ABSTRACT OF

THE HERBERT FULLER AND NEW YORK CITY'S

SHIPPING INDUSTRY FROM 1890 - 1910

by

Gloria de Prado

IN PARTIAL FULFILLMENT OF THE

REQUIRMENTS FOR THE DEGREE OF

MASTER OF ARTS IN HISTORY

Thesis Advisor

For the Graduate Division

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The Herbert Fuller was a commercial sailing ship, newly constructed in 1890. The purpose of this thesis is to demonstrate how a group of family related investors used the shipping technology prior to the Industrial Revolution at a time when steam powered steel ships were gaining steadily in popularity and managed to earn a profit. The Herbert Fuller used a small crew and was powered by sails. The Port of New York, long established as a fine seaport in a city that was one of the great mercantile centers of the world, was the Herbert Fuller's main port of call.

There were many facets to operating an American ship in order to insure its economic success. Cabotage laws restricted coastal trade to only American ships, easing out any foreign competition in this area of sea trade. To reduce the risks of ownership of marine vessels, the Herbert Fuller and its freight were insured against such unforeseen catastrophes that were considered "Dangers of the Sea."

Once a ship was registered and insured it was ready to transport goods and earn its keep. The Charter Party, a legal device drawn up by shipping agents, allowed a merchant to hire a ship to transport goods to another

area. It set fees, described cargo, delegated the duties of the captain and crew and gave dates of departure.

As soon as the ship was loaded with goods it was towed out to sea. During the sea voyage the ship was kept clean, painted and repaired, when necessary. Arriving at its destination, tow boats brought the ships into port. This was a dangerous time and most tow companies refused to take any responsibility for damages to the ship.

When safely in port, the captain presented the Customs Officer with bills of health for his crew. A ship could be quarantined if anyone on board had any diseases. The captain also paid freight rates, based on the weight of the cargo, to the Custom House . No one was allowed to leave the ship, until the captain proved, with notarized statements, that the crew had been paid.

As soon as all the cargo was inspected for damage and the goods were unloaded, the captain assessed any major repairs the ship might need and brought it to the shipwright, making sure the ship was brought to an area where many shipping services could be obtained.

The Herbert Fuller moved about its business in this fashion until 1896, when the second mate murdered its captain, Charles T. Nash, his wife, Laura, and first mate. Eventually, Nash's brother, Alonzo, took over the management of the Herbert Fuller for the next fourteen

years until it caught fire while in a lumber yard. It was sold in 1916 and renamed the "Rousse." Shortly after the United States entered World War I, a German U-Boat sunk the ship off the coast of France on May 27, 1917.

Although the Herbert Fuller earned money for its owners, its span of operation was limited as steel and steam powered vessels developed speed and a large carrying capacity. The last commercial sail ship entered New York harbor in 1941.

THE HERBERT FULLER AND NEW YORK CITY'S SHIPPING INDUSTRY FROM 1890 - 1910

A THESIS

PRESENTED TO THE GRADUATE FACULTY OF

WESTERN CONNECTICUT STATE UNIVERSITY

by

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CHAPTER 1

INTRODUCTION

The Industrial Revolution played a major role in the development of business and industry in nineteenth century America. However, not everyone subscribed to the new inventions and ideas. Modern innovations gained slowly and gradually in acceptance. The shipping industry was one example of how entrepreneurs used some facets of invention while clinging to old ideas.

This thesis attempts to show how, in 1890, a newly constructed wooden ship, the Herbert Fuller, used the old technology of wind and sail instead of steam and steel, prevalent at the time. Included in this study is the history of New York as a seaport and its impact on the shipping industry as well as the forces that shipping played in making New York the great mercantile center of the world. Activities and care of the ship and crew are related to the history of shipping and the growth of satellite industries around the Port of New York.

Primary and secondary sources for this study came from the South Street Seaport Museum's library, the Herman Melville, in New York City. I wish to thank the librarian and ship curator of the South Street Seaport, Norman

Brouwer, who introduced me to the files on the Herbert Fuller. I am also grateful to their library volunteer, Marie Lore, who always made me feel welcome. Other primary sources came from museum displays and oral presentations by the docent staff of South Street Seaport. The archival material from the South Street Seaport consisted of 74 folders. I tried to confine my studies to the material from folders that related mainly to New York City.

I wish to thank The Mariners Museum of Newport News, Virginia for answering my inquiries about the last day of the Herbert Fuller and supplying me with a photocopy of a picture of the ship taken in 1898. I found a wealth of secondary source materials in the library of my alma mater, Mercy College.

The study of the Herbert Fuller was a natural culmination of my love for the sea and infatuation with sail ships. I am very fortunate that my thesis advisor and Chairman of the History Department at Western Connecticut State University, Dr. John Leopold, shared my views on New York City as a seaport and center for economic growth. I wish to thank him for his guidance in my first serious effort at writing history.

Finally, I wish to thank Western Connecticut State University for giving me the opportunity to write. To all

my professors, both here and at Mercy College, I am grateful for your encouragement. This has been a labor of love and it is my wish that all those who read about the Herbert Fuller will share my enthusiasm for the tall ships that once graced the seas with glory and majesty.

CHAPTER 2

GROWTH OF NEW YORK CITY AS A SEAPORT AND COMMERCIAL CENTER

The Herbert Fuller, a wooden commercial sail ship built in 1890, transported cargo to many ports during its twenty years of service. Using mainly old technology, this vessel competed with the modern ships of the era that took full advantage of the innovations of the new technology. Nevertheless, the Herbert Fuller earned enough to make a profit for its owners and pay for its own upkeep. Opportunities for commercial gain at the turn of the nineteenth century were ideal. The United States had recovered from the economic devastations of the Civil War and the world was at relative peace. These were model conditions for business to thrive and grow.

Dynamic, energetic, changing and compelling forces of harbor life in Manhattan at the turn of the century allowed the Herbert Fuller, a small commercial enterprise, relative success in its business ventures. At the same time these powerful forces rapidly changed commercial shipping to the point where this type of vessel had a limited life span. However, in 1891, the owners of the Herbert Fuller saw opportunities for profit and growth rather than limited business expansion and chose New York

New York City as the primary port for their ship. As a major port city, it was the scene of bustling activity. Commercial shipping brought goods from one place to another and encouraged the growth of related businesses, created jobs, increased the demand for goods and helped to expand the economy.

Many factors were responsible for creating this successful seaport. New York has natural advantages. Several bodies of water surround the city. The Lower Bay, Sandy Hook, is connected to the Upper Bay by the Narrows. This body of water is situated between Staten Island and Brooklyn. It is two miles long and at one point, only three quarters of a mile wide. Here, ships could easily be detained and quarantined, when necessary. The Narrows lead to the Upper Bay and then to the East River along the east side of Manhattan Island. On the west side of the island is the Hudson River. South of the East River is Governor's Island.[1]

The East River is sixteen miles long and joins the Upper Bay with Long Island Sound. The Sound lies between Long Island and Connecticut and is 100 miles long and ten to twenty miles wide. Vessels were safer in the East

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[1]Robert Greenhalph Albion, The Rise of New York Port, (Hamden, Connecticut: Archon Books, 1961), 17-9.

River because they were protected from the elements. There was shelter from the sea and the Sound deadened the full brunt of the ocean waves.[2] Long Island Sound offered another entrance into New York regardless of weather conditions[3] and was the "back door" to New England.[4] New York also had the capacity for expansion with its Brooklyn, New Jersey and Staten Island shores.[5]

New York offered easy access to its ports during every stage of the tide. As a result, when pilots brought ships into port, they were able to find deep water channels so that the ship's keel (its deepest part), would not run aground.[6] New York, near the open sea,[7] and with a landlocked harbor, offered a natural shelter - more than any other major port as close to the sea.[8] The waters around Manhattan protected vessels against the Atlantic

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[2]Albion, 20-1.

[3]Ibid., 21.

[4]John M. Carmody, Administrator, A Maritime History of New York, (Federal Works Agency, Garden City, New York: Doubleday, Doran and Company, Inc., 1941), 19.

[5]Albion, 34.

[6]Albion, 24-5.

[7]Albion, 34.

[8]Albion, 28-9.

storms,[9] and kept ships from being damaged for it was these winds, rather than waves, that were troublesome to water crafts during foul weather.[10] The Herbert Fuller, for example, had some difficulties when, arriving in New York from Fernadina, Florida, went aground on shoal and had to be towed for repairs on October 10, 1905.[11] Some damage was sustained and Tietjen & Lang Dry Dock Co. repaired the Herbert Fuller by October 30.[12] Most of the time, though, this port was ideal for safe landings of marine crafts.

There were, however, other problems that the New York harbor had to face. Floating ice from the Hudson River caused some ship's delays. Most of the time ships had no trouble going out to sea but New York was cut off from Albany and its northerly interior part of the state when water froze in the Hudson for about 100 days of the year.[13] Other ports also had this problem. Ice cut off Montreal and Quebec from the sea for about five months

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[9]Albion, 29.

[10]Ibid., 30.

[11]New York City, South Street Seaport Museum, Melville Library, Barkentine Herbert Fuller, Folder #49, Notarized statement.

[12]Folder #49, Tietjen & Land Dry Dock Co.

[13]Albion, 30-1.

every year. Boston faced this same dilemma. In the seaports of Philadelphia, Baltimore and Delaware, frozen ice hindered ship's movements for several weeks during cold weather.[14]

Fog also plagued New York from December to March. To combat this phenomena, the lighthouse service, under the Treasury Department, provided fog signals.[15] As part of their maintenance they also marked buoys at the entrance to the port in red, white or black colors to help ships avoid sand bars. Signal poles, placed in various parts of the water, sent messages to the port of approaching ships.[16]

Another factor was an increasing population. New York's seaport had been growing at a very fast pace, even before the American Revolution, for water born transport was the cheapest method of moving goods over long distances.[17] Opportunities for economic growth brought many people to this area. At the time of the Treaty of Paris of 1763, the city's population was 13,000. This

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[14]Albion, 31-3.

[15]Ibid., 33.

[16]Ibid., 217.

[17]Edmund J. Gubbins, The Shipping Industry: The Technology and Economics of Specialization, (New York: Gordon and Breach Science Publishers, 1986), 2.

expansion of wealth created a new class of mercantile capitalists in river, coastal and ocean trades, who outnumbered landowning merchants. Between 1747 and 1762 New York residents owning ships in its harbor, increased from 99 to 447.[18]

Even when New York became a Tory port from 1776 - 1783, after being captured by the British,[19] economic growth continued. By 1772, exports passing through the port were valued at 150,000 Pounds per annum and 100,000 Pounds for imports.[20] The end of the American Revolution provided new opportunities for mercantile growth. Between 1789 and 1799 American exports rose from 123,893 tons to 576,733 tons. At the same time British ships, engaged in United States commerce, saw their exports fall from 94,110 to 19,669 tons.[21]

After the War of 1812, the high seas were open to all nations and this became an accepted fact by all of America's trading partners.[22] The defeat of Napoleon established an international political framework for free

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[18]Carmody, 61.

[19]Albion, 6

[20]Carmody, 60.

[21]Ibid., 89.

[22]Ibid., 120.

trade.[23] America enjoyed peace for the next half century enabling New York's seaport to grow and develop. Even the Mexican War did not affect the port because it was so far removed from the conflict.[24]

New York's three major trade routes, in 1815, were Europe, southern ports and the West. Ocean packets carrying mail, goods and passengers during fixed schedules, were traveling back and forth across the Atlantic as early as 1820. These fast sailing vessels made New York the western port of call from Europe and contributed to the rise of New York's port.[25] With its volume of trade, the New York Custom House collected a considerable amount of freight charges and tariffs for the United States government.[26] By 1828 the collection in duties and tariffs were enough to pay for all the expenses of the national government except the interest on the debt.[27]

Another factor that helped New York prosper was

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[23]Alan W. Cafruny, Ruling the Waves: The Political Economy of International Shipping, (Berkeley: University of California Press, 1987), 48.

[24]Albion, 10.

[25]Ibid., 334-5.

[26]Ibid., 34.

[27]Ibid., 224.

the "Cotton Triangle." In fact, it made her immensely wealthy. Charleston, Savannah, Mobile and New Orleans were all cotton ports. European ports, which accepted cotton, were generally Liverpool, England and Havre, France. In the 1820's northern merchants sent agents down south to buy cotton from southern planters. They also advanced monies to the planters for shipping costs back to New York. These expenses were freight, insurance, interest on the loans and commission fees. Then the agents hired seamen and stevedores necessary for shipping, loading and unloading of goods. Once the shipment arrived in New York, New England merchants bought cotton for their textile mills. The remainder of the southern staple was shipped to Europe where it was sold. Before departing for American shores, these ships were loaded with imported goods from Europe to sell in New York and the South.

This triangle, which went from the South to New York to Europe and back to New York and the South, was never really necessary for the disposition of cotton. The South had very fine seaports and could have bought ships and traded directly with New England and Europe, eliminating New York shippers. For some reason though, southern planters were content to allow northern agents to handle their business affairs just as they were comfortable with using slave labor to grow their crops.

The only possible explanation was that the South was agrarian and Southerners thought of their produce only in terms of an immediate direct profit. The North, however, was industrialized and saw cotton as another commodity which would earn money through secondary sources such as shipping, handling, banking, insurance, freight charges and commissions.[28]

The Cotton Triangle enabled merchants and agents to take large shares of this crop.[29] The income from interest, commissions, freight and insurance was so great that New York merchants earned forty cents on every dollar of southern cotton.[30] Cotton made the northeast a great maritime area. Manufacturing, banking and merchandising grew because of this southern staple.[31] Considerable amounts of cotton were carried to Europe via Sandy Hook and the East River. This was not the most direct route across the Atlantic and added 200 miles to the voyage. Extra charges for unloading and reloading increased the

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[28]Albion, 95-121.

[29]Carmody, 150-1.

[30]Albion, 96.

[31]James Matthew Morris, Our Maritime Heritage: Maritime Developments and Their Impact on American Life,(Washington, DC: University Press of America, Inc., 1979), 121.

cost of exporting cotton from the South.[32] It was not long before New York became the financial center of the United States. Only London surpassed New York as a center of trade.[33] By the use of commercial paper such as notes and drafts, bankers enabled goods to be passed from planter to exporting merchant to commission merchant to jobber to shopkeeper. At the same time they were advancing monies, they were also charging interest.[34]

During this same period, the building of the Erie Canal, through the efforts of Governor DeWitt Clinton, in 1817, greatly contributed to making New York a great port city. The canal, situated between Albany and Buffalo, was planned to make the Great Lakes and Lake Champlain accessible to the Port of New York.[35] In October of 1825 the Erie Canal was completed.[36] It was such a successful project, that in a short period of time the tolls collected reimbursed New York State for the initial cost in building the canal.[37] Lake trade started between

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[32]Albion, 96.

[33]Ibid., 284-5.

[34]Ibid., 283-4.

[35]Carmody, 121.

[36]Albion, 87.

[37]Ibid., 90.

Buffalo and Cleveland and continued with Michigan in pork, whiskey, potashes and, eventually furs.[38] Western counties of New York along the canal replaced the Hudson Valley as the center for the flour industry.[39] Wheat had been milled into flour since early colonial times, using water power.[40] Farmers brought it to shopkeepers in exchange for goods. Shopkeepers brought it to the New York port and obtained cash and goods to bring back to the hinterlands (back country).[41] When these items came into the New York port, they were easily distributed along the Cotton Triangle (going south) and the Erie Canal (to the West).[42] New York shipped flour to Europe, New England and Latin America.[43] As country stores increased in numbers, they acted as distribution points for imports from Europe, China and Latin America and provided "cash crops."[44] In addition to flour, other commodities produced in the back country to be used as "cash crops" were ashes,

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[38]Albion, 90.

[39]Albion, 89.

[40]Albion, 80.

[41]Albion, 81.

[42]Albion, 77-8.

[43]Albion, 92-3.

[44]Albion, 91.

flaxseed and salted meats. Europe bought ashes from American farmers, who cut down and burned trees to make space for growing new crops. Linen produced in Ireland was grown from American flax seeds, because Irish flax growers had harvested their plants before they were mature enough to bear seeds.[45] Salted meats and hardtack were needed for the diet of mariners. Therefore, when elderly hogs and cattle were slaughtered, they were cut up and packed in brine.[46]

New York banking played a part in the growth of the New York port by advancing monies to other regions for flour before it was milled. At harvest, farmers paid back their loans with interest. This method drew a number of regions into debt as they used credit to borrow money for seeds. They also became dependent on New York.[47] In this way New York became the center for exchange of goods without producing them and in the process grew rich from commissions, freights and tolls.[48]

The West developed commercial farming of fruits, vegetables, grains, meats and dairy products. Farmers

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[45]Albion, 79.

[46]Albion, 78-9.

[47]Albion, 94.

[48]Albion, 10.

shipped their produce to the Northeast in exchange for manufactured goods and to the South where they were paid by means of drafts drawn on northern banks. This created a large market in the eastern states for foodstuffs from western states. Western producers also used the money from bank drafts to purchase additional manufactured goods from the East.[49]

After the Civil War the cotton trade was lost to Yankee sailing vessels.[50] However, the New York port continued to grow. Cotton was replaced with trade around Cape Horn to California.[51] During the 1870's the port dominated the American import-export business. More than 50% of the nation's sugar and molasses; 52% of coffee; approximately 80% wool and manufactured goods, and over 92% of silk in imports passed through New York.[52]

South Street had been built up 30 years before the War of 1812.[53] Shipowners went to New York's South Street

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[49]Morris, 122.

[50]Richard C. McKay, South Street: A Maritime History of New York, (New York: G.P. Putnam's Sons, 1934), 427-31.

[51]William Avery Baker, A Maritime History of Bath, Maine and the Kennebec River Region, Volume II, (Bath, ME: Marine Research Society of Bath, 1973), 793.

[52]Carmody, 198-9.

[53]Ibid., 118.

and procured shipping agents because this was where all the business was even though most vessels were built in New England.[54] Businesses concerned with merchant marine ventures operated in the South Street area and were known as countinghouses. Buildings on the seaport were usually three to five stories high and made mostly of brick.[55] Entrepreneurs always strived to own their property rather than rent for real estate values were constantly increasing.[56] The upper stories of the countinghouse were used for storage of goods (warehouse) and the front part of the first floor was the showroom. Further back were the counting rooms (offices).[57]

Clerks in the counting house were men who worked slowly and laboriously with pen and ink; there were no carbon copies. All documents had to be copied by hand. Writing masters taught a "good hand" to young men engaged in business, but once a man became head of a firm his handwrighting lapsed into his former scrawl (and was difficult to read). Poor penmanship was always the case with Captain Charles Nash, who not only was in charge of

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[54]Albion, 268.

