



The Great Coal Schooners of New England

Palmer-Crary Shipwreck Backgrounder

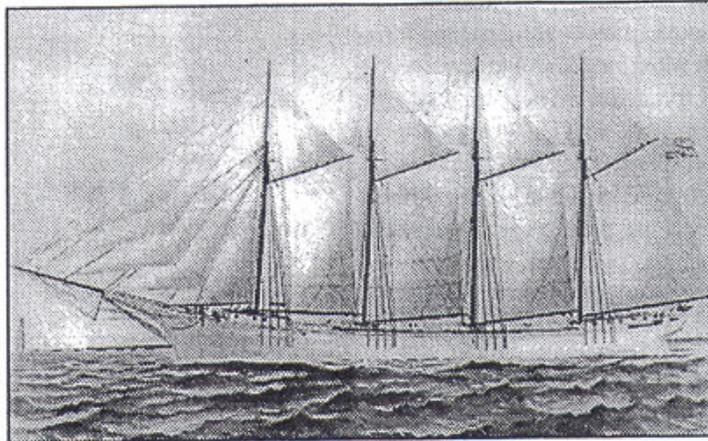


The coal trade between the mid-Atlantic states and the northeast supported the development of a fleet of large, coastal schooners during the latter part of the 19th century and the early years of the 20th century. The Frank A. Palmer, the largest 4-masted schooner ever built (1897), and the Louise B. Crary, a five-master (1900), were two such vessels that made regular runs between the coal ports of Newport News, Norfolk, Baltimore and Philadelphia and northern industrial cities of Boston and New York.

During the middle and late 1800s, iron and steam came to replace wood as the construction choice for large, ocean-going vessels. Dictated by Lloyd's of London, marine insurance encouraged this change, a development which favored British shipowners. The once active wooden shipbuilding areas in the United States, particularly in Maine, had to refocus their efforts; yet they still maintained their belief in America's "iron men and wooden ships." According to the publication, "The Great Coal Schooners of New England 1870-1909" by Lt. W.J. Lewis Parker, "As the old timers got out, the younger generation of owners and shipbuilders was forced to cast about for some new means of reviving Maine shipping, and it was in the coastwise trade that they found the solution to this problem."

Coastal shipping had always been important, but according to Parker, "it lacked the romance of far ports and rich cargoes." But the need for bulk transport of goods between the states encouraged the growth of the industry. Legislation, particularly the American Navigation Act of 1817 prohibited foreign vessels from competing with our coastal fleet. Lumber needed to build the northeastern cities and coal to power those cities' furnaces filled the holds of the vessels.

Notes Parker, "The rapid growth of the coal trade after 1870, based as it was on larger consumer units, brought a demand for constantly larger cargoes and consequently larger vessels. In seizing the opportunity the New England shipping people, especially those in Maine, began to build schooners of ever greater carrying capacity. The three-master, relatively common by 1870, was increased in capacity during the decade from about 500 tons to a maximum of 1100 tons. In 1879, the *Weybosset*, the first four-master, was placed in service after being converted from a steamer, and the following year the *William L. White*, built at Bath but owned in Taunton, Mass., made her appearance as the first four-master to be built as such." In 1897, the *Frank A. Palmer* became the largest four-master to be launched (at 274' 5").



Frank A. Palmer, the largest 4-masted schooner ever built
Artwork courtesy of the Maine Maritime Museum

Although the *Palmer* is considered the largest, the *Northland*, built in 1906 to carry paper for the Great Northern Paper Co., had a greater gross tonnage at 2047; but it also had a gasoline engine and propeller to increase speed.

The *Palmer* and other four-masted schooners were part of a fleet of 162 such boats built in Maine (which was slightly over one-third of all four-masters produced on the east coast), according to marine historian Paul C. Morris in his book, "Four Masted Schooners of the East Coast" (1975).

The first five-masted schooner, *Governor Ames*, was built in 1888. It took ten years for the next such vessel (*Nathaniel T. Palmer*). By 1920, a total of 56 five-masted schooners had been produced, including the *Louise B. Crary* in 1900. From 1898-1908 all ten six-masted vessels were built and only one seven-master was produced (*Thomas W. Lawson* which was constructed with steel).

