## Henry Pickering Bowditch, M.D., LL.D., Harv.

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RIDDELL ([WILLIAM R:NWICK]) 1852-SUDHOFF (KARL [F. J.]) 1853ja] sc] R PI se se SC] Tis fro 49 Bul Tr (19 191 and Bu of t la. R with 1908 M 58 la. N Bull 60 life Bei mic [Ed C Tur KN 60 stu Ma log Mi F cop

HENRY PICKERING BOWDITCH, M.D., LL.D. HARV.

THE death of Dr. Bowditch, which came at the end of a day of quiet and peaceful unconsciousness, brought to a close a strong, courageous and useful life, marked from first to last by work accomplished, friendships formed and strength-

ened and honors fairly won.

It is now fully ten years since his serious malady (paralysis agitans) began to fetter his vigorous limbs, and for a long time past he had wished for the release of death. Activity and industry had been synonymous for him with living and breathing, so that the thought of being grasped in the tightening coils of this intangible and inexorable illness was intolerable to his spirit and he faced his fate unreconciled. In later years, however, he accepted the situation frankly and bent himself to recognize the many sources of happiness that still remained to him; and if his early attitude was characteristic of one tendency of his strong nature, another side came out quite as clearly in his gentleness and his readiness to appreciate the benefits that the hands of affection heaped about him.

Fortunately, the quality of his mind remained unchanged throughout his illness. To the end

<sup>&</sup>lt;sup>1</sup>Dr. Bowditch became unconscious during an apparently quiet sleep on the day before his death and did not regain consciousness again, though he came to himself sufficiently to show some signs of response to simple requests. He had a slight facial palsy but no paralysis of the limbs. The respiration became very slow, sinking for a time to the rate of four a minute. The probable diagnosis was thrombosis of a vertebral or the basilar artery, due to his long-standing arteriosclerosis.

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F wit 190 N 58 la. V Bul 60 he retained a keen interest in public and private matters, and his sense of fun never deserted him.2

Dr. Bowditch came fairly by his good qualities, — his fidelity, his intelligence, his outspeaking honesty and fearlessness, and his public spirit. His ancestors on both sides were Essex County people who represented New England at its best. His grandfather, Nathaniel Bowditch, began his career by working his way before the mast, but long before his death he had become a very distinguished writer on navigation and mathematics, a man of international reputation. Nathaniel's second son, Ingersoll, the father of Henry Bowditch, was a successful merchant long honored for his integrity, good judgment and generosity. Mrs. Ingersoll Bowditch was the daughter of Benjamin R. and Mary P. Nichols, of Salem, and granddaughter of the fearless and stalwart Col. Timothy Pickering,<sup>3</sup> Secretary of State under Washington.

Henry Bowditch was born 4 and bred in Boston, and the friends who knew him as a boy still have vivid memories of the house on Summer Street, nearly opposite the end of Chauncy Street, which his father occupied for many years, in the day when that portion of the city was delightful with

<sup>&</sup>lt;sup>2</sup>Only a week before his death Dr. Bowditch told the writer with great amusement the following story of his little grandson: The child, it appears, having been brought to pay a visit to his grandfather, sat watching his helplessness for a time and then asked him, "Are you sick?" On getting an affirmative answer the next question was, "What did you eat?"

<sup>3</sup>Deacon Timothy Pickering, father of Col. Timothy Pickering, had given evidence of the family boldness and patriotism by addressing to King George III an open letter (published in the Essex Gazette of Nov. 7, 1769) in which, after deploring the wasteful expenditure of the people's money by the royal government on needless "Pride and Luxury," he calls vigorously for economy and a redistribution of the taxes in favor of the poor. "I have," he writes, "an income of but eighty pounds sterling a year, including my own hands' labor; nevertheless I am freely willing to pay one-quarter part till my Public Debts are paid."

Debts are paid."