[55]Albion, 260.

[56]Albion, 261.

[57]Ibid.

the Herbert Fuller for many years, but was responsible for presenting a monthly account sheet of expenses to the investors.[58] In any event, no one seemed to complain.

Young boys started their careers in the counting house as copyists and earned one to two dollars a week. They became specialized clerks for custom-house work and translations. Eventually, they became bookkeeprs and confidential chief clerks.[59] Many young men, after receiving their education, worked in the counting house for two to three years. Then they went to sea and worked their way up from Second Mate to Captain. Education and experience in the work place and at sea gave American captains a reputation around the world for being knowledgeable and efficient in the merchant marine.[60]

Merchants of South Street welcomed immigrants as a source of labor for their shipping business.[61] During the 1848 Gold Rush, merchants sold flour at five or six dollars a barrel in New York. By the time it arrived in San Francisco, the cost had risen to ten times that

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[58]Folder #4, Captain's account. April 1, 1891.

[59]Albion,261.

[60]Frank C. Bowen, The Golden Age of Sail, (New York: Minton, Balch & Company, 1925), 34.

[61]Albion, 349.

amount. Newspapers that sold for a penny in New York sold from between fifty cents and one dollar in California when they were four and five months old.[62]

In 1855 the fashions for women dictated as much as 100 yards of material for a complete outfit which included their petticoats. This helped both the textile industry and commercial shipping. Men's fashions did not affect trade to that degree.[63] Iron from Manchester and Leeds was important to the Industrial Revolution. Eighty percent of the textile imports and fifty-seven percent of all iron imports passed through the Port of New York in 1860. Finished cutlery came from Birmingham, Sheffield and Liverpool. Iron bars, sheets and rods for railroad rails came from Bristol and South Wales.[64] France, Holland and Spain provided Americans with wines and spirits. Liverpool and Newcastle brought coal.[65]

All these imports and exports meant there was money to be made in shipping, especially in New York. It was against this background of capital growth, success and wealth that a group of family related investors

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[62]Albion, 356.

[63]Albion, 55-6.

[64]Albion, 66-7.

[65]Albion, 70-7.

commissioned the construction of a wooden sailing vessel, in 1890, which they named the Herbert Fuller.[66] When it arrived at the South Street Seaport in 1891, its owners had every expectation of succeeding. Proof was in the Port of New York's history. Everyone was hopeful.

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[66]Folder #1. Building accounts. January, 1890-1.

CHAPTER 3

LAUNCHING OF THE HERBERT FULLER

Investors of the Herbert Fuller were family related and most of them had some experience with shipping. Captain Charles T. Nash, as a Master, was required to know almost everything about operating a ship. His title of Captain was merely a naval rank and a captain was not necessarily the Master of a ship with specified authority. The Master always held complete control of the ship, regardless of whether or not he held any military rank.[67] The shareholders, John Swan and John Swan, Jr. were shipping agents. Henry R. Nash, another investor, represented the Union Central Life Insurance Company in Boston, Massachusetts. Herbert Fuller, the ship's namesake, was the Vice President of the Boston Insurance Company. The Lang brothers owned a dry dock company. Each member of the family owned different amounts of stock and shared the risks involved in owning a ship. It was not unique for families to share the costs and dangers of operating an ocean craft. Member related families in

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[67]Alan E. Branch, Elements of Shipping, (London; New York: Chapman and Hall, 1989), 7.

Genoa began combining their monies to purchase shares in a ship as early as the twelfth century.[68] When ships were lost at sea or other mishaps occurred, the loss was easier to bear for the group than it would have been for a single individual.

The Herbert Fuller was known as a barkentine ship. This type of vessel is a three-masted ship with a foremast, main mast and mizenmast. Only the foremast is square rigged.[69] Movement of these water crafts depend upon winds acting on sails and water on its rudder.[70] Although a large majority of American ships utilized steam power and were built of iron and steel, the owners of the Herbert Fuller opted for sail power and wood construction. Their reasons were purely economical. Wooden ships were cheaper to build than iron and steel vessels. In 1880, white oak from Maine was selling for $35.00 per 1000 board feet. The cost of iron was $60.00 per ton.[71] Sails used wind power instead of coal, which

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[68]Eugene Hugh Byrne, Genovese Shipping in the Twelfth and Thirteenth Centuries, (Cambridge, MA: The Mediaeval Academy of America, 1930), 14-5.

[69]Capt. H. Paasch, Illustrated Marine Encyclopedia, (Great Britain: Argus Books, Ltd., 1890, 1977), 5.

[70]Richard Henry Dana, The Seaman's Friend, (Boston: C.C. Little & J. Brown, 1844), 69.

[71]Baker, 791.

fueled steamships. When coal was burned to create heat for steam power, it emitted black oily smoke and polluted the air. Sails, on the other hand, used the winds which were free and clean. Although environmental pollution was not a major concern of society, nevertheless, seamen preferred working on sail powered vessels where they breathed easier. Operation of steam ships required twelve crewmen for every 100 tons of weight of the vessel,[72] whereas a three-masted ship could keep its crew to a minimum of six or seven.[73] The Herbert Fuller, which weighed 742.79 tons, required only a crew of eight.[74] Even though the United States changed from an agricultural to an industrial nation after the Civil War, many commercial shipping companies, during this time period, did not feel pressured into making the transition from wooden sailing vessels to iron hulled steam powered vessels.[75]

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[72]Erik F. Haites, Western River Transportation: The Era of Early Internal Development, 1810 - 1860, (Baltimore: The John Hopkins University Press, 1975), 31.

[73]John P. Parker, Sails of the Maritimes, (Aylesbury, Bucks, Great Britain: Hazell, Watson & Vincy, Ltd., 1965), 54.

[74]Folder #4, Order of payment of wages due crew, April 22, 1891.

[75]Morris, 190.

In addition to the obvious fact of economics, wooden sail powered vessels continued in popularity because of its historic background and the refusal of many mariners to move with the times to steam and steel. There was a long tradition of wooden sailing ships in the United States during the period prior to the Civil War. American shippers, competing internationally with foreign traders, had a distinct advantage over them because of abundant and inexpensive wood. As technology advanced during the nineteenth century, Europeans built steam powered vessels with iron hulls and American shipping began to lag.[76] Because of its highly developed mining and manufacturing industries, Britain could supply its shipbuilders with cheap iron, while the United States found it more costly to build iron ships.

High building costs of iron ships was not the only problem that American shipowners had to face during this time. American merchant seamen received higher wages than European crews because they had more skills.[77] Opportunities availed themselves to American crew members. They learned every aspect of marine life aboard

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[76]Morris, 191.

[77]William Wallace Bates, American Marine: The Shipping Question in History and Politics, (Boston & New York: Houghton Mifflin Company, 1892), 354.

ships and used it to gain employment in other areas. A seamen who had learned about sails while at sea, could work for a sailmaker on shore. Clothing repairs necessitated the use of a sewing machine, and that skill might be used in a tailor's shop.[78] Acquisition of these skills was an advantage to the American seamen but not to the American shipowner who found himself unable to successfully compete with the foreign shipowner who saved 25 - 35 percent on the cost of wages, provision and stores.[79] As a result, United States shipowners continued to use sail powered wooden ships which required smaller crews. But this also limited their areas of trade.[80] Vessels over a thousand tons had long masts which put a strain on the rigs (lines holding the sails in place) and created problems at sea.[81] Overall, this resulted in limited cargo tonnage.

Many shipowners realized, if they wanted to compete successfully with Europe, they had to improve their technology. After the Civil War, in the United States,

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[78]Tour of the Waivertree, an 1896 sail-ship docked at the South Street Seaport Museum, July 8, 1993.

[79]Bates, American Marine, 354.

[80]Morris, 190.

[81]Baker, 797-8.

steam began to replace sails and iron hulls supplanted wooden vessels. Manufacturing, railroad construction, and the development of iron, coal and oil lands, all competed with the sea for venture capital. Merchant shippers felt the competition keenly, for their industry was on the decline. Before the Civil War ships were built for the highly profitable southern cotton trade. After the conflict, shipbuilding was centered on the less lucrative trade around Cape Horn to California.[82]

In the East, New York, originally, until the 1850s, had the lumber to build ships. As time passed, the oak used in masts for East River boat construction came from Maine and along the Hudson River.[83] New York, despite its building more expensive ships than New England, was successful because of the concentration of commerce and skilled laborers whose work could be inspected while the ships were being built.[84] The city developed its own mechanics and machine builders known as "artists" or "machinists."[85] East River yards provided New York's best

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[82]Baker., 793.

[83]Albion, 295.

[84]Ibid., 297.

[85]Carmody, 130.

ships.[86] In Bath, Maine, they boasted that their ships were less expensive because they used cheap labor while producing some of the finest sailing vessels in the world.[87] By 1860 Maine had 17% of the registered tonnage and built 43% of the square-riggers. New England built 77% of these vessels (as a whole).[88]

Timber shortages, in New York City, became evident during the 1850's and supplies had to be moved from the Great Lakes area, interior coastal regions and the South - all at higher prices. Labor costs also increased.[89] With the declining availability of American timber, some shipbuilders began constructing iron ships. Because of their iron construction, these ships were inexpensive to maintain and could be insured at low rates. Goods were less likely to be damaged at sea.[90] Iron vessels were more rigid than wood.[91] They were superior to wood in

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[86]Albion, 287.

[87]Baker, 791.

[88]Albion, 267.

[89]Morris, 164-5.

[90]James Douglas Jerrold Kelley, The Question of Ships, the Navy and the Merchant Marine, (New York: C. Scribner's Sons, 1884), 26-44.

[91]David Ames Wells, Our Merchant Marine: How It Rose, Increased, Became Great, Declined and Decayed, (New York: G.P. Putnam's Sons, 1882), 48.

buoyancy and drew less water; they carried greater weight in cargo and had larger stowage capacity.[92] The last commercial sail disappeared in 1941, just before the United States' entry into World War II.[93]

Nevertheless, there were those who believed that "Iron is a most uncertain servant." Pointing to railroad disasters, many said there were hazards to iron; under stress it would break without warning.[94] Other problems of the steamboat included explosions and fires. Some argued that these vessels had a short life span and insisted that the insurance was high.[95] Still others maintained that steamships were costly.[96]

The high cost of fuel for steam vessels, frequent delays in loading and unloading cargo, and added cost of the engineering crew, kept sails competitive in the carriage of cargo overseas.[97] However, as the shipbuilding

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[92]Wells, 50.

[93]South Street Seaport Museum exhibit.

[94]William Wallace Bates, American Ships, Their Past and Future and the Question of Wood or Iron for Their Construction, (Chicago: William Wallace Bates, 1870), 52.

[95]Haites, 30.

[96]Carmody, 184.

[97]Felix Reisenberg, Standard Seamanship for the Merchant Service, (New York: D. Van Nostrand Company, Inc., 1922, 1936), 9.

industry improved its product by replacing wood hulls first with iron and later with steel, ships became larger and more capacious. This led to growth and further productivity of the shipping industry[98] as carrying capacity increased.[99] Between 1850 and 1870 merchant steam ships developed into larger and more comfortable vessels.[100] They were twice as fast as sails[101] and continued to increase their speed.[102] Further technical advances in 1875 led to the water tube boiler wherein water in tubes passed through flames instead of passing an enclosed flame through water. The result was more steam pressure.[103] Still, in 1900 many steam powered ships had auxiliary sails.[104]

The three masted schooner was the most popular American merchant vessel using sails.[105] In the 1860's

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[98]Gubbins, 7.

[99]Haites, 72.

[100]Morris, 183-4.

[101]Albion, 320.

[102]Haites, 69.

[103]Carmody, 201.

[104]Gubbins, 7-8.

[105]Ralph Delahaye Paine, The Old Merchant Marine: A Chronicle of American Ships and Sailors by Ralph D. Paine, "Textbook Edition," (New Haven: Yale University Press, 1919), 191.

schooners sailed the Hudson as well as steam ships.[106] These sailing vessels had two or more masts. They required half the crew, were fast and practical.[107] Ship builders, in the 1880's, found the barkentine, a three masted square rigged vessel, was a popular substitute for the three and four masted schooners with square rigs[108] and could also be handled by a small crew.[109] During the next few decades shipbuilders produced large numbers of great square rigged ships and barques.[110] Donkey engines augmented the use of sail gear, anchors and cargo work.[111] They were good for wind and usually fitted with twin screw motors.[112] In the lumber trade, schooners and barkentines made excellent time[113] and were used on long

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[106]William Edward Verplanck, The Sloops of the Hudson, (Port Washington, NY: I.J. Friedman, Inc., 1908), 76-93.

[107]William Armstrong Fairburn, Merchant Sail, Volume IV, (Center Lovell, ME: Fairburn Marine Educational Foundation, Inc., 1945-55), 2608.

[108]Bates, American Marine, 290.

[109]Reisenberg, 15.

[110]John P. Parker, Sails of the Maritimes, (Aylesbury, Bucks, Great Britain: Hazell, Watson & Vincy, Ltd., 1965), 55.

[111]Ibid., 58.

[112]Reisenberg, 11.

[113]Ibid.

hauls to England, western Europe and the Orient.[114]

When a number of sea disasters occurred, involving four and five masted schooners, at the beginning of 1890, many shipbuilders and shipmasters questioned the wisdom of such large vessels.[115] Though steam ships had proven their superiority over sail with increased capacity and speed and comfort, during 1895 more than 1700 sailing vessels entered the Port of New York.[116] Swan & Son, shipping agents and part owners of the Herbert Fuller, of 66 South Street, New York,[117] operated seventeen ships under sail.[118]

Construction of wooden sailing vessels continued into the twentieth century. Many traditional seamen, as late as 1935, believed that this type of vessel, coupled with a donkey engine was better than any steel steam ship. This small engine could also, in many ships, be used as a source of auxiliary power if the ship was becalmed. Situations of this nature sometimes kept a ship

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[114]Robert Greenhalph Albion, Sea Lanes in Wartime: The American Experience 1775-1942, (London: George, Allen & Univin, Ltd, 1943), 19.

[115]Baker, 797.

[116]Carmody, 228.

[117]Folder #2, Charter Party, February 10, 1891.

[118]Carmody, 226.

in one place at sea for months. Eventually, by 1914, steam and steel had generally supplanted canvas and wood in merchant ships as well as warships.[119] Moreover, at the turn of the century, the oil powered tanker was developed.[120] This type of vessel saw use in both World War I and II.[121] Despite the fact that steam and steel were increasing in popularity in 1890, the owners of the Herbert Fuller believed that a sail powered wooden vessel was best for them.

Once their ship was ready they registered it with the Collector of Customs in the Certificate of Enrollment.[122] and[123] Even though its main port of call would be New York, the Herbert Fuller had to be registered in the State of Maine, where it was built. Without registration, a vessel's trade restriction and movement was curtailed. Any ship failing to meet this obligation

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[119]Albion, Sea Lanes, 177.

[120]Ibid., 182.

[121]Ibid., 184.

[122]Folder #2, Certificate of Enrollment, January 23, 1891.

[123]Joseph Blunt, The Shipmaster's Assistant and Commercial Digest, 2nd Ed, (New York: E. & G. W. Blunt, 1837), 19.

was liable to seizure and heavy penalties.[124] The Certificate of Enrollment listed all pertinent facts about the ship. John R. Allen, the Herbert Fuller's Master Carpenter, certified that the bark had two decks and three masts. This was not a unique feature of nineteenth century ships for as early as the middle of the twelfth century, Genovese ship masters built large vessels with two decks and two or three masts. Length and beam of a ship determined its capacity.[125] The Herbert Fuller was 158 feet long with a breadth of 35 feet and was eighteen feet deep. Its net tonnage was 742.79 tons. This last item was very important since all custom and duty fees were based on this weight in addition to its cargo weight.[126] Also, American navigation laws did not allow vessels under 30 tons the right to bring goods into its seaports.[127] Each name listed on the certificate had a corresponding number of shares of ownership. An oath given by the Master of the ship and required by law, indicated that all the owners were citizens of the United

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[124]Wells, 89.

[125]Byrne, 6.

[126]Folder #2, Duties and Fees from Customs House Port, February 11, 1891.

[127]Wells, 79.

States.[128]

Owners of the Herbert Fuller gladly complied with these rules because American navigation laws protected them from foreign competition in their own ports. Protective tariffs for marine enterprises began in 1789,[129] for northern merchants in exchange for a twenty year continuation of the African slave trade for southern planters.[130] Between 1790 and 1792 acts levying tonnage dues and import taxes discriminated against foreign shipping and gave American ship owners a near monopoly on all American commerce.[131] To insure against any competition from foreign trade, restrictions were placed on American ship owners. American citizens were not allowed to import any foreign built vessels. This meant they were not allowed to purchase, acquire a registry or title to any foreign ship or in any way use it as property. For the Herbert Fuller and other American shippers, this was an important aspect of the law. It eliminated competition from American investors abroad who would have been able to use cheap foreign labor. Yet, the

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[128]Ibid., 77.

[129]Carmody, 88.

[130]Wells, 64.

[131]Ibid., 65.

United States did permit the world to enter its ports in vessels purchased anywhere in the world under other flags.[132] However, if a naturalized citizen purchased an American vessel, the ship ceased to be under the protection of the United States and no longer could engage in coastal trade.[133] Cabotage Laws defined coastal trade[134] as all direct traffic by sea between the Atlantic and Pacific ports of the United States via Cape Horn of the Cape of Good Hope or across the Isthmus of Panama. This same rule applied to Americans residing in other countries (except for consuls or American agents on business in a foreign port).[135]

Even though many foreigners held positions of importance in American industry, education and the arts, aliens were not allowed to command any American vessel.[136] Once an American ship was sold or transferred to a foreigner it could never be repurchased again as American property, even if the transfer had been the

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[132]Wells, 75.

[133]Ibid., 45-6.

[134]Gerald R. Jantscher, Bread Upon The Waters: Federal Aids to the Maritime Industries, (Washington, DC: The Brookings Institution, 1975), 45.

[135]Wells, 76.

[136]Ibid., 77.

result of capture and condemnation by a foreign power in time of war.[137] Many American ships were sold to England during the Civil War so that some northerners could still trade with the South.[138] These vessels remained as foreign ships long after the war ended. As a result of these laws, a ship like the Herbert Fuller had the further advantage of knowing that American shippers with long established business relationships were limited. The market for new business was wide open to everyone.

