CHESAPEAKE BAY MARITIME MUSEUM

CHESAPEAKE BAY SLOOPS

THOMAS C. GILLMER

SLOOPS

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The *J. T. Leonard,* America's last working sloop. (Chesapeake Bay Maritime Museum collection)

CHESAPEAKE BAY

SLOOPS

THOMAS C. GILLMER, N.A.

CHESAPEAKE BAY MARITIME MUSEUM
ST. MICHAELS, MARYLAND

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COVER PHOTO: The *J. T. Leonard* under sail. (Bill Schill photo)

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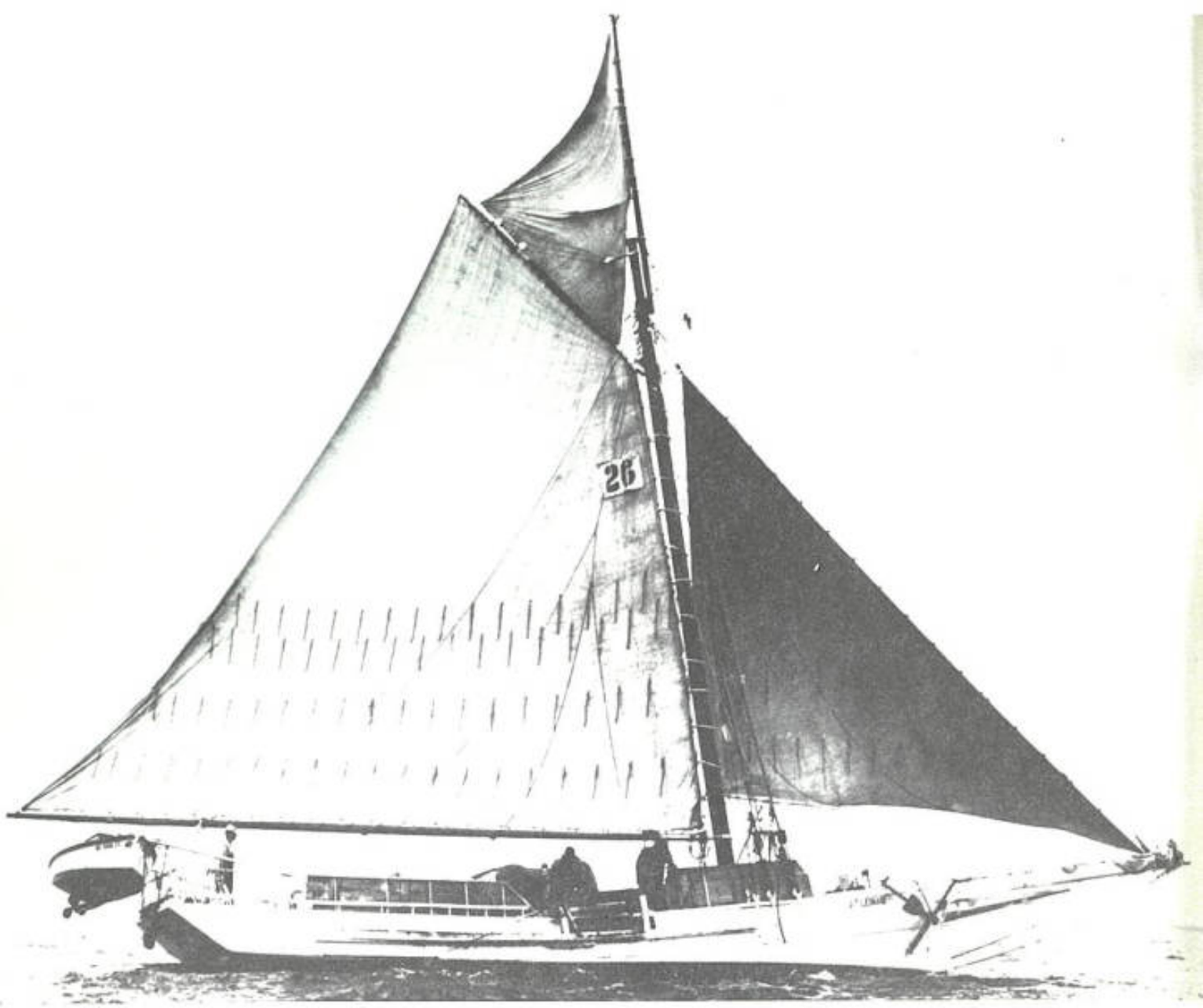
The "apple cheek" bow typical of oyster sloops is shown by the *J. T. Leonard* on the ways. Metal sheathing was added at the waterline to protect against ice. (Chesapeake Bay Maritime Museum collection)

ILLUSTRATIONS



The *J. T. Leonard* was a good example of how a sloop was rigged—gaff mainsail, topsail and working jib. (Don Edwards photo)

Introduction

The Chesapeake Bay Maritime Museum was fortunate in being able to enlist Thomas C. Gillmer to write the latest study in the Museum's expanding series of publications about historic Chesapeake boat types. Mr. Gillmer has drawn on his extensive professional knowledge and experience as a naval architect and maritime historian to write an absorbing study of the origins and influences in the design and construction of Chesapeake Bay oyster sloops, a type of working vessel which was once dominant on the Bay but which now has all but disappeared; as far as is known, only one possible sloop hull is still afloat, sailing under a "skipjack" rig as opposed to its original topsail gaff rig. Mr. Gillmer's special interest in workboat design provides an additional dimension to his study.