<sup>4</sup>Dr. Bowditch was born April 4, 1840, and died March 13, 1911.

shade trees and sunny gardens and still boasted a few detached houses of colonial build.

Bowditch entered Harvard as an undergraduate in 1857 and was graduated with his class in 1861. In the autumn of that year he entered the Lawrence Scientific School and began to study chemistry, but the Civil War was breaking out and the two Bowditches, Henry first, Charles nineteen months later, enlisted for the field. Henry joined the First Massachusetts Cavalry as second lieutenant in November, 1861. His cousin, Nathaniel Bowditch [who fell at the battle of Kelly's Ford in March, 1863] and many other Boston men, also became members of this gallant regiment. Charles' appointment as second lieutenant, Fifty-Third Massachusetts Volunteer Infantry, dated from May, 1863, two months after his cousin's death. Henry's enlistment marked the beginning of four years of military service, interrupted only by a furlough covering the winter of 1863, to admit of his convalescence from a bullet wound in the arm received while he was leading a charge at the action of New Hope Church. In March, 1864, he was honorably discharged with the rank of captain, to re-enter the service as major in the Fifth Massachusetts Cavalry (colored).

War and the army were both obnoxious to him except for the end they sought, but to this end he was ready and willing to devote himself. His army experiences made a deep impression, the effect of which came out incidentally in many ways, but with his characteristic reserve, which was stronger than at once appeared, he found it

difficult to talk about them.

Major Henry L. Higginson well remembers Dr. Bowditch as he then appeared, a handsome, refined and home-bred looking youth, with a

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fondness and faculty for keeping face clean and clothing neat at periods when those attributes were a rarity. He remembers him also as being an upright and fine officer, often reserved and even unbending in his manner, but unflagging in his faithfulness and unflinching in his courage. One day as they rode side by side through Sharpsburg, after the battle of Antietam, they talked together about the pains and pleasures of the soldier's life. Major Higginson said that he enjoyed it very well and had half a mind to make it his profession, but Bowditch declared that his feelings were the reverse of this and that he longed for the time when he could devote himself to scientific labors.

The First Cavalry played an active part in a number of engagements during its long service. It was not actually engaged at Gettysburg, but officers and men sat in their saddles through the long day as a part of the reserve column, waiting to be called out, and Dr. Bowditch occupied himself by counting the discharges of the cannon from one or the other side as they fell upon his ear, and found them to recur about once a second

through almost the entire day.

He resigned his command on June 3, 1865, soon after the close of the war, and in the autumn of the same year took up his scientific studies where he had left them off, re-entering the Lawrence Scientific School and taking Prof. Jeffries Wyman's admirable course in comparative anatomy. Later in the year he began in earnest to study medicine at the old North Grove Street school. He was graduated in medicine in 1868 (having received his A.M. in 1866) and immediately went abroad to study physiology; first at Paris, under Claude Bernard, then at Bonn, and finally at Leipzig under the able, warm-hearted

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Professor Ludwig, then in the full tide of life and This truly great man and fine teacher became a personal friend of Bowditch, as of many others of his pupils, making them joint investigators and publicists with himself and giving them a generous share of credit. The writer was a special student in Leipzig during a portion of this time and gained a realizing sense of that brimming life of Ludwig's happy family of students, all destined to stand high among the world's teachers of their day and generation. Cyon, Lauder Brunton, Ustimowitch, Mosso, Lankester and Kronecker were there, — all thereafter warm friends of Bowditch - and Lépine, well-nigh the first Frenchman to show himself desirous of tasting the scientific fare that Germany was offering the world. First and last there were many other noted students, from Germany, Switzerland, England, Russia and other lands. The outbreak, in 1870, of the Franco-Prussian War stirred Leipzig profoundly and summoned several of these workers to their homes. Bowditch remained for a year longer, and when he returned, in September, 1871, it was with Selma Knauth, the daughter of Franz Theodor and Fanny Elizabeth Knauth, of Leipzig, as his wife, at whose hospitable home he had been long received as a welcome guest. It had been an eventful and notable two years that he had spent in the quaint old town, and he was never weary of talking over the pleasant memories of his stay. Professional trophies, too, he brought back with him, for he had done, in company with Ludwig, several pieces of excellent and important work upon the nerves and muscles of the heart, which were described soon after in the publications of the Leipzig Institute and became widely known. For a number of years afterwards the physiology of the heart

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remained with him a favorite subject of research.

