity Church. It was a quiet Sabbath morning, and delicate white snow-flakes fell upon his coffin as we transferred it from the bier to its last resting-place.

May his life and his *Euthanasia*, or Happy Death, be to you, girls, in some measure what it has ever been to his children, a stimulous to active exertion, in whatever good or great works your hands may find themselves called to perform; and I am sure that I can hope for you no more serene death than was vouchsafed to him.