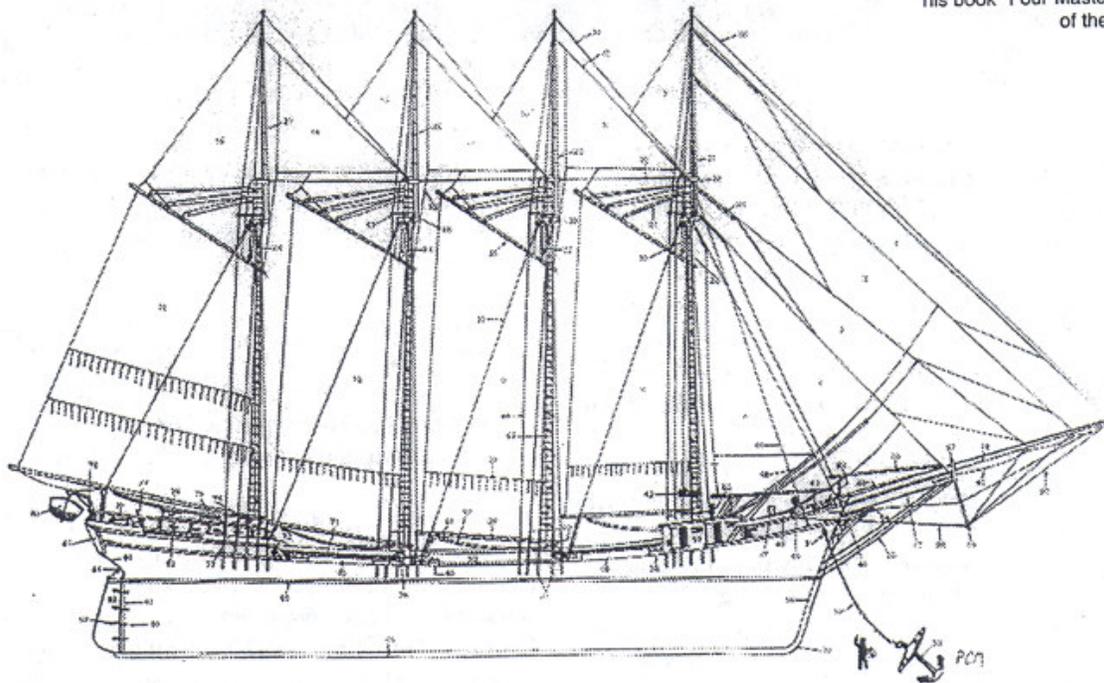
The very large schooners were awkward to handle, although steam-powered "donkey" engines provided power for hoisting the sails, running the windlass, capstan and pumps, and handling other heavy gear. With this early automation, the large coasters were able to get by with relatively small crews (generally one or two mates, steward, engineer for the donkey engine, captain, and a modest number of seamen based on the number of masts (generally two per "stick").

The enormous ships, according to Parker, were designed, in large measure, to fight the new barge lines. These vessels, unlike older schooner designs, did not have the fine lines and centerboard. Instead, they were designed for carrying capacity. The ships were long and narrow, which gave them great potential for speed when there was a good wind, but were unwieldy in light air. The bows were moderately sharp with considerable flare and the floors long and very flat. The difficulty in steering the vessels, their pointed bows and their great weight of cargo were probably all contributors to the crash and quick sinking of the *Palmer* and *Crary* on the evening of Dec. 17, 1902.

KEY TO DIAGRAM OF FOUR-MASTED SCHOONER

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| 1. Jib Topgall | 31. Mains Pipe |
| 2. Flying Jib | 32. Access Chain |
| 3. Outer Jib | 33. Old-fashioned Wooden Stair Aboard |
| 4. Inner Jib | 34. Rib or U-Stitch-head |
| 5. Main Stay | 35. Inner Jib Broom or Cab |
| 6. Foremast | 36. Fore Topmast Headstay |
| 7. Fore Topmast | 37. Foremast House or Cabin (location of crew quarters, galley and donkey engine) |
| 8. Main Topmast Stay | 38. Mast Head |
| 9. Mainmast | 39. Foremast Mast |
| 10. Main Topmast | 40. Galley Stack or Charley Knob |
| 11. Mizzen Topmast Stay | 41. Chain Plates |
| 12. Mizzenmast | 42. Rigging Screw or Turnbuckle (hook the plate of Dead Eyes and Lanyard on later vessels) |
| 13. Mizzen Topmast | 43. Main Shroud |
| 14. Spinker Topmast Stay | 44. Main Topmast Backstay |
| 15. Spinker | 45. Mizzen Topmast Stay Sheet |
| 16. Spinker Topmast | 46. Crew-tries |
| 17. Bowsprit | 47. Spreader |
| 18. Ribboom | 48. Bide-ark |
| 19. Mastingle or Dolphin Striker | 49. Firing Post or Snapper |
| 20. Foremast | 50. After Hatch |
| 21. Fore Topmast | 51. Main Rail |
| 22. Mainmast | 52. Quarter Deck |
| 23. Main Topmast | 53. After House or Main Cabin |
| 24. Mizzenmast | 54. Foremast Compassway |
| 25. Mizzen Topmast | 55. Skylight |
| 26. Spinkermast | 56. After Companionway |
| 27. Spinker Topmast | 57. Wind or Helms |
| 28. Foremast Cap | 58. Wheelbox |
| 29. Outer Jib Hauler | 59. Decks |
| 30. Fore Thrust Hauler | 60. Vant Roof |
| 31. Fore Peak Hauler | 61. Trammal |
| 32. Spring Stay | 62. Quarterboard |
| 33. Main Topmast Stay | 63. Rudder |
| 34. Main Topmast Preventer Stay | 64. Rudder Post |
| 35. Main Tumble-tree | 65. Wheelcase |
| 36. Main Gull | 66. Stem |
| 37. Main Topping Lift | 67. Stern Post |
| 38. Key Head and Points | 68. Inner Jib Sheet |
| 39. Main Broom | 69. Jibboom Girt |
| 40. Main Broom Tackle | 70. Outer Masthead Stay |
| 41. Main Sheet | 71. Foretop |
| 42. Starboard Running Light (rotated green; Port light in red) | 72. Pencil |
| 43. Foremast Mast Deck | 73. Goodlook |
| 44. Starboard Bow Chock | 74. Unsway |
| 45. Captain | 75. Keel |
| 46. Carthead | 76. Mizen |
| 47. Bitts | 77. Hospital Cap |
| 48. Jib Topmast Sheet (black) | 78. Masthead Backstay |
| 49. Broom or Carhead Stay | 79. Foremast |
| 50. Bobstays | |

Artwork courtesy of Paul C. Morris from his book "Four Masted Schooners of the East Coast"



This diagram shows the starboard side of a typical East Coast Four-masted schooner. It is not complete. For the sake of clarification much running rigging and smaller detail have been left out. The sails are shown as they would be set if the vessel was sailing close hauled on the starboard tack.