A 1935 graduate of the United States Naval Academy at Annapolis, Tom Gillmer retired in 1968 as a professor of naval architecture at the Academy, where he also served as chairman of naval engineering, director of naval architecture and director of the ship hydrodynamics laboratory in the engineering department.

Between 1950 and 1960, Mr. Gillmer directed the courses in ship construction for all Midshipmen, and prepared a textbook on the subject. During this same period he designed and supervised construction and development

of the original model towing basin at the Naval Academy, a facility which has developed today into one of the largest and most sophisticated ship hydrodynamic basins in the world.

A full academic schedule still left him time to design many private vessels, including the first fiberglass boat (*Apogee*) to circumnavigate the world. He also served as a member representing the United States on a United Nations' panel studying fishing craft, food and agriculture, established a majors program in naval architecture at the Naval Academy, and represented the United States at the International Conference on Structures of Small Ships, held in 1965 in Copenhagen, Denmark, under auspices of the United Nations.

He has been equally busy since retiring from the U.S.N.A. faculty, primarily in the private practice of general naval architecture. This work has included several important historical projects; in 1973 he drew construction plans for the Chesapeake Bay Maritime Museum of the *Peggy Stewart*, an American colonial brig of 1770. Also in 1973, he served as an advisor and consultant to Prof. Spiridon Marinatos, Director General of Antiquities of Greece, in interpretation of the Thera Fresco, which provides the first representation of Minoan ships.

In 1975, Tom Gillmer drew the plans for the *Pride of Baltimore,* the now famous and widely traveled full-scale construction of an American armed topsail schooner (*ca.* 1810), a legendary "Baltimore clipper."

He prepared reconstruction plans for the *J. T. Leonard* as this last existing indigenous oyster sloop of the Chesapeake Bay was broken up (see the "Afterword," beginning on page 33).

In 1980, he drew the plans for a *ca.* 1000 A.D. old Norse trader and expeditionary ship, 52 feet overall, for a reconstruction planned by the Viking Society of Boston.

In addition to these historic projects, Mr. Gillmer was turning out various designs that have been well received world-wide. During the decade of 1970-80, some 500 vessels of deep water cruising capability were built from designs by Thomas C. Gillmer, N.A.

He has been equally productive as a writer on maritime subjects. His publications between 1960 and 1981 comprise an impressive list, both technically and in scope of interest:

Construction and Stability of Naval Ships, a textbook used by the U.S.N.A. and other naval schools in both the United States and Europe, published by the U.S. Naval Institute in several editions between 1955 and 1969.

Working Watercraft—A Survey of Surviving Local Boats of America and Europe, International Maritime Publishing Company, 1972.

Modern Ship Design, U.S. Naval Institute, 1970; second edition published in 1975.

Introduction to Naval Architecture, with Prof. Bruce Johnson, U.S.N.A., U.S. Naval Institute, a textbook scheduled for release in January of 1982.

Texts for Historic Series Lithograph collection—*Brigs and Sloops of the American Navy* (1973) and *Ships of the American Revolution* (1973), Admiralty Publishing House, Ltd.

Articles and papers include "Thera Ship—A Re-analysis," for the *Mariner's Mirror* published by the Society for Nautical Research, London, 1978; "The Thera Ship," *Mariner's Mirror,* 1974; "Ships of Atlantis," for *Sea Frontiers* published by the International Oceanographic Foundation in 1975; "The Capability of the Single Square Sail Rig," for the Third International Symposium on Boat and Ship Archaeology, at the Meeting on Medieval Ships and Harbors in Northern Europe, held at Bremerhaven, Germany, in 1979; "An American Topsail

Schooner," for *Experimental Archaeology* of the Society for Nautical Research, London, 1980; "Signposts Towards the Origins of Ship Design," for the Fifth Naval History Symposium held at the U.S. Naval Academy in Annapolis in 1981.

Thomas Gillmer is a member of the Society of Naval Architects and Marine Engineers, and an emeritus member of the American Society of Naval Engineers and of the American Association of University Professors.

