

## Notes on Henry Laurens Whiting

Members of the American Academy of Arts and Sciences

Henry Whiting and Nathaniel Shaler were elected members on the same day.

10 November, 1869.

Thomas William Parsons, Boston.

James Munson Barnard, Boston.

Henry Laurens Whiting, Tisbury.

Nathaniel Southgate Shaler, Cambridge.

### BIOGRAPHY/HISTORICAL NOTE - FROM MV MUSEUM FINDING AID

Henry Laurens Whiting was born in Albany, New York, on February 5, 1821. He was the youngest child of Daniel Whiting and Elizabeth Gilbert Powers. Daniel Whiting was a Judge of the Court of Common Pleas in Troy, New York. In 1851, Henry Whiting married Anna Frances Johnson in West Tisbury, Massachusetts. Anna was born in 1830 on Naushon Island, Massachusetts and died in 1912 in West Tisbury. She was the daughter of Asa and Prudence (Adams) Johnson. Henry and Anna Whiting lived on a farm in West Tisbury and had 4 children: Georgiana Hunt (1855-1931), Virginia (1857-1915), Elizabeth Gilbert (1859-1915), and Johnson (1864-1957). Johnson Whiting eventually took over management of the family farm around 1890. Although Henry Whiting's work took him away from home, he was nevertheless involved with the island community. He was one of the founders of the Martha's Vineyard Agricultural Society.

Henry Whiting had a long and distinguished career with the United States Coast and Geodetic Survey, starting in 1838 at the age of 17. He developed the topographical operations of the bureau. In 1849, Whiting directed the triangulation of the coast of Florida. Though most of his work was along the northeast coast he had assignments in Iowa, the Mississippi River Valley, and San Diego, California.

When the Civil War broke out, he went to Washington, D. C., for volunteer service. Whiting was put in charge of a number of ground and coastal military surveys. In 1866, he was appointed instructor in practical surveys at the United States Naval Academy at Annapolis. He also spent two years as professor of Topographical Engineering at the Massachusetts Institute of Technology. In 1884, Whiting was appointed a member of the Massachusetts State Topographical Survey Commission and then in 1890 he became a member of the Mississippi River Commission. Whiting took on his last assignment in 1894, taking general charge of the resurvey of Boston Harbor. Henry L. Whiting died at his home in West Tisbury February 4, 1897. In 1962, the National Oceanic and Atmospheric Administration (NOAA), named a premier hydrographic survey vessel after Henry Whiting, considering him the leading topographer of the United States in the nineteenth century.

*Vineyard Gazette* November 30, 1962

Henry L. Whiting

Came to Martha's Vineyard Autumn 1844, Bought West Tisbury house in 1852.

House had been the Congregational Parsonage.

Joined Costal Survey when 17

Susan Whiting – great grand daughter

House in West Tisbury; farm ran by his son John (Johnson).

Henry Laurens Whiting, the dean of Coast Survey topographers, wrote: "The limit of land and water is the most striking and important outline which exists in nature...."

*Obituary - Science. N. S. V. No. 112* Friday, February 19, 1897

Mr. Henry L. Whiting, Assistant U. S. Coast and Geodetic Survey and Chairman of the Massachusetts Topographical Survey Commission, died at his residence in West Tisbury, Martha's Vineyard, on Thursday, February 4th, the last day of the seventy--sixth year of his life. Mr. Whiting's position as a public officer was in many ways unique;; his services in the corps to which he belonged were noteworthy, and he had, in addition, filled many positions of responsibility and dignity, which came to him in recognition of his high character and professional accomplishments. A brief account of a career so remarkable will be of interest to the many who knew him either personally or through his work, and to all who appreciate a life full of useful activities in faithful and efficient public service.

In the length of that service it is doubtful if his equal is now living. Had Mr. Whiting lived a few weeks longer he would have entered his sixtieth year of continued public service, all as an officer of the Coast and Geodetic Survey, which he entered at an early age. He served some time under Hassler, the first Superintendent, and for many years he stood alone as the only member of the corps who had served under every superintendent of the Survey.

Mr. Whiting was born at Albany, New York. His father was a Judge of the Court of Common Pleas at Troy. His grandfather was William Bradford Whiting, a Colonel in the Revolutionary War and a lineal descendant of Governor William Bradford, of the Plymouth Colony. One of his brothers was a classmate of General Grant at West Point and held high rank in the army at the time of his death;; another was graduated at the Naval Academy, was one of Commodore Perry's officers in the Japan Expedition, himself holding the rank of Commodore at the time of his death. Others of the family were distinguished, but Henry Laurens, the youngest, survived them all, except a sister, now residing in Philadelphia.

In the Coast Survey his great work was the development of the topographical operations of that bureau. He was regarded as the father of the system so long and so successfully in use, and every topographer in the service has at some time been under his direction and instruction. He did, indeed, direct at one time the main triangulation of the coast of

Florida, but his tastes and instincts were so strong in the direction of topography that he was at an early day given entire charge of that department of the Survey. Besides being actively engaged in field work, he continued throughout most of his life to serve as general topographical inspector.

Of the general conference of topographers of the Survey held in Washington in 1892 he was chairman, and although then over seventy years of age, one of its most active and useful members. By detail of the Superintendent, Professor Peirce, Mr. Whiting inaugurated the instruction in land and harbor surveys at Annapolis, and under a similar detail he served for two years as professor of topographical engineering at the Massachusetts Institute of Technology. He was consulting engineer for the Massachusetts Harbor Commission for twelve years and a member of the Commission for three years. He was actively related to and a member of other harbor surveys and commissions at various points along the New England coast. With the approval of the Superintendent he was appointed, in 1884, a member of the Massachusetts State Topographical Survey Commission, serving as chairman after the resignation of General Francis A. Walker, in 1892. In 1890 he was appointed a member of the Mississippi River Commission by President Harrison, whose grandfather's inaugural address he had heard from the east front of the Capitol while temporarily at the office of the Coast Survey after a long period of field duty. He continued to serve on this Commission until his death.

In common with a number of his colleagues in the Survey, Mr. Whiting did important service during the Civil War. Of those officers absent in the field at the time of its beginning he was the first to report in Washington for volunteer service, reaching there by way of Annapolis, after Baltimore was cut off, at the same time with the New York 7th Regiment. During the war he made many topographical surveys for military purposes. On the laying of the French cable it was on his recommendation, the question having been referred to him, that Duxbury was selected as the terminal station, his excellent judgment being fully proved by the remark subsequently made by Sir Charles Hartley that it was the most successful ocean cable landing in his experience.

Personally Mr. Whiting was most agreeable and charming. He had the dignity of manners which is usually associated with "a gentleman of the old school," along with a simplicity of character and openness of heart that made him beloved by all who came in contact with him. He was a man of splendid physique, as his long and uninterrupted service shows, and even after passing the allotted threescore and ten he never shrank from any duty, however arduous it might be.

His activity in the field ceased only with his death, and in 1894 he was, by direction of the Superintendent, in general charge of the resurveys of Boston Harbor, the field work of which was done by a half dozen of his younger colleagues.

During some months before his death the unusually excellent condition of his health and his ever youthful spirit excited comment among his friends; the end of his life had not for several years seemed more remote than on the day and within the hour in which it came.

In his nearly sixty years of continuous public service he achieved a distinction in his profession of which his corps may well be proud, and all who have enjoyed personal relations with him will hold him in loving remembrance.

T. C. MENDENHALL

MEMORANDUM OF SERVICE OF  
HENRY LAURENS WHITING

In the U. S. Coast Survey, aside from ordinary Routine Duty, By Henry L. Whiting

Joined Coast Survey under Superintendent Hassler July, 1838.

First Charge of Topographical party, as Aid, June, 1842.

Appointed Sub--Assistant under Superintendent Hassler, March 1, 1843.

Appointed full Assistant under Superintendent Hassler, June 1, 1843.

Proposed the scheme and was assigned, by Superintendent Bache, to conduct the first systematic inspection of field work and continued it through the superintendency of Prof. Bache, Prof. Peirce, and part of that of Capt. Patterson.

In 1849 was ordered, by Superintendent Bache, to take charge of and carry forward the main triangulation of the coast of Florida, previously in charge of Assistant Hilgard, and executed that work.

Was the first officer appointed, by Superintendent Peirce, to a general charge of a Sub-department of the Survey – that of Topography, Prof. Mitchell in Physical Hydrography, and Mr. Cutts in Triangulation, following in order.

Was detailed by Superintendent Peirce as Acting Instructor in field surveys in the Naval Academy at Annapolis, then under Admiral David Porter, and had the graduating class in charge, and inaugurated the system of making a survey of Annapolis Harbor, which has been followed annually since.

Was appointed, with the approval of Superintendent Peirce, Professor of Topographical Engineering in Massachusetts Institute of Technology, and that office for two consecutive years.

During the winter of 1859--60 made the study and devised the system of conventional signs, rules and regulations, and the system of lettering in connection with the nomenclature for field and publication work on respective scales which have governed those operations of the Survey since. Proposed the system of double field parties, working two or more sets of instruments, and successfully executed it under Superintendent Bache.

Made an examination of the Mississippi River from Dubuque to St. Paul, with a view to its topographic survey, under Superintendent Peirce.

In 1867, by direction of Superintendent Peirce, made a topographical and hydrographical

survey of Provincetown Harbor, Mass., for a State commission, on the results of which an appropriation of \$150,000 was made by Massachusetts, and engineering work of harbor improvement executed by Mr. James B. Francis.

In 1869 was detailed, by Superintendent Peirce, to do service for the Harbor Commission of Massachusetts, and continued that service until July, 1881. During that time devised the present system of draw--way openings in the railroad and city bridges around Boston.

In 1876, by direction of Superintendent Patterson, made an examination of the Pacific Coast from San Diego to Puget Sound, in reference to extending the range of coast topography.

In July, 1881, by authority of the Secretary of the Treasury and concurrence of Superintendent Patterson, was appointed by Governor Long of Massachusetts a member of the State Harbor Commission, and continued to hold that office until its time expired in July, 1884.

