

historic structure report
historical data component

D-43

september 1987

CAPE HATTERAS
LITTLE KINNAKEET LIFE-SAVING
AND COAST GUARD STATION
NATIONAL SEASHORE/NORTH CAROLINA



ON MICROFILM

PLEASE RETURN TO:
TECHNICAL INFORMATION CENTER
DENVER SERVICE CENTER
NATIONAL PARK SERVICE

B&W Scans

5/10/2005



HISTORIC STRUCTURE REPORT
HISTORICAL DATA COMPONENT

LITTLE KINNAKEET LIFE-SAVING
AND COAST GUARD STATION
CAPE HATTERAS NATIONAL SEASHORE
North Carolina

by
Jerome A. Greene



ACKNOWLEDGEMENTS

I wish to thank several persons for their assistance in the completion of this study. Superintendent Thomas L. Hartman and Assistant Superintendent Doyle Kline of Cape Hatteras National Seashore provided initial orientation to the area. Park Cultural Resources Specialist Bebe B. Woody was extremely helpful in locating information in the park files and in answering my requests for data. My colleague, Historical Architect Anthony S. Donald, of the Denver Service Center Eastern Team, Falls Church Office, provided me with insights into the technical aspects of the architectural design and construction of the Little Kinnakeet Life-Saving Station. Also, Ruth Larison, National Park Service Rocky Mountain Regional Office Librarian, acquired for me numerous books and articles on inter-library loan. Institutions that yielded pertinent materials were: Cape Hatteras National Seashore, Manteo, North Carolina; National Archives, Washington, D.C.; Library of Congress, Washington, D.C.; University of Colorado Libraries, Boulder; and the Denver Public Library.

In the interest of economy, copies of National Archives documents available at Cape Hatteras National Seashore were utilized to expedite the research phase of this project. Further, to accomodate park needs for operational and furnishings data, specific material relating thereto has been appended to the study with the hope that this information will prove beneficial in interpreting the story of the Little Kinnakeet Life-Saving and Coast Guard Station to the public.

Jerome A. Greene
October, 1987



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
LIST OF ILLUSTRATIONS	vi
I. SIGNIFICANCE	1
II. BACKGROUND: THE LIFE-SAVING SERVICE AND COAST GUARD	2
III. THE LITTLE KINNAKEET STATION	8
A. The 1874 Station--Construction and Maintenance	8
B. The 1904 Station--Construction and Maintenance	34
C. The 1892 Cook House--Construction and Maintenance	55
D. Associated Structures	61
1. Structures Associated with the 1874 Station	61
2. Structures Associated with the 1904 Station	65
APPENDICES	71
A. Specifications for 1874 Stations	73
B. Specifications for Repairs, 1885	79
C. Organization of the Life-Saving Service, 1880	85
D. Instructions to Mariners, 1894	87
E. Beach-Apparatus Drill, 1918	94
F. Rescue Operations from Little Kinnakeet, 1881-1911	113
G. Table of Wrecks Involving Assistance of Little Kinnakeet Crew, 1883-1902	133
H. Services of Little Kinnakeet Crews, 1892-1915	135
I. Furnishings Data for Live-Saving Stations, ca. 1884	143
J. Furnishings Data for Life-Saving Stations, ca. 1901	147
K. Specific Furnishings Data for Little Kinnakeet	192
BIBLIOGRAPHY	195
ILLUSTRATIONS	201

LIST OF ILLUSTRATIONS

1. Little Kinnakeet 1874-pattern station, ca. 1893
2. Little Kinnakeet 1874-pattern station, ca. 1890s
3. Station of 1874 pattern with 1885 addition, ca. 1900
4. Plan showing structural details of 1874-pattern stations
5. Floor plans for 1874-pattern stations
6. Boathouse at Little Kinnakeet, ca. 1920s
7. Two views of 1874-pattern station, 1934
8. Two views of 1904 station, 1934
9. Two views of station complex, 1934 and 1935
10. Views of 1935 lean-to addition construction to 1874-pattern station
11. Two views of 1904 station building, 1935 and 1936
12. Site plan, Little Kinnakeet Station Complex, 1935
13. Aerial view of Little Kinnakeet complex, 1944
14. Little Kinnakeet station complex, 1951
15. Little Kinnakeet Coast Guard Station, 1954
16. Little Kinnakeet Coast Guard station, 1954
17. Two views of Little Kinnakeet complex, ca. 1958 and 1963
18. Former Little Kinnakeet station in use as a school, 1963
19. The 1892 cook house with ca. 1945 addition, ca. 1960s
20. The 1904 station at Little Kinnakeet, ca. 1960s

I. Significance

The Little Kinnakeet Life-Saving/Coast Guard Station is on Hatteras Island within Cape Hatteras National Seashore. The station functioned between 1874 and 1954, a period of eighty years, first as a component unit of the United States Life-Saving Service (1874-1915), then as a facility of the United States Coast Guard (1915-1954). Today, as part of the National Seashore, the surviving structures of the Little Kinnakeet complex exist on a 17.5-acre tract administered by the National Park Service. The buildings number three and comprise the original station erected in 1874, the station raised in 1904, and a kitchen/mess structure originally built in 1892 but modified substantially in subsequent years. The complex represents one of the few largely intact vestiges of this historically important government service along the North Carolina Outer Banks. The site has been deemed of sufficient value and integrity to warrant its preservation and interpretation to the public. The complex is further significant as representing the architecture of life-saving stations of the late nineteenth and early twentieth centuries. Notably, the 1874 structure is one of only a few of that pattern extant, while the 1904 structure is one of four surviving of the bungalow style.

Under criteria of the regionwide cultural resources profile developed by the Southeast Regional Office, the applicable categories of significance pertaining to the Little Kinnakeet Life-Saving Station, based on primary themes established in History and Prehistory in the National Park System and the National Historic Landmarks Program (1982), are as follows:

<u>Theme Number and Category of Significance</u>	<u>Level of Significance</u>
4. Major American Wars	
4. The Home Front	Local
7. America at Work	
B. Commerce and Industry	Regional
D. Transportation and Communication	Regional
E. Architecture	
6. Other Specialized	National
9. Society and Social Conscience	
B. Social and Humanitarian Movements	
2. Humanitarian Movements	National

II. Background: The Life-Saving Service and Coast Guard

The Little Kinnakeet station represents an enduring tradition in life-saving that began during the formative years of the republic. Even before the nation was founded, various colonies, reflecting then-current practices of European maritime nations, established procedures governing the salvage of vessels wrecked within their waters. Local crews of practiced surfmen systematically completed salvage operations in the vicinity of coastal metropolitan centers. While primarily concerned with saving commercial property, they also rescued passengers and crewmen. Such private efforts ultimately evolved into ones sanctioned by government during the early years of the nineteenth century when ship owners, underwriters, and private groups, among them the Boston Marine Society, the New York Life-Saving Benevolent Association, the New York Shipwreck Society, and the Massachusetts Humane Society, advocated improved navigational aids and relief for shipwreck victims. The latter group, founded in 1785, became the first established for the primary purpose of saving lives during disasters at sea. Financed principally through private donation, the Massachusetts Humane Society also received some monetary contributions from state and federal coffers. The pioneer society erected the first lifeboat station, complete with surfboat and rescue gear, in 1807, and by 1845 had eighteen stations and huts of refuge positioned strategically along the Massachusetts coast. Under its guidance, nearly eighty similar stations were established by 1872. All were manned by largely volunteer crews.

Direct government involvement in the practice of life-saving was slow to develop, although after 1832, with establishment of the United States Coast Survey, the United States tacitly acknowledged the need for clear and accurate charts to facilitate the maritime economy. Five years later Congress authorized seasonal cruises along the Atlantic coast by the Revenue Marine to relieve victims of sea disaster, the first instance of government participation in life-saving, albeit not from the shore. In 1838 and 1846 proposals were made to equip lighthouse stations with boats to aid distressed seamen. The lighthouse appropriation of 1848, moreover, specified that this be done. Also in 1848, Congress enacted

legislation introduced by Representative William A. Newell allowed for the purchase of surfboats and equipment to protect against loss of life and property along the New Jersey coast, an area known for the frequent occurrence of shipwrecks. In 1849 additional appropriations paved the way for the erection of more stations on the New Jersey coast as well as along the shores of Long Island and Long Island Sound. In all instances, construction of the stations was administered by the Treasury Department. Through the decade of the 1850s more stations appeared on the coasts of New England and New Jersey, while boats and equipment were purchased for use along the coasts of North and South Carolina, Georgia, Florida, Texas, and the Great Lakes. Further, in 1858 Congress provided funding for furnishing lighthouses along the Atlantic coast to further help prevent sea disasters and to assist sufferers.

Throughout the period of organization of the early government-funded stations their operation relied on the efforts of volunteers. Interest on the part of local societies initially charged with their care gradually waned, and the stations generally fell into disrepair. Moreover, the volunteer crews serving the stations proved to be badly trained and often undependable. Although attempts were made to improve the discipline and efficient operation in 1854 by appointment of a superintendent and salaried station keepers, significant operational improvements were usually negated by the practice of choosing superintendents based upon political affiliation. In 1869 surfmen manning the stations began receiving remuneration for their services, but even this payment was irregular and was awarded under limited conditions.

If anything, the early history of life-saving pointed up the need for active government involvement to help assure the safety of persons engaged in the coastal maritime trade. Formalization of that involvement came on April 20, 1871, when Congress, responding to revelations of poor conditions and inept performance at the stations following several Atlantic coast shipwrecks, appropriated \$200,000 for the Treasury Department to use through its Revenue Cutter Service for life-saving objectives. The newly established Life-Saving Service was headed by Sumner I. Kimball,

chief of the Revenue Cutter Service. General Superintendent Kimball was to administer twelve districts composed of the conterminous coastline of the United States along the Atlantic and Pacific oceans and the Gulf of Mexico, besides that of the Great Lakes. A trained and knowledgeable district superintendent managed each district, which included a varying number of stations, while an experienced keeper and crew of six surfmen operated each station.

Superintendent Kimball essentially overhauled the system. Between 1871 and 1878 the Life-Saving Service expanded with authorization of new stations in New England, Virginia, North Carolina, Florida (where houses of refuge were created), the Great Lakes, and the Pacific coast. New procedures, controlled by strict regulation, were instituted along with improved equipment and realignment of personnel at existing stations. A system of inspection was inaugurated, along with provisions for awarding life-saving medals. Following an 1878 congressional investigation of two sea tragedies, the Life-Saving Service became an independent bureau within the Treasury Department. Under the new arrangement Sumner Kimball continued as General Superintendent, an assistant was appointed, and seasonal periods of station operation were fixed to run from September 1 to May 1 along the Atlantic seaboard (changed in 1894 to run from August 1 to June 1). Appointed keepers were required to reside near their respective stations at all times, while regularly compensated crews of surfmen lived at the stations only during the active season. As of 1889 there were 173 stations located on the Atlantic and Gulf coasts, 44 along the shores of the Great Lakes, 7 on the Pacific coast, and 1 along the Ohio River at Louisville--a total of 225. Between 1871 and 1889 the Service was credited with saving 42,359 lives as against only 505 lost, and with saving more than \$60,000,000 worth of property.

The Life-Saving Service remained closely affiliated with its parent Revenue Cutter Service even after it attained independent status, and officers of that bureau participated in supervising the erection of new stations as well as in conducting regular inspections of the stations. Under Kimball's stewardship the Life-Saving Service prospered until

January 28, 1915, when, in an economy move, consolidation of the Revenue Cutter Service and the Life-Saving Service into the U.S. Coast Guard was implemented by act of Congress. Principal organizational changes that affected the former life-saving stations included the appointment of warrant officers as keepers and the enlistment of surfmen with rank similarly accorded the Revenue Cutter Service. District superintendents were commissioned in the Coast Guard. Benefits included uniform allowances and a retirement system. Overall command fell to the Coast Guard Commandant after the abolishment of the positions of general superintendent and assistant general superintendent. Personnel stationed at the former life-saving stations, however, were still charged with the major task of rescuing sufferers of coastal maritime disasters.

The function of the life-saving stations was, of course, to save lives. During the years of the Service, each station was manned by a keeper and a crew of six or seven surfmen, the latter present only during the active season. It was a compulsory task of the keeper to maintain a daily journal in which was recorded the weather, particularly periodic wind conditions, the number of vessels passing the station, the names of all surfmen on duty, and any activity of the crew during the day. In addition, the keeper carefully logged each beach patrol leaving and returning to the station. The keeper remained at the station throughout the year, although during the inactive season he was obliged to stay on duty only between sunrise and sunset. After the beginning of the active season the keeper was permitted one day off each week, if the weather so permitted.

Under the direction of the keeper, the surfmen performed in a trained, professional manner. Each man received a number and performed specific tasks during drills and rescue emergencies. The Number One surfman was deemed of such experience that he could take the place of the keeper in the event of his absence or incapacity. The major and regular routine task of the surfmen was patrol and watch duty. Stations on the Atlantic coast stood between four and eight miles apart. Each night at an appointed hour two surfmen began a lonely trek in opposite

directions from their station, patrolling the shoreline until, at designated spots, they each encountered a patrolman from the adjacent stations. The two exchanged checks, small brass squares bearing the station name and the individual surfman's number, then returned over the same course to their respective stations. The operation was then repeated by other surfmen performing consecutively through the night. During foggy weather the patrols continued through the day. In addition to the patrolling, surfmen watched from platforms erected at the stations, a duty that seems to have increased with construction of new pattern station houses and towers after 1900.

If, during the patrol, the surfman noticed a vessel in danger or one already wrecked, he ignited a red-flamed signal light to either warn the craft or to assure its passengers and crew that help was at hand. The patrolman then returned to his station and notified the keeper and crew of the emergency. With the precision developed from daily drilling, the crew soon had the requisite equipment, including, if required, a surfboat laboriously pulled forward, at the beach opposite the wreck. If conditions precluded use of the boat for reaching the distressed ship, a gun and line were used. The ordnance was generally a Lyle gun, a small brass mortar firing an 18-pound shot to which was attached a strong line. After the line successfully reached the ship, a hawser line with tackle and pulleys was secured to the wreck, thus enabling use of more specialized apparatus, such as a breeches buoy and life-car in rescuing the survivors. The former consisted of a pair of heavy duck pants with openings for the legs. A large piece of cork fixed at the waist acted as a buoy. Survivors clung to ropes running from the buoy to a pulley attached to the hawser. The cigar-shaped life-car measured $8\frac{1}{2}$ feet long by $1\frac{1}{2}$ feet deep and $3\frac{1}{2}$ feet wide. Made of tightly sealed strong zinc or tin plates, the vessel was covered with entrance afforded through a hatch on top. The sides were surrounded by rolls of cork. The life-car could accommodate between four and six persons, and, like the breeches buoy, reached the shore by the system of hawser, rope, and pulleys managed by the life-saving crew.

Rescue operations, however, were more the exception than the rule at most life-saving stations. Generally, station life was a monotonous enterprise at best, with daily activity enlivened by the regimen of drill, exercise of equipment, and upkeep of the station house and grounds. Life at Little Kinnakeet, so far as can be determined, did not vary much from the norm.¹

1. Background data on the origins, historical evolution, and operation of the Life-Saving Service and Coast Guard are in Darrell Hevenor Smith and Fred Wilbur Powell, The Coast Guard: Its History, Activities and Organization (Washington: The Brookings Institution, 1929), pp. 23-29, 30-37, 55; Riley Brown, The Story of the Coast Guard. Men, Wind and Sea (Garden City, New York: Blue Ribbon Books, 1939), pp. 17-18; and Walter C. Capron, The U.S. Coast Guard (New York: Franklin Watts, Inc., 1965), pp. 22-28. A popularly written account is in Howard V.L. Bloomfield, The Compact History of the United States Coast Guard (New York: Hawthorn Books, Inc., 1966), pp. 121-27. Contemporary accounts of the Service appear in Rebecca Harding Davis, "Life-Saving Stations," Lippincott's Magazine of Popular Literature and Science, XVII (March, 1876), pp. 301-10; "The United States Life-Saving Service," Scribner's Monthly, XIX (January, 1880), pp. 321-38; "The American Life-Saving Service," Harper's New Monthly Magazine, LXIV (February, 1882), pp. 357-73; and William Wallace Johnson, "The United States Life-Saving Service," The New England Magazine, II (New Series, March, 1890), pp. 134-45. Perhaps the single catalytic document bearing on the development of the Life-Saving Service in the United States is Remarks of William A. Newell, of New Jersey on a Proposition to Devise Means for the Preservation of Life and Property from Wrecks on the New Jersey Coast. Delivered in the House of Representatives, August 3, 1848 (Washington: John T. Towers, 1848).

III. The Little Kinnakeet Station

A. The 1874 Station--Construction and Maintenance

The construction of the life-saving station at Little Kinnakeet in 1874 came as part of a plan by General Superintendent Kimball to increase the number of stations on the Atlantic coast. The first new stations went up after 1871 along the shores of New Jersey and Long Island, followed by others built in Massachusetts and Rhode Island. All designs adhered to standardized architectural drawings that allowed for the erection of structures larger than previously built stations. All were shingled and painted a customary red color. Each 1½-story station measured 18 feet wide by 42 feet long and contained living space for the keeper and crew plus sufficient area for the storage of a wagon, boats, and related equipment.

This basic design underwent certain modification with Kimball's successful expansion of the Life-Saving Service during the 1870s. Principally, the stations erected after 1873, including that at Little Kinnakeet, were more stylistic in ornamental detail than those built previously. Essentially, the architectural design fused elements of a style called Carpenter Gothic with one known as Stick Style. Carpenter Gothic reflected a building style formerly popular in stone structures in the United States and England. Transferred to wooden structures, the style was highlighted by frequent usage of carefully fashioned decorative ornamentation facilitated by the technological development of the scroll saw. Board and batten siding commonly augmented the style. The Stick Style, intended to reflect the inner structure of a building, utilized wooden eave and gable bracketing along with diagonally placed siding boards and such features as side buttresses to somewhat mirror the interior. Combined with elements of Carpenter Gothic, which by the 1870s was declining in popularity, the Stick Style brought an infusion of architectural originality that caught on immediately. The newly designed life-saving stations were larger than their predecessors, running 43 feet long by 19 feet wide. Each of the 1½-story stations was richly ornamented, especially with scrollwork and bracketing under the eaves. Individual differences in the structures erected in 1874 were likely based

on local conditions and style preferences as well as on individual builder preferences.(1)

Twenty-three life-saving stations were constructed in 1874 according to specifications. The architectural drawings for the 1874 style stations were probably prepared in the office of the Supervising Architect of the Treasury Department. While the identity of the originator of the 1874 design has not been precisely determined, it is likely the architect was Francis Ward Chandler, who served at that office and who prepared subsequent plans for stations erected after 1874. Chandler, as a student at the Massachusetts Institute of Technology, had worked for a Boston architectural concern noted for its advocacy of the Victorian Gothic style. Chandler later studied in Paris and taught at M.I.T. before joining the Treasury Department office in 1871. Subsequently, Chandler returned to Boston to join a partnership in 1875. Still later he became chairman of the Department of Architecture at M.I.T., and in 1889 was appointed a fellow of the American Institute of Architects. Chandler died in 1926.(2)

The process of establishing a life-saving station began with Congressional appropriation of the requisite funding. This was followed by a survey to locate an appropriate site for the proposed construction. The site was either purchased or donated for government use, and building activity followed. Most stations located along sandy stretches were built sufficiently back from the shoreline to accommodate the shifting sands and rising waters that could often threaten the structure. Outbuildings associated with the station usually included a storage shed, a wood or coal shed, a well house, a privy, and perhaps an additional

1. Eugene V. York, "The Architecture of the United States Life-Saving Stations" (unpublished master's thesis dated 1983, Boston University), pp. 13-17.

2. Ibid.; pp. 17-20.

boathouse. Sometimes, too, the surfmen erected houses nearby so that they might have their families with them.(3)

Construction of the Little Kinnakeet station began in the autumn of 1873. The successful contract bid went to James Boyle of New Bern, North Carolina. Under an agreement with the United States, Boyle promised to complete ten life-saving stations at designated sites by September 30, 1874, or to forfeit \$25 daily for each house yet incomplete beyond that date. Secretary of the Treasury William A. Richardson accepted this proposal subject to Boyle's completion of three of the stations by December 1, a provision to which Boyle agreed. When it was learned that Boyle had begun raising structures with little regard to their locations or specified dimensions, the Revenue Marine Cutter Service, overseeing completion of the contract, sent inspectors to check on Boyle's progress. Lieutenant Lewis M. Stoddard reached designated station no. 10 at Little Kinnakeet, which was under construction in late September, only to discover that Boyle was using plans and specifications different from those in Stoddard's possession. Stoddard ordered Boyle to rebuild the nearly completed structure and raise it by 18 inches. A few days later, yet another set of plans arrived by mail that varied from the others, causing Stoddard to direct a suspension of Boyle's work. The project stopped for three weeks, and when the weather turned cold the workmen went to their homes.(4)

Work resumed at Little Kinnakeet after January 1, 1874, under a new construction crew of nineteen men headed by T. J. Gardner of Washington, North Carolina. The project lasted until the end of the

3. *Ibid.*, pp. 21, 26-27. In 1903 W.A. Gray claimed the land on which the station stood, stating that the tract had been leased in 1874 to the federal government for twenty years. Hooper to Superintendent of Construction, February 21, 1903. NA, RG 26. Records of the U.S. Coast Guard. Copy in CAHA file, "Little Kinnakeet Construction."

4. Edwin C. Bearss, "Chicamacomico Study" (unpublished report dated September, 1965, in the library of Cape Hatteras NS), pp. 3-4. Specifications for the 1874 stations appear in Appendix A.

second week in March, when Boyle and the workmen departed to start on the station at Chicamacomico to the north. Boyle left a carpenter and a painter to finish the Little Kinnakeet station. The carpenter had oiled part of the inside of the structure before becoming involved in a dispute with Boyle that hurried his departure. All that remained to be done on the station was installation of zinc sheeting around the lookout deck atop the roof and shutter bars on the windows of the boatroom. A mess table also needed completion. And in mid-March Boyle reported to the Treasury Department that the station was "finished all but the Shellac and two blocks which was an oversight. . . ." Boyle's performance on the contract was generally bad, according to Lieutenant Walter Walton, Assistant Superintendent of Construction for the Revenue Marine, and Walton ultimately urged that another contractor be engaged to finish the stations on the outer banks. Moreover, Boyle's bondsmen lost confidence in his ability to deliver after the contractor reported that there was no money in the project, partly because of "the extra ornamentation" he was to provide "as shown in the details drawings and finished plans." Lieutenant Walton ascribed Boyle's performance partly to "his having in tow a notorious woman hired ostensibly as [a] cook," and partly to his (Walton's) inability "to put a new set of brains into a man. . . ." In April, 1874, Boyle's contract was terminated and he realized \$2375.00 for erecting the Little Kinnakeet Station. By October, that station, along with nine more that had been built by two other contractors, reportedly was ready to receive equipment.(5)

The confusion over the correct plans and specifications for building the Little Kinnakeet Station that occurred in September, 1873, produced numerous structural differences that were perceived by Lieutenant Walton

5. *Ibid.*; Walton to J.H. Merryman, April 1, 1874. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet" Inspection Reports. The voucher authorizing payment to Boyle stated that the "Life Saving Station at Kinnakeet, N.C. has been duly inspected, and . . . the work on the same, is satisfactory & generally in accordance with the plans and specifications." NA, RG 26. Copy in CAHA folder, "Little Kinnakeet--1st Construction." See also Walton to J.H. Merryman, April 1, 1874. *Ibid.*

the following December and were recounted to Captain J.H. Merryman of the Revenue Marine, Inspector of Life-Saving Stations, as follows:

In reference to the House at Little Kinnakeet . . . , it appears that the frame had been raised previous to Lieut. Stodders [sic] first arrival on the Beach, which [sic] he ordered taken down to allow for a difference in plans in the height of first story, also to make alterations in the number and position of the Windows in Boat Room, which was done, but in consequence of a scarcity of suitable lumber at the time, and the absence of the Superintendent, the same pieces composing the first, were used in the second framing, the result was wall plates and ties were re-morticed in different places, to suit the tenons of the Corner and Centre posts, the Corner posts were also re-morticed to suit the tenons of the braces, which had also been changed, thus leaving holes here and there to be filled up with what Carpenters call "Dutchmen," besides weakening somewhat the frame of the building, again several of the braces were cut too long, throwing the wall plate out of line. . . . Instead of beams &c being fitted to their places and then champered, they were worked the reverse, which also required the too frequent use of "Dutchmen" or Graving pieces to give the appearance of smooth work.(6)

Despite these deficiencies, the Little Kinnakeet Station more or less adhered to the requirements of construction laid down in the formal specifications prepared for the ten life-saving stations erected in 1873-74. Set upon cedar piling, the structure was to be built of pine beams and boards "in the most thorough workmanlike manner." The building, when completed, measured approximately 45 feet long by 20 feet wide. It stood two levels high, measuring about 25 feet above the piling to the apex of the roof at front and back, and about 20 feet from the piling to the eaves along either side. At the front of the building was a large sliding door entrance, 11 feet wide, leading from an incline into the boat room which occupied most of the space on the first story. The boat room measured 18 feet by 29 feet. In the rear of the boat room was a mess room, running 12 feet 6 inches by 18 feet, and in each rear corner of the mess room stood a closet, each 6 feet long against the rear wall by 2 feet

6. Walton to Merryman, April 1, 1874. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Construction."

wide. A staircase leading to the second story was in the right front corner of the mess room as one faced the boat room entrance. Beneath the stairs was another closet, 2 feet by 6 feet.

The second level was likewise practically laid out. Above the boat room was the crew's quarters, measuring 18 feet wide by 22 feet long. A doorway led from the crew's quarters to a store room, 18 feet by 9½ feet, toward the rear of the building. In the rear of the store room was the staircase and a door leading into the keeper's room, measuring 18 feet by approximately 10 feet 10 inches. In the walls of the station were ten windows. Two were situated along each side. Each of these windows measured 2½ feet wide by 6 feet long. Two more windows located on the lower level of the rear of the structure measured about 2 feet wide by 6 feet long, while the two windows at either end of the second level were of dimensions that differed from each other. Those at the rear of the building measured 2 feet wide by 4½ feet long, while those above the boat room doors were slightly shorter and were arched and pointed at the tops. All of these windows were double hung with 6-light sashes, differing somewhat from those with 9 lights shown on the plan. Doorways, each approximately 4 feet wide, were located on either wall of the mess room and led outside the building. Centered atop the shingled gable roof of the station was a lookout platform, or widow's walk, measuring 10 feet square. Entrance to the lookout was via a trapdoor in the roof. As specified, the exterior of the station, particularly the bracketed area beneath the eaves, was festooned with elaborate decorative bargework and stairing characteristic of the Stick Style. The walls were covered with vertical board and batten, and the windows all had louvered shutters. Beneath the gable, fore and aft, was a circular fixed light. Three large wooden buttresses, complementing the scrollwork, projected along each side of the building to complete the Gothic ornamentation. Finally, the sliding boat room doors were each covered with boards arranged diagonally opposite to those on the other, affording a contrast with the overall vertical construction. Painting of the station, apparently

a vermilion color known as James River red, was accomplished by William T. Harding of Norfolk.(7)

The tract upon which the Little Kinnakeet Station stood was formally acquired by the federal government only after the construction was completed. Land acquisition occurred under provision of an Act of Congress of March, 1875, authorizing the Secretary of the Treasury to obtain "by donation or purchase . . . the right to use and occupy sites" for purposes of the Life-Saving Service. Two days after the legislation passed Congress Captain Merryman transmitted to Secretary of the Treasury Benjamin H. Bristow a lease acquired from Allen and Fanny Gray of Dale County for the land on which the Little Kinnakeet Station was located. Most likely the beachfront tract measured close to an acre and was laid apart by cedar stakes at the corners.(8)

Maintenance and repairs to the Little Kinnakeet Station began soon after construction finished. The location of the building on the sand beach made the structure susceptible to the action of severities in the weather of the outer banks. Blowing sand necessitated frequent painting, for example, and windstorms and the effects of seasonal hurricanes often took their toll on the building. From regular entries logged in the keeper's journal at Little Kinnakeet, a fairly complete record of all structural and cosmetic changes can be ascertained. For ease of reference, these changes have been arranged below according to year.

7. Specifications for 1874 life-saving stations; Photographs, ca. 1900, of Little Kinnakeet Station. Copies in the files of CAHA; Irene Jackson Henry and William Henry, "Little Kinnakeet Life Saving Station: An Analysis and Program for Restoration" (unpublished, undated manuscript in the library of CAHA), n.p.; Superintendent of Life-Saving Stations, Sixth District, to Secretary of the Treasury, September 8, 1877. NA, RG 26. Copy in CAHA folder, "6th District Repairs and Construction."

8. Merryman to Bristow, March 5, 1875. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet--Title, Deed; Undated indenture (post-March 3, 1875) from Little B. Midgette. NA, RG 26. Ibid.

1875. On April 1, as preparations were made for the crew to leave at season's end, the locks were removed from one of the doors, oiled, and replaced. The keeper reported that the stove and other fixtures were in good condition.(9)

1876. On January 7 and 8, thumb latches were installed on the boat room doors, while twenty-four screw type clothes hooks were put inside the station.(10) During the night of September 1-2, lightning apparently burned three holes in the floor of the mess room, including one that penetrated a piece of zinc sheeting beneath the stove.(11)

1877. In September arrangements were made to paint twelve of the Virginia and North Carolina stations, including that at Little Kinnakeet. On September 5, William T. Harding of Norfolk proposed to paint the station roofs vermilion red "and lettered on the ocean side," for the sum of \$450. Another painter, Warren Hester, of Portsmouth, Virginia, proposed to do the same work at a slightly higher cost. The lowest bidder, however, was Miles W. Minter who agreed to paint two coats of vermilion red on the roofs and then paint white letters, each 20 inches high for a sum of \$15 per station.(12)

1880. Painting the exteriors of the Sixth District stations became a priority concern early in the year. "At most of those stations," wrote Second Lieutenant Frank Newcomb of the Revenue Marine, "the old paint

9. Logbook entry, April 1, 1875. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1874-1880.

10. Logbook entries, January 7 and 8, 1876. Ibid.

11. Logbook entry, September 2, 1876. Ibid.

12. Harding to Superintendent of Life-Saving Stations, Sixth District, September 5, 1877. NA, RG 26. Copy in CAHA folder, "Sixth District - Repairs and Construction". Hester to Captain Jonathan J. Gunthrie, September 4, 1877. Ibid.; Gunthrie to Secretary of the Treasury, September 8, 1877. Ibid.; Miles to unidentified recipient (Gunthrie?), September 7, 1877. Ibid.

has scaled off in places, leaving the wood bare and unprotected from the weather and in some cases the houses are actually going to decay, for want of paint outside."(13) Newcomb recommended that "two good coats" of red paint be applied to the stations as soon as the weather warranted.(14)

1882. In late December the keeper reported that new sills were needed, probably for the floors, and that the "outside braces" needed replacement, possibly a reference to the Gothic buttresses on either side of the building.(15)

1883. On March 23 Lieutenant Edwin L. Wade of the Revenue Marine filed a quarterly report urging that the Little Kinnakeet station, among others, be repainted using red lead paint. The recommendation was countered by Captain Merryman, who opposed using that color. Wrote Merryman:

While a red house is more conspicuous perhaps than one of a light color, the latter is no doubt better on the southern coast for the perservation of the wood, since it will not so readily absorb the heat of the sun's rays in summer. The men at the station are inexperienced in mixing paint, and if attempted much waste would ensue in addition to unsatisfactory results. In my judgment there is true economy in employing regular painters with their own materials, thus insuring neater and more durable coatings.(16)

It is not known from the documentary sources whether Merryman's view prevailed, although the few early photographs believed to be of Little Kinnakeet suggest that a lighter shade was indeed used on the

13. Newcomb to Merryman, January 27, 1880. Ibid.

14. Ibid.

15. Quarterly Report, December 31, 1882. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

16. Merryman to Kimball, March 28, 1883. NA, RG 26. Copy in CAHA folder, "6th District - Repairs and Construction."

exterior walls, except for trim, which appears to have been darker, perhaps a vermillion red. In any event, it appears that the repainting did not occur sooner than October 29. Keeper Edward O. Hooper reported on the 30th that the crew was engaged in painting the station and forty yards of old shot line had been "yoused [sic] for lashings the bars to paint the house," possibly a reference to the employment of scaffolding in completing the work. The project evidently went unfinished until the middle of November. On the 22nd the keeper recorded that the work had been done on the station and another house and had consumed twenty-seven gallons of paint.(17)

1884. In the summer and fall a general overhauling of the ten-year-old building took place as part of a general refurbishing program for the stations. The work involved exterior repairs as well as additions made inside, besides varnishing and painting throughout the interiors of the ten Virginia-North Carolina stations. In April the windows of the Little Kinnakeet Station were painted. In June Keeper Hooper received the requisite lumber for the construction, and in July two workmen were employed at Little Kinnakeet in completing the repairs and additions. The project proceeded over twenty-three days between July 21 and August 27, and in early September Hooper sent to the neighboring Chicamacomico station "for paint to paint the new work of the station."(18) Late in the year plans were made to install chimneys in the old stations of the Sixth District. When that occurred, however, according to an inspector of the Revenue Marine, "the window now in the Keepers [sic] room will be of little use, as the chimney will come directly

17. Log entries for October 29, 30, and November 21, 22, 1883. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1881-1886."

18. Log entry for April 25, 1884. Ibid.; "Voucher for purchases, etc.," October 23, 1884, for "amounts paid to complete repairs on Little Kinnakeet L.S. Station," totaling \$33.82. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entries for June 9, July 21, August 27, September 9, 1884. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1881-86"; Sixth District Superintendent J.W. Etheridge to Kimball, October 17, 1884. NA, RG 26. Copy in CAHA folder, "6th District Repairs and Construction."

in front of it." The officer recommended that the window be entirely closed and "one placed on either side of the chimney.(19) Evidently the corbeled, brick chimney was installed at Little Kinnakeet as planned and the windows remained as they were.

1885. During the year a number of changes occurred to the station, including a major renovation that saw new construction for the structure. On March 12 the keeper noted that he and the crew had "ingaged [sic] in work on the station and finished puting [sic] in the windows." In April the mess room in the rear of the first story was painted, along with the exterior of the building.

On May 1 Captain Merryman forwarded to General Superintendent Kimball the plans and specifications "for repairs, etc., to ten (10) stations in the 6th L.S. District." The most important change comprised the erection of a pantry addition built on the east sides of the stations. According to the building plans, the addition measured 19 feet 2 inches long by 6 feet wide and was raised on cedar or locust posts toward the rear of the station. The forward half of the lean-to construction consisted of a shelved pantry measuring 9 feet 6 inches long by 5 feet 3 inches wide, while in the rear of the addition was a "Dry Room for wet clothes," 3 feet 10 inches long by 5 feet 3 inches wide. Between these rooms was an entry way, 4 feet 6 inches long by 5 feet 3 inches wide. The door on the side of the original building now led into the entryway, while another door in the side of the addition led outside. Meantime, the door on the opposite side of the mess room was converted into a window. The roofs of the affected stations were entirely reshingled. Other substantive changes at Little Kinnakeet included the installation of a new brick chimney in the station and the consequent "new arrangement of outside shutters"; construction of a closet, 5 feet by 3 feet, in the keeper's room; repair of outside weather boarding; the flooring of collar

19. Lieutenant E.C. Chayton to Merryman, December 4, 1884. Ibid. See early photographs of the station showing the chimney in place and the subject windows in use.

beams on the second floors; and the replacement of the lookout platform and the addition of sheet lead flashings. Architect for the renovation was A.B. Bibb.(20)

Work on the Little Kinnakeet Station was finished during November. L.O. Wissman, Assistant Superintendent of Construction, described what he had accomplished on the boat room ramp:

I reconstructed the Boathouse platform, with the assistance of Mr. Hooper and his men . . . by raising the upper end to the level of the door sill, removing the step or "chuck" which existed, and also raising the lower end considerably, thereby obviating the difficulty experienced in getting the boat out and in, in consequences of the prow striking ceiling.(21)

1888 and 1889. In May, 1888, an inspecting officer urged that brick cisterns be built to replace those of wood existing at several stations, including Little Kinnakeet. The problem was that inundating tides often overran the cisterns, leaving them polluted with saltwater. "I found that the crews who were obliged to drink the water were liable to bowel trouble and a number of men were covered with sores. . . . In all cases where I have recommended brick cisterns the wooden ones will not hold water and are so rotten as to be beyond repair, and the crews have to depend solely on well water." The officer also noted that the stations needed repainting.(22)

20. Log entries for March 12, April 1, 2, 1885. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1881-1886"; "Plan of Ten U.S. Life-Saving Stations"; Plans and specifications for Sixth District stations, May 1, 1885, enclosed in Merryman to Kimball, May 1, 1885. NA, RG 26. Copy in CAHA folder, "6th District-Specifications for Repairs." See Appendix B for the content of this document and its special provisions for Little Kinnakeet.

21. Wissman to Merryman and Captain G.R. Slicer, November 23, 1885. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

22. Lieutenant E.C. Chayton to Kimball, May 31, 1888. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet--Miscellaneous"; W.A. Farling to Captain C.A. Abbey, November 12, 1889. NA, RG 26. Copy in CAHA folder, "6th District Inspection Reports, 1880-1889."

1890. In April the crew scrubbed the walls of the mess room and removed sand that had accumulated in the well near the station. During the following month the inspecting officer reiterated his recommendation for building new cisterns at the stations to replace deteriorating ones. He also urged that double gutters be installed to facilitate the collection of potable drinking water. He noted that the cistern at Little Kinnakeet was still rotten. By mid-November a new tank, 5 feet in diameter and 8 feet long, was emplaced and a house to enclose it was completed and painted.(23) Other construction during the year included the installation of gutters and the replacement of the mess room floor. The new floor was laid of

rift Georgia pine 1-1/8 by not more than 2-1/2 inches, dressed and tongued and grooved 5/8 inch below the upper surface, and blined [sic] nailed. The flooring to be in long lengths, avoiding butt-joints as much as possible. New saddles to be put down at the door openings, and the doors fitted to swing clear.(24)

Another project involved building and hanging "a battened door on the third step from the bottom of the stairs leading to the second story" of the station: The door was to be made "of narrow, matched, dressed, and beaded white pine, and the necessary jambs; door to be hung by 4 inch narrow butts and secured by a strong thumb-latch."(25)

1891. In September the crew varnished the "sleeping room," presumably the crew's upstairs quarters of the station. Less than two

23. Log entries for April 10, October 1, November 12, 18, and 24, 1890. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893"; Farling to Abbey, May 1, 1890. NA, RG 26. Copy in CAHA folder, "6th District-Inspection Reports, 1890-1902."

24. Specifications for work at Little Kinnakeet, 1890. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

25. Ibid.

months later the chimney somehow became damaged and required mortaring and painting.(26)

1892. On May 2 the superintendent requested lumber and nails for construction at fifteen of the coastal stations, including Little Kinnakeet. One thousand two hundred feet of undressed pine seconds, along with ten pounds of 8d-galvanized nails, were earmarked for Little Kinnakeet for an unspecified purpose.(27) Probably the materials were needed for routine repairs. Late in the year a new cook house was built, thereby freeing the former kitchen and mess facility in the station for use as a sitting room for the crew.

1893 and 1894. During April, 1893, the crew varnished the lean-to and boat room and applied another coat of paint to the station.(28) On February 4, 1894, the Life-Saving Service contracted with F.E. Moore of Norfolk to have the station and its component structures moved inland, apparently away from the encroaching surf. The work was originally to be performed in conjunction with the construction of new buildings, possibly including a boathouse, before the middle of August at a cost of \$11,487.50. Presumably only part of the contract was fulfilled, with the buildings moved some distance back from the shoreline. Late that year two crewmen were sent to the Gull Shoal Life-Saving Station to obtain shingles for repairs to the roof of the Little Kinnakeet Station.(29)

26. Log entries for September 21 and November 11, 1891. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

27. Kimball to Superintendent, Sixth District, July 30, 1892, and Acting General Superintendent to Superintendent, Sixth District, August 3, 1892. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Repairs."

28. Log entries for April 3, 14, and 16, 1893. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

29. "Proposal for Station &c. for the U.S. Life-Saving Service," February 4, 1894. NA, RG 26. Copy in CAHA folder, "6th District Repairs and Construction;" Log entry for December 22, 1894. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1894-1895."

1895. On March 9, Keeper Hooper reported that his surfmen scoured the floor of the "Station Seting [sic] Room & Cook house floor," as well as cleaned the windows of the station. In May the crew painted the keeper's room and sitting room. They also painted the boat room as well as the lookout deck, utilizing twenty-five pounds of white lead mixed with two gallons of linseed oil.(30)

In October, Keeper Hooper sent a letter to the district superintendent informing him of some basic structural problems encountered with the Little Kinnakeet Station. For one thing, he reported, the southeast corner of the station had settled so badly that runoff water to the tank was instead running off the gutter at that corner. Moreover, said Hooper, the settling action was "also changing the shape of the station."(31) On November 30 the crew bolstered the sinking corner, yet the settlement continued to such an extent that William W. Latham, an Assistant to the Superintendent of Construction for the Life-Saving Service, was sent to investigate. His report follows:

I find that the side sills, and side foundation posts, are, as far as can be seen, sound. The end sill under the boat-room doors I have found to be decayed and will require a new sill. Also the ends of boat-room door posts are rotten and will require splicing. The foundation posts under the end sill are somewhat rotten at the head and will require to be replaced with new posts. I would state that this decayed sill appeared sound on the outside. The inside I should judge was about two thirds rotten. In regard to the corner of the station settling I can see but little difference now, and I first visited the station in March 1894. I have instructed the keeper, to avoid further settling, to pack the corner with blocks until such time as the repairs can be made. In relation to the repairs to the station under authority of letter from your [Superintendent of Construction] office dated Jan. 28th 1895, I would say that no expense was included on the foundation for the reason that

30. Log entries for March 9, May 24, 1895. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1894-1899."

31. Hooper to P.H. Morgan, October 23, 1895. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entry for November 30, 1895. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1894-1899."

upon a close examination I found that the station had not settled in a year's time, and to all appearances the sills and posts were sound.(32)

Latham estimated the cost of materials and labor for repairing the "end sill foundation posts, door posts, door sill and a portion of incline, and securing foundation" at \$85.00.(33)

1896. On January 3 General Superintendent Kimball authorized the repairs at the projected cost, and by the end of the month the work had evidently gotten underway with the squaring up of the foundation of the station. The work involving the door sill and incline started on March 9 after lumber arrived. Two months later eight windows in the station required puttying and painting around the lights, which was done.(34)

1898 and 1899. Little maintenance or other construction work followed on the station over the next few years. Beyond scouring the walls of the lean-to addition and the top and bottom floors, the only new project apparently involved the hanging of two doors, 2 feet 6 inches by 6 feet 6 inches and 2 feet 8 inches by 6 feet 7 inches, respectively, installation of two ventilators, and addition or replacement of 750 shingles on the roof, all at a cost of \$11.63.(35)

32. William W. Latham to Superintendent of Construction, U.S. Life-Saving Stations Atlantic and Lake Coasts, December 16, 1895. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

33. Ibid. Funding in the amount of \$4.60 was authorized in 1895 for repairing the hatch to the lookout of the Little Kinnakeet Station. Ibid.

34. Kimball to Superintendent of Construction, January 3, 1896. Ibid.; "Abstract of needs compiled from the Inspection Reports. . . , for the quarter ended January 31, 1896." NA, RG 26. Copy in CAHA folder, "6th District Inspection Reports, 1890-1902"; Log entry for March 9, 1896. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1894-1899"; "Abstract of needs, inspection report, 6th District, 2d Quarter, 1896." NA, RG 26. Copy in CAHA folder, "6th District Inspection Reports, 1890-1902."

35. Log entry for May 11, 1898. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet logs, 1894-1899."

The dearth of maintenance activity suggests that the attitude of concerned personnel had changed from one of repair and restoration of the station to one of advocacy for its replacement. Sometime during 1899 the Little Kinnakeet station was formally condemned by the Life-Saving Service. In September an inspector allowed that the building was in "bad condition, & a new one is needed." Although the roof leaked badly, he believed that because a new station would likely be erected shortly, "it would not be advisable to put on a new roof now, or to do any extensive repairs." He did recommend, however, that new gutters and conveying pipe be provided "so that the men can get water, the old gutters being rusty & partly blown down."(36)

1900. On March 22 Andre Fourchy, Assistant District Superintendent of Construction, reached Little Kinnakeet and, assisted by Keeper Hooper and the six surfmen, began work of an unspecified nature on the front of the building. Shortly thereafter an inspecting officer announced that the site for a new station had been chosen one-quarter mile south of the old one. On May 19, on direction of Fourchey, the crewmen commenced work on improving or repairing the lookout deck atop the structure. Three days later they began assisting Mr. A.W. Steaker in replacing the rain gutters around the building as had earlier been recommended. Soon after, the crew painted the lookout and began taking out broken lights from the windows of the station. The replacement of the gutters was finished on May 24. The purpose of all this work was to keep the station in commission until the imminent new building was constructed. In August a new boat incline leading from the boat room was completed, while flashing was laid around the base of the lookout.(37)

36. Inspection report, September 15, 1899. NA, RG 26. Copy in CAHA folder, "6th District Inspection Reports, 1890-1902."

37. Log entries for March 22, 26, May 7, 19, 22, 23, 24, and 30, 1900. NA, RG 26. Copies in CAHA folders, "Little Kinnakeet Logs, 1900-1904"; "Report of Inspection, Little Kinnakeet. . . , March 29th, 1900." NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; "Report of Inspection, Little Kinnakeet. . . , August 7, 1900." Ibid.

1901. In early June an assistant inspector of the Revenue Cutter Service visited Little Kinnakeet and reported that the station was in poor condition and had gone unpainted "for some time." The foundations, he stated, "are no doubt very much rotten," while the roof was prone to heavy leakage. Pending construction of a new building, the inspector recommended that the station be put in repair. "Much money, however, should not be spent on it, as it is not worth it."(38) On September 14, the crew engaged in scouring both floors of the station. (During the day word arrived of the death of President William McKinley from gunshot wounds.)

1902 and 1903. Throughout these two years little significant construction occurred in anticipation of erecting the new station. In May, 1902, a bench was placed in the building to hold a water filter, while an inspection report for October 15, again cited the station as condemned.(39)

In May, 1903, the crew removed the stove from the sitting room to discover that the flue was in a dangerous condition, requiring repairs before the stove could operate again. As preparations continued for building a new station, some thought was given to the projected use of the 1874 structure. A prominent view voiced by Captain C.A. Abbey of the Revenue Cutter Service, Inspector and Superintendent of Construction, was that the old station be removed to a site close by and be repaired. It would "make an excellent barn, carpenter shop and fuel house, and afford ample storage room besides." Cost for moving and putting the station in shape was estimated at \$600.00.(40)

38. Second Lieutenant R.O. Crisp to Inspector to Life-Saving Stations, June 3, 1901. Ibid.

39. Log entry for May 20, 1902. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1900-1904"; Inspection report for October 15, 1902. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

40. Log entry for May 1, 1903. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1900-1904"; Abbey to Kimball, May 12, 1903. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Construction."

1904. Efforts proceeded toward moving the station to the site designated to receive a new structure some distance to the south and west. The actual move began in mid-May, with the contractors readying the building for the brief but delicate journey. By May 20 the structure had been lifted off its foundation onto rails and rollers, and the next day workers moved it 280 feet down the shoreline. Two days later the old station traveled 285 feet farther, and on May 24 it rolled 414 feet closer to the new site. On receipt of more rollers, the contractors resumed the move on the 26th and directed the station forward another 262 feet. On May 27 the station reached its appointed location, having traveled in excess of 1240 feet, or slightly less than one-quarter mile. Work then began to raise the structure onto blocks, a process that was not completed until the middle of July.(41)

1905. Immediately following its move to the location of the new station, the old station was pressed into service as a boathouse. It apparently was placed in the position it occupies presently, some 135 feet west and north of the station erected in 1904 and situated in a more or less north-south alignment with the original boatroom doors facing south. In the spring of 1905 some landscaping around the old building took place, including the planting of bushes around the foundation blocks.(42) Thereafter the station functioned in a subordinate capacity to the new facility, serving variously as boat house, garage, and storage building. Therefore, the subsequent history of the structure under the administration of the Life-Saving Service and the Coast Guard reflects the maintenance as well as the architectural changes deemed proper in fulfilling the varied statuses of the structure.

41. Log entries for May 18, 20, 21, 23, 24, 25, 26, 27, and July 19, 1904. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1900-1904."

42. Log entry for April 1, 1905. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909."

1909 and 1910. Late in the year Keeper Hooper requested that quantities of white, yellow, and red lead be forwarded for painting the 1874 station. He shortly received the following articles:

300 pounds white lead
11 pounds tints #15
15 gallons raw linseed oil
4 pounds Tuscan red for trimmings
2 gallons turpentine
25 pounds putty(43)

The building was painted during the first few months of 1910, a process that employed 250 lbs of the white lead, 14 gallons of linseed oil, 11 lbs of tint (yellow?), 4 lbs. of tuscan red, 4 lbs of Indian red, and 1½ gallons of turpentine. The brass metalwork on the old station was also cleaned. A significant development early in 1910 was the retirement of Edward O. Hooper as Keeper after some thirty-six years of continuous service at Little Kinnakeet. A senior surfman from the Chicamacomico Station, E.S. Midgett, replaced Hooper.(44)

1913. In April the crew constructed a new "Boat Brow" on the old building. This was, in effect, a new incline or gangplank which, when equipped with rollers, facilitated the moving of the surfboat in or out.(45)

1916. During the second year of administration of Little Kinnakeet by the newly formed U.S. Coast Guard, the old station was severely damaged by lightning. At 8 p.m. in the evening of Saturday, June 3, a

43. Hooper to Superintendent, Seventh District, November 23, 1909. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Q.M. Maxam to Inspector, Life-Saving Stations, December 9, 1909. Ibid.

44. Log entry for April 29, 1910. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1910-1915"; Inspection report, March 28, 1910. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1908-1912."

45. Log entry for May 2, 1913. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1910-1915."

bolt struck the building with such force that the chimney was knocked off and broken and a hole "about three feet square" blown in the roof. The impact tore out a window on the north end of the building and generally made a wreck of that area. The following Monday the crew made an effort to repair the damage, but before extensive work was done the district superintendent sought a determination from the Coast Guard commandant as to whether the old building justified such an effort. Responding to an inquiry from Washington on July 3, Superintendent Edgar Chadwick opined: "This building should be preserved as the repairs necessary are small. It is of much use as a store house for extra gear and [as] the housing of shipwrecked persons." Proposals for fixing the structure were received and opened in late June and Chadwick urged the commandant to accept that of Kramer Bros. & Co. of Elizabeth City to complete the required repairs for \$14.47. Materials for the job included 128 feet of lumber, enough for twelve pieces, each 16 feet long by 1 inch by 8 inches, for sheathing, plus a quantity of heart cypress or juniper shingles, each 6 inches by 20 inches.(46)

1921. Kramer Bros. Co. also received the contract five years later "for furnishing and delivering material necessary to repair the old station for the purpose of sheltering a horse and to build a horse pound." Projected cost of the conversion of the 1874 building was \$50.60. Bids were solicited in September and Kramer was the sole respondent. The following month saw at least part of the old station fitted out as a stable for a horse to help move the boats more readily in life-saving emergencies.(47)

46. Log entries for June 3, 5, 1916. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920"; Chadwick to Commandant, June 7, 1916. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Chadwick to Commandant, July 3, 1916 (1). Ibid.; Chadwick to Commandant, July 3, 1916 (2). Ibid.; Superintendent of Construction and Repair Howard Emery to Superintendent, Seventh District, July 7, 1916. Ibid.; Emery to Superintendent, Seventh District, July 7, 1916. Ibid.

47. R.T. Crawley, Superintendent, Seventh District, to Commandant, September 7, 1921. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entry for October 18, 1921. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1921-1924."