In reminiscing about his career, Mr. Gillmer provides an interesting clue to the origins of his lifelong interest in working vessels. After graduating from the Naval Academy, he spent much of the following three years (1936-37-38) as an officer in the regular Navy in the Mediterranean:

"It was a most enjoyable and enriching period. Officially, the ship I was in was charged with protecting American lives and interests in the Spanish Civil War arena. We were regularly dispatched from our base in Villefranche, France, to evacuate citizens, both U.S. and other, from such Spanish ports as Barcelona, Valencia, Alicante, Palma, etc. We transported these frightened people to Marseilles in France. Frequently, many of these same people would be found among the evacuees in subsequent 'rescue' voyages. It became a very friendly, but sometimes tense transportation service, sometimes punctuated with bombings, heavy gunfire, night navigation through mined and blacked-out channels, etc.

"It was during this whole period that I became aware of the great variety of native watercraft in the Mediterranean and in our visits to a great number of Mediterranean ports I recorded by sketch and photography a large number of these fishing and small cargo boats still surviving and still working under sail. This record I brought back with me and worked it up into a sort of

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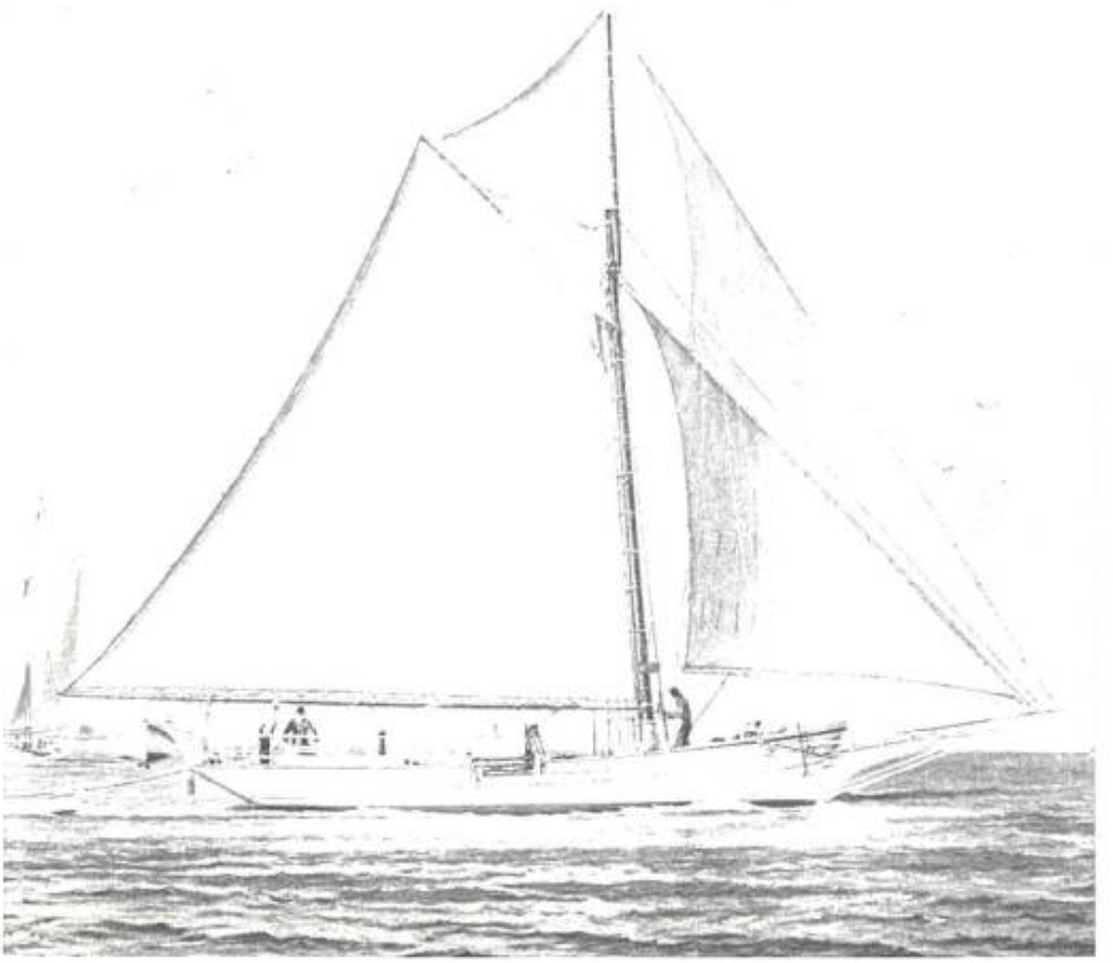
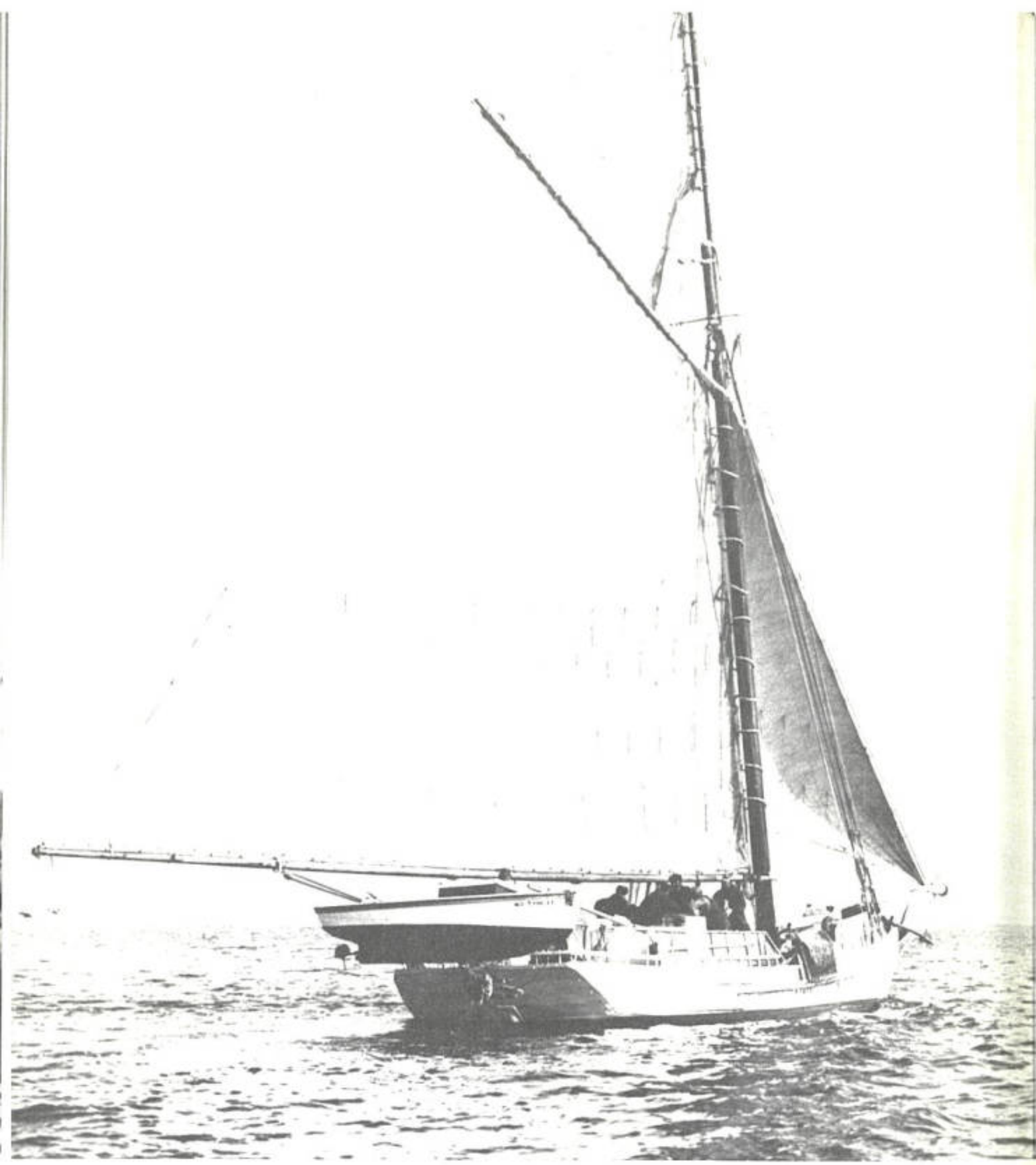
defintive report published in two early volumes of *American Neptune,* Vol. I No. 4 and Vol. II No. 1 in 1941 and 1942."