The greatest gamble on any vessel was whether or not it could earn back money invested and continue paying dividends to its owners.[139] Captain Charles T. Nash was the Master of the Herbert Fuller. Together with his wife, Laura, they owned a third of the shares, far more than anyone else in the family.[140] It was obvious that Captain Nash, as much as Swan & Son, preferred sails and wood to steam and steel. Along with the other investors, they decided that the wooden sail powered vessel, requiring

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[137]Wells, 79.

[138]Winthrop Lippitt Marvin, The American Merchant Marine, Its History and Romance from 1620-1902, (New York: Charles Scribner's Sons, 1902), 319-42.

[139]Parker, 54.

[140]Folder #2, Certificate of Enrollment, January 23, 1891.

less fuel and a smaller crew was the practical way to operate a ship. They were cost conscious, practiced thrift and frugality, and determined to make a profit from this venture.

The Herbert Fuller's carrying capacity was 740.66 tons.[141] Its ports of destination were confined mainly to South America and the Atlantic coast, which was protected from foreign competition through the American Navigation Laws. Despite their economies, none of the investors ever grew extremely wealthy. Nonetheless, for twenty years this vessel earned money for its owners, although the amounts were not necessarily to everyone's satisfaction.[142]

Swan & Son, as agents for the Herbert Fuller, were extremely useful for insuring monetary success to the ship. They had a long established business on South Street, where most marine ventures originated. The chandler and grocery store, located nearby on South Street, was also operated by another member of the Swan family. Necessary goods and supplies for the ship and its crew were purchased at this establishment whenever the vessel was in the New York port. Although many other

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[141]Folder #2, Certificate of Enrollment, January 23, 1891.

[142]Folder #73, Correspondence and Final Sale, July - August, 1910.

ships were under the care and control of Swan & Son, the Herbert Fuller never remained idle in port for very long because shipping merchants, wishing to hire a ship with its specifications, were encouraged to use this vessel. Certainly everything was favorable for the Herbert Fuller.

CHAPTER 4

FACETS OF SHIPPING

Before commercial ships, such as the Herbert Fuller, left port to pick up cargo for eventual sale, formal documents were signed to insure legal backing. In New York City, Swan & Son, shipping agents for the Herbert Fuller, drew up the legal instrument for leasing the vessel to merchants involved in sea commerce. Merchants, importers, exporters, tradesmen and any other businessmen wishing to use the waterways for their cargo, entered into an agreement with a shipping agent for that purpose. Almost all ships involved in commerce used agents, who wrote up agreements. Merchants and agents entered into a contract usually known as a Charter Party.[143]

Charter Parties were used as early as the twelfth century by Genovese shippers. These contracts included descriptions of the vessel and equipment, stops and destination of the voyage, freight rates paid by the merchants, their names and obligations with respect to minimum and maximum amounts of cargo to be loaded at any given time. Dates for loading goods and penalties for

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[143]Folder #2, Charter Party, February 10, 1891.

failure of the merchant to fulfill the terms of the contract were also included.[144]

In order to demonstrate that their vessels were seaworthy, owners described their vessel's major equipment. Inventory included the number of sails on the ship (usually one canvas sail and a number of cotton sails), the number of extra spars, anchors and coils of cable. Declarations were made if new masts were installed just prior to sailing. Merchants could inspect all equipment including the cabin and furniture on the ship.[145]

By the thirteenth century, Genovese ships were required to have a scribe who had notarial training. He also had to be a clerk and an accountant. The scribe kept a record of receipts and disbursements, loading and unloading of cargo, maintained accurate records and copies and filed agreements in his chest. Such documents became useful to ship builders who relied on this archival knowledge in the purchase of materials.[146]

During the middle ages rats were a real problem on ships and the "senyor" of a ship was responsible for damages by these rodents. He could be held liable if he

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[144]Byrne, 31.

[145]Ibid., 34.

[146]Ibid., 60-1.

could not prove that he had "an adequate skillful cat."[147] In 1532 a Charter Party had specific provisions that on the Anne of Hull, an English ship, the vessel was to carry "doge and a cat with all other necessaryes."[148]

A Charter Party was just as important in the shipping industry for the Herbert Fuller in the late nineteenth century as it was in twelfth century Genoa. It set fees that the charterer would pay to the agent and determined what kind of specie was acceptable. There was usually a preamble which described the vessel and provided dates of readiness for loading. Description of the cargo stated minimum and maximum amounts.[149] Setting forth all the rules for leasing the ship, this document also stated the pre-determined amount of money the owners of the vessel expected to earn for their services. The agent provided the ship, captain, crew and supplies. Merchants paid freight charges, based on the weight of the ship, in addition to charter charges, which were based on the amount of goods delivered to the port or ports of destination. The Custom House collected freight rates.

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[147]Dorothy Burwash, English Merchant Shipping: 1460 - 1540, (Toronto: University of Toronto Press, 1947), 40.

[148]Burwash, 40.

[149]Branch, 348-9.

An international freight market determined these fees but each country had to approve the rates.[150] Shippers had little choice but to accept the going rate.[151] Such fees were based solely on the net tonnage of the vessel.[152] The Herbert Fuller paid such fees to the Customs House.[153] The freight rate of the cargo was the usual agreed upon price for shipping.[154]

Merchants, who rented the whole ship, had the right to determine the goods taken on board as long as they were not contraband. Merchandise filled the spaces between the two decks completely except for the living quarters of captain and crew. No goods were to be loaded on board without the consent of the merchant.[155] General cargo was usually loaded between the decks. This space was divided into separate tiers and prevented too much weight from bearing on the cargo at the bottom of the hold.[156]

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[150]Jantscher, 1.

[151]Cafruny, 18-24.

[152]Branch, 15.

[153]Folder #2, Duties and Fees from Customs House Port, February 11, 1891.

[154]Gubbins, 78.

[155]Folder #2, Charter Party, February 10, 1891.

[156]Branch, 32.

Charterers had the right of damages against the shipowners if a vessel was not ready for loading on the specific date set forth in the Charter Party.[157] The Herbert Fuller, for example, in its Charter Party of February 10, 1891, specified the number of lay days, a period for loading and unloading of cargo.[158] Depending on the parties, these days could be specific working days of the week or consecutive days that included Sundays and holidays. Most working days excluded Sundays and holidays but this depended on the port and custom. Adverse weather conditions, which prevented work on the docks, and lay days were discounted. Surf days were not counted when the waves were too high. Reversible laydays referred to time saved or lost. If a ship loaded and discharged cargo in less than the prescribed time the owner might pay a reward for time saved.[159] Penalty fees were paid to the agent when lay days were excessive due to the fault of the merchant. Therefore, demurrage and other penalty fees, were paid as compensation to the owner for the delay of a ship.[160] On April 11, 1896, Swan & Son sued, in the US

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[157]Branch, 348-9.

[158]Folder #2, Charter Party, February 10, 1891.

[159]Branch, 351.

[160]Ibid., 351.

District Court for the Southern District of New York, in the name of the Herbert Fuller, Hilton Dodge Lumber Company to recover demurrage. Including fees paid to the Clerk of the Court, they received a total of $50.00.[161] Usually, liability of the charterer ended with the loading of cargo and collection of freight charges and demurrage.[162] A shipowner was able to hold cargo against the payment for freight.[163] In a telegram, on June 28, 1906, the Herbert Fuller's agents sent to McGowin Lumber Co. the following message, "Notified by Sizers Agents Apply to You for Bills of Lading...Will Hold Cargo For Demurrage Unless Cleared Today."[164]

When a vessel arrived in port, it was the obligation of the owners to make sure the port was safe from physical harm as well as political strife. The shipowner always had the right to request a port other than one stated in the Charter Party when he felt unsafe.[165].

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[161]Folder #51, Receipt from Wing, Putnam & Burlingham, April 11, 1896.

[162]Branch, 351.

[163]Ibid.

[164]Folder #52, Postal Telegraph Commercial Cables, June 28, 1906.

[165]Branch, 349.

An agent promised to keep the ship "tight, staunch, well fitted, tackled and provided with every requisite and with men and provisions necessary for such a voyage."[166] This last covenant gave rise to the need for the satellite industries which sprang up on all the docks and slips and serviced these vessels.

Upon the signing of this agreement, Swan & Son were paid a five percent commission on the amount the cargo was expected to yield. It was to their advantage, therefore, that any ship under their care and control, moved goods with speed and efficiency so that it could be used as often as possible in other contracts.

The sea had a life of its own. Weather conditions varied and life on moving bodies of water was always uncertain. Therefore, all Charter Party instruments included a "force majeure" clause which covered "dangers of the sea."[167] Exemptions from liability clauses were for willful wrongdoing of the master and/or crew without the consent of the owner. Capture and seizure of the ship by an enemy of the State who used force to take the vessel was also accepted under "perils of the sea."[168] Other

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[166]Folder #2, Charter Party, February 10, 1891.

[167]Folder #2, Charter Party, February 10, 1891.

[168]Branch, 352.

clauses in the Charter Party included an ice clause, strikes and stoppages, brokerage, penalties for non-performance and even a war clause.[169]

Variations of the Charter Party were numerous. When the merchants, Norton & Son wished to hire the Herbert Fuller to go to Cape Town, South Africa in April of 1892 to purchase staves, their agreement with Swan & Son was altered to reflect their wishes. It stated that extra heavy pipe staves would be ten pounds each and rough West Indies wood would be five pounds per item. The charterer further agreed to pay the agent for charter of freight of the vessel during the voyage as follows: Twenty Shillings British Sterling net per ton measurement of 40 cubic feet. For round cargo (barrels and casks) Twenty shillings British Sterling per ton measurement of 40 cubic feet (goods measured square). Lumber, if any, was to count as 83 1/3 cubic feet. For staves shipped under deck the fee was Five pounds British Sterling per 1,200 pieces on all rough west India staves that could be used for stowage and Four Pounds British Sterling on all dressed West Indian hogshead staves than could be used for stowage. The charterers were to have the privilege of shipping to the extent of 15 extra heavy pipe staves under

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[169]Branch, 352.

deck at fifteen pounds each.

The Master, in this case, Captain Nash, signed Bills of Lading at the Charterer's office. The amount of fees was explicitly detailed to be in British Sterling.[170] When dealing with foreign powers quotes for costs were frequently made in their currency.171

Bills of Lading were the receipts for goods shipped on board.[172] The function of a bill of lading was to evidence a receipt of goods, give title to cargo and show proof that there were definite terms of a contract even though a bill of lading is not an actual contract.[173] This paper stated the name of the shipper and the ship's name, gave a full description of the cargo including any shipping marks, individual packaging numbers, contents, cubic measurements and gross weight. Ports of shipment and ports of discharge were also named. Details of freight included when and where payment was due. The Master or his agent was required to sign and date the

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[170]Folder #13, Loading cargo fees, June 1, 1892.

[171]Paul Valentine Horn, International Trade: Principle and Practices, (Englewood Cliffs: Prentice-Hall, 1966), 58.

[172]William Moore, Ed., Reed's Seamanship and Nautical Knowledge, (London: Thomas Reed & Company, Limited, 1948), 544.

[173]Branch, 262.

specific number of bills of lading stated in the Charter Party.[174]

Additionally, Swan & Son agreed to hire, at their own risk and expense, the stevedore from D. Smith & Son of New York.[175] However, the stevedore was to be under the entire control of the Master and subject to his orders. He was to be paid at the rate of 45¢ per ton. Norton & Son obviously had a business relationship with Smith, and the agents, wanting to sweeten the pot to seal the deal, agreed to this arrangement. However, when it came down to actual work on the docks, Captain Nash had absolute control of his vessel and crew. His word was law.[176]

A Master always acted for the owner. All his actions were based on the fact that he was the owner's personal representative and responsible for safe navigation, efficient loading stowage and discharge of cargo. He acted as a lawyer and/or doctor, buried people and had the power of arrest. In case of mutiny his actions were considered to be in self-defense.[177] In the case of the Herbert Fuller, Captain Nash, although a major

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[174]Branch, 256.

[175]Folder #13, Stevedores, April 27, 1892.

[176]Branch, 71.

[177]Ibid., 71-2.

shareholder in the vessel, also had fiduciary obligations to the other investors and had to act in their best interests.[178]

Stowage of cargo was the responsibility of the Master. Goods had to be stored so they arrived in good shape. Usually stowage plans were given to the stevedore in charge of discharging and loading and he was responsible to the Master. Irregular shaped packages were kept to a minimum because they were prone to damage. It was important to have an even distribution of cargo on sail ships. If most of the cargo was stowed in the forward and after holds of a vessel, hogging might occur and the ends of the ship dropped lower than the midship portion. Sagging occurred when most of the cargo was stowed midship. In this case the ends of the vessel tended to be higher than midship. In either hogging or sagging there were adverse effects on the hull as it impaired the general stability of the vessel. To compensate for these problems, empty cargo, used as ballast, filled open areas of the ship. Bulk items such as grain, small coal, flint stone or iron ores caused shifting of the cargo. Allowances were made for this problem by providing dunnage in which inflated bags and

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[178]Dana, 151.

mats were placed among the cargo to prevent movement during the voyage. Cargo that was delicate, might leak, was odorous or liable to sweat, had to be separated from other goods in order to prevent spoilage. Goods had to be segregated in such a way that the various items could be unloaded quickly and efficiently at each port of destination.[179] When Captain Nash insisted on complete charge of the stevedores on the docks, it was only because he was ultimately responsible for the freight on his ship. He had to do everything in his power to insure safe passage for his men, cargo and ship.

The charterers, Norton & Son, were allowed 27 lay days, not including Sundays or holidays. This period began twenty-four hours after the vessel was hauled to the berth designated by the charterers or their agents. Swan & Son, agreed that the ship was to be balasted, levelled, dunnaged and ready to receive cargo. One additional working day was allowed the charterer for any handling or clearance of the ship. The crew was to work overtime in this case if required by the charterers.

Additional charges for Norton & Son were towing and pilotage. Both Swan & Son and the charterer shared the cost of employing a dock clerk to measure cargo and paid

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[179]Branch, 280-2.

at the rate of ten cents a ton. New York Custom House clearance of the ship was to be in the name of the charterer.[180]

Whenever Nash acted as Master and Agent for the Herbert Fuller, the Charter Party contract was slightly modified. For example, John Dunn & Son, Co of New York wished to lease the ship to go from New York to Buenos Aires on September 19, 1893.[181] The goods were general merchandise and the charterers paid for the vessel in the following manner: nine and one-half cents in United States gold per cubic foot and round packages were to be measured at eight and one-half cents per cubic foot. Hardwood was paid at the rate of eight and one-half dollars gold per thousand feet. White pine lumber stored under the deck was paid for at the rate of seven dollars United States gold per thousand feet. The foregoing was without primage (a small gratuity usually given to the captain) earned and payable on delivery of cargo. The shipowner had an absolute lien on all the cargo for all freight, dead freight and demurrage. Since the charterer's responsibility for fees ceased when the vessel was loaded and bills of lading were signed by the captain,

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[180]Folder #13, Loading cargo fees, June 1, 1892.

[181]Folder #18, Charter Party, September 19, 1893.

stevedores moved goods on board as rapidly as possible.

Captain Nash agreed to hire the charterer's stevedores at the current rates. Once at sea, he was to open the hatches whenever practicable during the voyage in order to ventilate the cargo. At the ship's expense, it was to be hauled once to the charterer's loading berth. The charterer could then move the vessel to any other place by paying any additional towing fees. Fifty lay days inclusive were allowed. In this document no time was given off for Sundays and holidays and the lay day commencement was specific for September 25, 1893, six days after signing this agreement. Each day that the boat was detained past the lay days brought a fine to the charterers. This Charter Party specified "62. 58/100 Gold Dollars" for each detained day.[182]

At the port of discharge, the ship was consigned to the charterer's agents. Their commission was two and one-half percent on the amount of all cargo on board. Included in this charter was the same clause of "dangers to the sea."

All these clauses were to protect vessels like the Herbert Fuller and its owners. The Charter Party was an exact document which did not allow for human error.

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[182]Folder #18, Charter Party, September 19, 1893.

Payments were explicit. Time was detailed. The way a vessel made money was for it to reach its destination as fast as possible, load its goods onto its decks and return to its original port so that the cargo could be unloaded. Then it was ready for its next assignment. Yet, once at sea, ships were at the mercy of the elements.

The same wind that could power the sails to move the ship with speed and efficiency could also smash the vessel, destroy all cargo and take the lives of its crew. The clause of "dangers to the sea" made an exception for both merchant and agent. Some "dangers of the sea" included squall, man-overboard, change of wind and collisions.[183] This clause held neither the merchant nor the agent responsible to the other for these tragedies. At the same time there was a recognized fact that fortunes could be made or lost at sea.

Merchants and shipowners recognized that their ventures might be risky and insurance against any loss associated with this business was necessary to protect assets. Usually, ships out on the high seas were relatively safe. It was only when they approached the coast that dangers increased,[184] such as collision during

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[183]Dana, 79-84.

[184]Albion, Rise of New York Port, 271.

ice, fog and winds.[185] The Herbert Fuller was underwritten by the Boston Insurance Company.[186] Mr. Herbert Fuller was vice president of the company and had a few shares in the Herbert Fuller. Basic insurance covered the ship, prospective freight earnings and cargo.[187] Shippers were liable for claims for damaged cargo after its arrival in port.[188] The Herbert Fuller carried extra insurance on its freight. The premium listed the value of the cargo, the owner, the name of the vessel, its destination and the premium amount.[189]

Insurance spread the risks of loss associated with any sea venture and minimized the perils of the sea.[190] During the twelfth century families in Genoa pooled their monies and bought shares (commonly known as "sea loans") in a ship. If the ship succeeded in reaching its destination, accomplished its mission and returned safely to the home port, its investors were not only repaid but

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[185]Albion, Rise of New York Port, 34.

[186]Folder #66, Boston Insurance Company, October 13, 1909.

[187]Albion, Rise of New York Port, 270.

[188]Horn, 57.

[189]Folder #70, Boston Insurance Co., insurance premium of freight of coal and lumber, April 7, 1910.

[190]Albion, Rise of New York Port, 270.

reaped high returns on their investments. The "sea loan" also helped merchants raise money to purchase goods for trade. Many families made vast fortunes in this manner.[191]

Marine insurance had its origins in Lloyd's Coffee House in London. Shipowners and merchants wanted to shift part of their risk at sea to others. At the coffee house they wrote the name of the ship and its destination on a sheet of paper and circulated it among those present. Speculators wishing to join in this venture stated their names and the amount they wished to risk and paid a premium based on the shares of risk. This was how the term "underwriting" became associated with insurance. Lloyds of London was an outgrowth of this practice and insured ships against the hazards of the sea.[192]

In 1792, a group of investors formed "The Insurance Company of North America." Their insurance policies were limited to marine activity.[193] Similar ventures in nautical underwriting had failed in New York and

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[191]Byrne, 14-5.