1922, 1923, 1924. On June 15, 1922, the crew scoured the floor of the boat room. Eighteen months later the surfmen spent the entire day reshingling the roof of the old station. Late in December, 1923, the superintendent of the Seventh District requested sixteen panes of glass to repair cracked or broken lights in the structure's windows. And in September, 1924, an inspection revealed that the sills of the boat incline had become rotten, necessitating a request for its repair.(48)

1925 and 1927. In May, 1925, the surfmen repainted the exterior of the building, and in July a proposal of the Chesson Manufacturing Company of Elizabeth City was accepted to "reshingle the stable at the Little Kinnakeet Station" at a cost of \$153.67. In November, 1927, repairs were made to the stable fence.(49)

1930. On May 22 a large numeral "181" was painted on the east side of the shingled roof by the Little Kinnakeet crew. The number represented the Coast Guard designation for the station and was put there for the intelligence and guidance of airplane pilots. During the following July the building exterior of the 1874 station was repainted.(50)

1932 and 1933. Crewmen spent two hours doing unspecified work on the old station on August 31, 1932.(51) Sometime during this approximate

48. Log entry for June 15, 1922. Ibid.; Log entry for December 17, 1923. Ibid.; Superintendent James A. Price to Commandant, December 31, 1923. Coast Guard records on microfilm at CAHA; "Report of Inspection of Little Kinnakeet Coast Guard Station, Seventh District, September 23, 1924. Ibid.

49. Log entry for May 11, 1925. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1925-1929"; Superintendent R.T. Crowley, Seventh District, to Commandant, July 12, 1923. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entry for November 10, 1927. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1925-1929."

50. Log entries for May 22 and July 10, 1930. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1930-1932."

51. Log entry for August 31, 1932. Ibid.

period the stable was done away with and the building served as a garage. In December, 1933, an inspector reported the following on the deteriorating condition of the structure:

[The building] was later converted into [a] stable and now is being used as a garage. Outside knees for eaves and decorations rotted. Pillars rotted. Sills are evidently new. Vertical weather boarding is rotted. Flooring inside where tractor is housed is oil soaked. Room on first floor for food locker is good. One room upstairs is used as storeroom. This storeroom was provided with shelves and stores are neatly stowed. Attic is untidy and needs cleaning out. Appearance and condition of this building detract from station and it should be removed.(52)

1934. By 1934 the old station was clearly becoming increasingly unstable and was viewed as an eyesore to the Coast Guard complex. In January an inspecting official, Lieutenant Commander G.E. McCabe, observed that the attic had been cleaned and "properly stowed," but remained "unfit to be used for a garage." He urged that a new garage be erected and the old station "be moved away a distance from the main building to add to the appearance of the station. . . ." (53) Following this recommendation, the commander of the Seventh District advised that the building be declared obsolete and torn down. And in May inspecting officer McCabe recommended the same treatment. Nonetheless, the crew occasionally worked at repairing and maintaining the structure, as it did on September 27 for an unspecified purpose. By November the prevailing view had changed to one of keeping the old station and improving it by laying a concrete floor and building a lean-to style gear house on its east side. Photographs of the building in 1934 indicate that the eastern lower rear window had been boarded over, perhaps to replace missing shutters. They also reveal that by then the old sliding boat room (garage) doors

52. Inspection report (Lieutenant Commander G.E. McCabe to Inspector, Eastern Area), December 7, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

53. Inspection report of January 1, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

had been removed, probably long before, and had been replaced by a hinged double door, built of plank and brass frames, one leaf on either side of the entrance. The shutter for the west upper front window above the boat room entrance was also missing.(54)

1935. Work on the lean-to addition apparently began in March or April. Raised on a concrete foundation with built-in pilasters along its outside face, the new structure adjoined the east side of the old station and its shingled roof consisted of a simple sloping prolongation of the old station's roof. The areas extending over the eaves at either end of the new structure did not project as far as they did on the original building. Along the east wall were three windows of two sashes side by side, with each sash comprising four lights side by side. The exterior of the addition was finished in board and batten like the old station. The new section measured 45 feet long by approximately 9 feet wide. Interior construction involved removing the east wall of the old station, although the decorative bracketing beneath the eaves of the station roof remained intact. The bracketed scrollwork at the front (south end) of the station was removed, however, during the construction. Other structural changes necessitated by the addition included repositioning the boatroom entrance about 2 feet west of where it originally stood. This process involved restoring the eastern side of the entrance to match the board and batten exterior. Also, a door with a six-light window was installed east of the boatroom entrance near the juncture of the lean-to addition, and another large entrance, approximately 7 feet wide by 8 feet high, was built into the south side of the addition. Presumably, double leaf doors were built on this entrance. Finally, the wooden gangplank or incline that formerly led into the boatroom/garage was replaced by one of

54. Seventh District Commander to Inspector in Chief, January 12, 1934. Ibid.; McCabe to Inspector, Eastern Area, May 15, 1934. Ibid.; Officer in Charge, Clarence P. Brady, Little Kinnakeet Station, to Inspector in Chief, May 28, 1934. Ibid.; McCabe to Inspector, Eastern Area, November 30, 1934. Ibid.; Log entry for September 27, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; Photographs, March 9, 1934, in collection of the Fifth Coast Guard District. Copies in the files of CAHA.

concrete that extended for most of the width of the building. During August the crew completed some work on the inside of the building, although specifics are unknown.(55)

1936, 1937, and 1938. Late in April, 1936, the station crew touched up the paint on the doors of the old building. During the following year the men occasionally labored on the inside of the structure, completing short term work of undescribed purpose on February 2 and July 28, 1937. Less than a year later, on July 18, 1938, the Little Kinnakeet Station was formally decommissioned by the Coast Guard. Orders from headquarters transferred all personnel to the neighboring Big Kinnakeet Station effective that date.(56)

1940s. Late in World War II the Little Kinnakeet complex was reactivated as a lifeboat station. The reinstatement as part of the Coast Guard required a number of alterations and structural additions, primarily to the 1904 station house and the cook house. Few, if any, changes seem to have been made to the 1874 building and it continued to be used only in a garage and storage capacity.(57) In 1949 or early 1950 a wiring layout diagram of the building showed that there were ten 40-watt lights on the lower floor and four 40-watt lights on the upper floor.(58)

55. Photographs, May 2, 1935, in ibid.; Log entry for August 13, 1935. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936."

56. Log entry for April 29, 1936. Ibid.; Log entries for February 2 and July 28, 1937. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1937-1938"; Clarence F. Brady to Commandant, July 18, 1938. NA, RG 26. Microfilm copy in the library of CAHA.

57. "Little Kinnakeet Lifeboat Station, Plot Plan," July 12, 1943. NA, RG 26. Copy in map files of CAHA; "Little Kinnakeet L.B. Station, Proposed Alterations & Additions," March 12, 1945. Ibid.

58. Photograph of inactive Little Kinnakeet Station, December 5, 1944. Copy in the files of CAHA; "Little Kinnakeet Lifeboat Station Wiring Layout," January 13, 1950. Copy in the map file of CAHA.

1950s. The reactivation of the Coast Guard station lasted into the early 1950s. On May 24, 1954, the site once more was decommissioned. This time, however, the National Park Service obtained the complex under a revocable permit of indefinite duration. Since that time the 1874 station has remained under the administration of Cape Hatteras National Seashore. Park Service records disclose little of efforts toward preservation and maintenance of the structure since then. A 1967 memorandum cited the gradual deterioration of the interior of the 1904 station; presumably the same description would have applied to the overall condition of the 1874 structure. Yet in the late 1970s the roof of the 1874 structure was reshingled and the entire complex was enclosed with a 7-foot-high chain link fence for its protection.(59)

59. Louis Torres, Historic Resource Study of Cape Hatteras National Seashore (Denver: National Park Service, 1985), p. 140; Granville B. Liles to Director, National Park Service, August 24, 1967. National Park Service Records in the History Division, WASO. "Cape Hatteras National Seashore," Box 1; Note in CAHA folder, "Little Kinnakeet (copies)"; verbal recollections of former superintendent William A. Harris to the writer, December, 1986.

B. The 1904 Station--Construction and Maintenance

Since 1899 sentiment among Life-Saving Service inspectors and others concerned with the operation at Little Kinnakeet had turned from costly maintenance toward minimal upkeep of the old station. Construction of a new building to replace it became a matter of inevitability, and on August 4, 1900, a site one-quarter mile (1050 feet) to the southwest was selected on land purchased by the government from C.T. Williams, as follows:

Beginning at a stone monument on the shore at the Pamlico Sound, at the south-west corner of Ezekiel Gray's patent running due east 20 chains to a stone monument at the north-east corner, Cape Hatteras Light House bearing S. 10°W., thence for said Light House S. 10°W. 10 chains to a stone monument at south-east corner, thence west 7° north 20 chains to a stone at S.W. corner also at the Pamlico Sound, thence with the shore and said north 22° east 7 chains 58 links to the beginning, containing 17½ acres of land, together with a full right of way 5 rods wide, to the United States for life-saving purposes, running along the northerly line of said premises extended, to the Atlantic Ocean.(1)

Sixteen months after the purchase of this tract, however, construction had not started. In December, 1901, the district inspector declared the roofs "leaky and worn out" at nine locations, including Little Kinnakeet, and that "new stations should be certainly built at an early date" at designated sites. Yet delay continued. Finally, in March, 1903, Kimball inquired of his superintendents of construction why work could not proceed. He proposed that a new station design, used at Virginia Beach and referred to as the "Quonochontang plan," be adapted for use

1. Statement submitted by Attorney I.M. Meekices, November 16, 1899. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Title, Deed." See also the plot of the reservation enclosed in Fourchy to Superintendent of Construction, L.S.S., January 6, 1906. Microfilm roll, U.S. Coast Guard Academy Library, New London. Copy in the library of CAHA. In this letter Fourchy reported that an error of measurement existed "in the length of the Southern line, or in the angles at S.E. and S.W. corners of reservation." He urged that the matter be promptly corrected. The title to the property was recorded in Manteo, Dare County, on May 20, 1901. Plat accompanying ibid.

at Little Kinnakeet. Kimball suggested that the existing plans be employed to forestall further delay.(2) Within a month Kimball directed a commission composed of Captain C.A. Abbey of the Revenue Cutter Service, Inspector and Superintendent of Construction; Lieutenant George M. Daniels, Revenue Cutter Service, Assistant Inspector, Seventh District; and Paul Bausch, Civil Engineer, to proceed to Little Kinnakeet and examine the site. The members were to "report the character of the station which you would recommend to be built there. . . ." On May 12 the commission filed a written report with Kimball which called for construction of a bungalow type dwelling measuring 50 feet square at an estimated cost of \$5000. A "boat- and beach apparatus house," also proposed for construction, was to measure 24 feet by 46 feet and cost \$1800. Once moved, the old 1874 station under the plan would serve as a barn, while the cook house and mess room, privy, and iron water tank and its house were likewise all to be moved to the new site at a projected cost of \$850.(3)

On Friday, February 5, 1904, sealed bids for construction of the new station, based on specifications and drawings, were opened in Kimball's Treasury Department office. At Assistant Superintendent of Construction Andre Fourchy's recommendation, the work of relocating and repairing the old buildings had been separated from the new construction for economy reasons.(4) Jensen Brothers, a firm of Racine, Wisconsin, was the successful bidder out of four candidates. The Jensen Brothers

2. Inspection Report of December 17, 1901. NA, RG 26. Copy in CAHA folder, "Sixth District Inspection Reports"; Kimball to Superintendent of Construction, March 28, 1903. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Construction."

3. Kimball to Abbey, Daniels, and Bausch, April 22, 1903. NA, RG 26. Copy in CAHA file, "Little Kinnakeet; Title, Deeds"; Abbey, Daniels, and Bausch to Kimball May 12, 1903. NA, RG 26. Copy in CAHA file. "Little Kinnakeet Construction."

4. Announcement of request for sealed proposals, January 20, 1904. NA, RG 26. Ibid., Fourchy to Kimball, January 27, 1904. Ibid.

agreed to complete the station by August 15, 1904, at a cost of \$8,800.(5) On March 18, 1904, J.C. Jensen reached the site to begin work. Eleven days later the three commissioners previously appointed by Kimball arrived at Little Kinnakeet and spent less than two hours laying out the location of the new station. Accordingly, the building was scheduled to rise at a point 100 feet south of the northern boundary of the tract and 315 feet west of its northeast corner. (It appears, however, that the station was actually erected closer to Pamlico Sound than to the ocean, probably to avoid the effects of high tide flooding.)(6)

On consensus, the design of the Little Kinnakeet Station was to be of the "Bungalow Style" or "Southern Pattern." The design was the creation of Victor Mendleheff, Architect of the Life-Saving Service, who had prepared drawings for past stations erected in Maine, Michigan, and Washington State. At Little Kinnakeet, Mendleheff introduced the bungalow style, based on a house design that prevailed in popularity from about 1900 to the 1940s. Typically, bungalows were low-roofed, one-story structures covered with unpainted shingles. Mendelheff's stations possessed the features of hipped roofs with long, protruding eaves and a veranda enclosing the building. Additional southern pattern stations were raised in 1904 at Ocracoke, Fort Macon, and Bouge Inlet, North Carolina.(7)

5. Other bidders were Charles L. Duncan, Beaufort, North Carolina; F.E. Moore, Norfolk, Virginia; and E. Hart, also of Norfolk. Although Hart's bid was lowest, he apparently could not finish the work until December. "Schedule of Proposals for the Construction of a Life-Saving Station at Little Kinnakeet, North Carolina," February 5, 1904. *Ibid.*

6. Kimball to Superintendents of Construction, March 10, 1904. *Ibid.*; Log entries for March 18, 29, 1904. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1900-1904"; "Plot of L.S.S. Lot at Little Kinnakeet. . . ." March 9, 1905. NA, RG 26. Cartographic Archives Division, L.S.S. 181. For the location of the station in reference to the ocean and sound, see U.S. Coast Guard, "Little Kinnakeet Station Site Plan, March, 1935." Copy in the files of CAHA.

7. York, "Architecture of the United States Life-Saving Stations," pp. 13-17.

The station at Little Kinnakeet adhered closely to the design. It contained two stories rather than one, but loyally conveyed the low, ground-hugging tendencies for which the bungalow style was known. The structure measured roughly 50 feet long (east-west) by 47 feet wide, including an 8-foot-wide veranda enclosing most of it. The foundation rested on cedar piling. Six rooms occupied the first floor: a crew bedroom (with seven built-in wall closets), measuring about 34 feet long by 16 feet wide; an assembly room 18 feet long by 14 feet wide; an office, 12 feet by 14 feet; a keeper's room, 13 feet square; a large closet off the north side of the keeper's room, 7 feet by 4 feet; and a room adjoining the west end of the crew sleeping quarters, about 12 feet long by 7 feet wide, probably used for hanging wet clothing. At the north end of the latter room was an exit to the veranda. A small entrance hallway, 4 feet wide by 7 feet long, stood between the office and assembly room. At the end of the hallway was a 3-foot-wide stairway leading to the upper floor. Nearly opposite the south side entrance and across the veranda were steps leading to the ground. Double-hung windows were spaced regularly around the building to afford ample interior lighting. The top floor, designated for storage uses, consisted of an open loft, apparently unceiled, measuring approximately 32 feet long (east-west) by 30 feet wide. Double windows fixed in a dormer protruded through the hipped roof from each interior upstairs wall. Attached, but slightly offset on the southwest corner of the building, was a watch tower measuring approximately 13 feet square. As stated, the room at the first level served initially as the keeper's quarters, while that on the second level comprised the watchman's room. The first floor room contained a door and window on the west side and two more windows on the south side. That directly above had a single window on each of the west and south sides. From the watchman's room a narrow 2-foot-wide stairway led up to the lookout. A bank of four windows lined each wall except the east, where, oddly, a chimney partly disrupted the view toward the ocean. A hipped roof similar to that covering the main building completed the tower.(8)

8. Inspection report, December 7, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; "Little Kinnakeet Lifeboat (Continued)

Work on the station proceeded close to schedule. In June the superintendents of construction recommended and received authority to have "a partition with a 4-panel door . . . placed in the Little Kinnakeet Life-Saving Station, now building, to separate the spare room [on the second level] from the large open loft. . . ." (9) Also, a composition pipe was approved for use in the connecting pipe of the cistern. In July the Treasury Department approved an exchange of cypress shingles for those of cedar previously specified at a savings of \$75.00. By September 30, one and one-half months beyond the deadline for completing the station, Lieutenant Daniels reported that the building would "soon be ready for occupancy." Six days later Assistant Superintendent of Construction P. Julian Latham formally inspected the finished station, apparently approving the work. On December 8, 1904, Keeper Hooper and his crew moved into the new facility. (10) Soon after, the long history of maintenance of the structure began when Hooper described glass breakage in a storm door, complaining that "I never Saw thinner Glass use[d] for Glass in Doors," and requesting a replacement pane 3 feet 2½ inches long by 1 foot 11 inches wide. (11)

8. (Cont.) Station Wiring Layout," January 13, 1950. Copy in the map files of CAHA; Photographs, March, 1934, in the collections of CAHA. Presumably the building was erected at the site where it stands today, although a plat of the Little Kinnakeet tract dated 1905 shows an outline of the station with the tower placed at the southeast, rather than southwest, corner. "Plot of L-S.S. Lot at Little Kinnakeet. . . ." March 9, 1905. NA, RG 26. Cartographic Archives Division, L.S.S. 181; Inspection report, October 5, 1912. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1908-1912."

9. Assistant Treasury Secretary R.B. Armstrong to Superintendents of Construction, June 11, 1904. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Construction."

10. Acting Treasury Secretary H.A. Taylor to Superintendents of Construction, July 9, 1904. *Ibid.*; Daniels to Inspector of Life-Saving Stations, September 30, 1904. *Ibid.*; Log entries for October 5 and December 8, 1904. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1900-1904."

11. Hooper to Kimball, December 28, 1904. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

1900s. In March, 1905, the crew engaged in laying pebbles and turf around the station. On May 29 they repaired the plaster around the thimble flue opening in the wall of the new station. In October, 1906, a project involved raising the filter of the cistern beneath the building "so the water will run out at the Wast [sic] pipe before it goes in to the filther [sic]." Nearly three years later, in late April, 1909, the crew completed hand oiling the woodwork inside the station.(12)

1910, 1911, and 1912. In the early hours of January, 1910, "a wind with a Hurricane force" hit the station and knocked out one window light. The window was probably repaired, although evidence for such is unavailable. To help minimize the heat and humidity for the comfort of the crew during the summer of 1911, the acting general superintendent authorized purchase of door and window screen frames for the station. The three window screen frames measured 2 feet 9½ inches by 2 feet 9 inches, while the two screen door frames were 2 feet 8 inches by 6 feet 9 inches. In May, 1912, the crew completed hand oiling of the wash room and the lockers in the crew sleeping room. That October an inspecting officer recommended that a flue be cut in the chimney to serve the keeper's room. He further urged that the second floor loft be ceiled and used for the crew sleeping room during the winter. Finally, he suggested that paint was needed for painting exterior trim, the porch railing, and the ceiling.(13)

1913. These recommendations were repeated in January, 1913. Some repairs got underway in March after the district superintendent requisitioned and received 100 lbs. of galvanized wire nails for use at

12. Log entries for March 8, 10, and May 29, 1905, October 12, 1906, and April 27, 1909. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909."

13. Log entries for January 13, 1910, and April 3, 1912. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1910-1915"; Acting General Superintendent to Superintendent, Seventh Life-Saving District. NA, RG 26. Copy in CAHA Folder, "Sixth District--Repairs & Construction"; Inspection Report, October 5, 1912. NA, RG 26. Copy in CAHA folder, "7th District-Inspection Reports, 1908-1912."

Little Kinnakeet. Most of these seem to have been used for replacing shingles, as 2500 of them arrived at the station later that month. Also, 500 bricks and 2 barrels of lime were used in making repairs in early April. At this time a flue was cut in the chimney in the office, and ceiling of the second floor loft evidently began. During the following month the surfmen hand oiled the sitting room (office?), hallway, and keeper's room, an exercise that occupied less than a day.(14)

1914, 1915, 1916, and 1917. Apparently few repairs and little construction of note occurred in 1914. In August the crew installed wire gauze in a door and window, perhaps to help strengthen them against strong winds. But in October the superintendent of construction wrote Kimball that "no repairs will be necessary . . . during the present Fiscal Year, or for the Fiscal Years beginning July 1, 1915 and July 1, 1916."(15) Nonetheless, in September, 1915, an inspector reported that the flooring in the keeper's room had worn through and needed replacement. He requested that materials be sent to complete the relaying of the floor.(16) Accordingly, 128 board feet of lumber, twelve pieces at 16 feet by 1 inch by 8 inches, was obtained to accomplish this work. Soon after, additional lumber was obtained for installing or repairing a window sash. Five hundred heart cypress shingles were apparently replaced at this time, too.(17) In 1915 the Life-Saving Service became

14. Inspection report, January 15, 1913. NA, RG 26. Copy in CAHA folder, "7th District-Inspection Reports, 1913-1915"; Acting General Superintendent to Superintendent, Seventh Life-Saving District, March 11, 1913. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entries for March 31 and May (illeg.), 1913. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1910-1915."

15. Log entry for August 4, 1914. *Ibid.*; John S. Randall to Kimball, October 14, 1914. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

16. Inspection report, September 17, 1915. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1913-1915."

17. "Proposals for Supplies of Material, Little Kinnakeet Station, April 22, 1916, and June 19, 1916. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Repairs"; Superintendent of Construction to Superintendent, Seventh District, July 7, 1916.

part of the newly organized Coast Guard. New regulations required that the stations and boats be painted in accordance with designs specified by the Coast Guard, and on September 4, 1916, this was accomplished at Station 181, Little Kinnakeet.(18) During 1917 light maintenance was performed on the station; in August the crew spent one day oiling the floors. Late in the year the Elizabeth City Plumbing and Heating Company received a contract for installing an enameled cast iron sink with nickel plated trap to replace a worn unit in the station. The new sink measured 30 inches by 20 inches and cost \$10.50.(19)

1919. Evidently little or nothing of a construction or maintenance nature took place in 1918. In May the crew spent a short time overhauling the window cords in the station. Late that year an inspection revealed that the condition of the building was "very good," but that the gutters had rusted through in places, necessitating their replacement.(20)

1920. The new gutters and downspouts were placed on the station in August, 1920, by the firm of Cahoon and Jackson of Elizabeth City at a cost of \$90.00. The following October proposals were accepted for furnishing plaster for repairing the interior walls at several places. The crew was to make any such repairs.(21) In November the problem had not yet been corrected. As an inspector noted:

18. Log entry for September 4, 1916. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920."

19. Log entry for August 15, 1917. Ibid.; Superintendent, Seventh District to Captain Commandant, U.S. Coast Guard, December 10, 1917. NA, RG 26. Microfilm copy in the files of CAHA. See also work proposal of November 22, 1917. Ibid.

20. Log entry for May 19, 1919. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920"; Inspection report, December 8, 1919. NA, RG 26. Microfilm copy in the files of CAHA.

21. Log entry for August 12, 1920. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920"; Superintendent, Seventh District, to Commandant, February 13, 1920. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Superintendent, Seventh District to Commandant, October 19, 1920. Ibid.; Inspection report, November 16, 1920. NA, RG 26. Microfilm copy in the files of CAHA.

The plastering is falling off of chimney both [sic] in the Boatswain's office [Officer-in-Charge's room] and spare room over office. Chimney should be sheathed and can be done by the crew at a small expense. Plastering has fallen off of ceiling in living room over stove, which should be temporarily repaired. If the material is furnished the crew can do the work.(22)

1921. Early in the year Kramer Bros. Co. of Elizabeth City provided, at the request of the Coast Guard, ceiling flues for station 181 at an expense of \$20.90. These were installed by the crew members in two hours time on February 15. The men also completed repairs to cracked plaster walls. In March they spent part of one day scraping old oil from the floors that had caused them to turn dark.(23)

1922. Little maintenance activity occurred during the year. On July 11, Boatswain's Mate First Class O.J. Gray had the crew touch up the white paint of the post and railing around the veranda. And on September 29, they did the same to the plaster inside the station. At the end of November, preparing for winter, the men removed the screen doors and windows, replacing them with stormproof doors and windows. This procedure was doubtless an annual event.(24)

1923. During the first part of May the men spent a brief amount of time touching up the white paint on the exterior and window facings of the station. A telephone earlier installed in the room of the officer-in-charge was moved to the office at the front. Late in December

22. Ibid.

23. Superintendent, Seventh District, to Commandant, January 14, 1921. Ibid.; Superintendent, Seventh District, to Commandant, January 21, 1921. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entries for February 15 and March 3, 1921. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1921-1924."

24. Log entries for July 11, September 29, and November 29, 1922. Ibid.

the district superintendent reported on the need for seven panes of window glass to replace those that were cracked or broken.(25)

1924. At the outset of the year the Coast Guard solicited proposals for building a lavatory at the Little Kinnakeet Station. The successful bidder was William W. Sawyer of Elizabeth City, who proposed to install one for \$25.00. Presumably, the construction followed shortly, although the precise date of installation of the lavatory has not been determined. It seems to have been placed in the room adjoining the crew bedroom on the west.

The remainder of the year was spent in the performance of usual maintenance requirements. The glass in the front door of the station had to be replaced in May, and in July the crew repaired the plaster in the sitting room (former assembly room). An inspection report dated in September indicated that the general condition of the station was "Excellent to good."(26)

1926, 1927, and 1928. No identifiable maintenance was performed on the station in 1925. In May, 1926, the crew painted woodwork white on the outside of the building. A year later the men repaired the gutters around the station; requests were submitted for new downspouts. In March, 1928, the brick cistern beneath the station was cleaned, and

25. Log entries for May 7, 10 and 11, 1923. *Ibid.*; Superintendent, Seventh District, to Commandant, December 31, 1923. NA, RG 26. Microfilm copy in the files of CAHA.

26. Commandant to Superintendent, Seventh District, January 11(?), 1924. *Ibid.*; Superintendent, Seventh District, to Commandant, January 26, 1924. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Commandant to Superintendent, Seventh District, May 22, 1924. NA, RG 26. Microfilm copy in the files of CAHA; Log entry for July 17, 1924. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1921-1924"; Inspection report, September 20, 1924. NA, RG 26. Microfilm copy in the files of CAHA.

during the following month the crew spent two and one-half hours scraping paint from the inside of the building.(27)

1929 and 1930. In March, 1929, the crew completed more repairs to the gutters and downspouts of the station. On June 10, 1930, they again cleaned the cistern and on the 27th completed painting the outside of the station. Nearly two months later, on August 21, the men painted the interior.(28)

1931. General maintenance continued. On April 24 the crew engaged in touching up with paint the woodwork inside the station. During the following month an inspection disclosed the need for replacing the floors in the lavatory and day room (former "assembly room," or "sitting room"). The Seventh District Commander also recommended that "modern heating and lighting plants be installed at this station," to replace the wood stoves and kerosene lamps then in use. The new floor was laid in the building on August 17, and in November the crew painted floor rugs for use in the station.(29)

1932. On two occasions--March 2 and May 11--the crew engaged in performing unspecified work on the inside of the station. A bad storm struck the outer banks on March 6 and flooded the Little Kinnakeet Station area so that the buildings were surrounded by water. Apparently

27. Log entries for May 14, 1926, May 2, 1927, and April 16, 1928. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1925-1929"; Commander, Seventh District, to Commandant, February 12, 1927. NA, RG 26. Microfilm copy in the files of CAHA.

28. Log entry for March 21, 1929. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1925-1929"; Log entries for June 10, 27, and August 21, 1930. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1930-1932."

29. Log entries for April 24, August 17, and November 10, 1931. *Ibid.*; Inspection report, May 14, 1931. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; Commander, Seventh District, to Commandant, May 18, 1931. *Ibid.*

the water subsided quickly. In May the crew was again at work painting the floor and beds of their sleeping room.(30)

1933. In April a new telephone and cables were installed in the building. Maintenance during the year consisted almost entirely of unspecified work on the steps and floors inside the station accomplished on June 26. A strong gale of September 15 and 16 caused damage to the windows, necessitating the replacement of glass.(31) On October 24 the station received a thorough inspection from Lieutenant Commander G.E. McCabe, who gave a fairly detailed accounting of its condition:

Main building is of bungalow type with lookout tower on top. Foundation of this building sets on cedar piling. Sills were found good where examination was possible but sheathing is carried from skirting to ground. Guttering on East side was blown away in storm. Building presented a good appearance from outside. Main water supply was a brick cistern under the house. This cistern was very inaccessible for cleaning. Fire pump had suction hose leading into it. There was no water in cistern at the time of inspection and therefore no protection in case of fire. . . .

Office was clean and neat; lockers were good.

Recreation room was good but bare except for chairs.

Crew's washroom contained but one bowl with pitcher pump. This room was large enough for the installation of more washbowls, at least two toilets and a shower.

Crew's sleeping quarters downstairs were good but crowded for a shore station. Each man has a good locker.

Attic was unfinished but was fairly neatly stowed. Each man has hook here for rain clothes. Rack was installed for signal flags. Should be partitioned off and three excellent storerooms made.

30. Log entries for March 2, 6, and May 10, 11, 1932. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1930-1932."

31. Log entries for April 5, June 26, and September 18, 1933. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; McCabe to Inspector, Eastern Area, December 7, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

Room under lookout tower is not used but was cleaned and well painted. This room could be made private by putting up a bulkhead to allow a passageway to lookout tower. One or two men could be quartered in this room and relieve congestion in the main sleeping quarters.

Lookout tower: About 12' x 15'; best type seen in stations, but windows which swing out on upper hinges are of poor design. Windows similar to bridge or automobile windows should be installed here. This lookout tower is large and allows man on watch to move around and have clear vision of surrounding territory and sea at all times.

1934. On January 1, Clarence P. Brady, the officer in charge at Little Kinnakeet, commented on the December, 1933, inspection report. He noted that the sheathing on the station "carried from the skirting to ground is a protection to the building." Efforts were already underway to replace the lost guttering on the east side. As for the inadequate cistern, which was difficult to clean, he stated that the station needed "a better and more water supply." Efforts were underway to fix the fire pump. He further acknowledged the crowded conditions in the crew sleeping quarters and recommended that the upstairs loft be partitioned into four rooms to alleviate the congestion. The room beneath the watch tower could also be used once the stairway leading to the lookout was relocated on the exterior of the building. On January 7 the district commander urged that a modern "plumbing and lighting" plant be installed at the station, and observed that "this station has ample space for installing this equipment." However, the work of partitioning the loft for additional sleeping space was delayed pending completion of the other repairs.(32)

Yet few improvements were made immediately, and in April the only work of note to the station was when the crew spent some time painting carpet strips on the lower floor. In May another inspection occurred in which Commander McCabe noted that, although previous faults "have been

32. Officer in Charge, Little Kinnakeet Station, to Inspector in Chief, January 1, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; Commander, Seventh District, to Inspector in Chief, January 12, 1934. Ibid.

corrected as far as possible by the crew," no major repairs had been made. He further advised that the roof shingles were rotten and needed replacement, and that the entire building be raised three feet, probably to protect it against flooding. McCabe here mentioned raising the "floor of cellar" by the "same amount." A pump room had been built beneath the station, at least as early as 1917. (The pump room, as indicated on a 1945 plat, measured approximately 14 feet square, had brick walls and a concrete floor, and contained a pressure tank and a gasoline-operated pump. The room was 5 feet 4 inches in height and had a trap door entrance on the inside. An exterior entrance on the south side was added between 1936 and 1944. Windows were in the south and west sides.) McCabe reiterated the need for a heating and lighting plant, and further suggested converting the office space, along with a section of the "dormitory" into another washroom. "Ceilings and sanitary places," said McCabe, "are still painted spar color." On May 28, Brady reported that the ceilings "will be painted white in accordance with instructions." Indeed, this project may already have been underway, for on May 24 the acting officer-in-charge noted that the crew had spent one and one-half hours painting the inside of the station.(33)

Other maintenance performed on the Little Kinnakeet station included repainting the porch floor late in June and tearing plaster from the walls of the station in September. In November Inspector McCabe again visited the station and reported that the ground floor ceilings had all been painted white. He further stated that the building was to be resingled with "ready dipped" shingles "of the regulation red color." Plans were also in progress for building a new privy (after the old one blew down

33. Log entry for April 23, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; McCabe to Inspector, Eastern Area, May 15, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; Brady to Inspector in Chief, May 28, 1934. Ibid.; Log entry for May 24, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936." For layout of the pump room, see "Little Kinnakeet Station. Proposed Alterations & Additions," March 19, 1945. Copy in the map file of CAHA.

for the second time) and for making some unspecified repairs to the structure.(34)

1935. Substantial changes were made to the station during the year. Between January and June the crew completed scraping all the floors and sandpapering the office floor preparatory to re-oiling them all. The men also finished touch-up work on the varnish on the screen doors.(35) The major work, however, was under contract. Early in the year a contract was secured with W.H. Bartlett of Elizabeth City to construct a new privy at the station. In February the contract was modified to omit the privy construction and to instead install a forty-gallon galvanized range boiler on the second floor of the building. In addition, a Myers cog gear force pump R288 ("or equal") was to be emplaced in the wash room; two water closet (toilet) combinations ("Standard Sanitary Co., Modernus, F2186, or equal") were to be installed, one each, in the washroom and in the office closet; and one septic tank, composed of two units, each with a capacity of 2 feet by 2 feet by 3 feet 6 inches and made of concrete 3 inches thick, was to be located and installed on the premises. Each unit of the septic tank was to have "two 4" terra cotta tees placed in an approved manner," and the entire system was to "be connected . . . with all pipes, fittings, and connections furnished for a complete job."(36)

34. Log entries for June 27 and September 11, 1934. Ibid.; McCabe to Inspector, Eastern Area, November 20, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

35. Log entries for February 13, 28, and May 24, 27, 1935. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1933-1936."

36. Associate Engineer M.P. Hite to Commandant, February 18, 1935. NA, RG 26. Microfilm copy in the files of CAHA; Commandant to W.H. Bartlett, March 9, 1935. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs." Specifications for materials and work composed the following: "All water or vent pipe except where cast iron is required, shall be genuine wrought iron galvanized. Soil, waste and vents shall be standard cast iron, except that vents above fixtures may be one inch iron pipe. Sewers, wastes, etc., shall have adequate cleanouts. Each fixture, pump tank, etc., shall be provided with separate cutoff valve and unions so that it may be removed without effect on balance of system. Sewer will be of best terra cotta 4" salt glazed pipe, and will extend from base of stack to septic tank. Irrigation field will be of 4" (Continued)

When completed, the septic tank was located southwest of the station, and a drain field, approximately 500 feet long, beyond that. Two lavatories and two toilets were connected to the sewer; the building lacked bathtubs and showers. Gutters along the roof of the structure continued to collect potable water, which was stored in the brick cistern beneath the building. Water for purposes other than drinking was obtained from well points in the ground underneath the station and was conveyed by force pump to the forty-gallon tank on the second floor. A fire pump stood along the north side of the station.(37)

Another major task fulfilled in 1935 consisted of changing the location of the stairway leading to the watch tower from the room directly below. This room was well lighted and had a flue so that a stove might be readily installed. It could serve as a "spare room for visiting officers, etc., and at other times for CPO [Chief Petty Officer]." The stairs, however, ran from the northwest corner directly into the center of the room in making their ascent, thereby making the room practically useless. The sum of \$35.00 was allocated by the commandant for relocating and enclosing the stairway along the north wall of the room, thus freeing the interior space for occupancy. The contractor, who was probably W.H. Bartlett, also provided a new door for the entrance to the room.(38)

1936 and 1937. Minor maintenance occurred in 1936. Toward the end of April the crew members touched up the paint in the office and

36. (Cont.) agritile, laid with tar paper protecting each joint. Connect the present washroom lavatory to the new tank and sewer." Ibid.

37. Plat, "Water rights & utility plans, Little Kinnakeet," June 1, 1960. Copy in the map files of CAHA; "Little Kinnakeet Station Site Plan," March, 1935. Copy in the map files of CAHA.

38. Hite to Commandant, April 20, 1935, with enclosed "Sketch of Tower room, second floor." NA, RG 26. Microfilm copy in the files of CAHA; Commandant to Hite, April 24, 1935. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

fixed some window screens. On June 2 they painted the roof gutters around the station, and on September 8 they moved spare beds and bedding into storage in the second floor loft area. In March, 1937, the men occupied a few hours repairing the plaster in the crew sleeping quarters. During the summer of that year the officer-in-charge noted that the station had become infested by termites, a notice he repeated in ensuing reports without specifying the damage they had caused. That autumn the crewmen were employed painting all engines in the station on aluminum color.(39)

1938. Under a storm damage appropriation of the Coast Guard, early in the year two pairs of large doors, formerly used on the Nag's Head Station, were removed for use at Little Kinnakeet. In May the Norfolk Division commander notified the commandant that the cistern water at Little Kinnakeet was being spoiled by salt water seepage. He recommended that two wooden tanks be installed at the station. Other work called for painting the interior and exterior of the building "in strict accordance" with Coast Guard guidelines. In June efforts were made to deal with the termite problem by spraying the inside of the station with creosote with the hope that the insects would be killed. Repairs completed on the structure involved replastering some of the walls and installing hardware of unspecified nature at a cost of \$652.58. A short time after this work was accomplished, however, the Little Kinnakeet Station was closed. "All men and activities" were transferred to the Big Kinnakeet Station.(40)

39. Log entires for April 28, 29, June 2, and September 8, 1936. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; Log entries for March 11, August 7, and October 26, 1937. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1937-1938."

40. Hite to Commander, Seventh District, January 12, 1938. NA, RG 26. Microfilm copy in the files of CAHA; Log entires for February 9 and June 23, 1938. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1937-1938"; Commander, Norfolk Division, to Commandant, May 3, 1938. NA, RG 26. Microfilm copy in the files of CAHA; Commander, Seventh District, to Commandant, May 6, 1938. Ibid.; Commander, Norfolk Division, to Commandant, July 8, 1938. Ibid.; Commandant to Officer in Charge, Little Kinnakeet, July 18, 1938. Ibid.

1940s. The Little Kinnakeet Station lay dormant over the next few years. During World War II the complex was reactivated for use as a lifeboat station, and in January, 1943, an official "plat plan" was prepared. But the station remained inactive as late as December, 1944, and major renovation of the property did not occur until 1945, when many of the recommendations proposed years earlier were implemented. Besides the addition of two large wooden tanks, which were set upon a concrete support raised adjacent to the north rear of the building, the principal change comprised the installation of a lighting and heating plant facility at the north side of the west end of the station. This construction required the removal of the remainder of the west side porch. That part of the veranda became enclosed as a prolongation of the crewmen's lavatory and toilet, an alteration that required the relocation of a window in the west end of the crew sleeping room to a new position at the north end of the new toilet addition.

The plant facility, which partly adjoined the lavatory, measured 21 feet 6 inches long (east-west) by approximately 18 feet long (north-south). In the southwest corner was a coal bin, 8 feet 2 inches by about 10 feet. Across from the coal bin, in the southeast section, was the heater, or furnace room, which also contained a hot water heater, storage tank, and new chimney. The north half of the addition contained the generator room, complete with generators and battery racks for storing the charge. The plant facility had a concrete floor. Doors were located on the north and south sides, and a hinged coal door was on the west side near the southwest corner. The plant addition required a new roof addition. This was built to conform to the building's existing hip style and was covered with wood shingles. A 6-inch-wide galvanized metal gutter encompassed the plant addition roof as it did that of the rest of the building. A concrete cap topped the new chimney.(41)

41. "Little Kinnakeet Station. Proposed Alterations & Additions," March 19, 1945. 3 sheets. Copy in the map file of CAHA.

In consequence of the plant facility, electric light fixtures were placed throughout the building. At the same time as this construction took place, other modifications were made to the station. With the northward extension of the crew lavatory, a partition was shifted about 2 feet north from the former south end of the room. This change allowed greater space for the toilet of the officer-in-charge, whose bedroom adjoined to the south. On completion of the work, the crew lavatory room contained two toilets, two showers, and two sinks, and a new window was installed in the west wall. A new floor, covered with linoleum, replaced that of the former porch. The toilet of the officer-in-charge likewise contained a shower as well as a sink. His bedroom had a closet, with door, built in the northwest corner, as well as a new linoleum floor. In the crew sleeping room minor changes were made, consisting of placement of linoleum flooring and removal of an ordnance locker from the northeast corner of the room. Similarly, linoleum was laid in the assembly room, now called the day room, and in the office, where the ordnance locker was relocated in the northeast corner. Changes in the pump room, located beneath the room of the officer-in-charge, included replacement of a gasoline-powered pump with two electric water pumps placed on a concrete base 2 feet high, and installation of a 220-gallon pressure tank.(42)

Beyond the addition of electric light fixtures, few changes were made to the second floor dormitory, despite earlier calls for its partitioning into rooms. A new wood floor was proposed, and this, perhaps, was completed. In the spare bedroom beneath the watch tower room, two shower stalls previously installed were removed, while the watch tower room floor received a new linoleum surface. Outside the station near the northwest corner a new two-unit lidded septic tank was placed, connected to the building via a 4-inch line. A drainage field adjoined the tank running in a northwestwardly direction.(43)

42. Ibid.

43. Ibid.

1950s and after. In March, 1949, a new wiring layout was approved for the Little Kinnakeet Station, and installation was completed either late that year or early in 1950. The new layout involved few changes from the wiring indicated on the 1945 plot (footnote no. 40, above). When installed, the various components contained lights as follows:(44)

Downstairs:

Crew Bedroom	3	40-watt lights
Assembly Room	2	100-watt lights
Hall	1	40-watt light
Office	1	100-watt light
Officer-in-Charge Room	1	60-watt light
Officer-in-Charge Bathroom	1	60-watt light
Crew Lavatory	2	60-watt lights
Porch	3	40-watt lights

Power Plant:

Equipment Room	2	40-watt lights
Generator Room	1	60-watt light
Boiler Room	1	60-watt light

Upstairs:

Loft Dormitory	5	40-watt lights
Spare Bedroom	1	60-watt light
	1	25-watt light
Watch Tower	1	40-watt light

When the Coast Guard finally deactivated Little Kinnakeet in 1954 the National Park Service at Cape Hatteras National Seashore acquired the complex under a revocable permit of unspecified duration. Soon after the transfer the coal burning plant in the station was converted to oil and the station became used as a quarters for National Park Service employees, a function that continued until at least 1967.(45) In February

44. "Little Kinnakeet Lifeboat Station Wiring Layout," January 13, 1950. Copy in the map file at CAHA.

45. Torres, Historic Resource Study, p. 140; Granville B. Liles to Director, National Park Service, August 24, 1967. NPS records in the History Division. "Cape Hatteras National Seashore," Box 1. In March, 1954, an interesting incident took place near Little Kinnakeet when a Marine Corps jet fighter, out of fuel, made an emergency landing on the packed sand near the station. The plane had to be disassembled to be removed. NA, RG 79. Records of the National Park Service. Accession No. 66A0231/15 16/07: 26-1-1.

and March, 1963, the building served as an emergency school during the time Ash Wednesday Inlet was open. During the latter month members of the Cape Hatteras National Seashore staff helped the children with a conservation project involving the planting of trees in the area. Meantime, with minimal maintenance being performed on the station building, its fabric continued to deteriorate.(46) A 1967 memorandum alluded to the deteriorating interior of the 1904 building, although in later years certain preservation measures were underway. In 1977, for example, the roof of the structure was reshingled. Soon after, the Little Kinnakeet complex was surrounded by a 7-foot-high chain link fence. And in 1982 the Park Service installed new piling beneath the 1904 structure. Further, in 1983 the building was tented and fumigated against infestation.(47) Two years later safety concerns dictated the removal of the two large water tanks from their crumbling concrete platform.

46. Superintendent's Monthly Narrative Report, November, 1955. NA, RG 79. Accession No. 66A231/15 16/07:26-1-1. Box 15, Folder A2823, Part 2, CAHA; Superintendent's Monthly Narrative Report, March, 1963. NA, RG 79. Accession No. 68A0359. Box 4; Photograph by C.L. Gifford, February 20, 1963. Copy in the files of CAHA. A search of National Park Service records in the National Archives (Accession Nos. 66A0231, 66A9061, 68A0359, and 69A7614), particularly the Superintendent's Monthly Narrative Reports for the period 1954 through 1967 revealed negligible information regarding park service maintenance of the Little Kinnakeet complex.

47. Granville B. Liles to Director, National Park Service, August 24, 1967. National Park Service Records in the History Division, WASO. "Cape Hatteras National Seashore," Box 1; Verbal recollections of former superintendent William A. Harris to the writer, December, 1986.

C. The 1892 Cook House--Construction and Maintenance

The cook house erected late in 1892 served crewmen throughout the remaining active history of the Little Kinnakeet Station. Construction of a new cook house facility, separate from that in the 1874 station, got underway in the autumn with the arrival of two doors, three windows, two locks, four flues, lumber, cement, and nails for use in building the structure. In November, Keeper Hooper sought a job foreman from the Gull Shoal Station to head the project, and by early December the new building stood complete.(1) The reason for the construction of cook houses at the southern stations was comfort. As General Superintendent Kimball explained:

Authority was given for the erection of these cook-houses solely because it was represented that in that warm climate the presence and use of the cook-stoves in the living room of the station during the warm months of the active season, viz: September and April of each year which is the only place men have for a sitting room, makes it so hot that it is almost unbearable.(2)

As built, the cook house, which contained a kitchen as well as a mess room dining area, measured 18 feet long by 12 feet wide. According to later drawings, a chimney was located inside the building at one end and a window at the other. One window and one door were in each of the remaining two sides. A doorstep was at each entrance. In exterior appearance the cook house approximated that of the 1874 station; it had a

1. Log entries for October 14, November 15, and 19, and December 2, 1892. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

2. Kimball to Superintendent, Sixth District, December 29, 1892. NA, RG 26. Copy in CAHA folder, "6th District - Repairs & Construction." Other reasons for building the cook house were as follows: "It will cause the cook-stoves to last twice as long, a fire would be run from 6 to 8 hours per day in the Cook-house, while if used for warming purposes, a constant fire day and night is run in them about five months. It is also impossible to keep the station walls free from smoke, and mess room floor free from grease. There are also millions of flies about four months of the season in the cook rooms." Etheridge to Kimball, January 2, 1893. Ibid.

shingled gable roof and board and batten siding. It is not known if it was adorned with ornamental scrollwork.(3) Probably the color of the outside was the same as that of the station. Kimball denied a proposal to purchase heating stoves for the former mess rooms now converted into station sitting rooms, requiring that the cook stoves instead be removed back to the station proper during the cold season. When District Superintendent J.W. Etheridge urged that the cook houses be painted inside and out "as early as possible" at a projected cost of \$20 per station, Kimball, citing limited appropriations, countered that only the exterior of the structures be immediately painted.(4) Probably the cook house was built a short distance away from the station. A ca. 1890s photo shows a structure with a shingled gable roof standing several yards beyond the 1885 lean-to addition. Although unidentified, it is possible that this building was the new cook house.

In April, 1893, the crew at Little Kinnakeet painted the window frames of the new cook house. Early the next year rising waters forced relocation of the cook house, along with the station and outbuildings, a short distance inland. In April, 1897, plans for painting the interior of the cook house failed when Hooper discovered that he lacked enough white lead for the job. In September, 1898, however, Hooper succeeded in building new steps for the entrance to the structure.(5)

1900s. In April, 1900, on the direction of Assistant Superintendent of Construction Andre Fourchey, the crew placed new lights in the

3. "Little Kinnakeet L.B. Station, Proposed Alterations & Additions," March 19, 1945. Copy in the map file of CAHA; Photograph, "Little Kinnakeet Station," March 9, 1934. Fifth C. G. Dist. Copy in the files of CAHA.

4. Kimball to Superintendent, Sixth District, December 29, 1892. Ibid.; Etheridge to Kimball, December 20, 1892. Ibid.

5. Log entry for April 5, 1893. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1890-1893"; Hooper to Lieutenant J.C. Cantwell, April 29, 1897. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; Log entry for September 28, 1898. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1894-1899."

windows of the cook house, a project followed the next month by the rehangng of the doors of the structure. In May, 1903, an inspector proposed that the building be moved, along with the others, a distance of about 1050 feet southwest to the site selected for erecting the new station. Actual relocation began on May 28, 1904, and lasted five days. At the new site the cook house was raised on blocks.(6)

For many years after construction of the 1904 station building at Little Kinnakeet, the cook house raised in 1892, moved to the new site, continued to serve the needs of the crew. In May, 1907, the building exterior was painted, and in October, 1908, the crew repaired one of the doorsteps. The building was occasionally modified, such as with the apparent addition of screen doors and windows in 1909. A severe windstorm early in 1910 struck Little Kinnakeet and broke the glass in the door on the west side of the cookhouse. In April, 1912, the kitchen cupboards were painted, although later that year an inspecting officer remarked that "the kitchen needs painting."(7) Unspecified repairs were made to the cook house in January, 1913, and in May the crew engaged "in scraping kitchen & running flue to kitchen."(8)

In 1914 it became evident that Life-Saving Service officials planned to keep on using the old cook house as an economy measure. In October, Superintendent of Construction John A. Randall wrote:

6. Log entries for May 25, 28, June 2, and July 19, 1904. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1900-1904."

7. Inspection reports, September 28, 1909, and October 5, 1912. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1908-1912"; Log entries for May 6, 1907, and October 29, 1908. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909"; Log entries for January 29, 1910, and April 3, 1912. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1910-1915." See also inspection report, January 15, 1913. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1913-1915."

8. "Requisition for Repairs," January 27, 1913. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entry for May 2, 1913. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1910-1915."

The kitchen [at Little Kinnakeet] is one of the old kitchens, but it will last for several years as it is, and I would recommend that no more repairs be made on it, but that when it gets past use as it is, that a new one be built, to conform with the architecture of the other buildings.(9)

This view prevailed. In September, 1915, it was noted that the flooring in the kitchen and mess room had worn through and required replacement, but it was not until the spring of the following year that the firm of Evans & Meekins of Manteo received a contract for completing this work at a cost of \$44.18. The inside of the cook house was painted again in February, 1918.(10)

1920s. Little if any maintenance was performed on the old cook house in the following years. Late in 1923 some cracked or broken window panes were replaced, and in April, 1924, the kitchen windows were puttied and painted. Two years later the inside of the kitchen received another coat of paint. And in October, 1928, the crew scraped the paint inside the kitchen.(11)

1930s. In April, 1931, a major repair was necessary after the kitchen chimney burst, requiring that part of the ceiling be removed and replaced. At the same time the Seventh District commander urged that the entire kitchen be re-ceiled. Apparently the Elizabeth City firm of Kramer

9. Randall to Kimball, October 14, 1914. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

10. Inspection report, September 27, 1915. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1913-1915"; Superintendent, Seventh District, to Commandant, April 29, 1916. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entry for February 13, 1918. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920."

11. Superintendent, Seventh District, to Commandant, December 31, 1923. NA, RG 26. Microfilm copy in the files of CAHA; Log entry for April 16, 1924. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1921-1924"; Log entries for April 28, 1926, and March 28, 1928. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1925-1929."

Brothers entered a successful bid of \$64.39 to complete this work. The log entries for May 21 and 26, 1931, however indicate that the crew spent six and one-half hours repairing the cook house. On June 8 the men painted the interior of the structure.(12)

Similar activity involving the cook house continued in 1932. During February the crew built a new cupboard in the kitchen.(13) But the old building was clearly in decline. Late the following year Lieutenant Commander McCabe, who inspected Little Kinnakeet, wrote of the kitchen and messroom: "Outside appearance is good and building well painted but is old and should be renewed or renovated. This building is shingled outside similar to main building."(14) Soon after this evaluation was completed, Officer-in-Charge Clarence P. Brady suggested that the kitchen might be moved and used for a store room, and that the downstairs sleeping quarters in the station be used as a new kitchen and mess room. Nothing came of this proposal. In October the crew repainted the ceiling in the kitchen. Minor improvements were made to the cook house over the next few years. Metal strips were laid on the kitchen floor in April, 1936, and a cesspool for the kitchen sink was installed in September, 1937. Less than a year after that the station was deactivated.(15)

12. Commander, Seventh District, to Commandant, April 14, 1931. NA, RG 26. Microfilm copy in the files of CAHA; Log entries for May 21, 26, and June 8, 1931. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1930-1932."

13. Log entry for February 1, 1932. Ibid.

14. Inspection report, December 7, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

15. Brady to Inspector in Chief, January 1, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports"; Log entry for October 3(?), 1934, and April 1, 1936. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; Log entry for September 8, 1937. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1937-1938."

1940s. Preparatory to reactivating the Little Kinnakeet Station, a plot plan was prepared in January, 1943, that showed a projected mess room addition built on the south end of the cook house. The old building was apparently to be used solely as a kitchen, or "galley."⁽¹⁶⁾ Less than two years later formal drawings of proposed alterations and additions showed a slight change in the planned addition to the cook house. As projected, and shortly built, the south end of the building was extended 12 feet to form a "new mess hall." The window in the south end of the cook house was relocated to the west side of the addition, while two more windows were built in the new south wall. Another window and a door were placed in the east wall. All but a few feet of the original cook house south wall was demolished in making the extension; that which remained framed a large passageway between the new area and the old. Floors in both sections received new linoleum. The exterior of the addition was covered with board and batten in a manner to replicate that on the original structure. According to plan, the kitchen was to be furnished with a hot water tank, a new sink, a cupboard and counter, and a "South Coal Range." A refrigerator was to stand in the northwest corner of the mess hall.⁽¹⁷⁾ This was probably the way the building existed when the Coast Guard decommissioned Little Kinnakeet a few years later. By June, 1960, the old cook house was being used for storage.⁽¹⁸⁾

16. "Little Kinnakeet Lifeboat Station Plot Plan," January 28, 1943. Copy in the map file of CAHA.