In August, 1884, by authority of the Secretary of the Treasury and concurrence of Superintendent Hilgard, was appointed by Governor Robinson a member of the Massachusetts State Topographical Survey Commission, and, by vote, made the executive member of that board, which office is still held.

Was an acting member of the State Commission for Portland Harbor, Maine, and devised and laid out the scheme of the Harbor Lines and the Flats Improvement of that Harbor in connection with the physical surveys by Prof. Mitchell, and had charge of the topographical parties of the Coast Survey making the city Survey, by authority of Superintendent Peirce.

Was instrumental in obtaining a State appropriation of \$5,000 for the re--survey of the Inner Harbor of Boston, Mass., and executed that work and devised and laid out the Harbor Lines of that port, by authority of Superintendent Patterson.

Made the Topographical Surveys and devised and laid out the Harbor Lines of Providence Harbor, Rhode Island, in connection with the Physical Surveys of Prof. Mitchell, by authority of Superintendent Patterson.

Was associated in the study of harbor lines for New Haven Harbor, Conn., based on the surveys of Mr. R.M. Bache and Prof. Mitchell, by authority of Superintendent Peirce.

Made the topographic Surveys and studies in connection with the hydrographic surveys by Prof. Mitchell, which are the bases of the engineering work by G.K. Warren, U.S.A., under an appropriation by Congress of \$22,000, for opening the south inlet of Edgartown Harbor, Mass., by authority of Superintendent Peirce.

Made and participated in various surveys of New York Harbor and Sandy Hook, N.Y. When the Civil War broke out was the first officer of the Survey absent on other duty to

come to Washington for volunteer service, reaching there, via Annapolis, after Baltimore was cut off, at the same time with the New York 7th Regiment. When Gen. Mansfield first crossed the Long Bridge, made the first co-operative survey on the part of the Coast Survey with the Army, by order of Gen. Scott and direction of Superintendent Bache.

Subsequently made the survey of the ground of occupation by the Confederate Army at Manassas immediately after it was evacuated by Gen. Beauregard. Had charge of the Coast Survey parties making the first surveys of the Potomac River after the blockade of Mathias Point was raised.

At the time of the panic at Philadelphia, when Gen. Lee invaded Pennsylvania, was called from other duty by Superintendent Bache, then having charge of the defences of Philadelphia, and made a military reconnaissance with a radius of 15 to 20 miles of the approaches to that city from the right bank of the Delaware to the right bank of the Schuylkill, with location and sketches of strategic positions, including the ground of Washington's battle of the Brandywine, and prepared large plans and devised a system of conventional signs representing the various classes of proposed military works of defence. These and accompanying report were approved and accepted by Gen. Totten, chief of U.S. Engineers.

By direction of Superintendent Bache and order of Gen. Totten made an examination of the islands of the Atlantic coast north of Mason and Dixon's line for the purpose of establishing a guarded station for Prisoners of State. After visiting the islands from Virginia to Massachusetts the final selection of Dutch Island in Narragansett Bay, R.I., was determined on, which, with accompanying report, was approved by Gen. Totten.

Made a topographical and hydrographical survey of Coaster's Harbor Island, near Newport, R.I., for the purpose of removing the Naval Academy from Annapolis to Newport.

By direction of Superintendent Peirce the subject of the landing of the French Cable was referred for examination. After thorough reconnaissance of the south-easterly part of the coast of New England – the general ground designated in the order – and after conference with the French and English Commissioners, the site of Duxbury Beach in Massachusetts Bay was determined upon as the preferred location and "Rouse's Hommock" selected as the point of landing. The report on this subject, with accompanying charts, sketches and descriptions, were approved, and adopted without modification by the authorities having charge of the cable, and the landing was made by Sir Charles Hartley at the precise point indicated, and subsequently stated by him as the most successful ocean-cable landing in his experience.

In the co-operative work of the Government in furnishing points to States, from September, 1884, to the present time, April, 1890, have had charge of the triangulation in Massachusetts on the part of the United States as an officer of the Coast Survey and the part of the State as a commissioner. In the line of the Department of Topography which has been the more especial work officially without personal volition, as much has been

accomplished, individually, by precept and example, towards the higher attainment of standard in results and in advancing the interests of the Survey, as that effected by any single officer in any one department of the Survey.

In 1881, when other duty withdrew continued personal service from the field, the official record in topographical results showed the largest amount of work individually done in the Survey up to that date.

May 3, 1890, was appointed by President Harrison a member of the Mississippi River Commission.

1892, on the resignation of Gen. Francis A. Walker as a member of the Massachusetts Topographical Survey Commission, who had been chairman of the Board since its organization, was elected by the Board its chairman.

1892, was appointed by Superintendent Mendenhall Chairman of the Topographical Conference of officers of the U.S. Coast and Geodetic Survey held in Washington, D.C., from January 18th to March 7th;; a printed report was submitted and published.

January 11, 1894, was instructed by Superintendent Mendenhall to take general supervision of the surveys of Boston Harbor being made by Assistants Bache, Boyd, Ogden, Tittmann, Vinal and Wainwright.

#### OFFICE OF THE COAST AND GEODETIC SURVEY

Washington, D.C., February 6, 1897

To the Members of the United States Coast and Geodetic Survey:

It becomes my painful duty to announce to you the death of our oldest and most faithful Assistant of the Survey.

Henry L. Whiting, Assistant, U.S. Coast and Geodetic Survey, died at his home in Martha's Vineyard, Massachusetts, February 4, 1897, in the seventy--sixth year of his age and in the fifty--ninth year of his services on the Survey.

Assistant Whiting was born at Albany, New York, February 5, 1821, and entered the Survey in July, 1838, as topographer, and he was the last survivor who served under all Superintendents the Survey has had. During this extraordinarily long career, he most faithfully devoted his energies to his life's task, and it can justly be said that to him, more than to anyone else, is due the development of the art of the topography on the Survey. How much his services were appreciated in this direction, and the confidence placed in his ability by the several chiefs of the Survey, are abundantly shown by the fact that he was from early times frequently called upon to inspect the field work of other survey parties, and that his counsel was sought in questions of improvement of navigation and investigations of changes in natural features

of coast and harbor lines.

Though the field of his principal labors was on the coasts of Maine, Massachusetts, Rhode Island and New York, we find him also engaged in special surveys along the coast as far south as Florida, and in 1876 he was directed to inspect the topography so far executed on our Pacific Coast and report as to the best manner of its continuation, under pressing conditions.

In 1866 he was detailed, for a time, as instructor in practical surveys at the Naval Academy at Annapolis. In 1869 his knowledge of the features of the coast was called for in the location of the Trans--Atlantic Cable at Duxbury, Massachusetts.

It was, however, in the direction of the performance of larger and more responsible duties that he rendered the most important services;; thus in 1884 we find him appointed as one of three Commissioners to conduct the topographic survey of the State of Massachusetts, which afterwards developed into a complete trigonometric survey, including town as well as State boundaries. Of this work he has been director since 1892, and one of his last acts, but a few days ago, was in the interest of the continuance of the trigonometric survey of the State.

He was also a member of the Board of Harbor Commissioners for Boston Harbor. A not less important position was filled by him as a member of the Mississippi River Commission. His appointment dates from June 10, 1890, and the duties connected therewith were faithfully discharged by him to the time of his death.

Since his appointment in 1884, as one of the Commissioners of the topographic survey of the State of Massachusetts, his active field duties as an Assistant of the Coast Survey have ceased. Yet he still retained the position of an Assistant, and as such represented the Coast Survey upon both the topographic survey of Massachusetts and the Mississippi River Commission.

With him a most useful life has passed away, and his devotion to its duties may serve as an example worthy to be followed.

W.W. DUFFIELD  
Superintendent

<http://www.nauticalcharts.noaa.gov/history/CivilWar/people.php?person=20>

Henry Laurens Whiting (1821-1897) held a long and distinguished career as a topographer with the U.S. Coast Survey (1838-1897). He served under all three of the nineteenth century Coast Survey superintendents. He was a member of the Mississippi River Commission, Professor of Topographic Engineering at Massachusetts Institute of Technology, and an instructor in harbor surveying at the U.S. Naval Academy. At the outbreak of the Civil War, Whiting was out in the field. He returned to Washington and

was the first to volunteer for service. He made topographical maps for the Union, including Manassas Junction. The NOAA Ship *Whiting* is named after him.

*From The Coast Survey 1807-1867*

Henry Laurens Whiting was the recognized leader of many talented topographers associated with the Coast Survey in the Nineteenth Century. It was said of Whiting that he could make a better map of the far side of a hill without seeing it than others could while standing before it. Whiting began work with the Coast Survey in 1838 and served continuously until his death in 1897.

House in West Tisbury; farm ran by his son John (Johnson).

*Harleigh Bridges Shultz.*

On Whiting, Shaler and Banks: “Henry Laurens Whiting and Nathaniel Southgate Shaler, great of brains and heart”... friends in life and remembered in death”

Letters (Martha’s Vineyard Historical society/Museum) with Shaler familiar but all about work of the Massachusetts Commission. Met in Boston and on Martha’s Vineyard. No obvious discussion of island history, maps, etc.

Plane table used so notes right on original sheets.

1840s maps ~1:10,000 or 1:20,000                      1860 1:80,000

Same forests, 1860 redrafted – more topo, more cult. lines.

Assume open areas = pasture.

1860 – likely engraving ordered by Bache. No 1840 engraving.

1890 BPL – identified to 1860

### **Definitions:**

- Cove            small bay or narrow inlet. Usually with narrow, restricted entrances often circular/oval. Precipitously walled and cirque-like.
- Fjord            long, narrow inlet with steep sides.
- Bight            bend or curve; or large bay – shallower than a sound. Bight = bay that can be sailed out of in single tack of square rigger regardless of wind direction. Apex < 25° from edges.

Lagoon shallow body separated from larger body by barrier island or reef.