[192]Horn, 78.

[193]Thomas Harrison Montgomery, A History of the Insurance Company of North America of Philadelphia: The Oldest Fire and Marine Insurance Company in America, (Philadelphia: Press of review Publishing and Printing Company, 1885), 13.

Boston.[194] It was important to insure ocean going vessels and merchandise in order to encourage trade.[195]

Until the War of 1812 seamen took out personal insurance for themselves against being captured. The policy paid the amount of the ransom.[196] During the Spanish American War of 1898 Spanish fleets were at sea. Insurance companies offered policies on shipping and against coastal bombardment. For coastal bombardment the rates were one quarter of one percent of any ship docked above forty-second street and one half of one percent downtown. For ships moored along the New Jersey coast it was one percent. Premiums were "velvet" for the insurance companies. No claim was ever made for payment for the enemy was never near the shore to sink any ship or bombard the coast.[197]

Perils of the sea were considered as acts of God without human intervention. They also included violence by wind and wave, thunder or lightening, driving against rocks and stranding of the ship. All these dangers were

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[194]Montgomery, 10.

[195]Ibid., 28.

[196]Albion, Sea Lanes, 137.

[197]Ibid., 186.

insurable.[198] A vessel had to be seaworthy when it left the port to qualify for insurance.[199] Insurance for the Herbert Fuller was underwritten by the Boston Insurance Company.[200] In addition to insuring the ship, there were occasions when the Swan & Son purchased insurance premiums on freight. On April 7, 1910 the Boston Insurance Co. insured coal and lumber on board the Herbert Fuller.[201]

The Charter Party for the Herbert Fuller was signed on February 10, 1891. Captain Nash hired ship keepers from the timer it was commissioned to watch the boat at two dollars per night.[202] During the 1850's marine police were hired for "ship watching" to stop groups of thugs from stealing valuable cargo from ships. Seamen were on board during the day, either loading or unloading cargo, and therefore, watched the ship. While in port the crew did not stay on board at night, so gangs roamed the seaport during the dark hours looking for unguarded ships. Ship keepers also had to be on the alert for

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[198]Blunt, 206-7.

[199]Ibid., 220.

[200]Folder #19, Insurance, December 29, 1893.

[201]Folder #70, Boston Insurance Co., insurance premium of freight of coal and lumber, April 7, 1910.

[202]Folder #2, Receipt for keeping ship on board, February 15, 1891.

"loafers" who looked for wooden caskets known as hogsheads. They were usually filled with rum and loafers sneaked aboard ships and hid between the barrels, out of eyesight. Once in a secure spot they put a straw into the hogshead and drank themselves into insensibility.[203]

Before embarking on the high seas, Captain Nash paid $2.90 for duties and fees to the Custom House and gave them a Bill of Health certificate for the health of his men in the amount of $3.00.[204] The Bill of Health was a certificate, properly authenticated, which stated that the ship came from a place where no contagious diseases prevailed. The Master swore that none of his crew, at the time of departure, was infected with any disease.[205]

When a vessel returned to the United States from a foreign port, payment was required for "foreign clearance of a vessel" and a Bill of Health for the crew had to be presented to customs regardless of the fact that it was an American ship.[206] The Health Officer's Department of

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[203]Albion, Rise of New York Port, 224.

[204]Folder 2, Duties and Fees from Customs House Port, February 11, 1891.,

[205]Blunt, 27.

[206]Folder #27, Custom House, Port of Washington, DC, Foreign entry of vessels, November 25, 1895.

Custom had the right to order any boat fumigated.[207] At the bottleneck of the Narrows the "boarding officer" from the Custom House rowed out to inspect vessels and their papers. At the same time the Health Officer or his deputy from quarantine examined the crew. Vessels that arrived from Asia, Africa the Mediterranean, the Caribbean or from American south of Georgia or who had forty passengers or more coming from abroad could be detained. Of course any vessel that had a sudden death on board was automatically stopped. Any ship coming from a port where yellow fever was prevalent could be detained for twenty to thirty days.[208] On May 8, 1894 the Health Officer's Department of Quarantine in Staten Island, ordered the Herbert Fuller fumigated and charged $5.00 for this service. An additional $5.00 fee was added because the boarding took place after sunset since no medical inspection of steerage passengers was done.[209]

In Staten Island the Marine Hospital opened its doors in 1831 to treat seamen with infectious diseases

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[207]Folder #21, Health Officer's Department - Disinfecting Bark Herbert Fuller, December 12, 1895.

[208]Albion, Rise of New York Port, 218.

[209]Folder #20, Fumigation from Health Officer's Department, Boarding after sunset, additional fees, May 8, 1894.

like yellow fever, smallpox, typhus and other diseases. Among the most prevalent ailments were syphillis, rheumatism, intermittent fever and frostbite.[210]

In addition to health inspections, ships such as the Herbert Fuller, when returning to New York, had to deal with customs inspection. The Customs House is under the Secretary of the Treasury.[211] Vessels that entered the port came under its jurisdiction, which encompassed everything from smuggling to relief of ships in distress.[212] A Customs Officer examined, appraised and collected revenue on imports. He had a duty to prevent fraud and smuggling. His responsibilities included documenting American vessels and excluding foreign ships from coastal traffic. Collection of all fees and penalties accruing under Navigation Law were his responsibility. Statistics on United States commerce, navigation and immigration were based on his compilation.

The Customs Officer also had the power of search, seizure and arrest. Under his orders, ships under every flag entering American waters were liable to search, seizure and arrest when warranted. His office was allowed

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[210]Albion, Rise of New York Port, 219.

[211]Horn, 139.

[212]Albion, Rise of New York Port, 213.

to use force, if necessary. At any time of the day or night, he had the right to request search warrants to enter any business. This right extended to residences but only during the day.[213]

Customs entries provided a record of exports and imports enabling the government to assess and control the balance of trade and collect duty on imported goods. Perfected entries prepared by importers or their agents brought all imports "to account." The entries and their fees provided a valuable form of revenue for the government.[214]

When commercial vessels arrived at their destination they had to be towed to the dock by a tugboat. Each tugboat had its own name and pilot.[215] The tugboat companies who supplied these vessels based their charges on the distance from the beginning of the tow to the dock.[216] The pilot charged fees based on the amount of water, measured in feet (specific depth), for the vessel

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[213]Horn, 139.

[214]Branch, 91.

[215]Folder #18, Towing, June 6, 8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.

[216]Folder #4, Towing, April 28, 1891, May 2 and 6, 1891.

to float, known as a draw.[217] Pilots pulled ships as well as steered them into the slips. This was a delicate task and highly specialized. The fee for pilotage was much higher than simple towing. In April of 1891 towing charges to the Herbert Fuller, in Philadelphia, ranged from $5.00 to $11.00, whereas the pilotage fees were between $37.00 and $89.00. In April of 1892, towing charges from the Sea to the Atlantic Docks were $40.00 for the Herbert Fuller. From there to the Union Stores was an additional $8.00. The pilotage fees were $37.28 for drawing sixteen feet and $74.34 for drawing eighteen feet.[218]

Pilotage was a monopoly originally guarded by state law. The governor of New York appointed pilots. All incoming vessels to the port required pilots. Small schooners towed the vessels close to shore. When a pilot came on board, he took control of the ship from the captain until the craft crossed the bar, traversed the harbor and came safely to the wharf or mooring. It was an unwritten rule that the pilot who took the vessel into

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[217]Folder #4, Towing receipts, April 28 and May 2 and 6, 1891.

[218]Folder #18, Towing, June 6, 8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.

port was entitled to take her out to sea again. This was an easier task.[219]

Piloting, based on the spoils system, created problems. New York merchants, in 1825, complained that pilots were incompetent. Between 1836 and 1837 there were two shipwrecks and merchants blamed the pilots stating they were negligent. Federal legislation broke the monopoly on pilotage and opened it up to competition.[220] This did not lessen the number of pilots in port. When the Collector of the Port advertised for bids to maintain the buoys of the Lighthouse Service, he added, "none but pilots need apply."[221] Toward the end of the nineteenth century there was an abundance of efficient and qualified pilots in each port. The Herbert Fuller had no problems docking or going out to sea.

Towing ships into the piers sometimes damaged the vessels in the process. Although the Herbert Fuller never appeared to have this problem, nevertheless, the companies they used for towing had a disclaimer notice on their

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[219]Robert Carse, Lifeline, (New York: William Morrow and Company, 1943), 187.

[220]Albion, Rise of New York Port, 213-5.

[221]Ibid., 217.

stationery. The Boston Tow Boat Company put a notice on its receipts that it was "Not accountable for damage to vessels while passing through draws" in 1893.[222] The Commercial Towboat Company used identical language in their disclaimer notice on July 11, 1891.[223] The Port Warden of the State acted as an arbiter in case of damage to a vessel or cargo and authorized the sale of damaged goods at auction.[224] These problems did not affect the Herbert Fuller during its years of service.

Towing and pilotage was such an integral part of the shipping industry that company managers, as well as owners, usually included residential as well as business addresses on their stationery.[225] There were many tugboat companies at each dock ready to render services.

As soon as a boat was in its slip, the captain had to pay the tonnage tax to the Custom House officer,[226]

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[222]Folder #18, Towing, June 6,8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.

[223]Folder #6, Commercial Towboat Company, disclaimer notice, July 11, 1891.

[224]Albion, Rise of New York Port, 221.

[225]Folder #18, Towing, June 6, 8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.

[226]Folder #20, Tonnage and duty tax, US Custom House, Port of NY, May 8, 1894.

present him with a Certificate of Health[227] and produce an Order for Payment of Wages Due Crew.[228] The portage bill showed the wages due to each member of the crew.[229] Payments to the crew of the Herbert Fuller on May 5, 1891 were:

1st Mate	$20.00
2nd Mate	30.00
6 Seamen	12.00 each[230]

The First and Second Mates were paid monthly; Seamen, bi-monthly. When an unusual amount of goods had to be unloaded from the ship, additional First and Second Mates and as many as six extra Seamen might be engaged at the dock and paid $2.00 each for the day.[231] All seamen signed receipts for their wages, which were notarized to prove to Customs that they were paid.[232] Some seamen elected to have part or all of their allotment sent home

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[227]Folder #20, Tonnage and duty tax, US Custom House, Port of NY, May 8, 1894.

[228]Folder #4, Payment to crew, April 1, 1891.

[229]Moore, 544.

[230]Folder #4, Crew allotment, May 5, 1891.

[231]Ibid.

[232]Folder #13, Notarized receipts for payment to crew, June 7, 1892.

to a relative.[233] The Master had to give to the Collector of Customs (bound for foreign ports) a list of the crew, their names, places of birth, residence and a description of each one.[234]

Freight fees were also paid at the time of docking to the Custom House.[235] Until all fees were paid and proof of payment to the crew were satisfied to the Port Officer, no one could leave the ship and the vessel could not be loaded or unloaded. Before obtaining port clearance the Customs House issued a permit verifying paid fees.[236]

Docking charges, known as wharfage fees, were charged by the day. On the back of the bill to the Herbert Fuller on October 27, 1893, there was a preprinted statement from the City of New York citing that the city had the lawful right to charge wharfage fees and specified the rates within the Cities of New York, Brooklyn and Long Island City, based on the tonnage of the vessel.[237]

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[233]Folder #22, Seamen's Allotment Note (To Relatives), February 1, 1895.

[234]Dana, 179.

[235]Folder #4, Intrafreighter fees, April 11, 1891.

[236]Moore, 544.

[237]Folder #18, Wharfage, Legality of wharfage fees printed on back of receipt, October 27, 1893.

During the pre-revolutionary era, wharves along New York's seven miles of waterfront were made of simple construction. They were a framework of hewn logs filled with loose stones and covered with trodden earth. By the nineteenth century, the wharves of New York were large enough to admit thirty or forty sails. There were also irregular docks known as slips which went into the center of a building. They were covered with logs and provided ingress and egress to the water. Here, the city's filth was also trapped. Eventually, the slips, like much of the waterfront, became filled in land. The East River wharves came to be more important than those on the North River. Wharves underwent change. Pine planking covered open pilings and had to be replaced every four or five years.[238]

Many of the wharves built by the city were leased to private individuals who operated them. Until the 1870's there was no serious attempt to keep the wharves in good condition.[239] The legal rate of charge to vessels that used them was lower than the fees in Boston, Charleston, Mobile and New Orleans. This also helped to keep New York as a port of choice.[240] In the first Charter

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[238]Albion, Rise of New York Port, 220-1.

[239]Carmody, 155.

[240]Albion, Rise of New York Port, 220-3.

Party of the Herbert Fuller on February 10, 1891, Swan & Son demanded extra fees for docking in Philadelphia.[241]

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[241]Folder #2, Charter Party, February 10, 1891.

CHAPTER 5

MAINTENANCE AND MANAGEMENT OF SHIPS AND CREWS

Once a Charter Party was signed by the duly authorized representatives, the next thing of utmost importance was to have a ship that was "tight, staunch, well fitted, tackled and provided with every requisite and with men and provisions necessary for such a voyage."[242] Every Charter Party had language to this effect in its agreement.

As soon as a ship was in port, the surveyors of damages to vessels, cargo, etc., came aboard and examined the hatches and cargo on board.[243] In Bridgetown, Barbados, Captain Nash asked K.I. Ketchni, a surveyor, to examine the Herbert Fuller. On March 20, 1893, after examining the ship, he signed a statement indicating that the vessel was well caulked, paulined and battened. The cargo, as far as he could see, was quite dry.[244] This statement was the proof needed to demonstrate that the

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[242]Folder #2, Charter Party, February 10, 1891.

[243]Folder #4, "Surveyors of Damage, Vessels, Cargoes, etc." April 28, 1891.

[244]Folder #17, Proof of caulking, March 20, 1893.

bill from Eleazar J. Cheir for caulking, was a job well done.[245] It was also proof to the charterer of the Charter Party that the ship was kept tight.[246] Caulkers filled the seams and the decks of a ship with oakum to make the hull watertight.[247]

Besides keeping a ship caulked and tight, the captain, upon entering a port, surveyed any damage to the ship so it could be repaired immediately. On April 28, 1891, Captain Nash hired "Surveyors of Damaged Vessels, Cargoes, Etc. (sic) of 216 1/2 Walnut Street, Philadelphia," to check the hatches and cargo on board.[248] Captain Nash paid a fee of $10.00 for this service. Then he brought the ship to Pugh, Bishop & Moore to have the bottom of the vessel scraped of barnacles, a type of marine growth, attached to the ship as a result of being in water for a period of time. After this procedure was completed, workers applied 26 gallons of paint to this area.[249] The Herbert Fuller was in dry dock during these

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[245]Folder #17, Bill for caulking, April 4, 1893.

[246]Albion, Rise of New York Port, 294.

[247]Reisenberg, 923-4.

[248]Folder #4, "Surveyors of Damage, Vessels, Cargoes, etc.," April 28, 1891.

[249]Folder #4, scraping and painting of ship's bottom, May 1, 1891.

repairs. Until 1824 ships had to be "careened," that is, tipped over, and only during low tide, so that the hull could be exposed for repairs.[250] With the development of new technology to draw the vessel out of water for repairs in dry dock, ships such as the Herbert Fuller did not risk any new damages in the process of moving it to its side. While the Herbert Fuller was in dry dock, Captain Nash bought 152 pounds of supporters, a leaver, a key wrench and 381 pounds of angle iron in beams from Sheppard & Fithian.[251] That same day S.W. Tilton & Son, ship builders, did some further repairs with red lead paint, oakum and more copper paint and copper nails.[252] These three establishments were all located at Cooper's Point in Camden, New Jersey. Each time a ship had to be serviced, it had to be towed and piloted to a specific dock. This meant added expenses to the vessel. Therefore, it was important to utilize as many services as possible in each dock to avoid the added costs of towing and pilotage.

At Bonapart Shoe, the manufacturer of marine paints in Philadelphia, Captain Nash purchased 25 gallons of

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[250]Albion, Rise of New York Port, 299.

[251]Folder #4, Shipsmiths, May 1, 1891.

[252]Folder #4, Ship supplies for repairs, May 1, 1891.

copper paint to have on hand.[253] Wire rope thimbles were purchased at James McCusker. This establishment dealt in oars, hand-spikes, mast hoops, steering wheels and a variety of other ship's supplies.[254] Metal thimbles had to be fitted into the clews (holes) of square sails and the fore and aft sails. They usually outlived the sails.[255]

For the next few months the Herbert Fuller was in good condition. On September 25, 1891, William Gammons, a ballast master of 32 South Street, New York, made sure the vessel was evenly weighted.[256] The next day Captain Nash stopped at Willadsen & Johnson, who were ship carpenters and caulkers. They also owned some shares in the Herbert Fuller. The vessel was caulked with oakum.[257]

While the ship was in Cardiff, Wales, Captain Nash visited Pile & Bass, shipwrights and boat builders to pick up more supplies for the ship including screw eyebolts, a

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[253]Folder #4, Copper pain, May 2, 1891.

[254]Folder $4, Ship supplies, May 5, 1891.

[255]George Frederick Campbell, China Tea Clippers, (New York: David McKay Company, Inc., 1974), 108-9.

[256]Folder #8, Wm. Gammons, Ballast Master, September 25, 1891.

[257]Folder #8, Willadsen & Johnson, Sectional dry dock, September 26, 1891.

ring bolt with collar and forelock, winch handles, a large thimble fish hook and a gallon funnel. Enterprises servicing ships had to be versatile. This establishment advertised its specialties as mast, block and spar makers, ship smiths and plumbers. Some of the items they sold were hard and soft wood lumber and ventilators, oars, handspikes, pitch, nails, tar and oakum.[258]

Six months later the Herbert Fuller needed new repairs and supplies. Fifteen hundred sheets of yellow metal for sheathing, nails, sheet felt and felt tacks were purchased from Sullivan Brothers, located at 254 South and 501 Water Streets. Their foundry was nearby at 496 and 498 Water Street, New York.[259] Once again Willadsen & Johnson took care of the sectional dry dock work and caulking.[260]

Coppering reduced the growth of seaweed and barnacles on the hull. Originally pure copper was used but by 1830 a mixture of half copper and half zinc replaced the pure element. Muntz metal, first used in

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[258]Folder #9, Pile & Bass, Shipwrights and boat builders, November 3, 1891.