17. "Little Kinnakeet L.B. Station, Proposed Alterations & Additions," March 19, 1945. Copy in the map file of CAHA; Photograph, "Little Kinnakeet Lifeboat Sta. #171, Avon, N.C., 5th CG Dist.," November 11, 1951. Copy in the files of CAHA.

18. "Water Rights & Utility Plans, Little Kinnakeet," June 1, 1960. Copy in map file of CAHA.

D. Associated Structures

1. Structures Associated with the 1874 Station

The 1874 station appears to have been built as a self-contained unit to include not only the sleeping quarters of keeper and crew but a mess room and kitchen facilities as well. Consequently, few references to collateral structures during the early days have been encountered. As the years passed, however, and as the station grew too small to accommodate the needs of the service, associate structures were built nearby to fulfill a variety of purposes related directly or indirectly to its operation. Known outbuildings and other structures that, in addition to the 1874 station and the 1892 cook house, composed the Little Kinnakeet complex, 1874-1904, were as follows:

Keeper's house, ca. 1884
Flagstaff, 1884
Dwelling houses, ca. 1887 (undetermined number)
Outhouse privy (water closet), late 1880s
Oil House, April, 1888
Wooden tank cisterns (probably two), ca. 1880s
Wells, at least two at individually separate times
Tank House, November, 1890
Provision House, ca. early 1890s
Landing House, ca. 1890s

1880s. Perhaps the earliest recorded reference to an associative building at Little Kinnakeet was that made in the daily register on November 22, 1883, pertaining to "painting the Station and the other house." Identification of the "other house" was not given. On June 30, 1884, Keeper Hooper traveled to New Bern to purchase lumber for erecting "a dwelling house near the Station by per mition [sic] of the Dist Supt." This, probably, was to serve as the keeper's residence, thereby leaving the keeper's quarters of the station free for other uses. In August, 1884, a flagstaff was raised near the station at a cost of \$22.45.(1)

1. Log entry for November 22, 1883. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1881-1886"; Log entries for April 25, June 30, and September 2, 1884. Ibid.; "Voucher for Purchases, etc.," approved December, 1884. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Repairs."

By 1887 several dwelling houses stood at Little Kinnakeet not far from the station. In the early morning of August 20 a hurricane struck the outer banks, knocking down miles of telegraph poles as well as "blowing about (1/3) one third of the dwellings of Little Kinnakeet of[f] the blocks and to pieces. . . ." The storm also tossed canoes and damaged boats before it subsided, all in all necessitating many repairs to property.(2) Other outbuildings noted as standing near the station in the late 1880s consisted of an outhouse, around which the crew placed shells in April, 1888, and an oil house erected during that month. In May an inspector recommended replacing the wooden tank cisterns at Little Kinnakeet with ones of brick.(3)

1890s. Besides the cisterns, the crew also obtained water from a well, which, because of the frequently blowing sand, seems to have required cleaning somewhat regularly. The daily logs contain mention of the crew having "engaged in heaving sand away from around the oile [sic] house and well." On November 12, 1890, the Superintendent of Construction reached the station with five carpenters and began erecting a water tank house. Six days later the crew painted the finished structure, a procedure that consumed two gallons of linseed oil.(4) A photograph of the station apparently taken in the 1890s shows what appears to be the tank house immediately adjacent to the rear of the building. The structure seems to have had dimensions of approximately 10 feet square and 12 or 13 feet high. It was of wood frame construction with shingled gable roof and vertical board siding and stood on wooden piers. The sole visible opening in the building was a louvered ventilator

2. Log entries for August 20, and November 1, 1887. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1887-1889."

3. Log entries for April 18, 19, and 24, 1888. *Ibid.*; Assistant Inspector, Sixth District, to Kimball, May 31, 1888. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet-Miscellaneous."

4. Log entries for April 10, October 1, and November 12, 18, and 24, 1890. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

near the gable. Pipes leading from the gutters of the station ran into the building and likely into a tank within.

Maintenance of the various outbuildings continued through the decade. The well often required repairs and cleaning. In April, 1891, the surfmen whitewashed the outhouse, and in September, 1892, they installed new blocks beneath the oil house.(5) In April, 1893, the crew whitewashed "the Oil House and Provision House," the latter perhaps only recently erected. A few days later the crew painted the water tank, and whitewashed the oil house and provision house. In October they scattered shells between the station and the cook house and laid a walk between the buildings.(6) Early the next year rising waters forced the removal of the tank house, privy, and flagstaff, along with the station, a short distance inland. The move ultimately required that the well be relocated and rebuilt, which was done in August, 1895. Fifteen months later the crew assisted Keeper Hooper in shingling his nearby house. Early in February, 1899, the flagstaff was relocated along the sandy beach on a hill 147 feet south of the station. Other changes to the outbuildings involved the reshingling of the oilhouse; rebuilding a landing house that had been destroyed by an August, 1899, storm; and removing a surfman's dwelling house 200 yards inland from the station. The above-mentioned storm also carried off the privy, described as a "water closet," and lifted the oil house and store room (provision house?) from their foundations. A board walk was washed away, too, while the newly installed flagstaff was listed 30 degrees by the gale force wind.(7)

5. Log entries for February 11 and April 23, 1891, and September 1, 1892. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

6. Log entries for April 16 and October 2, 1893. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1890-1893."

7. "Proposal for Station &c. for the U.S. Life-Saving Service," February 4, 1894. NA, :G 26. Copy in CAHA folder, "Little Kinnakeet Repairs"; Log entries for August 2, 1895; November 17, 1894; February 2, April 26, November 2 and 23, 1899. Copies in CAHA folder, "Little Kinnakeet Logs, 1894-1899"; Hooper to P.H. Morgan, Superintendent, Sixth District, February 4, 1899. NA, RG 26. Copy in (Continued)

1900s. Work on replacing the privy began late in March, 1900, on arrival at Little Kinnakeet of Assistant Superintendent of Construction Fourchy. By March 26 the water closet was seemingly complete when the crew cleaned the metal equipments for the unit. A month later, on direction of Fourchey, the crew painted the trim of the newly installed water closet. In May they cleaned and cemented the water tank. The tank received additional coats of cement in September. And in October, 1901, the crew was employed shingling the dwelling house of Keeper Hooper.(8)

As sentiment grew for building a new station during the first years of the new century, maintenance continued on the outbuildings of the 1874 station. In December, 1902, the surfmen whitewashed the oil house and the provision house, and in April, 1903 they "engaged in putting blocks and brace under tank house to hold tank up, sills and sleepers [sic]." The following month an inspector recommended that the privy, and tank house (with tank) be moved, along with the old station and cook house, to a site some 1050 feet southwest where a new station and boat house were to be erected. Cost for moving the outbuildings was estimated at \$250. On May 25, 1904, the flagstaff and water closet were moved to the designated site. By July 19 the contractor had moved the tank house and it had been raised on blocks. The drill pole was moved to the new site on August 1, and during the autumn the crew carted rock from the old location to help stabilize the structures.(9)

Following the construction of the new station in 1904 the outbuildings associated with the old 1874 station appear to have been gradually

7. (Cont.) CAHA folder, "Little Kinnakeet-Miscellaneous"; Inspection report, September 15, 1899. NA, RG 26. Copy in CAHA folder, "6th District Inspection Reports, 1890-1902."

8. Log entries for March 22, 26, April 25, May 7, 23, 24, September 11, 1900, and October 15, 1901. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1900-1904."

9. Log entries for December 10, 1902, April 23, 1903, May 25, July 19, August 1, and October 13, 1904. *Ibid.*; Abbey to Kimball, May 12, 1903. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Construction."

replaced or used for other purposes. Consequently, much of the late history of these routine structures remains unknown and is undoubtedly lost. The old oil house, for example, was moved out along the beach in 1906 to serve as a watch house for surfmen on beach patrol.(10)

2. Structures Associated with the 1904 Station

A number of adjunct structures have been identified as having been affiliated with the operation of the Little Kinnakeet Station since 1904, some of which evidently carried over their associative functions with the first station. So far as can be determined, besides the station and cook house buildings, the structures composing the station complex, 1904-1954, together with their approximate dates of construction, consisted of the following:

- Dwelling house, mentioned in 1905
- Privy, mentioned in 1906. New foundation built September, 1920
- Stables, mentioned in 1906
- Water tank of 1874 station, moved in 1904
- Boat landing house, ca. 1904 (dismantled 1936)
- Flagstaff, ca. 1904 (moved from old site?)
- Concrete walk between station and cook house, 1919
- Hog wire fence around station, 1924
- Concrete walks, 1924
- Fence around 1874 station, 1927
- Picket fence, 1934
- Stable and corral mentioned in 1943 plot plan
- Drill pole mentioned in 1943 plot plan (moved in 1904 from old site?)
- Gasoline pump mentioned in 1943 plot plan
- Signal tower, ca. 1938; removed by 1954
- Hose reel and fire pump, mentioned in 1943 plot plan
- Loading ramp and platform, ca. 1953

1900s. Most of buildings formerly situated near the 1874 station were moved to the site of the new station in 1904. It is not known whether these included the several dwelling houses formerly erected by and for members of the crew. In any event, at least one such dwelling existed near the new site in 1905, for in October it caught fire. With the help of the crew and equipment from the station, the blaze in the home of

10. Log entry for March 6, 1906. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909."

"J.A. Farrow Surfman No. 3" was quickly extinguished.(11) A year later an inspector visiting Little Kinnakeet made reference to a privy and stables that stood "at least 150 yards from the station." He further observed that "several of the crew live in the vicinity of the station and have pump wells. . . ."(12) In an effort to forestall erosion at the new site, the crew planted bushes around the boathouse and packed their bases with sand. On March 14, 1907, they cemented the inside of the tank to the 1874 station. And in late September and October, 1908, the men filled a low spot lying between the station and the cookhouse with sand and seaweed. Early in 1910 a hurricane-force wind knocked a window light from the privy, and a few months later the crew completed painting the tank house.(13)

1910s. Routine maintenance continued. In January, 1910, the crew received material to repair boat inclines, evidently on a boat landing house erected near the ocean's edge, probably about 1904. And in April, 1913, the walk running between the station and the cook house was repaired, an event followed soon after by the erection of a new boat brow on the boathouse. The night of September 2nd was so windy that the water closet was knocked down along with the flagstaff, the topmast of which broke into five pieces.(14) Late in 1918 plans were made to build

11. Log entry for October 12, 1905. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909." Judging from photographs taken in 1934, 1935, and 1936, two frame dwelling houses, plus a large shed, stood about 100 yards northeast of the station. See photographs taken March 9, 1934, May 2, 1935, and June 24, 1936, in the files of CAHA.

12. Inspection report, October 17, 1906. NA, RG 26. Copy in CAHA folder, "7th District Inspection Reports, 1904-1907."

13. Log entries for April 1, 1905, March 14, 1907, and September 30 and October 29, 1908. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1905-1909"; Log entries for January 29, and April 29, 1910. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1910-1915."

14. Log entries for April 17 and September 3, 1913. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1910-1915."

a fence around the station complex, but the work was delayed pending the lowering of the cost of materials. On February 18, 1919, the crew laid a concrete walk to the kitchen from the station.(15)

1920s. In May, 1920, the crewmen spread gravel around the cook house. Six months later an inspector reported that the boathouse incline on the northwest side needed rebuilding and that a fence was still needed to protect grass recently planted on the station lawn. In September, 1920, the crew built a foundation under the "station toilet." The long-sought fence around the station was apparently under construction in February, 1924, and seems to have consisted of intervally spaced posts joined by a top rail to which hog wire was attached. During the same month the crew hauled sand to the station for filling in the yard. That September cement walks were laid across the yard. According to a 1935 plat drawing, the walks extended from all entrances of the station and consisted of one each on the east, south, and west sides. That on the west ran back to the cook house and beyond, while near the house an extension ran off to the north. The south and west sidewalks were joined by an extension running around the southwest corner of the station which joined the west walk before diverging south and west around the cookhouse. In June, 1927, the men spent an afternoon painting trim on the boat house, then a few weeks later painted the flagstaff and the fence around the station. On November 10, 1927, another fence was built around the 1874 station, now used as a stable.(16) Similar activities continued during the late twenties and

15. Commandant to Superintendent, Seventh District, November 21, 1918. NA, RG 26. Microfilm copy in the files of CAHA; Log entry for February 18, 1919. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1916-1920."

16. Log entry for May 17, 1920. Ibid.; Inspection report, November 16, 1920. NA, RG 26. Microfilm copy in the files of CAHA; Log entries for September 20, 1922, February 4, 21, and September 2, 1924. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1921-1924"; "U.S. Coast Guard, Little Kinnakeet Site Plan," March, 1933. Copy in the map files of CAHA. Log entries for June 10, 27, and November 10, 1927. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1925-1929." For views of the fence erected in 1924, see photographs taken in March, 1934, in the files of CAHA.

included introducing more sand and turf to grade the yard in April, 1929. In November of the latter year the crew completed repairs to the incline to the boat house.(17)

1930s. Customary maintenance procedures continued on the station's outbuildings through the decade. Grading of the property proceeded in April, 1931, when more sand was hauled into the station yard. Less than a year later the crew occupied one afternoon planting trees in the yard. In a storm that struck the area on Sunday, March 6, 1932, the drill pole and outhouse were flooded out and the station was left surrounded by water. More trees were planted in January, 1933, and during the following March the crew worked on a wood rack, either repairing or building one for the station. The following July they spent time touching up paint on the boathouse, whose condition in December was described as "good."(18) The outhouse privy "was blown to pieces" in a hurricane that hit Little Kinnakeet in September, 1933. It "was pieced together and placed at a great distance from station by reason of not being sanitary."(19) An inspector noted that the privy was "over 1500 yards from station over drifted sand, a pieced together affair with no door, and an eyesore to the station."(20) He further suggested that the boathouse situated on the beach, be moved to the station.(21)

In January, 1934, the officer-in-charge at Little Kinnakeet reported that a new wire fence had been requested for the station. The fence

17. Log entries for March 28, 1928, April 1 and November 14, 1929. Ibid.

18. Log entries for June 10, 1930, April 9, 1931, and March 3, 6, 1932. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1930-1932"; Log entry for July 5, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; Inspection report, December 7, 1933. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

19. McCabe to Inspector, Eastern Area, May 15, 1934. Ibid.

20. Ibid. The estimate of distance is probably incorrect.

21. Ibid.

completed on August 7 of that year to replace that of posts and hog wire, however, was of pickets and enclosed the station and cook house. In September it was painted white. On October 17, the crew engaged in building a coal bin, evidently for use in conjunction with the station's heating stoves.(22) In November, Inspector McCabe reported that the privy had once more blown down and that "the men are now using the privy belonging to a house adjoining the Government property." "A new toilet is to be built . . . in the near future."(23) Instead, however, indoor water closets were installed in the station building. The inspector also observed that the boathouse "is still set on the beach and in the same condition as previously reported."(24) The boathouse remained on the beach until December, 1936, when the crew dismantled it. In January, 1937, the men utilized "motor truck No. 1215" in hauling the lumber from the beach to the station, although apparently the boathouse was not reconstituted before the station was decommissioned. Later that year the crew put in a cesspool for the kitchen sink, and during the first part of 1938 they planted shrubbery, painted the picket fence surrounding the station, and touched up the paint on the drill pole before departing Little Kinnakeet in July.(25)

1940s. A plot plan drawn for Little Kinnakeet in March, 1943, evidently when reactivation of the station had been decided upon, showed

22. Inspection report, January 1, 1934. Ibid.; Log entries for August 7, September 14, and October 17, 1934. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1933-1934"; photographs taken May 2, 1935 in the files of CAHA.

23. Inspection report, November 20, 1934. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Inspection Reports."

24. Ibid.

25. Log entry for December 28, 1936. NA, RG 26. Copy in CAHA folder, "Little Kinnakeet Logs, 1933-1936"; Log entries for January 18, February 4, and September 8, 1937. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1937-1938"; Division Civil Engineer Philip Levine to Commandant, November 8, 1937. NA, RG 26. Microfilm copy in the files of CAHA; Log entries for February 9, May 2 and 10, 1938. NA, RG 26. Copies in CAHA folder, "Little Kinnakeet Logs, 1937-1938."

the location of several associated structures. The plan showed the old privy west and slightly north of the 1874 station, roughly 500 feet from the 1904 station. Southwest from the privy and about 500 feet distant stood a stable with a corral approximately 210 feet square. One hundred feet north of the stable was a gasoline pump, while about 275 feet east of the stable stood the drill pole, with which the crew practiced rescue maneuvers. Little more than 100 feet south of the station watch tower was a signal tower, while on the north side of the station, between it and the house, were kept a hose reel and fire pump. It is not known whether the stable and corral shown on the plan were ever constructed.(26)

When the station was reopened in 1945, along with the additions to the station building and the cook house there were repairs to existing facilities. These included repairing the fence around the station complex as well as fixing the concrete walks about the premises. The construction of the heating and lighting plant required the removal of the northward running walk from the northwest corner of the station; at the same time the walk running diagonally from the watch tower corner to join that running between the station and the cook house, was extended to the north end of the cook house.(27) A photograph taken in the early 1950s indicates that the Coast Guard signal tower had been removed but that the drill pole remained. In addition, a few yards west of the 1874 station a loading ramp and platform had been constructed.(28)

26. "Little Kinnakeet Lifeboat Station Plot Plan," January 28, 1943. Copy in the map files of CAHA. The signal tower appears in a photograph taken December 5, 1944. This picture also shows what seems to be a privy about 100 feet north of the east side of the complex. Copy in the files of CAHA.

27. "Little Kinnakeet L.B. Station, Proposed Alterations & Additions," March 19, 1945. Copy in the map file of CAHA.

28. Photographs dated November 4, 1951, and October 4, 1954. Copies in the files of CAHA.

APPENDICES



APPENDIX A

Specifications of Labor and Materials Required to Erect
And Complete a Life-Saving Station [ca. 1873]
(NA, RG 26. Copy in the files of CAHA.)

CARPENTER'S WORK

Dimensions.

All measurements are to be strictly as figured on the plans; but should the figured measurements be found to differ from the measurement per scale, the same shall be referred to the Superintendent for correction.

Timber.

All the timber for the foundation floor is to be of good sound pine. The sills are to be six by eight (6 by 8) inches, laid on the flat. The summer through the centre to be four by eight (4 by 8) inches, laid on the flat. The beams are to be three by eight (3 by 8) inches, placed twenty inches from centres and halved on to the sills, and well spiked to the sills and to all studs where possible. All the timber above the first story floor is to be of good sound pine, free from every objectionable imperfection. The corner and centre posts are to be four by eight (4 by 8) inches; all window and door studs four by four (4 by 4) inches. The ties and wall plates four by four (4 by 4) inches. The beams for the second floor are to be three by eight (3 by 8) inches, placed twenty inches from centres. Two lines of nailing girts are to be cut in between the studding for the first story, and one line on the second story; these girts to be three by three (3 by 3) inches pine. Three by six (3 by 6) inch braces are to be framed or dovetailed into all angles that will admit. The rafters are three by six (3 by 6) inches, placed two feet from centres, with a two by six (2 by 6) inch collar beam, dovetailed each end to all the rafters, eight feet above the floor of the loft. All the above timber is to be planed all round and chamfered on all exposed corners; and short sills placed to foot the braces upon, as shown on the plans.

Framing.

The whole is to be thoroughly framed, pinned, and spiked together in the most workmanlike manner; the joints all cut square and drawn tight on the inside.

Enclosing.

The building is to be boarded with 4½-inch tongued and grooved pine boards one inch thick, beaded and placed face side in, securely nailed to every girt, brace, post, stud, and tie on an angle of forty-five degrees. The outside of these boards to be covered with two thicknesses rosin-sized fire-proof sheathing paper held in place by a strip of pine, two inches wide and half inch thick, nailed over each nailing girt, tie, and plate. The outside to be boarded with 4½-inch-beaded pine boards one inch thick, of good sound knotted quality, tongued and grooved and placed "up and down," and thoroughly nailed through into every strip, and all the joints to be white-leaded before nailing up.

Roofing.

The rafters to be covered with 4½-inch wide, tongued and grooved beaded pine ceiling boards, laid face side down, and the outside of these boards with one thickness of "Johns's asbestos roofing felt," and over the felt 1½ by 2-inch shingling laths to be nailed. The roof to be shingled with best sawed cedar or cypress shingles, laid full three lap and double-nailed with galvanized nails. A solid pine ridge pole, of four inches diameter, to be placed on the ridge, thus

Construct on the roof a look-out deck, as indicated on the plans, with a hatchway two feet wide and four feet long, covered in the best manner with zinc; and use painted zinc flashing all round the platform and hatchway, in the best possible manner and to the entire satisfaction of the Superintendent.

A flagstaff of hard pine is to be furnished and placed as indicated on the plans, securely footed on the loft floor, and fastened to the floor of the look-out deck in a thorough manner.

Galvanized-iron chimney caps will be furnished by the Department to the contractor, and by him put in place between second and third rafters, from rear end. He will be required to make a thoroughly weather-tight fit.

Frames for windows and doors.

All the frames are to be formed by planting on the outer boards 1½-inch pine casings, as indicated on the plans and shown in detail. The sills are to be of oak, placed to pitch two inches, and joined into the studs each end, and plowed 5/8 inch deep to receive the outer weather-boards. The frames inside to be trimmed with a beaded apron in a neat manner.

Doors.

All the doors opening to the outside of the building are to be made of two thicknesses 4½-inch pine, tongued and grooved boards, one inch thick, and beaded on the edge. The boards are to be cross-laid, as shown on the plans, and thoroughly clinch-nailed. All the inside doors are to be made of one thickness, of the same boards, planed both sides, and battened with a fine batten ten inches wide, and well clinch-nailed. The front double doors to be made to slide and hung on schive, if so ordered.

Sash.

All the sash are to be made of pine, 1½ inches thick, and glazed with the best American glass, well bedded, bradded, and puttied. The size and style shall be strictly as shown on the plans, and the sash secured in their places with brass sash catches.

Shutters.

Battened shutters for all the windows to be furnished and hung on the outside, with planished strap-hinges one-eighth inch thick and eighteen inches long, and secured to shut with a galvanized iron bar, held one end with staple and the other by bolt passing through the jamb and secured on the inside.

Scroll Work.

All the scroll and ornamental work of the outside of the building shall be made of clear pine, in strict accordance with the plans and details, and is to be placed on the building in the best possible manner. All joints are to be put together with white lead. On the outside weather-boarding, corner boards, water table, belt courses, and cross braces to be placed as indicated on the plans. All to be well and securely nailed through, and clinch nails used where necessary.

Cornices.

The cornices all around the building to be constructed of good merchantable pine, strictly as shown in detail, and likewise the lookout platform on the roof.

Foundation.

Piers to be constructed not less than two feet square, of good durable stone, laid up in clean, sharp sand and hydraulic cement mortar, to rest the sills and summer upon. These piers are to be not more than five feet from centres, and started three feet below the surface of the ground (as it is to be graded) on a hard bottom, and to be topped out on a level line, so that the shortest pier will be one foot above ground on all sloping sites, and one foot and six inches above ground on all level sites. Each corner and centre pier (six in all) is to have a 5/8 anchor rod, not less than three feet long, built in the wall to bolt the sills to; a large washer to be on the bottom and a nut and washer on the top. Or on sand beaches, where the Superintendent so directs, the foundation shall be as follows: The sills and summer are to rest on red-cedar posts not less than six inches diameter, stripped of the bark and placed in the ground four feet. They are not to be more than five feet from centres, cut square and level one and a half feet above the surface of the ground. The posts are to be flatted on the outside, and boarded with pine boards placed horizontally. The sills are to be securely spiked, or otherwise fastened to every foundation post in a manner satisfactory to the Superintendent.

Floors.

The floor of the first story is to be of two thicknesses tongued and grooved narrow yellow-pine boards, one inch thick, well and thoroughly nailed to every beam with lap joints. The floor of the loft is to be narrow pine, double-face tongued and grooved; flooring boards, beaded on the under side, and well double-nailed. The lookout platform to be floored same as described for the first story, with the joints white-leaded.

Partitions.

The first story and the loft are each to be divided with one partition, as shown on the plans, of good quality, tongued and grooved

narrow pine flooring boards one and a quarter inches thick, and planed and beaded both sides, nailed horizontally to three by four (3 by 4) inch studs, placed four feet from centres.

Closets.

A closet under the stairs that leads to the loft and a door to the same to be constructed; also, two other closets with ceiling boards, one of which is to have three drawers and two shelves, the other, five portable shelves.

Stairs.

A flight of pine steps to the loft to be made as shown on the plans, and enclosed with pine beaded ceiling, tongued and grooved boards. The treads and strings are to be one and a quarter inches thick and the risers one inch. A step-ladder to the lookout to be constructed of hard pine, in the best manner.

Table.

A table of pine to be constructed, the top one inch thick and 3 by 5 feet in size, and to be fitted with a drawer in each end.

Four cedar skids to lead from the double doors, the same to be planked with 2-inch plank; all other doors to have steps provided.

Hardware.

All the hardware not otherwise specified shall be of the best quality for the place and purpose used and in all cases to be galvanized. All the locks for the outside doors are to be 9-inch rim locks made of wood and brass, and the keys at least 6 inches long and 2 inches broad; and one dozen heavy galvanized harness hooks are to be placed in the boatroom, and T-iron holdfasts are to be placed to all timbers when so directed by the Superintendent.

Inside.

All the wood work of the inside to be oiled with one coat and then treated with two coats of shellac; all holes and checks to be puttied.

Finally.

All the work is to be done in the most thorough workmanlike manner, and in accordance with the true intent and meaning of the plans and specifications, and anything omitted of mention in one that is shown in the other, or vice versa, shall be done as though shown and set forth in each, and the whole is to be done to the entire satisfaction of the Superintendent.

APPENDIX B

Stations of 1874

Specifications
for
Repairs and Improvements to
ten Life-saving Stations in the
6th District [1885]

First Division: one at Cape Henry, Va.; one at Dam Neck Mills, Va.; one at False Cape, Va.; and one at Whale's Head, N.C.

Second Division: one at Caffey's Inlet N.C.; one at Kitty Hawk, N.C.; and one at Nags Head, N.C.

Third Division: one at Oregon Inlet, N.C.; one at Chicamicomico, N.C.; and one at Little Kinnakeet, N.C.

General remarks.

The Contractor is to provide, at his own cost, all materials and labor necessary to the full construction and completion of the entire work as embraced in these specifications and the accompanying drawings. Everything shown on the drawings or herein mentioned to form part of the contract, the same as if it were particularly described or mentioned in both plans and specifications.

All workmanship and material used must be of the best quality and suitable for the respective places, and of white pine unless otherwise particularly specified.

The Contractor must give due and satisfactory attention to the work at all times during its progress, and see that the repairs and improvements are constructed in the most careful manner, and according to the true intent and meaning of the drawings and these specifications.

The dotted lines denote the old work the improvements are shown in full lines.

The drawings are to be accurately followed according to their scale, but figured dimensions are always to be preferred to scale dimensions. All lumber and timber used to be free from sap, well seasoned, and of the qualities mentioned.

The repairs and improvements are to be under the supervision and to the entire satisfaction of such person or persons as may be designated by the

Secretary of the Treasury for that purpose and will consist of the following

First floor.

East outside door, steps, etc., removed and a window substituted; addition of a lean-to with doors, windows etc., over the west mess room door. All doors and windows put in order. Outside weather-boarding repaired. New brick chimney, and a new arrangement of outside shutters.

Second floor.

Collar beams floored over; doors and windows put in order; closet in the keepers room.

Roof.

Shingles renewed in main roofs; lookout platform and hatchway removed and replaced; flagstaff removed and a flagstaff erected on the ground.

Foundations.

The foundation of the lean-to will consist of sound red cedar on locust posts, not less than 8 inches in diameter placed not more than five feet from centers, on 3 by 10 inch yellow pine mud-sills. These sills will be placed in carefully leveled trenches, 4 feet deep below the grade line, cross braces 4 by 4 inches of yellow pine will be placed diagonally between the upper and lower ends of the adjoining posts and secured by spikes. The posts will be fastened both to the mud and upper sills with spikes and by $\frac{1}{4}$ by $1\frac{1}{2}$ inch strap irons spiked on; they will also be faced on the outside for the attachment of mill planed and matched yellow pine flooring $1\frac{1}{4}$ by not more than 6 inches, to extend from the bottom of the water table down 6 inches into the ground. After the completion of the foundation the trenches will be filled up to the proper grade.

Framing.

Sills for the outer walls of the lean-to 6 by 8 inches, lapped and pinned at the corners, and to be in full lengths; wall plates for the outer walls 4 by 14 inches, joined together in the same manner as the sills; floor joists 3 by 8 inches, placed 16 inches from centres and framed into the main house at a point which will bring the floor on a line with the top of the mess-room floor; studs of outer frame and partitions 2 by 4 inches placed 16 inches from centres; rafters 2 by 6 inches placed 24 inches. All rafters and other framing timbers showing to view must be planed, chamfered and cut as shown on the drawings. All windows and door studs to be doubled.

The corner posts and every third stud of outer frame will be fastened both to the sills and the wall plates and rafters by $\frac{1}{4}$ by $1\frac{1}{2}$ inch strap irons spiked on in the most thorough manner. The framing timber must be of spruce or yellow pine well seasoned free from sap, large knots or other defects.

Weather boarding.

The lean-to will be covered with tongued and grooved seconds yellow pine flooring nailed on diagonally and then covered with tarred roofing paper, over which the face covering will be nailed. This will consist of 1 by $4\frac{1}{2}$ inch tongued, grooved and dressed clear cypress or yellow pine boards nailed on vertically and the joints to be covered with 1 inch half round battens. The water-table, corner boards, casings and general finish to correspond with the main house. The middle horizontal band and the ornamental braces to be removed from the siding of the main house. The top edge of the water table to be flashed all the way around with sheet lead $2\frac{1}{2}$ inches wide, bent to extend 1 inch on the face covering and $1\frac{1}{2}$ inches over the water table, both edges to be secured by timed tacks and thoroughly put on so as to prevent leakage, then all vertical joints of the boarding to be covered with 1 inch half round battens. If after removing the bands and ornamental braces any of the siding is found decayed it must be replaced with sound material.

Roofing.

The rafters of the lean-to will be covered with tongued and grooved yellow pine seconds flooring, all the projecting parts with the planed side down. Over this boarding tarred roofing paper will be tacked, and over the paper $1\frac{1}{4}$ by 2 inch shingling laths to be nailed not more than 6 inches on centres. The old shingles to be stripped from the main roof; the shingling laths to be renewed and replaced if found necessary, and

then all roofs to be covered with the best quality of No. 1 cedar shingles (Baird & Ropers or of equal quality) 20 inches long nailed to show not more than 6 inches to the weather, with two nails to each shingle. The ridge to be finished with 1½ by 6 inch saddle and a 2 inch roll cut out to its centre.

The chimney, lookout platform and hatchway to be flashed against in a thorough manner with 4 pound sheet lead.

The flagstaff to be removed from the roof altogether.

Inside finish.

Floors: The floor of the lean-to is to be of one thickness of tongued, grooved and dressed yellow pine 1¼ inches thick by not more than 3 inches wide, blind nailed.

A floor will be laid on top of the collar beam in the second story, the whole length and width, of tongued & grooved, beaded and dressed yellow pine or cypress, 7/8 by not more than 3 inches, laid with the face down.

Ceiling: All walls and ceilings of the lean-to will be lined with tongued & grooved, beaded and dressed cypress or yellow pine, 1 inch thick by not more than 3 inches wide, laid in regular horizontal courses, blind nailed, and finished with base or wash boards and 7/8 inch quarter rounds in all angles.

Doors: The new door frames will be made of 1½ inch plank dressed and rebated; outside door sill of hard wood.

The doors of the lean-to will be 1-3/4 inches thick, four panels, molded on the solid, and hung with 4 by 4 inch galvanized wrought iron butt hinges with bracs joint pins. They will have 5/8 inch hard wood saddles and brass faced two tumbler mortice backs with brass spindles and knobs and furniture complete. All old doors to be pieced refitted and arching windows. The window frames of the lean-to and of the window to replace the east-messroom door will be made to correspond with those of the main house; sash 1-3/4 inches thick. The old sash to be pieced and refitted, and all sash both old and new to have brass sash-lifters and brass sash-locks to hold them in any position. There is to be a 1 by 1 inch beaded piece of pine fitted in the nosing of all windows close against the bottom rail of the sash, with a groove (see detail plan). The doors leading from storeroom to keepers room and crews quarters to have a 12 inch transom light secured stationary over each. The old shutters, hinges and fastenings to be removed, and all windows both old and new, except in lean-to to have new outside shutters in two folds, 1-3/4 inches thick, framed together, panelled on the lower half, and stationary slats in the upper half, hung with 4 by 4 inch wrought iron butt hinges with

brass joint pins, secured with drops and pins and turn-buckles. All iron to be galvanized.

Trimmings. The doors and windows of the lean-to will have 4½ inch beaded casings, the windows to have 1-3/8 inch molded nosings, and 7/8 inch aprons.

Closets: The west side of the pantry will be fitted up with shelving 1-3/8 inches thick by 16 inches wide, dressed boards, the lower shelf to be placed 3 feet from the floor and the others about 16 inches apart all the way up. Extra strong harness hooks will be secured to the side walls of the pantry which are not shelved. The storm clothes-room to have similar hooks on all side walls and a 1-3/8 by 12 inch shelf secured 8 inches above the hooks. The new closet in keepers room to be made of tongued and grooved yellow pine beaded and dressed on both sides. 1 by 3 inches, the door of the same material with cross battens screwed on the inside and hung with narrow wrought iron 3 inch butt hinges and furnished with brass closet lock and knob, closet to be shelved and have clothes-hooks as directed by the superintending officer.

A closet is to be formed by shelving 15 inches apart between the supports of the chimney, with a door on the front constructed of the same material as for closet in Keepers room.

Chimneys.

The chimneys to be located as shown on plans, and built of good hard brick and mortar; the flue to be 8 by 8 inches and plastered inside with mortar. Two earthen thimbles full 6 inches in diameter in openings to be properly set in chimney; one in messroom and one in keepers room. The brick work to start in the mess-room 4 feet below the ceiling on a two inch shelf, supported by 2 by 20 inch uprights, resting on 2 inch plank secured to the floor, the timber to be of yellow pine, and thoroughly secured to the wall. The chimney to extend through the keepers room and be finished 4 feet above the ridge of roof. When cutting the openings through floor and roof proper headers must be framed in, and the stovepipe hole now through the upper floor must be closed and the flooring replaced.

Platforms.

The lookout platforms to be removed and replaced and flashed in such manner under the direction of the superintending officer as shall make them water tight. The hatchway in the roof under the platform to have new coamings of yellow pine, 4 inches thick by 6 inches high, rabbeted on the outside to receive the frame of the hatch cover, and to be flashed

against when shingling. Flashing to be secured on the top edge of the coamings. All flashings to be of 4 pound sheet lead.

The platform and steps of the lean-to will have foundation posts of cedar or locust, 6 inches in diameter, to extend below the grade 3 feet the framing timbers to be of yellow pine 4 by 6 inches; stringers, steps and top covering to be of yellow pine 1½ inches thick; risers 7/8 inches thick.

The inclined platform in front of the boat room doors to be repaired by substituting sound material of yellow pine for any portion that may be decayed.

The platform, steps, door and trimmings must be removed from the east side, and all defects caused by substituting a window for the door must be remedied.

Hardware.

The hardware and hardware trimmings must be of the best quality and satisfactory to the superintendents of construction. All nails, screws, spikes and hinges must be galvanized where exposed.

Painters Work.

Glazing. All new sash to be glazed with the best quality of American double strength glass, free from waves, blisters and other defects, and to be properly bedded, sprigged and puttied.

Painting. All nail holes, joints, cracks etc., to be neatly puttied after the first coat of paint.

All new outside work, except roofs to receive two coats of silica paint to correspond in colors with those now on the stations.

The roofs to be painted two coats of red.

All new interior wood-work to receive two coats of best oil finishes. . . .

APPENDIX C

Organization
of the
United States Life-Saving Service 1880

(In conformity to act of Congress approved June 18, 1878.)

[From Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1880 (Washington: Government Printing Office, 1880)]

SUMNER I. KIMBALL, General Superintendent.
WILLIAM D. O'CONNOR, Assistant General Superintendent.
CAPT. JAMES H. MERRYMAN, United States Revenue Marine, Inspector
of Life-Saving Stations.
CAPT. JOHN MCGOWAN, United States Revenue Marine,
CAPT. JAMES H. MERRYMAN, United States Revenue Marine,
Superintendents of Construction of Life-Saving Stations.

Assistant Inspectors.

First District.--CAPT. EDWARD L. DEANE, United States Revenue
Marine, Eastport, Maine.
Second District.--CAPT. DANIEL B. HODGSDON, United States Revenue
Marine, Boston, Massachusetts.
Third District.--LIEUT. CHARLES H. MCLELLAN, United States Revenue
Marine, Bay Shore, New York.
Fourth District.--LIEUT. WILLIAM J. HERRING, United States Revenue
Marine, Tom's River, New Jersey.
Fifth District.--LIEUT. WILLIAM J. HERRING, United States Revenue
Marine, Chincoteague, Virginia.
Sixth District.--LIEUT. FRANK H. NEWCOMB, United States Revenue
Marine, Manteo, North Carolina.
Seventh District.--CAPT. CHARLES M. SCAMMON, United States Revenue
Marine, Key West, Florida
Eighth District.--CAPT. LEONARD G. SHEPARD, United States Revenue
Marine, Key West, Florida
Ninth District.--CAPT. JOHN G. BAKER, United States Revenue Marine,
Oswego, New York.
Tenth District.--Capt. George R. Slicer, United States Revenue Marine,
Detroit, Michigan.
Eleventh District.--LIEUT. WALTER WALTON, United States Revenue Marine,
Milwaukee, Wisconsin.
Twelfth District.--CAPT. JOHN W. WHITE, United States Revenue Marine,
East Oakland, California.

LIEUT. CHARLES F. SHOEMAKER, United States Revenue Marine, on special duty, Washington, D.C.
LIEUT. THOMAS D. WALKER, United States Revenue Marine, on special duty, New York City.

District Superintendents.

First District.--JOHN M. RICHARDSON, Portland, Maine.
Second District.--BENJAMIN C. SPARROW, East Orleans, Massachusetts.
Third District.--HENRY E. HUNTING, Bridgehampton, New York.
Fourth District.--JOHN G. HAVENS, Metedeconk, New Jersey.
Fifth District.--BENJAMIN S. RICH, Onancock, Virginia.
Sixth District.--JOSEPH W. ETHERIDGE, Manteo, North Carolina.
Seventh District.--WILLIAM H. HUNT, Biscayne, Florida.
Eighth District.--CAPT. LEONARD G. SHEPARD, United States Revenue Marine (Acting), Galveston, Texas.
Ninth District.--DAVID P. DOBBINS, Buffalo, New York.
Tenth District.--JEROME G. KIAH, Detroit, Michigan.
Eleventh District.--LIEUT. WALTER WALTON, United States Revenue Marine (Acting), Milwaukee Wisconsin.
Twelfth District.--CAPT. JOHN W. WHITE, United States Revenue Marine (Acting), East Oakland California.

Assistant District Superintendent.

Third District.--NICHOLAS BALL, New Shoreham, Rhode Island.

APPENDIX D

Instructions to Mariners in Case of Shipwreck, with Information Concerning the Life-Saving Stations Upon the Coasts of the United States

Prepared by Lieutenant C.H. MCLELLAN, U.S.R.C.S., Assistant Inspector Life-Saving Stations, under the Direction of the General Superintendent.

[From Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1894 (Washington: Government Printing Office, 1895), pp. 295-99.

General Information.

Life-saving stations and houses of refuge are located upon the Atlantic and Pacific seaboard of the United States, the Gulf of Mexico, and the lake coasts. . . .

The houses of refuge are located exclusively upon the Florida coast, where the requirements of relief are widely different from those of any other portion of the seaboard.

All life-saving stations on the Atlantic and Gulf coasts are manned annually by crews of experienced surfmen from the 1st of August to the 1st of June following.

Upon the lake coasts the stations are manned from the opening until the close of navigation, and upon the Pacific coast they are opened and manned the year round.

All life-saving stations are fully supplied with boats, wreck guns, beach apparatus, restoratives, etc.

Houses of refuge are supplied with boats, provisions, and restoratives, but not manned by crews; a keeper, however, resides in each throughout the year, who, after every storm, is required to make extended excursions along the coast, with a view of ascertaining whether any shipwreck has occurred and finding and succoring any persons that may have been cast ashore.

The life-saving stations are provided with the International Code of Signals, and vessels can, by opening communication, be reported; obtain the latitude and longitude of the station, where determined; information as to the weather probabilities in most cases; or, if crippled or disabled,

a steam tug or revenue cutter will, if requested, be telegraphed for to the nearest port, where facilities for telegraphing exist.

All services are performed by the life-saving crews without other compensation than their wages from the Government, and they are strictly forbidden to solicit or receive rewards.

Destitute seafarers are provided with food and lodgings at the nearest station by the Government as long as necessarily detained by the circumstances of shipwreck.

The station crews patrol the beach from two to four miles each side of their stations four times between sunset and sunrise, and if the weather is foggy the patrol is continued through the day.

Each patrolman carries Coston signals. Upon discovering a vessel standing into danger he ignites one of them, which emits a brilliant red flame of about two minutes' duration, to warn her off, or, should the vessel be ashore, to let the crew know that they are discovered and assistance is at hand.

If the vessel is not discovered by the patrol, immediately after striking, rockets or flare-up lights should be burned, or, if the weather be foggy, guns should be fired to attract attention, as the patrolman may be some distance away on the other part of his beat.

Masters are particularly cautioned, if they should be driven ashore anywhere in the neighborhood of the stations, especially on any of the sandy coasts, where there is not much danger of vessels breaking up immediately, to remain on board until assistance arrives, and under no circumstances should they attempt to land through the surf in their own boats until the last hope of assistance from the shore has vanished. Often when comparatively smooth at sea a dangerous surf is running, which is not perceptible four hundred yards offshore, and the surf, when viewed from a vessel, never appears so dangerous as it is. Many lives have unnecessarily been lost by the crews of stranded vessels being thus deceived and attempting to land in the ship's boats.

The difficulties of rescue by operations from the shore are greatly increased in cases where the anchors are let go after entering the breakers, as is frequently done, and the chances of saving life correspondingly lessened.

Instructions.

Rescue with the Lifeboat or Surfboat.

The patrolman, after discovering your vessel ashore and burning a Coston signal, hastens to his station for assistance. If the use of a boat is practicable, either the large lifeboat is launched from its ways in the station and proceeds to the wreck by water or the lighter surfboat is hauled overland to a point opposite the wreck and launched, as circumstances may require.

Upon the boat reaching your vessel the directions and orders of the keeper (who always commands and steers the boat) should be implicitly obeyed. Any headlong rushing and crowding should be prevented, and the captain of the vessel should remain on board to preserve order until every other person has left.

Women, children, helpless persons, and passengers should be passed into the boat first.

Goods or baggage will not be taken into the boat under any circumstances until all persons are landed. If any be passed in against the keeper's remonstrance he is fully authorized to throw it overboard.

Rescue with the Breeches Buoy or Life Car.

Should it be inexpedient to use either the lifeboat or surfboat, recourse will be had to the wreck gun and beach apparatus for the rescue by the breeches buoy or the life car.

A shot with a small line attached will be fired across your vessel.

Get hold of the line as soon as possible and haul on board until you get a tail block with a whip or endless line rove through it. This tail block should be hauled on board as quickly as possible to prevent the whip drifting off with the set of the current or fouling with wreckage, etc. Therefore, if you have been driven into the rigging, where but one or two men can work to advantage, cut the shot line and run it through some available block, such as the throat or peak halyards' block, or any block which will afford a clear lead, or even between the ratlines, that as many as possible may assist in hauling.

Attached to the tail block will be a tally board with the following directions in English on one side and French on the other:

"Make the tail of the block fast to the lower mast, well up. If the masts are gone, then to the best place you can find. Cast off shot line, see that the rope in the block runs free, and show signal to the shore."

The above instructions being complied with, the result will be as shown in Figure 1.

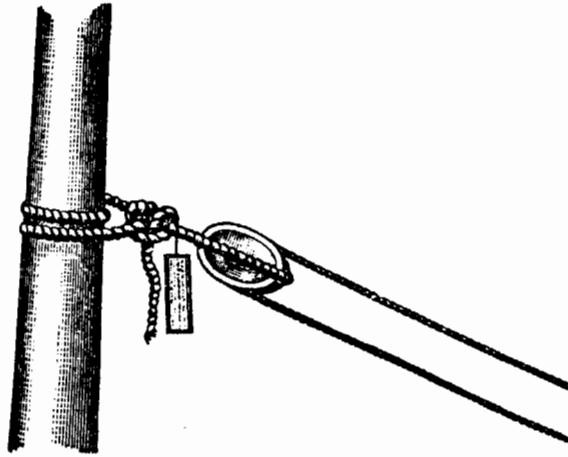


Figure 1.

As soon as your signal is seen a three-inch hawser will be sent on to the whip and hauled off to your ship by the life-saving crew.

If circumstances will admit you can assist the life-saving crew by manning that part of the whip to which the hawser is bent and hauling with them.

When the end of the hawser is got on board a tally board will be found attached, bearing the following directions in English on one side and French on the other:

"Make this hawser fast about two feet above the tail block; see all clear, and that the rope in the block runs free, and show signal to the shore."

These instructions being obeyed, the result will be as shown in Figure 2.

Take particular care that there are no turns of the whip line round the hawser; to prevent this, take the end of the hawser UP BETWEEN the parts of the whip before making it fast.

When the hawser is made fast, the whip cast off from the hawser, and your signal seen by the life-saving crew, they will haul the hawser taut and by means of the whip will haul off to your ship a breeches buoy suspended from a traveler block, or a life car from rings, running on the hawser.

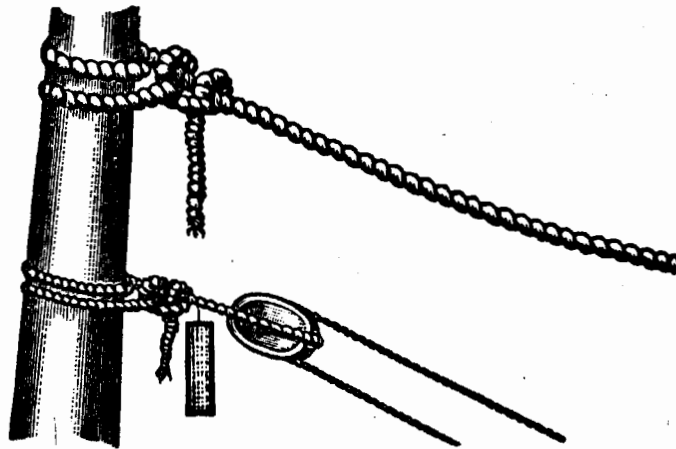


Figure 2.

Figure 3 represents the apparatus rigged, with the breeches buoy hauled off to the ship.

If the breeches buoy be sent, let one man immediately get into it, thrusting his legs through the breeches. If the life car, remove the hatch, place as many persons in it as it will hold (four to six), and secure the hatch on the outside by the hatch bar and hook, signal as before and the buoy or car will be hauled ashore. This will be repeated until all are landed. On the last trip of the life car the hatch must be secured by the inside hatch bar.

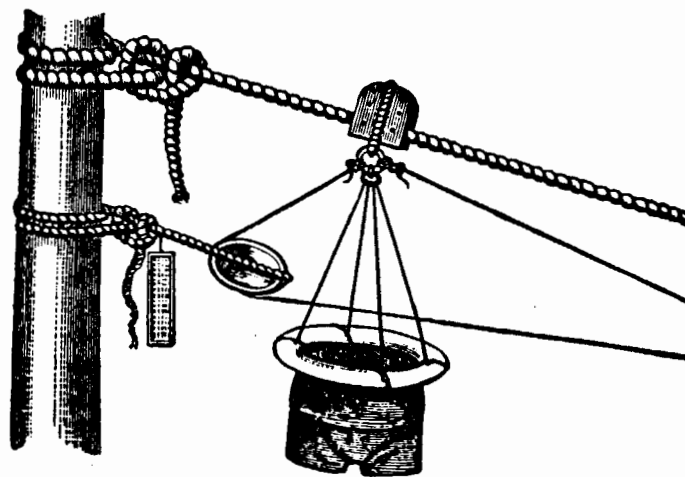


Figure 3.

In many instances two men can be landed in the breeches buoy at the same time, by each putting a leg through a leg of the breeches and holding on to the lifts of the buoy.

Children, when brought ashore by the buoy, should be in the arms of elder persons or securely lashed to the buoy. Women and children should be landed first.

In signaling, as directed in the foregoing instructions, if in the daytime, let one man separate himself from the rest and swing his hat, a handkerchief, or his hand; if at night the showing of a light, and concealing it once or twice, will be understood; and like signals will be made from the shore.

Circumstances may arise, owing to the strength or set of the longshore current, or the danger of the wreck breaking up immediately, when it would be impossible to send off the hawser. In such a case a breeches buoy or life car will be hauled off instead by the whip, or sent off to you by the shot line, and you will be hauled ashore through the surf.

If your vessel is stranded during the night and discovered by the patrolman, which you will know by his burning a brilliant red light, keep a bright lookout for signs of the arrival of the life-saving crew abreast of your vessel.

From one to four hours may intervene between the burning of the light and their arrival, as the patrolman may have to return to his station, perhaps three or four miles distant, and the life-saving crew draw the apparatus or surfboat through the sand or over bad roads to the place where your vessel is stranded.

Lights on the beach will indicate their arrival, and the sound of cannon firing from the shore may be taken as evidence that a line has been fired across your vessel. Therefore, upon hearing the cannon, make strict search aloft, fore and aft, for the shot line, for it is almost certain to be there. Though the movements of the life-saving crew may not be perceptible to you, owing to the darkness, your ship will be a good mark for the men experienced in the use of the wreck gun, and the first shot seldom fails.

Recapitulation.

Remain by the wreck until assistance arrives from the shore, unless your vessel shows signs of immediately breaking up.

If not discovered immediately by the patrol, burn rockets, flare-up or other lights, or, if the weather be foggy, fire guns.

Take particular care that there are no turns of the whip line round the hawser before making the hawser fast.

Send the women, children, helpless persons, and passengers ashore first.

Make yourself thoroughly familiar with these instructions, and remember that on your coolness and strict attention to them will greatly depend the chances of bringing you and your people safely to land.

APPENDIX E

Beach Apparatus Drill.¹

From United States Coast Guard, Beach-Apparatus Drill
(Washington: Government Printing Office, 1918), pp. 3-24.

Beach-apparatus drill shall be so far as practicable precisely the same as at a wreck, using the apparatus on the beach cart. The drill shall consist in the mustering of the crew, the recital by each member of his particular duties, the rigging of the gear over a distance of approximately 75 yards from the sand anchor to the wreck pole, and the carrying out of the drill as prescribed. If practicable, the range from the gun to the wreck pole should be across water. Powder must be used in every case unless the supply on hand is reduced to 3 pounds, in which case the district superintendent shall be notified. The use of small practice gear is forbidden. A short whip and hawser of regulation size will be allowed, but in every other respect the gear shall be of service size and kind. When a practice shot line is used, it shall be removed from the pins and fired from the box precisely as in actual service. Once each quarter the regulation gear on the service beach cart shall be used. The sand anchor shall be securely buried at every drill and a man landed in the buoy. A post of ready-buried anchor shall not be used except where absolutely unavoidable.

Beach-apparatus drill shall be held twice each week during the first month after a station is placed in commission, and once each week thereafter.

Practice with the life car shall be substituted for that with the breeches buoy at least twice each year. The car must be examined for leaks after each practice.

The hawser cutter shall be bent on ready for hauling off once each month, but the hawser shall not be cut. The keeper shall, when advisable, demonstrate the use of the hawser cutter by bending it onto a condemned line or hawser and cutting it.

The senior petty officer and No. 2 shall on alternate months conduct the drill once, taking the keeper's place, the keeper falling out. When the senior petty officer conducts the drill, he performs his own duties and those of keeper assisted by No. 2; No. 2 performs his regular duties and assists No. 1. When No. 2 conducts the drill he performs the duties of keeper and of No. 1, assisted by No. 1; No. 1 performs the regular duties of No. 2, and assists No. 2. At such drills each of the other men will perform his regular duties.