**Whiting, H. L. 1872. Report on Edgartown Harbor. Pp. 1-4 in U.S. Coast Survey, Reports concerning Martha's Vineyard and Nantucket. Appendix No. 15 to Report for 1869.**

[Notes from articles]

Edgartown Harbor – surveyed 1846, 1854, 1855, 1856, 1870-71.

1846 – Opening at Edgartown, but not beyond southwestern point of Chappaquiddick; inlet formed by beach east end and Chappaquiddick ~2000 feet; two small sand islands within; two channels ~ similar to Des Barres 1776.

1856 – New opening reported due to storm; old inlet one mile east, > ½ lapping of Chappaquiddick. Shore of Chappaquiddick along southwest – 2,300 feet washed away. Opening – narrow channel between Chappaquiddick and beach ~3,000' x 500' wide. New inlet – middle of the bay, ~1,400' wide – so restored ~old 1846 inlet.

1871 – Inlet [beach?] extended across bay – no opening; reports – after west opened, east closed, and west moved east until east shore of Chappaquiddick where the Muskeget Channel current checked progress. In equilib for some time, until closed 1869 – storm and tide. Early 1800s – tradition of continuous beach. Teams back and forth. Temporary – reopened in a few months. “*With this exception, there is no record or tradition of the non-existence of an inlet through Cotamy Beach since this section of the coast has been known.*” Beach – 3 ½ miles x ~450 feet.

Henry L. Whiting has surveyed its northern movement ~ equal to width 25 years 450'. Reforms natural shape - ~8' below high water and pond. If take plane 6' below high water and assume average height above high water ~8'.  $116,500,000 \text{ ft}^3 = 18,500' \times 14' \times 450'$ . “*This is not a case of any great convulsion or powerful current action. It is but a fair illustration of the gradual but unceasing waste which is going on upon such shores.*”

Mid 1600s ~4,500' further out. Same encroachment – main shore. Two ponds now entirely obliterated – one sand hills, another small marsh.

Cotamy Bay should be opened immediately by artificial means:

- (1) perfect shelter in an emergency to those heading to Cape Cod;
- (2) passageway southward from the harbor for small pilot boats to reach vessels needing pilot,;
- (3) safe and direct access to fishing grounds.

Open at west end. Longer period open, contracted section of the bay will confine things, thin section.

Should not rely on the tide alone but prepare a wide path and use the tide.

Shoals boarder beach – need channel – relieve boats – need 4' deep ~300' could follow old channels ~41,000 yards<sup>3</sup>; 14,000 to just get through beach. All former survey points are lost – new series using light house, Edgartown spires and Sampson's Hill station.

Henry Laurens Whiting, the dean of Coast Survey topographers, wrote: "The limit of land and water is the most striking and important outline which exists in nature...." To define this boundary between land and water, the Coast Survey sent topographic mapping crews to every part of the far-flung coast of the United States. In the period 1850 through 1860, 7,295 square miles were surveyed which encompassed more than 25,000 lineal miles of shoreline including tidal rivers and creeks. Superintendent Bache sent out an average of 17 topographic parties per year, each of which surveyed nearly 40 square miles.

### **Annual Report of the Secretary of the Board of Agriculture 1883.**

**MARTHA'S VINEYARD AGRICULTURAL SOCIETY. JAMES S. GRINNELL.**

In 1858 Mr. Henry L. Whiting of the United States Coast Survey, and now one of the Harbor Commissioners of Massachusetts, having some years previously bought a farm in West Tisbury, had become impressed, in his official visits to every part of the island, by a belief that with the concerted action of the farmers in a society receiving the bounty of the State, the possibilities of increasing the agricultural capacity of the Vineyard, having naturally a good soil, and rich in beds of peat, muck, and in the drifting seaweed, might be largely extended.

Having interested some leading farmers they took the first steps towards providing the necessary funds, and the Martha's Vineyard Agricultural Society was accordingly incorporated in February, 1859, the necessary land purchased, and a convenient building erected by the following October, when the society held its first cattle-show. The society seems by the returns to have been successful. It has gradually paid off all its indebtedness, at one time over \$2,000 ; it pays annually for premiums entirely within the purview of the law as strictly agricultural, more than it receives from the Commonwealth, and it pays nothing for horse-trotting.

... The exhibition of horses continued at intervals through the second and third days. A ploughing-match came off at eleven o'clock on the farm of Mr. Whiting, of two horse-teams and one of oxen, attracting but little attention. One of the ploughs was a novelty there — a Casaday sulky t plough — which did good work, and was a great credit to the owner who had the' enterprise to introduce such an advanced implement on the island. There was a base-ball match between two local clubs, a foot race and other civil games to amuse the crowd.

Whiting – Travelled extensively as the Coast and Geodetic Survey documents suggest that he like others was regularly questioned on his hours and involvement with work. But maintained a house in West Tisbury and a farm run by his son John (Johnson?)

Worked on the Massachusetts Commission with Nathaniel Shaler. Letters became more familiar over time but all business of the Commission. Met in Boston and on Martha's Vineyard, but no obvious discussion of Martha's Vineyard maps, change, history, activity. Oct 6 1886 Note from NS Shaler on USGS stationary but Cambridge – thanking HLW for valuable notes; gets permission from Thorn to give NSS maps info for his studies on MV; 3.1 Oct 22, 1884 – discusses working with Shaler. 1885 – various notes to NSS re schedules. On commission with him. Also working with Walling who is hired by commission and works for USGS

### **Notes on Henry Whiting Collection at the MV Museum 3-13-12**

- 1.1 Farm bills and records; Shropshire sheep; posts an dholes for sheep fencing – wood; Envelope late 1800s – Professor Henry L. Whiting; US Coast & Geodetic Survey, West Tisbury Mass from William J Roteh

Letter June 5, 1891 From HLW West Tisbury to “My dear Barkman – “In my survey of this coast, in my younger days, I was much taken with this Island of M'S V, and it has become the only home I have had since my parents family was broken up at Landsingborg (?)” has given farm to son – 2 farms – one 90 acres with pasture and meadow farm about 2 miles N about 130 acres and another 20 so 240 acres total. Asks about raising horses. “There is no good stallion in our neighborhood”

Hand-written note: “Mrs Sandsbury a woman of 85 when I talked to her some ten years ago. She was a Chappaquiddick girl whose uncle Joshua Snow was a whaling captain. She remembered vividly when Dr. Fisher has his ships chandlery & oil works at Edgartown. She used to love to watch the whale ships come in and unload their oil, They used to hire a darkey to lead (?) a chanty, she recollected when they unloaded the oil. They thought it paid as the men worked faster. These are the word of one chanty she recalled. “Jenny shook her leg at me” “John has gone away”, “He must because he couldn't stay”, “John has gone away”, “Oh, Oh, Oh, John has gone away”

**Place Name Questions:** May 5 1892 Herbert Ogden from CGS – asks proper name of Cape Higgon – Kopeegon? Shouldn't it be named Kopeegon Point? How about further north a cove long named on charts as Lombard's Cove. Recently suggested that it be named Lambert's Cove. “Will you please inform me which is correct?” May 7 1892 – Topo sheet No. 204 1846 by H.L. Whiting “Cape Poge Bay”. On Topo Sheet 1702 by HLW Cape Poge Pond. Whiting write to Mendenhall – it is so shallow that barely navigable; it has always been called a pond and that is consistent with RI sites.

Taxes

1.6 Clippings of whaling days and captains and odds and ends; notes

Hand-written note: “Mrs Sandsbury a woman of 85 when I talked to her some ten years ago. She was a Chappaquiddick girl whose uncle Joshua Snow was a whaling captain. She remembered vividly when Dr. Fisher has his ships chandlery & oil works at Edgartown. She used to love to watch the whale ships come in and unload their oil, They used to hire a darkey to lead (?) a chanty, she recollected when they unloaded the oil. They thought it paid as the men worked faster. These are the word of one chanty she recalled. “Jenny shook her leg at me” “John has gone away”, “He must because he couldn’t stay”, “John has gone away”, “Oh, Oh, Oh, John has gone away”

Clipping I Grey’s Raid.

Clipping of Henry F. Walling Obituary April 11, 1888

Some kind of Cape Cod Magazine “Fruits of the Vineyard” “A Tribute to Three”

Harleigh Bridges Shultz. On Whiting, Shaler and Banks

“Henry Laurens Whiting and Nathaniel Southgate Shaler, great of brains and heart”...The first two dead and the last living...Shaler and Whiting friends in life and remembered in death”

Shaler obit for Whiting ““I have never known a finer”..

1.1 Correspondence from W. J. Young Fitchburg, Dec 14, 1889. Thanks for fine engraved map of MV and surrounding waters. Will have it framed and hung in my cottage on the Vineyard.

## 2 *Box 2 – Professional Correspondence*

Sept 30, 1891 – from T.C. Mendenhall Superintendent CGS. Requests original topographic sheet No, 202 – pat of MV is needed. Please return along with any other original sheets.

May 5 1892 Herbert Ogden from CGS – asks proper name of Cape Higgon – Kopeegon? Shouldn’t it be named Kopeegon Point? How about further north a cove long named on charts as Lumbard’s Cove. Recently suggested that it be named Lambert’s Cove. “Will you please inform me which is correct?”

May 7 1892 – Topo sheet No. 204 1846 by H.L. Whiting “Cape Poge Bay”. On Topo Sheet 1702 by HLW Cape Poge Pond. Whiting write to Mendenhall – it is so shallow that barely navigable; it has always been called a pond and that is consistent with RI sites.

2.3 Letter from Superintendent Thorn instructing Whiting to provide Prof. N.S. Shaler with any results and information regarding your recent surveys on MV. And communicate to newspapers any changes that have occurred.

Oct 4 1886 – Commonwealth had secured HLW to do topo

Oct 6 1886 Note form NS Shaler on USGS stationary but Cambridge – thanking HLW for valuable notes

3.1 Oct 22, 1884 – discusees working with Shaler. 1885 – various notes to NSS re schedules. On commission with him. Also working with Walling who is hired by commission and works for USGS

Copy of Topographic Journal June 1886 on MV.