It may well be believed that Dr. Bowditch arrived in Boston full of hope and vigor and ready to infuse new life into the study and teaching of physiology in his native land. He brought to this work fine traditions, the sense of responsibilities well met, the memory of inspiring friendships, the glow of German zeal, the power of German methods.

Dr. Holmes was still professor of physiology as well as of anatomy at the Harvard School. Bowditch was made assistant professor of physiology and entered on his duties in September, 1871. In 1876 he was made full professor.

Good physiological laboratories in the German sense — that is, places where not only the professor himself could work, but where all who really wished to carry out researches, great or small, might find apparatus, materials and, above all, help, sympathy and discriminating criticism—were then practically unknown in the United States. Dr. Bowditch had strongly marked administrative gifts, a high sense of liberality and hospitality, and a remarkable mechanical inventiveness. To these qualities he could now add a knowledge of what research, and what adequate laboratory equipment, really meant. In the course of his professional career he founded successively three such laboratories, in the three buildings to which he followed and guided the fortunes of the school, and the list would be a long one of the men who found in them the hand of welcome and the wise voice of counsel ready at their need.

As a lecturer Dr. Bowditch was clear and incisive rather than brilliant; but his methods were so well chosen, his arrangements were so

orderly, his demonstrations so effective, he knew so well just what he wished to say, that he had little difficulty in holding the attention of his audience. The quality of his mind well fitted him for a teacher, for while ready to advance when the occasion called for progress, and entirely capable of taking a radical attitude in scientific as in public matters, yet his power of criticism and the distinctly judicial character of his mind inclined him to scrutinize the new and to conserve the old, and this tendency grew in him with his years. Most important point of all, he was a good teacher because he remained ever a good student. He was not, indeed, a prolific investigator in the largest sense, yet he never ceased experimenting and taking part in the experiments of others, and so kept his powers of study always fresh.

His best original contributions, besides those already mentioned, were his two prolonged studies into the laws of the growth of children; his demonstration of the non-fatiguability of nerves; the nature and modifications of the knee-jerk. But of lesser investigations there were many. Whatever he did was well and accurately done and his conclusions rarely courted the contradic-

tion of his colleagues.

He rendered an immense service to the cause of physiology, not only of this state, but of the country, in helping to resist the frequently recurring attempts to secure legislation unfavorable to the experimentation on animals absolutely required for medical research. Thoroughly humane himself, and warmly interested in the work of the Society for the Prevention of Cruelty to Animals, he saw that the first duty of humanity was to seek the amelioration of the lot of men.

In the faculty room of the Medical School his

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counsel became at once recognized as indispensable, and from first to last, when he rose to speak, he was listened to almost as a judge delivering his carefully balanced charge. He was appointed Dean June 25, 1883, immediately succeeding the much-loved Dr. Calvin Ellis, and it would be hard to imagine that difficult position filled with greater dignity and fairness or with a better sense of the work the school might do.

When it came to the question of new buildings, an undertaking of great risk, the fact that he was for it weighed heavily in its favor. His help in drawing plans for these extensive buildings was gladly sought and welcomed, and it is well known that it was to his energy and courage, in association with those of his long-time friend, Dr. John Collins Warren, that the eventual securing of the building fund was mainly due.

In 1893 he resigned the position of dean. In 1900, feeling the shadow of illness beginning to creep over him, he decided to withdraw from active work, and in 1906 he resigned his professorship altogether.