The Chesapeake Bay Maritime Museum is privileged to be able to add to the published record of the Chesapeake Bay the work of such a scholarly and active author.

RAY DILLEY
Editor

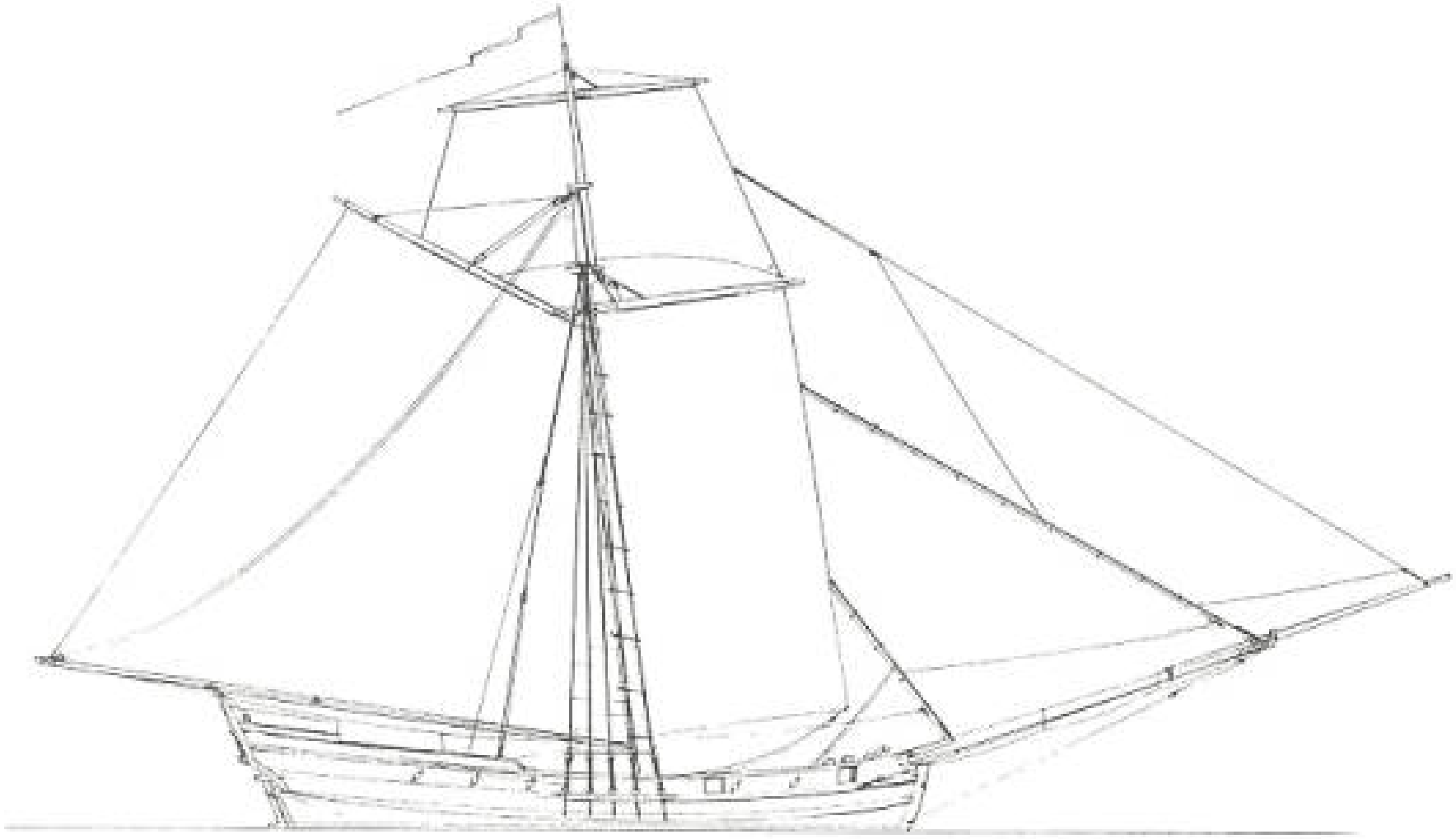


The well-known Chesapeake Bay artist Lewis Feuchter depicted the *J. T. Leonard* with her jib-topsail set. (Courtesy of the Mariners Museum, Newport News, Va.)



A stern view of the *J. T. Leonard* emphasizes the sloop's powerful mainsail. One experienced skipjack skipper remembers times when the *Leonard* was working two dredges in airs so light that skipjacks were dead in the water. (Chesapeake Bay Maritime Museum collection)

SLOOPS



A Bermuda sloop. (Thomas C. Gillmer)

Some Notes on American Sloops

It should be made clear at the outset that it is the intention in this monograph to speak of the *sloop* and specifically, the Chesapeake sloop in its historic context. It is not that a sloop is to simply be distinguished from other boats because of its basic one mast, two-sail rig. It is the purpose here to tell what can be told of a boat that is distinguished uniquely as a species or genus; as it grew and flourished and preserved itself into the 20th century and finally was extinguished here in this remarkable inland sea and tidewater country, the Chesapeake Bay.

The sloop, of course, was not an American "invention" nor was it indigenous in America. It is clear enough that it was originally European. Its name is and was translatable in the predominant European languages. First and originally ubiquitous in Dutch waters it was called *Sloep,* in Sweden it was a *Slup,* in France a *Chaloupe,* Spain and Portugal called it *Chalupa,* in Germany it was *Schlup* and in English the name was *Shallop.* From this name it became in the 17th century English-American colonies both Shallop, Shaloop and Sloop. The last and simple modern identity seemed to have been adopted here in America in the later part of the 18th century. So perhaps the present name is at least American.

But the question still exists and with some reason: *what was it originally?* The early references of the 16th-17th

century do very little in describing it. As inferred above, the shallop-sloop was more than simply a specific rig. It has only been until this century when sailing vessels have been categorized primarily by rig alone.