Notes and Report US CGS - WT June 1886. Topographic party under his charge. South and east coast line of MV. Started June 5, ended June 30. 12 days work; 6 days prevented by bad weather; 4 days Prevented by other things. Resurvey.

September 1886

October 1885 Writes Thorn asking him to reconsider the reduction in his salary, which took place due to “an impairment in ability to perform rapid and efficient service”

October 4

March 21, 1887 – Proposes a project to Thorn – field studies to contemplate resurvey of the topo of ACK, and Vineyard Sounds. Originals are in such a condition that precludes their use for this purpose. Would survey outer shore only adding only a few interior features such as the RR; would use three sheets – Muskeget; Island; will use same objectives for field use as in the original sheets of MV –

March 22, 1888 – Thom – asks for his report on the changing shore of MV and ACK back; so he can make minor changes;

March 17, 1889 – Detailed letter to NSS about Mass Commission and survey that includes details about what kind of surveyor to get, why people are poor; starts with thanks of NSS’s inquiry about his relationship to CGS – “that affair is over”

More letters – personal and discussing close issues. But also the details of triangulation and whether the people involved are good enough.

March 13, 1889 NSS “our war for office is over” Dr Gould got directorship.

Many letters to Shaler – 1889.

May 23 1889 HLW to W. Powell requesting “a personal favor of four copies of your report containing Prof. Shaler’s paper on Martha’s Vineyard.” Two are for him.

July 5, 1889 HLW to NSS “I have been so rheumatic that I dared not come over to see you in the rain yesterday”. Today I have to go to Skiff’s Island, quite a lazy cruise of my

HLW Report for 1891 – June returned to MA. June made a topographic resurvey of the south inlet of Edgartown Harbor, through Katama Break, and

Journal of a Man 1846. One of Whiting’s Crew.

Edgartown MV. Journal. 1846.

August 10. In camp plotting compass work.

11. On board the Gallatin. To Mattakeset, then Chappa? Salt meadows and ponds. With plane table.

12. Plane table on Sengegontacket Pond

13. Camp plotting roads on Chappaquiddick and tram? Road to Holms Hole and East Chop. Mr Whiting and McCleary gunning some very good buck, some fine Plover etc.

14. Camp plotting and sketching roads on Chappaquiddick and in the vicinity of Tisbury and Watcha Ponds – run part of Edgartown and compass and chain.

15. Out with Plane table by 9 a.m.

Photos of 1860 map and the pages in the journal of a young man.

From Brian



Yesterday afternoon I emailed the person who I think is “the guy” at NOAA to answer our questions.

He is a retired, almost-lifetime NOAA/USCGS employee and captain; his son is now a crewmember of a NOAA ship (I think that both Hassler’s and Bache’s sons may have

worked for coast survey). He also wrote a book or chapter about the Coast Survey history from 1807 to 1864 (link was broken but I asked him about it in the email).

His name is Captain Theberge:

### **Agricultural Society and Fair**

Jane Newhall's strong relationship with the Fair is not surprising. Her great-grandfather, Henry Laurens Whiting, was one of the men instrumental in founding the Agricultural Society. He was sent to the Island in 1844 with the U.S. Coastal and Geodetic Survey to make a topographical map of the Island. According to Jane Newhall, "He lodged here while he was doing that and fell in love with the Island," and he became the first secretary of the Agricultural Society as well as its president and a member of the board of trustees for many years. In 1859, Whiting wrote a letter to the newspaper saying, "In glancing back at the progress and success of our society, I think we have some reason to be proud... About eighteen months ago a few farmers met together to discuss the subject of an Agricultural Society. At length a motion, almost a single motion, was made to have a Fair, and lo we had it... We have all learned something: First, that we have got good things, and can raise good things, among ourselves and for others."

Edwin Newhall Woods, great-grandson of Henry L. Whiting and a cousin of Jane Newhall, influenced the Fair in an entirely different but equally important way. He placed a conservation restriction on 523 acres of his family's land in his mother's memory. The restriction prevents the land from ever being developed. He sold a portion of this land to the Agricultural Society at a reduced price, allowing the society to move the Fair to its current location on Panhandle Road, in 1994. Because of his generosity, the 134th Fair (the first one at its new home) attracted a record of 28,000 people.

MVTimes August 10, 2011

Vineyard Gazette August 16, 2011

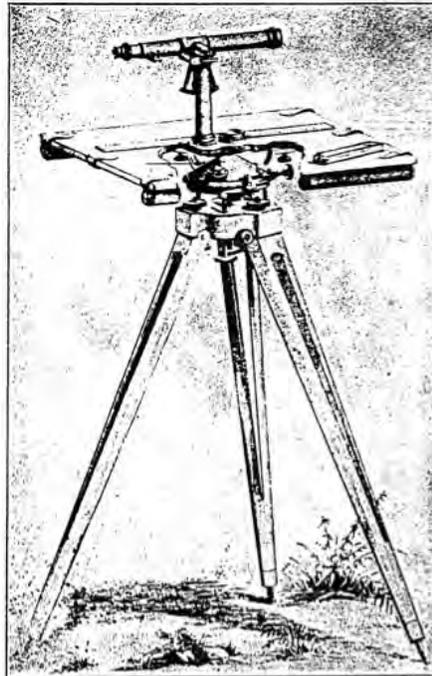
The first fair was held in 1858 in tents and was so successful the agricultural society saved up and built the old hall for the second fair. Floral displays, noble pumpkins, squashes, beets, and carrots crowded tables, exceeding expectations, reported agricultural society secretary Henry L. Whiting, who along with Leavitt Thaxter and Ichabod N. Luce helped found the society. Charles W. Pease's corn "excelled anything we ever saw," Mr. Whiting wrote.

*MV Gazette March 4, 2011*

1982 Mr. Woods first gift to town: Brandy Brow Hill, overlook at the intersection of State Road and the West Tisbury-Edgartown Road. His mother, Frances Newhall Woods, had bought the property in 1928 and built a memorial there to her mother, Virginia Whiting Newhall, the daughter of West Tisbury patriarch Henry L. Whiting. In college in Philadelphia, she had met and later married Californian Edwin White Newhall. When Frances Woods bought Brandy Brow, she said that she also hoped the hill — then bare of trees with a path children used as a shortcut — would be a village green. In giving it to West Tisbury some 50 years later, her son fulfilled that wish.



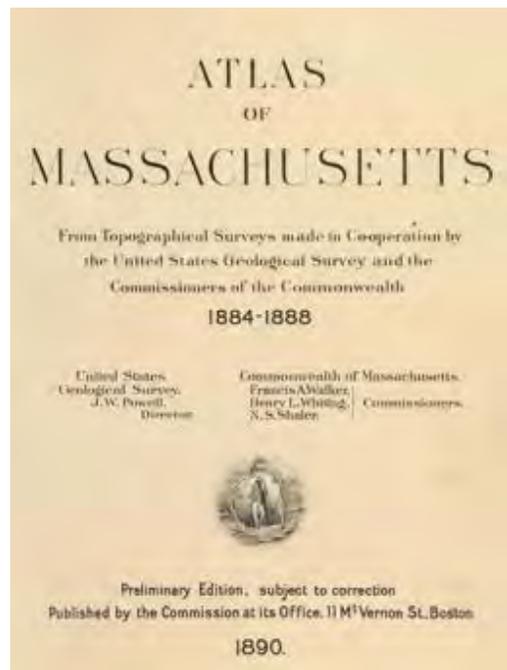
**Convention of Coast and Geodetic Survey topographers. From L to R: Dallas Bache  
 Wainwright, John W. Donn, W. C. Hodgkins, J. A. Flemer, H. G. Ogden, Henry Laurens  
 Whiting, Chairman, C. H. Dennis, Cleveland Rockwell, C. T. Iardella, Augustus F.  
 Rodgers, R. M. Bache.**



No. 7.—Plane table and alidade, 1860 type.

*Planetable from U.S. Coast and Geodetic Survey*

Science Magazine Obit – Born Albany, Died in West Tisbury



1861 Muskeget Channel to Buzzard's Bay and Entrance to Vineyard Sound

*Memorandum*

*of service in the U. S. Coast Survey aside from ordinary routine duty by Henry L. Whiting*

Joined Coast Survey—under Supt. Hassler	July	1838
First charge of Topographical party, as Aid		1842
Appointed sub assistant, under Supt. Hassler	Marsh 1 <sup>st</sup>	1843
Appointed full assistant under Supt. Hassler	June 1 <sup>st</sup>	1843

Proposed the scheme and was assigned by Supt. Bache to conduct the first systematic inspection of field work and continued it though the superintendency of Prof. Bache, Prof. Peirce and part of that of Capt. Patterson.

In 1849 was ordered by Supt. Bache, to take charge of and carry forward the main triangulation of the east coast of Florida previously in charge of Assistant J. E. Hilgard, and executed that work.

Was the first officer appointed by Supt. Peirce to the general charge of a sub-department of the Survey, that of Topography, Prof. Mitchell in Physical Hydrography, and Mr. Cutts in Triangulation following in order.

Was detailed by Supt. Peirce as Acting Instructor in field surveys in the Naval Academy at Annapolis. There under Admiral David Porter, and had the graduating class in charge, and inaugurated the system of making a survey of Annapolis Harbor which has been followed annually since.

Was appointed with the approval of Supt. Peirce, Professor of Topographical Engineering in the Massachusetts Institute of Technology and held that office for two consecutive years.

During the winter of 1859-60 made the study and devised the system of conventional signs, rules and regulations and the system of lettering in connection with nomenclature for field and publication work on respective scales which have governed these operations of the survey since.

Proposed the system of double field parties working two or more sets of instruments and successfully executed it under Supt. Bache.

Made an examination of the Mississippi River from Dubuque to St. Paul with a view to its topographical survey under Supt. Peirce.

In 1867, by direction of Supt. Peirce, made a topographical and hydrographical survey of Provincetown Harbor, Mass. for a state commission, on the results of which an appropriation of \$150,000 was made by Massachusetts and engineering work of harbor improvement executed by Mr. James B. Francis.