1. These regulations have been so framed as to be applicable both to drill and to actual service at decks.

At each drill the person in charge shall note the time elapsing from the moment the command "Action" is given until the man is landed at the crotch. This time, and the distance of the sand anchor from the pole, shall be noted in the log.

Words of command:

Open boat-room doors--Man the beach cart.
Forward.
Halt.
Action.
Man lee whip--haul off.
Man weather whip--haul ashore.

"Open Boat-Room Doors--Man the Beach Cart."

(1) Nos. 5 and 6 open and secure the boat-room doors. If necessary to run the boat out, Nos. 1 and 2 ship the pole or shafts of the boat wagon; No. 1 holding the pole, No. 2 inserting the bolt. The crew run out the boat, No. 1 and No. 2 guiding the pole. The men then take their stations at the beach cart, face to the front with the drag ropes over their shoulders, as shown in figure 1.

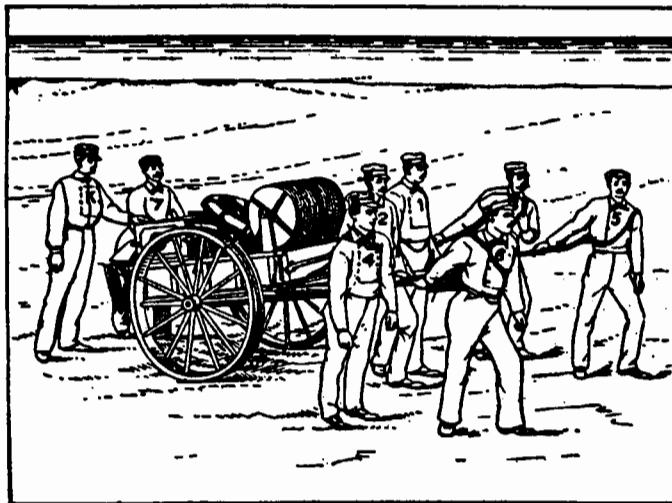


Fig. 1.--Man the beach cart.

(2) The keeper before giving the command "Forward" will muster the crew, and each man upon his number being called will make the hand salute and recite his duties as given below.

Keeper.--Has general supervision; selects place to bury sand anchor and position for gun; places firing plank,¹ if one is used; places gun in position; provides cartridge, primer, and lanyard; loads and sights gun and determines elevation with the level; pricks cartridge, primes, and fires gun; signals the wreck to haul off whip; lights hawser to the surf; hitches whip around neck of buoy block and bends buoy-bridle to whip; raises center of crotch.

(3) No. 1.--Assist keeper to place gun in position; provide shot and hold for No. 2 to bend shot line to, then insert shot in bore; train gun;¹ bend shot line around whip; attend left part of whip; if on lee side, bend whip to hawser; hold breeches buoy block while keeper bends on whip, and then snap block on hawser; man fall and left leg of crotch.

(4) No. 2.--Place shot-line box in position; bend shot line into shot; train gun;¹ take a half-hitch with shot line over tail of whip block; attend right part of whip; if on lee side, bend whip to hawser, hold breeches-buoy block while keeper bends on whip, then snap block on hawser; man fall and right leg of crotch.

(5) No. 3.--Place shot-line box in position; stretch tackle (outer block); haul whip from reel while it is being hauled off to the wreck, and if on lee side do the same while hawser is being hauled off; haul in slack of hawser; bend strap or chain tail for outer block of tackle; man fall and left leg of crotch; am shifting man on whip.

(6) No. 4.--Unload buoy from cart; place crotch, hawser, and buoy in position; stretch tackle and hook inner block into sand-anchor pennant; haul whip from reel while it is being hauled off to the wreck, and if on lee side do the same while hawser is being hauled off; haul in slack of hawser; hook outer block of tackle; man fall and right leg of crotch; am shifting man on whip.

(7) No. 5.--Open and secure boat-room doors; unload sand-anchor, shovels, and pick, and bury sand anchor; man weather part of whip when hauling off hawser; haul in slack of hawser, hook inner block if pennant block is used; man and belay fall; am shifting man on whip.

(8) No. 6.--Open and secure boat-room doors; unload sand-anchor, shovels, and pick, and bury sand anchor; man weather part of whip when hauling off hawser; haul in slack of hawser, snatch hawser and make cat's-paw if pennant block is used; man fall and center of crotch; am shifting man on whip.

(9) No. 7.--In drill go to wreck pole; in service unload shovels and pick, and assist to bury sand anchor; man weather part of whip when hauling off hawser; haul in slack of hawser; man fall and center of crotch; am shifting man on whip.

1. If firing plank is used, keeper himself will train gun.

(10) If the crew consists of a keeper and eight men, No. 8, at drill, will go to the wreck pole instead of No. 7; in service his duties will be the same as those of No. 7.

"Forward."

The beach cart will be hauled from the station to the wreck. When going down the skids or any steep declivity Nos. 1 and 2 will guide the cart, while Nos. 3, 4, 5, and 6 hold back on the drag ropes. (See fig. 2.)



Fig. 2.--Holding back.

"Halt."

The keeper will direct the cart to be placed between the surf and the spot he selects for the sand anchor and a few yards to windward (current), the cart facing the surf. (See fig. 3.)

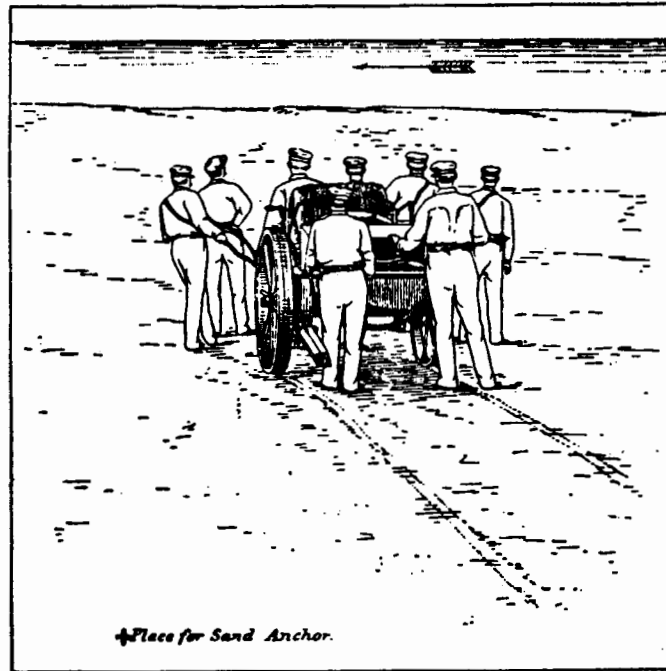


Fig. 3.--Halt.

"Action."

The relative positions assumed by the men for the purpose of placing the apparatus are shown by figure 4. The current is supposed to be running from the right, as shown by the arrow.

Keeper puts on his haversack; No. 4 throws buoy off the cart; Nos. 5, 6, and 7 unload the shovels, pick, and sand anchor, and proceed at once to bury the sand anchor where directed by the keeper. The sand anchor must be opened, its sides at right angles to each other, and buried upon its flat in a narrow trench of sufficient depth, say 2 feet, and the trench then filled in solidly about it. Nos. 2 and 3 remove the shot-line box. Keeper and No. 1 remove the gun, and place it in position four or five paces to windward of the cart; Nos. 2 and 3 place the shot-line box, inverted, on a line with the muzzle of the gun, and 3 feet to windward (wind), unless the wind is directly on shore, when they will place it to the right, and, after lifting the pins clear of the line, will cant the box in the direction of the wreck.

If through carelessness the shot line has been faked too tightly upon the pins, it should not be forced off the pins by the bottom board, which is liable to split, but the frame should be raised and a few of the bottom fakes removed with the hand, when the remainder will fall off into its place in the box.



Fig. 4.--Relative positions of men while placing apparatus.

Keeper loads with cartridge, No. 1 provides the shot, wipes and holds it while No. 2 wets a fathom of the shot line and bends it into the shank with three half hitches. No. 1 then inserts the shot into the bore from side to gun, forcing it gently but firmly down upon the charge without disturbing the fakes and without any slack line between the gun and the shot-line box.

Nos. 1 and 2 take position on their knees on the left and right side of the gun, respectively, and train the muzzle to the right or left by the rear handles, as directed by the keeper, who pricks the cartridge, leaving the priming wire in the vent, steps 2 or 3 yards to the rear, sights over the gun, and commands "Right," "Left," or "Well," as required, giving his orders in a sharp, distinct tone.

The lateral training obtained, due allowance being made for the wind, the keeper gives the gun the necessary elevation with the combination level, withdraws the priming wire, inserts the primer, bending the loop at a right angle to the tube, hooks the lanyard into the loop, stands off on the weather side, gives the cautionary word "Ready," and fires.

When firing the gun, the keeper reeves the lanyard through the rear handle of the carriage and gives a sharp, strong pull in a direction below the level of the vent, to avoid disturbing the elevation.

In the meanwhile No. 4 unloads and carries the crotch to a point on a line between the sand anchor and wreck, at a suitable distance from the

water, on the bluff of the bank, if possible, and opens it wide, span on the left, the legs forming a straight line parallel with the beach, and then carries the breeches buoy and end of hawser to a point in front of the crotch, and as near the water as possible. If the wooden buoy block is used, he reeves the end of the hawser through it and attaches the tally board.

Nos. 3 and 4 stretch the tackle from the sand anchor toward the crotch (3 at outer block, 4 at inner or white block), remove the straps, leaving it clear and ready to be placed upon the hawser.

If a threefold tackle is used, No. 4 hooks the inner (white) block into the sand-anchor pennant.

Communication being made with the wreck, No. 1 takes a round turn and two half hitches with the shot line around both parts of the whip immediately behind the block, while No. 2 makes a half hitch over the end of the tail of whip block with the bight of the shot line. (See fig. 5.)

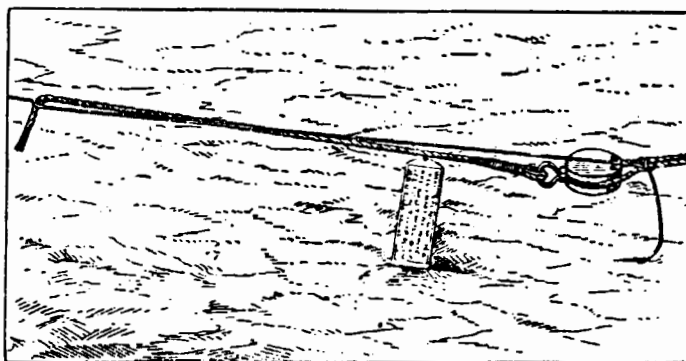


Fig. 5.--Manner in which shot line is bent to whip and tail.

Fig. 6 shows the position of the men and apparatus at this stage.

The keeper makes a signal to the wreck to haul on board; No. 1 tends to the left and No. 2 the right part of the whip, separating them a distance of 50 or more yards; Nos. 3 and 4 haul the whip from the reel as fast as it is needed, No. 3 standing on the left, No. 4 on the right. (See fig. 7.)

When the tail block has been made fast on board the wreck, the lee man (No. 1 or No. 2) bends the bight of the lee part of the whip to the hawser just inside the tally board, with a round turn around the hawser and a half hitch around the standing part of the whip, the end of the

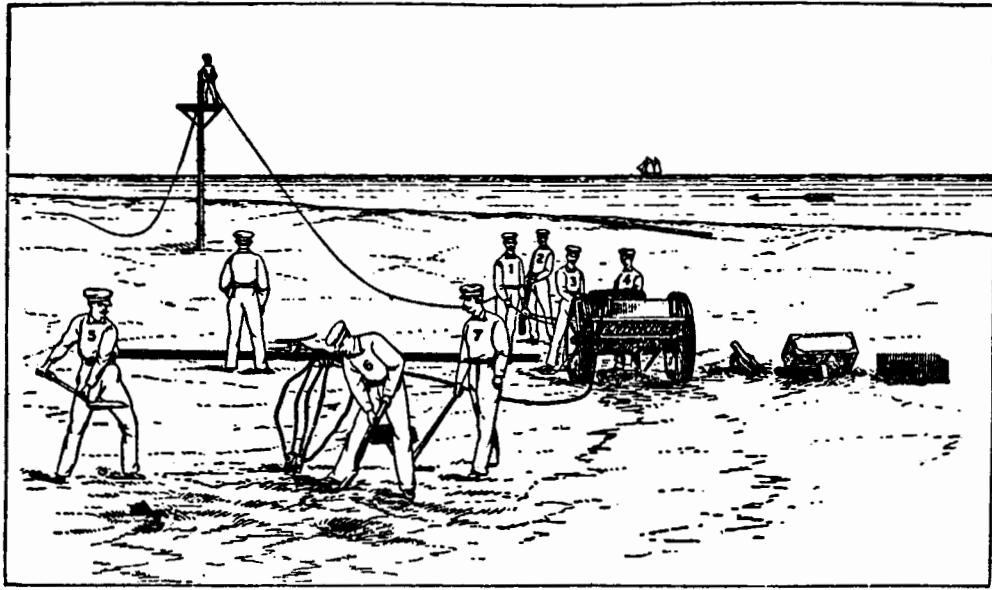


Fig. 6.--Positions when shot line is bent to whip.

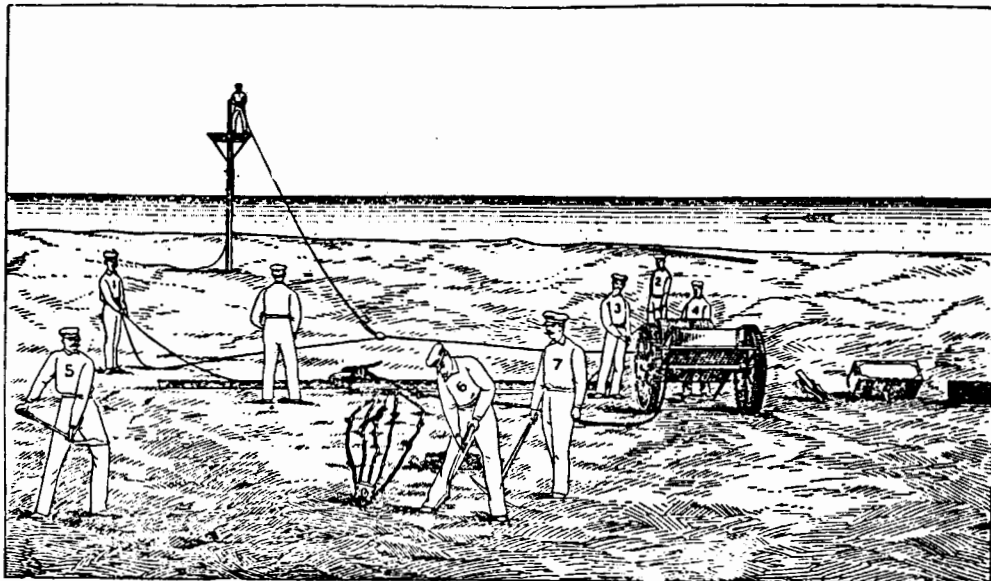


Fig. 7.--Hauling off whip.

hawser hanging loose. Figure 8 shows the method of bending the lee part of the whip to the hawser.

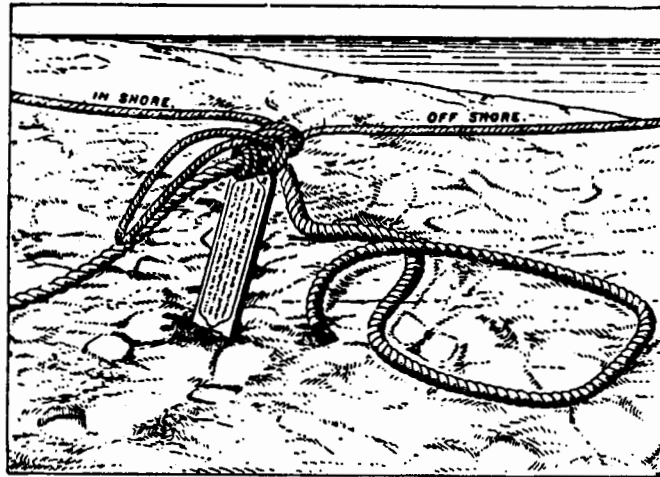


Fig. 8.--Manner in which bight of whip is bent to hawser.

The men man the weather part of the whip, excepting the lee man (No. 1 or No. 2), who tends the lee part of the whip, keeping it clear of the hawser, which will drift to leeward of it, and the lee man (No. 3 or No. 4), who hauls the whip from the reel. The keeper hauls the hawser from the cart and lights it to the surf. (See fig. 9.)

The hawser having reached the wreck the lee man (No. 1 or No. 2) holds the breeches-buoy block while the keeper throws over it a clove hitch with the bight of the weather part of the whip, and hauls it snug around the neck. The block is then snapped on the hawser by the holder, and the keeper bends the buoy bridle into the whip, inshore of the buoy, with a bowline knot.

If the wooden buoy block is used, the buoy is passed down through the loops of the clove hitch and the hitch hauled very snug around the neck of the block. (See fig. 10.)

When a threefold purchase is used, the pennant block is dispensed with, and as soon as the hawser is made fast to the wreck the men who have been manning the weather part of the whip haul in the slack of the hawser, No. 5 holding the turn around the sand-anchor pennant or pennant cleat, No. 3 adjusting the strap or chain tail around the hawser, and No. 4 hooking the outer block of the tackle into the strap. The proper manner of adjusting the strap is shown in figure 11.

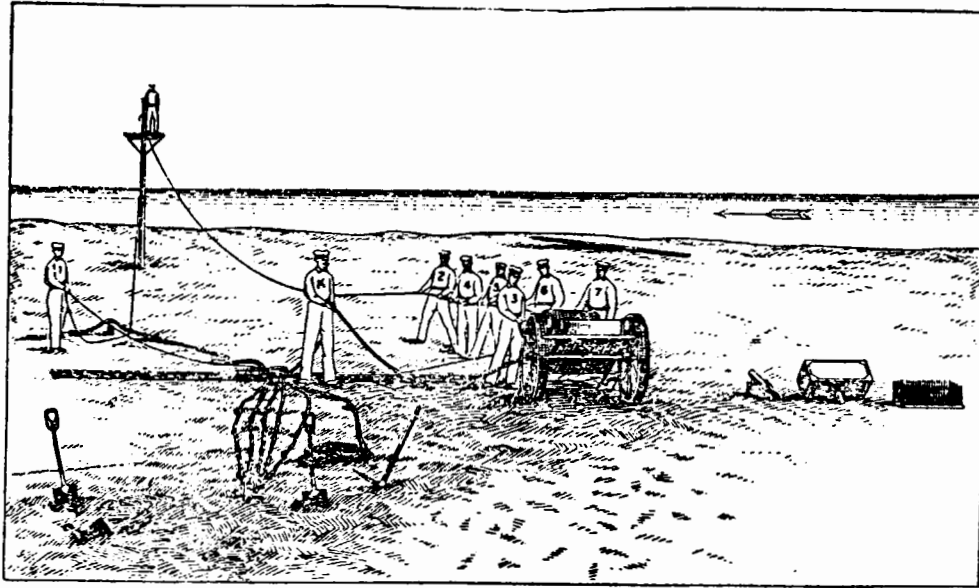


Fig. 9.--Hauling off hawser.

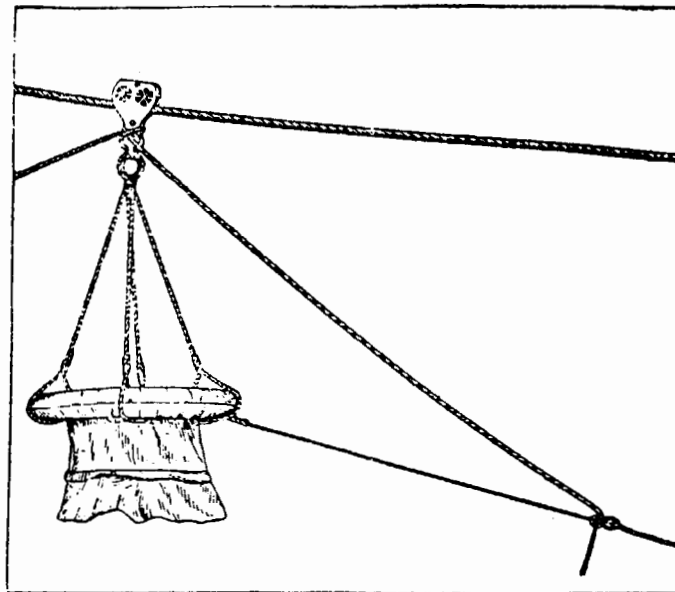


Fig. 10.--Manner in which whip is attached to breeches buoy.

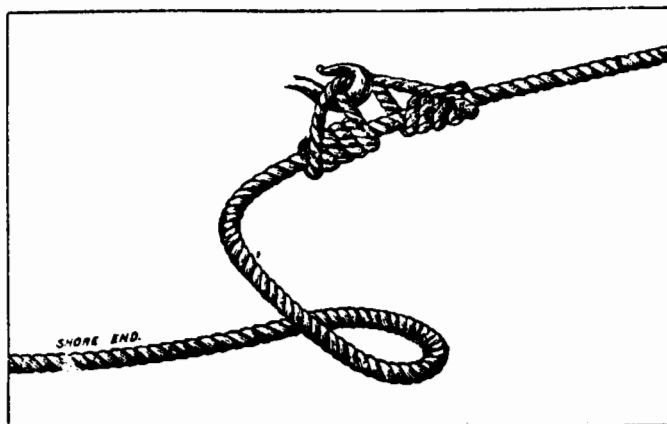


Fig. 11.--Manner of adjusting strap to hawser.

The hawser is then hauled moderately taut by the keeper and Nos. 1, 2, 3, 4, 5, 6, and 7. No. 5 takes a turn with the fall, while Nos. 3 and 1 at the heel of the left leg of the crotch, and Nos. 2 and 4 at the heel of the right leg, with the keeper and Nos. 6 and 7 in the center, raise the crotch by raising the center, bringing the heels as near together as necessary, No. 3 passing and securing the span. (See fig. 12.)

The crotch is inclined outward sufficiently to allow the hawser to be hauled well taut upon its gaining a perpendicular position.

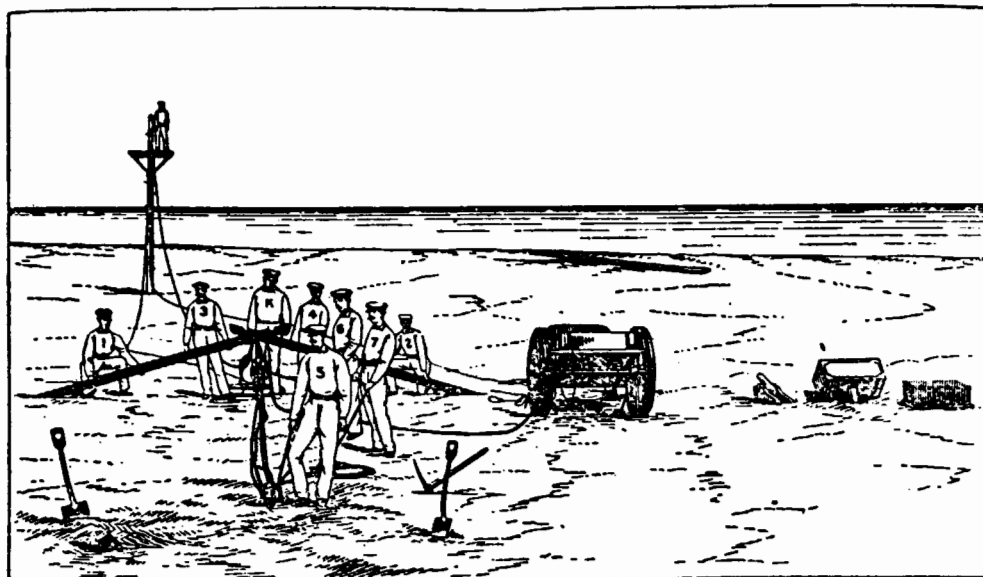


Fig. 12.--Raising the crotch.

The tackle is again manned and the hawser hauled taut, when the fall is belayed by No. 5 around the neck of the inner block or pennant cleat (being careful not to choke the luff), and the whip is manned. If it becomes necessary to fleet the threefold tackle when the pennant block is not used, No. 5 takes a turn with the hawser around the sand-anchor pennant or pennant cleat, No. 3 fleets the strap, and No. 4, with the necessary assistance, overhauls and hooks the outer block of the tackle.

To fleet tackle when pennant block is used, the keeper, with a strap and heaver, racks both parts of hawser together near pennant block, and the tackle is then overhauled and hooked by the men assigned to those duties.

When a twofold purchase and a pennant block are used, No. 6, as soon as the hawser is attached to the wreck, snatches the bight into the pennant block and locks it, and the men on the weather part of the whip haul in the slack of the hawser, when Nos. 3, 4, 5, and 6 put the tackle on, Nos. 3 and 4 at the outer block, No. 3 with the strap, Nos. 5 and 6 at the inner block, No. 6 making a cat's-paw in the hauling part of the hawser, into which Nos. 5 and 6 hook the inner block.

"Man Lee Whip--Haul Off."

Nos. 1 and 2 have charge of the left and right side of the whip, respectively. Nos. 3, 4, 5, 6, and 7 are shifting men, man the lee part, and haul the buoy off to the wreck. (See fig. 13.)



Fig. 13.--Man lee whip--haul off.

"Man Weather Whip--Haul Ashore."

Nos. 3, 4, 5, 6, and 7 shift to the weather part of the whip and haul ashore, the keeper superintending and assisting when necessary. (See fig. 14.)

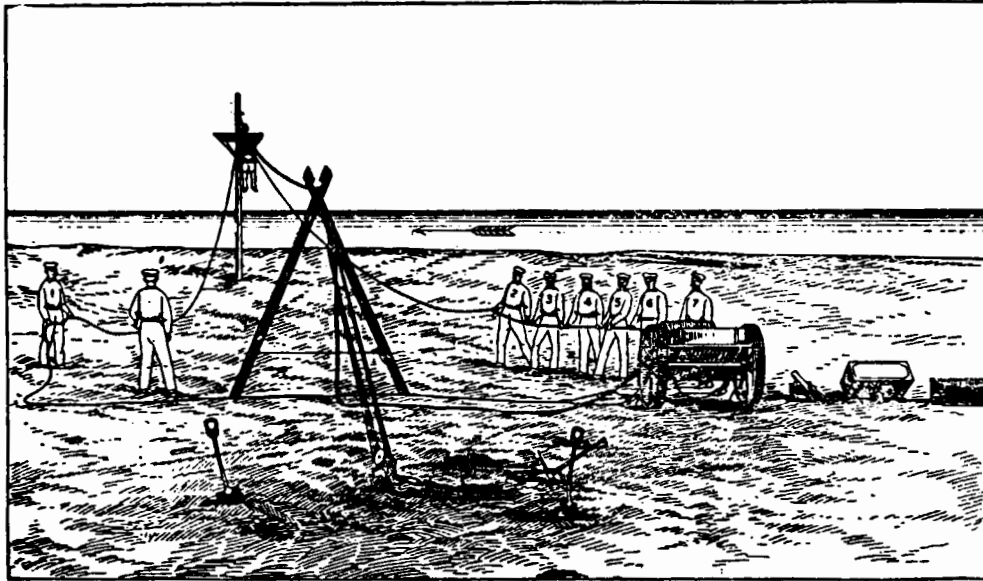


Fig. 14.--Man weather whip--haul ashore.

The keeper and No. 7 assist the rescued persons out of the buoy when they reach the shore.

Odd numbers are on the left, even numbers are on the right when stationed at the beach cart; and throughout the exercise, when two numbers work in company, as in training the gun, tending the whip, hauling the whip from the reel, etc., the odd number is on the left, the even number on the right.

The exercise must be considered as a whole, and when a man has performed a duty he will proceed to execute the next assigned him. All must work together. While the keeper and Nos. 1 and 2 are opening communication with the gun and shot line, Nos. 3, 4, 5, and 6 will have the hawser and its connections ready for sending off and hauling taut.

When practicing, No. 6 or No. 7 will go to the wreck pole as soon as the gun is discharged, and haul off and make fast the whip and hawser.

When the individuals of the crew have become expert in the performance of their several special duties, they are, in drill, to be successively transferred, temporarily, to the performance of the duties of each of the other members, until every man becomes proficient in the particular duties of every position. This change is effected by making each man, except the keeper, shift his station at the beach cart one place, proceeding in the same direction as the hands of a watch move. Thus, in the first change, No. 7 acts as No. 1, No. 1 as No. 3, No. 3 as No. 5, No. 5 as No. 6, No. 6 as No. 4, No. 4 as No. 2, and No. 2 as No. 7. (See fig. 1.)

In many instances, after communication is made with a wreck, as many as two or three hundred yards of shot line will be left in the box. The keeper must be governed by circumstances as to the best method of handling the surplus line. If there is no danger of the wreck going to pieces, the spare line may be hauled on board the wreck, the shore end being bent around the whip; but where great haste is necessary it must be cut.

In service at a wreck the bight of the shot line should not be bent around the whip, as the portion inshore is liable to foul the whip.

Instances may occur when a wreck is breaking up rapidly, and there is not sufficient time to send off the whip and hawser, or the crew are too much exhausted to haul the gear off. In such cases, after communication is made by means of the shot line, that line should be cut, and the shore end bent to a single part of the whip; when the end of the whip has reached the wreck, the bight of the whip should be bent into the slings of the buoy (block removed) so that the buoy may be pulled off through the surf by the people on the wreck.

Work can be facilitated if, after the gear is set up and in working order, a good man from one of the adjacent crews be sent off to the wreck in the breeches buoy to superintend the work at the end, assist the people into the buoy, etc.

When more than one crew are present, the adjacent crews will assist in hauling off and setting up the hawser, hauling the buoy off and on, and assisting the people from it.

Keepers are particularly directed to allow no interference in the management of the apparatus from outside parties, but may accept their assistance in hauling on ropes, etc.

When the life car is to be used in drill, where the drill ground is over water, it should be substituted for the breeches buoy and be hauled to and from the wreck pole upon the hawser in the same manner as the buoy, the hawser being rove through the eye of each bail and the whip line made fast to the bails as follows: Take two half hitches with a bight of the whip around the outer bail under the eye, carry the whip to the inner bail and make it fast with at as before, having the bail upright, and the whip between them taut, for a span. In addition to this, the

practice at a drill should include the hauling of the car back and forth through the water as follows:

The shot line having fallen over the wreck pole, bend the whip line into the rings at the ends of the life car in the same manner as described above, except that the line between the rings should be left sufficiently slack not to obstruct the hatch of the car. The car should then be hauled back and forth over the water. This maneuver should be repeated two or three times. Where this can not be done on account of the absence of water at the drill ground, two men will go out in the surfboat and anchor it at the usual practice distance from shore. The line will then be fired across the boat, and the drill will be carried out as last above directed.

To Load the Beach Cart.

The crews are not to be exercised in loading the carts expeditiously, but rather in compactly stowing the apparatus, following the instructions herein contained.

The apparatus must be placed upon the cart in the following order:

The reel is to be unshipped. One man lights along the hawser while four men, one at each corner of the cart, proceed to coil it down, right-handed and from the outside toward the center, in a Flemish coil. Having completed the first layer, carry the bight to the outside of the coil and coil toward the center again. This is done in order that the hawser, when in use, may run from the center of the coil.

Tally board No. 2 is to be spliced or bent on the top end of the hawser and stowed away in the center of the coil.

Ship the reel, reeve the whip through the tail block, make each end of the whip fast with a slight stop at each side of the reel, and reel up, working toward the middle of the spindle; when both parts meet, work back to the end, and so on until the whip is on the reel, when the tail block will hang in the middle of the whip over the front of the reel.

Tally board No. 1 is to be spliced permanently into the tail of the whip block just above the splice.

The inner block, or that next the sand anchor, should be painted white, the outer one left bright. The tackle is to be overhauled its full length, and a strap placed around all parts of the fall, under each block. The outer block is to be placed under the reel, on the left side, and all parts of the fall, coiled right-handed around upon the hawser, laying them down flat, leaving off with the inner block under the reel, opposite the first.

The gun is to be placed athwart the hawser, immediately over the axle, muzzle to the right. Stops, 3 feet long, are spliced into the top of the sides of the cart body, and are made fast through the front and rear handles of the right side of the gun carriage.

Shot-line box, A, containing No. 9 line, is to be placed across the cart in the rear of the gun, filling the space between the gun and the tailboard. Stops, 3 feet in length, are spliced into the top of the sides of the cart body, and are made fast into the handles of the shot-line box, and No. 7 and No. 4 lines in their respective boxes are secured on top of all.

The shot lines must be faked, as shown in the diagram (fig. 15), and hauled as closely around the pins as can be done without springing them.

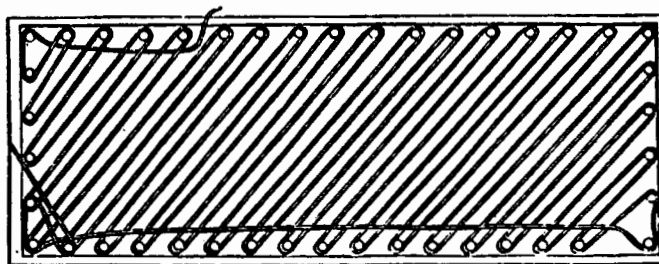


Fig. 15.--Method of faking the shot line.

The rammer is to be placed between the gun and the shot-line box.

The tailboard is cut away sufficiently on the top under the rails to admit of its being raised to drive under the tailboard and hawser two pieces of wood, one-half inch thick, 2 inches wide, and 3 feet long, one on each side, leaving 4 inches projecting. The sand anchor is to be placed across the rear end of the cart, upon its edge, resting upon these projecting pieces, the pennant hooked into it and moused.

The stops spliced into the eyes of the tailboard rods are to be passed down outside of the anchor, around the horns of the cross frame of the cart body, back, up outside the anchor, and made fast in the eye again.

The pennant is to be kept up in place by the same stops. The sharp point of the pickax is to be struck between the sand anchor and the tailboard, on the left side, the handle to the right, the point of the pick resting upon the sand-anchor support.

The loops of the shovel handles are to be placed over the upper horn of the pick, blades of the shovels to the right, and kept in place

by a stop spliced around the right rear brace of the cart body and brought up over and around the shovel handles.

A 3/4-inch hole is bored through both legs of the crotch at a distance from the bolt equal to the extreme length of the cart. A span of 1½-inch rope, 3 fathoms long, is spliced into one of these holes. The crotch is to be secured under the cart on the left side by taking a half hitch around both legs with this span, making the span fast around the horn of the after crosspiece of the cart body, the head of the crotch being made fast at the breast piece with a two-legged stop spliced there for that purpose.

Three shot and a heaving stick and line are to be placed upon the hawser, in front of the gun, a piece of bagging being put under them.

Upon the gun there is to be placed the haversack, containing three 6-ounce, three 5-ounce, and three 4-ounce cartridges, filled and marked, and two dozen primers.

The breeches buoy is to be laid upon its flat, resting upon the reel and gun. The speaking trumpet is to be hung over the left headboard rod.

The gun work and ax are to be hung in leather becketts on the left and right sides of the cart body, respectively.

The tarpauling, stopped at the corners and sides, is to be spread over all.

A water light shall always be carried, suspended from the underside of the cart. A life preserver also shall be carried on the cart for the use of the man who might be sent into the surf with the lines. Signal flags shall be becketed underneath the beach cart and a lantern shall be carried suspended from the underside of the cart.

Loaded as above, the reel stanchions placed 6 inches from the headboard, the cart should exactly balance. If, through difference in size and weight of crotch and sand anchor the cart does not balance, it can be adjusted by moving the gun a few inches forward or aft.

While standing in the house the cart should have a support under the center of the axle.

Hawser Cutter.

After the crew is landed from a stranded vessel, it may be necessary to detach the hawser from the wreck, either for the purpose of using it elsewhere or because the wreck is rapidly breaking up. In either case the hawser cutter should be used. To do this, the breeches

buoy is first removed, and then, facing the wreck, and standing on the left of the hawser, the cutter is placed upon it by grasping it, as shown in figure 16, the white end of the cutter being inshore, the eyes of the knives inclined toward the wreck. The cutter is then closed and the clasp secured.

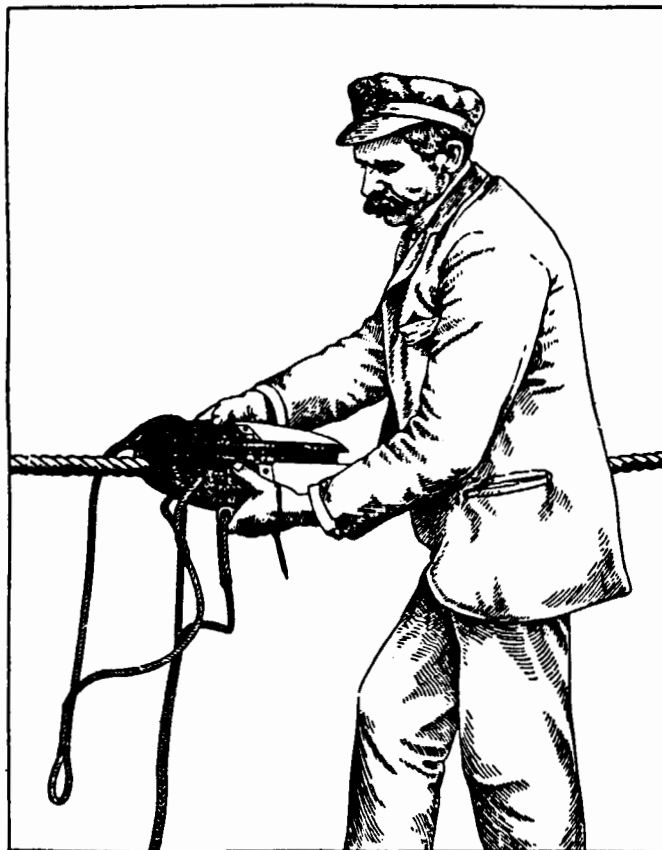


Fig. 16.--Applying hawser cutter.

The becket in the outer end of the cutter should have two eyes formed in the bight by passing a seizing around both parts, 2 inches from the bight, and a second seizing 2 inches from the first. The method of bending the whip to the hawser cutter is as follows (see fig. 17):

Bend a bight of the weather part of the whip into the outer eye of the becket, leading from the outer end of the cutter, with a sheet bend, as at A, and the tail of the knife lanyards into another bight of the same part of the whip, with a bowline knot, B, allowing sufficient slack line, C (say 2 fathoms), to permit the knives to work.

About 2 feet inshore of the last knot, take up another bight, D, of the whip, and pass it up through the second eye in the outer becket, toggling it with another bight, E. This transfers the weight of the whip

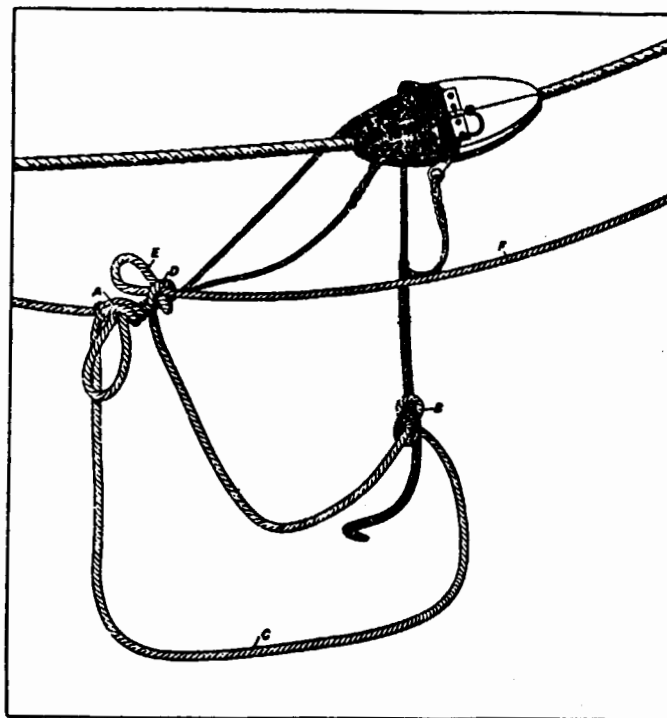


Fig. 17.--Hawser cutter arranged for hauling off.

from the knives to the becket, thus relieving the hawser from their pressure while the cutter is being hauled off to the wreck.

Haul the cutter out as close as possible to the spar to which the hawser is secured, letting the part of the whip, F, fast to the knives, hang as loosely as possible.

When the cutter reaches the spar, hold fast to the hauling-out part, haul on the hauling-in part, F, attached to the knives, which will remove the toggle bight E, freeing bight D from the eye, allowing the strain to come on the knives, which will cut the hawser.

Haul the hawser in as quickly as possible, to prevent its unlaying. Haul back, and unbend the whip from the cutter. Unreeve the whip. Keep the knives sharp, and all ironwork of the cutter oiled.

The beach-apparatus drill is arranged for a keeper and seven men. When the complement of a station exceeds that number each additional surfman shall be assigned to assist one of the regular crew at the drill, beginning with No. 3. Thus, the man whose watch number is 8 will assist No. 3, the one whose watch number is 9 will assist No. 4, No. 10 will assist No. 5, etc. Each man so detailed to assist a member of the regular crew shall be required to perfect himself in the duties of the man he is detailed to assist and shall perform those duties in the absence of that man.

APPENDIX F

Rescue Operations Involving the Little Kinnakeet Life-Saving Station, 1881-1911

The following descriptions of operations in which the crew of the Little Kinnakeet Station took an active part are drawn from accounts and testimonials published in the applicable annual reports of the Life-Saving Service, as cited below.

1881

October 5.--At 11 A.M., during the prevalence of a heavy gale from the north-northeast, the weather being squally and thick, the lookout at Station No. 20, Sixth District (Little Kinnakeet, North Carolina), sighted a small schooner under close-reefed foresail and jib scudding down the coast before the wind. When nearly abreast of the station she was observed to haul in towards the land, as though it was intended to beach her. The life-saving crew at once started out with their apparatus to her assistance. When near the surf another schooner was seen coming from the northward and also apparently edging in towards the beach. The first schooner, which proved to be the Charles, 33 tons register, of Beaufort, North Carolina, struck about a mile south of the station soon after the life-saving crew got out. She went head on with the seas sweeping her deck from one end to the other, and did not fetch up until almost high and dry. The surfmen pushed forward with all the haste possible, and in a few minutes were abreast of the vessel. She was so well up that one of the surfmen waded out with the whip-line until he was waist-deep in the surf, and then grasping the gear of the martingale managed to climb on board and make the tail-block fast to the foremast, for the purpose of aiding the landing of her crew. Three persons were on board--two men and a boy. They refused to leave the vessel until their effects could be gathered together, the captain descending to the cabin and locking himself in. There was no time for parleying, as the other schooner was fast nearing the breakers and the life-saving crew must proceed to her as quickly as possible. The captain was therefore informed that if he desired the assistance of the station crew it must be accepted at once. This brought him to reason, and he and his crew were soon transferred to the shore and conducted to the station. The Charles was from Broad Creek, Neuse River, North Carolina, bound to Baltimore, Maryland, with a cargo of lumber. The captain reported encountering the first of the gale the night previous when to the northward, abreast of Currituck Beach light, and that he had lost his yawl and most of the deck-load, besides springing the fore-gaff. By the time the latter was repaired so as to carry sail on it the storm had increased to such severity that he was compelled to run before it and ultimately to beach the vessel to save himself and crew. The hull of the schooner being uninjured the captain subsequently contracted with a party to haul her

across the beach and launch her in Pamlico Sound, and thus saved his vessel, he and his crew receiving shelter at the station while the work was going on.

October 5.--By the time the crew of the Charles were safely ashore, the schooner which the life-saving crew had seen coming down the coast astern of her had also stranded about a quarter of a mile south of the station. She struck the bar at about noon. The life-saving crew (No. 20, Sixth District) hurried towards her as quickly as the bad condition of the beach would permit, the water in some places being almost knee-deep at the foot of the beach hills, well above ordinary high-water mark. To add to the difficulties of travel the wind blew a furious gale right in their teeth. As afterwards learned, the schooner was the H.W. McColly, of New York, 111 tons measurement, bound from Broad Creek, Neuse River, North Carolina, for Philadelphia, with a full cargo of pine lumber. Her crew numbered five men, all told. Like the Charles, she had encountered the first outburst of the gale the previous night, when far to the northward, and by morning had lost most of her sails, part of the deck-load, and was leaking badly. In this condition she was run ashore, having scudded before the gale until it became no longer safe to do so; her captain, from his knowledge of the coast and of the existence of life-saving stations, realizing that it was the only chance he and his men had for their lives. The schooner brought up on the outer bar, about two hundred yards from the beach. She lay stern to the sea, which at once commenced breaking over her with such irresistible volume that the crew were compelled to take to the rigging for safety, the captain ascending at the main while the rest went up forward. By the time the life-saving crew arrived the sea and current had cut the vessel's stern around off-shore. The wreck-gun was soon placed in position and fired, the shot lodging the line across the end of the jib-boom. Watching their opportunity between the seas the men in the fore-rigging quickly descended and went out on the boom and secured the shot line, and by that means, after considerable difficulty, owing to the action of the current upon the lines, succeeded in getting hold of the whip, the tail-block of which, they made fast to the flying jib stay. The hawser was then sent off, and also made fast above the block. At this moment the crew of Station No. 21 arrived upon the scene, and with their assistance the hawser was quickly tautened, and everything arranged in working order for bringing the people ashore. While the life-saving crews were hauling the breeches-buoy off, however, an accident occurred which, as events proved, nearly resulted fatally. The schooner had during this time gradually swung around until her head pointed to the northward, thus bringing the jib, which remained set, flat aback. This had the effect of canting her bow off-shore and throwing her stern towards the beach, thus fouling the lines. The strain was too much for the hawser, as it stretched and surged, for after the men on the beach had slacked as much of it as they dared without letting go altogether it snapped in twain, the sudden jerk throwing the mate from the jib-boom into the surf. The man was at once swept by the current to the southward, along the shore. Seeing his peril, three surfmen quickly donned their cork life-belts and followed down the beach to a point some three hundred yards distant, where, by venturing out until the surf

actually broke over their heads, they succeeding [sic] in reaching him and bringing him safely ashore. He was pretty well exhausted when rescued but stoutly refused to go to the station for shelter until he could see his shipmates also safe on land. The schooner once started from where she first struck now began working along the bar to the southward and ere long the tail of the whip-block also parted, thus for the time completely severing connection with the beach. The life-saving crews quickly hauled the lines out of the surf, and after clearing them of turns and kinks reloaded the cart and moved along abreast of the schooner, watching an opportunity to again use the gun. It soon came and the line was once more dropped within reach of the people on board. At this time the schooner was lying parallel with the beach, head to the northward, having turned completely around since leaving her first position. The whip was again hauled off and the tail-block made fast as before, to the flying jib-stay. When this was done the beachmen, as a precautionary measure, sent off four life-preservers. Three of them were secured and put on by the steward and two seamen, who were thus made comparatively safe. The other life-preserver fouled in the wreckage alongside and was lost, leaving one man, the captain, without any. It was extremely fortunate that even three of the belts reached them, for they were scarcely in their possession when the schooner again swung around with the same result as before, viz. the parting of the line. At the time it broke one of the sailors had just started in an attempt to reach the beach hand over hand on the line. He was of course thrown into the surf, but by great good luck managed to retain his grasp until quickly drawn ashore by the life-saving crews. He was slightly injured by contact in the surf with floating lumber from the deck-load, but a little brandy from the medicine-chest soon revived him. As soon as the lines were rearranged, another shot was fired. The schooner changed her position so rapidly, however that the line fell beyond reach of those on board. It was quickly hauled back and the fourth fire dropped it once more over the head stays. In the mean time the vessel was fast becoming a wreck. The stern had been burst in and the water alongside and to leeward was thickly strewn with lumber and wreck stuff. Scarcely had the remaining men in the rigging secured the shot-line for the third time when it was cut by contact with floating wreckage. With praiseworthy perseverance the surfmen again hauled back the broken line, and, after changing it end for end, again shot it over the vessel's jib-boom. The bight of it, as the current swept it alongside, was secured by the sailors in the rigging, but they were so benumbed and stiff, and in such an awkward position, that their effort to haul out the whip-line failed. As the situation became more and more critical, the two men who had life-preservers on resolved to attempt swimming to the beach, leaving the captain alone in the rigging. They had scarcely left her when the schooner fell over on her side. It should be remembered that during all this time she had kept steadily in motion, preserving the same relative distance from the shore, with a mad whirl of waters between, which would have swamped any boat attempting to leave the beach. The two men, buoyed upon the crests of the waves by the cork-belts, gradually worked themselves shoreward and were at last thrown within reach of the surfmen, who, joining hands, waded out as far as possible, grasped them and carried them to the beach hills clear of

the swash of the water. One of them was insensible, but by the energetic application of the method in vogue in the Service for the resuscitation of apparently drowned persons he was soon brought to and taken to the nearest house for shelter. All but one, the captain, were now safe. He clung to the rigging, anxious, but evidently with stern determination, although the very loneliness of his position, surrounded by the terrible waters, was in itself appalling. At about half past 3, just as the life-saving crews were about to fire again in the hope of placing the line within reach, to haul him ashore by, the mainmast broke off and he was thrown into the surf. He exhibited rare coolness and presence of mind, and made a gallant and successful struggle; for quickly disengaging himself from the wreckage he clambered to the rail which was out of water, and thence by degrees reached the rigging of the foremast, which still remained intact. This movement was watched by the surfmen with intense interest, and as soon as he was again ensconced in the rigging the sixth and last shot was fired. At this juncture the man lost his hold and was swept out of sight, apparently under the wreck. His disappearance was but momentary, however, for to the great relief of those on the shore, he quickly reappeared on the surface amidst the fragments of timbers and planking, and catching at the first piece within reach flung his arms and legs around it with the grip of death or despair. By great good luck the piece of timber to which he clung was cast shoreward by the sea, and willing hands were ready to grasp him as soon as he was within reach. When drawn ashore he was insensible. He was at once taken to a place of shelter and by proper manipulation and the administration of the usual remedies was soon brought to consciousness.

Darkness had now overtaken them, and as soon as the men were able to travel the rescuers wended their way to their respective stations, the wrecked crew reaching No. 20 with the men of that station at about half past 8. Here, after changing their wet garments and partaking of warm food, all hands except those whose turn it was to patrol the beach, sought relief in much-needed rest after the excitement and exposure of such an eventful day. The crew of the McColly remained at the station several days until able to leave for their homes, their unfortunate craft having become a complete wreck. The crew of No. 20 thus had eight shipwrecked sailors on their hands, those of the Charles remaining until their vessel was floated off. It should be mentioned that one of the surfmen of No. 20 had a narrow escape while wading into the surf to the assistance of one of the sailors. He was knocked almost senseless by a piece of timber, and it was only with considerable difficulty that he was rescued by his comrades. The action of the crews of these two stations (Nos. 20 and 21) on this occasion was certainly very creditable, and to their perseverance under adverse circumstances, coupled with great gallantry in wading out into the surf at the peril of their own lives, is due the saving of all those on board the McColly.(1)

1. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1882 (Washington: Government Printing Office, 1883), pp. 96-100.

November 11.--At half past 5 in the morning, as the north patrol of the Gull Shoal Station (Sixth District), coast of North Carolina, was returning toward the station, he discovered the schooner Edward Stewart, of Bangor, Maine, from Turk's Island, West Indies, loaded with salt for Baltimore, Maryland, and having a crew of eight men, stranded two and a half miles north of the station. He signaled the people on the vessel by burning a Coston light which was replied to by the flashing of a lantern. The station crew on being alarmed proceeded to her with the surfboat, and on arriving on board at half past 6 went to work laying out anchors and cables to keep the vessel from driving further on the bar. The keeper then returned ashore and telegraphed for the crews of the Little Kinnakeet, Chicamicomico, and New Inlet Stations (all of the same District), telling them to bring all the shovels they could muster, and upon their arrival all set to work shoveling the salt overboard and heaving on the cables to get the schooner off. At 4 in the afternoon, the tide having flowed, the vessel was hove off the shoal and moved into deep water, and as soon as the anchors and cables were re-stowed the life-saving crews left her and she proceeded on her voyage.

The following acknowledgement of the services of the life-saving crews was subsequently received from the captain by the general superintendent:

"BALTIMORE, November 20, 1883.