[259]Folder #13, Sullivan Bros., Ship's supplies, May 2 and 19, 1892.

[260]Folder #13, Willadsen & Johnson, Sectional dry dock, May 9, 1892.

1846, consisted of sixty percent copper and forty percent zinc and sometimes the manufacturer added tin. During this period, Lloyd's Registers, a listing of all ships throughout the world, described ship's bottoms as being yellow metalled, coppered or brass bottoms, pending on the variation of metals.[261] Ships had to be drydocked about fifteen months after their launch for recoppering because the copper alloy was not consistent throughout due to imperfect manufacturing methods. Repairs were piecemeal and each time the ships were in dry dock the piecemeal repair work continued.[262] Shipbuilding and its repair industries created employment and produced fortunes.[263]

Ship's supplies and tools were a large expenditure for every vessel and the Herbert Fuller was no exception. Items on the chandlery bill included oakum, twine, glass, pump leather, brooms, coppertacks, nails, lime, brushes, varnish, bath bricks, stove polish, blacking, kerosene, turpentine, raw oil, lamp black, red and white lead, zinc, tar, sail needles, hooks, insect powder, wicks, lamp chimneys, lights glass, coffee mill, mast coat lead, cotton hooks, sheets of emery cloth, rivets, tallow,

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[261]Campbell, 122.

[262]Ibid., 124.

[263]Albion, Rise of New York Port, 300.

rubber hoses. These items were replaced frequently.[264] It was the Master's responsibility to know how to care for every part of the ship. His crew used these supplies while on the high seas so that the ship was never allowed to be in a state of deterioration. The object was to keep a vessel in good shape at all times and use port shipwrights only for major repairs.

The nature of the management of a ship required a market plan which included the nature of service and the length of time for each voyage. All cargo had to be analyzed with respect to its market and traffic. Since favorable tariffs determined ports of destination, a Master looked for new industrialized areas along the route to his final destination. He had to have a budget for the next twelve months. To improve trade he had to know the best advertising and the proper journals. Captain Nash subscribed to the "American Shipmaster Association." This publication kept records of American and foreign shipping endorsements. On May 12, 1892 the fee for this subscription was $10.00.[265] The captain also subscribed to "The Shipmasters Protective Fund of the Philadelphia

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[264]Folder #16, Chandlery bill, February 25, 1893.

[265]Folder #13, "American Shipmaster Association," May 12, 1892.

Maritime Exchange" at a cost of $5.00 yearly.[266] The Master was always looking to increase the market where he could sell cargo and was responsible for giving regular reports to the ship's owners or agent.[267]

The Master also had to be concerned with operating the ship to its maximum. This included using the number of seamen necessary for the operation of the ship and moving goods. He had to pay particular attention to the use of time. In this respect he had to be especially frugal.[268]

When sugar was brought back to New York aboard the Herbert Fuller on April 17, 1892, a discovery was made that some damage was sustained to the cargo. James A. Walsh & Co. of 116 Wall Street, New York did general repairs of cargo. After coming on board and examining the goods, they concluded that out of 15,000 bags of sugar 134 empty bags had to be supplied for rebagging "to replace rotten & broken ones that could not be mended." They stayed with the merchandise while it was transported to

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[266]Folder #4, Subscription: "The Shipmasters' Protective Fund of the Philadelphia Maritime Exchange," April 25, 1891.

[267]Branch, 435.

[268]Ibid., 436-7.

the refinery.[269]

While this work was in progress Captain Nash went to Wechsler & Abraham, at 19th Street and East River Drive, to purchase eight yards of silk, and eight yards of fringe, brass rods and bracket and rings for drapes and curtains and paid $2.34 for these goods.[270] Obviously, the Captain liked his quarters to be elegantly fitted whenever possible.

At 35 Coenties Slip, New York, James Hembury manufactured and furnished house and ship goods. Captain Nash purchased from him pipes, a boiler cover, French stew pan, two round retinned pans and a coffee boiler. He even had a potato masher repaired for ten cents.[271] Such was the frugality that Captain Nash practiced.

In the shipping industry thrift was respected with respect to time and a ship's movement. The ship smith, William H. Atkinson assured his customers that his establishment was conveniently located at the foot of 14th Street, Hoboken, New Jersey. To his address on the

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[269]Folder #13, Jas. A. Walsh & Co., Cooperage and general repairing of ship's cargo, May 12, 1892.

[270]Folder #13, Wechsler and Abraham, May 13, 1892.

[271]Folder #13, James Hembury, Manufacturer and dealer in House and Ship furnishing goods, tin ware, stoves, cabooses, ship's bells, etc., June 2, 1892.

letterhead, he added: "Adjoining McCarthy Bros, Tietjen & Lang's, Willadsen & Johnson's and F. Gokey's dry docks."[272] The message was "one stop for all your needs." John T. Langhill & Son, ship smiths, advertised on his letterhead, "Pipe fitting and all kinds of iron work. All iron work done as reasonable as possible and at the very shortest notice. Twin buckles, screw bolts, bolt ends, wood screws, dock spikes constantly on hand, and made to order at short notice also general forging." Captain Nash bought only bolts and links from them.[273]

With all the other boats coming into the harbor for repairs and replacements businesses thrived, factories were busy, workers were employed and fortunes were made. One business was of particular importance to the Fuller, the Sail Maker, John L. Martin of 42 South Street, New York. He was the only one Captain Nash allowed to repair and replace the sails.[274] Without good and sturdy sails the Herbert Fuller was useless and dangerous. This item was checked carefully and frequently.

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[272]Folder #13, Wm. H. Atkinson, Shipsmith, Turnbuckle, rods, bolts, nuts, etc., May 9, 1892.

[273]Folder #13, John T. Langhill & Son, Ship Smiths, pipe fitting and all kinds of iron work, May 22, 1892.

[274]Folder #13, John L. Martin, Sailmaker, May 31, 1892.

American ships used heavy cotton duck for their sails. It stood out snowy white on the seas. British used flax canvas. Sometimes it had a hemp mixture. Their sails appeared greyish or pale fawn in color.[275] Workmanship and design of the sails was of the greatest importance. A poor job ruined the performance of a ship. Signs of poor workmanship included wrinkles around the boltropes, seams or linings. Uneven tension between the cloth of the sail and its various stitchings and rope caused trouble once the winds got to it.[276] Riggers set the miles of rope which held the masts in place and hoisted and shifted the sails. The sailmaker paid particular attention to giving each sail its proper stiffness.[277]

New inventions were abundant in the nineteenth century. Most of them were supposed to make life easier. At least that was the message their creators tried to convey. It took time for the ordinary person to accept the fact that some new machines might be useful and even prove difficult to compete without them. Businesses involved with commercial shipping were no exception. No

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[275]Campbell, 106.

[276]Ibid., 109-11.

[277]Albion, Rise of New York Port, 294.

one felt the need to incorporate any new technology in their trade when earnings and profits were not affected. It was only when competition among businesses began to increase that individuals began to look for helpful aids to expand their companies. Alexander Graham Bell patented the telephone in 1876 but several decades passed before businessmen realized the usefulness of the telephone in commerce.[278] This was in strong contrast to the telegraph, invented by Samuel Morse in 1844. The first statement "What hath God wrought?" clearly showed skepticism for anything new. Yet, within a decade telegraph use had spread to most of the country.279

Willadsen & Johnson, part owners of the Herbert Fuller, began using the telephone in September of 1893 in their sectional dry dock business.[280] At about the same time J. & F. Lohman of South and Water Streets, New York also began using the telephone in his coal business.[281]

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[278]Robert L. Breeden, Ed., Those Inventive Americans, (Washington, DC: National Geographic Society, 1971), 127.

[279]David Freeman Hawke, Nuts and Bolts of the Past, (New York: Harper & Row, Publishers, 1988), 193.

[280]Folder #18, Dry dock repairs, September 27, 1893.

[281]Folder #18, Coal supplies, September 28, 1893.

The New Haven Towing Co.[282] and White Star Towboats[283] also began employing this communications device during the same period. The pilot of the David T. Leahy No. 5 had telephones on hand as early as May 8, 1894.[284]

Use of this instrument was still relatively slow in shipping related businesses. On January 28, 1895 Geo. Thwaites & Son advertised their phone service. The machinists, ship smiths and boiler makers, John T. Langhill & Son added the telephone to their establishment on August 13, 1895.[285] All of these industries were located in the North. By the end of 1895 John Moran of Washington, District of Columbia, added a phone to his tinning and plumbing enterprise. A year later, the rigger, William Cockran, decided to update his organization with telephone service. It was so important to him that he did not wait for the printer to put it on his letterhead He stamped the phone number on his

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[282]Folder #18, Towing, June 6, 8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.

[283]Ibid.

[284]Folder #20, Pilotage - "David T. Leahy No. 5" - telephones on board tug boats, May 8 and June 14, 1894.

[285]Folder #26, Shipsmith supplies, June 15 - August 23 and 27, 1895.

stationery by hand.[286] Additions of phone service to sea related businesses continued at a slow pace. There was a tendency to avoid change unless absolutely necessary. Captain Nash conducted business with all of these establishments and therefore, had to be aware that technological changes were affecting the method of doing business.

Another change taking place in business was the use of the typewriter. All billings were laboriously hand written. Most of the time the writing was legible[287] and even beautifully executed.[288] Occasionally this type of communication was merely a scrawl or just plain difficult to read.[289] William H. Swan always wrote his lists of ship's chandlery and grocery bills in neat collumns, Captain Nash wrote his account sheets in a sloppy manner and the only way to understand his line item accounts was to compare them with a bill from someone who had neat penmanship.

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[286]Folder #28, William Cockran, Rigger, Hand stamped phone number, January 23, 1896.

[287]Folder #29, Handwritten receipt from a stevedore for running rope on shore, February 20, 1896.

[288]Folder #29, Handwritten receipt for cooperage, May 5, 1896.

[289]Folder #29, Handwritten receipt from tally clerk for cargo, March 6, 1896.

Some letters were written by hand, such as the ones R.E.W. Davison wrote to Swan & Son on September 16, 1896.[290] In Boston, Massachusetts, the United States District Attorney's office used a typewriter in their letter to Swan & Son of February 2, 1897, stating they had placed a twenty-four hour watch on the Herbert Fuller.[291] Even telegrams in 1896 were still handwritten.[292] By 1904 companies began using typewriters for their billings. Lehigh Valley Railroad Company used this business machine for its tallying. At the Brooklyn Yard of H.P. Kirkham & Son, typewritten bills began to appear at the end of 1904. Typewritten statements appeared at the end of 1905 when the Herbert Fuller ran aground and had to be towed. McCaldin Bros Co., a towing service, typed up the bill.[293] Tietjen & Lang Dry Dock Co. typed the repairs and bills.[294] The Statement of General Average, which

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[290]Folder #30, Letter from REW Davison, September 16, 1896.

[291]Folder #30, Letter to Swan & Son from US Attorney Sherman Hoar - re: Put 24 hour watchmen on the Fuller, February 2, 1897.

[292]Folder #30, Telegrams, July 21, 23 and 24, 1896.

[293]Folder #49, McCaldin Bros. Co., Towing, Services rendered typewritten, October 10, 1905.

[294]Folder #49, Tietjen & Land Dry Dock Co., Repairs typewritten, October 30, 1905.

stated what actually occurred to the ship, its costs and adjustments, was also typed.[295] A typewritten statement of facts and check was presented to the Herbert Fuller by insurance brokers, Walker & Hughes.[296]

The typewriter was first invented in 1867 by Christopher Latham. Perfected in 1878, the double keyboard machine had a shift mechanism to create letters in both the upper and lower cases. But it was not until 1890 that John N. Williams developed a front stroke machine enabling an operator to use the typewriter while sitting at a desk.[297] Use of this machine eliminated the laborious and tedious hours of hand written records. It was fairly easy to use, eliminated "writer's cramps" and was faster than handwriting. Records could be kept in an orderly fashion and since the lettering was standard, everyone could read and understand all documents and inventory. In shipping, and especially in a small operation such as the Herbert Fuller, where reports were kept for investors, agents, merchants and government

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[295]Folder #49, Statement of General Average typed, October 10, 1905.

[296]Folder #49, Walker & Hughes, Average Adjusters and Insurance Brokers, Typewritten statement of facts and check enclosed to cover costs, November 29, 1905.

[297]Anthony Feldman and Peter Ford, Scientists and Inventors, (New York: Facts on File, Inc., 1979), 158-9.

inspectors, it was imperative that all documentary evidence was neat and legible. The invention of the typewriter greatly facilitated this need. In general, businesses became more organized and required skilled individuals to work these new machines. For the average young women of this era, used to running a home in an orderly manner, work in this area was a natural outlet. The differences between the old counting room and a modern office was the absence of women and typewriters.[298] Women began entering the work force in areas previously reserved for men when typewriters and telephones became part of the equipment necessary to run a business. New areas of employment for young women outside of factories and domestic service created a need for professionalism in the work place. Kathryn Gibbs answered the call by opening the first business school for women in 1911.[299] Although no women saw employment on the Herbert Fuller or on the docks, businesses in the ports probably used female employees for office work because typewriters appeared in more establishments. William H. Swan, owner of the Ship Chandler & Grocer located at 32 South Street, New York,

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[298]Albion, Rise of New York Port, 261.

[299]Telephone interview with representative of Kathryn Gibbs Business School, June 11, 1993.

presented a typewritten account, on October 14, 1909, of items purchased for the Herbert Fuller.[300] Later that month, the Port Warden of the Harbor Master's Office gave a typewritten certification of the survey of hatches and cargo on October 29, 1909.[301]

For those businesses who wanted organization but did not or had no access to typewriters, printing was an important service. Businesses depended upon it to spread the word about their availability and specialty. It preceded the use of the typewriter and helped to keep the task of everyday record keeping easier in both satellite industries of shipping as well as on board ships. The records of the Herbert Fuller consisted mainly of vouchers for services rendered to the ship. The preprinted letterheads of billing statements allowed a man like Captain Nash the ease of filing them in a specific manner so he could use the services of these vendors repeatedly.

Tug boats appeared to be one of the first businesses to take advantage of any new printing technology. In 1900 the Excelsior Line of Steam Tugs

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[300]Folder #66, Wm H. Swan, Ship Chandler & Grocer, 32 South Street, NY, Tel. 3466 Broad, Typewritten account of items, October 14, 1909.

[301]Folder #67, Harbor Master's Office, Typewritten certification of survey of hatches and cargo by Port Warden, October 29, 1909.

advertised fire and wrecking pumps.[302] Commercial Union Tow Boat Co printed this service on their letterhead soon after.[303] It was always important to the Herbert Fuller to use tug boats with the latest technology to avoid any mishap while towing the vessel into port or out to sea. Printing forms allowed entrepreneurs to advertise their specialties and attract new business.

The Brunswick Pilot's Association of St. Simon Bar in Brunswick, Georgia took full advantage of the printing industry. In 1905 they had all their pilotage rates, from six to twenty-three feet, preprinted on one side of the billing head.[304] The Pilot Association of Fernandina, Florida followed suit a few months later, with rates from six to thirty feet.[305] Captain Nash, always concerned with costs, welcomed this type of advertising for it eliminated all speculation of present and future expenses. Northern pilots did not employ this type of advertisement.

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[302]Folder #37, Excelsior Line of Steam Tugs, Fire and wrecking pumps, April 20, 1900.

[303]Folder #38, Commercial Union Tow Boat Co., Wrecking and fire pumps testing boilers, December 20, 1900.

[304]Folder #47, Brunswick Pilots' Association, Preprinted rates of pilotage, April 24, 1905.

[305]Folder #48, Pilot Associate, Preprinted rate of pilotage, September 23, 1905.

Government agencies took advantage of printing services. The Harbor Master and Inspector in the Port of Pensacola, Florida billed the Herbert Fuller $7.00 for harbor dues. On the letterhead of the bill the following was preprinted, "This bill, under the laws of the State, must be paid within 48 hours, under penalty of double the amount." The West Florida Printery placed their name on the form as additional advertisement.[306]

Service and good will, at the turn of the century, were prime considerations whenever businesses were sold. When Benjamin P. Mills of 24 Old Slip, New York operated his drug store, he made sure everyone knew he was "successor to Dr. Thomas Ritter."[307] Henry E. Brown of 114 Wall Street, near South Street, New York let his customers know that he was "successor to Gunning & Brown and Richmonds Pharmacy" in 1898.[308] Dealers in ship's supplies knew satisfied customers returned to them on a regular basis. Captain Nash used the same suppliers for his pharmaceutical needs repeatedly.

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[306]Folder #67, Harbor Master's Dues, Statement provides for penalties if payment is not received within 48 hours, October 29, 1909.

[307]Folder #13, Medicinal supplies for ship, June 2, 1892.

[308]Folder #34, Henry E. Brown, Pharmacy list, August 23, 1898.

Captain Nash was very particular about who repaired the sails of the Herbert Fuller. He was not alone about this requirement for all captains who operated sails were concerned about this repair work. George W. Taylor kept the name "John L. Martin & Co," sailmaker, on his letterhead since he was the previous owner.[309] Strongly aware that his customers needed extra assurance about his work on sails, George W. Taylor continued with the name of his predecessor in large centered lettering but put his name in very small characters on the corner of his stationery. In 1904 his letterhead finally read, "Geo (sic) W. Taylor, Successor to John L. Martin & Co."[310]

Bills were presented to the ship's captain for goods and services. Sometimes payment was in cash and other times it was by check. There was no distinction made. Receipts were given when bills were paid. In 1900, Taunton Copper Manufacturing Co. presented a bill to the Herbert Fuller that stated, "Interest at the rate of 6 percent will be added after 30 days." The firm was never used again.[311] Although Moquin-Offerman-Heissenbuttel

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[309]Folder #43, Louis Martin, Sail Maker, October 30, 1903.

[310]Folder #44, Geo. W. Taylor, Sail Maker, 1904.

[311]Folder #37, Taunton Copper Mfg. Co., Interest rates, May 16, 1900.

Coal Co. stated quite clearly on their bills, "Terms cash,"[312] their services were used quite often. Yet, when Louis Martin, also a sail maker on 45 South Street, New York stated, "Terms Cash,"[313] the Herbert Fuller took their business to George W. Taylor, successor to John L. Martin, Sail Maker.

Care of the crew was just as important as the care of the ship. During the first voyage of the Herbert Fuller, from Maine to New York, medical supplies were not purchased for the crew. After June of 1892 medicinal supplies were purchased with regularity for the crew. Captain Nash purchased medical supplies in 1892, from Benjamin P. Mills, successor to Dr. Thomas Ritter, Dealer in Medicine Chests, Patent Medicines, etc., located at No. 24 Old Slip, New York. Items included caustic powdered sulpher, one syringe, ginger, epsom salts, liniment, balsam, bark (campher tincture), peppermint and liver pills.[314]

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[312]Folder #37, Moquin-Offerman-Heissenbuttel Coal Co., Terms of payment, May 18, 1900.