Dr. Bowditch's activity was by no means limited to his labors in behalf of physiology and medicine. The same sense of public obligation that had sent him to the war led him to accept other positions of usefulness, such as member of the Boston School Committee, trustee of the Boston Public Library and of the Adams Nervine Asylum, and president of the Boston Children's Aid Association, member of the Special Joint Committee on Health of the American Social Science Association, member of the Committee of Fifty to Investigate the Liquor Problem. He was also one of the original founders, with Dr. Weir Mitchell and Professor Chittenden, of the American Physiological Association, and coadjutor of

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Prof. W. T. Porter in establishing the American Journal of Physiology.

Numerous honors came to him in due course; degrees of Letters, or of Science, from the universities of Edinburgh (1898), Cambridge (1898), Toronto (1903), Pennsylvania (1904), Harvard (1906), besides various recognitions of more

private sorts.

One of the last times that he appeared in public was in Sanders Theater at the ceremonies of dedication of the new Medical School buildings. The occasion was a memorable one, and Dr. Bowditch's impressive figure, clad in the scarlet robes of his Edinburgh doctorate, and seated at the front of the platform side by side with Dr. Warren, made a fitting center to the striking scene.

A word must be said in closing about Dr. Bowditch's private and social life. Strong as was his sense of public obligation and of public trust; grave and even stern as his expression, speech and manner could become when occasion seemed to him to call for gravity or sternness, he had nevertheless a side of gaiety and lightness without knowing which it was impossible to know Whether as host at his own table or as guest at a friend's; on every occasion — and many were found - when his hearty laugh had an excuse for making itself heard: as kite-flyer, mountain climber, inventor, photographer, furniture maker and repairer, — in all these capacities, and many more, though each pleasant toil was marked with the never-wanting stamp of fidelity, thoroughness and honesty, he showed a humor, kindliness and charm which made him a delightful and most genial friend and comrade.

It was in the thoroughly free life of the Adirondacks camp, to which through thirty years ja

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he looked forward with such pleasant longing from one summer to the next, that these qualities came most strongly to the front. No one could have entered with more zest than he into the varied pleasures of that enchanted spot. There reserve and formality could be laid aside and free play allowed to the instincts of hospitality, sociability, and the playfulness of boyhood at its best.

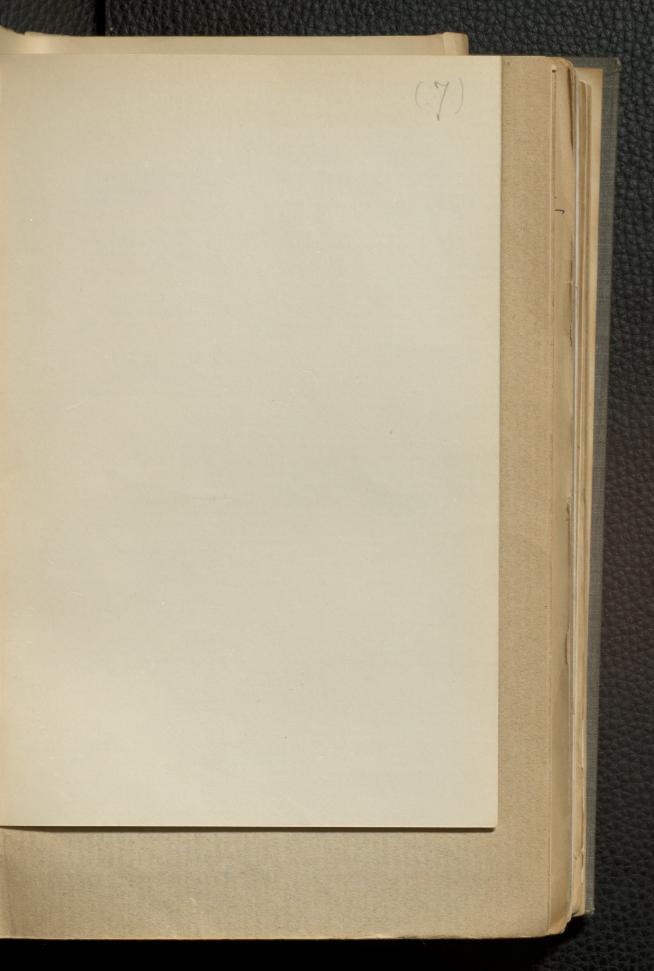
Many friends came there as his guests, among them several colleagues, as Sir Michael Foster and Professor Waller, whose acquaintance he had made during an extended visit to England, and a number of companions of the pleasant Leipzig days—Brunton, Kronecker and Mosso, now no longer living. A ledge on one of the spurs of the Giant mountain near the camp was dedicated to Mosso with amusing and mock-stately ceremonies and still bears an inscription with his name. This compliment was gracefully repaid by him, later, through the dedication of a Lago di Bowditch, in Italy, to his former host.