"UNITED STATES LIFE-SAVING SERVICE, Washington, D.C.:

"GENTLEMEN: While on a voyage from Turk's Island to Baltimore, with a cargo of salt, in command of the schooner Edward Stewart, of Bangor, Maine, I had the misfortune to ground on Gull Island Shoal, coast of North Carolina, on the 11th at 5 A.M. I take great pleasure in making known to the Department that our call for assistance was promptly responded to by the keepers of the life-saving stations in the vicinity and their crews, and can add that through their indefatigable aid the schooner Edward Stewart was brought into deep water at 2 P.M. the same day. Without assistance from the shore, heavy losses would undoubtedly have been sustained by owners and myself.

"For these services I tender the Department my most sincere thanks, and politely request that the same be conveyed to Israel B. Midgett, keeper of Gull Shoal Station, and his crew; L.B. Midgett, keeper of the Chicamicomico Station, and his crew; E.O. Hooper, Keeper of the Little Kinnakeet Station, and to the keeper of New Inlet Station.

"The schooner Edward Stewart, after being floated, proceeded on her voyage to Baltimore, and arrived safely at 3 A.M. November 14, without apparent damage.

"I am, gentlemen, yours, respectfully,

"JOSEPH S. HARLOW,
"Master of Schooner Edward Stewart, of Bangor, Maine,"(2)

1885

December 12.--The small schooner H.P. Brown, of Hatteras, North Carolina, during a strong northeast wind with hazy weather, at about 8 o'clock in the morning of this date, ran on a reef in Pamlico Sound, three miles to the westward of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina. She was bound from Elizabeth City to Big Kinnakeet, in the before-mentioned State, with a cargo of fish and wood, and had a crew of five persons. The heavy seas were breaking over the vessel when the life saving crew reached her, thirty minutes after she struck. It was found that the oakum had worked out of some of her seams and that she was in a sinking condition. The surfmen proffered their services, which were gladly accepted by the captain, and at once busied themselves in cutting away part of the ceiling in the hold and stopping the leaks. They then ran out an anchor, and, at the third attempt, succeeded in floating her in smooth water. The station men labored unceasingly for seven hours before the desired result was attained, and the captain of the craft was heartfelt in his thanks for the aid rendered him.(3)

1887

February 5.--Shortly after 10 o'clock in the morning the crew of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina, manned a small boat and put off to the assistance of a schooner with a signal of distress flying, which was discovered ashore in Pamlico Sound about two miles and a half west-northwest of the station. She proved to be the Avoset, of Hatteras, bound light to Big Kinnakeet from Edenton, and had grounded at low tide the previous evening. The surfmen ran her anchor out to windward and took the crew of two men, who were without means of getting ashore, into their boat.

2. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1884 (Washington: Government Printing Office, 1885), pp. 144-45.

3. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1886 (Washington: Government Printing Office, 1887), p. 188.

February 5.--On their way back to the beach from assisting the vessel mentioned in the preceding case, the crew of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina, saw another schooner, which had been standing down the sound, strand while crossing what is called the outer reef, some two miles to the westward of the station. The life-saving crew hastened to board her and found that she was the Vennor, of New Berne, North Carolina, unladen, and bound between the same ports as the Avoset. Having been obliged to slip her anchors and chains on the previous day, during the prevalence of a high wind and sea, there was no way left of mooring her as she lay aground. The captain being dangerously sick and in need of medical attendance, the station crew lost no time in taking him and his two men ashore, where the latter were given the boat to convey the ailing man to his home at Big Kinnakeet. The vessel was subsequently floated, having sustained little or no damage.

February 13.--Shortly before 2 o'clock in the afternoon the crew of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina, went off to the assistance of a small schooner which was seen to strand in Pamlico Sound, about two miles west of the station. She proved to be the Fox, of Elizabeth City, unladen, on her way to Big Kinnakeet. The tide being low at the time all that could be done was to lay out an anchor to windward, after which the surfmen landed the crew of three men. The vessel subsequently got off without damage.

February 14.--At half-past 8 o'clock in the morning the lookout of the Little Kinnakeet Station, (Sixth District,) coast of North Carolina, reported a small schooner ashore in Pamlico Sound, some four miles northwest of the station, flying a signal distress. The life-saving crew manned a small boat and reached her in about an hour's time. She was found to be the Little Betty, of Hatteras, light, bound from Edenton to Big Kinnakeet, and in no immediate danger. The crew of two men, desiring to reach their homes, were taken ashore by the surfmen. Subsequently the vessel was floated off and proceeded in safety.(4)

1892

On February 22, 1892, the schooner Annie E. Pierce, of Somers Point, New Jersey, bound from Bogue Inlet, North Carolina, to New Bedford, Massachusetts, was beached by her master at a point two and one quarter miles south of the Little Kinnakeet Station, (Sixth District,) North Carolina, and the death of Alonzo Driscoll, the mate of the vessel, occurred in consequence. As the schooner came into view from seaward through the rain and mist of that stormy February morning, she was

4. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1887 (Washington: Government Printing Office, 1888), pp. 226, 227-28.

espied by a small boy, who called attention to her. At once the keeper saw from the direction she was steering the vessel would soon be aground, and he made immediate preparations to render assistance. The adjoining stations were spoken by telephone, and in response the keeper and crew of the Gull Shoal Station immediately repaired to the spot indicated, while the keeper of the Big Kinnakeet Station came with horses to assist in hauling the beach cart. In about three-quarters of an hour from the time the vessel was first seen the three life-saving crews were upon the beach near the vessel, which had stranded about one hundred and fifty yards out. Operations began forthwith, under the direction of the keeper of the Little Kinnakeet Station. Communication was soon established, and in less than an hour the entire crew were landed with the beach apparatus, excepting the mate, who had been killed by a heavy sea before the vessel stranded.

It appears from the testimony of the master that in the forenoon of the preceding date, when off Cape Henry, Virginia, the weather became thick and the wind came out from the northeast, increasing to the force of a gale and creating a rough sea. The vessel was then hove to under a close-reefed mainsail, and made good weather until the straps of the main sheet block suddenly parted, carrying away the main boom. This unfortunate accident made it necessary to run back down the coast before the wind, but finding that a course clear of the Hatteras Shoals could not be made, as the soundings on the morning of February 22 indicated that the current was sweeping the vessel toward the land, the master resolved to beach her as a final means of safety. The breakers were seen at about 11 o'clock, although the land was not then visible. Putting the helm to port, so as to run head on, the captain ordered all hands into the cabin, as the safest place when passing through the breakers. While going over the outer bar an immense sea broke over the stern, smashing the yawl and bursting into the cabin with terrific force. At this time the mate, Alonzo Driscoll, of Atlantic City, New Jersey, stood within the cabin holding the doors together, and was therefore directly in the path of the wave, which tore away the doors and sent one of them with fatal violence against him, to all appearances causing instant death. The crew rushed out of the cabin and climbed into the rigging. The captain followed, after hastily examining the mate; but while he was making his way forward the vessel was again swept by a sea, which left him helpless with a broken leg. By slow and painful movements he crawled to the cabin and remained there until two members of his crew placed him in the buoy, which by this time had been sent off. Upon landing, the captain was carefully wrapped in blankets and sent to the Little Kinnakeet Station in the keeper's cart, where he received all possible attention, the keeper doing the best he could with the appliances and remedies of the station medicine chest in dressing the injured limb and alleviating its pain.

The crew were also cared for at the station, where they remained for a period of nine days, until the state of the weather permitted their departure across the sound to the mainland. The isolation of the narrow strip of land on which the life-saving station is situated is such that no physician could be secured to give the captain needed treatment. Efforts were made to obtain surgical aid from the mainland, but the severe gale

and high sea which continued several days prevented until March 1, when the revenue cutter Winona, from Newbern, bearing a surgeon of the Marine-Hospital Service, reached the station in response to a dispatch from the Department. The master then received proper professional care, and on the following day was conveyed to Newbern on the cutter. The high surf prevented the launching of the boat until the third day after the occurrence of the wreck, when a successful trip was made to her, and the mate's body and the clothing of the crew were brought on shore. The body was prepared for burial at the station, and then carefully laid to rest in the cemetery of the neighborhood, after funeral ceremonies befitting the sad occasion, in the presence of his late comrades. The clothing supplied by the Women's National Relief Association was drawn upon for the urgent necessities of the master, as well as in preparing for burial the remains of the mate.

In addition to the many verbal expressions of gratitude for the kind attentions received while sojourning at the station, written statements were made by the master and crew of the lost vessel. A deposition, executed February 25, 1892, before Samuel R. Hazen, a notary public, previous to the official investigation of the unhappy accident is given below:

"We, the undersigned, captain and crew of the schooner Annie E. Pierce, which was wrecked near Little Kinnakeet Life-Saving Station, depose and say that the mate, Alonzo Driscoll, was instantly killed by the sea as the schooner was crossing the outer bar; also, just before the vessel stranded, the captain's leg was broken by the violence of the sea. This loss of life and injury to limb happened before the vessel struck the shore, and was in nowise the fault of the life-saving crew. We also state that the crew of the Little Kinnakeet Station were promptly on hand and rendered all possible assistance.

"JOSEPH R. SOMERS,
"RISLEY SOMERS,
"GEO. J. LODER,
"EDWARD DRISCOLL,

"Of the schooner Annie E. Pierce."(5)

1894

SCHOONER DAUNTLESS, December 20, 1894.

SIR: I wish to return my sincere thanks to the keepers and crews of Gull Shoal, Chicamonicomico, and Little Kinnakeet life-saving stations, and

5. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1892 (Government Printing Office, 1893), pp. 39-41.

especially to Captain D.M. Pugh and crew of Gull Shoal Station, Sixth District, for their prompt and speedy response to my appeal for assistance in getting the schooner Dauntless afloat, she having dragged her anchors and gone on the marsh about a half mile northwest of Gull Shoal Station in such a manner that, without the assistance of the life-saving force, it is impossible for me to say when I could have floated her. With many thanks, I am,

Yours, with respect,
Master of Schooner Dauntless, of Edenton, North Carolina.
GENERAL SUPERINTENDENT LIFE-SAVING SERVICE,
DAILY O'NEAL
Washington, D.C.(6)

1895

AVON, NORTH CAROLINA, February 14, 1895.

SIR: On February 14, I was logged up with ice off Hatteras Banks, about 3 miles from land and without assistance, and being in a dangerous position I hoisted my flag at 8 A.M. At 9.30 A.M. the keeper and crew of Little Kinnakeet Life-Saving Station were discovered beating their way through the ice, coming to my assistance. They reached me at 11 o'clock, almost exhausted, wet, and cold. They took me in their boat and proceeded to shore, which we safely but narrowly reached at 1 P.M.

To the keeper and crew of Little Kinnakeet I owe my life, knowing that had it not been for their heroic labor and risk in endeavoring to take me ashore, I surely must have perished in consequence of the cold and dangerous position in which I was placed.

In conclusion, allow me to congratulate them for their kindness.

I am, your obedient servant,

H.C. MILLER,
Master and Owner Sloope Inez, of Avon, North Carolina.
GENERAL SUPERINTENDENT UNITED STATES LIFE-SAVING SERVICE.(7)

6. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1895 (Washington: Government Printing Office, 1896), p. 234.

7. Ibid., p. 239.

1897

LITTLE KINNAKEET LIFE-SAVING STATION, April 1, 1897.

MY DEAR SIR: As a press correspondent in stress of weather, and having undergone the novel experience of a night on Kinnakeet Reef, and as now enjoying the hospitality of yourself and crew in the kindly shelter of this station, let me thank you for the hearty display of those attentions which mark the members of your noble band of life-savers, whose faithful aid and many kindnesses will always be remembered.

Very truly yours,

FRED A. OLDS.
Captain HOOPER.

ON BOARD THE SHARPIE BRACEBRIDGE HALL,
Off Little Kinnakeet Life-Saving Station, April 1, 1897.

DEAR SIR: I desire to express my most sincere appreciation of the services of yourself and crew in coming off this morning in response to my signal of distress. This was displayed at 9.40, and answered in a few minutes. My boat went on the shoals at 5 o'clock yesterday, and in not over 6 inches of water. I put out two anchors and this morning hoped to get her off, but all the efforts of yourself and crew to aid me in securing this result failed.

I wish to thank you for your kind notice that you would come to my aid the moment I might need you. Colonel Fred. A. Olds, press correspondent, whom you took with you to your station, joins heartily with me in commendation of the promptness and kindness of yourself and crew.

Very truly, yours,

Captain HOOPER.(8)

ED. PINNER, Captain.

1898

LITTLE KINNAKEET, NORTH CAROLINA, August 12, 1898.

SIR: I desire to express my thanks for the prompt service rendered to me by the keeper of the Little Kinnakeet Life-Saving Station at the

8. Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1897 (Washington: Government Printing Office, 1898), p. 267.

wreck of the American schooner S.G. Hart, on the beach three-quarters of a mile above Little Kinnakeet Life-Saving Station on August 10, 1898.

By the advice of the keeper we saved our effects in good condition and also our nautical instruments. He deemed it necessary to remove things at once, which proved to be none too soon.

Respectfully, yours,
C.M. SAWYER,
Late Master of American Schooner S.G. Hart.
Mr. S.I. KIMBALL,
General Superintendent Life-Saving Service, Washington, D.C.

The following card of thanks was published in the North Carolinian, issue of August 24, 1898:

We wish to extend our thanks to Captain E. O. Hooper, keeper of Little Kinnakeet Life-Saving Station, for his kindness and valuable services rendered us while at his station in regard to saving crew and material from the wrecked schooner S.G. Hart. We think he can not be too highly praised as a keeper of a life-saving station.

WALTER MCLEAN, Agent
C.M. SAWYER, Master.(9)

1899

LITTLE KINNAKEET LIFE-SAVING STATION, August 18, 1899.

We, the undersigned, captain and crew of the wrecked schooner Robert W. Dasey, which was driven ashore by an east-northeast hurricane with very high surf and tide on August 17, 1899, at 5.30 p.m., wish to make the following statement:

At that time no person could have reached us, but as early as anything could possibly be done the life-saving crew were on hand with their beach apparatus ready to land us. Our vessel, however, had gone high up, so that the life-savers caught the outer jib stay, which was loose, and held it while we came down upon it, one at a time. Then they took us upon the beach clear of the surf. They arrived at the wreck about 6 a.m. on August 18, 1899. After landing us they took us to station three-quarters of a mile distant, and provided us with dry clothing, stimulants, and food; they gave us the very best treatment,

9. Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1899 (Washington: Government Printing Office, 1900).

and aided us in every possible way to save our effects so far as we could find them on board our vessel.

We also wish to say that these noble, gallant, and heroic life-savers do most dreadfully suffer the hardships of life to save, protect, and take care of sailors who may be cast into their care. There was nothing left undone by the acting keeper and crew of the above-named station. They performed their duties most nobly.

Respectfully submitted.

JULIUS OLSEN, Master
GEORGE W. LAYFIELD, Mate.
ADOLPH SCHICK, Cook.
GEORGE WILKINS,
CONRAD PRESCOD,
H.P. RUSSELL,
GEORGE BUSBY,
Seamen.(10)

1900

LITTLE KINNAKEET LIFE-SAVING STATION, NORTH CAROLINA,
May 28, 1900.

GENTLEMEN: Please accept thanks of myself and crew for your kindness in taking care of us and feeding us in our destitute condition, and for taking care of our schooner and cargo, which drifted ashore near your station May 6, 1900, until I arrived at Cape Hatteras Station, where I had been carried by the crew of that station, who rescued us from a small yawl on May 5, our vessel having been sunk off Cape Hatteras. I am glad, as a seaman, to be able from personal experience to recommend this crew for doing their whole duty. In conclusion, I wish to congratulate the general superintendent for having such good and accommodating men in his service as I have found during my stay here.

Very truly, yours,

J.W. SABISTON,
Master of Schooner Hettie J. Dorman.

KEEPER AND CREW OF THE LITTLE KINNAKEET LIFE-SAVING
STATION.(11)

10. Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1900 (Washington: Government Printing Office, 1901), p. 204.

11. Ibid., p. 211.

The annals of the service justify the assertion that a considerable number of the marine disasters recorded in the annual reports under the caption "Loss of life" would find other classification did the imperiled mariners but remain aboard ship until the life-savers could bring them to safety. The wreck of the Saxon is a case in point.

The Saxon was originally a steamer of 1,193 tons. She was built in Philadelphia in 1862. In 1903 she was remodeled into a barge of 555 tons. When she made her last voyage she was owned by the Atlantic Coast Lumber Company of New York, but her port of registry was Georgetown, South Carolina. On the morning of October 11, 1908, she left her home port in tow of the steamer Katahdin with a cargo of lumber consigned to Philadelphia. She carried a crew of four--the master, Frank Pilog; mate, Fred Lund; one seaman (a negro), and a cook. The names of the seaman and cook could not be ascertained.

On the afternoon of the 12th, when the two vessels were off Cape Hatteras, they ran into rough weather, and after laboring in the seas several hours parted their towline, the barge going ashore $2\frac{1}{2}$ miles south of the Gull Shoal station on the coast of North Carolina. Only one of the four men on board, the mate (Lund), reached shore alive. Lund's story of what transpired after the parting of the hawser is as follows:

When the towline parted we ran up the forestaysail, foresail, and mainsail on the barge, and tried to stand offshore on the port tack, but could do nothing, as we lay in the trough of the sea. The Katahdin came up and told our captain to try to get into Hatteras on the starboard tack, but we found that we could not do anything with her. The Katahdin came up again shortly afterwards and tried to pass us a 3-inch heaving line, but missed. The second time she tried we got the line and began hauling it in, but the steamer went ahead before we got the hawser on board and the running line parted. The Katahdin then signaled us to anchor. I sounded and found a little over $3\frac{1}{2}$ fathoms of water. We let go our anchor, running out about 45 fathoms of chain, but it would hold in the sea and current, and the Saxon dragged into the breakers and stranded. This was somewhere near midnight. We made no distress signals, as we had only the red and green side lights. We had no anchor light, nor had we any chance to put up any. We started to throw over the deck load, but the seas were breaking over the barge and she was pounding so hard that the captain ordered the boat launched--a $14\frac{1}{2}$ -foot metal boat--his intention being to try to get aboard the Katahdin which was lying by some distance seaward of us. We got the boat in the water with all hands in it and shoved off. The captain and I had the oars. The seaman and cook could not row; no one was steering. We had scarcely got away from the side of the vessel, however, when a sea came along and capsized us. I

got clear and swam ashore; I do not know what became of the rest. I was washed back several times but finally got ashore abreast of the lay house and crawled up there very much exhausted. I stayed in the lay house until daylight. I saw the lights of the lifesavers on the beach and heard them fire the wreck gun, but was too weak to make my presence known. At daylight I found I was able to walk, and went up abreast of the Saxon where the life-savers were. They looked out for me and sent me to the station.

About 9 o'clock on the night of the disaster, when Surfman W.B. Miller, of the Little Kinnakeet life-saving station, was covering the north patrol, he saw a white light seaward which he took to be the masthead light of a steamer standing in toward the beach, heading about WSW. No other lights were visible. He continued to watch the light as he went along, and when he neared the halfway house, marking the northern limit of his beat, he saw from the light that the vessel had come to and headed about NNE. and, as he thought, stood off at slow speed. The surfman says, in his testimony given at the official investigation of the case, that he thought the vessel acted "very queer," but that he did not think she was in any danger of coming ashore, as he had often seen steamers haul up that way in bad weather such as prevailed that night. After finishing his patrol he reported what he had seen to his relief, but neither surfman considered the matter of sufficient importance to mention it to the keeper.

Surfman A.V. Midgett, of the Little Kinnakeet station, who covered the north patrol from midnight to 3 a.m. also saw the masthead light of the steamer offshore standing about northeast as he was starting out along the beach. When he had gone about half a mile on the trip outward he saw the two side lights of another vessel in the same general direction, and from the range he thought this last vessel must be ashore. He was making his patrol mounted, and he urged his horse forward that he might verify or disprove his suspicion. When he reached the halfway house he found that the vessel was some distance farther north. Continuing, he discovered her in the breakers some 250 yards from the beach. This was about 12.30 a.m. As he stood watching the vessel he saw a rocket go up in the direction of Gull Shoal, and knew that the crew of the station at that place had also discovered the wreck. As the scene of the stranding was nearer Gull Shoal than his own station, Surfman Midgett rode on northward with the intention of assisting the Gull Shoal crew in getting out their wreck apparatus and bringing it down the beach, they having no team available for that purpose. Before reaching the Gull Shoal station he met three surfmen on their way to the wreck, who informed him that their keeper, Capt. Zera G. Burrus, of Gull Shoal, had telephoned for the team at the Chicamacomico station, several miles above Gull Shoal. Midgett therefore turned back with the surfmen, and on coming again to the wreck found Capt. Edward O. Hooper, of Little Kinnakeet, on the scene with his crew, he having been apprised of the disaster by telephone from Gull Shoal. When Captain Hooper reached the vessel he had a fire made to show anyone aboard the wreck that help was at hand, and sent some of the surfmen down along

the beach to look out for anybody who might come ashore. "At this time," says Captain Hooper in his testimony, "the wind was strong from the NNE., the weather was clear and cold, the sea and surf high, and there was a strong southerly current running. The stranded vessel could be seen about 200 yards offshore on the outer bar heading southward, the seas breaking over her, lumber washing overboard, sails lowered, and two side lights burning. A light could also be seen through the cabin window, but there were no signs of life on board."

The south patrol from Gull Shoal reported a light offshore down the beach about 11.30 p.m. Keeper Burrus at once ordered all hands to stand by and be ready, and sent Surfman R.A. Grey out to make a closer investigation. The surfman came back a little after midnight and reported a wreck. As already shown, upon learning of the wreck, Captain Burrus sent up a rocket and telephone to Keeper Midgett, at Chicamacomico, for a team to haul his apparatus. He then notified Keeper Hooper, at Little Kinnakeet, and sent three of his surfmen on ahead to stand by the vessel while he and the rest of his crew made everything ready to start when the horses should arrive. The team came at 1 o'clock a.m. and the apparatus cart, loaded wreck gun, lines, and breeches buoy, was on the beach abreast of the vessel an hour later.

A number 9 line, projected by 6 ounces of powder, was first fired toward the wreck at an elevation of 22 degrees, but missed the mark, falling to leeward. A second line (a number 7), carried by a 5-ounce charge and aimed at 18 degrees elevation, was next sent over the wreck, falling abaft of the mainmast. Captain Burrus then gave the signal to haul off, but could get no answer. He thereupon sent two surfmen south along the beach to see if anyone had come ashore or if any bodies had been washed up, but all they found was the little boat in which, as it afterwards proved, the sailors had undertaken to leave the ship. Captain Burrus then sent the team back to Gull Shoal for the surfboat, thinking to board the wreck upon its arrival.

While the perplexed life-savers were grouped on the beach awaiting the coming of the surfboat, Mate Lund put in his appearance and soon cleared up the mysterious features of the night's tragic event.

The service crews returned to their stations about 7.30 a.m. The Katahdin, whose lights could be seen offshore while the life-savers were trying to establish communication with the wreck, came in near the Saxon after daylight, and, seeing that the vessel was lost, turned about and steamed northward.

Asked by the investigating officer whether or not the crew of the Saxon could have been saved had they stayed aboard their vessel, Keeper Burrus replied:

Yes, we would have saved them, every one, without any trouble. The second shot put the line across the deck abaft the mainmast, and the gear could have been rigged in a few minutes. The masts stood until about 2 p.m., October 14. If

the anchor chain had been slipped, the Saxon would have come over the reef and on the beach. On the 14th the mate and myself went aboard of the wreck, but could find no papers or anything regarding the crew. Everything movable had been washed away.

The barge became a total loss, but a considerable portion of the lumber she carried was saved. The body of the cook was found by members of the Cape Hatteras life-saving crew on October 16, a dozen miles from the scene of the disaster. The body of the negro seaman was picked up by the Big Kinnakeet crew on the 18th.(12)

1910

In the latter part of January, 1910, the schooner Frances, a wooden vessel of 677 tons, left New York for Jacksonville, Fla., with a cargo of cement. She carried a crew of eight men, all told. She went to pieces near the Big Kinnakeet Life-Saving Station, a few miles north of Cape Hatteras, on the morning of February 1, and, but for the discovery of a piece of wreckage bearing her name, her fate might never have been definitely known, as all hands on board perished.

The night preceding the day of the disaster was so stormy as to make the coast guard of the service stationed on the outlying sands of the coast mentioned more than ordinarily vigilant. A strong gale had sprung up from the northwest in the early evening, accompanied by snow flurries. As the wind swept over the beach it kicked up the dry sand from among the hummocks and drove it out over the surf, snow, sand, and flying spray forming a curtain that shut out the view seaward as effectually as a fog. Moreover, the temperature had fallen to the freezing point and the sea was exceptionally high. Notwithstanding the weather conditions, the night was an uneventful one for the life-saving crews near Cape Hatteras, yet somewhere at sea the gale was driving a ship to destruction on their beach.

When day broke on February 1 it was still snowing, but the temperature had risen several degrees, and the wind, while still fresh, had moderated to 35 miles an hour. The snow and sand flurries, however, still obscured the view along the beach, and the surf was still very high. Ordinarily the patrol is maintained only in the night-time, but on this morning the weather was so bad off the cape that the performance of that duty at the Big Kinnakeet station was not discontinued with the return of day. At 8 a.m. Surfman C.R. Hooper, temporarily in charge of the Big Kinnakeet crew, sent Surfman E.F. Miller on patrol southward toward

12. Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1908 (Washington: Government Printing Office, 1909), pp. 35-37.

Cape Hatteras. Half an hour later Miller presented himself at the station in a state of great exhaustion from running, and announced that he had discovered a vessel coming on the beach. What he had seen is sent forth here in his own words:

She bore to the southward and eastward of my position, which was about a mile from the station, and appeared to have a piece of her mainsail set and the fore staysail on. I had a glimpse of her only for a moment. After a little I saw her a second time, and it appeared to me that she had hauled more to the southward. I had three views of her, all very brief and obscured by the squalls of snow driving from the beach. I did not proceed farther toward her or tarry to try to make out her hull and appearance, knowing that if she held on her course she must surely become a wreck.

Another member of the Big Kinnakeet crew also got a view of the vessel. He testifies that on hearing Miller make his report to the acting keeper he caught up a marine glass and looked down the beach from an open window. Owing to the driving snow and the spray from the breakers, he could not distinguish her hull plainly, but made out two masts, one of them upright, the other hanging over as if broken. The vessel seemed to him to be stationary. It does not appear from the evidence that any other member of this crew saw the vessel again before she broke up.

The acting keeper sent a telephone message to the Little Kinnakeet and Cape Hatteras Life-Saving Stations, several miles to the northward and southward, respectively, requesting the assistance of the crews at those places, he being of the opinion that the vessel would strike within the limits of his patrol. The crew under his temporary command had in the meanwhile made the beach-apparatus cart ready, and in a short time all hands were on their way down the beach.

The crew of the Cape Hatteras station reached the vicinity of the disaster first, having set out unencumbered by any apparatus. One of their number went on ahead of the rest with instructions to meet the Big Kinnakeet crew and help them along with their life-saving equipment. This surfman passed the vessel shortly after 9 o'clock. Relating what he saw offshore, he says:

When the breakers ran back I could see the shape of the hull of a vessel her entire length. As far as I could tell, she was heading nearly northeast. No masts were standing, but they were washing about on top of the wreck. I saw no signs of life, although I remained watching a couple of minutes. I judged the vessel to be between 550 and 600 yards from the beach.

The three life-saving crews met about 9.30 a.m. There was no wreck work to be performed, however, for the ship had already been destroyed. There were no masts to be seen, nor any parts of a broken

hull; "only confused wreckage in the boiling surf." The wreck stuff, which consisted of some spars and other debris, did not drift away in the tremendous southerly current then running, from which it would seem that it was held fast by rigging to submerged parts of the vessel.

The surfmen were disposed up and down the beach in readiness to take from the surf any survivors or bodies that might be cast up. Nothing more could be done in the circumstances. Those in command on the beach having satisfied themselves after a period of watching that there was no hope of saving any of the ship's company, the service crews separated and returned to their stations.

The officer who investigated this disaster was on the beach the day following its occurrence. His report contains the following with respect to the state of the sea and what he observed in the locality of the wreck:

The surf was still so high and powerful as far out as the outer bar as to preclude any attempt to launch a boat, even under the guidance of the most able crew. The tremendous combers crashed on the beach with irresistible force, presenting, as they broke, not the curling, concave front so familiar, but simply dropping down in vertical walls.

All that remained of the vessel were two spars on the outer bar, about 600 yards offshore, one, apparently a mast, lying horizontally with some top hamper at one end, and the other, a smaller timber like a broken lower boom, standing vertically. Both timbers were moving, but were evidently attached to some object under water, since they remained practically in one position.

Continuing our progress southward we found one of the quarter-boards of the vessel with her name upon it. A little farther along a large portion of her half-breadth hull had been washed up, and at a distance of probably a mile from the wreck the entire breadth of her stern, with some 20 feet of the forward frame attached to it, had come ashore. On this was painted "Frances of New York." An examination of these several groups of timbers showed that they were rotten at the ends and near the fastenings.

As there were no survivors, what took place aboard the vessel before she came ashore, or what circumstance, or combination of circumstances, brought misfortune upon her can only be conjectured. The investigating officer ventures the following hypotheses as within the range of possibility: First, that the vessel may have become waterlogged and in danger of sinking from previous stress of weather, and as a last desperate hazard her master tried to beach her to save the crew; second, that he might have thought he had passed the Diamond Shoals, and consequently hauled more to the wind to come under the lee of the land and lay his course to his destination, thus unknowingly getting too close inshore; or, third, he may have been in entire ignorance of his

whereabouts during the prevalence of the gale that drove him ashore and unable to control the movements of his ship. The opinion was also advanced that the vessel was a derelict when she struck, and that her crew may have been taken off by some passing vessel. As no survivors were ever reported, this theory seems no more susceptible of proof than the others.(13)

1911

December 31.--About noon the three-masted schooner Mary S. Eskridge, of Seaford, Del., from Baltimore, Md. to Wilmington, N.C., with a cargo of acid fertilizer, anchored 1-3/4 miles southeast of the big Kinnakeet (N.C.) Life-Saving Station and a mile offshore in a waterlogged condition and hoisted a signal for assistance. The signal was observed from the Big Kinnakeet station and also from the Cape Hatteras station, 7 miles to the southward from the vessel. The crews of the two stations named and of the Little Kinnakeet station assembled as quickly as possible on the beach abreast of the schooner, and a boat's crew in command of the station keeper from Cape Hatteras put off to her in a surfboat under oars. After a hard struggle through heavy seas and against a strong current they arrived alongside and found her in a sinking condition. As the weather was bad and rapidly growing worse, and there was a likelihood that she would go down at any moment, no time was lost in getting her crew of six into the surfboat. The rescued persons were taken to the Big Kinnakeet station, where they were given succor until January 5. The schooner being still afloat on the morning of January 1, the life-saving crew carried her master out to ascertain her condition. They manned her pumps while aboard, but found them choked with fertilizer. On the morning of January 3 she sank in 5 fathoms. Both vessel and cargo, valued at \$35,000, were totally lost.(14)

13. Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1910 (Washington: Government Printing Office, 1911), pp. 65-67.

14. Annual Report of the Life-Saving Service for the Fiscal Year Ended June 30, 1912 (Washington: Government Printing Office, 1913), pp. 77-78.

APPENDIX G

Table of Wrecks Involving Assistance by the Little Kinnakeet Crew, 1883-1902
Compiled from the annual reports of the United States Life-Saving Service, 1883-1903.

Date.	Place.	Name of station.	Name of vessel/Where owned.	Master.	Tonnage.	Where from/Where bound.	Cargo.	Total.		Total.		Total.		Total.		Total.	
<u>1883</u>																	
Nov. 11	Two and a half miles north of Gull Shoal station.	Gull Shoal, Little Kinnakeet, Chicamacomico, and New Inlet.	Sc. Edward Stuart/Bangor, Me.	Harlow	378	Turk's Island W.I./Baltimore, Md.	Salt	25,000	1,200	26,200	26,100	100	8	8	...	...	...
<u>1884</u>																	
Nov. 16	One mile south-southwest of station.	Little Kinnakeet	Sc. Adamant/New Berne, N.C.	Gray	8	...	Fish	500	170	670	670	...	3	3	...	...	...
<u>1885</u>																	
Dec. 12	Pamlico Sound, 3 miles west of station.	Little Kinnakeet	Sc. H.P. Brown/Cape Hatteras, N.C.	Gray		Elizabeth City, N.C./Big Kinnakeet, N.C.	Fish and wood.	1,000	50	1,050	1,000	50	4	4	...	...	...
<u>1886</u>																	
Jan. 9	Four and a half miles south-southwest of station.	Little Kinnakeet	Sc. Vennor/New Berne, N.C.	Miller	10	...	...	600	600	600	...	...	...	...	...	...	...
Jan. 9	Two and a half miles south-southwest of station.	Little Kinnakeet	Sc. Ella/New Berne, N.C.	Williams	7	Elizabeth City, N.C./Big Kinnakeet, N.C.	Corn and merchandise	800	300	1,100	900	200	3	3	...	...	...
Jan. 9	Four miles north of station.	Little Kinnakeet	Sc. Excellent/Hatteras, N.C.			...	...	150	...	150	150	...	...	...	...	...	...
Jan. 10	Pamlico Sound, three-quarters of a mile south-southwest of station.	Little Kinnakeet	Sc. Willie T./New Berne, N.C.	Gray	5	...	...	700	...	700	700	...	...	...	...	...	...
<u>1887</u>																	
Feb. 4	Pamlico Sound, 2½ miles west-northwest of station	Little Kinnakeet	Sc. Avoset/Hatteras, N.C.			Edenton/Big Kinnakeet N.C.	...	150	...	150	150	...	2	2	...	...	...
Feb. 5	Pamlico Sound, 2½ miles west of station.	Little Kinnakeet	Sch. Vennor/New Berne, N.C.	Price	10	Edenton/Big Kinnakeet N.C.	...	600	...	600	550	50	3	3	...	...	...
Feb. 13	Pamlico Sound, 2½ miles west of station.	Little Kinnakeet	Sch. Fox/Elizabeth City, N.C.	Gray		Elizabeth City/Big Kinnakeet, N.C.	...	500	...	500	500	...	3	3	...	...	...
<u>1891</u>																	
Jan. 3	Cross Shoals, three miles north-northwest of station.	Little Kinnakeet	Sl. Edith B./Hatteras, N.C.			Elizabeth City/Hatteras, N.C.	Coal	165	35	9200	200	...	2	2	...	...	...
Feb. 5	Three miles west of station.	Little Kinnakeet	Sc. Willie T./Newbern, N.C.	O'Neal	5	Elizabeth City/Kinnakeet, N.C.	Wood, corn and meal.	800	25	825	825	...	3	3	...	...	...
Dec. 17	Pamlico Sound, three and one-half miles north-northwest of station.	Little Kinnakeet	Sc. Annie C. Thomas/Newbern, N.C.	Price	6	Elizabeth City to Big Kinnakeet, N.C.	Poles	500	20	520	520	...	4	4	...	...	...
<u>1892</u>																	
Feb. 22	Two and one-quarter miles south of Little Kinnakeet.	Little Kinnakeet, Gull Shoal, and Big Kinnakeet.	Sc. Annie E. Pierce/Somers Point N.J.	Somers	93	Bogue Inlet, N.C./New Bedford, Mass.	Lumber	4,000	600	4,600	255	4,345	5	4	1	4	148
Feb. 26	One-half mile south-southeast of Gull Shoal Station.	Gull Shoal, Chicamacomico, and Little Kinnakeet.	Sc. Freddie Hencken/New York City	Mills	345	New York City/James River, Va.	...	15,000	...	15,000	...	15,000	9	9	...	9	141
June 28	Two miles west of station.	Little Kinnakeet	Sc. Ospray/Newbern, N.C.	Jennett	10	...	...	250	...	250	175	75	...	...	...	...	...
Nov. 27	Two and one-half miles west-southwest of station.	Little Kinnakeet	Sc. J.B. Atlett/Cape Hatteras, N.C.			Roanoke/Cape Hatteras, N.C.	General	250	175	425	425	...	2	2	...	...	...
<u>1893</u>																	
Feb. 5	Pamlico Sound, three and one-half miles north-northwest of station.	Little Kinnakeet	Sc. Topaz/Hatteras, N.C.			Elizabeth City/Little Kinnakeet, N.C.	General	450	325	775	775	...	2	2	...	...	...
Feb. 20	Two and one-half miles north of Little Kinnakeet Station.	Little Kinnakeet, Gull Shoal, and Big Kinnakeet.	Sc. Nathan Esterbrook, Jr./New Haven, Conn.	Kelsey	713	New York City/Savannah, Ga.	Guano	20,000	35,000	55,000	...	55,000	9	8	1	9	9
<u>1897</u>																	
Aug. 31	Three miles west by south of station.	Little Kinnakeet	Sc. Little Sampson/Newbern, N.C.	Miller	7	Elizabeth City/Hatteras, N.C.	General	400	500	900	900	...	3	3	...	...	...
May 20	Two miles northwest of station.	Little Kinnakeet	Sailboat Southern Girl/Edenton, N.C.			Gourd Hills/Buxton, N.C.	Lumber	150	15	165	165	...	1	1	...	...	...

APPENDIX G

Table of Wrecks Involving Assistance by the Little Kinnakeet Crew, 1883-1902
Compiled from the annual reports of the United States Life-Saving Service, 1883-1903.

<u>Date.</u>	<u>Place.</u>	<u>Name of station.</u>	<u>Name of vessel/Where owned.</u>	<u>Master.</u>	<u>Tonnage.</u>	<u>Where from/Where bound.</u>	<u>Cargo.</u>	<u>Total.</u>									
<u>1899</u>																	
July 26	Three miles of north-northwest of Mashles Light, N.C.	Little Kinnakeet	Sc. H.P. Brown/Edenton, N.C.	Gray	18	Elizabeth City/Little Kinnakeet, N.C.	General	1,000	350	1,350	1,345	5	9	9	...	...	...
Aug. 16	Two and one-half miles south of Gull Shoal Station.	Gull Shoal, Chicamacomico and Little Kinnakeet.	Sc. Aaron Reppard/Philadelphia, Pa.	Wessel	459	Philadelphia, Pa./Savannah, Ga.	Coal	16,000	2,500	18,500	...	18,500	8	3	5	3	15
Aug. 17	Three-quarters of a mile south of station.	Little Kinnakeet.	Sc. Robert W. Dasey/Philadelphia, Pa.	Olsen	356	Philadelphia, Pa./Jacksonville, Fla.	Coal	8,000	1,000	9,000	...	9,000	7	7	...	8	37
Oct. 30	One mile south-southeast of Big Kinnakeet Station.	Big Kinnakeet and Little Kinnakeet.	Sc. Roger Moore/Wilmington, Del.	Dix	354	Boston, Mass./Brunswick, Ga.	...	7,000	...	7,000	...	7,000	7	7	...	7	41
<u>1901</u>																	
Mar. 4	One-half mile south-southeast of Gull Shoal Station.	Gull Shoal, Chicamacomico and Little Kinnakeet.	Sc. Genl. S.E. Merwin/New Haven, Conn.	Rutledge	789	Boxton, Mass./Norfolk, Va.	Copper ore	17,000	25,000	42,000	...	42,000	7	7	...	7	11
<u>1902</u>																	
Jan. 3	One mile west-southwest of station.	Little Kinnakeet	Sailboat Relief/Salvo, N.C.			Buxton/Salvo, N.C.	...	100	...	100	100	...	1	1	...	1	2
Jan. 27	Two and one-half miles south of Gull Shoal Station.	Gull Shoal, Chicamacomico and Little Kinnakeet.	Str. Daggry/Tvedgstrand, Norway	Simonson	1,206	New York City/Mexico	General	250,000	50,000	300,000	294,500	5,500	17	17	...	17	
Feb. 9	Three miles west-northwest of station.	Little Kinnakeet.	Sc. Zeovia/Edenton, N.C.	Scarborough.	10	Elizabeth City/Avon, N.C.	General	500	1,500	2,000	2,000	...	2	2	...	...
Feb. 8	One mile northeast of Big Kinnakeet station.	Big Kinnakeet, Little Kinnakeet, and Cape Hatteras.	Str. Garlands/West Hartlepool, England.	Doherty	2,084	New London, Conn./Wilmington, N.C.	...	75,000	...	75,000	70,000	5,000	18	18	...	18	72

APPENDIX H

Services of Little Kinnakeet Crews, 1891-

Compiled from the annual reports of the United States Life-Saving Service, 1892-1915.

1891

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Dec. 17	Am. sc. Annie C. Thomas	Little Kinnakeet, North Carolina.	Stranded on reef; signaling for assistance. Lightened part of cargo and hove her off into deep water.

1892

Feb. 22	Am. sc. Annie E. Pierce.	Little Kinnakeet, North Carolina.	Stranded. Rescued four men by means of the breeches-buoy, clothed them, and provided food and shelter for nine days. Crews of Gull Shoal and Big Kinnakeet stations assisted in rescue.
June 28	Am. sc. Ospray	Little Kinnakeet, North Carolina.	Dismasted and sinking; abandoned by crew during night before wreck could be seen from station. Boarded her, brought ashore personal effects of crew, ship's papers, and what property could be saved, and turned them over to master.
Nov. 27	Am. sc. J.B. Atlett	Little Kinnakeet, North Carolina.	Fast on reef in Pamico Sound. Lightened her, forced her into deep water, and then reloaded cargo.

1893

Feb. 4	Am. sc. Topaz	Little Kinnakeet, North Carolina.	Ran aground. Boarded her and landed a passenger who wished to go ashore. Next day, vessel being out of provisions, took master ashore to procure same. On 6th, wind shifting and tide coming in, schooner floated.
Feb. 5	...do...	Little Kinnakeet, North Carolina.	Crew occupied two days in picking up and securing lumber, supposed to have washed ashore from a wrecked vessel. The recovered property was given over to the proper authorities.
Feb. 20	Am. sc. Nathan Esterbrook, Jr.	Little Kinnakeet, North Carolina.	Totally wrecked; heavy sea and gale. Assisted by crews of Gull Shoal and Big Kinnakeet Stations landed entire crew of nine men in breeches buoy and life car, and cared for them at station. One man died after having been landed.

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Dec. 2	Am. sc. Dorcas Jane	Little Kinnakeet, North Carolina.	Stranded in Pamlico Sound. Ran out an anchor, then brought the two men, who were on board, to the station. Vessel floated December 6, when the crew boarded and sailed her to safe anchorage.
1894			
Oct. 10	Sc. Henrietta	Little Kinnakeet, North Carolina.	Parted her cable in the gale and was driven on the beach. Moved her about 15 yards on skids, and removed them where it was supposed she would float, but the water was too shallow; on 13th, assisted by crew of Big Kinnakeet Station, moved her about 15 yards farther; on 26th, some of the villagers assisting, got her afloat.
Nov. 28	Slp. Tildon	Little Kinnakeet, North Carolina.	Stranded. Being unable to float her, transferred the two boatmen to the schooner Annie Lee. Next day the sloop floated without assistance.
1895			
Jan. 16	Am. sc. Dauntless	Little Kinnakeet, North Carolina.	Unacquainted with locality. Sent two surfmen on board who piloted her to a good anchorage.
Dec. 22		Little Kinnakeet, North Carolina.	The north patrol during first watch burned Coston signal and warned off a schooner that was approaching dangerously near the beach.
1897			
Jan. 19	Am. sc. Clipper	Little Kinnakeet, North Carolina.	Stranded at 1 p.m. 2 miles W. of the station in Pamlico Sound, her master being unacquainted with these waters. Two surfmen went alongside, took off her four passengers, leaving her crew of two men on board at their own volition, and meeting the rest of the station crew coming to the scene, informed the keeper that it would be impossible to release the schooner that day, but that her captain requested assistance the following morning when the tide would serve. At 8 a.m. on the 20th the life-savers boarded the craft, ran out a kedge, and were soon successful in floating the vessel, after which she was piloted to clear water and the master given his course to his destination.

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Mar. 25	Slp. Cora Bell	Little Kinnakeet, North Carolina.	While anchored in Pamlico Sound, about 3 miles to the northward of the station, with no one on board, this vessel dragged her anchor, which had become fouled, and stranded during the prevalence of a strong westerly wind, the casualty being discovered by the surfman on lookout at 6:30 a.m. Having summoned assistance from the adjacent stations. Gull Shoal and Big Kinnakeet, which call was promptly responded to by a portion of their crews, the keeper proceeded to the scene with his own men, and as the tide was favorable the combined efforts of the life-savers were soon successful in getting the sloop afloat.
Mar. 31	Sharpie Bracebridge Hall.	Little Kinnakeet, North Carolina.	Stranded at 5 p.m., 3 miles W. of the station, in Pamlico Sound, her master being unacquainted with the channel. At 9.40 the following morning she set a signal of distress, which was responded to by the life-saving crew, but on reaching the craft she was found to be so fast aground that nothing could be done to float her at that stage of the tide. The captain, his wife, and two children preferring to remain on board, the surfmen returned ashore, taking with them the remaining member of the party, Mr. Fred A. Olds, a press correspondent, after agreeing to answer at any time a call for aid. On the morning of Apr. 2, a signal having been shown from the stranded vessel, the life-savers again repaired to the scene and as a more favorable condition of the tide existed succeeded in getting the sharpie afloat.
May 4	Am. sc. Paragon	Little Kinnakeet, North Carolina.	Stranded in Pamlico Sound, about 3 miles W. of the station and shortly afterwards set a signal of distress, which attracted the notice of the lookout. Upon reaching the vessel the life-savers transferred a portion of her cargo of general merchandize to a neighboring schooner, and were able to float her before any damage was sustained.
Aug. 31	Am. sc. Little Sampson.	Little Kinnakeet, North Carolina.	Stranded on a reef 3 miles to the westward of the station and set signal of distress. Surfmen went out to her relief and planted an anchor, but were unable to move her until they had lightened her cargo. Then part of the crew jumped into the water and lifted while the others hove on the hawser, and in a short time the schooner came off. Surfmen helped to reload her cargo.

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
1898			
Jan. 10		Little Kinnakeet, North Carolina.	Shortly before sunrise the patrol burned his red light to a schooner apparently aground; she soon gathered headway and stood off to sea.
May 20	Sailboat Southern Girl.	Little Kinnakeet, North Carolina.	Pivot pin to centerboard broke, and the boat filled and sank in Pamlico Sound, about 2 miles NW. of the station. Surfmen pulled out and took her cargo of lumber into their boat, then freed her of water, fitted a new pin and hung the centerboard. The boat now being tight, they put the lumber back on board and she proceeded to Buxton.
Aug. 10	Am. sc. S.G. Hart	Little Kinnakeet, North Carolina.	Stranded about 3/4 mile NE. of station, on outer reef. Patrolman, who discovered her at 3 a.m., immediately burned a Coston signal and reported the casualty to the keeper. Life-savers at once launched surfboat and pulled out to stranded vessel. Her master at first declined to leave her, as he thought that she and the cargo might be saved, but he soon found that she was rapidly filling, and was glad to avail himself of the chance to get on shore. Surfboat took six seamen to the beach, with all their personal property; then returned to wreck and took off captain and mate, with their belongings and the ship's nautical instruments. The crews from Big Kinnakeet and Gull Shoal stations had now arrived, also the live-saving team of horses, and were ready to give assistance. Saved small boat from the wreck, and carted all the property and the surfboat to station with the team. On the following day the surfmen helped the master land stores from the wreck in the schooner's boat, the surf having smoothed down. Sheltered and fed crew from the wreck at the station for six days before they were transported to their homes.
Sept. 2		Little Kinnakeet, North Carolina.	Sunset patrol burned a Coston signal and warned off a schooner that was heading in dangerously close to the beach.
1899			
July 26	Am. sc. H.P. Brown	Little Kinnakeet, North Carolina.	Bottom stove by striking a sunken obstruction in Croatan Sound. Keeper and crew went to her assistance and aided in moving her cargo ashore. Then took the schooner to the marine railway for repairs.

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Aug. 17	Am. sc. Robert W. Dasey.	Little Kinnakeet, North Carolina.	Driven ashore by the terrible ENE. storm 3/4 mile S. of station, at 5.30 p.m. Life-saving crew started for the wreck with the beach apparatus as soon as possible after its discovery by the patrolman, but the beach cart and horses became mired in the quicksand on the way, delaying them nearly an hour. They found the wreck, bows-on to the beach, with the outer jib stay, which had parted, hanging over the bow. They went into the surf and caught hold of the stay; then, while they held it fast, the crew of the schooner came down upon it, one by one, and surfmen carried them all safely up the beach. Taking them to station, the keeper gave them stimulants and food and provided them with dry clothing from the stores of the Women's National Relief Association. On the next day the station crew went on board the wreck with the shipwrecked crew and aided them to search for their personal effects, finding very few, however. The crew were succored at the station until the 21st, when they were given transportation to Elizabeth City. The captain remained at station until the 30th, when, having sold the wreck, he left for his home.

1900

May 5	Am. sc. Hettie J. Dorman.	Little Kinnakeet, North Carolina.	Sunk near the Outer Diamond Shoal by striking on a sunberged wreck. The five men composing her crew manned the yawl and started for shore. They were met a short distance from the wreck by the crew of the Cape Hatteras Station, who took them safely ashore. The wreck drifted off the shoal and went ashore about 2 1/2 miles S. of the Little Kinnakeet Station. The crew of that station boarded her, and finding her deserted, saved some of the gear and kept a lookout over the vessel and cargo until the arrival of the master. The vessel was a total loss and the cargo was sold at public auction. The crew of the wrecked vessel were sheltered at the Hatteras and Little Kinnakeet stations until transportation could be provided to their homes.
-------	---------------------------	-----------------------------------	---

1902

Jan. 3	Sailboat Relief	Little Kinnakeet, North Carolina.	This boat was discovered sunk in Pamlico Sound 1 mile WSW. from station. Surfmen assisted the master in bailing her out and ran an anchor to windward, but were unable to get her afloat. A portion of the cargo of wood was removed, and on the 6th a favorable tide enabled the owner to get his vessel afloat.
--------	-----------------	-----------------------------------	---

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Feb. 9	Am. sc. Zeovia	Little Kinnakeet, North Carolina.	Grounded about 12.30 p.m. on a reef in Pamlico Sound, 3 miles WNW. of station. Surfmen boarded her in their supply boat, and found that she was aground aft. By moving a portion of her cargo of merchandise to the forward end of the vessel, and shoving on poles placed over the sides, and making back sails of her canvas, she was floated and taken into deep water.
Dec. 15	Am. str. Engecombe	Little Kinnakeet, North Carolina.	At anchor 2½ miles WNW. from station, flying a signal for assistance. Surfmen boarded and at the master's request brought a sick man ashore; the vessel proceeding on her voyage.

1903

Feb. 8	Br. str. Garland	Big Kinnakeet, Little Kinnakeet, and Cape Hatteras, North Carolina.	Stranded at 4 a.m. 1 mile NE. from Big Kinnakeet station, thick weather, moderate to fresh easterly wind, and rough sea. A surfman from Big Kinnakeet discovered her at 4.30 a.m. and at once reported to keeper, who called up Little Kinnakeet and Hatteras stations, then mustered crew and started alongshore with beach apparatus, arriving abreast of the stranded craft at 5 a.m., the crews of the other stations reaching the place soon after. The life-savers fired a line across the steamer, the first shot being successful, set up gear, rigged breeches buoy, and safely landed the shipwrecked crew, eighteen all told. The rescued men were succored at the Big Kinnakeet station until the 12th, when a wrecking company floated the vessel and towed her to Newport News, with twelve of her crew on board. The remaining [men] feared to go back to their ship and were succored at the station till the next day when they also departed.
Feb. 8		Little Kinnakeet, North Carolina.	At 3 a.m. during thick weather, a surfman discovered a steamer dangerously near shore and burned a Coston signal, when she promptly hauled out.
Apr. 22	Am. sc. Zenovia	Little Kinnakeet, North Carolina.	At request of owner the keeper detailed three surfmen to assist in hauling this vessel up on the beach for repairs.