[313]Folder #43, Louis Martin, Sail Maker, October 30, 1903.

[314]Folder #13, Medicinal supplies for ship, June 2, 1892.

Special care of the crew's health aboard the Herbert Fuller became more evident in 1898. Some of the items purchased were castor oil, laudanum, iodide potash, quinine, insect powder, quinine pills, epsom salts, witch hazel, vaseline, camphor liniment, carbolic acid solution and "1 bottle Pain Killer."[315] Henry E. Brown, the owner of the establishment who sold these items, also included in his advertisements, "Physician's Prescriptions A Specialty."[316] "Prescriptions Compounded by a Graduate in Pharmacy" was stated on the billing head of M.P. Brown, Pure Drugs and Chemicals of 78 & 80 Broad Street, New York. The year was 1901.[317] Dr. B. B. Blount, owner of a drug store in Florida stated "prescriptions carefully compounded" in 1906.[318] This was one more indication of how professionalism and organization invaded the shipping industries.

Pharmaceutical items needed, before a ship's departure, were specifically detailed for seamen. In 1844 Richard Henry Dana published The Seaman's Friend. This

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[315]Folder #34, Henry E. Brown, Pharmacy list, August 23, 1898.

[316]Ibid.

[317]Folder #38, M.P. Brown, Medical supplies, February 28, 1901.

[318]Folder #50, Mattair Drug Co., February 13, 1906.

book stated all the requirements necessary for the care of a ship and its crew. American Navigation Law required a medicine chest on every United States vessel over 150 tons, navigated by a crew of ten or more bound for foreign ports. Only an established apothecary could fill this chest. All drugs had to be accompanied with specific instructions for its use. Medicine chests had to be examined and refitted by the professional once a year.[319]

Care of the crew was not merely confined to medicines. On February 9, 1907 the Bureau of Navigation under the Department of Commerce and Labor issued Shipping Articles and requested that "Form 705 B," its official printing, was to be posted on ships in an accessible place to the crew. These articles were United States revised statutes (Sec. 4519 Sec.10(a) Sec. 11) for the protection of seamen, first enacted on July 26, 1884 and amended on December 21, 1898.

Under the heading of "Advanced Wages and Allotments," the law provided that advance payments to seamen were forbidden. No one was to act as an agent to procure employment for seamen. A seaman was allowed to send an allotment of his wages home to grandparents, parents, wife, sister (or brother) or children. The

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[319]Dana, 178.

Shipping Commissioner had to sign for this allotment, was responsible for enforcing it and had to state the amount, the number of times such payments was made and the recipient of these wages.[320] This law was enacted when responsible citizens tried to protect the seamen.

Most seamen, in the nineteenth century, had lived in absolute squalor, usually in the cellars of a dance hall, while ashore.[321] Cherry Street on the lower east side of Manhattan had over a hundred houses for sailors.[322] Landlords charged them three times the going rate for lodgings and took their money in advance.[323] If the seaman had any extra funds available, he was encouraged to depart with it at an early stage. Dance halls offered alcohol (often drugged) and entertainment from dancers, piano players, and singers. Outside the halls prostitutes encouraged men to enter these establishments. When the seamen's money was gone his landlord became his banker and gave him credit for his lodgings. This lasted only a few days for sailors were

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[320]Folder #55, Department of Commerce and Labor - Shipping Articles, July 11, 1907.

[321]McKay, 414.

[322]Ibid., 413.

[323]J. Grey Jewell, Among Our Sailors, (New York: Harper & Brothers, 1874), 67.

then heavily drugged and carried off to a ship. Captains of ships paid landlords, known as "land sharks," advanced wages of the seaman. When the seaman awoke, he found himself on a strange ship at sea, without friends and without clothes or money. In effect, sailors went to sea in debt. When they returned home and tried to obtain some sort of redress from the land sharks, they were told they contracted their agreement when they were drunk. Seamen found themselves in a vicious circle. They were shipped out to sea without funds, returned to their home port with little, if any, money, and ran up a bill on credit. Then they were drugged when they were drinking and once more put out to sea. When some captains refused to deal with the landlords under such conditions, they were told to find able bodied seamen for themselves. Sailors could not be found and captains had to yield to the landlords, giving them more power than ever. Unscrupulous landlords grew rich off the sufferings of the sailor.[324]

Community leaders wished to do something for the seafaring community and in 1829, The Seamen's Bank for Savings opened in New York City. Shipping merchants established the institution for the working members of the seaport. The institution extended its services in 1833 to

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[324]McKay, 413-7.

the general public. Throughout the 1950's it kept account services for the ships in port. Unfortunately, the bank failed in April, 1990.[325]

The crew of the Herbert Fuller did not have to concern themselves with poor treatment and had many benefits with respect to their wages. As aforesaid, proof had to be displayed to the Customs House of payment to the seamen. They could send all or a part of their wages home to a relative. Their earning power increased gradually, as shown in the following table, indicating monthly wages:

DATE	FIRST MATE	SECOND MATE	SEAMAN
May 5, 1891	$30.00	$20.00	$12.00[326]
May 3, 1892	40.00	30.00	20.00[327]
March 10, 1896	50.00	30.00	20.00[328]

The Shipping Articles also addressed the slop-chest. A slop-chest is a room on a ship where the crew could buy any and all necessities.[329] This law specifically stated that captains had to provide clothing

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[325]Plaque of Seamen's Bank for Savings Collection located at South Street Museum, 171 John Street, New York, 1993.

[326]Folder #4, Crew allotment, May 5, 1891.

[327]Folder #13, Seamen's allotment note, May 31, 1892.

[328]Folder #29, Portage bill, March 10, 1896.

[329]Carse, 189.

to all seamen, while at sea, including footgear, headwear, underwear, outerwear as well as clothes for the protection against inclement weather. Tobacco and blankets were added to the list. Seamen were allowed to purchase these items for their own personal use but the captain could only sell it to them at ten percent above wholesale prices. When seamen were in port for more than fourteen days, the captain had to provide for them a suit of woolen clothing. If it was cold, the captain had to set aside a warm room for the seaman's comfort. F.A. Colcord, "Dealer in Clothing & General Outfitting for Seamen" of 42 South Street, New York, sold merchandise for the crew of the Herbert Fuller. Goods purchased on June 8, 1900 for seamen totalled $85.48.[330] Among the items provided for sailors on October 13, 1909, from this same establishment, were:

2 pairs long boots	$ 8.25
4 shorts	13.00
3 suits	5.25
12 shirts	4.50
2 dozen socks	2.00
15 pounds tobacco	6.30[331]

Previous to the enactment of this law, many Masters deducted wages for all items needed from the ship's

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[330]Folder #37, F.A. Colcord, Seamen's clothing, June 8, 1900.

[331]Folder #66, F.A. Colcord, Dealer in Clothing & General Outfitting for Seamen, October 13, 1909.

slop-chest. Sailors found they had no money when they reached port because their Masters alleged their indebtedness for these necessary items. Between avaricious Masters at sea and selfish greedy landlords in port, the sailor's life was unhappy.[332] By the time the Herbert Fuller was in service, the treatment of seamen improved and all corporal punishment ceased. It is difficult to understand how the seaman's life had previously come to such a low ebb. During the fifteenth century in England, mariners not only were paid in wages but were allowed a percentage of the ship's freight at the end of the voyage. British Admiralty Courts enforced all debts of the owner of a ship to his seamen even if this meant that the he had to sell his ship "down to the last nail."[333]

During this same era, if a seaman fell ill or was hurt, the Master had to pay his wages, provide him with food, candle and lodgings and find a woman to care for him.[334] Since cooking on board was limited, staples at sea consisted of salted meat, salted or smoked fish, bread

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[332]Jewell, 70-3.

[333]Dorothy Burwash, English Merchant Shipping: 1460 - 1540, (Toronto: University of Toronto Press, 1947), 42-57.

[334]Ibid., 58.

and beer.[335]

One of the more important aspects of the Shipping Articles was that it specified the exact amounts of food to be provided to the crew during a voyage. This diet had to be posted. Every seaman knew he was entitled to four quarts of water every day. He was allowed a half pound of biscuits daily. Salted beef, at least one and a quarter pounds, was to be served on Tuesday, Thursday and Saturday. One pound of salted pork was to be given to the men on Monday, Wednesday and Friday. Fruits and legumes were also listed in daily amounts. Food substitutes in specific amounts were also listed.[336] Whenever the Herbert Fuller came to port, Captain Nash refurbished some the supplies used during a voyage, in compliance with law's demand for fresh foods, whenever possible. Da Costa & Co., in Cuba, sold fresh beef and eggs to Captain Nash

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[335]Burwash, 72-4.

[336]Carbohydrates such as rice, potatoes, and breads as well as legumes, had a designated value so that these items could be substituted for one another in specified amounts. For example, one pound of flour could be substituted for a half pound of buscuits or one and a half pounds of bread on a daily basis. Two ounces of dehydrated vegetables could be substituted for one pound of potatoes or yams. Six ounces of rice could be used instead of cracked wheat of two onces of tapioca. Two ounces of pickled onions replaced four ounces of fresh onions. Some captains, including Nash, tried to use the cheapest items which resulted in a monotonous diet.

for his crew on February 24, 1895. The next month, on March 3 he purchased fresh vegetables, eggs and potatoes and several days later on March 6, he bought more potatoes.[337]

Before the Herbert Fuller's maiden voyage to New York, Captain Nash purchased food for his crew. Every item was in compliance with the Shipping Articles section of food for the crew. Beef, ham, salted fish, salted herring, prunes and canned blueberries were among his purchases.[338] They were also cheap foods and the diet was monotonous. No one could say he was not cost conscious.

There must have been complaints about the food aboard the Herbert Fuller for after 1892 the ship docked in New York quite frequently and a steward was employed.[339] In February of 1895, Wile & Terrill, shipping agents, presented a bill to the Captain Nash for extra help at the dock and employed a cook at $25.00 for the month.[340] Although no other receipts showed any other

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[337]Folder #23, Grocery bills, February 24 - March 6, 1895.

[338]Folder #2, Account and supplies list, January 23, 1891.

[339]Folder #13, Seamen's allotment note, May 31, 1892.

[340]Folder #22, Wild & Terrill, Shipping agents, Payment to crew, February 2, 1895.

culinary help before 1896, it is obvious that the hand of a professional was at work when the list of foods included: Sugar, tripe, butter, meal, rice, barley, vermicelli, codfish, mackerel, nutmeg, cloves, cinnamon, pepper, ginger, mustard, bacon, lard, flour, bread, split peas, red peas, yellow beans, tea, coffee, molasses, raisins, apples, peas, tomatoes, apricots, ox tongues, oysters, clams, lobsters, radishes, olives, catsup, worchester sauce, vinegar, cranberries, onions, vegetables, lima beans, blueberries, peaches, eggs, vanilla extract, lemon extract and alspice.[341]

The ship's steward was responsible for keeping a well stocked and neat kitchen. He prepared all meals. Because of his limited duties on board, many seamen considered him to be an "idler."[342] He never stood watch or lent a hand with any of the duties of a seaman.[343]

To protect a seaman from abusive treatment, the Shipping Articles stated that the crew had to respect the Master and obey his orders promptly. The only act a Master was allowed to inflict on his crew for negligence

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[341]Folder #16, Chandlery bill, February 25, 1893.

[342]Waivertree.

[343]Dana, 79-84.

or embezzlement was the reduction of wages.

The reason the Bureau of Navigation insisted on the posting of the Shipping Articles was to apprise the seaman of his right to protest any wrongful acts. Obviously food improved on the Herbert Fuller because the crew complained. Aside from dietary protests, the Shipping Articles were aimed at protecting the crew from a harsh Master. Sailors had a short life span. On average, they lived for about twelve years during service at sea.[344] In the past, some captains beat their crew with brass knuckles, abused them with foul language and constantly threatened them with violence.[345] Many captains believed seamen only respected them when they were starved, hard worked and physically abused.[346] Then there were some Masters who reduced the amount of food given to their men, abused them with rough treatment and unusually difficult jobs so that the men would desert at the first port in sight. The Captain pocketed their wages since desertion was a crime. Many Masters were able to retire after a few years at sea because of this practice.[347]

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[344]Jewell, 14.

[345]Ibid., 32.

[346]Ibid., 44.

[347]Ibid.

On many ships, before the Shipping Articles were enacted, the rule was cruel and unusual punishment for any infraction of the rules. This consisted of beatings with a belaying pin or marline (spikes); chaining their feet to the deck and chaining their wrists together. Then, with a block and tackle, they stretched the poor seaman upwards, pulling him from limb to limb. Another punishment put seamen into coffins, called a "sweat-box," for days. Some seamen suffocated when a deck mop was forcibly pushed into their mouths.[348]

These cases were difficult to prove in a court of law because the seaman had to show cruel and unusual punishment that was inflicted with "malice, hatred or revenge."[349] Punishments of this sort were still occurring as late as 1874 when Dr. J. Grey Jewell published Among Our Sailors. The author pleaded with the public to do something to protect seamen from harsh treatment.

By the time the Herbert Fuller was engaged, seamen had every expectation of being treated fairly. They were given a clothing allotment and fed adequate amounts of food. Warm quarters were provided for them in winter

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[348]Jewell, 54.

[349]Ibid., 58.

weather. Beatings stopped. Working conditions were usually good. The Master and his first mate looked after the welfare of young crew members. Although the food was monotonous, it was wholesome. Fresh fish, meats and vegetables were required when in port. Live animals were brought on board so they could be assured of fresh food while at sea.[350] Seamen washed their own dishes and kept their area clean.[351]

Positive actions resulted from humane treatment of sailors. As voyages became longer, it became necessary to take along wives and families of the captain and even their officers.[352] The captain's wife was expected to be quiet and not interfere with the crew. Yet, the crew could be relied upon for baby-sitting services and the wives of officers were treated with great respect.[353] Laura, the wife of Captain Charles Nash, joined her husband on many trips. The captain, just before embarking on the Herbert Fuller's maiden voyage, purchased a ball

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[350]Waivertree.

[351]Parker, 59.

[352]Daniel MacIntyre Henderson, Yankee Ships in China Seas: Adventures of Pioneer Americans in the Troubled Far East, (New York: Hastings House, 1946), 86-101.

[353]Parker, 94-5.

rocker for $8.00 especially for her.[354] An organ was placed aboard ship for entertainment of the crew. On October 2, 1891, less than a year later, the instrument had to repaired at a cost of $9.00.[355] With improved life aboard, seamen looked at commercial shipping as a lifelong career with opportunities for advancement.

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[354]Folder #2, Account and supply list, January 23, 1891.

[355]Folder #8, Organ repair, October 2, 1891.

CHAPTER 6

DISASTERS AND CONCLUSIONS

Life aboard the Herbert Fuller was fairly uneventful. The ship transported cargo from one port to another, employed seamen and dock workers, used the services of satellite shipping industries and made a profit for Captain Nash and the other investors. The vessel had the ordinary wear and tear and repairs but nothing major developed during its service. Captain Nash appeared to have few worries with respect to his ship. Then one fateful day Swan & Son received a telegram from shipping agents in Halifax, Nova Scotia on July 21, 1896. Captain Nash, his wife, Laura and the second mate of the Herbert Fuller were all murdered by the first officer with a hatchet. The vessel was brought to shore by the crew, whom the police placed under arrest. At the request of the American consul the Chief of Police placed a guard on board with instructions to allow no communications with outsiders. The bodies remained on board until the coroner came and held an inquest.[356]

Thomas Bram, the first officer, accused of the

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[356]Folder #30, Telegrams, July 21, 1896.

murder, lived in New York, but an investigation showed he had a mother and wife living in Halifax.[357] The United States District Attorney ordered that the bark should be brought to Boston. Murder did not deter anyone looking for employment. Within days of the tragedy, F. Sellica, an English Master, offered his services on the Herbert Fuller.[358]

Word of this horror traveled fast to other sea captains up and down the Atlantic Coast. R.E.W. Davison wrote a letter to Swan & Son on September 16, 1896 and stated that Thomas Bram was the second mate with his ship and was discharged at Rio de Janeiro on February 3, 1896 for trying to kill him while at sea. Captain Davison went to the United States Vice Consul to have him sent to the United States for trial but the consul deemed the evidence to be insufficient. Davison and his cabin boy heard conversations between Bram and another mate, Mr. Nicklas, threatening him (Davison). Nicklas was discharged in Baltimore but Davison believed he could shed more light on the subject. Davison believed Bram would have also murdered him except "he could never ketch (sic) the old

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[357]Folder #30, Telegram, JUly 21, 1896.

[358]Folder #30, Letter from F. Sellica offering his services as Master, July 24, 1896.

man asleep."[359].

The United States District Attorney investigated these allegations. There was a Bram on the ship. However, John R. Kelley, a witness, who knew Bram on that ship, denied it was the same man when shown a picture of Thomas Bram.[360] Twenty-four watchmen guarded the Herbert Fuller.[361] The newspapers wanted to make a pre-trial experiment with respect to the blinds on the window and if it could be seen by any third party. Seaman Charles Brown said he saw the murders.[362]

The following facts were elicited at the trial. Captain Nash and his wife, Laura were sailing from Boston. Thomas Bram was the first mate. He was known to be involved with the sailor's missions and led religious services. Bram had the midnight watch previous to the murder. Charles Brown, a seaman, was at the wheel. Early in the morning the one passenger on board, L.H. Monks, heard a commotion. He loaded his revolver and went to the

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[359]Folder #30, Letter from R.E.W. Davison, September 16, 1896.

[360]Folder #30, Letter to Swan & Son from US Attorney's office in Massachusetts, September 4, 1896.

[361]Folder #30, Letter to Swan & Son from US Attorney, Sherman Hoar, February 2, 1897.

[362]Ibid.

captain's cabin to investigate. He was shocked to see the captain in a pool of blood. He found Bram at the watch and told him what he had seen and the two men kept watch until dawn and wondered who was the murderer. Then they found the bloody axe on the deck and heaved it overboard to keep the men from using it on them. Soon after, they found that the second mate and Laura had also been bludgeoned.

Bram became master and had Brown put in irons. The seaman was accused of the murder since he was at the wheel and could have entered the captain's cabin at any time without being seen. Once in irons, Brown told his other captors that he had peeked through the cabin port and seen Bram with an axe. At this point the crew jumped their new master, put him in irons and headed towards Halifax.