In 1869, was detailed by Supt. Peirce, to do service for the Harbor Commission of Massachusetts and continued that service until July 1881. During this time devised the present system of draw-way openings in the railroad and city bridges around Boston.

In 1876, by discretion of Supt. Patterson, made an examination of the Pacific Coast from San Diego to Puget Sound in reference to extending the range of the coast topography.

In July 1881, by authority of the Secretary of the Treasury and concurrence of Supt. Patterson, was appointed by Governor Long of Massachusetts a member of the State Harbor Commission and continued to hold that office until its term expired in July 1884.

In August of 1884, by authority of the Secretary of the Treasury and concurrence of Supt. Hilgard, was appointed by Governor Robinson of Massachusetts, a member of the State Topographical Survey Commission and, buy vote, made the executive member of that Board, which office is still held.

Was an acting member of the State Commission for Portland Harbor, Maine and devised and laid out the scheme of Harbor Lines and Flats Improvement of that harbor in connection with the physical surveys by Prof. Mitchell and had charge of the topographical parties of the Coast Survey making the city survey, by authority of Supt. Peirce.

Was instrumental in obtaining a state appropriation of \$5,000 for the survey of the Inner Harbor of Boston, Mass. and executive that work and devised and laid out the Harbor Lines of that port by authority of Supt. Patterson.

Made the topographical surveys and devised and laid out the Harbor Lines for Providence Harbor, Rhode Island, in connection with physical surveys by Prof. Mitchell, by authority of Supt. Patterson.

Was associated in the study of the Harbor Lines for New Haven Harbor, Conn. Based on the survey of Mr. R. M. Bache and Prof. Mitchell, by authority of Supt. Peirce.

Made the topographical surveys and studies in connection with the hydrographic survey by Prof. Mitchell which were the basis of the engineering work by Gen. G. K. Warren, U.S.A. under an appropriation by Congress of \$22,000 for opening the south inlet of Edgartown Harbor, Mass. by authority of Supt Peirce.

Made and participated in various surveys of New York Harbor and Sandy Hook, N.Y.

When the late Civil War broke out was the first officer of the Survey absent on other duty to come to Washington for volunteer service, reaching there, via Annapolis, after Baltimore was cut off, at the same time with the N. Y. 7<sup>th</sup> Regiment.

When General Mansfield first crossed the Long Bridge made the first cooperative survey on the part of the Coast Survey with the Army, by order of Gen. Scott and direction of Supt. Bache.

Subsequently made the survey of the ground occupation by the Confederate Army at Manassas immediately after it was evacuated by General Beauregard.

Had charge of the coast survey parties make the first surveys of the Potomac River after the blockade of Mathias Point was raised.

At the time of the panic in Philadelphia when Gen. Lee invaded Pennsylvania, was called from other duty by Supt. Bache, then having charge of the defenses of Philadelphia and made a military reconnaissance with a radius of from 15 to 20 miles of the approaches to that city from the right bank of the Delaware to the right bank of the Schuylkill with location and sketches of strategic positions including the ground of Washington's battle of the Brandywine and prepared large plans and devised a system of conventional signs representing the various classes of proposed military works of defense. These plans and accompanying report were approved and accepted by General Totten, Chief of U.S. Engineers.

By direction of Supt. Bache and order of General Totten, made an examination of the islands on the Atlantic coast north of Mason and Dixon's line for the purpose of establishing a guarded station for Prisoners of State. After visiting Islands from Virginia to Massachusetts the final selection of Dutch Island in Narragansett Bay, R. I. was determined on, which, with accompanying report was approved and accepted by Gen. Totten

Made a topographical and hydrographical survey of Coaster's Harbor Island, near Newport, R. I. for the purpose of removing the Naval Academy from Annapolis to Newport.

By direction of Supt. Peirce the subject of the landing of the French Ocean Telegraph Cable was referred for examination. After through reconnaissance of the south easterly part of the coast of New England, the general ground designated in the order, and after conference with the French and English commissioners, the site of Duxbury Marsh in Massachusetts Bay was determined upon as the preferred location and "Rouse's Hommock" selected as the point of landing. The report on this subject with accompany charts, sketches and descriptions were approved and accepted without modification by the authorities having charge of the cable and the landing was made, by Sir Charles Hartley, at the precise point indicated, and subsequently stated by him as the most successful ocean-cable landing in his experience.

In the cooperative work of the Government in furnishing points to States, from September 1884 to the present time (April 1890) have had charge of the triangulation in Massachusetts on the part of the United States as an officer of the Coast Survey and on the part of the State as a commissioner.

In the line of the Department of Topography which has been the more especial work officially assigned without personal volition, as much has been accomplished, individually, by precept and example, towards the higher attainment of standard in results and in advancing the interests of the Survey, as that effected by any single officer in any one department of the Survey.

In 1881, when other duty withdrew continued personal service from the field, the official record in topographical results showed the largest amount of work individually done in the Survey up to that date.

Hon. F. M. Thorn:

How the strong tidal currents through Muskeget Channel have affected the easterly beach of Chappaquiddick, I am unable to report. At the extreme southeasterly point of the Island, Wasque Point, or just south of west of the point the tendency seems to be to maintain a remarkable uniformity of position. Slight changes, forming waves in outer line of the beach, occur at almost every stance, but the gradual outline of the point is in much the same geographic position as it was forty years ago.

A feature of interest, and value, as a means of local shelter for this exposed fishing ground, is the increase in size and elevation about high water, of Skiffs Island, which for the last 20 years has been little more than a shoal dry at low water. Whether its present chart condition is due to the action of the currents through the new opening is a question which would require quite elaborate observations to determine. At the time of my former survey "Skiffs Island" was merely a shoal covered at high tide. Its condition and the very rough water and rips around it made it impractical to determine as a topographic feature. Its location on the charts of the survey I believe is from hydrographic data.

The tidal currents through the inlet, through the narrows of Cotamy Bay and through Edgartown Harbor are now very strong. I am unable to state the exact velocity, but they are sufficient to affect an increased depth of water along the front of the village and about the wharves. They are also creating change in the position and depth of the point of Chappaquiddick, opposite the town. They also affect the maneuvering of vessels which do not now like to anchor above Chappaquiddick Point. The fishermen state that the scope of these currents is injuring the clam and quahog grounds which are of much local value. I endeavored to ascertain whether the tidal currents through the harbor were stronger now than they were at the time of the opening in 1865, which was

similar in position and extent to the present inlet. From such evidence as I could obtain the currents seem to be of about the same force. In 1856 a whale ship laying to the most westerly wharf of the town was torn from her moorings and carried eastward until her anchors were let go.

These strong currents must produce changes in the **physique** of the harbor. Its importance as a harbor of refuge and the very peculiar tidal phenomena connected with it makes the **quarter** of this examination and determination one of special interest. As the time this inlet has been open, about 8 months, the changes it has as yet effected may not compare with those produced by the more negative character during the 16 or 17 years since the former inlet closed. The indicators are that the harbor, channels and shoals are in a certain transition state. During the next spring or summer it may be desirable to make a thorough hydrographic resurvey of the ground affected by the change of regimen.

*Other Letters – Transcribed by Linda*

West Tisbury  
5 July 1889

My dear Shaler

I have been so rheumatic that I dared not come over to see you in the rain yesterday. Today I have to go to Skiffs Island, quite a long cruise for my last days work there.

Regarding the map printing matter we have \$500 which will pay for 1000 copies of the wall map, according to estimate. We have nothing for the others unless we take it from our boundary survey money. Will it be improper to presume on a future appropriation and ask the Printers to wait therefore?

If we can get the wall map to distribute perhaps it will be better to wait for the atlas sheets until we can get the money for them.

U. S. COAST AND GEODETIC SURVEY OFFICE

Washington, 4 October, 1886

Hon. F. M. Thorn  
Superintendent Coast & Geodetic Survey  
Washington, D. C.

Dear Sir

I would respectfully ask your permission to furnish to Professor N. S. Shaler of Harvard, at his request, some information resulting from my recent surveys on Martha's Vineyard concerning the wasting headlands and changes in the shore line of the Island.

Prof. Shaler is making a study of the geology of Southeastern Massachusetts for the General Environment, and not in his character as State Commissioner, and desires this data from the Coast & Geodetic Survey as a basis for part of his work.

I would also ask permission, at some time, to make a brief statement of some of the changes which have taken place, such as the new opening into Edgartown harbor, for the local newspapers\*.

I make these requests not only for the purpose of disseminating useful knowledge but for the interest of the service in so doing.

Very respectfully,

Henry L. Whiting  
U.S. C. & G. Survey

\*as matter of commercial and maritime interest to the people there and the public generally.

2 Pru. Sq., Boston, Mass.  
Boston, Mass.  
September 1886

Hon. F. M. Thorn  
Superintendent Coast & Geodetic Survey  
Washington, D. C.

Dear Sir:

I present, herewith, a report of my recent resurvey of the shore-line and beaches of Martha's Vineyard more particularly in regard to the changes which have occurred since the first surveys were made just forty years ago—begging to refer to my monthly and incidental report for the statements as to the time and expenses of the survey.

The changes along the southern shore of the Island give an interesting illustration of the movement of what may be termed a rolling beach and the power of the ocean sea dash upon a sandy shore to drive this material before it. The south shore of Martha's Vineyard is a case where little if any other force has operated. Its geographical position so far beyond the stand of the main land and its straight alignment provides an unobstructed front to the wave action—and altho in occasional storms the breakers come upon the shore in oblique directions the prevailing action of the sea dash is normal to the shore even in gales from the south east and south west after the force of the wind

subsided the breakers finally come in more directly from the south. I witnessed, some years ago, after a heavy south east gale, a "roller," which I estimated to be a mile in length break upon the shore with a single blow.