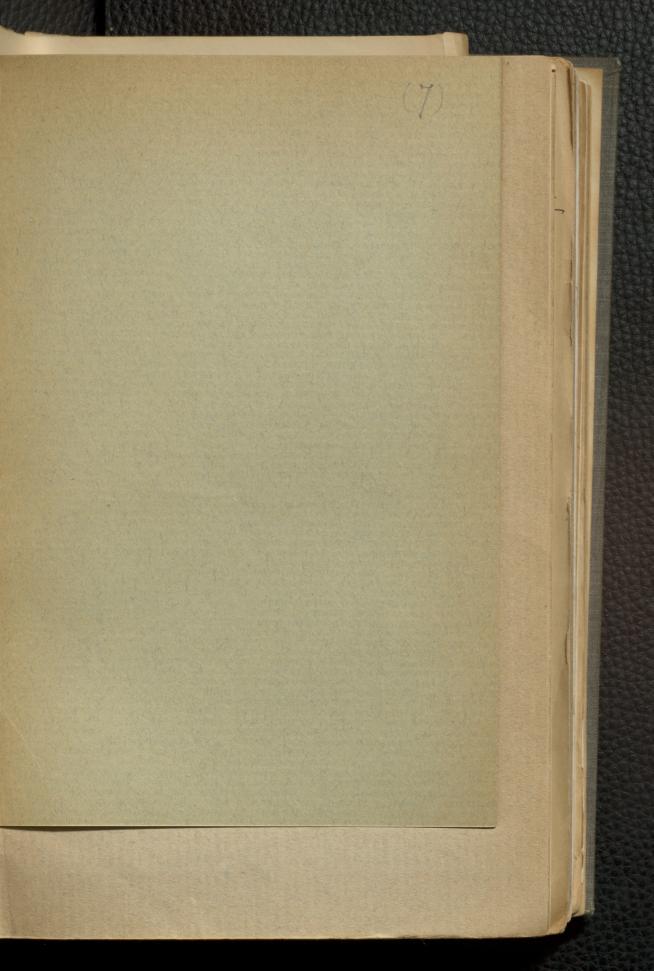
His widow, five daughters, two sons and ten grandchildren survive him. May his fine qualities live on in them and be transmitted to the

generations yet to come!

JAMES JACKSON PUTNAM.

<sup>&</sup>lt;sup>5</sup>This is a small lake on the Italian side of Monte Rosa, near the "Cabana Margherita" one of the high-altitude laboratories built for Professor Mosso.





RIDDELL ([WILLIAM MENWICK]) 1852-SUDHOFF (KARL [F. J.]) 1853ja ja SC R P se SC Ti fro (15 Bul Tr and Bu 50 of 1 la. with 190 58 la. W Bul SAMUEL USHER, BOSTON 6c life Bei mic [Ea List Tur Med KN 60 stu Ma log Mi cop