1904

Dec. 2	Gas. Lch. Sea Skiff	Little Kinnakeet, North Carolina.	Disabled by a broken propeller and her crew of three men were succored at the station overnight. The following morning a mast was obtained, and the vessel continued on her way under sail.
--------	---------------------	-----------------------------------	---

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
1905			
Jan. 26	Am. sc. Dauntless	Little Kinnakeet, North Carolina.	Stranded during a heavy NW. storm and carried by an unusually high tide well up onto the beach. By the united efforts of the station crews from Big Kinnakeet, Gulf Shoal, Chicamacomico, and Little Kinnakeet for three days, she was finally launched on temporary ways and hove out into deep water.
Jan. 29	Am. sc. Maud	Little Kinnakeet, North Carolina.	At 10 a.m. the lookout sighted a vessel in Pamlico Sound flying signals of distress. The life-saving crew went to her assistance and found that she had stranded in shoal water. The crew, consisting of two men and a woman, were taken off the schooner and brought ashore in the surfboat to await high water before attempting to float her.
Mar. 4	Skiff Dodge	Little Kinnakeet, North Carolina.	Capsized during a fresh SW. squall ½ mile SW. of the station. The life-saving crew went to the rescue and aided in transferring the two men clinging to the sides of the skiff to a fishing vessel near by, after which the capsized boat was towed into shallow water, righted, and bailed out.
May 16	Am. sc. Dauntless	Little Kinnakeet, North Carolina.	Stranded January 26, 1905, and floated by the station crew May 16. In getting her off, rollers were utilized and an anchor ran out ahead. The sails were also used to advantage. Much work preparatory to floating the vessel had been done by the crews of the Big Kinnakeet, Chicamacomico, and Gull Shoals stations.
Oct. 6	Slp. Silver Spray	Little Kinnakeet, North Carolina.	At 12.30 p.m. a stoop was sighted aground aground on a reef in the channel; the life-saving crew boarded her and succeeded in working her into deep water, when she proceeded to her destination.
Oct. 12		Little Kinnakeet, North Carolina.	Assistance at fire . . . At 5.50 p.m. a dwelling in the neighborhood of the station was discovered on fire. In response to the alarm the station crew hastened to the scene with their fire buckets and quickly extinguished the flames.
1906			
Jan. 7		Little Kinnakeet, North Carolina.	The master of the schooner Marblehead requesting to be landed on shore the surfboat went alongside and conveyed him to the beach.

<u>Date</u>	<u>Name and nationality of vessel</u>	<u>Station and locality</u>	<u>Nature of casualty and service rendered</u>
Apr. 29		Little Kinnakeet, North Carolina.	Mr. T.L. Wescott came to the station for shelter, and the keeper cared for him until the following day.
1907			
Apr. 4	Sc., no name	Little Kinnakeet, North Carolina.	Three surfmen employed five hours assisting owner to get this boat ready for launching.
May 16	Am. scs. Hobson and Little Bettie.	Little Kinnakeet, North Carolina.	Surfmen are called upon to assist in blocking up vessels for repairs. Requests complied with.
May 25	Am. sc. N.J. Mercedes.	Little Kinnakeet, North Carolina.	Surfmen assisted in launching vessel from ways after repairing.
1908			
Jan. 12	Skiff, no name	Little Kinnakeet, North Carolina.	It was discovered by the lookout adrift in Pamlico Sound. Two surfmen, in the supply boat, went out and towed it ashore. It was delivered to its owner.
Apr. 14	Schooner, no name.	Little Kinnakeet, North Carolina.	At request of owner, surfmen assisted him to haul his schooner out of the beach for repairs.
Apr. 30		Little Kinnakeet, North Carolina.	A woman and 2 children. Caught in a heavy squall while out in a skiff and came ashore near station. Carried to their home by station team.
Dec. 2	Sc. Little Tennyson.	Little Kinnakeet, N.C.	Missed stays, and stranded 3 miles W. of the station. Her flag of distress was discovered by the lookout. Surfmen responded to the call, carried out anchors and warps from the schooner, and she was floated, undamaged.
1909			
Apr. 28	Skiff, no name	Little Kinnakeet, N.C.	Picked up adrift by surfmen in small boat, and turned over to owner.
1915			
Apr. 3	Loring C. Ballard (schooner).	Gull Shoal; Little Kinnakeet; Chicamacomico	Stranded in hurricane; vessel lost; 7 rescued by breeches buoy.

APPENDIX I

Furnishings Data for Life-Saving Stations, ca. 1884.
 (From Revised Regulations for the Government of the Life-Saving
 Service of the United States and the Laws Upon Which They Are Based.
 Washington: Government Printing Office, 1884, pp. 148-55.)

Return of public property, apparatus, equipments, &c. . . .

Articles

Anchors, boat
 Anchors, sand
 Annual Reports, Life-Saving Service
 Articles of engagement, Form 1803
 Articles on engagement, volunteers, Form 1804
 Auger-bits, inch
 Auger-bits, inch
 Augers, inch
 Augers, inch
 Augers, inch
 Augers, inch
 Awis
 Axe-helves, (broad-axe; extra)
 Axe-helves, (chopping-axe; extra)
 Axes, broad, handled
 Axes, chopping, handled
 Axes, pick, handled

Bags coal
 Balls, mortar
 Barometers, aneroid
 Bars, drop, stove, (extra)
 Basins, wash, tin
 Basins, wash, paper
 Bath-brick
 Beach-light, complete
 Beef pounds of
 Bit-braces, carpenter's
 Blankets, new pattern
 Blankets, old pattern
 Blocks, breeches-buoy, wooden shell, (extra)
 Blocks, breeches-buoy, McLellan pattern
 Blocks, galvanized iron, snatch pattern, for sand-anchor
 Blocks, tackle, 8-inch, double, common bushed
 Blocks, tackle, 8-inch, double, patent bushed
 Blocks, tackle, 8-inch, single, common bushed
 Blocks, tackle, 8-inch, single, patent bushed
 Blocks, tackle, 12-inch, double, common bushed
 Blocks, tackle, 12-inch, double, patent bushed
 Blocks, tackle, 12-inch, single, common bushed
 Blocks, tackle, 12-inch, single, patent bushed
 Blocks, tail, 6-inch, double, common bushed
 Blocks, tail, 6-inch, double, patent bushed
 Blocks, tail, 6-inch, single, common bushed
 Blocks, tail, 6-inch, single, patent bushed
 Boat-cables
 Boat-carriages
 Boat-drags
 Boat-grapnels
 Boat-hatchets
 Boat-hooks
 Boats, cedar, surf; when received, pattern, builder

Boats, cedar, supply; when received, pattern, builder
 Boats, (dinghy,) metallic; when received, pattern, builder
 Boats, (dinghy,) wooden; when received, pattern, builder
 Boats, life, self-righting and self-bailing, metallic or wooden;
 when received, pattern, builder
 Boats, metallic, surf; when received, pattern, builder
 Boilers, stove, iron
 Boilers, stove, tin
 Bolster-covers
 Bolsters, shuck
 Boxes, faking, large, (size B)
 Boxes, faking, small, (size A)
 Bowls, chopping
 Bowls, mixing, earthen
 Bowls, soup, stone-china
 Brackets, brass, size, (extra)
 Brackets, iron, size, (extra)
 Brads
 Bread, navy pounds of
 Breeches-buoys, complete, with slings and wooden block
 Brooms, corn
 Brooms, hickory
 Brushes, dust
 Brushes, paint and varnish, assorted sizes
 Brushes, scrubbing
 Brushes, stove
 Brushes, whitewash
 Buckets, fire, galvanized iron
 Buckets, rubber
 Buckets, cedar, water
 Bull's-eye and strop
 Bunting
 Burners, lantern, (extra)
 Burners, lamp, (extra)

Camp-stools
 Cans, oil, 2-gallon, screw-top
 Cans, oil, 3 gallon, screw-top
 Cans, oil, 5-gallon, screw-top
 Cans, oil, 10-gallon, screw-top
 Canvas
 Cartouch-box, (patrolman's)
 Chairs, dining
 Chairs, kitchen
 Charts, coast
 Chimneys, lamp, (extra)
 Chisels, 3/4-inch
 Chisels, 1/2-inch
 Chisels, 3/4-inch
 Chisels, 1-inch
 Chisels, 1 1/4-inch
 Chisels, 1 1/2-inch

Chisels, 2-inch
Clocks, (Ansonia, or Seth Thomas)
Coal tons
Coal-hods
Coffee pounds of
Comforters
Compasses, boat, dry
Compasses, boat, liquid
Compasses, carpenter's
Cordage, manila, inch
Cordage, manila, inch
Cordage, manila, inch
Cordage, manila, inch
Cordage, Russia hemp, inch
Cordage, Russia hemp, inch
Corn bushels of
Coston's signals, (patrol)
Cots, wooden
Cots, iron
Cotton, spun, for seams
Cross-pieces, for stoves, (extra)
Crotch, for hawser
Cups, tin
Cups, stone-china
Curtains and fixtures

Desks, writing
Dishes, baking, earthen
Dishes, vegetable, stone-china
Duck, linen

Elbows, stove-pipe, common black iron, size, (extra)
Elbows, stove-pipe, galvanized iron, size, (extra)
Elbows, stove-pipe, Russia iron, size, (extra)
Emery-cloth pieces of
Envelopes, Nos. 9 and 6
Envelopes, note size

Fenders, cork, for boats
Files, saw
Files, flat
Fire-backs, stove, (extra)
Fire-fronts, stove, (extra)
Forks, carbing
Forks, meat, large
Forks, table
Forks, tormentor
Funnels, tin

Gimlets
Glass, 12 x 14 inches
Glass, 10 x 16 inches
Glass, 14 x 18 inches
Glasses, binocular
Glasses, marine
Glasses, spy
Globes, lantern, white, (extra)
Globes, lantern, ruby, (extra)
Globes, lantern, green, (extra)
Globes, lantern, shaded, (extra)
Grates, stove, (extra)
Griddles
Gridirons
Grindstones, mounted

Halyards, signal, length
Hammer, claw
Harness, single
Harness, double
Hatchets, (not boat-hatchets)
Hauling-lines, whip, length
Haversacks, rubber
Hawser, inch
Hawser, inch
Hay
Heads, Liverpool, for stove-pipe
Heaving-lines
Heaving-sticks
Hinges, butt, brass, size, (extra)
Hinges, butt, iron, size, (extra)
Hinges, strap, brass, size, (extra)
Hinges, strap, iron, size, (extra)
Hooks, clothes, (extra)
Hooks, harness, (extra)
Hooks, snap, (extra)
Horses
Hose, for force-pump, length

Ink
Inkstand
Inventories, (blank)
Inventories, (book)
Irons, branding, U.S.L.S.S.
Irons, calking
Irons, soldering

Journals

Kettles, tea, iron
Kettles, tea, tin
Knives, butcher
Knives, carving
Knives, chopping
Knives, drawing
Knives, putty
Knives, shoemaker's

Ladders

Ladles
Lamp-black
Lamp-feeders
Lamps, gimbal
Lamps, hand, glass or metal
Lamps, mess-room
Lamp-wick, (yards or pieces)
Lanterns, globe
Lanterns, patrol
Lanterns, reflector, (living-room)
Lanterns, signal
Laths
Lead, black
Lead, red
Lead, white
Leather, rigging
Library, (number of case, and number of volumes)
Lids, stove, (extra)
Life-belts, cork
Life-car
Life-raft, (whose make; when received)

Lime
 Linings, stove, sets, (extra)
 Locks, door, brass, (extra)
 Locks, door, iron, (extra)
 Locks, pad, brass, (extra)
 Locks, pad, iron, (extra)
 Lumber
 Lyle gun and carriage
 Lyle-gun projectiles

 Mallets, hand
 Marline pounds of
 Marline-spikes
 Matches, safety
 Match-safes
 Mattress-covers
 Mattresses, hackled husk
 Mattresses, hair
 Match-rope
 Match-staves
 Measures, pint, quart, gallon
 Medicine-chest and key
 Adhesive plaster
 Ammonia, carbonate
 Brandy
 Bandages
 Lint
 Probangs and sponges
 Pins
 Pills, camphor and opii
 Quinine
 Snuff
 Sinapisms, (mustard plaster)
 Salts, Monsell's
 Wadding
 Wine, sherry
 Mica, (isinglass,) for stoves, (extra,) pieces of
 Mills, coffee
 Mop-sticks and mops, (patent)
 Mortar, 5-inch, Eprouvette
 Mortar-bed, 5-inch, Eprouvette
 Mortar-cart

 Nails, assorted, (except boat-nails)
 Nails, boat, copper
 Nails, boat, galvanized
 Needles, sail
 Nippers, end-cutting

 Oakum pounds of
 Oars 12-foot
 Oars 14-foot
 Oars 16-foot
 Oars 18-foot
 Oats bushels of
 Ochre, yellow pounds of
 Oil, kerosene gallons
 Oil, lamp--mineral, sperm gallons
 Oil, linseed, boiled gallons
 Oil, linseed, raw gallons
 Oil, signal gallons
 Oil-stones

 Paint, black
 Paint, black-drop
 Paints, mixed gallons
 Pans, bake, tin
 Pans, bread, tin
 Pans, dish, tin
 Pans, dust
 Pans, fry
 Pans, sauce
 Pans, tin
 Paper, blotting
 Paper, cap
 Paper, letter
 Patent dryer pounds of
 Parrott gun and carriage
 Parrott-gun projectiles
 Pen-holders
 Pens, steel
 Pepper-boxes
 Pillow-covers
 Pillows, feather
 Pillows, hair
 Pillows, shuck
 Pincers, flat-nosed
 Pins, thole, iron, (extra)
 Pins, thole, wood, (extra)
 Pitchers, molasses
 Pitchers, water, albata
 Pitchers, water, stone-china
 Planes, jack
 Planes, smoothing
 Plates, bed, for stoves, (extra)
 Plates, stone-china
 Plates, tin
 Platters, stone-china
 Pliers
 Pokers, stove
 Pork pounds of
 Pots, coffee, gallon
 Pots, iron, gallon
 Pots, iron, gallon
 Pots, tea, tin, gallon
 Powder pounds of
 Powder-flasks
 Powder-magazines
 Powder-measures
 Primers, (cannon, fuze)
 Priming-wires
 Prussian blue
 Pump, force, (whose make,) double or single
 Putty pounds of

 Receipt and expenditure, books
 Reels, shot-line
 Reels, whip-line
 Reflectors, lamp
 Resuscitation of apparently drowned, Form 23
 Revised Regulations Life-Saving Service, 1877
 Rivets, boat pounds of
 Rockets, assorted
 Rockets, line-bearing
 Rocket-staves
 Rotten-stone pounds of
 Rubber cement

Rubber repairing cloth
 Rubber suits

 Salt, common pounds of
 Sand-paper sheets of
 Saucers, stone-china
 Saw-horse
 Saws, hand, cross-cut
 Saws, hand, rip
 Saws, large, cross-cut
 Saws, whip
 Saws, wood, with frame
 Screw-drivers
 Screws, brass, assorted
 Screws, iron, assorted
 Screws, iron, bench, carpenter's
 Screws, wood, bench, carpenter's
 Sewing-palms
 Shears
 Sheaves, lignumvitae, plain
 Sheaves, lignumvitae, bushed
 Sheeting
 Shingles
 Shovels, long, round point
 Shovels, short, (common hand-shovel)
 Shovels, scoop
 Shovels, stove
 Shot-hooks
 Shot-lines, braided, large, length
 Shot-lines, braided, small, length
 Shot-lines, laid, large, length
 Shot-lines, laid, small, length
 Skids, boat
 Sieves, coal
 Sieves, flour
 Signal-book, international code
 Signal-flags, international
 Signal-flags, Life-Saving Service
 Signal-holders, (Coston's)
 Slate-pencils
 Slates, log
 Sledges, blacksmith's
 Soap, fresh-water pounds of
 Soap, salt-water pounds of
 Soapstone, (for Merriman suits)
 Solder pounds of
 Spades
 Speaking-trumpets
 Spikes, assorted pounds of
 Spittoons
 Spoke-shaves
 Sponges, boat
 Spoons, bread
 Spoons, large, iron
 Spoons, table
 Spoons, tea
 Spun yarn pounds of
 Squares, steel, carpenter's
 Stain, walnut
 Stove-drums
 Stove-lifters
 Stove-pipe, common black iron, joints, size, (extra)
 Stove-pipe, galvanized-iron, joints, size, (extra)
 Stove-pipe, Russia iron, joints, size, (extra)

Stove-polish papers of
 Stoves, coal, cooking, and pipe; size, name, when received
 Stoves, wood, cooking, and pipe; size, name, when received
 Stoves, coal, heating and pipe; size, name, when received
 Stoves, wood, heating, and pipe; size, name, when received
 Stropps, selvagee
 Sugar pounds of

 Table-cloths
 Tables, extension
 Tables, kitchen
 Tacks, copper pounds of
 Tacks, galvanized pounds of
 Tacks, iron, plain
 Tally-boards, No. 1
 Tally-boards, No. 2
 Tarpaulins
 Telescopes
 Tent-pegs
 Thermometers
 Time-detectors, with cases and keys
 Towelling, crash
 Treasury Register
 Tripods
 Tumblers, glass
 Turpentine gallons
 Twine, cotton pounds of
 Twine, hemp pounds of

 Umber, burnt pounds of
 Umber, raw pounds of

 Varnish, copal gallons
 Varnish, Japan gallons
 Varnish, shellac gallons
 Varnish, white gallons
 Varnish, wood-filling gallons
 Varnish, dry pounds

 Webbing, linen
 Weekly transcripts, Form 1809
 Wheelbarrows
 Wood, fire cords of
 Wreck reports, Form 1806
 Wreck reports, preliminary, Form 1805
 Wrenches, boat-carriage
 Wrenches, monkey

 Zinc, sheets, size

BUILDINGS, ETC.

Boat-house, size; when built,
 Dock, size; when built
 Flag-poles, (not on station building; distance from station)
 Launchway, when built, ; length
 Stable, size; when built,

Appendix J

Furnishings Data for Life-saving Stations, ca. 1901.
(Adapted from Cornelia Wyma and John Albright,
Historic Structure Report. Glen Haven Coast Guard Station.
Architectural and Historical Data.
Sleeping Bear Dunes National Lakeshore, Frankfort, Michigan.
[Denver: National Park Service, 1980, pp. 86-127].
A more comprehensive listing is in Katherine B. Menz,
Historic Furnishings Report. Sleeping Bear Point Life-Saving Station,
Sleeping Bear Dunes National Lakeshore
[Harpers Ferry: National Park Service, 1983]).

Beds and Bedding.

Beds, iron, single, with best quality woven wire mattresses combined, per sample	each
Blankets, 8 pounds per pair, gray, persample,	per pair
Blankets, all woold, gray, 8 pounds, per pair, 4 points, U.S.L.S.S. woven in fabric, "Oregon City Woolen Mills," per sample	per pair
Blankets, all pure new woold stock, gray, 8 pounds per pair, U.S.L.S.S. woven in fabric, Bandon Woolen Mills Co.'s, per sample	per pair
Mattresses, stuffed with fine fiber rattan, heavy cotton tops, square edges, bound, weight 27 pounds, 6 feet 2 inches by 2 feet 6 inches, A.C.A. ticking	each
Mattress covers, Park check, No. 90, to fit mattresses, item No. 5	each
Pillows, feather, first quality, new live geese, 20 x 30 inches, weight 3 pounds. A.C.A. ticking	each
Pillowcases, 23 x 35 inches, 1-inch hem, "Utica Mills"	each
Pillow covers, Park check, No. 90, to fit pillows, item No 7	each
Sheets, brown, two yards to weight 4 pound. 76 wool, 72 warp, 7-4, 2½ yards long, hemmed and made	each

Blocks and Sheaves.

Blocks, breeches buoy, English pattern, per sample	each
Blocks, double, 8-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, double, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, double, 8-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each
Blocks, double, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each
Blocks, galvanized iron, combination snatch, per sample	each
Blocks, single, 8-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, single, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, single, 8-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each
Blocks, single, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each
Blocks, single, 6-inch, inside galvanized iron strapped, open galvanized iron sheaves, swivel eye with thimble, ash shell, 18 foot tail of 2¼ inch manila per sample	each
Blocks, triple, 12-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, triple, 12-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each

Blocks, triple, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, triple, 8-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks	each
Blocks, triple, 10-inch, inside galvanized iron strapped, galvanized iron sheaves, with best composition roller bushings and loose hooks and becketts	each
Blocks, triple, 8-inch, inside galvanized iron strapped, galvanized iron shelves, with best composition roller bushings and loose hooks and becketts	each
Sheaves, open, galvanized iron, bushed, $3\frac{1}{2}$ x $15/16$ inch (for tail blocks)	each
Sheaves, galvanized iron, best composition roller bushings, $8\frac{1}{2}$ x $15/16$ inch	each
Sheaves, galvanized iron, best composition roller bushings, 5 x $1-1/16$ inch	each
Sheaves, galvanized iron, best composition roller bushings, $6\frac{1}{4}$ x $1-15/16$ inch	each
Sheaves, galvanized iron, best composition roller bushings, 8 x $1-6/8$ inch	each

Cordage
(Circumference in inches.)

Hawsers, 3-Inch

Bolt rope, best manila, right-hand laid, one red yarn throughout the entire length of one strand (150 fathoms each)	per pound
Bolt rope, best manila, right-hand laid, one red yarn throughout the entire length of one strand (235 fathoms each)	per pound

Whip Lines ($1\frac{1}{2}$ -inch).

Bolt rope, best manila, right-hand laid, one red yarn throughout the entire length of one strand (300 fathoms each)	per pound
---	-----------

Bolt rope, best manila, right-hand laid, one red yarn throughout the entire length of one strand (450 fathoms each)	per pound
Bolt rope, best manila, left hand laid, one red yarn throughout the entire length of one strand (300 fathoms each)	per pound
Bolt rope, best manila, left hand laid, one red yarn throughout the entire length of one strand (150 fathoms each)	per pound

Miscellaneous Sizes
(Circumference in inches unless otherwise noted.)

Bell rope, best manila, 2 $\frac{1}{4}$ -inch	per pound
Best manila, long tiber, smooth laid, 6-thread	per pound
Best manila, long fiber, smooth laid, 9-thread	per pound
Best manila, long fiber, smooth laid, 12-thread	per pound
Best manila, long fiber, smooth laid, 1 $\frac{1}{4}$ -inch	per pound
Best manila, long fiber, smooth laid, 1 $\frac{1}{2}$ -inch	per pound
Best manila, long fiber, smooth laid, 1-3/4-inch	per pound
Best manila, long fiber, smooth laid, 2 $\frac{1}{4}$ -inch	per pound
Best manila, long fiber, smooth laid, 2 $\frac{1}{2}$ -inch	per pound
Best manila, long fiber, smooth laid, 3-inch	per pound
Best manila, long fiber, smooth laid, 4-inch	per pound
Best manila, long fiber, smooth laid, 4 $\frac{1}{2}$ -inch	per pound
Best Russian hemp, 12-thread	per pound
Best Russian hemp, 15-thread	per pound
Halyards, signal, No. 7, braided, Italian hemp, in coils	per pound
Marline hemp (5 and 10 pound coils)	per pound
Spun yarn, hemp, 2-yarn (5 and 10 pound coils)	per pound

Crockery.

Bowls, mixing, yellow, 6-quart	each
Bowls, sugar, without handles, with covers, best ironstone china	each
Cups, coffee, without handles, with sauncers, best ironstone china (set to consist of 6 cups and 6 sauncers)	per set
Cups, coffee, without handles, best ironstone china	each
Dishes, baking, yellow, 10-inch	each
Dishes, butter, with covers and drainers, best ironstone china, 5-inch	each
Dishes, vegetable, 10-inch, with covers, best ironstone china	each
Jugs, stone, 1-gallon	each
Jugs, stone, 2-gallon	each
Jugs, stone, 3-gallon	each
Pitchers, milk, 1-quart, best ironstone china	each
Pitchers, molasses, 1-pint, heavy glass, white metal covers	each
Pitchers, water, best ironstone china, 6's	each
Plates, dinner, 10-inch, best ironstone china	per dozen
Plates, soup, 10-inch, best ironstone china	per dozen
Platters, meat, oval, 14-inch, best ironstone china	each
Saltcellars, pressed glass, plain, heavy, largest size	each
Tumblers, table, pressed glass, plain, extra heavy, largest size	per dozen

Furniture

Chairs, office, hard wood, back of bent wood in one piece, with five upright rungs, one $\frac{1}{4}$ -inch iron rod with head and nut, on each side through seat and side rungs, per sample	each
Tables, extension, $3\frac{1}{2}$ x 10 feet, solid oak, round, drop leaves, iron brackets, iron hinges, five legs fastened to frame with bolts, nuts, and washers, and iron clasps on underside of tops to fasten tables when closed, brass casters, set up single, tops burlaped	each
Tablecloths, Turkey. "Toilette," with varigated stripes, 67 inches x 3 yards, ends hemmed, per sample	each
Table covers, oilcloth, white marble pattern, $1\frac{1}{4}$ x 4 yards, each rolled on $1\frac{1}{2}$ -inch roller 46 inches long	each
Toweling, linen, crash, light, 18-inch, best quality	per yard
Toweling, linen, crash, heavy, 18-inch, best quality	per yard

Hardware

Brackets, brass, cast, $5\frac{1}{2}$ x 7 inches, with brass screws	each
Brackets, iron, cast, japanned, plain, 12 x 14 inches, with screws	each
Burrs, copper, No. 15 (for 1-inch nails)	per pound
Burrs, copper, No. 14 (for $1\frac{1}{2}$ -inch nails)	per pound
Burrs, copper, No. 12 (for 3-inch nails)	per pound
Coal hods, 18-inch, No. 20 galvanized iron, Iron Clad Co.'s or equal	each
Coffee mills, box, per sample	each
Coffee mills, side, Parker's No. 460	each
Couplings, brass, for $1\frac{1}{2}$ -inch discharge hose	per set

Couplings, brass, for 2-inch discharge hose	per set
Couplings, brass, for 2½-inch discharge hose	per set
Emery cloth, No. 00, Baeder, Adamson & Co.'s	per sheet
Emery cloth, No. 1½, Baeder, Adamson & Co.'s	per sheet
Emery cloth, No. 3, Baeder, Adamson & Co.'s	per sheet
Flour sieves, seamless, tin rim, 12-3/8 inches diameter, No. 18 mesh	each
Forks, carving, rubber handles, with bolsters, Russell's or Northampton Cutlery Co.'s	each
Forks, flesh, 18-inch, 3 prongs, malleable iron, retinned	each
Funnels, corrugated, 1-quart, 4X tin	each
Funnels, corrugated, 1-quart, 4X tin, with brass wire-cloth strainers	each
Hasps, wrought iron, galvanized, 7-inch, with staples, Stanley's or Brewer's	each
Hinges, strap, heavy, 6-inch, wrought-iron, galvanized, brass pins, with screws, Stanley's	per pair
Hinges, strap, heavy, 8-inch, wrought iron, galvanized, brass pins, with screws, Stanley's	per pair
Hooks, clothes, medium size, japanned, with screws	per dozen
Hooks, harness, galvanized, 8-inch, with screws	per dozen
Hooks, hat and coat, No. 14, japanned, with screws	per dozen
Hooks, wrought-iron, galvanized, 6-inch, with staples	each
Hose, carbon, 3/4-inch delivery, in 50 foot lengths, coupled with brass shank couplings and "Sherman's" brass hose bands, with iron bolt and nut	per foot
Hose, cotton, 1½-inch delivery, in 50-foot lengths, coupled with brass shank couplings and "Sherman's" brass hose bands, with iron bolt and nut "Warwick," mildew and rot proof, "Safety" brand, or equally good	per foot

Hose, cotton, 2½ inch delivery, in 50-foot lengths, coupled with brass shank couplings and "Sherman's brass hose bands, with iron bolt and nut, "Warwick" mildew and rot proof, "Safety" brand, or equally good	per foot
Hose, rubber, hard, standard quality, 4-ply, 1½-inch delivery, for suction	per foot
Hose, rubber, hard, standard quality, 4-ply, 2-inch delivery, for suction	per foot
Hose rubber, hard, standard quality, 4-ply, 2½-inch delivery, for suction	per foot
Knives and forks, dinner, best shear steel, rubber handles, with metal bolsters, Russell's Northampton Cutlery Co.'s, or L & G (set to consist of 6 knives and 6 forks)	per set
Knives, butcher, best shear steel, 7-inch blade, cocoa or beech handles, with metal bolsters Russell's, Northampton Cutlery Co's, or L & G	each
Knives carving, best shear steel, 12-inch blade, rubber handles, with metal bolsters, Russell's Northampton Cutlery Co.'s, or L & G	each
Knives, mincing, best cast steel, single blade, polished, No. 1, plain handle	each
Knives, putty, 6-inch, square, elastic, riveted handles	each
Match safes, iron, japanned, large, self closing	each
Measures, lipped, 4X tin, gallon	each
Measures, lipped, 4X tin, quart, graduated measure	each
Nails, boat, copper, 1-inch	per pound
Nails, boat, copper, 1½-inch	per pound
Nails, boat, copper, 3-inch	per pound
Nails, boat, galvanized, Swedish iron, 1-inch	per pound
Nails, boat, galvanized, Swedish iron, 1½-inch	per pound
Nails, boat, galvanized, Swedish iron, 3-inch	per pound

Nails, cut 6d	per pound
Nails, cut 8d	per pound
Nails, cut 10d	per pound
Nails, cut 20d	per pound
Nails, cut, galvanized, 6d	per pound
Nails, cut, galvanized, 8d	per pound
Nails, cut, galvanized, 10d	per pound
Nails, cut galvanized, 20d	per pound
Nails, cut, galvanized, 2d	per pound
Nails, wire, common, 2d	per pound
Nails, wire, common, 4d	per pound
Nails, wire, common, 6d	per pound
Nails, wire, common, 8d	per pound
Nails, wire, common, 10d	per pound
Nails, wire, common, 16d	per pound
Nails, wire, common, 20d	per pound
Nails, wrought, 6d	per pound
Nails, wrought, 8d	per pound
Nails, wrought, 10d	per pound
Nails wrought, galvanized, 6d	per pound
Nails, wrought, galvanized, 8d	per pound
Nails, wrought, galvanized, 10d	per pound
Nozzles, brass, C.L.E., for 3/4-inch discharge hose	each
Nozzles, brass, for 1½-inch discharge hose	each
Nozzles, brass, for 2-inch discharge hose	each

Nozzles, brass, for 2½-inch discharge hose	each
Padlocks, brass, 3 tumbler, 3 inches long, with drop plates and duplicate keys	each
Pans, dust, japanned, best heavy tin, ordinary house size, half covered, steel edge	each
Paper, sand, Baeder, Adamson & Co.'s, No. 00	per sheet
Paper, sand, Baeder, Adamson & Co.'s, No. 1½	per sheet
Paper, sand, Baeder, Adamson & Co.'s, No. 3	per sheet
Pepper boxes, planished, 2¼ x 3½ inches	each
Rakes, garden, 14-teeth, east steel, 6-ft. handles	each
Scale beams, No. 2, common, japanned, light, 500 pounds capacity	each
Screw eyes, cast brass, ½-inch hole, 1-inch shank per sample	per dozen
Screws, bench, beech or birch wood, 2½-inch, 24 inches long	each
Screws, brass, flat heads, gimlet points, ½-inch, No. 6	per gross
Screws, brass, flat heads, gimlet points, 5/8-inch, No. 7	per gross
Screws, brass, flat heads, gimlet points, 3/4-inch, No. 8	per gross
Screws, brass, flat heads, gimlet points, 1-inch, No. 10	per gross
Screws, brass, flat heads, gimlet points, 1¼-inch, No. 13	per gross
Screws, brass, flat heads, gimlet points, 1½-inch, No. 14	per gross
Screws, brass, flat heads, gimlet points, 1-3/4-inch, No. 15	per gross
Screws, brass, flat heads, gimlet pints, 2-inch, No. 16	per gross
Screws, iron, flat heads, gimlet points, ½-inch, No. 5	per gross
Screws, iron, flat heads, gimlet points, 5/8-inch, No. 6	per gross
Screws, iron, flat heads, gimlet points, 3/4-inch, No. 7	per gross
Screws, iron, flat heads, gimlet points, 1-inch, No. 9	per gross

Screws, iron, flat heads, gimlet points, 1 $\frac{1}{4}$ -inch, No. 12	per gross
Screws, iron, flat heads, gimlet points, 1 $\frac{1}{2}$ -inch, No. 12	per gross
Screws, iron, flat heads, gimlet points, 1-3/4-inch, No. 14	per gross
Screws, iron, flat heads, gimlet points, 2-inch, No. 15	per gross
Soap dishes, hanging galvanized, Central Stamping Co.'s, No. 100, 4-3/8 inches	each
Solder, best half and half	per pound
Spanners, brass, for 1 $\frac{1}{2}$ -inch hose	each
Spanners, brass, for 2-inch hose	each
Spanners, brass, for 2 $\frac{1}{2}$ -inch hose	each
Spring balances, improved, 24 pounds by $\frac{1}{2}$ pound with rings and hooks attached	each
Spikes, cut, black iron, 6-inch	per pound
Spikes, cut, black iron, 6 $\frac{1}{2}$ -inch	per pound
Spikes, cut galvanized, 6-inch	per pound
Spikes, cut, galvanized, 6 $\frac{1}{2}$ -inch	per pound
Spittoons, indurated fiber, No. 2	each
Spittoons, iron, porcelain lined, loaded, 8 $\frac{1}{2}$ x 6 inches	each
Spoons, bread, forged iron, tinned, 18-inch	each
Spoons, table, pure white German silver, not less than 18 percent nickel, perfectly plain in style, highly polished and finished, and shall measure 8-1/16 inches, and weigh 20 ounces avoirdupois to the dozen	per dozen
Spoons, tea, pure white German silver, not less than 18 percent nickel, perfectly plain in style, highly polished and finished, and shall measure 5-11/16 inches, and weight 9-5/32 ounces avoirdupois to the dozen	per dozen
Tacks, copper, in papers, size $\frac{1}{2}$ -inch, full weight	per pound

Tacks, copper, in papers, size 5/8-inch, full weight	per pound
Tacks, copper, in papers, size 3/4-inch, full weight	per pound
Tacks, galvanized iron, in papers, size 4-ounce, full weight	per pound
Tacks, galvanized iron, in papers, size 6-ounce, full weight	per pound
Tacks, galvanized iron, in papers, size 8-ounce, full weight	per pound
Tacks, galvanized iron, in papers, size 10-ounce, full weight	per pound
Tacks, galvanized iron, in papers, size 12-ounce, full weight	per pound
Tacks, black iron, in papers, size 8-ounce, full weight	per pound
Wire gauze, copper, No. 16 mesh, No. 28 wire, for door and window screens	per square foot
Washbowls, IXXX, deep, tinned, flat bottom, retinned, with rings, 13 inches diameter	each
Yellow sheet metal, 18-ounce	per pound

Lamps, Lanterns, Etc.

Burners, lamp, kerosene, No. 1, "Queen Anne,"	each
Burners, lamp, kerosene, No. 2, "Queen Anne,"	each
Burners, lamp, kerosene, No. 0, central draft, per sample	each
Burners, lamp, kerosene, No. 2, central draft, per sample	each
Burners, lantern, kerosene, No. 1, styles as required	each
Burners, lantern, kerosene, No. 2, styles as required	each
Burners, lantern, No. 2, tubular (for No. 0 tubular lift wire lantern)	per dozen

Burners, lantern, No. 1, tubular (long cone and long shaft for No. 0 reflector lantern)	per dozen
Chimneys, No. 0, for B & H, lamp, per sample	per dozen
Chimneys, No. 2, for B & H, lamp	per dozen
Chimneys, No. 0, "Pearl Top" or "Pearl Glass" per sample	per dozen
Chimneys, No. 1, "Pearl Top" or "Pearl Glass" per sample	per dozen
Chimneys, No. 2, "Pearl Top" or "Pearl Glass" per sample	per dozen
Globes, green, for "Dietz" No. 0, lift-wire, tubular lanterns, with guards	per dozen
Globes, ruby, for "Dietz" No. 0, lift wire, tubular lanterns, with guards	per dozen
Globes, white, for "Dietz" No. 0, lift-wire, tubular lanterns, with guards	per dozen
Lamps, hand, metal, kerosene, central draft, No. 0 burner, complete, with chimney	each
Lamps, hanging, brown or brass finish, length 29 inches, with metal rings, 1 quart metal font, central draft, with chimney, burner, smoke bell, tin shade, and screw hook, iron, wire bossed, brown or brass finish, 3 inches from boss to point of screw, complete	each
Lamps, table, metal, kerosene, central draft, No. 2 burner, with 10-inch tin reflector shade, complete, with chimney	each
Lamp fillers, quart, best heavy block tin, to close air tight	each
Lamp fillers, quart, best heavy block tin, to close air tight	each
Lamp trummors, Challenge, No. 40, polished blades	each
Lampwick, flat, woven, No. 1 (5/8-inch)	per dozen
Lampwick, flat, woven, No. 2 (1-inch)	per dozen

Lampwick, flat, woven, No. 3 (1½-inch)	per dozen
Lampwick, woven, No. 2, for B and H lamps	per dozen
Lampwick yarn	per pound
Lanterns, beach, japanned, with wings and staves and 12 extra lights of glass, per sample	each
Lanterns, tubular, "Dietz" No. 0, lift-wire, with guards, per sample	each
Lanterns, patrol, tubular, "Dietz," No. 0, reflector, with hoods, per sample	each
Oil tanks, 60 gallon capacity, No. 26 galvanized iron, with pump, front of hood to slide around, lettered U.S.L.S.S. and having a 4 piece mitered joint, round, wood bottom, let in flush with rim	each

Lumber

Lumber, white pine, clear, dressed, board measure	per M
Lumber, white pine, clear, undressed, board measure	per M
Lumber, yellow pine, seconds, dressed, board measure	per M
Lumber, yellow pine, seconds, undressed, board measure	per M
Lumber, hemlock, dressed, board measure	per M
Lumber, hemlock, undressed, board measure	per M
Lumber, spruce, dressed, board measure	per M
Lumber, spruce, undressed, board measure	per M
Laths	per M
Shingles, cypress, No. 1, rived	per M
Shingles, cedar, No. 1, rived	per M
Shingles, white pine, No. 1, rived	per M

Medicines, Etc.

Lint, surgeon's, in 1-pound packages	per pound
Medicine chests, with medicines, per sample	each
Plasters, adhesive, "S. & J.," in tin boxes, in yard roles	per box
Plasters, mustard, "Rigolott" or "S. & J.," in tin boxes, 19 in box	per box
Water bottles, rubber, 2-quart, with covers	each
Whisky, pure rye (for medicinal purposes), in quart bottles, packed singly in wooden boxes,	per quart

Paints, Oils, Etc.

(No extra charge will be allowed for cans)

Brushes, dust, best quality, all bristles, black, 9½-inch solid hard-wood blocks, per sample	each
Brushes, paint, flat, leather bound, all white Russia bristles, for ordinary painting, size 3½-inch	each
Brushes, paint, flat, leather bound, all white Russia bristles, for ordinary painting, size 4½-inch	each
Brushes, paint, round, No. 30, all white bristles, Clinton's extra, or Whiting's extra Russia	each
Brushes, paint, round, No. 40, all white bristles, Clinton's extra, or Whiting's extra Russia	each
Brushes, paint, round, No. 50 all white bristles, Clinton's extra, or Whiting's extra Russia	each
Brushes, painter's dusters, No. 50, all bristles, black outside	each
Brushes, sash tool, No. 2, "Atlantic," wire bound, extra French bristles	each
Brushes, sash tool, No. 3, "Atlantic," wire bound, extra French bristles	each

Brushes, varnish, 1-inch, flat, tin bound, French bristles, "Atlantic," double thick	each
Brushes, varnish, 2-inch, flat, tin bound, French bristles, "Atlantic," double thick	each
Brushes, whitewash (beads), brass bound, all white Russia bristles, Clinton's extra, width 8 inches	each
Drier, patent, Acme White Lead and Color Works, in 1-pound cans	per pound
Drier, patent, Masonry's, in 1-pound cans	per pound
Drier, patent, Tieman's, in 1-pound cans	per pound
Drier, patent, F.W. Devoe & Co's, in 1-pound cans	per pound
Drier, patent, John Lucas & Co's, in 1-pound cans	per pound
Drier, patent, "Peninsular," in 1-pound cans	per pound
Drier, patent, Toch Bros.; in 1-pound cans	per pound
Drier, patent, F.O. Pierce Co.'s in 1-pound cans	per pound
Drier, patent, C.A. Woolsey Paint and Color Co.'s in 1-pound cans	per pound
Drier, patent. The Sherwin-Williams Co.'s, in 1-pound cans	per pound
Glass cutters, steel wheel	each
Lead, red, dry, best American	per pound
Lead, white, in oil, strictly pure American White Lead and Color Works	per pound
Lead, white, in oil, strictly pure, Lewis'	per pound
Lead, white, in oil, strictly pure, "Atlantic,"	per pound
Lead, white, in oil, strictly pure, Richardson's	per pound
Lead, white, in oil, strictly pure, Jewett's	per pound
Lead, white, in oil, strictly pure, Cornell's	per pound
Lead, white, in oil, strictly pure, Detroit White Lead Co.'s	per pound

Lead, white, in oil, strictly pure, Acme White Lead and Color Works'	per pound
Lead, white, in oil, strictly pure, Harrison Bros. & Co.'s	per pound
Lead, white, in oil, strictly pure, Wetherill & Bros.'	per pound
Lead, white, in oil, strictly pure, "Capitol,"	per pound
Lead, white, in oil, strictly pure, "Pioneer,"	per pound
Lead, white, in oil, strictly pure, Toch Bros.	per pound
Lead, white, in oil, strictly pure, F.O. Pierce Co.'s	per pound
Ocher, yellow, dry	per pound
Oil, boiled linseed, strictly pure, in 1-gallon cans	per gallon
Oil, boiled linseed, strictly pure, in 2-gallon cans	per gallon
Oil, boiled linseed, strictly pure, in 3-gallon cans	per gallon
Oil, boiled linseed, strictly pure, in 5-gallon cans	per gallon
Oil, raw linseed, strictly pure, in 1-gallon cans	per gallon
Oil, raw linseed, strictly pure, in 2-gallon cans	per gallon
Oil, raw linseed, strictly pure, in 3-gallon cans	per gallon
Oil, hard finish, dark, Acme White Lead and Color Works', in 1-gallon cans	per gallon
Oil, hard finish, dark, Berry Bros.', in 1-gallon cans	per gallon
Oil, hard finish, dark, "Excelsior," in 1-gallon cans	per gallon
Oil, hard finish, dark, Harrison Bros. & Co.'s, in 1 gallon cans	per gallon
Oil, hard finish, dark, John Lucas & Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, dark, Pratt & Lambert's, in 1-gallon cans	per gallon
Oil, hard finish, dark, Toch Bros.', in 1-gallon cans	per gallon
Oil, hard finish, dark, American White Lead and Color Works', in 1-gallon cans	per gallon

Oil, hard finish, dark, Masury's, in 1-gallon cans	per gallon
Oil, hard finish, dark, F.O. Pierce Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, dark, C.A. Woolsey Paint and Color Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, dark, The Sherman Williams Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, white, Acme White Lead and Color Works', in 1-gallon cans	per gallon
Oil, hard finish, white, Berry Bros., in 1-gallon cans	per gallon
Oil, hard finish, white, "Excelsior," in 1-gallon cans	per gallon
Oil, hard finish, white, Harrison Bros. & Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, white, John Lucas & Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, white, Pratt & Lambert's, in 1-gallon cans	per gallon
Oil, hard finish, white, Toch Bros.', in 1-gallon cans	per gallon
Oil, hard finish, white, American White Lead and Color Works', in 1-gallon cans	per gallon
Oil, hard finish, white, Masury's, in 1-gallon cans	per gallon
Oil, hard finish, white, F.O. Pierce Co.'s, in 1-gallon cans	per gallon
Oil, hard finish, white, C.A. Woolsey Paint and Color Co.'s, in 1-gallon cans	per gallon
Paint, copper, Woolsey's "Yacht" or equally good in 1-quart cans	per quart
Paint, mixed, best, colors as required, Acme White Lead and Color Works'	per gallon
Paint, mixed, best, colors as required, Lucas's	per gallon
Paint, mixed, best, colors as required, Mound City Paint and Color Co.'s	per gallon

Paint, mixed, best, colors as required, Averill's	per gallon
Paint, mixed, best, colors as required, "Atlas"	per gallon
Paint, mixed, best, colors as required, C.A. Woolsey Paint and Color Co.'s	per gallon
Paint, mixed, best, colors as required, Cleveland Oil and Paint Mfg. Co.'s	per gallon
Paint, mixed, best, colors as required, F.O. Pierce Co.'s	per gallon
Paint, mixed, best, colors as required, Harrison Bros. & Co.'s	per gallon
Paint, mixed, best, colors as required, Masonry's	per gallon
Paint, mixed, best, colors as required, Charles M. Childs & Co.'s	per gallon
Paint, mixed, best, colors as required, Chilton's	per gallon
Paint, mixed, best, colors as required, Toch Bros.'	per gallon
Paint, mixed, best, colors as required, American White Lead and Color Works'	per gallon
Paint, mixed, pure prepared, colors as required, Whittier, Fuller & Co.'s	per gallon
Paint, mixed, "City and Village," strictly pure colors as required, Yates & Co.'s	per gallon
Paints, mixed, best, colors as required, "Peninsular"	per gallon
Paint, mixed, best, colors as required, The Sherwin Williams Co.'s	per gallon
Paint, asbestine, fire and water proof, mixed, best, colors as required	per gallon
Paint, asbestos, fire and water proof, mixed best, colors as required, 11 W. Johns Mfg. Co's.	per gallon
Paint, mineral asphalt, mixed, best, colors as required, The Standard Paint Co.'s	per gallon
Paint, pure rubber, mixed, colors as required	per gallon
Paint, drop black, best, in 1-pound cans, Masonry's	per pound

Paint, drop black, best, in 1-pound cans, Acme White Lead and Color Works'	per pound
Paint, drop black, C.P., in 1-pound cans, John Lucas & Co.'s	per pound
Paint, drop black, best, in 1-pound cans, Harrison Bros. & Co.'s	per pound
Paint, drop black, best, in 1-pound cans, "Peninsular"	per pound
Paint, drop black, best, in 1-pound cans, Toch Bros.'	per pound
Paint, drop black, best, in 1-pound cans, American White Lead and Color Works'	per pound
Paint, drop black, best, in 1-pound cans, F.O. Pierce Co.'s	per pound
Paint, drop black, best, in 1-pound cans, C.A. Woolsey Paint and Color Co.'s	per pound
Paint, drop black, best, in 1-pound cans, The Sherwin Williams Co.'s	per pound
Prussian blue, best, strictly pure, ground in oil, Tieman's, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Acme White Lead and Color Works', in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Musury's, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Harrison Bros. & Co.'s, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Whittier, Fuller & Co.'s, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Yates & Co.'s, in 1-pound cans	per pound
Prussian blue, best, C.P. ground in oil, John Lucas & Co.'s, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, "Peninsular," in 1-pound cans	per pound

Prussian blue, best, strictly pure, ground in oil, American White Lead and Color Works', in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, Toch Bros.', in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, F.O. Pierce Co.'s, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, C.A. Woolsey Paint and Color Co.'s, in 1-pound cans	per pound
Prussian blue, best, strictly pure, ground in oil, The Sherwin Williams Co.'s in 1-pound cans	per pound
Putty, in 5-pound tins	per pound
Pumice stone, lumped	per pound
Turpentine, best, in ½-gallon cans	per gallon
Turpentine, best, in 1-gallon cans	per gallon
Turpentine, best, in 2-gallon cans	per gallon
Varnish, grain alcohol, shellac, best, in ½-gallon cans	per gallon
Varnish, grain alcohol, shellac, best, in 1-gallon cans	per gallon
Varinish, grain alcohol, shellac, best, in 2-gallon cans	per gallon
Vermilion, in oil, best English, in 1-pound cans	per pound
Vermilion, in oil, best, "Peninsular," in 1-pound cans	per pound
Vermilion, in oil, unfacing, Harrison Bros. & Co.'s in 1-pound cans	per pound

Ship Chandlery.

Anchors, boat, galvanized iron, weight 16 pounds	per pound
Anchors, boat, galvanized iron, weight 26 pounds	per pound
Anchors, boat, galvanized iron, weight 35 pounds	per pound

Anchors, boat, galvanized iron, weight 50 pounds	per pound
Anchors, boat, galvanized iron, long shank, weight 100 pounds	per pound
Anchors, boat, iron, weight 35 pounds	per pound
Anchors, boat, iron, weight 50 pounds	per pound
Anchors, boat, Dirigo patent folding, galvanized iron, weight 26 pounds	per pound
Anchors, boat. Dirigo patent folding, galvanized iron, weight 32 pounds	per pound
Anchors, boat, Dirigo patent folding, galvanized iron, weight 44 pounds	per pound
Anchors, boat, Dirigo patent folding, galvanized iron, weight 55 pounds	per pound
Anchors, boat. Dirigo patent folding, galvanized iron, weight 78 pounds	per pound
Anchors, boat, Dirigo patent folding, galvanized iron, weight 106 pounds	per pound
Axle grease, 2-pound boxes, "Frazier's," "Manhattan," or "The Four Brothers"	per box
Bags, gunny (for coal)	each
Bath bricks	each
Beeswax, pure yellow	per pound
Boat grapnels, galvanized iron, four prongs, with rings at bottoms, 10 pounds	each
Boat grapnels, galvanized iron, four prongs, with rings at bottoms, 30 pounds	each
Boat hooks, navy, double hooks, ball points, No. 14, Newhall's, with 9-foot staves	each
Boat hooks, heavy, pointed, galvanized wrought iron, 9-foot staves	each
Brooms, corn, best railroad XXX, without seed, not less than 28 pounds to the dozen	per dozen

Brushes, horse, 5 x 8½ inches, all white bristles, exposed length of bristles not less than 1¼ inches, russet leather backs, with strap handles	each
Brushes, scrubbing, white tampico center, gray wings, 11-inch block, per sample	each
Brushes, stove, all black bristles, very full, dauber extension, with handles, per sample	each
Buckets, rubber, black, No. 2, 3-gallons, metal parts of galvanized iron	each
Bunting, American, standard, colors as required, 18-inch	per yard
Canvas, cotton, No. 8 22-inch	per yard
Canvas, cotton, No. 10, 22-inch	per yard
Chains, sling, close-linked, 3 feet long, ¼-inch iron with large link in each end	each
Combs, curry, open back, 8 bars, tinned iron	each
Cotton, calking, for seams	per pound
Duck, linen, No. 6, 24 inches wide	per yard
Glue, broken, Peter Cooper's, No. 1¼ or "Buffalo" No. 1	per pound
Hand grapnels, galvanized, 2½ pounds	each
Hand grapnels, galvanized, 4 pounds	each
Lacing eyes, No. 2, 5/8-inch eye, galvanized	per dozen
Lacing eyes, No. 2 3/8-inch eye, brass	per dozen
Leather, rigging	per pound
Lime, fresh burnt	per barrel
Marline spikes, 12-inch	each
Mops, cotton, 1-pound	each
Mopsticks, Taylor's patent	each
Needles, sail, Smith's, No. 11 hundred	per

Needles, sail, Smith's, No. 14 hundred	per
Needles, sail, Smith's, No. 16 hundred	per
Oars, best ash, ends of blades strapped with 12-ounce copper, 7-foot	per foot
Oars, best ash, ends of blades strapped with 12-ounce copper, 8-foot	per foot
Oars, best ash, ends of blades strapped with 12 ounce copper, 9-foot	per foot
Oars, best ash, ends of blades strapped with 14 ounces copper, 10-foot	per foot
Oars, best ash, ends of blades strapped with 14 ounce copper, 11-foot	per foot
Oars, best ash, ends of blades strapped with 14 ounce copper, 13-foot	per foot
Oars, best ash, ends of blades strapped with 14 ounce copper, 14-foot	per foot
Oars, best ash, ends of blades strapped with 11 ounce copper, 15-foot	per foot
Oars, best ash, ends of blades strapped with 11 ounce copper, 16-foot	per foot
Oars, sweeps, best ash, ends of blades strapped with 11 ounce yellow metal, 18-foot	per foot
Oars, sweeps, best ash, ends of blades strapped with 14 ounces yellow metal, 20-foot	per foot
Oars, sweeps, best ash, ends of blades strapped with 14 ounce yellow metal, 22-foot	per foot
Oil polish, Bertram's, in 1-quart cans	per quart
Pails, "Star," indurated fiber, about 12 quarts	each
Pails, water, No. 22 galvanized iron, 14-quart	each
Pails, fire, No. 22, galvanized iron, cane bottom, 14-quart	each

Pails, fire, No. 22, galvanized iron, cane bottom, 14-quart	each
Palms, sewing, full hide, mounted, No. 2	each
Paste, metal polish, Hoffman's, 1-pound boxes	per pound
Paste, polishing, Univesal, in 1-pound cans	per pound
Rotten stone, lumped	per pound
Sal soda	per pound
Sapolio (3-1/4 x 2-3/8 x 1 inches)	per cake
Slates, double, 9 x 13 inches, brass hinges, without panel backs, per sample	each
Slate pencils, soapstone	per dozen
Soap, fresh water, good quality, not less than 2 months old, in 40 and 80 pound boxes	per pound
Soap, salt-water, good quality	per pound
Soap, Bell's Star Cleaner, 10-ounce cakes	per cake
Sponges, large, coarse, for boat use, per sample	per pound
Tarpaulins, 8 x 8 feet, No. 6 cotton canvas, tabled, unpainted, brass eyelets 12 inches apart all around	each
Tarpaulins, 10 x 10 feet. No. 6 cotton canvas, tabled, unpainted, brass eyelets 12 inches apart all around	each
Thole pins, locust, 3/4-inch, 9 inches long, per dozen	
Thole pins, locust, 1-inch, 10 inches long per dozen	
Trays, chopping, oval, No. 4	each
Twine, best Andover flax, 3 ply	per pound
Twine, cotton, sewing, 1/2-pound balls	per pound
Waste, cotton, machinery, white, picked. No. 1	per pound
Webbing, linen, 1 1/2-inch (in 12 yard pieces), ties for life belts	per yard

Wheelbarrows, canal or railroad, bolted, per sample each

Stoves, Etc.