The original map upon which I have made the survey will give a better understanding of the nature and extent of the changes which have occurred than can be given by a written description of them. Where the beaches have been low particularly in front of the several ponds—the overshot of the sands have made a greater encroachment upon these ponds and marshes inside of the beach than occurs in the entire shore line opposite. The general recedence of the shore line along the central part of the South Shore of the main island I would estimate at from 175 to 200 feet. At the crest of the summit of the bluff at Nashaquitsa Cliff which is about 150 feet high, the maximum waste is about 220 ft. Opposite Chilmark Pond the maximum outer waste is about 180 ft. and the over-shot of sands into the Pond, near the opening, about 525 ft.

At Tisbury Great Pond the outwash waste west and east of the inlet is, respectively, about 180 and 140 feet while the corresponding encroachments upon the pond are, respectively, about 680 and 480 feet. Quite a peculiar coincidence occurs in the present opening into Tisbury port with that of 1846 which is about identical in location and extent except that it is further inland while the intermediate time about 25 years ago—the inlet was about three quarters of a mile to the eastward. Most of the inlets of the southern ponds are opened artificially for the purpose of improving the fisheries and to prevent the over flow of marshes by the fresher waters of ponds. When once opened the width and depth of the inlets are established and maintained according to the power and condition of the tides and the wave action of the ocean. They sometimes remain open for several months and again are closed by the first heavy storm.

The most considerable movement of the entire beach occurs along the front of Great Herring Pond in Edgartown, where the whole mass of the beach has been driven in upon from waters of the pond a distance about equal to twice its width.

I would again allude, briefly, to the difficulty of making an accurate re-survey of the south shore of Martha's Vineyard in consequence of the entire loss of former points. The mere linear extent of the shore line surveyed gives no adequate measure of the work involved.

The survey of the new opening into Edgartown Harbor and Cotamy Bay should I suppose be classed as an original survey. It is on a main projection and not connected with former work. The locality of the work except along the northerly shore of Chappaquiddick and also Cape Poge is beyond the immediate control of the only group of triangulation points on the sheet. Edgartown Spire and Light House—Capt. — — — and Sampson Hill. I will, however, report the very excellent character of the projection written by M. C. Quaker and sent to me for this work. I found it so accurate that the most remote determinations from the base points in the southeasterly part of the sheet were effected without any perceptible error. I have marked upon the sheet, a number of

intermediate points which I have detailed and used in the detailed survey, mainly house chimneys which will save the labor of re-determination in any further re-survey.

I had not the original map of my survey of 1846 of the eastern part of Chappaquiddick by which to make comparison of results. This can, of course, be done at the office. I would call attention, however, to the point of Cape Poge where great waste has occurred—the summit of the sandy bluff nearest to the light house is now within about forty-five feet of its foundation and wasting rapidly. Some 30 years ago, or more, the foot of this bank was armed by a rip rap of stone as a protection—the line of this ridge of stone can be seen under water from the summit of the bank. I judged five or six feet higher than shore line. There is indication of overblow of the beach opposite the two easterly coves of Cape Poge Pond which may have been of sufficient force and surge to affect the outlines of the coves themselves. How the strong tidal currents through Muskeget Channel have affected the easterly beach of Chappaquiddick, I am unable to report. At the extreme southeasterly point of the Island, Wasque Point, or just south of west of the point the tendency seems to be to maintain a remarkable uniformity of position. Slight changes, forming waves in outer line of the beach, occur at almost every stance, but the gradual outline of the point is in much the same geographic position as it was forty years ago.

A feature of interest, and value, as a means of local shelter for this exposed fishing ground, is the increase in size and elevation about high water, of Skiffs Island, which for the last 20 years has been little more than a shoal dry at low water. Whether its present chart condition is due to the action of the currents through the new opening is a question which would require quite elaborate observations to determine. At the time of my former survey “Skiffs Island” was merely a shoal covered at high tide. Its condition and the very rough water and rips around it made it impractical to determine as a topographic feature. Its location on the charts of the survey I believe is from hydrographic data.

In connection with my present survey—I deemed it of importance to determine its position outline more accurately. I did not make any instrumental stations upon it but put up a series of signals upon the salient points and determined them by distance from my stone \_\_\_\_\_. The position of the island falls off the present sheet, but I have transferred it one minute in longitude out from its true position. The survey was made contrary to the usual action of the inlets and openings on the south side of Martha’s Vineyard, and particularly those through Cotamy beach, the resultants of the moving sands have, thus far in the new inlet, been to the west ward. This, however, will probably prove to be but a temporary movement and eventually the opening, as all present ones have done, will work eastward. There are present conditions of the beach, however, which may retard this movement. This influence, if effective, will be due to the comparatively small amount of material in the “West Beach” which is unusually low. One of the forces which prevail in causing an easterly movement of the opening is the encroachment of the west point or chop upon its channel and, by contracting it, causing a corresponding waste or cutting away of the east point or chop. Formerly the west beach contained quite high sand hills and dunes which supplied material for this easterly movement. The high sand

bank which existed in 1871 was one of the causes, if not the main one, which filled up the artificial cut made by Gen. Warner.

*The new opening through Cotamy Harbor, so called, occurred on the night of January 9<sup>th</sup> 10<sup>th</sup> last, after a gale from the E. N. E. the wind shifted N. S. N. still blowing a gale. The "west beach" as the portion west of the opening is now designated was quite low before this gale occurred and after the shift of wind the whole beach, in long-shore phrase, was a "breaker" a very high tide, one of the highest since the [redacted] gale, accompanied this storm. The general opinion is that with the turn of the tide the opening was made by the outward or southerly current. As soon as the beach could be visited for observation the opening was already, by estimate, about 100 yards in width.*

The tidal currents through the inlet, through the narrows of Cotamy Bay and through Edgartown Harbor are now very strong. I am unable to state the exact velocity, but they are sufficient to affect an increased depth of water along the front of the village and about the wharves. They are also creating change in the position and depth of the point of Chappaquiddick, opposite the town. They also affect the maneuvering of vessels which do not now like to anchor above Chappaquiddick Point. The fishermen state that the scope of these currents is injuring the clam and quahog grounds which are of much local value. I endeavored to ascertain whether the tidal currents through the harbor were stronger now than they were at the time of the opening in 1865, which was similar in position and extent to the present inlet. From such evidence as I could obtain the currents seem to be of about the same force. In 1856 a whale ship laying to the most westerly wharf of the town was torn from her moorings and carried eastward until her anchors were let go.

These strong currents must produce changes in the **physique** of the harbor. Its importance as a harbor of refuge and the very peculiar tidal phenomena connected with it makes the **quarter** of this examination and determination one of special interest. As the time this inlet has been open, about 8 months, the changes it has as yet effected may not compare with those produced by the more negative character during the 16 or 17 years since the former inlet closed. The indicators are that the harbor, channels and shoals are in a certain transition state. During the next spring or summer it may be desirable to make a thorough hydrographic resurvey of the ground affected by the change of regimen.

I forward by express to your address sir, the maps of the new inlet the shore of Chappaquiddick containing my recent survey. I have inked the details of topography but as I am not familiar with the labor rules as to lettering I have left the title as local names in lead pencil presuming they can be finished more satisfactorily in the office.

Very respectfully submitted  
Henry L. White  
C.W. C. & G. Survey

I append a note for the local paper the *Vineyard Gazette*, relating to the opening of the new inlet. I also append for you and assistant [redacted] a printed copy of the report of the

U.S. Advisory Council on Edgartown Harbor made to the Harbor Commission of Mass. at the time the [redacted] of making an artificial opening through the beach was under consideration. Also the manual of the [redacted] and [redacted] in behalf of the proposed work.

No page number:

The survey of the inlet was made July 1<sup>st</sup> as the position of the sandy points on either side of it, as then determined, place the opening about half its width east of the position of the opening as determined by the survey of 1856. The width of the present inlet from the \_\_\_ opposite points is \_\_\_. As will be seen by comparison of the present survey with that of 1856 and 1871 there is not much change in the general position of the beach but the easterly point of the present opening is \_\_\_ further within the Bay than at any previous time. The changes of filling up by wind and sea in the site of the old opening before it closed along its pathway between the south shore of Chappaquiddick and the former outer beach, are exhibited by the details of the map.

Also no page number:

On August 15<sup>th</sup> which was the first time for many days when a landing could be favorably affected.

The Island is about south east from Wasque Point and distance from the shore about 1 1/8 miles at the time of the survey it was about 1200 feet in length, north and south, with a greatest width of about 290 feet east ward and contained about 4 1/2 acres. Probably for the first time in the last fifty years beach weeds and grasses are taking route and growing upon it.

Office – 21 March 1887

(Field Project M. V. and N. Sounds)

Hon. F. M Thorn – Supt. C. & G. S.

Dear Sir,

I present herewith a project of field sheets for the contemplated re-survey of the topography of Nantucket and the Vineyard sounds.

I have examined all the original topographical sheets of the locality with a view to their possible use in the proposed re-survey, but I find them in such condition as preclude these are for this purpose. There is a further reason which makes this mode of re-survey objectionable in the fact that it complicates the system of record and would still further complicate the details of the survey if the practice were continued in future re-surveys of the same ground. There are cases, however where additions of simple topographic features such as new roads, etc. can be added to an original map without complicating the

results where the original give the means of determining the location of the added features and where the time and expense of such a method would be much less than by an independent survey on a new sheet. This is assuming, always, that the original sheet upon which features are added is in a proper condition for field use. The original topographical sheets of Nantucket and Vineyard are from 35 to 40 years old and have been much worn in reduction and other office use and are unfit for further field service.

In view of these facts and considerations I have prepared a series of field sheets on which I would respectfully recommend the following system of field work be pursued.

For the work on Nantucket I would recommend a re-survey of outer shores only—with the addition of a few leading interior features, such as the narrow gauge railroad from the harbor to the south shore and eastward to all marginal features affected by the change of shore line should be represented in the re-survey together with the location of new buildings, many of which are large sea-side hotels conspicuous as local landmarks for navigation. To cover the area of the Island I have projected these sheets, one extending from the extreme westerly point of the main Island and including the said islands of Muskeget and Gravelly Island each of which should be entirely re-surveyed, along the south shore sufficiently far eastward to over-lap a sheet projected to cover the east shore of the Island. The first named sheet is an unusually long but not too much so to counterbalance the advantage of a continuous survey of the shore. In “measuring work” so to speak, of this nature each point determined in its project serves as a base for the work beyond and has an advantage of re-surveying in time and even occurring over a system of detailed sheets which involve a more or less duplication of points—on this sheet can be delineated such details of the tower and wharves and inner shore of the entrance of the harbor as may be found desirable.