In Holland, where there is some justification of the name, a sloep was a small, shallow open vessel—the adjective "small" being relative. Probably operated in the more open but protected Dutch and Flemish waterways and especially from the beaches as a fishing craft, it may sometimes have had more than one mast and with transitional lug sails.

In America, the watercraft were of similar type and name as in the home European waters; shallop and sloop identity were much the same. It is an interesting historical fact that documentary references tell us the first sloop-shallop in the New World was assembled on the shores of Chesapeake Bay. In 1609 at the Jamestown settlement Captain John Smith and his crew put together the precut wood of a sloop-shallop for exploring the shores and shallow inlets of the Bay. There is considerable reference in Captain Smith's Journals to the subsequent uses and cruises in this boat. There is no question that such a craft was far more practical than the large English ship which brought the settlers here.

In these early colonial centuries in America the identity of the shallop was often loosely used, except among the watermen and those who associated closely with waterborne commerce. The identity of the sloop, on the other hand, gradually became attached to larger vessels than the lowly shallops. As a matter of fact, by the end of the 18th century American sloops were the carriers of considerable commerce abroad, from both New England and the Chesapeake country and elsewhere in America. The "shallops" by that time, as a type of boat, were going toward obscurity.

It is, perhaps, most likely that the impact of the American Revolution elevated the status of the sloop. As a small war vessel an armed sloop became most impressive. In the sizes of 60 to 80 tons, such single-masted vessels carrying 10 to 12 guns on their low flush decks moved quickly and effectively against British merchant ships five times their size. They were primarily converted carriers themselves, with letters of marque, which encouraged hopeful prize money as well as patriotic endeavor. There were also the large substantial sloops taken into regular service as ships of the Continental Navy. The Navy's great hero John Paul Jones's first command in 1776 was aboard the sloop *USS Providence.* It is interesting to observe also that a probable cause for the unusually large sloops in late colonial America, particularly in Northern waters, was the result of some of the oppressive trade laws imposed by His Majesty's Government—those which ordered that lumber transported in American vessels could not be carried in anything larger than sloops.

By 1783, 40 percent of all American vessels registered in America were sloops. The nature of these late 18th century sloops and their immediate descendants, because of British dockyard records, is in very sharp focus. There were, of course, in use still in Europe the ancestral types still known as sloops and shallops, chalupes, etc. But at the turn of the 19th century the sloop in America had become a species by itself. More than a style, or a local, insular type confined to one small coastal region, the American sloop had now become an identity recognized abroad, in foreign commerce and exploration.

To cite the record of a few merchant sloops in the early post-revolutionary period:

1783, 55-ton sloop *Harriet,* carried a cargo from Boston to China, via Cape of Good Hope.

1785, 80-ton sloop *Enterprise,* from New York to

China, via Cape of Good Hope.

1787, 90-ton sloop *Washington,* from Boston to North West Coast, exploratory voyage, via Cape Horn.

1794, 98-ton sloop *Union,* from Newport, R.I. to China via Cape Horn. Complete circumnavigation (first by a sloop).

It is interesting to also record the comments of the Captain of the sloop *Union,* who was 21 years of age at the start of the voyage with a crew of 22, that while she was an ". . . excellent seaboat and was a very safe vessel . . . I think it too great a risque to trust to one mast on such a long voyage."

By this time, an early date in American history and with the American sloop well established as a vessel more capable than its ancestors in Europe, it would be of some worth to look briefly if we can to some of the factors that shaped and dressed her with a new discrimination. Already mentioned was the growth in size, especially among the New England sloops, a situation inadvertently encouraged through a very short-sighted, restrictive law by England prior to the Revolution. The employment of sloops during the Revolution as privateers and war vessels certainly encouraged vessels with superior sailing performance, particularly speed and windward capability. Such contributions to development of style, and configuration are great and motivating but it would be nice to know something of *how* such growth and improved identity came about as well as the probable *whys.*

In the mid 18th century, as the pressures and the strengths in the American Colonies increased, there was a responsive increase in the types of coastal shipping. A most annoying thing to American colonial merchants was, in part, the British Acts of Trade. Where these acts made it unlawful for American merchants to import goods from the Caribbean Islands so close to the terri-

torial waters of North America, it seemed ridiculous to have to bear the cost of transportation to and from England which the law required. Such trade law consequently and predictably suggested direct importation into the colonies of rum, sugar, molasses, etc., which activity is called smuggling. For successful smuggling the need for small fast sailing ships was obvious. For such fast vessels the hull form was quite different from the conventional 18th century merchant ships or brigs or barques and others. These conventional merchant hulls were built with profitable high-capacity, full, round bottoms, which unloaded impressive quantities of cotton bales and tobacco hogsheads on London's docks, while it mattered little that it required perhaps 60 days or more sailing from the Carolinas.