Ash pans for "Beaver" range No. 8-21 each

Ash pans for Buck's "Regal" range No. 83B each

Ash pans for "Crawford" range No. 8 each

Ash pans for "Model Grand" range No. 8 20 each

Ash pans for "Hub Heater" No. 30 each

Ash pans for "Irving" No. 4 each

Ash pans for "Oak Jewel" No. 618 each

Ash pans for "Princess Beaver" No. 12 each

Ash pans for "Princess Beaver" No. 13 each

Ash sieves, 14 x 16 inches, galvanized iron, No. 2
besh, hard-wood frames each

Ash sifters, "Rival," wood, galvanized wire, for barrels each

Boilers, 8-quart, cast iron, round, tinned inside, with
covers each

Boilers, 12-quart, cast iron, round, tinned inside, with
covers each

Boilers, wash, with covers, 4X tin, drop iron handles,
flat copper bottoms, 19 inches long, 12 inches wide,
13 inches high each

Boilers, wash, with covers, 4X tin, oval, range, drop
iron handles, flat copper bottoms, 24 inches long,
15 inches wide, and at least 13 inches high each

Broilers, wire, retinned, reversible, 13 wires, riveted,
10 x 9 inches each

Cake turners, stamped, threaded handles, retinned,
4½ x 3¼ inches each

Castings for "Atlantic" caboose No. 3	per pound
Castings for "Atlantic" range No. 7	per pound
Castings for "Atlantic" range No. 8	per pound
Castings for "Beaver" range No. 8-21	per pound
Castings for "Buck" No. 7	per pound
Castings for "Buck" No. 9	per pound
Castings for Buck's "Royal" No. 15	per pound
Castings for Buck's "Gem" No. 25	per pound
Castings for Buck's "Regal" range No. 83B	per pound
Castings for "Bright Diamond" No. 150	per pound
Castings for "Brilliant Diamond" No. 250	per pound
Castings for Clad's steel plate portable French range No. 8 x 20	per pound
Castings for 1885 "Crawford" range No. 8	per pound
Castings for "Crown Jewel" No. 9	per pound
Castings for "DeKalb" No. 14	per pound
Castings for "DeKalb" No. 16	per pound
Castings for "Diamond" No. 20	per pound
Castings for "Diamond Oak" No. 17	per pound
Castings for "F. & W. Oak" No. 190	per pound
Castings for "Elon" 21 inch	per pound
Castings for "Price Jewel" range (Style B, No. 87-18.)	per pound
Castings for "Favorite Argand" No. 9-22	per pound
Castings for "Garland" No. 9	per pound
Castings for "Hub Heater" No. 30	per pound

Castings for "Irving" No. 4	per pound
Castings for "Jewitt" range No. 93	per pound
Castings for "New Elmwood" plain range No. 8	per pound
Castings for "New Medallion" plain range No. 8	per pound
Castings for "New Spenidid" stove No. 80 20	per pound
Castings for "Regal Hub" stove No. 8-20	per pound
Castings for "Princess Beaver" No. 12, indirect draft	per pound
Castings for "Princess Beaver" No. 13, full revertible	per pound
Castings for "Matchless Diamond" No. 140	per pound
Castings for 1894 "Oak Jewell" No. 618	per pound
Castings for "Splendid" No. 2	per pound
Castings for "Trojan" No. 25	per pound
Castings for "Stewart Oak" No. 195	per pound
Castings for "Stewart Oak" No. 4	per pound
Castings for "Granite Peninsular" range No. 8 21	per pound
Castings for "Model Grand" range No. 8 20	per pound
Castings for "Peerless Universal" range No. 8 20	per pound
Castings for "Universal Eadiator" No. 3	per pound
Castings for "World's Leader" No. 111	per pound
Castings for "Areadian" range No. 80	per pound
Castings for "Somersworth Ideal" range No. 8 20	per pound
Castings for "New Sterling" range No. 81	per pound
Colanders, family, retinned, feet fast, 12 x 5? inches	each
Collars, tin, for 5 inch stovepipe	each
Collars, tin, for 6-inch stovepipe	each

Cups, best heavy tin, stamped, retinned, flaring pattern, pint, 4-3/4 x 2-1/8 inches	each
Cups, best heavy tin, stamped, retinned, quart, 5-3/8 x 2 1/2-inches	each
Dampers, cast-iron, for 5-inch stovepipe	each
Dampers, cast-iron, for 6-inch stovepipe	each
Dippers, cup, stamped, retinned, 5 x 2 1/2 inches, flaring, flat handles	each
Dippers, tin, stamped, retinned, hollow tin handles, with rings, quart	each
Elbows, stovepipe, No. 18 galvanized iron, 90, 5-inch, 4 pieces (about 4 pounds each)	per pound
Elbows, stovepipe, No. 18 galvanized iron, 90, 6-inch, 4 pieces (about 4 1/2 pounds each)	per pound
Elbows, stovepipe, No. 18 galvanized iron 90, 6-inch (4 pieces (about 4 1/2 pounds each)	per pound
Elbows, stovepipe, No. 11 Russian iron, 90, 5-inch, 4 pieces (about 1 pound each)	per pound
Elbows, stovepipe, No. 11 Russia iron, 90, 6-inch, 4 pieces (about 1 pound each)	per pound
Elbows, stovepipe, No. 11 Russia iron, 90, 6-inch, 4 pieces (about 1 pound each)	per pound
Fire bricks for "Atlantic" caboose No. 3	per set
Fire bricks for "Atlantic" range No. 7	per set
Fire bricks for "Atlantic" range No. 8	per set
Fire bricks for "Beaver" range No. 8 21	per set
Fire bricks for "Buck" No. 7	per set
Fire bricks for "Buck" No. 9	per set
Fire bricks for Clad's steel plate portable French range No. 8 x 20	per set
Fire bricks for 1885 "Crawford" range No. 8	per set

Fire bricks for 1885 "Prize Jewel" range (Style B, No. 87-18)	per set
Fire bricks for "Garland" No. 9	per set
Fire bricks for "F & W Oak" No. 190	per set
Fire bricks for "Hallett" caboose No. 3	per set
Fire bricks for "Hub Heater" No. 30	per set
Fire bricks for "Irving" No. 4	per set
Fire bricks for "Jewett" range No. 93	per set
Fire bricks for S.S. Jewett & Co.'s range No. 90	per set
Fire bricks for "Granite Peninsular" range No. 8 21	per set
Fire bricks for "Model Grand" range No. 8 20	per set
Fire bricks for "Peerless Universal" range No. 8 20	per set
Fire bricks for "New Sterling" range No. 81	per set
Grates for Chad's steel plate portable French range No. 8 x 20	each
Griddles, oblong or round, bailed or handled 18-inch	each
Heads, Liverpool, No. 18 galvanized iron, sizes as required, with saddle for roof, and 30 feet No. 16 galvanized iron wire	per pound
Heads, Liverpool, No. 18 galvanized iron, sizes as required, without saddle for roof, with 30 feet No. 16 galvanized iron wire	per pound
Kettles, tea, iron, galvanized, 7-inch, pit bottom	each
Kettles, tea, iron, galvanized, 8-inch, pit bottom	each
Kettles, tea, iron, galvanized, 9-inch, pit bottom	each
Ladles, deep, solid, tinned iron, retinned, 3-3/4-inch, 14-inch flat handles with hooks	each
Mica, for stoves, clear, sizes as required	per ounce
Pans, bake, round, wrought iron, polished 2 quarts, 8 $\frac{1}{4}$ x 2 $\frac{1}{4}$ inches	each

Pans, bake, round, wrought iron, polished, 4 quarts, 10-3/4 x 2-5/8 inches	each
Pans, bake, round, wrought iron, polished, 6 quarts, 11-5/8 x 2-5/8 inches	each
Pans, bake, oblong, for bread, flaring pattern, pieced, best heavy tin, 9 ³ / ₄ x 5-3/8 x 3 inches	each
Pans, bake, oblong, for bread, flaring pattern, pieced, best heavy tin 11-3/4 x 6-7/8 x 3 ¹ / ₂ inches	each
Pans, bread raisers, stamped, retinned, with ventilated covers, 17-quart, 18 ¹ / ₂ x 6 ¹ / ₄ inches	each
Pans, cake, round, stamped, retinned, shallow, tubed, 8 ¹ / ₂ inches diameter, 2 ¹ / ₄ inches deep	each
Pans, cake, round, stamped, retinned, deep, tubed, 11 ¹ / ₂ inches diameter, 3-3/4 inches deep	each
Pans, dish, round, best heavy tin, stamped, retinned, with handles, 17 quarts, 18 x 6 inches	each
Pans, dripping, smooth iron, best charcoal, 10 x 15 inches, weight per dozen 19 pounds	each
Pans, dripping, smooth iron, best charcoal, 12 x 20 inches, weight per dozen 20 pounds	each
Pans, fry, wrought iron, polished, lipped, 10 x 2 inches	each
Pans, fry, wrought iron, polished, lipped, 14-1/8 x 2 ¹ / ₄ inches	each
Pans, fry, wrought iron, "Central," polished, hollow handles, improved lips, 9-inch	each
Pans, fry, wrought iron, "Central," polished, hollow handles, improved lips, 11-inch	each
Pans, mixing, stamped, retinned, round bottom, 10 quart, 15 ¹ / ₄ x 5 ¹ / ₂ inches	each
Pans, pudding, tin, stamped, retinned, beaded edge, extra deep, 6-quart	each
Pans, pudding, tin, stamped, retinned, beaded edge, extra deep, 10-quart	each

Pans, roast, iron, seamless, 11 x 16 inches, handled	each
Pans, roast, iron, seamless, 17 x 17 inches, handled	each
Pans, sauce, cast iron, inside enameled, with covers, 6-quart	each
Pans, stew, tin, stamped, retinned, shallow, plain, 5 quart, 11-5/8 x 2-5/8 inches	each
Pipe, stove, No. 18 galvanized iron, 5-inch, in 2-foot lengths	per pound
Pipe, stove No. 18 galvanized iron, 6 inch, in 2 foot lengths	per pound
Pipe, stove, No. 18 galvanized, iron, 6-inch, in 2 foot lengths, collar joint, sizes as required	per pound
Pipe, stove, No. 11 Russia from, 5-inch, in 2 foot lengths	per pound
Pipe stove, No. 11 Russia iron, 6-inch, in 2 foot lengths	per pound
Pipe stove, No. 11 Russia iron, 6 inch in 2 foot lengths, collar joint, sizes as required	per pound
Plates, pie, tin, 10-inch, stamped, 1¼ inches deep	per dozen
Pokers, stove, 26 inch, ½-inch iron, with rings and hooks	each
Pots, coffee, 3 gallon, 4X tin, flat copper bottoms handled, bail handles	each
Pots, coffee, 1 gallon, 1X tin, flat copper bottoms, handled, bail handles	each
Pots, tea, 2 gallon, 4X tin, flat copper bottoms, handled, bail handles	each
Pots, tea, 1 gallon, 4X tin, flat copper bottoms, handled, bail handles	each
Saddles, No. 18 galvanized iron, for roof, to fit Liverpool heads	per pound
Shovels, stove, wrought iron, japanned, "U.S." No. 65, 5 x 8½ x 23 inches	each
Steamers, 1XXX tin, raised cover in one piece, new style, 6-inch	each

- Steamers, IXXX tin, raised cover in one piece, new style,
9-inch each
- Stove polish, Dixon's, "Rising Sun," or "Phoenix," per dozen papers
- Stove copper lifters, cast iron, japanned, 10-inch each
- Stoves, cooking, "Beaver" range No. 8 21, for coal or
wood as required, single oven, reservoir, with
furniture complete, including 1 wash boiler, 1 iron
pot and cover, 1 iron kettle, 1 iron teakettle, 1
dipper, 1 square tin pan for bread, 1 drip pan,
1 spider, 1 shovel, 1 poker, 1 griddle, 1 round
tin pan for pudding, 1 collar joint, 6-inch. No. 18
galvanized iron, to connect with 6-inch galvanized
iron stovepipe each
- Stoves, cooking, "Beaver" range No. 8 21, for coal or
wood as required, single oven, reservoir, 1 collar
joint, 6-inch No. 18 galvanized iron to connect with
6-inch galvanized iron stovepipe without furniture each
- Stoves, cooking. Buck's "Regal" range No. 82 B, for
coal or wood as required, single oven, heavy inside
white enameled reservoir attached, with furniture
complete, including 1 iron pot, ground; 1 iron kettle,
ground; 1 iron teakettle, ground; 1 iron spider,
ground; 1 iron cake griddle, ground; 2 tin pot
covers; 1 granite dipper; 1 granite bread pan,
10 x 16 inches; 1 drip pan. 12 x 17 inches; 1 iron
shovel; 1 iron poker; 1 granite pudding pan, round,
8 quart; 1 copper-bottom wash boiler; 1 collar joint,
6 inch, No. 18 galvanized iron, to connect with 6-inch
galvanized-iron stovepipe each
- Stoves, cooking, Buck's "Regal" range No. 83 B, for coal
or wood as required, single oven, heavy inside white
enameled reservoir attached, 1 collar joint, 6-inch,
No. 18 galvanized iron, to connect with 6-inch
galvanized-iron stovepipe, without furniture each
- Stoves, cooking, 1885 "Crawford" range No. 8, with lining
for coal or wood, as required, single oven, reservoir,
with furniture complete, including 1 wash boiler, 1
iron pot and cover, 1 iron kettle and cover, 1
teakettle, 2 bake pans, 1 wire broiler, 1 tin dipper,
1 iron spider, 1 griddle, 1 poker, 1 shovel, 2 bread
pans, 1 collar joint, 6 inch. No. 18 galvanized iron,
to connect with 6-inch galvanized iron stovepipe each

- Stoves, cooking, 1885 "Crawford" range No. 8, with lining for coal or wood, as required, single oven, reservoir, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe without furniture each
- Stoves, cooking, "Granite Peninsular" range No. 8 21, for coal or wood as required, single oven, reservoir, with furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle, 1 iron teakettle, 1 dipper, 1 square tin pan for bread, 1 drip pan, 1 spider, 1 shovel, 1 poker, 1 griddle, 1 round tin pan for pudding, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, cooking, "Granite Peninsular" range No. 8 21, for coal or wood as required, single oven, reservoir, 1 collar joint, 6 inch. No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe, without furniture each
- Stoves, cooking. "Model Grand" range No. 8-20, for coal or wood as required, with reservoir, tea shelf, single oven, with furniture complete, including 1 wash boiler, 1 iron teakettle, 1 iron pot and cover, 1 iron kettle and cover, 1 iron spider, 1 broiler, 1 griddle, 2 bread pans, 1 poker, 1 shovel, 1 drip pan 44 x 17 inches, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, cooking, "Model Grand" range No. 8-20, for coal or wood as required, with reservoir, tea shelf, single oven, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe, without furniture each
- Stoves, cooking, "Peerless Universal" range No. 8 20 for coal or wood as required, with reservoir and T shelf, single oven, with furniture complete, including 1 No. 8 wash boiler, 1 C. tin, copper bottom, 1 No. 8 iron teakettle, 1 No. 8 iron pot and cover, 1 No. 8 iron kettle and cover, 1 No. 8 iron spider, 1 wire broiler, 1 No. 8 iron griddle, 29 x 14 inch tin bread pans, 1 poker, 1 No. 80 shovel, 1 14 x 17 iron drip pan, 1 collar joint, 6-inch No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe each
- Stoves, cooking, "Peerless Universal" range No. 8 20, for coal or wood as required, with reservoir and T-shelf, single oven, 1 collar joint, 6-inch No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe, without furniture each

Stoves, cooking, "Prize Jewel" range, Style 13, No. 87 18, wood, as required, single oven, reservoir, T-shelf, with furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle and cover, 1 teakettle, 2 bake pans, 1 wire broiler, 1 tin dipper, 1 iron spider, 1 griddle, 1 poker, 1 shovel, 2 bread pans, 1 collar joint, 6 inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each

Stoves, cooking, "Prize Jewell" range, Style B, No. 87 18, hard coal, soft coal, or wood, as required, single oven, reservoir, T shelf, 1 collar joint, 6 inch, No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe, without furniture each

Stoves, cooking, "New Elmwood" plain range No. 8, single oven 20 x 20 inches, for coal or wood, as required, with furniture complete, including 1 wash boiler, 1 coffee pot, 1 steamer, 2 round tin pans, 1 shaker, 2 pot covers, 1 square drip pan, 1 flat-iron heater, 1 iron kettle, 1 cake griddle, 1 shovel, 1 lifter, 1 ladle, 1 cook's fork, 1 cake turner, 1 teakettle, 1 dipper, 2 square tin pans, 4 pie plates, 1 scraper, 1 oblong drip pan, 1 iron pot, 1 cast broiler, 1 spider, 1 poker, 1 skimmer, 1 cook's spon, 1 tea strainer, 2 joints stovepipe each

Stoves, cooking, "New Elmwood" plain range No. 8, single oven 20 x 20 inches, for coal or wood, as required, 2 joints stovepipe, without furniture each

Stoves, cooking, "New Medallion" plain range No. 8, single oven 20 x 20 inches, for coal or wood, as required, with furniture complete, including 1 wash boiler, 1 coffee pot, 1 steamer, 2 round tin pans, 1 shaker, 2 pot covers, 1 square drip pan, 1 flat iron heater, 1 iron kettle, 1 cake griddle, 1 shovel, 1 lifter, 1 ladle, 1 cook's fork, 1 cake turner, 1 teakettle, 1 dipper, 2 square tin pans, 3 pie plates, 1 scraper, 1 oblong drip pan, 1 iron pot, 1 cast broiler, 1 spider, 1 poker, 1 skimmer, 1 cook's spoon, 1 tea strainer, 2 joints stovepipe each

Stoves, cooking, "New Medallion" plain range No. 8, single oven 20 x 20 inches, for coal or wood, as required, 2 joints stovepipe, without furniture each

- Stoves, cooking, "New Splendid" No. 80 20, for coal or wood as required, with reservoir and No. 2 tea shelf, with furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle, 1 iron teakettle, 1 dipper, 1 square tin pan for bread, 1 drip pan, 1 spider, 1 shovel, 1 poker, 1 griddle, 1 round tin pan for pudding, 1 collar joint 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe each
- Stoves, cooking. "New Splendid" No. 80 20, for coal or wood as required, with reservoir and No. 2 tea shelf, 1 collar joint, 6 inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe, without furniture each
- Stoves, cooking, "Regal Hub" No. 8-20, for coal or wood required, with reservoir, tea shelf, single oven, with furniture complete, including 1 wash boiler, 1 iron teakettle, 1 iron pot and cover, 1 iron kettle and cover, 1 iron spider, 1 broiler, 1 griddle, 2 bread pans, 1 poker, 1 shovel, 1 drip pan 14 x 17 inches, 1 collar joint, 6-inch No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, cooking, "Regal Hub" No. 8-20, for coal or wood as required, with reservoir, tea shelf, single oven, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe, without furniture each
- Stoves, cooking. "Areadian" range No. 80, for coal or wood as required, with furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle and cover, 1 teakettle, 2 bake pans, 1 wire broiler, 1 tin dipper, 1 iron spider, 1 griddle, 1 poker, 1 shovel, 2 bread pans, 1 collar joint 6 inch No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, cooking, "Areadian" range No. 80, for coal or wood as required, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe, without furniture each
- Stoves, cooking, "Somersworth Ideal" range No. 8 20, for coal or wood as required, with low hot closet and reservoir with copper lining, with furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle, 1 iron teakettle, 1 dipper, 1 square tin pan for bread, 1 drip pan, 1 spider, 1 shovel, 1 poker, 1 griddle, 1 round tin pan for pudding, 1 collar joint 6-inch, No. 18 galvanized iron to connect with 6-inch galvanized-iron stovepipe each

- Stoves, cooking. "Somersworth Ideal" range No. 8 20 for coal or wood, as required, with low hot closet and reservoir with copper lining, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe, without furniture each
- Stoves, cooking. "New Sterling" range No. 81, with lining for coal or wood as required, single oven 18 x 18 x 12 inches, reservoir, 2 nickel tea shelves, shaker, lifter, flue cleaner, towel rod, and furniture complete, including 1 wash boiler, 1 iron pot and cover, 1 iron kettle and cover, 1 teakettle, 2 bake pans, 1 wire broiler, 1 tin dipper, 1 iron spider, 1 griddle, 1 poker, 1 shovel, 2 bread pans, 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe each
- Stoves, heating, Buck's "Royal" No. 15 (hard or soft coal) with 1 collar joint 6 inch No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, heating, Buck's "Gem" No. 25, fixed top (wood), with 1 collar joint 6-inch No. 18 galvanized iron, to connect with 6-inch galvanized-iron stovepipe each
- Stoves, heating, "Elon" 21 inch (wood), with 1 collar joint, 6-inch No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, heating, "Hub Heater" No. 30, with 1 collar joint 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, heating, "Irving" No. 4 (hard coal), with 1 collar joint, 6 inch, No. 18 galvanized iron, to connect with 6 inch galvanized iron stovepipe each
- Stoves, heating, "Matchless Diamond" No. 140, hard coal (no brick required), with 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, heating, 1891. "Oak Jewel" No. 618 (hard coal), with 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each
- Stoves, heating, "Stewart Oak" No. 4, wood and coal (no brick required), with 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe each

Stoves, heating, "Trojan" No. 25 (wood), with 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe	each
Stoves, heating, "Universal Radiator" No. 3 (hard or soft coal), with 1 collar joint, 6-inch, No. 18 galvanized iron, to connect with 6-inch galvanized iron stovepipe	each
Stoves, heating, "World's Leader" No. 114 (hard coal), with 1 collar joint, 6-inch, No. 18, galvanized iron, to connect with 6-inch galvanized iron stovepipe	each
Zinc, sheet, 9 gauge (Size 36 x 42 inches, average weight about 7 lbs. Size 36 x 84 inches, average weight about 14 lbs.)	per pound
Zinc boards, No. 9 zinc, square, 36 x 80 inches (for heating stoves)	each
Zinc boards, No. 9 zinc, oblong, 32 x 42 inches (for cooking stoves)	each

Tools.

Augers, carpenter, best steel, $\frac{1}{2}$ -inch, handled, with nut, Russell Jennings's or Pugh's	each
Augers, carpenter, best steel, 1 inch, handled, with nut. Russell Jennings's or Pugh's	each
Augers, carpenter, best steel, $1\frac{1}{2}$ -inch, handled, with nut, Russell Jennings's or Pugh's	each
Augers, carpenter, best steel, 2-inch, handled, with nut, Russell Jennings's or Pugh's	each
Awls, brad, best steel, shouldered, $\frac{1}{8}$ -inch, without handles	per dozen
Axes, broad, Collins & Co.'s or Beatty's, best steel faced, $8\frac{1}{2}$ to $9\frac{1}{2}$ inch cut, handled	each
Axes, felling, 5-pound, handled, Ogden's "Yankee"	each
Ax handles (broadax), extra hickory, all white, polished	each
Ax handles (felling ax), extra hickory, all white, polished, 32-inch	each

Ax handles (felling ax), extra hickory, all white, polished, 34-inch	each
Ax handles (felling ax), extra hickory, all white, polished, 36-inch	each
Bevels, sliding T, No. 4, 10 inch, Disston's	each
Bits, gimlet, for braces, best solid cast steel, $\frac{1}{2}$ -inch, Russell Jennings's or Pugh's	each
Bits, auger, for braces, best solid cast steel, $\frac{1}{4}$ -inch, Russell Jennings's or Pugh's	each
Bits, auger, for braces, best solid cast steel, $\frac{1}{2}$ -inch, Russell Jennings's or Pugh's	each
Bits, auger, for braces, best solid cast steel, $\frac{3}{4}$ -inch, Russell Jennings's or Pugh's	each
Bits, auger, for braces, best solid cast steel, 1-inch, Russell Jennings's or Pugh's	each
Bits, plain, screw driver, $\frac{1}{2}$ inch, solid cast steel; standard quality, Russell Jennings's or Pugh's	each
Bits, snail, countersinks, for wood, cast steel, standard quality, Russell Jennings's or Pugh's	each
Bits, rose, countersinks, cast steel, round shanks, for brass, standard quality, Russell Jennings's or Pugh's	each
Bits, flat, countersinks, cast steel, for iron, standard quality, Russell Jennings's or Pugh's	each
Braces, Barber's improved, ratchet, No. 32, 10-inch sweep, maple, cherry, or walnut heads and handles	each
Brands, metal, U.S.L.S.S., in 1-inch letters, 18-inch iron handles	each
Chisels, socket firmer, solid cast steel, $\frac{1}{4}$ -inch, with handles leather tipped, 6 to $6\frac{1}{2}$ inch blade, Buck Bros.'	each
Chisels, socket firmer, solid cast steel, $\frac{1}{2}$ -inch, with handles leather tipped, 6 to $6\frac{1}{2}$ inch blade, Buck Bros.'	each
Chisels, socket firmer, solid cast steel, 1-inch, with handles leather tipped, 6 to $6\frac{1}{2}$ inch blade, Buck Bros.'	each

Chisels, socket firmer, solid cast steel, 1 $\frac{1}{4}$ -inch, with handles leather tipped, 6 to 6 $\frac{1}{2}$ inch blade, Buck Bros.'	each
Chisels, cold, solid cast steel, octagon, 1-inch, regular length, Peck, Stow & Wilcox Co.'s	each
Compasses, carpenter's, best steel, 6-inch	each
Files, saw, slim, tapered, double cut, 5-inch, handled, Kearney & Foot's or Disston's	per dozen
Files, saw, tapered, 7-inch, handled, Kearney & Foot's or Disston's	per dozen
Files, flat, smooth, 8-inch, Kearney & Foot's or Disston's	per dozen
Files, flat, bastard, 12-inch, Kearney & Foot's or Disston's	per dozen
Ganges, marking, Russell & Erwin Mfg. Co.'s No. 61	each
Gimlets, nail, steel, double cut, wood handles, Shepardson's or C.E. Jennings & Co.'s, No. 1	per dozen
Gimlets, nail, steel, double cut, wood handles, Shepardson's or C.E. Jennings & Co.'s, No. 2	per dozen
Gimlets, nail, steel, double cut, wood handles, Shepardson's or C.E. Jennings & Co.'s, No. 3	per dozen
Gonges, socket firmer, solid cast steel, $\frac{1}{2}$ -inch, with handles leather tipped, 6 inch blade, Buck Bros.'	each
Gonges, socket firmer, solid cast steel, 1-inch, with handles leather tipped, 6 inch blade, Buck Bros.'	each
Gonges, socket firmer, solid cast steel 1 $\frac{1}{2}$ -inch, with handles leather tipped, 6 inch blade, Buck Bros.'	each
Grindstones, No. 2 "Ohio," 20 inches diameter, 2 $\frac{1}{2}$ -inches thick, mounted, complete, with crank and treadle	each
Hammers, claw, adz eye, solid cast steel, weight 1 pound, handled, Peck, Stow & Wilcox Co.'s, Plumb's, Clark's, or C.E. Jennings & Co.'s	each
Handles, beech, for $\frac{1}{2}$ -inch shouldered brad awls,	per dozen
Handles, for claw hammers, extra hickory, all white, polished	each

Handles, for hatchets (ax pattern), extra hickory, all white polished	each
Handles, for boat hatchets, extra hickory, all white, polished	each
Handles, for pickaxes, extra hickory, all white, polished	each
Handles, for 8 pound blacksmith's sledges, extra hickory, all white, polished	each
Hatchets, ax pattern (boat), 3? inch cut, handled, Collins & Co.'s, No. 2	each
Hatchets, broad (boat), 4½-inch cut, handled, Beatty's, No. 2	each
Hatchets, claw (boat), 4-inch cut, handled, Collins & Co.'s, No. 3	each
Knives, drawing, extra quality, cast steel, 8-inch cut, handles ferruled and capped, Douglass Manufacturing Co.'s	each
Mallets, round, lignum vitae, 4-inches diameter, mortised handles	each
Mallets, square, maple, 3 x 4 inches, mortised handles	each
Nail sets, cast steel, No. 1	each
Nippers, end cutting, 7-inch, good American, warranted	each
Oilers, zinc, "Paragon," No. 3, brass bottoms, double walled cups	each
Pickaxes, railroad pattern, adz eye, steel points, 6 pound, handled, average length 24½ inches, "Trenton"	each
Pineers, steel, 7 inch good American, warranted	each
Planes, jack, best beech, "Sandusky," 16 inches long, Butcher's double iron, 2¼-inch	each
Planes, jointer, best beech, "Sandusky," 28 inches long, Butcher's double iron, 2¼-inch	each
Planes, smoothing, best beech, "Sandusky," 8 inches long, Butcher's double iron, 2¼-inch	each
Pliers, steel, flat nosed, 8-inch, good American warranted	each

Rasps, wood, 12-inch, half round, handled, Kearney & Foot's or Disston's	each
Rules, carpenter's, boxwood, brass bound, 2-foot, 3 joints, 1-3/8 inches wide, 8ths and 16ths	each
Saw sets, Morrill's, No. 1	each
Saws, butcher, 20-inch, extra spring steel blades, beech handles, polished edges, three brass screws, flat backs	each
Saws, crosscut, lumber, 6-foot, set and sharpened, plain handled, Disston's	each
Saws, crosscut, lumber, 8-foot, set and sharpened, plain handled, Disston's	each
Saws, hand, crosscut, 26-inch, four screws, grained blades, Disston's	each
Saws, hand, rip, 28-inch, four improved screws, grained blades, Disston's	each
Saws, panel, 18-inch, Disston's	each
Saws, whip, 6-foot, with handles, Disston's	each
Saws, wood, with frames, No. 6, Disston's	each
Screw drivers, steel, 8-inch, handled, brass ferrules, Stanley's or C.E. Jennings & Co.'s	each
Shovels, best steel, No. 3, handled, Ames's	each
Shovels, round point, best steel, long handled, Ames's	each
Shovels, scoop, Ames's, No. 2	each
Sledges, blacksmith's, 8-pound, steel face and peen polished, handled, Atha Tool Co.'s, No. 29, or "Trenton"	each
Soldering tools, 1-pound, handled	each
Spades, best steel, handled, Ames's, No. 2	each
Spokeshaves, best steel, 3-inch blade, plated, beechwood, with thumbscrews, Bagshaw & Field's or Booth & Mills's	each

Stones, oil, mounted, 8 x 2 x 1-3/8 inches, Washita	each
Squares, carpenter's, steel, "Eagle," 24 inches long, with 14 inch arm	each
Squares, try, Disston's, No. 1, 8-inch	each
Wrenches, monkey, 12-inch, knife handles, Coe's	each
Wrenches, combination pipe, bolt, and nut, 12-inch Donahue's patent, No. 100	each
Vises, carpenter's, parallel, 4-inch jaw, Parker's 22X or "Trenton" No. 4	each
Barometers, life buoy, aneroid, first quality, in bronzed cases, per sample	each
Barometers, life buoy, aneroid, porcelain dials, square oak frames, per sample	each
Boat drags, canvas, per sample	each
Breeches buoys, with slings, complete, per sample	each
Cartridge bags, rod, per sample	per M
Cartridge bags, white, per sample	per M
Cases, leather, for marine glasses, with straps complete, per sample	each
Cases, leather, for time detectors, with straps complete, per sample	each
Clocks, banner lever, nickel plated, one day, 8-inch dial, time, U.S.L.S.S., in black letters, 3/8-inch, on dial	each
Compasses, liquid, boat, with binnacles, complete, Ritche's, per sample	each
Compasses, liquid, boat, with binnacles, complete, John Bliss & Co.'s, per sample	each
Compasses, liquid, boat, with lacquered copper improved binnacles, complete, 5-7/8 x 5-7/8 x 9¼ inches, per sample	
Crotches, per sample	each
Dials, card, for Imhauser's time detectors, 370 dials to box	per box

Fenders, cork, for boats 5 inches diameter at center, tapered to 2½ inches at end, covered with No. 4 cotton canvas, with fixtures complete, viz. 18 fathoms 6 thread steam-tarred manila, and 4 dozen composition lacing eyes, 3/8-inch eye, lengths as required	per foot
Flannel, red, all wool, 27 inches wide	per yard
Flasks, powder, heavy copper, 16-ounce capacity, screw tops, outside springs, per sample	each
Glasses, binocular marine, Bardon & Son's, No. 2711, 26', with extra heavy leather cases, including straps, complete, per sample	each
Glasses, binocular, 26" field glass, short body, oxidized slides, movable shades, heavy sole leather cases, with strap for hanging; "U.S.L.S.S." to be engraved upon slides and stamped or gilded upon the inner side of case covers, per sample	each
Handcarts, beach apparatus, per sample	each
Heaving sticks, per sample	each
Key safes, iron, "Abbey" pattern, with two keys, per sample	each
Keys, for "Abbey" pattern key safes, per sample	each
Keys, for Imhauser's time detectors, per sample	each
Launching carriages, iron, Wood's improved, for lifeboats	each
Launching carriages, iron, Wood's improved, for surfboats	each
Life belts, cork, "Abbey" pattern, size 38 inches, per sample	each
Life belts, cork, "Abbey" pattern, size 40 inches, per sample	each
Life belts, cork, "Abbey" pattern, size 44 inches, per sample	each
Life belts, cork, "Ward" pattern, sizes as required, per sample	each
Life caps	each

Powder, Hazard's (L.S.S. Standard), 10-pound packages	per pound
Pumps, Rumsey's, No. 1, horizontal, double acting, 5-inch cylinder, with fore and aft brakes, complete (2-inch suction and 2 inch discharge)	each
Pumps, Rumsey's, No. 2, horizontal, double acting, 6-inch cylinder, with fore and aft brakes, complete (2½-inch suction and 2½-inch discharge)	each
Pumps, Gould's, "Challenge," No. 12, horizontal, double acting, 5-inch cylinder, with fore and aft brakes, complete (2-inch suction and 2-inch discharge)	each
Pumps, Gould's, "Challenge," No. 16, horizontal, double-acting, 6-inch cylinder, with fore and aft brakes, complete (2½-inch suction and 2½-inch discharge)	each
Reels, double, for hand carts, per sample	each
Sand anchors, per sample	each
Sand anchor pendants, per sample	each
Signals, patrol	per dozen
Signal holders, "Coston," improved	each
Speaking trumpets, brass, 14-inch, marked "U.S.L.S.S."	each
Tally boards, No. 1, per sample	each
Tally boards, No. 2, per sample	each
Telescopes, Bardon & Son's, day and night adjustment, No. 362, 22", per sample	each
Telescopes, brass, calf-covered body, diameter of object lens, 2-1/8-inch, "U.S.L.S.S." engraved upon slides, per sample	each
Thermometers, copper case, per sample	each
Time detectors, Imhauser's watchman's latest improved, with safety lock attachment, leather cases, 8 keys, 1 box dials (370 to box), complete, per sample	each
Tripods, "McLellan," per sample	each

APPENDIX K

Specific Furnishings Data for Little Kinnakeet

The following named items have been extracted from various log book entries and correspondence pertaining to Little Kinnakeet. They represent a few of the known specific furnishings of the life-saving station as of the dates indicated.

Log entry, January 19, 1881:

Received--1 doz. emery cloth; 1 doz sandpaper; 2 tin wash basins; 6 burners, lanterns, size 7/8; 1 doz. lamp wicks, #1; 1 doz. lamp #2; 1 lb. black paint; 6 brooms, corn; 1 brush, dust #4; 4 scrubbing brushes; 6 yds canvas, cotton #8; 30 fathoms halyards, signal; 1 gross matches; 5 lbs rotten-stone; 1 doz. slate pencils; 50 lbs soap, freshwater; 2 doz. stove polish; ½ doz. saw files, 7 inches; 1 pair pliers, 8 inches; 1 thermometer; 1 doz. mustard plasters; 2 haversacks, 2 lanterns, tubular.

Log entry, February 11, 1885:

Stove received for keeper's room. Boat received.

Log entry, March 1, 1886:

Received--1 boat fender; 6 ax helves; 3 straw brooms; 3 joints, stove pipe; 1 elbow, stove pipe; 100 friction primers, short; 50 lbs of soap; ½ gross matches; 6 knives and 6 forks; 1 molasses pitcher; 5 soft brick; 1 coffee pot; 12 teaspoons; 1 awl; 2 gimlets; 1 vegetable dish; 1 dipper; 2 table cloths; 4 measures--1 gallon, 1 quart, 1 pint, 1 half pint; 6 sheets emery paper; 12 sheets sandpaper.

Letter, March 12, 1886:

"The caboose [oven] at Little Kinnakeet, in its present condition endangers the safety of the station, the bottom and back of the stove is broken, and is secured with wire to hold these parts together, and a new cook stove should be furnished to this station at once. The 'Farmer Girl' pattern is preferable, it being constructed to burn wood."

Log entry, May 7, 1887:

"The Telephone was erected in this Station toDay."

Log entry, January 23, 1890:

Received--1 copy index to the Bible; 1 words to Christian teachers; 1 Christ's testimony to the Scriptures; 2 copies Children's bread; 5 People's Hymn Books; 3 copies Sermons of Dwight L. Moody; 2 copies of The Bible; 10 lbs. burnt turkey umber.

Log entry, January 26, 1891:

Received--For Men, 5 pair trousers; 5 shirts; 5 undershirts; 5 pair drawers; 5 caps; 5 pair hose; 5 pair shoes; 5 handkerchiefs; 5 cardigan jackets. For Women, 2 under vests; 2 pair drawers; 2 Balmorals; 2 pair stockings; 2 pair shoes; 2 handkerchiefs; 2 shawls. Miscellaneous--3 blankets; 3 towels; 1 lb. sugar; $\frac{1}{2}$ lb. tea; 2 Jones beef extract; needles, pins, and reading materials, 7 $\frac{3}{4}$ yards of table cloth.

Log entry, November 4, 1891:

Received--5 barrels borax; 1 gross matches; 2 boxes polishing paste; 1 dozen plates; 1 butcher knife; 10 lbs. galvanized nails; 2 padlocks; 1 gross brass screws; 1 dozen tin tablespoons; 1 dozen tin teaspoons; 1 dozen lamp chimneys; 4 dozen lamp wicks; 6 Bath bricks; 6 brooms; 2 dust brushes; 2 water buckets, cedar; 2 stove brushes; 2 6-inch galvanized elbows; 2 5-inch galvanized elbows; 6 joints galvanized stovepipe, 5 inch; 1 coffee pot, 3 gallon; 6 ax helms; 1 saw set; 1 dozen ruby globes; 1 dozen white globes; 3 lanterns; 1 set coffee cups and saucers; 2 torches.

Log entry, June 17, 1892:

"Received 1 no. 8 Cook Stove. Walker and Pratt M.F.G. & Brothers."

Log entry, December 10, 1892:

Received--2 gallons boiled linseed oil; $\frac{1}{2}$ gallon mixed paint; 25 lbs. white lead; 80 lbs. soap, fresh water; 1 oar, 12 feet; 1 oar, 14 feet; 1 table cover, oil cloth; 1 dozen plates, soup; 1 dozen plates, dinner; 1 dozen saucers; 1 dozen cups; 1 dozen tea spoons; 50 cartridge bags, red; $9\frac{1}{4}$ yards toweling, crash; 1 dozen stove polish; 1 dozen joints, stovepipe, 6-inch, galvanized; 2 stove brushes; 1 bit for brace, $\frac{3}{4}$ -inch; 1 bit for brace, $\frac{1}{2}$ -inch; 1 bit for brace $\frac{1}{4}$ -inch; 1 nail bit for brace; 1 hammer, claw; 1 lb. tacks, galvanized; 25 barrels and sal soda; 2 salt sellers, glass; 6 balls twine, cotton.

Lot entry, March 9, 1895:

Received: 10 double blankets; 10 mattresses stuffed with rattan; 10 mattress covers; 10 pillow cases; 5 yards toweling, crash; 1 coffee mill; 25 lbs. lead, white; $\frac{1}{2}$ gallon red paint; $\frac{1}{2}$ gallon black paint; 6 brooms, corn; 1 lb. polishing paste; soap, fresh water; 6 joints, stovepipe; 1 pot, tea, 2 gallons; 3 sheets zinc; 1 clock, Seth Thomas; glasses, binocular, marine; 1 barrel kerosene oil; 1 gross matches; 1 lamp, not complete--lacks shade and chimney. Oars, 14-foot.

Proceedings of Board of Survey, January 15, 1904:

1 axe, chopping; 2 tin basins; 1 beach light; 7 blankets, new pattern; 2 brushes, dust; 1 brush, stove; 1 water bucket, cedar; 5 charts, coast; 2 dippers, tin; 1 grindstone; 1 haversack; 1 lamp feeder, tin; 1 kettle, tea, galvanized; 1 padlock, brass; 10 mattress covers; $\frac{1}{4}$ gallon red paint; 1 bake pan, tin; 1 ham boiler; 10 pillow covers.

Log entry, February 19, 1907:

Received--1 rake, garden; 6 lbs. paste polish; 1 box soap, white, 60 lbs.; 50 lbs. lead, white in oil, 4 gallons oil, boiled; 10 lbs. putty; 10 lbs. tints, 6 cans; 8 cans Indian red; 5 gallons turpentine; 1 dozen stove polish; 1 dozen files, saw, 5-inch; 1 thermometer; 1 gross matches; 5 window shades, 4 x 8, 2 x 7; 16 window shades, 5 x 10-3-6.

Log entry, January 11, 1909:

Received--12 brooms, corn, 1 dish, vegetable, cover; 1 flour sieve, tin; 1 table oil cloth; 24 B & H chimneys; 3 lbs. halyards, no. 7, braided; 1 spoke shank; 24 boxes axle grease; 1 beach lantern; 1 gross matches; 250 lbs. lead, white, in oil; 16 lbs. paint, blind green; 25 lbs. zinc, white, in oil; 2 lbs. paint, black; 15 gallons oil, raw linseed; 4 brushes, paint, round.

Log entry, August 9, 1914:

Received--100 lbs. white lead; 6 brooms; 12 sheets emery cloth; 1 bar solder; 1 lb. tacks, copper; 1 food chopper; 1 gross safety matches; 2 pans, dish, 17 quarts; 1 pan, roast; 1 pot, coffee, 2 gallons; 40 bars soap; 2 table oilcloths; 12 lamp wicks; 1 lb. glue; 6 dampers; 4 elbows, 6-inch; 12 boxes stove polish; 1 stove, heating, Trojan no. 25; 2 sheets zinc; 6 files, saw, 7-inch; 1 plane, jack; 1 plane, smoothing; 1 saw, hand; 1 saw, rip; 1 saw, wood; 100 cartridge bags, red; 1 clock, time, 8-day; 2 flags, American ensign; 5 lbs. paint, Indian red; 24 lbs. blind green; 10 lbs. powder.

BIBLIOGRAPHY

Manuscript Materials

- Bearss, Edwin C. "Chicamacomico Study." Unpublished report dated September, 1965, in the library of Cape Hatteras National Seashore.
- Henry, Irene Jackson, and Henry William. "Little Kinnakeet Life Saving Station: An Analysis and Program for Restoration." Unpublished, undated manuscript in the library of Cape Hatteras National Seashore.
- Manteo, North Carolina. Cape Hatteras National Seashore. Maps, plats, and plans in the map file.
- New London, Connecticut. U.S. Coast Guard Academy Library. Records and documents pertaining to Little Kinnakeet. Microfilm copies in the files of Cape Hatteras National Seashore.
- Washington, D.C. National Archives. Cartographic Archives Division.
- Washington, D.C. National Archives. Record Group 26. Records of the U.S. Coast Guard. Copies in the files of Cape Hatteras National Seashore.
- Washington, D.C. National Archives. Record Group 79. Records of the National Park Service.
- Washington, D.C. National Park Service. History Division. Records pertaining to Cape Hatteras National Seashore.
- York, Eugene V. "The Architecture of the United States Life-Saving Stations." Unpublished master's thesis dated 1983, Boston University.

Government Documents

- Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1878. Washington: Government Printing Office, 1878.
- Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1880. Washington: Government Printing Office, 1880.
- Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1882. Washington: Government Printing Office, 1883.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1886. Washington: Government Printing Office, 1887.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1887. Washington: Government Printing Office, 1888.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1892. Washington: Government Printing Office, 1893.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1893. Washington: Government Printing Office, 1894.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1894. Washington: Government Printing Office, 1895.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1895. Washington: Government Printing Office, 1896.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1897. Washington: Government Printing Office, 1898.

Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1898. Washington: Government Printing Office, 1899.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1899. Washington: Government Printing Office, 1900.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1900. Washington: Government Printing Office, 1901.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1902. Washington: Government Printing Office, 1903.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1903. Washington: Government Printing Office, 1904.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1905. Washington: Government Printing Office, 1906.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1906. Washington: Government Printing Office, 1906.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1907. Washington: Government Printing Office, 1908.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1908. Washington: Government Printing Office, 1909.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1909. Washington: Government Printing Office, 1910.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1910. Washington: Government Printing Office, 1911.

Annual Report of the United States Life-Saving Service for the Fiscal Year Ended June 30, 1912. Washington: Government Printing Office, 1913.

Register of the United States Life-Saving Service, with Post Office Addresses. July 1, 1914. Washington: Government Printing Office, 1914.

Annual Report of the United States Coast Guard for the Fiscal Year Ended June 30, 1915. Washington: Government Printing Office, 1915.

Annual Report of the United States Coast Guard for the Fiscal Year Ended June 30, 1916. Washington: Government Printing Office, 1916.

History and Prehistory in the National Park System and the National Historic Landmarks Program. Washington, D.C.: National Park Service, 1982.

Kimball, Sumner I. Organization and Methods of the United States Life-Saving Service. Washington: Government Printing Office, 1912. Orig. pub. 1889.

Menz, Katherine B. Historic Furnishings Report. Sleeping Bear Point Life-Saving Station, Sleeping Bear Dunes National Lakeshore. Harpers Ferry: National Park Service, 1983.

Revised Regulations for the Government of the Life-Saving Service of the United States, and the Laws Upon Which They are Based. Washington: Government Printing Office, 1884.

Torres, Louis. Historic Resource Study of Cape Hatteras National Seashore. Denver: National Park Service, 1985.

United States Coast Guard. Beach Apparatus Drill. Washington: Government Printing Office, 1918.

Wyma, Cornelia, and Albright, John. Historic Structure Report. Glen Haven Coast Guard Station. Architectural and Historical Data. Sleeping Bear Dunes National Lakeshore, Frankfort, Michigan. Denver: National Park Service, 1980.

Articles

Davis, Rebecca Harding. "Life-Saving Stations," Lippincott's Magazine of Popular Literature and Science, XVII (March, 1876), pp. 301-10.

Johnson, William Wallace. "The United States Life-Saving Service," The New England Magazine, II (New Series, March, 1980), pp. 134-45.

Lyle, D.A. "Report on Life-Saving Apparatus: Guns, Projectiles, Etc.," in Annual Report of the Operations of the United States Life-Saving Service for the Fiscal Year Ending June 30, 1878. Washington: Government Printing Office, 1878. Contains chapters on guns, carriages, rockets, shot lines, etc., and is illustrated with fifty-four plates showing equipment. Should be consulted for furnishings data.

Mason, T.B.M. "The Preservation of Life at Sea. A Paper Read Before the American Geographical Society, February 27, 1879." From the Bulletin of the Society, New York, 1879. Contains data on equipment and methods used in saving the apparently drowned.

"The American Life-Saving Service," Harper's New Monthly Magazine, LXIV (February, 1882), pp. 357-73.

"The United States Life-Saving Service," Scribner's Monthly, XIX (January, 1880), pp. 321-38.

York, Wick. "The Architecture of the U.S. Life-Saving Stations." The Log of Mystic Seaport (Spring, 1982), pp. 3-20.

Books and Pamphlets

Bloomfield, Howard V.L. The Compact History of the United States Coast Guard. New York: Hawthorn Books, Inc., 1966.

Brown, Riley. The Story of the Coast Guard. Men, Wind and Sea. Garden City, New York: Blue Ribbon Books, 1939.

Capron, Walter C. The U.S. Coast Guard. New York: Franklin Watts, Inc., 1985.

Forbes, R.B. Life-Boats, Projectiles, and Other Means for Saving Life. Boston: Wm. Parsons Lunt, 1872. Contains information relative to furnishings for life-saving stations, as well as operational data.

_____. The Life Boat and Other Life-Saving Inventions. Boston: A. Williams and Company, 1880. Contains data on equipment found at life-saving stations.

O'Connor, William D. Heroes of the Storm. Boston: Houghton Mifflin and Company, 1904.

Otis, James. The Life Savers: A Story of the United States Life-Saving Service. New York: E.P. Dutton and Company, 1899. Fictional, but should be consulted for operational data.

Remarks of William A. Newell, of New Jersey on a Proposition to Devise Means for the Preservation of Life and Property from Wrecks on the New Jersey Coast. Delivered in the House of Representatives, August 3, 1848. Washington: John T. Towers, 1848.

Smith, Darrell Hevenor, and Powell, Fred Wilbur. The Coast Guard: Its History, Activities and Organization. Washington, D.C.: The Brookings Institution, 1929.



ILLUSTRATIONS



Illustration No. 1.

Little Kinnakeet 1874-pattern Life-Saving Station, taken about 1893, after completion of the cook house, the top of which can be seen in the right background. Building at right is the tankhouse, erected in 1890. Man standing in boat is probably Station Keeper Edward O. Hooper.

Cape Hatteras National Seashore





Illustration No. 2.

Little Kinnakeet 1874 Life-Saving Station, ca. 1890s, showing 1885 lean-to addition.
Man at left is probably Keeper Hooper.

North Carolina State Museum of Natural History

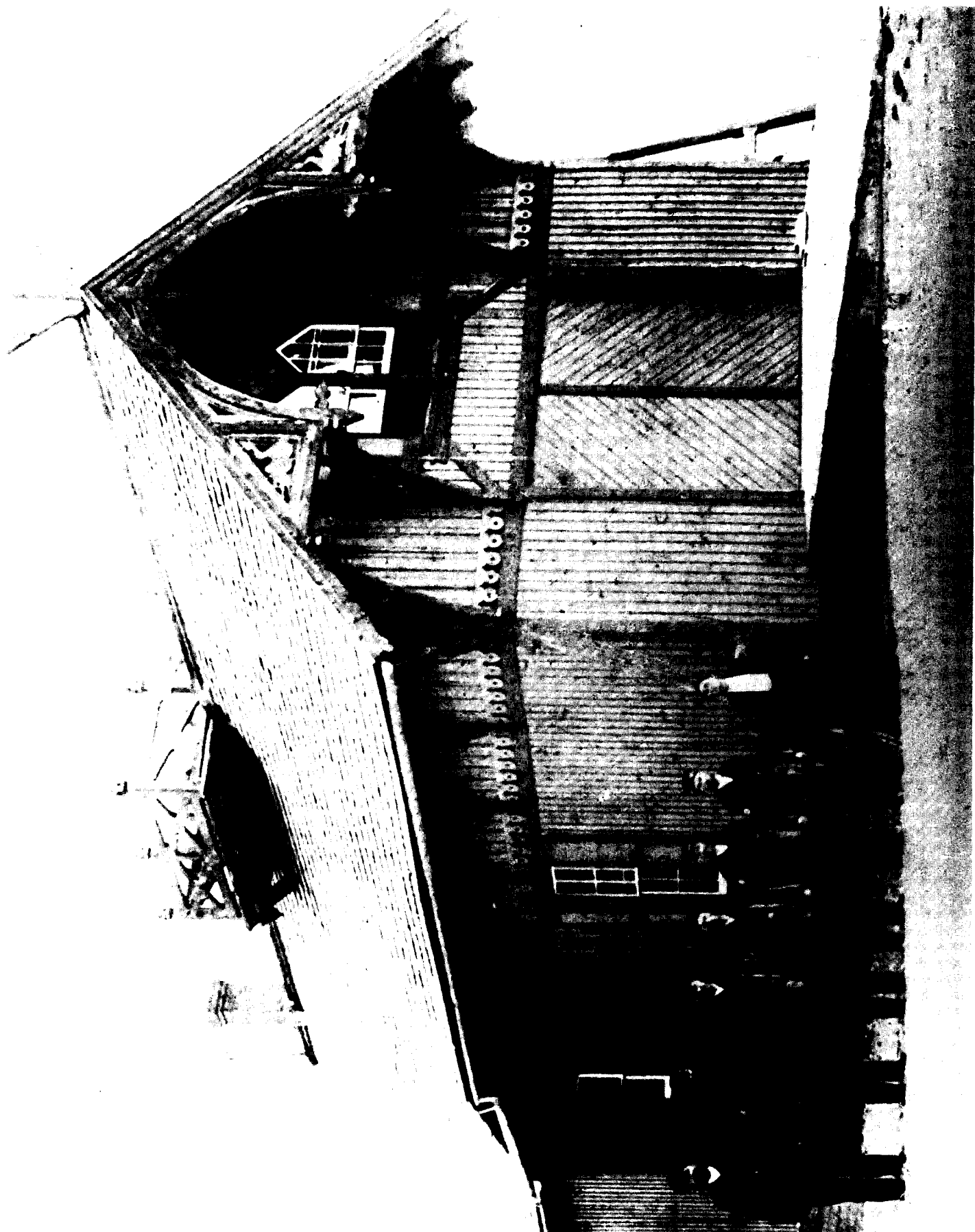


Illustration No. 3.