At the trial in Boston there were several conflicting stories but Bram was found guilty and sentenced to hang. He managed to appeal the case, got a new trial and this time drew a life imprisonment. He served his sentence in Atlanta until 1913. Mary Roberts Rinehart, the writer, prevailed upon President William Howard Taft to parole him and President Woodrow Wilson pardoned him. The families of those who perished that fateful day on the Herbert Fuller could not have been pleased. When Bram left prison he opened up a bar in

Atlanta and was so successful that he purchased several schooners.[363]

No one ever thinks in terms of murder when talking about "Dangers of the Sea." As discussed earlier these are occurrences beyond man's control. Yet, no one would have argued that this was also one of the perils of marine voyages.

Alonzo Nash, Charles Nash's brother took over as master of the Herbert Fuller. Life aboard the Herbert Fuller was fairly uneventful until June 15, 1910. While in a lumber yard the ship caught fire, lost spars, sails and blocks.[364] The rigging was badly scorched and the decks were burned. Repair estimates were about seven thousand dollars. There was a question about the feasibility of spending this amount of money and taking the risk that the vessel would pay its way or simply sell it, "as is," and split the profits among the owners. Swan & Son poled each investor to see if they were willing to put up their share of the vessel for repairs.[365] Most of

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[363]Giles M.S. Tod, The Last Sail Down East, (Barre, MA: Barre Publishers, 1965), 116-7.

[364]Folder #73, Letter from Swan & Son to all owners stating the ship caught fire while in Grass Austin & Islands Lumber Yard on June 15, 1910, June 24, 1910.

[365]Folder #73, Letter from Swan & Son to all owners stating the ship caught fire, June 24, 1910.

them said no to this and said to sell the Herbert Fuller for whatever the market would bring.[366] Frederick Lang, one of the investors who owned a dry dock company, wrote to Swan & Son saying if he and his brother owned the Herbert Fuller outright, they would repair her simply because she was doing very well lately and "was worth more than $7,000. - before the fire and when repaired, will be worth more than that."[367]

Some members of the family, like F.S. Nash, said he would go along with the wishes of the family.[368] V.S. Coffin, another owner, objected to any repair of the Herbert Fuller and wanted the ship sold for whatever the market brought. He said, "she would never pay the bill. Has been a bad egg from the word go."[369]

According to the letter of the Lang brothers, the Herbert Fuller was still valuable and could make a profit but V.S. Coffin did not concur. There was the nagging

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[366]Folder #73, A series of letters to Swan & Son stating their opinions, June 27 - July 18, 1910.

[367]Folder #73, Letter from Frederick Lang of Tietjen & Land Dry Dock Co. to Swan & Son, July 15, 1910.

[368]Folder #73, Letter from F.S. Nash, Water Boat and Steam Hoisters of 2319 Union Street, Brunswick, Georgia to Swan & Son, June 30, 1910.

[369]Folder #73, Letter from V.S. Coffin to Swan & Son, July 2, 1910.

thought that this was the second tragedy to befall the Herbert Fuller and the owners just wanted to sell it and get their money. The murder had left them with bitter feelings. It took a long time to find a buyer and finally, in 1916, the Herbert Fuller was sold for $32,000. and renamed "Rousse."[370]

The final episode of the Herbert Fuller occurred on May 27, 1917. A German submarine sunk and destroyed the Rousse off the coast of Monaco, France.[371] The United States had been involved in World War I for less than a month and a half.[372]

It was ironic that the Herbert Fuller should have seen the end of its days during the war because almost no one commissioned sail powered wooden boats when the conflict ended. Those sails that remained saw limited service as merchant vessels. It was the end of an era. War thrust activities forward in business, science, politics, social mores and every other facet of daily life. Even if World War I had not occurred, the Herbert

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[370]Folder #74, Herbert Fuller sold in 1916 for $32,000. and renamed "Rousse."

[371]The Mariners Museum Library, Newport News, VA, December, 1993.

[372]R. R. Palmer and Joel Colton, A History of the Modern World Since 1815, (New York: Alfred A. Knapf, Inc., 1984), 679.

Fuller's days were numbered as a commercial vessel. Since ships had to justify their existence economically, this vessel, with its limited carrying capacity, could not compete with the newer steel and steam ships which were larger, faster and moved goods to other ports in record time. New technological developments changed business practices and demanded skilled technicians in the work place. The Herbert Fuller was still using telegraphs when other ships were using the telephone. Hand written accounts from the captain took time, sapping his energies. All work was delegated from the captain on the Herbert Fuller. The ship did not attract many officers who could have taken over some of the captain's duties.

As the new century began, changes in the Port of New York were taking place rapidly. Immigrants and women were in the work place, replacing many workers at lower wages. At the same time, professionalism and organization were part of the business world, demanding more skill and education in industry. New York, as a mercantile center, accommodated business growth. A ship such as the Herbert Fuller did not measure up to potential economic development. Wages increased for seamen and duties, fees and the cost of keeping a ship in good condition escalated, yet the Herbert Fuller had no way of making more profits so it could pay its own way and earn enough

dividends for its owners.

When shippers tried to use four, five and six masts for larger ships with greater storage space for goods, the results were disastrous. As a result sail ships made less profits on each haul because they carried less than steam powered iron and steel vessels. Modern ships of the period gave better rates to the merchants and thus gradually eased out sails as competitors.

Another factor that limited the growth of the wooden sail ship was that the railroad industry was used more frequently to transfer goods to the interior. The New York railroads simply took over the traffic which had travelled the Erie Canal.[373] Previously, cities grew around water traffic, but railroads opened up areas to commerce and trade which had been barren.[374] As the railroad industry grew their rates became competitive. The result was that merchants who formerly sent their goods by ship found it more economical and convenient to move them by rail. Even the Herbert Fuller took advantage of railroads, when, in 1904, they picked up goods from

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[373]Albion, Rise of New York Port, 385.

[374]Haites, 5.

Lehigh Valley Railroad in Perth Amboy, New Jersey.[375] By 1907, the Herbert Fuller picked up lumber from Lehigh Valley Railroad[376] and cement from the Central Railroad Company of New Jersey.[377]

During its term of service, the Herbert Fuller reflected changing maritime economics of the period. Built at a time when merchant sailing vessels were still economically feasible and trained seamen were available to sail them, this vessel was a commercial success for the first decade of its existence, exemplifying some of the viable technology of the period prior to the Industrial Revolution. Yet, during that first ten years of its existence changes in technology, such as the growth of the railroad industry, the development of the maritime steam engine, the ship to shore telephone, the burgeoning of modern business practices, all were working towards that time early in the twentieth century when the wooden sailing vessel could no longer pay a handsome profit to its owners.

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[375]Folder #44, Lehigh Valley Railroad Company, March 24, 1904.

[376]Folder #55, Lehigh Valley Railroad Company, June 20, 1907.

[377]Folder $57, The Central Railroad Company of New Jersey, October 7, 1907.

When the last merchant sailing ship came to the New York port in 1941, none of the shipping industries mourned its passing in terms of economics. Yet, for a while, when these tall ships lined the wharfs of New York, there was a romance about the sea that modern ships failed to supplant.

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Folder #2, Receipts from Machias, Millbridge, Maine, January 23 - February 21, 1891.
1. Certificate of Enrollment, January 23, 1891.
2. Account and supplies list, January 23, 1891.
3. Charter Party, February 10, 1891.
4. Duties and Fees from Customs House Port, February 11, 1891.
5. Notice for Protest and Appeal (of fees), February 11, 1891.
6. Receipt for keeping ship on board, February 15, 1891.
7. Certifying Bill of Health, February 19, 1891.

Folder #3. Receipts from Carbarien, Cuba, April 11, 1891.
1. Freight charge bill.
2. Boarding and docking charges.
3. Stowing of goods.
4. Intrafreighters fees.

Folder #4. Receipts from Philadelphia, April 21 - May 7, 1891.
1. Captain's account sheet, April 1, 1891.
2. Payment to crew, April 1, 1891.
3. Towing receipts, April 28, 1891, May 2 and 6, 1891.
4. Pilotage, April 22 and May 7, 1891.
5. Custom House duties and fees. Philadelphia,April 22, 1891.
6. Board of men, April 21, 1891.
7. Order for payment of wages due crew, April 22, 1891.

8. US Customs House tonnage tax, April 22, 1891.
9. Certificate of Health, April 22, 1891.
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12. Discharge of Cargo, April 28, 1891.
13. Suit for Captain Nash, April 28, 1891.
14. "Surveyors of Damage, Vessels, Cargoes, etc.," April 28, 1891.
15. Merchant's Responsible Night Watch, April 29, 1891.
16. Wages due crew, April 29, 1891.
17. Account of food supplies, April 29, 1891.
18. Scraping and painting of ship's bottom, May 1, 1891.
19. Shipsmiths, May 1, 1891.
20. Ship supplies for repairs, May 1, 1891.
21. Copper paint, May 2, 1891.
22. Ship's tool, May 4, 1891.
23. Food and personal supplies, May 4, 1891.
24. Coal, May 4, 1891.
25. Customs and duties fees. Foreign clearance of vessels and Bill of Health, May 5, 1891.
26. Ship supplies, May 5, 1891.
27. Crew allotment, May 5, 1891.
28. Surveyors of Damaged Vessels, Cargoes, etc., April 28, 1891.
29. Pugh, Bishop & Moore. Ship Scrapers and Painters, May 1, 1891
30. Sheppard & Fithian. Shipsmiths, May 1, 1891.
31. S.W. Tilton & Son. Ship Builders, May 1, 1891.
32. Bonapart Shoe. Manufacturer of Marine Paints, May 1, 1891.
33. J.P. Fernald. Coopering, May 4, 1891.
34. James McCusker. Block, Pump and Spar Maker, May 5, 1891.

Folder #5. Receipts from Cardinas, Cuba, May 22 - June 17, 1891.
1. Surveyors of Damaged Vessels, Cargoes, etc., April 28, 1891.
2. Pugh, Bishop & Moore. Ship Scrapers and Painters, May 1, 1891.
3. Sheppard & Fithian. Shipsmiths, May 1, 1891.
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6. J.P. Fernald. Coopering & Felling, May 4, 1891.

7. James McCusker. Block, Pump and Spar maker, May 5, 1891.
8. Disbursement account, June 17, 1891.

Folder #6. Receipts and Accounts from Boston, MA, July 6 - August 3, 1891.
1. Commercial Towboat Company. Disclaimer notice, July 11, 1891.
2. Boston Tow Boat Company, July 28, 1891.

Folder #8. Receipts from New Haven, Connecticut and New York. September 9 - October 3, 1891.
1. Wm. Gammons. Ballast Master, September 25, 1891.
2. Willadsen & Johnson. Sectional dry dock, September 26, 1891.
3. R.E. Petten. Coal, wood and lumber, October 1, 1891.
4. Coal, wood and lumber, September 28 and October 1, 1891.
5. Organ repair, October 2, 1891.
6. Boston Marine Insurance Co., October 2, 1891.

Folder #9. Receipts from Cardiff, Wales, October 27 to November 27, 1891.
1. Guthrie, Heywood & Co. Towing. Disclaimer notice, October, 1891.
2. D.H. Guy. Towing. Disclaimer notice, October 27, 1891.
3. Pile & Bass, shipwrights and boat builders, November 3, 1891.

Folder #13. Receipts from New York, April 17 to June 7, 1892.
1. Towing, April 17, 18 and 20, May 9 and June 1 and 6, 1892.
2. Chronometer usage, April 19, 1892.
3. New York Customs House Entrance of Vessels fee ticket, April 19, 1892.
4. Health Officer, April 19, 1892.
5. Wharfage, April 20, 1892.
6. Port Warden's office, April 20, 1892.
7. Port of New York Shipping Commissioner, April 21, 1892.
8. Charter Party, April 26, 1892.
9. Stevedores, April 27, 1892.
10. Seamen's receipts, April 22, 1892.
11. Wharfage, April 30, 1892.

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13. "American Shipmaster Association," May 12, 1892.
14. D.S. Jones & Co. Coal supplies delivered on board, May 12, 1892.
15. Sullivan Bros. Ship's supplies, May 2 and 19, 1892.
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17. Willadsen & Johnson. Sectional dry dock, May 9, 1892.
18. Jas. A. Walsh & Co. Cooperage and general repairing of ship's cargo, May 12, 1892.
19. Wechsler and Abraham, May 13, 1892.
20. Begg & Mangel. Heating supplies, May 19, 1892.
21. Ship keeping, May 30, 1892.
22. Seamen's allotment note, May 31, 1892.
23. Ship watchman, May 7, 1892.
24. Ballast, May 7, 1892.
25. Metal sheeting supplies, May 7, 1892.
26. Wharfage fees, May 9 to 11, May 11 to 25 and May 25 to June 1, 1892.
27. Wm. H. Atkinson. Shipsmith, Turnbuckle, rods, bolts, nuts, etc., May 9, 1892.
28. John T. Langhill & Son. Ship Smiths, pipe fitting and all kinds of iron work, May 22, 1892.
29. Wood supplies, May 12 and June 2, 1892.
30. Sails replacement and repairs, May 13, 1892.
31. Loading cargo fees, June 1, 1892.
32. James Hembury. Manufacturer and dealer in House and Ship furnishing goods, tin ware, stoves, cabooses, ship's bells, etc., June 2, 1892.
33. Coal supplies. June 2, 1892.
34. Captain's accounting for seamen, June 2, 1892.
35. Shipsmiths' supplies, May 22, 1892.
36. John L. Martin. Sailmaker, May 31, 1892.
37. D.S. Jones & Co. Coal, wood and lumber supplies, June 2, 1892.
38. Pilotage, June 6, 1892.
39. Cargo receipt, June 6, 1892.
40. Medicinal supplies for ship, June 2, 1892.
41. Ship's groceries and supplies, June 3, 1892.
42. Captain's account sheet, June 3, 1892.
43. Notarized receipts for payment to crew, June 7, 1892.

Folder #15. Receipts from Pernambuco, Barbados and Brunswick, Georgia. October 22 - December 23, 1892.

1. US Custom House. Certificate of payment of tonnage duty at Brunswick, Georgia. Arriving from Barbados, December 12, 1892.
2. _____ Duties and fees of foreign entry of vessel, December 12, 1892.
_____ Foreign clearance of vessel, December 12, 1892.
3. Bills of Lading, December 22, 1892.
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Folder #16. Receipts from New York, January 3 - March 1, 1893.
1. Towing, January 1 and February 28, 1893.
2. Chronometer usage, January 4, 1893.
3. Sailmaker, February 1, 1893.
4. Wood supplies, February 20, 1893.
5. Water supplies, February 23, 1893.
6. Ship's supplies, February 23, 1893.
7. Medicinal supplies, February 23, 1893.
8. Chandlery bill, February 25, 1893.
9. Captain's account sheet, February 28, 1893.
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2. Proof of caulking, March 20, 1893.
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5. Chandler and grocery bills, June 3, 1893.

Folder #18. Receipts from Boston, Philadelphia and New York, June 8 - October 29, 1893.
1. Towing. June 6, 8 and 29, July 9, 10, 13, 16 and 28, September 27 and October 28, 1893.
2. Captain Nash' account sheets, June 16 and July 1 - 10 and 15, 1893.
3. Seamen's allotment, fare and shipping agent commissions, June 15, 1893.
4. Transportation fees for bringing men to the vessel, June 15, 1893.
5. Dry dock charges, June 20, 1893.
6. Blacksmith's charges, June 20, 1893.
7. Water bills, June 20, 1893.
8. Towing and disclaimer notice, June 29, 1893.
9. Stevedores, July 10, 1893.
10. Shipbroker's fees, July 10, 1893.

11. Towing advertising telephone orders, July 28, 1893.
12. Chronometer usage, August 1, 1893.
13. Shipwrite and caulker's bills, July 8 and August 3, 1893.
14. Charter Party, September 19, 1893.
15. Supplies, September 25, 1893.
16. Dry dock repairs, September 27, 1893.
17. Tugboats employing telephones in business, September 27, 1893.
18. Coal supplies, September 28, 1893.
19. Hemlock boards, September 28, 1893.
20. Men for extra labor, September 29, 1893.
21. Ballast, September 29, 1893.
22. Repairs and replacement of sails, October 19 and 23, 1893.
23. Wharfage, October 21, 1893.
24. Stevedores, October 25, 1893.
25. Shipping agents to procure crew, October 27, 1893.
26. Wharfage - Legality of wharfage fees printed on back of receipt, October 27, 1893.
27. Chandler and grocer bills, October 27, 1893.
28. Examination of vessels, July 8 and August 3, 1893.
29. Stevedores, July 10, 1893.
30. Shipbrokers, July 10, 1893.
31. Wharfage, July 15, 1893.
32. Chronometer usage, August 1, 1893.
33. Towing, September 13, 1893.
34. Supplies from shipsmiths, September 25, 1893.
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37. Hemlock boards, September 28, 1893.
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40. Sailmaker - repairs and replacements, October 19, 1893.
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45. Chandler and grocer bills, October 27, 1893.
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1. Unofficial services of United States Consulate, December 27, 1893.
2. Insurance, December 29, 1893.
3. Licensed rubbage boats, January 1, 1894.
4. Stevedores and contractors in Buenes Aires using telephone, January 18 and March 2, 1894.
5. Bills of Lading, January 31, February 8, 15, 20, 21 and 28,1894.

Folder #20. Receipts from New York, May 8 - June 14, 1894.
1. Fumigation from Health Officer's Department. Boarding after sunset, additional fees, May 8, 1894.
2. Tonnage and duty tax. US Custom House, Port of NY, May 8, 1894.
3. Towing. C.P. Raymond & Co. - two telephones for business and one telephone for the home, May 8, 1894.
4. Coal. J&F Lohman - new telephone number, May 25, 1894.
5. Delivery of cargo, May 26, 1894.
6. Sail Maker, June 11, 1894.
7. Pilotage - "David T. Leahy No. 5" - telephones on board tug boats, May 8 and June 14, 1894.

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2. Health Officer's Department - Disinfecting Bark Herbert Fuller, December 12, 1895.