Faster, low-capacity vessels could be profitable, too, if the voyage could be made shorter. Both speed and short distance obviously would maintain quantity in increased number of arrivals. The vessels for smuggling were smaller, with sharper hulls and a steeply-angled rise in the bottoms. The sloop's single mast, single large mainsail, with long reaching triangular headsails, were proven statements for speed, first used in Jamaica, a Caribbean locale of notoriety in the smuggling world. Increasing orders for these Jamaican sloops soon depleted the early 18th century ship timber supply on this island. The shipwrights moved their establishments to Bermuda where the native cedar was abundant and much admired for ship building. The resulting sloops continuing to develop came down from the Bermuda building stocks with refined and redefined character. Increased rake to the mast and length to the bowsprit, deep drag to the keel, and remarkable deadrise with low freeboard on a lively sheer line—these were the marks of the Bermuda sloops. They pointed toward the subsequent American sloop.

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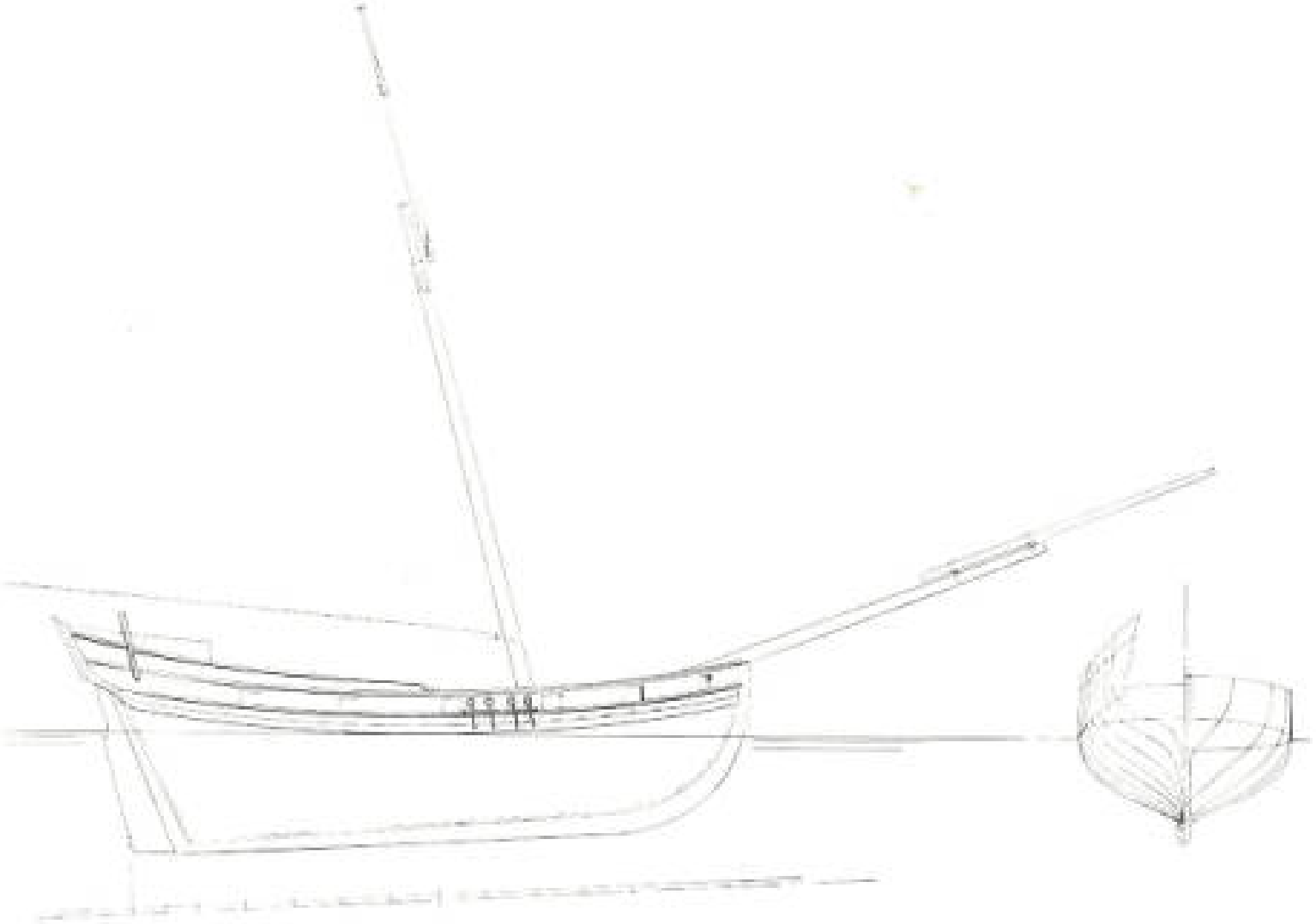