Life-Saving Station of the 1874 pattern with 1885 modification, ca. 1900. This is not the Little Kinnakeet station, although detailing is similar.

North Carolina Museum of Natural History

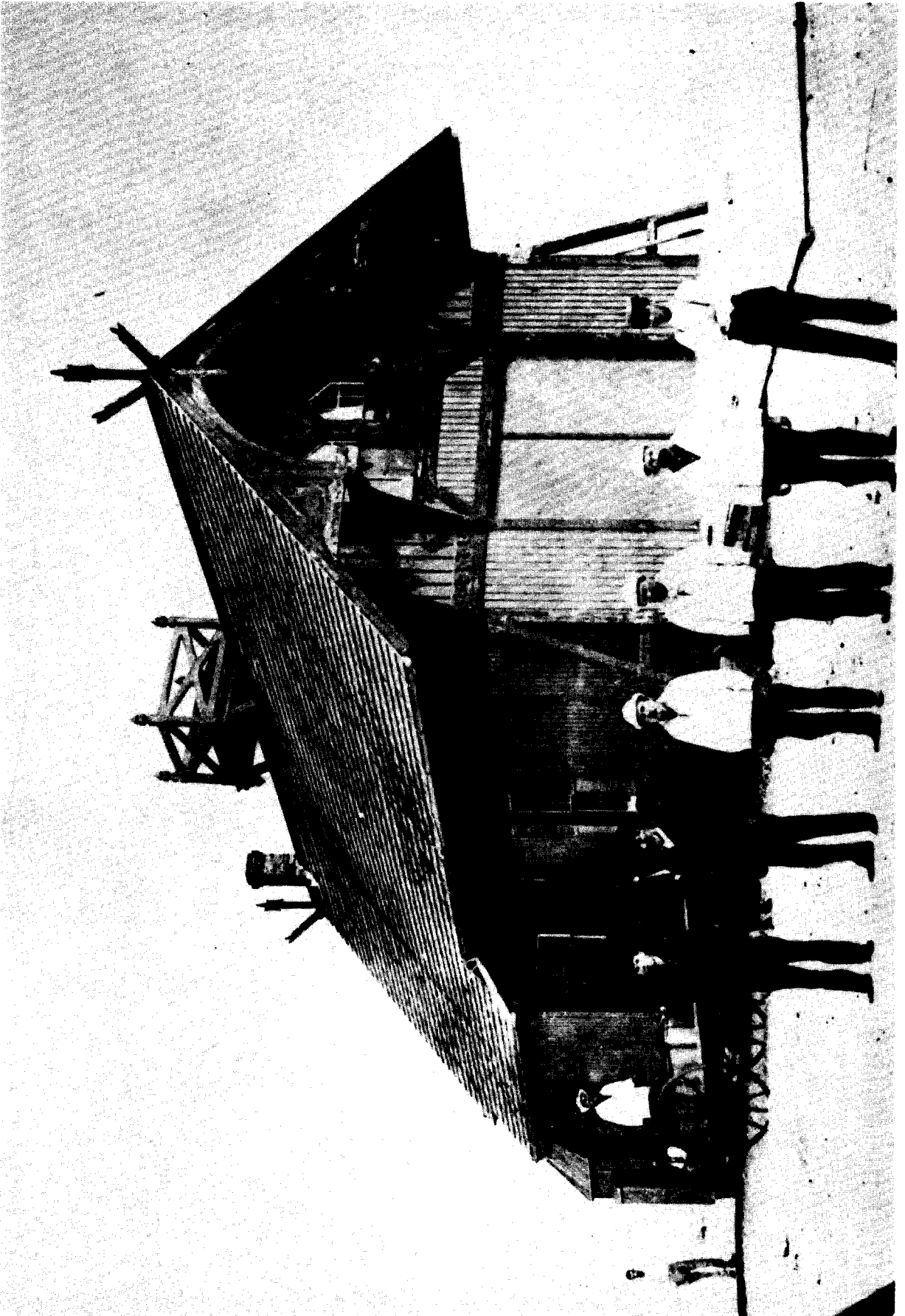


Illustration No. 4.

Plan showing some structural details of the 1874-pattern stations. This plan was prepared for construction of the 1885 leanto additions.

Cape Hatteras National Seashore

PLAN OF TEN U. S. LIFE- SAVING STATIONS.
 in the sixth District.
 STATIONS No. 1874.

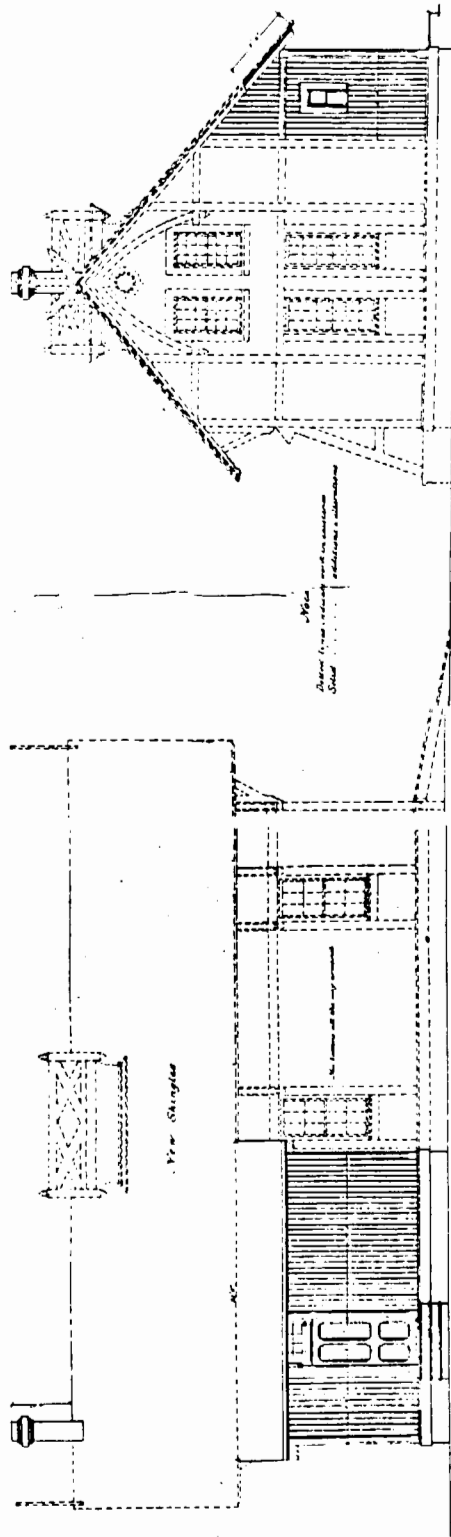


Illustration No. 5.

Floor plans for 1874-pattern stations showing projected 1885 lean-to addition.
Cape Hatteras National Monument

PLAN OF TEN U. S. LIFE-SAVING STATIONS

in the Sixth District.
STATIONS OF 1874

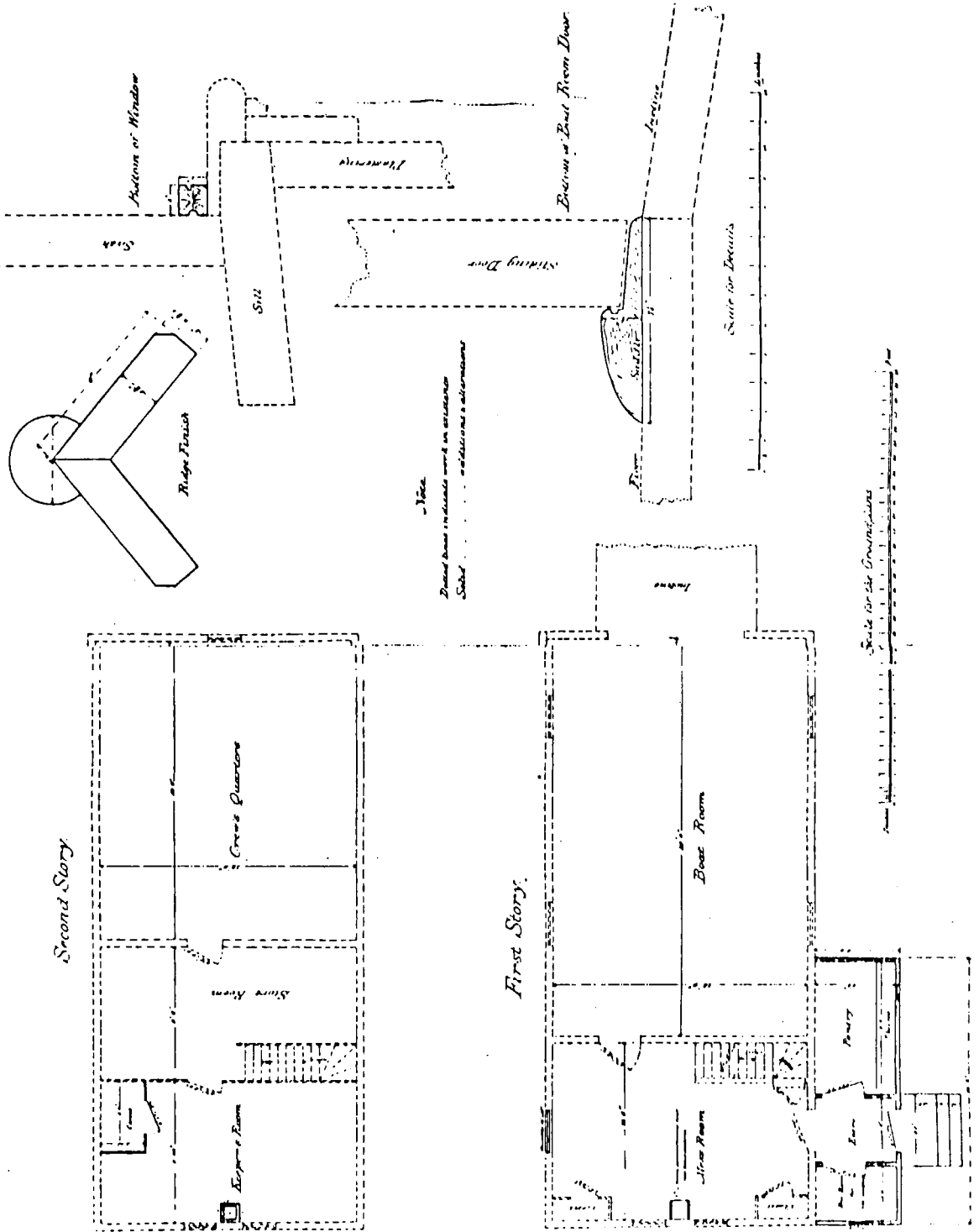


Illustration No. 6.

Two views of boathouse at Little Kinnakeet, ca. 1920s. This structure stood on the beach until it was dismantled late in 1936.

U.S. Coast Guard



Illustration No. 7.

The 1874-pattern station at Little Kinnakeet employed as a garage, March 9, 1934. Note frame structures in background. Top, view to north; bottom, view to southwest.

U.S. Coast Guard

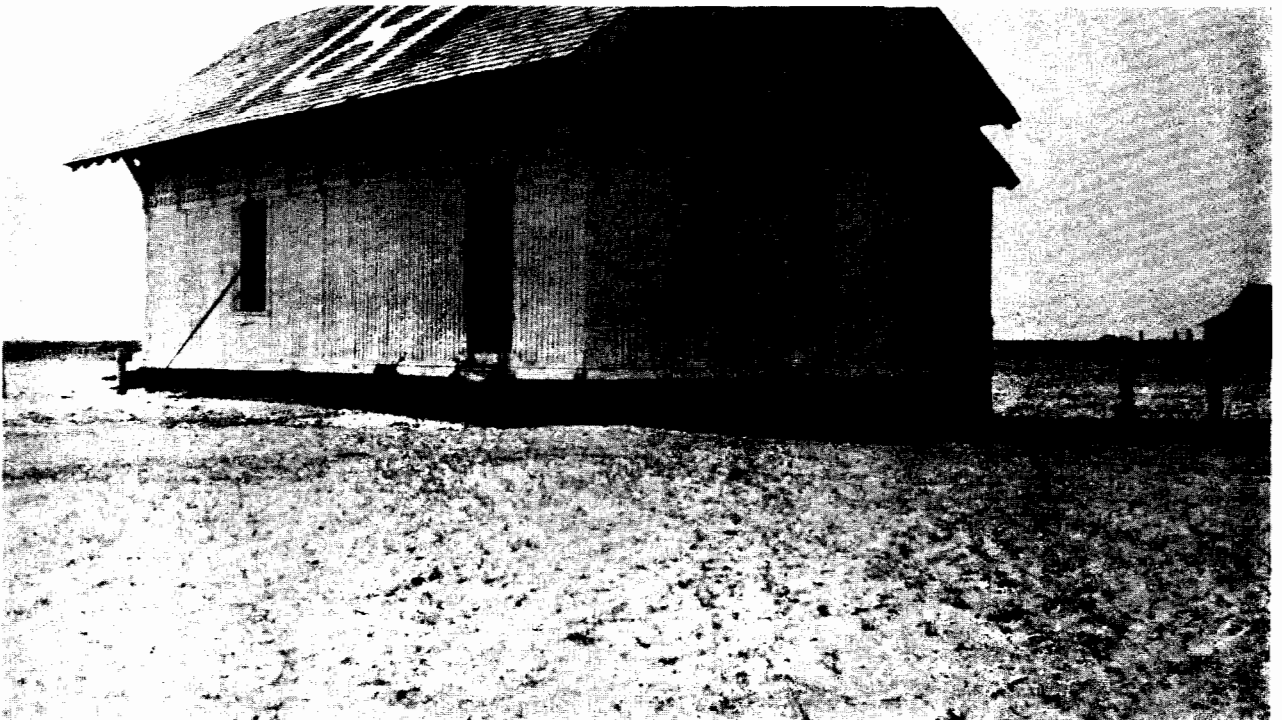
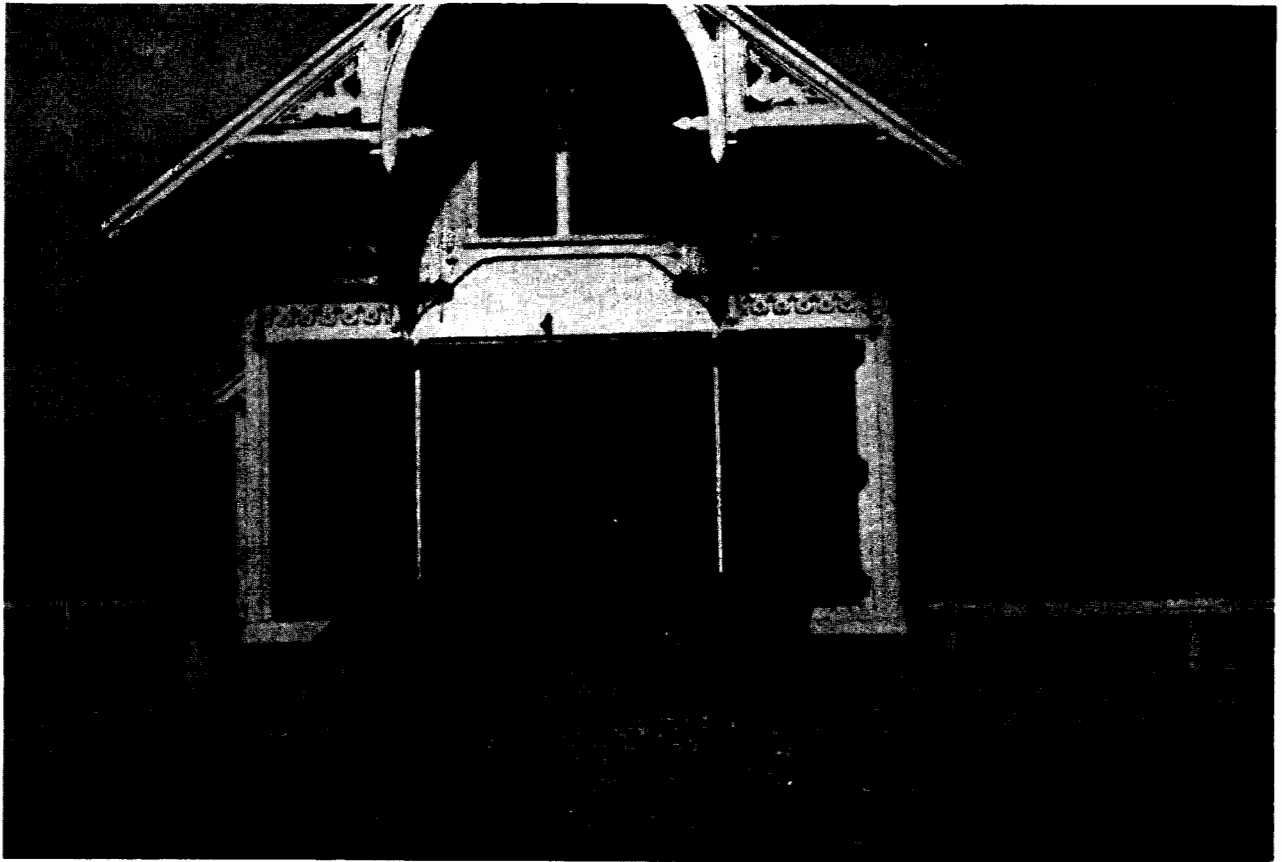


Illustration No. 8.

South and north faces of 1904 station at Little Kinnakeet,
March 9, 1934. Note frame buildings northeast of station.

U.S. Coast Guard

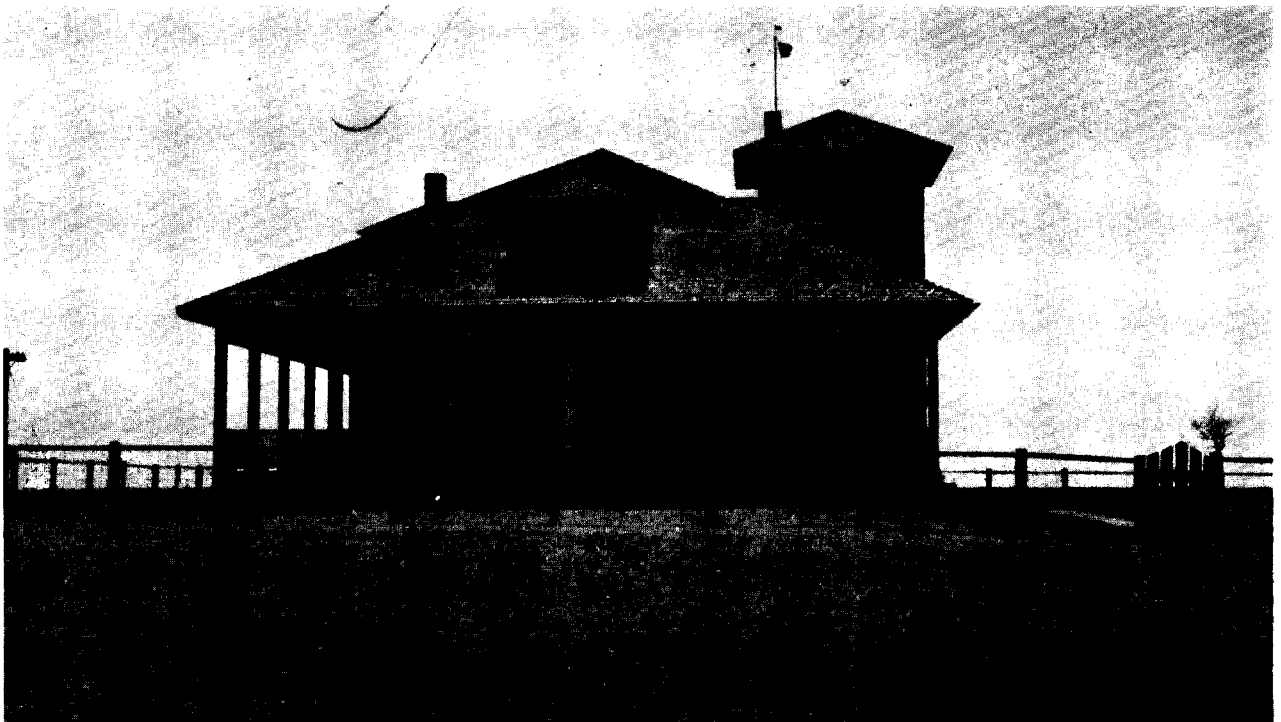
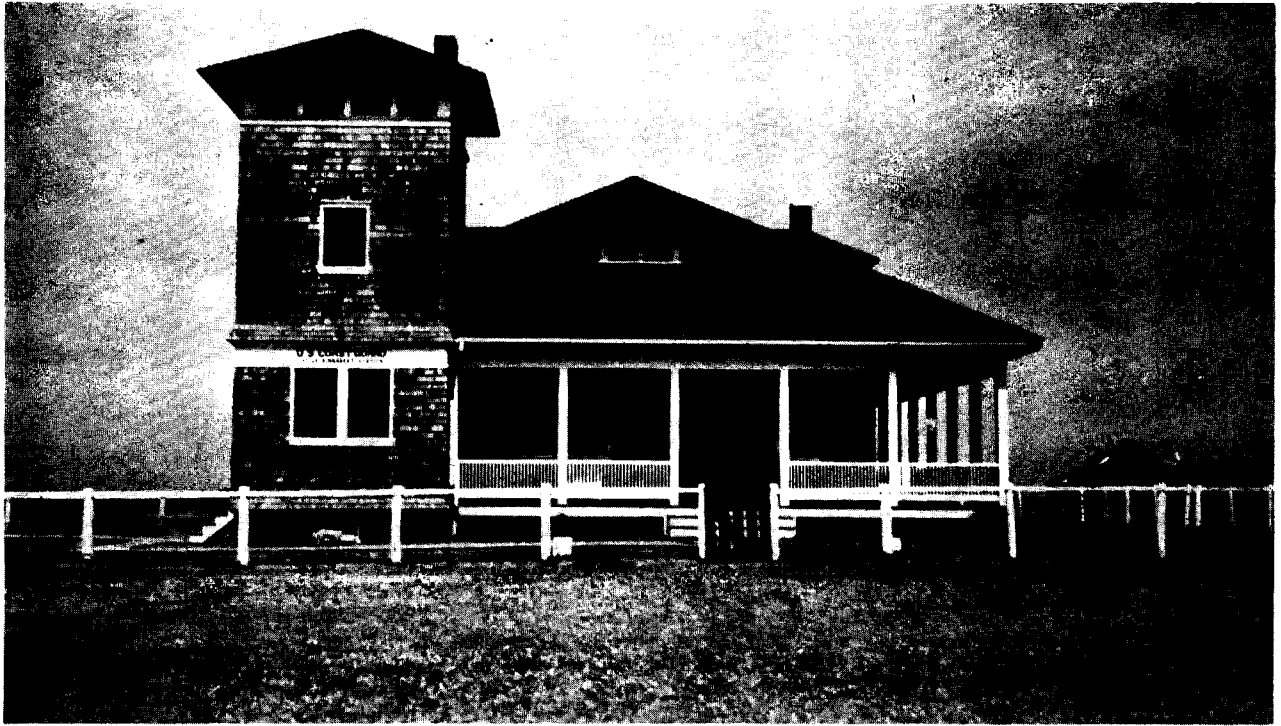


Illustration No. 9.

Top: View towards east of 1904 station complex, with 1892 cook house in foreground, March 9, 1934.

Bottom: View of station complex, May 2, 1935. Note picket fence and buildings to the north.

U.S. Coast Guard



Illustration No. 10.

Two views of old station taken May 2, 1935, showing leanto addition under construction. Scrollwork beneath the eaves on the front was apparently removed during this work.

U.S. Coast Guard

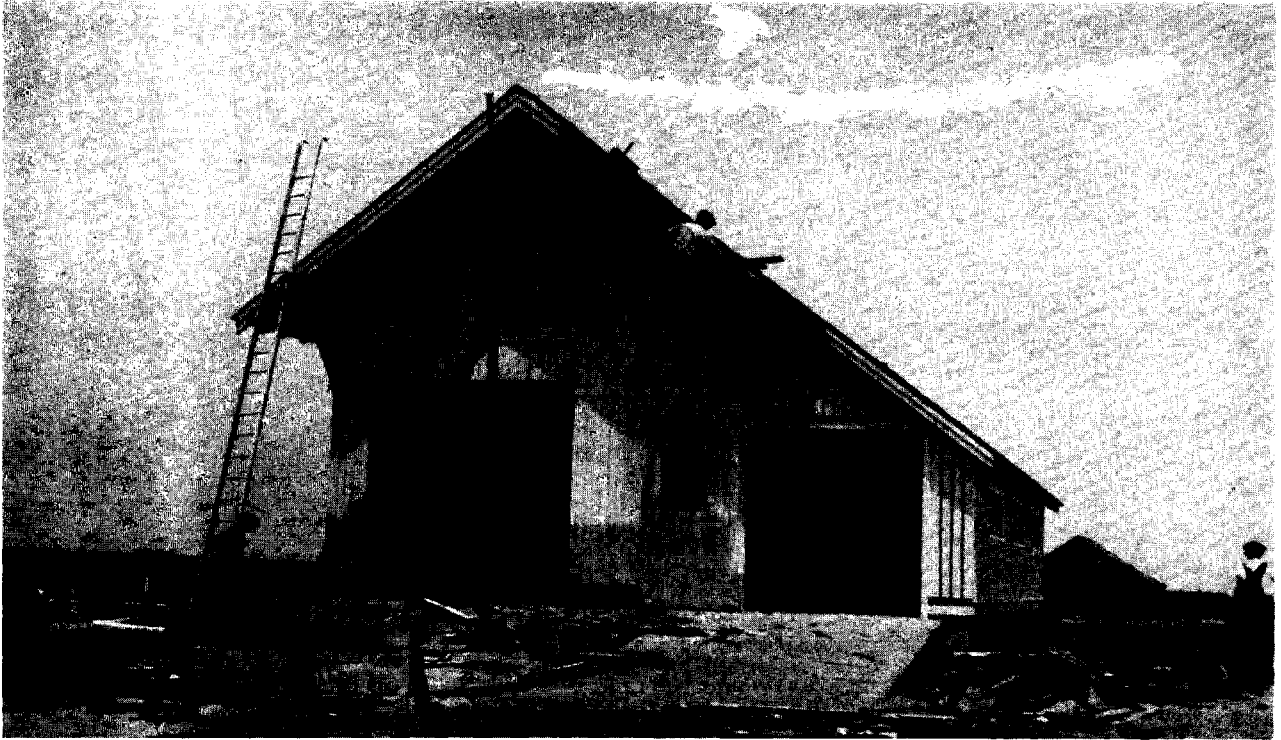


Illustration No. 11.

Two views of the 1904 station.

Top: View showing veranda on north and west sides,
taken May 2, 1935.

Bottom: Little Kinnakeet Station from the southwest, taken
June 24, 1936. Note frame structures in background.

U.S. Coast Guard



Illustration No. 12.

Site Plan, Little Kinnakeet Coast Guard Station Complex, March,
1935.

Cape Hatteras National Seashore

-NOTES-

POTABLE WATER OBTAINED FROM GUTTERS & STORED IN 52 GAL CISTERN UNDER DWELLING.

SANITARY WATER OBTAINED FROM WELL POINTS IN GROVED UNDER DWELLING. STORED IN 40 GAL TANK IN ATTIC BY HAND FORCE PUMP.

2 LAVATORIES & 2 TOILETS CONNECTED TO SEWER. NO BATHUB OR SHOWER.

U. S. COAST GUARD
 LITTLE KINNAKEET STATION
 SITE PLAN
 OFFICE OF ASSOC. CIVIL ENGR. M. P. HITE CO.
 ELIZABETH CITY, N.C. MARCH, 1955
 DRAWN BY G.L.C. SCALE AS SHOWN

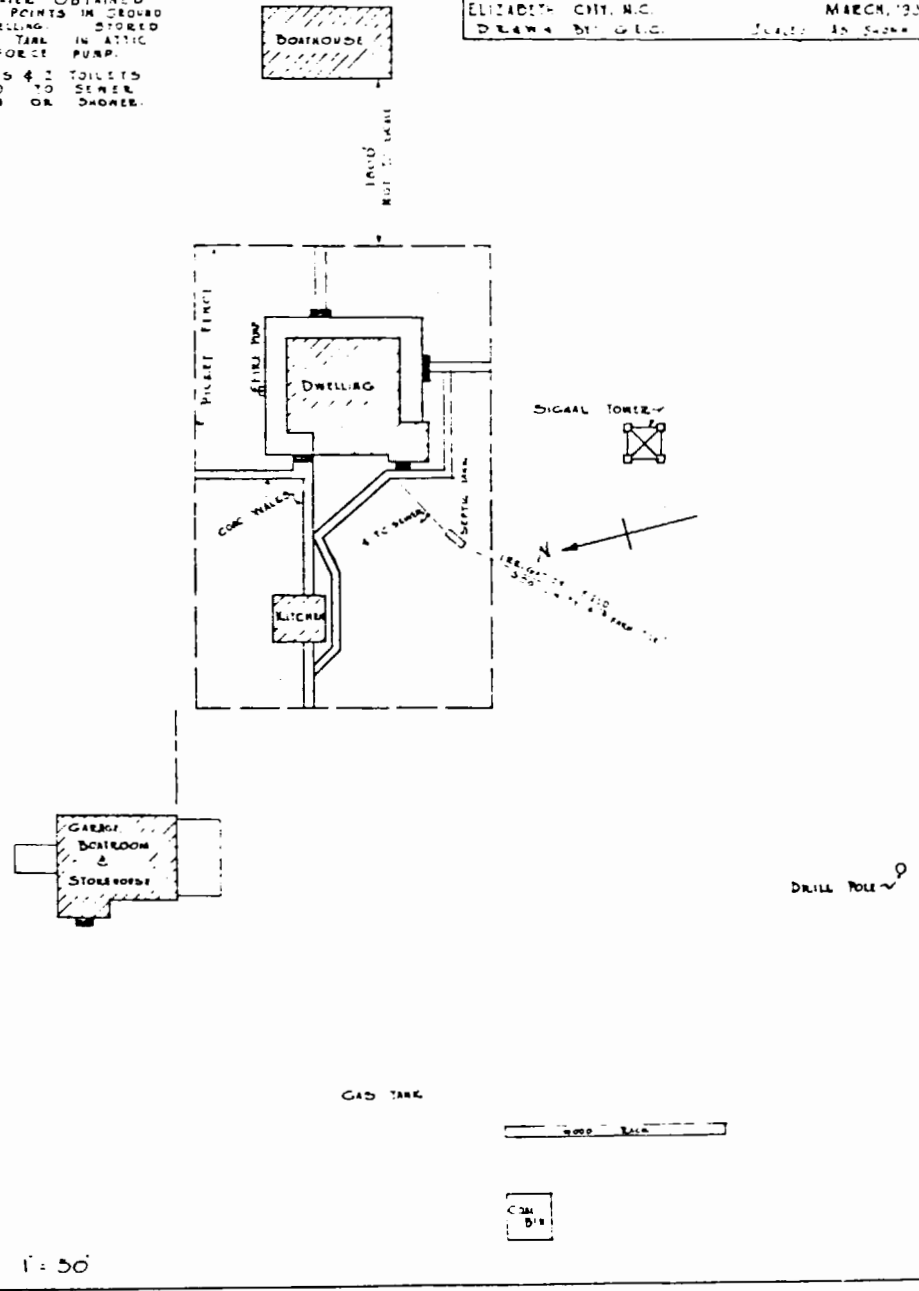


Illustration No. 13.

Aerial view of the inactive Little Kinnakeet complex, December 5, 1944.

U.S. Coast Guard



Illustration No. 14.

Little Kinnakeet Coast Guard Station complex, November 14, 1951. Note water tanks on north side of station and addition to south end of cook house.

U.S. Coast Guard

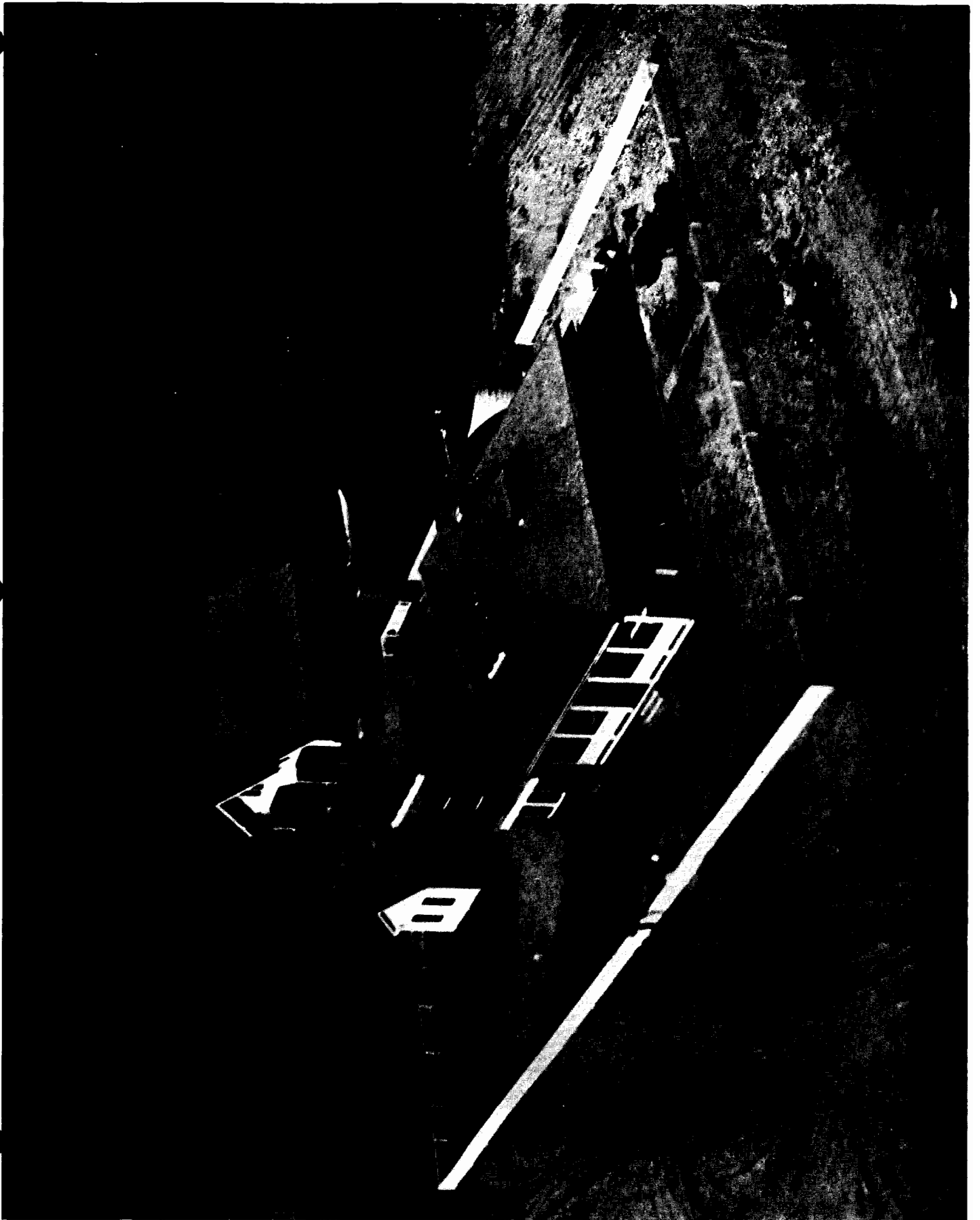


Illustration No. 15.

Little Kinnakeet Coast Guard Station, October 4, 1954.

U.S. Coast Guard



Illustration No. 16.

Little Kinnakeet Coast Guard Station, October 4, 1954. Note plant addition on northwest corner.

U.S. Coast Guard



Illustration No. 17.

Top: Little Kinnakeet Station, ca. 1963.

Bottom: Little Kinnakeet Station in use as National Park
Service quarters, February 25, 1958.

Cape Hatteras National Seashore

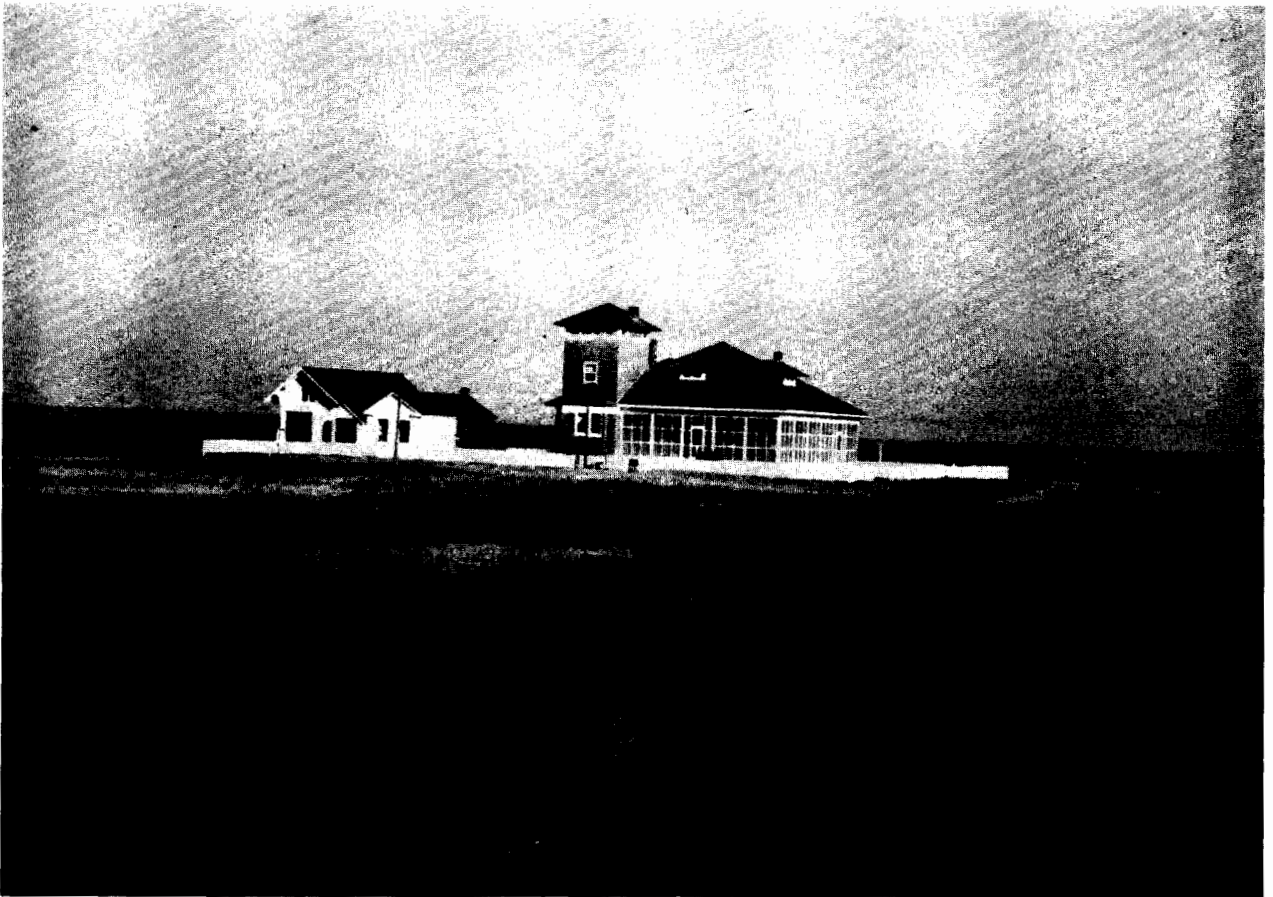
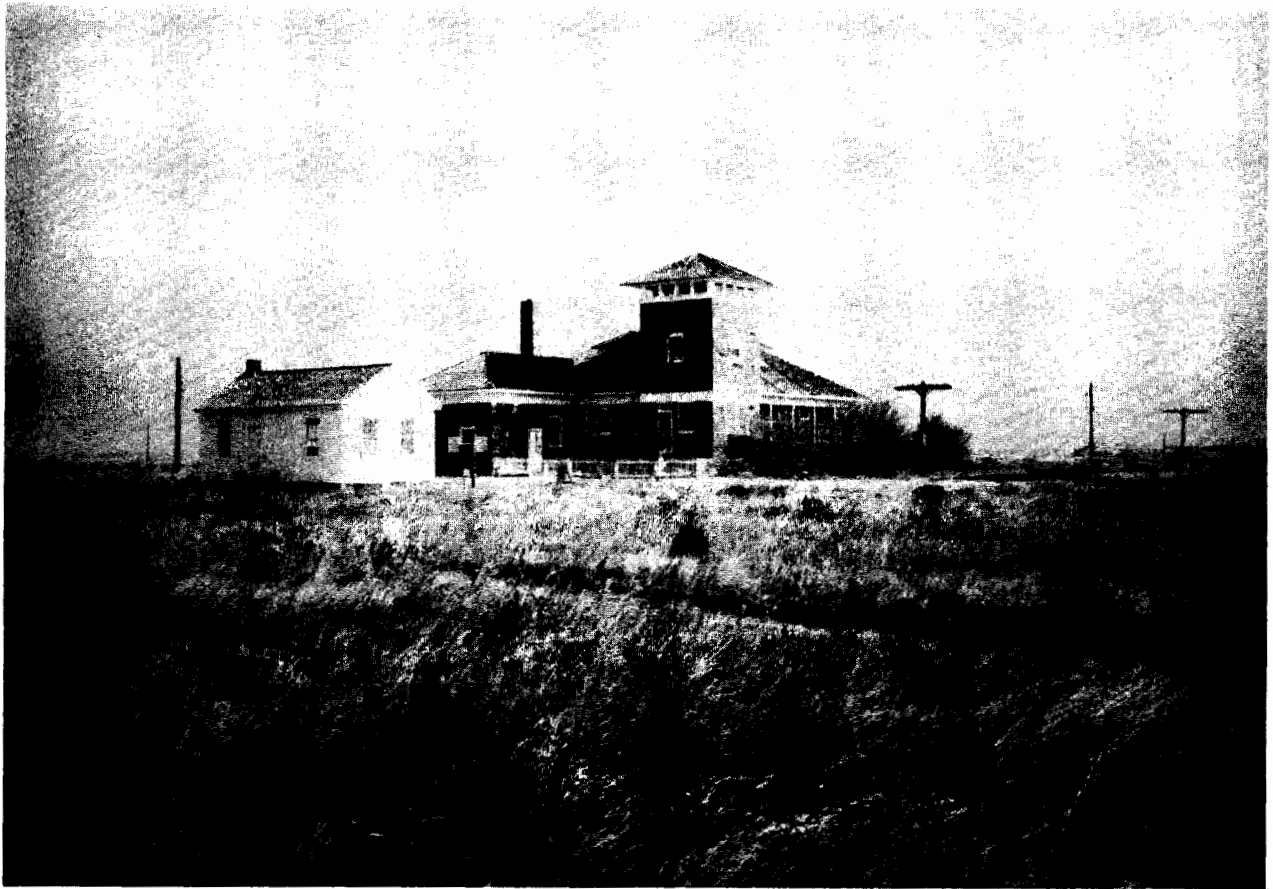


Illustration No. 18.

Former Little Kinnakeet Station in use as an emergency school
when Ash Wednesday Inlet was open, February 20, 1963.

Cape Hatteras National Seashore



Illustration No. 19.

The 1892 cook house with ca. 1945 mess room addition, date unknown (1960?).

Cape Hatteras National Seashore

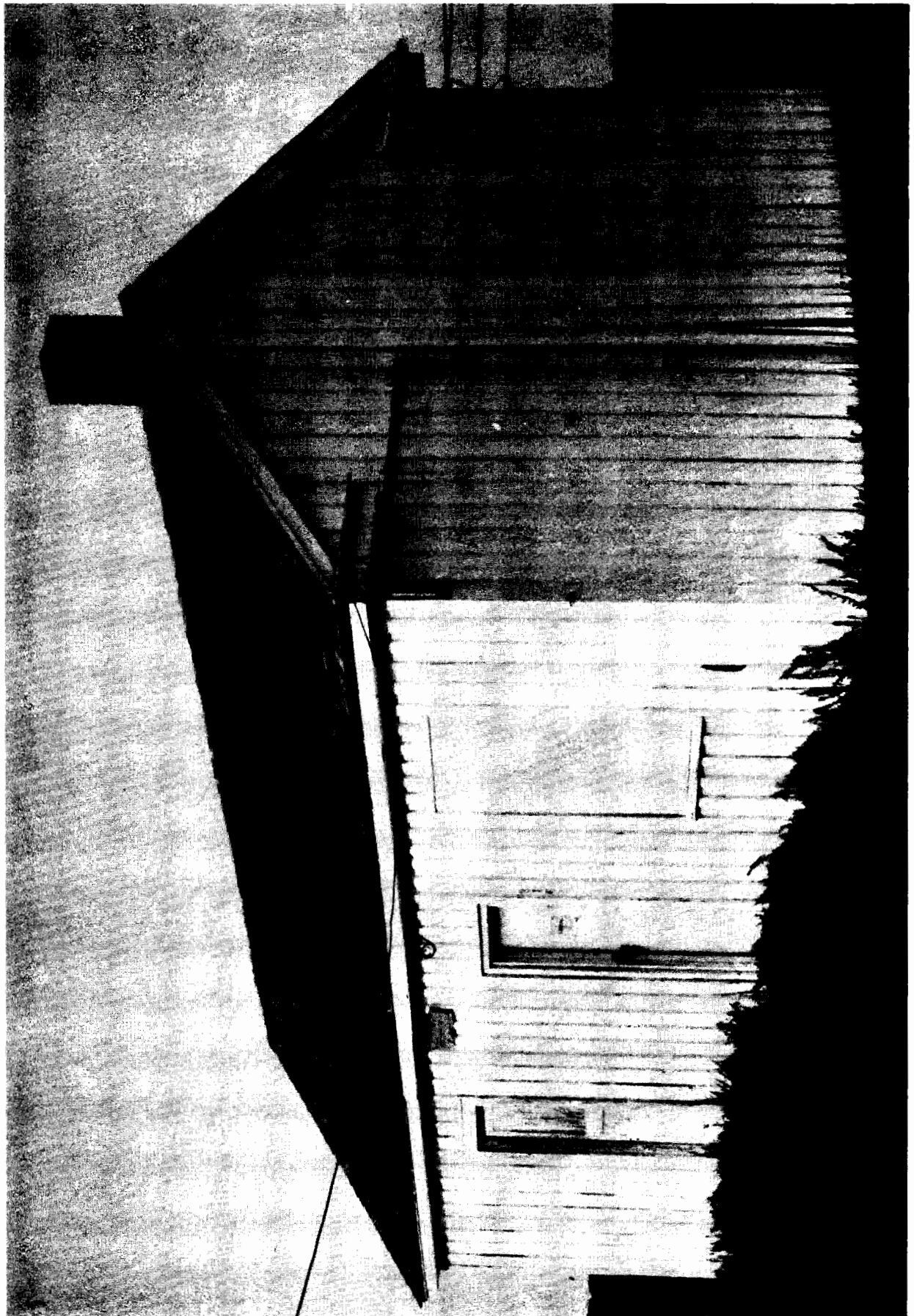
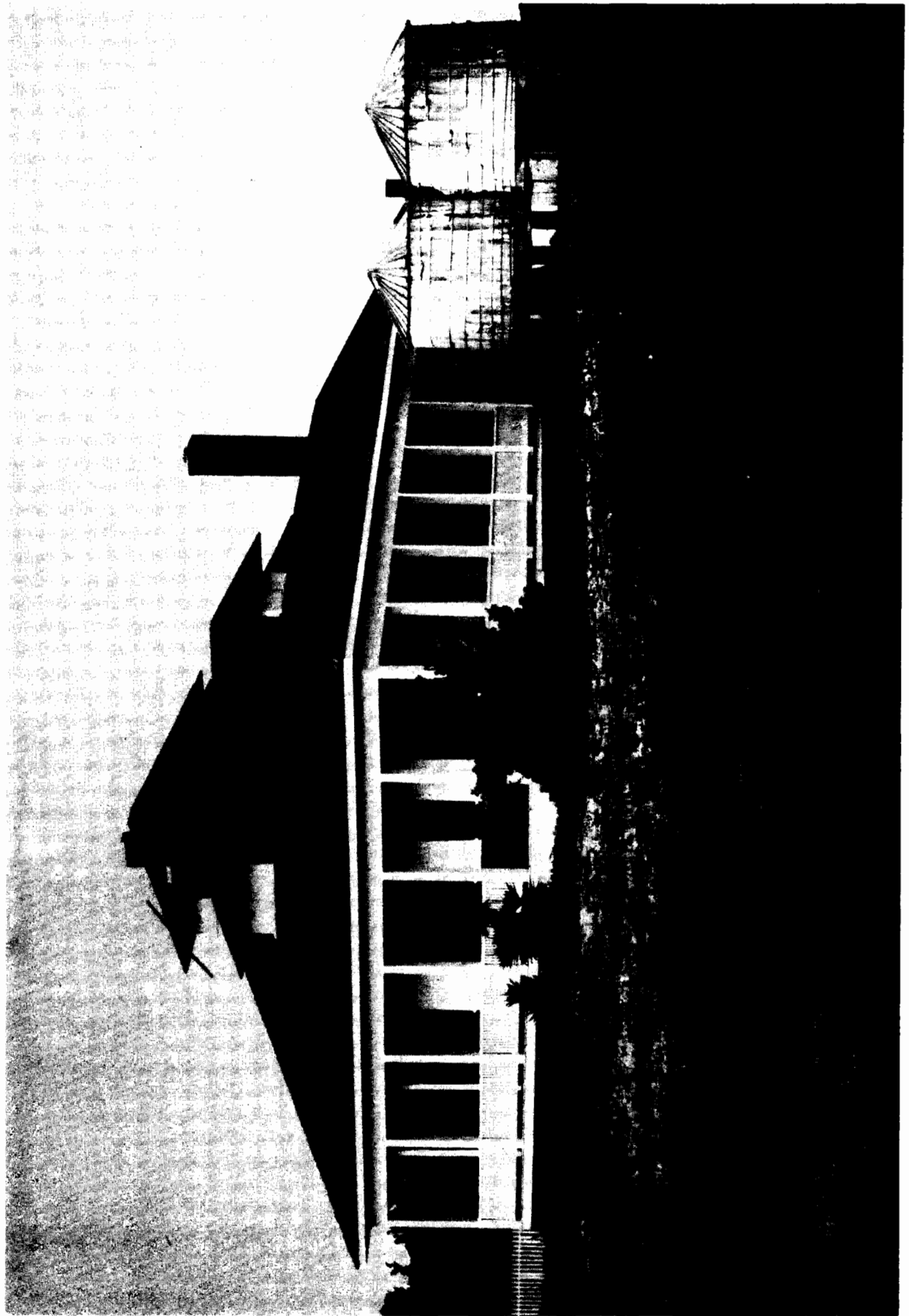


Illustration No. 2.

The 1904 station at Little Kinnakeet, date unknown (ca. 1960s?).

Cape Hatteras National Seashore





As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS D43 September 1987