A second sheet as 1/10,000 is projected to cover the east face of the Island, as before referred to, from Great Point to Sicaconset.

A third sheet as 1/10,000 extends from East Point to the entrance of the harbor and includes the inner shores of the upper harbor, should it be found desirable to re-survey its shores.

The same objectives for field use apply to the original typographic sheet of Martha's Vineyard. It would be impractical to impose the additional details of the large settlement of Cottage City on the east side of the Island or the changes in the sea-side villages of Vineyard Haven and Edgartown on the old map and it is quite important to include these features in the re-survey. For this purpose a sheet is projected across the east face of the island from West Chop to Edgartown Harbor over topping at the latter locality the first sheet of the last season upon which the re-survey of parts of Chappaquiddick Island was made.

A second sheet as 1/10,000 the scale of the original survey, is projected along the west shore of the Island from West Chop to Menemsha Bight. There will probably be found less comparative change along this shore than elsewhere, but in order to bring the

details up to date and have their delineation compared to the other portions of the work I would recommend the re-survey of the shore line only of this side of the Island.

A third sheet has been projected as 1/10,000, covering the west end of the Island to join the sheet containing the re-survey made last summer of the south shore and also join the sheet projected for the north shore.

In addition to these sheets on the scale of the original survey, two additional sheets are recommended on a larger scale—one to include the Island of No Mans Land is projected on 1/5,000 in order to show more distinctly and in more detail the waste of this small out-lying alluvial island. The interior details of this island, which has an area equal only to about one square mile, are sufficiently shown on the original survey and I would therefore recommend the re-survey of the outer margin of the island only, with a careful determination of the beds of sand shingle and large boulders that surround it.

The second and last addition sheet in 1/2,500 is projected to cover the face of the peculiar promontory of Gay Head with the outlying boulders of the “Devil’s Bridge”. This head land has such interest geographically, and its material gives such peculiar features of resistance to the wasting power of the sea-dash that it seems desirable to make a survey on such a scale that the changes constantly occurring can be measured and studied with more accuracy and detail.

A sheet as 1/5,000 the scale of the last re-survey of that Island, has been projected for Cuttyhunk. I would recommend the re-survey of the shore line and marginal topography only—but would extend the work somewhat beyond the range of the last survey so as to include the water passage “Canapitsett” between Cuttyhunk and Nashawena.

A sheet as 1/10,000 is projected to cover the rest of the Elizabeth Island including Penikese, Nashawena, Pasque and Naushon. A re-survey of these shores of the Islands seems to be all that is demanded at this time although the original survey of 1845 more definitive in its delineation of interior details, particularly of contour than most of the topography of this part of the coast and it might be desirable at some future time to make a re-survey of the entire area of these islands.

Continuing the project eastward a sheet is projected as 1/5,000 to cover the more intricate topography of Woods Hole and as accompanying data with the contemplated hydrographic re-survey of this water way.

The scale of the former survey 1/10,000 is not sufficiently large to show the details of this ground with the distinction it requires—and in addition to the natural features, the wharves of the old colony sailors landing, the basins, sea walls and other work of the U. S. Fishing Commission and the artificial channels dredged by the U.S. Engineers through this intricate passage-way make the larger scale proposed for the contemplated re-survey very desirable.

Eastward from Woods Hole three sheets as 1/10,000 are projected along the south shore of Barnstable County upon which a re-survey of the shore and marginal topography only is recommended, including the inlet of Wauquash, Cotuit, Osterville, Dennis Bay, Bass River and one or two shallow inlets with such extent of these interim outlines of these bays as may include the more important changes which have occurred since the last survey work made nearly 40 years ago. During this time a number of sea-side settlements have been made along this shore with many large hotels which are conspicuous objects as seen from sea and already used as landmarks in navigating the surrounding waters. From the main coast road to some of these settlements new roads have been laid out which should be included in the present re-survey. These sheets extend from Woods Hole to Chatham. Beyond this the work already in hand of the re-survey of Monomoy covers the general ground and as special appropriations have been made for this work I have confined my projects to localities not included in that scheme.

I now present in recapitulation a more condensed form of statement with an estimate of the amount of work on each sheet projected, respectively with an estimate of the time required to execute it.

### Nantucket

		<u>Miles</u>
Sheet 1	Outside main shore, simple topography detail of ponds	25
	Tuckernuck Island shore line	7
	Muskeget Island shore line and beach interior	13
Sheet 2	East side, simple shore line	10
Sheet 3	North side outside shore line	15
	Inside shore line of harbor	<u>15</u>
		<u>85</u>
	Say	90
	Rail road	<u>10</u>
		100

Average per day                      2 miles = 50 days  
Contingencies, bad weather, Sundays 20 days  
70

Say 2 ½ months

### Martha's Vineyard

		<u>Miles</u>
East Sheet	Edgartown to Tuckernuck Island	
	Outside shore	20
	Edgartown Harbor	8
	Details of Cottage City	
	Vineyard Haven and Edgartown = of shore time	<u>20</u>

			<u>48</u>
		Say	50
North Sheet	Outside shore line		<u>14</u>
			<u>64</u>
	Average per day 2 miles	32 days	
	Contingencies, weather, etc.	<u>15 days</u>	
		47	
	No Mans land sheet – boat cruise		Say - weeks 7
	Gay Head sheet – large scale		“ 1
			“ 2
		Weeks	10
	<u>Say 3 months</u>		

**Elizabeth Islands**

			<u>Miles</u>
Cuttyhunk –Boat service including Canapitsett ferry			<u>8</u>
		Days	6
Penikese and ___ Island	miles 2		
Interior		Days	3
Nashawena	miles 10	Days	6
Pasque	miles 5	Days	3
Naushon	miles 18	Days	<u>10</u>
			29
		Say	<u>30</u>
Contingencies, weather, etc.			<u>15</u>
			45

1 ½ months

**Woods Hole 1/5,000 2 weeks Days 15**

			<u>Miles</u>
# Sheets	Falmouth and Barnstable Shores		50
	Woods Hole to Chatham		25
		Days	<u>15</u>
	Contingencies	Days	40
	<u>1 ½ months</u>		

		Months
Recapitulation	Nantucket	2 ½
	M. Vineyard	3
	E. Islands	1 ½
	Cape Shore	<u>1 ½</u>
		<u>8 ½</u>
	Fog & Extra contingencies Say 10 months	
	2 strong double parties 5 months each	

### Cost of Topography

#### Party Expenses per month.

I.	1 man at \$2 a day pay & board		60.00
	1 man at \$1.50 a day pay & board		45.00
	Subsistence chief of party		75.00
	Subsistence 1 aid in party		75.00
	2 horse team with driver, \$4 a day		125.00
	Hire of boat, 6 days at \$5 a day		30.00
	Signals and other accessories		5.00
	Railroad & steam boat transportation		<u>5.00</u>
			\$415.00
II.	1 man at \$2 a day pay & board	60.00	
	1 man at \$1.50 a day pay & board	45.00	
	Subsistence chief of party	75.00	
	1 horse team with driver, \$3 a day (or when not having team, boat hire)	90.00	
	Signals and other accessories	5.00	
	Railroad & steam boat transportation	<u>10.00</u>	<u>285.00</u>
			\$700.00
	Average per party	\$350.00	
	time – months	<u>12</u>	
		\$4,200.00	
	Subsistence of Out.		
	In general charge of work		
	6 months at \$75.	<u>450.00</u>	
		4,650.00	
	Contingencies	<u>350.00</u>	
		\$5,000.00	

It will be impractical to make the running re-survey of shore line and marginal topography according to the foregoing estimate and plan of work without addition triangulation. Most, if not all of the former points along the south side of Nantucket, Martha's Vineyard and the Cape Cod have been washed away and the points that remain

are in interior positions that do not command the shore and are insufficient in number. It would be an expense and mistake factoring mode of operations by any process of plane table determinations to carry the work from there interior coves to the shore. I found great difficulty in this respect in any re-survey on Martha's Vineyard.

As a means of overcoming the difficulties of the situation, however, I would respectfully recommend and offer the following order of work.

In disposing the parties of the Mass. State Survey the Commissioners will be glad to        all possible cooperation and to this end will assign Mr. C. N. Van Adam to the triangulation and boundary work of the towns on Martha's Vineyard and Cape Cod. The execution of this work will necessitate the determination of just such points as will be needed from the proposed shore topography. The only points not required in the State survey and yet important for the Coast & Geodetic Survey work will be on Nantucket, No Man's Land and the Elizabeth Islands. In occupying main stations on the Cape and on Martha's Vineyard quite a number of points can be determined in the localities above named and with the organization recommended for party I, particularly of Mr. Inman is assigned as an aid, additional triangulation points can be interpreted, where needed, without increasing the amount of party expenses.

Very respectfully submitted,

Henry L. Whiting

? page i numbered 3.

sheets, all on the scale of the original survey, 1/10,000. Two of these sheets are so located as to cover the re-survey of the town should that be deemed expedient, and also the shores of the inner or "head of the harbor," so called. The later work would seem desirable.

It is difficult to estimate the time required for such a survey but I should not like to set it at more than an average of two miles per day. This would require 50 days. A liberal allowance should be made for bad weather, particularly fog. Including Sundays and time required for moving quarters, etc. I should estimate these contingencies at not less than 25 days, given to the Nantucket work a total of say 2 ½ months.

? page numbered 7.

(over) Elizabeth Islands	33 days
Contingencies, weather, etc.	<u>17 days</u>

50 days

Considering the nature of the work and the fact that much of it will have to be boat work I would even add to the above figures and say for the Elizabeth Islands – 2 months.