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1. Disinfecting Bark Herbert Fuller. Health Officer's Department, December 12, 1895
2. Chronometer usage, January 12, 1895.
3. Tonnage fees and Health Officer. Custom House, New York, January 4, 1895.
4. Wharfage, January 15, 1895.
5. Wharfage, January 23, 1895.
6. Deliverer and measurer of cargo, January 23, 1895.
7. Dry dock labor and supplies, January 24, 1895.
8. Hides, January 25, 1895.
9. Metal supplies. Geo. Thwaites & Son, Manufacturers of all kinds of Galvanized Sheet Iron

Goods. Using telephones, January 28, 1895.
10. Medicine supplies, January 30, 1895.
11. Water supplies, January 31, 1895.
12. O.H. Jensen. Shipwright, Caulker, Sparmaker, etc., February 1, 1895
13. Seamen's Allotment Note (To Relatives), February 1, 1895.
14. Seamen's Allotment Note to Original Creditor, February 1, 1895.
15. Wild & Terrill. Shipping agents. Payment to crew, February 2, 1895.
16. William H. Swan. Chandlery and store bill, February 2, 1895.

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1. Pilotage, February 23, 1895.
2. Captain's account sheet, February 24, 1895.
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4. Water delivery, February 28, 1895.
5. Grocery bills, February 24 - March 6, 1895.
6. Water delivery, March 7, 1895.
7. Bills of Lading for sugar, April 4, 1895.
8. Captain's account sheet, April 4, 1895.
9. D.W. Burgage & Co. "Agents for Ship & Steamship Brokers, Vessel Owners & Consignees," "Money advanced to Captain and disbursements paid." April 23, May 4 and 8, 1895.

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1. Edward Ridley & Sons. Millinery, Straw and Fancy Goods. Dry Goods. (Oil cloth and china), May 15, 1895.
2. Friction wheel and barrel, May 17, 1895.
3. Merchants' Police, Nightwatch. "Money, Jewelry, Clothing, etc. in Cabins of Vessels excepted" (references), May 22, 1895.
4. Custom House, Port of New York. Bill for overtime of discharging officer on vessel, June 6, 1895.
5. Discharging cargo and wharfage. June 8, 1895.
6. Charter Party. June 13, 1895.
7. Sail Maker. June 14, 1895.
8. Ballast Master. June 15, 1895.
9. Chandler and Store bills. June 15, 1895.
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4. Machinists Ship Smiths. Labor and supplies, August 13, 1895.
5. Night watchman, August 22, 1895.
6. Owen Sullivan & Bro. Lumber, Timber and Stevedores, August 26, 1895.
7. Shipsmith supplies, June 15 - August 23 and 27, 1895.
8. Dry dock repairs, August 28, 1895.
9. Hilton & Dodge Lumber Co. Receipt for lumber in New York, August 29, 1895.
10. Sail Maker, August 31, 1895.
11. Medicinal supplies, September 3, 1895.
12. Rigger - bending sails, September 3, 1895.
13. Wild & Terrill. Shipping Agents. Advance to crew, September 5, 1895.

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1. Pilotage. Hand written receipt from Trinidad, September 29, 1895.
2. Luke Boyde, Stevedor. Hand written receipt from Trinidad, October 18, 1895.
3. Cargo of bread stuffs and lumber. Poor hand written receipt from Trinidad, October 18, 1895.
4. The Trinidad Asphalt Company. Dispatched money for asphalt, October 28, 1895.
5. Edgar Tripp & Co. Shipping and Commission Merchants. Food and supplies, October 30, 1895.
6. Custom House, Port of Washington, DC. Foreign entry of vessels. November 25, 1895.
7. John Moran. Tinning and plumbing, December 3, 1895.
8. Boston Marine Insurance Company, December 7, 1895.
9. J.A. Lbrou Company. Ship Chandlers and Grocers. Water delivery, December 9, 1895.
10. Joseph Brenner & Co. Shipping Agents, December 9, 1895.

Folder #28. Receipts from New York, December 19, 1895 - January 26, 1896.
1. Captain's account sheet, December 21, 1895.
2. Chronometer usage, December 21, 1895.
3. Geo. Thwaites & Son. Ships' Cabooses and Cabin Stoves, Manufacturers of Marine Lanterns, Coppersmiths and Plumbers. Tin and Sheet Iron Workers. Galvanizing of all kinds, January 12, 1896.
4. Dry dock charges, January 15, 1896.
5. Medical supplies, January 17, 1896.
6. Brooklyn Iron & Block Co. Manufacturers of Tack Blocks, chain cables, mast hoop, metaline hoisting blocks, anchors, oars, belaying pins, hand spikes, heavy forgings, yacht block (advertising all on letterhead), January 17, 1896.
7. Emery & Price. Stevedores. Labor hauling vessel, January 22, 1896.
8. Captain's account sheet, January 23, 1896.
9. William Cockran, Rigger. Hand stamped phone number, January 23, 1896.

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1. West India and Panama Telegraph. Martinique to New York, February 12, 1896.
2. Handwritten receipt from a stevedore for running rope on shore, February 20, 1896.
3. Handwritten receipt for cooperage, May 5, 1896.
4. Handwritten receipt from tally clerk for cargo, March 6, 1896.
5. Portage bill, March 10, 1896.
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1. Telegrams, July 21, 23 and 24, 1896.
2. Letter to John Swan from C.S. Lidden & Co. of Boston, July 31, 1896.
3. Letter from R.E.W. Davison, September 16, 1896.
4. Letter from US Attorney, District of Massachusetts. Boston, September 4, 1896.
5. Letter to Swan & Son from US Attorney Sherman Hoar - re: Put 24 hour watchmen on the Herbert Fuller, February 2,1897.

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1. Standard Oil Co. of NY, Devoe Works. Wharfage payments, August 23, 1898.
2. Henry E. Brown. Pharmacy list, August 23, 1898.

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1. Excelsior Line of Steam Tugs. Fire and wrecking pumps, April 20, 1900.
2. Taunton Copper Mfg. Co. Interest rates, May 16, 1900.
3. Moquin-Offerman-Heissenbuttel Coal Co. Terms of payment, May 18, 1900.
4. F.A. Colcord. Seamen's clothing, June 8, 1900.

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2. M.P. Brown. Medical supplies, February 28, 1901.
3. Arnold, Cheney & Co. Shipping & Commission Merchants, March 5, 1901.

Folder #43. Receipts from Fernandina, FL, NY and Brunswick, GA, July 17 - November 4, 1903.
1. Weber & Quinn. Wholesale and retail dealers in coal and wood, October 29, 1903.
2. Louis Martin. Sail Maker, October 30, 1903.

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1. Geo. W. Taylor. Sail Maker, 1904.
2. Lehigh Valley Railroad Company, March 24, 1904.

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1. Hugh Bond Gowanus Towing Co, August 29, 1904.
2. Boston Insurance Co., August 28, 1904.
3. The Western Union Telegraph Co. August 30, 1904.
4. H.P. Kirkham & Son, November 25, 1904.

Folder #46. Captain's Letters, 1904.
1. The Western Union Telegraph Company, March 26, 1904.

Folder #47. Receipts from New York and Brunswick, GA, February 11 - July 26, 1905.

1. American Dock & Trust Co. Wharfage bill, February 17, 1905.
2. Brunswick Pilots' Association. Preprinted rates of pilotage, Aprilt 24, 1905.
3. Portage Bills, April 5, 1905.
4. Handwritten account from Captain Alonzo P. Nash. Captain's wages, June 12, 1905.

Folder #48. Receipts from New York and Fernandina, FL, August 10 - November 4, 1905.
1. Pilot Association. Preprinted rate of pilotage, September 23, 1905.

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1. McCaldin Bros. Co. Towing. Services rendered typewritten, October 10, 1905.
2. Notarized Statement, October 14, 1905.
3. Tietjen & Land Dry Dock Co. Repairs - typewritten, October 30, 1905.
4. Statement of General Average. Typed, October 10, 1905.
5. Walker & Hughes. Average Adjusters and Insurance Brokers. Typewritten statement of facts and check enclosed to cover costs, November 29, 1905.

Folder #50. Receipts from Philadelphia, NY, Havana and Carrabelle, FL, November 7, 1905 - February 15, 1906.
1. C.L. Walker. Towing. Typed bill, November 7, 1905.
2. Louis V. Place. Shipbroker. Typed, December 14, 1905.
3. Mattair Drug Co, February 13, 1906.

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1. Wing, Putnam & Burlingham. Legal fees for demurrage, April 11, 1906.

Folder #52. Receipts from Tampa and Pensacola, Florida and New York, March 17 - August 28, 1906.
1. Harbor Master and Inspector in Port of Pensacola, Florida. Harbor dues and printed statement of terms of payment, June 7, 1906.
2. Postal Telegraph Commercial Cables. Printed terms and conditions of telegraph messages and included disclaimer notice, June 28, 1906.

3. The First National Bank, Pensacola, Florida. Using type printing to enter deposit; reconcilliation of accounts still done by hand, June 29, 1906.
4. Portage Bill, July 18, 1906.
5. Bills of Lading - typewritten, June 28, 1906.
6. F.L. & A. Heidritter Lumber and Timber. Payment receipts hand stamped instead of handwritten, August 3, 1906.

Folder #53. Receipts from St. Simons and New York, September 10 to November 8, 1906.
1. Turttle R. Dock of Southern Railway Company. Cement carried by rail and then moved to docks, September 12, 1906.
2. E.H. Mason of Brunswick, Georgia. Notice of Protest filed for returned (insufficient funds) check of $3.00, September 6, 1906.
3. E.H. Mason & Co. of Brunswick, GA. Receipt of check from Alonzo P. Nash, Master for $470.43 - for all payments for the ship. Vessel, freight and owners were pledged as security until check cleared, September 29, 1905
4. E.H. Mason & Co. Steamship Agents, Ship Brokers and Chandlers - No telephone. One item shows cash handed to captain in amounts of $10., $40., $10., and $200, September 30, 1906.
5. Portage Bill, October 12, 1906.
6. Louis Martin, Sail Maker, 45 South Street, New York - terms: cash and 15% off bulk. November 7, 1906.
7. Chas. E. Kenner & Sons, Ship Riggers - "Steam Derricks for Hoisting Ship Masts," November 8, 1906.

Folder #55 - Receipts from Mobile, Alabama, Ponce, Peurto Rico Bruswick, Georgia and New York, February 11 - July 11, 1907.
1. Department of Commerce and Labor - Shipping Articles, November 9, 1907.
2. Employers' Liability Assurance Corporation, Limited, of London - Premiums (stamps used to denote payment), March 6, 1907.
3. Perth Amboy, NJ. From Lehigh Valley Railroad. Delivery of lumber, June 20, 1907.
4. Perth Amboy Dry Dock Co. Shipwrights and Caulkers, Machinists and Boiler Makers, Perth Amboy, NJ. Terms - cash. Cash discount given - approximately 5 1/4%. Entire voucher typed and carbon copies used, June 20, 1907.

5. H.P. Kirkham & Son, 408 West 14th Street, New York. Typed invoice and stamped payment. July 11, 1907.

Folder #57. Receipts from New York, September 3 - October 12, 1907.
1. Louis Martin, Sail Maker. Terms - cash: up to 10% discounted, September 24, 1907.
2. The Central Railroad Co. of NJ - shipping of cement; stamps for payment by freight agent, October 7, 1907.
3. Townsend & Moore, Engineering Works, Engineers, Machinists and Boiler Makers. Pier 2, Erie Basin, Brooklyn, NY. Typed invoice and carbon copies, October 10, 1907.
4. Quail's Steamship Crew Exchange Shipping Master-Notary Public, "Protests noted and Extended. Crews Shipped & Put on Board at the Shortest notice," #37 South Street, NY, October 10, 1907.

Folder #58. Receipts from New York, November 14, 1907 - March 17, 1908.
1. The Central Railroad Co of NJ - Office Auditor Freight Traffic Reading Terminal, Philadelphia, PA. Claim for $18.00. Preprinted post cards with claim amount, number of file and claim number, November 14, 1907.
2. Louis Martin, Sail Maker, 44 South Street, NY. Terms - cash. 20% cash discount.

Folder #60. Receipts from New York. April 26 - October 4, 1908.
1. Smith & Briggs, Towing, 116 Broad Street, Room 79, New York. Tel: 1835 Broad. Preprinted with red pen and ink tow boat on bill and typed dates, names, amounts and places, September 29, 1908
2. Tietjen & Lang, Dry Dock Co., 17th Street and Park Avenue, Hoboken, NJ, Tel: 700 Hoboken. Typed invoices, September 12, 1908.
3. Louis Martin, Sail Maker - terms - cash: 30% discounted, September 26, 1908.

Folder 66. Receipts from New York, October 4 - 19, 1909.
1. F.A. Colcord, Dealer in Clothing & General Outfitting for Seamen, 42 South Street, NY, Tel. 1033 Broad, October 13, 1909.
2. Boston Insurance Company - Bills for insurance on freight, stating amount, names, vessel and destination, October 13, 1909.

3. Wm. H. Swan, Ship Chandler & Grocer, 32 South Street, NY. Tel. 3466 Broad. Typewritten account of items, October 14, 1909.

Folder #67. Receipts from Pensacola, FL, New York and New Haven, October 29 - December 28, 1909.
1. Harbor Master's Office. Typewritten certification of survey of hatches and cargo by Port Warden, October 29, 1909.
2. Harbor Master's Dues - statement provides for penalties if payment is not received within 48 hours, October 29, 1909.

Folder #68. Receipts for New York, December 29, 1909.
Perth Amboy Station - Lehigh Valley Railroad Co. - Statements for loading cement and cotton, January 11, 1910

Folder #70. Receipts from New York, March 28 - April 21, 1910.
Boston Insurance Co. - insurance premium of freight of coal and lumber. April 7, 1910.

Folder #73. Correspondence and Final Sale. July - August, 1910.
1. Letter from Swan & Son to all owners stating the ship caught fire while in Grass Austin & Islands Lumber Yard on June 15, 1910. Lost spars, sails, blocks, rigging badly scorched on starboard side. Decks on starboard side also partly burned. Lowest estimate for repairs - $7,000 and could only get $1,000. Advise, June 24, 1910.
2. Letter from Henry R. Nash, agent of the Union Central Life Insurance Company in Boston, MA telling Swan & Son he does not wish to put up any money of his share for repair because the Herbert Fuller is pretty old. He believes it best to sell it and feels the rest ot the family would agree. Asks where the Herbert Fuller is at present time, any freight money due her and what she could be sold for, June 25, 1910.
2. Letter from Herbert Fuller, Vice President of Boston Insurance Company, 66 Beaver Street, NY to Swan & Son stating he does not want "to put any more money into the vessel," June 27, 1910.
3. Western Union Telegraph from W.F. Nash to Swan & Son to "sell Fuller to highest bidder," July 15, 1910.

4. Letter from Frederick Lang of Tietjen & Lang Dry Dock Co. to Swan & Son stating if the vessel belonged to them outright, they would repair her simply because she was doing very well lately and "was worth more than $7,000.
before the fire and when repaired, will be worth more than that," July 15, 1910.
5. S.M. Drisko, Furnishing Undertaker and Funeral Director (Carpenter Carriage Made and Repaired) of Harrington, ME wrote to Swan & Son asking the amount to repair Herbert Fuller, July 25, 1910.
6. J.F. Chase wrote to Swan & Son stating he would stand his share of repairs if Capt. Fogarty would be her master, July 26, 1910.
7. S.M. Drisko replied to Swan & Son he would rather see Herbert Fuller sold, July 27 1910.
8. Letter from O.C. Cole to Swan & Son stating he will not stand his share of the repairs, June 27, 1910.
9. Mrs. Cora H. Stewart of Cherryfield, ME wrote to Swan & Son that she does not want top pay for repairs - "she is by no means a new vessel, June 27, 1910.
10. Letter from A.L. Mitchel to Swan & Son stating if everyone else agrees to pay, he will pay, if not, he does not want to pay his share either, June 28, 1910.
11. I.B. and T.E. Ray letter to Swan & Son instructed them to sell because she is old, has not been profitable and he does not want to lay out that much money (in repairs), June 28, 1910.
12. L.A. Ray letter to Swan & Son said do not repair the vessel. Sell it for what it will bring, June 30, 1910.
13. F.S. Nash, Water Boat and Steam Hoisters of 2319 Union Street, Brunswick, Georgia wrote to Swan & Son that he would go along with the wishes of the family and wanted to know how much credit was left in the vessel, June 30, 1910.
14. E. L. Wallace wrote to Swan & Son indicating he would not pay his share for repairs and wanted Herbert Fuller sold, June, 1910.
15. V.S. Coffin wrote to Swan & Son and instructed him to sell the bark for whatever the market would bring adding, "she would never pay the bill. Has been a bad egg from the word go," July 2, 1910.
16. Mrs. Chas. F. Baker wrote to Swan & Son stating she could not pay for repairs for she was widowed, July 5, 1910.

17. Alonzo P. Nash letter to Swan & Son stating he will do whatever his brother, Wilbur does (sell), July 6, 1910.
18. V.L. Coffin & Son letter to Swan & Son stating not to repair or replace parts but to sell, July 7, 1910.
19. W.F. Nash letter to Swan & Son stating to sell vessel which is 20 years old, July 12, 1993
20. I.B. Ray of Boston, MA letter to Swan & Son stated he wanted vessel sold but believed it would receive more than $1000. and he might have a customer from the Boston area, July 15, 1910.
21. S.M. Drisko wrote to Swan & Son, "Sell for all you can get," July 15, 1993.
22. Knowlton Bros letter to Swan & Son wanted the vessel sold to highest bidder rather than fixing it up because age was a factor in the ship's ability to ever earn enough, July 16, 1993.
23. V.L. Coffin letter to Swan & Son to sell vessel and divide profits, July 16, 1993
24. Hilton F. Emery, Stevedore and Contractor, of 40 South Street, New York, letter to Swan & Son instructing him to sell to private individual and have an auction, "whichever is the best," July 16, 1910.
25. O.C. Cole letter to Swan & Son instructing him to sell the vessel, July 17, 1910.
26. E.I. White, General Merchandise, Manufacturer of Long and Short Lumber of Mahias, Maine, letter to Swan & Son to sell and not repair. July 18, 1910.
27. E.L. Nash letter to Swan & Son to sell vessel for whatever the market would bare, July 18, 1910.
28. E.L. Wallace letter to Swan & Son to sell vessel, July 18, 1910.
29. Henry R. Nash, agent of The Union Central Life Insurance Company, letter to Swan & Son to sell Herbert Fuller, July 18, 1910.
30. Letter from Swan & Son to each of the investors requesting a Bill of Sale for their share to clear title of ship. Herbert Fuller will then be advertised for sale. (W.F. Nash, largest owner of shares, requested an auction), July 19, 1910.

Folder #74. Correspondence - re: Margaret B. Rouss ex Herbert Fuller. April 18 - June 3, 1916.
1. Herbert Fuller sold in 1916 for $32,000. and renamed "Rousse."

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