The re-survey of the harbor and channel of Woods Hole can be done from headquarters at the village and including the complex nature of the work I should estimate the time at from 2 to 3 weeks.

The general re-survey of the shore eastward from Woods Hole to Chatham, 60 miles including determination of the probable changes in the various inlets and bays along the line will be equal to another 60 miles of his time. In addition to the ordinary shore details quite a number of sea-side settlements have been made with roads leading to there from the main road of the Cape adding in another 25% to the time of the work.

Notes from Karin Stanley (Polly Hill Arboretum)  
More on Henry Whiting

#### B. The Early Houses of (West) Tisbury

Maps. The early Simon Athearn map of figure 26 shows twenty-two houses and a meeting house in the town of Tisbury in 1694. The “farm claimed by two patents” (towns) in the lower southwestern corner must refer to the Quansoo homestead of the late John Mayhew.

The early settlement map of West Tisbury, based on 17<sup>th</sup> and early 18<sup>th</sup> century deeds and probate records, was probably drawn by Charles E. Banks around 1900. My research tends to confirm its accuracy. It gives us a very clear picture of the early town, its houses, and the first land sales and transfers. Here we can see the long narrow proprietors’ lots laid out on either side of the Old Mill River (in the center of the drawing). The houses that still survive are (from the top): the Simon Athearn house, the Henry Luce house, Josiah Standish’s homestead, and across from him, Isaac Robinson’s house; in the lower left is the mill on the Tiasquam and nearby was the house of Thomas Look (the present Baker place).

Last is the Walling Map of West Tisbury of 1858 (not illustrated). At this time, Henry L. Whiting had already bought the Josiah Standish (Cottle) place, John Johnson owned the Isaac Robinson (Cathcart) house, and Job Look was in the mill house along the Tiasquam.

WEST TISBURY HISTORIC DISTRICT COMMISSION MEETING  
MEETING MINUTES

Date of Meeting: January 24, 2011

Attending: Sean Conley, Mark Mazer, Nancy Dole, Lan McDowell, Ann Fisher, Ben Moore

Also Attending: Tara Whiting, Richard Knabel

Meeting convened at 5:30 PM.

Tara Whiting came to discuss the Whiting homestead, of which she and her brother Daniel are the current owners. They wish to demolish the house and build a new house in the same location, and would begin that process by requesting a certificate of hardship, based on the age and condition of the existing structure. The original house is a cape, circa 1663, built by Josias Standish, one of the original settlers, in 1660, of Tisbury, and an incorporator of the town of West Tisbury in 1673. Josias was the son of Miles Standish, an important figure in American history. The additions to the original structure were built by 1865, the last by Henry Whiting, Tara's great great grandfather. The house has great significance in the town's history, and is an island landmark. The current owners state that it is in severe disrepair, and they do not feel able to do the work needed to preserve it. They feel demolishing it and building a new home would be their best solution.

It is not clear if a hardship that is unique to the property and is not applicable to the rest of the district (which is required by our bylaw) could be considered. The applicant assumes that because the homestead is older than any other structure in the district (Josie Bruno's house on Old County Road is in that era as well) and is in such severe disrepair (their contractor estimated \$1.75 million to restore and did not recommend it), there is a hardship.

Mark Mazer suggested we do some research to see how other districts have handled the issue of a house that is of great historic value to a district, but is beyond repair and/or too costly for the owners to repair. Nancy will contact the Mass Historic Commission Mail Server List, and raise the issue.

There was discussion by the members as to whether the original 1663 cape was more historic than the 1865 additions, and if those additions could be demolished and not replaced, while the original cape could also be demolished, but be replaced by a replica. There was discussion that perhaps the applicant could build elsewhere on the lot. The decision was made to schedule a site visit for Saturday the 29<sup>th</sup> at 10:30 am. The members of the Historic Commission as well as any other interested parties are welcome to attend.

Another informal meeting will be scheduled for February 7<sup>th</sup>.

***RV 233 Martha's Vineyard Agriculture Society Records.***

Virginia Whiting Newhall – daughter of Henry L. Whiting.

Prudence Noon – great-granddaughter – donated some material.

March 26, 1858 Henry L. Whiting was Secretary when started.

Box 1 Correspondence and Report from 1883 on Martha's Vineyard Agriculture Society.

Box 6 Statements of Crops.

Box 5 Statements of Crops.

**Martha's Vineyard Museum**

**Record Unit 74**

**Henry Whiting Collection**

By Margot Weston

**Descriptive Summary**

Repository: Martha's Vineyard Museum

Call No.

Title: Henry Whiting Collection

Creator:

Quantity: 1.5 Cu. Ft.

Abstract: This collection of the personal and professional papers of Henry Whiting contains statistics about surveys, the operational methods of the Coast and Geodetic Commission, notes of the family farm and life in the latter half of the nineteenth century.

**Administrative Information**

Acquisition Information: The papers and records were acquired by the Martha's Vineyard Museum in \_\_\_\_\_ by \_\_\_\_\_.

Processing Information: Margot Weston

Access Restrictions: none

Use Restrictions: none

Preferred Citation for Publication: Martha's Vineyard Museum, Henry Whiting Collection, Record Unit 74.

**Index Terms**

Massachusetts Topographical Commission

U.S. Coast and Geodetic Commission

Farming

**Series and Subseries Arrangement:**

Series I: Family Papers

Series II: Personal Correspondence

Subseries A: Incoming

Subseries B: Outgoing

Series III: Professional Correspondence

Subseries A: Incoming

Subseries B: Outgoing  
Series IV: Professional Papers  
Series V: Publications

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Series VI: Memorials and Obituaries

#### Historical Note:

Henry L. Whiting was born in Albany, New York on February 5, 1821 and died in West Tisbury, Massachusetts, on February, 4 1897. He was a lineal descendant of Governor William Bradford of Plymouth Colony. Mr. Whiting served almost 60 years in the Coast and Geodetic Survey. He developed and directed the topographical operations of the Survey, directed the triangulation of the Florida Coast, was a member of the Mississippi River Commission, directed the resurveys of Boston Harbor for 12 years, served in the Civil War, and was actively working until the time of his death. He also taught at the Massachusetts Institute of Technology and the Naval Academy. Henry Whiting was also a member of the U. S. Coast and Geodetic Commission and the Massachusetts Topographical Commission, serving as chairman for a time. His son, John, seems to have run the farm in West Tisbury; however, Henry handled all the correspondence as indicated by the papers in this collection. Elsewhere in the collections there are hand-drawn surveys, printed charts and surveys from the Coast And Geodetic Survey.

#### Scope and Content Note:

This collection encompasses reports of geodetic surveys as far west as the Mississippi River, a chart of Edgartown Harbor, correspondence relative to the Coast and Geodetic Survey Commission, some personal correspondence, some correspondence relating to farm animals, pedigrees, and awards, tax receipts, dog licenses. The material mostly dates to the later half of the nineteenth century. Correspondence and receipts relate to shipping and breeding of pure-bred livestock. There is a small amount of personal family correspondence.

#### Series Descriptions:

##### Series I: Family Papers

Box 1 of 4

Folder 1: Farming 1861--1896

Folder 2: Farming Correspondence 1891-1892

Folder 3: Farming Correspondence 1893-1894

Folder 4: Tax Receipts Tisbury 1872-1895

Folder 5: Tax Receipts Chilmark, Edgartown, West Tisbury 1872-1896

Folder 6: Clippings

Folder 7: Petition for New Road to Tisbury Selectmen

Folder 8: Miscellaneous Undated Building Plans

##### Series II: Personal Correspondence

Box 1 of 4

Folder 1: Incoming and Outgoing Correspondence 1859-1896

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##### Series III: Professional Correspondence

##### Subseries A: Incoming

Box 2 of 4

- Folder 1: Correspondence, 1867-1874
- Folder 2: Correspondence, 1880-1885
- Folder 3: Correspondence, 1886
- Folder 4: Correspondence, 1887-1888
- Folder 5: Correspondence, 1889
- Folder 6: Correspondence, 1890
- Folder 7: Correspondence, 1891
- Folder 8: Correspondence, 1892
- Folder 9: Correspondence, 1893
- Folder 10: Correspondence, 1894 & 1896

### **Subseries B: Outgoing**

Box 3 of 4

- Folder 1: Correspondence, 1881-1885
- Folder 2: Correspondence, 1886
- Folder 3: Correspondence, 1887-1888
- Folder 4: Correspondence, 1889
- Folder 5: Correspondence, 1890
- Folder 6: Correspondence, 1891
- Folder 7: Correspondence, 1892
- Folder 8: Correspondence, 1893
- Folder 9: Correspondence, 1894
- Folder 10: Notes of Geodetic Information, 1886; 1872-1873
- Folder 11: Miscellaneous Undated Professional Information

### **Series IV: Professional Publications**

Box 4 of 4

- Folder 1: Journal by Man in Edgartown, 1846-1847

### **Series V: Publications**

Box 2 of 2

- Folder 1: Coast & Geodetic Survey Reports 1885-1892
- Folder 2: Coast & Geodetic Survey Reports 1893
- Folder 3: Federal & State Reports & Statistics
- Folder 4: Coast and Geodetic Survey: Appendix 9, Report 1886; "Shoreline Changes on M.V." H. L. Whiting
- Folder 5: Coast and Geodetic Survey #13; Report on Tides and Currents, Hell Gate, NY Harbor, H. Mitchell 1869

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- Folder 6: Academy of Arts and Sciences, 1873, H.L. Whiting pg. 4
- Folder 7: Special Survey of Provincetown, 1867, H.L. Whiting
- Folder 8: Coast Survey of MV and Nantucket 1869, H.L. Whiting
- Folder 9: Philosophical Society 1887-1893
- Folder 10: Free Hand Map, South Beach Opening. 1861? 1886?; Various Survey Notes

### **Series VI: Memorials and Obituaries**

- Folder 1: Obituary (pps 300-302) in "Science" 1897
- Folder 2: Copy of Memorial to H.L. Whiting, privately printed 1897