The Bermuda sloop of the mid-18th century (after Chapman, 1775). This type of vessel is the principal ancestor of the Chesapeake sloop. These fast vessels, built for Colonial trade and smuggling, impressed the Chesapeake builders to build similar vessels and with successful performance developed in size to vessels of two masts and more than 100 tons burden—hence the Baltimore Clipper. Lesser single-masters developed with the addition of the centerboard strictly into Chesapeake working craft. This drawing is reconstructed from Henrik Chapman's drawing in *Architectura Navalis*, 1775. The spars are shown here in place exactly to scale from the separately drawn spars by Chapman. Chapman's Bermuda sloop is the only known precise representation of such vessels. (Thomas C. Gillmer)

in the Chesapeake, particularly among the builders in the upper Bay, was to develop the two-mast rig. Without reducing the hull size of the sloop and with the same characteristics, the Baltimore Clipper, a square topsail schooner, became the newest Bay-built type.

The sloop, for the time, in the first two decades of the 19th century, fell into disuse. The records show almost no building of sloops. However, with industrial development on the Chesapeake Bay, and the growth of the cities to the north and west, there was a rising demand for market and produce transport.

It is important to note at this time that there was a very lively coastwise commerce where the Chesapeake Bay ports and Chesapeake-built vessels were of considerable importance. As the American shipbuilding industry and its product grew in size after the revolution and most noticeably by the beginning of the 19th century it becomes necessary to distinguish between vessels for ocean trade and those strictly Bay craft of which this treatise directs itself. The types for these two employments until this time (18th century) were of very much the same character. As mentioned above, the sloops, with their great single gaff mainsails and lofty topsails, for the sake of economy and sailing efficiency, split their rig between two masts. This metamorphosis began popular expansion of the Chesapeake schooners. The sloops had grown too large and deep for only Bay work and as a type they remained in limbo.

It is difficult to identify the popular type and rig of Bay craft in the early 1800's. It is reasonable to believe that there were many small sloops and nondescript open types with the leftover name of "shallops." There were certainly remaining a number of the old 18th century sloops, but their deep keels were not adapted to general Chesapeake work. A private census carried on in 1812 in

Baltimore indicated an average of only about 19 Bay craft entering port each day. This was a small but budding commerce arriving in a growing city to bring produce from the Eastern and lower western shores. In this particular time of British naval patrols and a later British squadron on the Bay, particularly to discourage Bay shipbuilding, it is remarkable that there was any water-borne commerce. It is interesting also that this same census counted 508 "sea" sloops and schooners entering during that war year.

But the War of 1812 was undoubtedly a severe concern to Bay commerce and its effect, for the decade was one of repression and localized small craft. It was during this period of entrenchment and incubation that new ideas developed and boats were built for the Chesapeake's peculiar requirements. But it would not be for another 50 or more years that such distinctive Bay craft as the Chesapeake bugeye would appear, nor for nearly 80 years would there be such a rig called "skipjack." Still, during the second decade of the 19th century local commerce was carried in watercraft of the region's own adaption. The local craft needed, first, to be able to negotiate shallow water. The great tobacco plantations had their docks that could accommodate large sea vessels, a foreign trade that had been in progress for more than a century and a half. But transporting farm produce, fishing and oystering required shallow vessels for the creeks and interior tidal inlets.

Even so, small craft such as open sloops, skiffs and primitive log canoes were not completely adequate. Boats such as these could negotiate shallow water, of course, but there was no capacity for transport. The answer came sometime in the 1820's in the form of a larger, shallow, round-bottom hull of considerable beam and fitted with a *centerboard case* from keel to deck beams. These new

Chesapeake sloops, at first slow to be accepted, were able to spread a considerable sail area and with their centerboards lowered could sail to windward in deeper waters competitively with their deep-keeled schooner and "sea" sloop cousins.

The first official record of one of these rejuvenated classic sloops appears in 1839. Registered in Baltimore, it was a relatively small vessel of 6.5 gross tons. It was followed in 1842 by another sloop named *Amphibious,* registered in Richmond, which was ambitiously enlarged. She measured 35.29 gross tons. This second sloop was, because of her registry location, probably used in transporting tobacco or as a "buy" boat or market sloop. There were relatively few of these large sloops registered before mid-century; however, we are justified to believe that they were the first of an exclusive and successful style of major Chesapeake Bay craft. We know also that they retained the grace and the integrity of structure, the dignity of the tall single-mast rig of the traditional and internationally-known vessel identified as "sloop." They were the descendants of the original American sloops.

The Chesapeake-built vessels during this period began with styles that remain as purely Chesapeake marks through the various types still existing today. There is that long stem timber extended in its graceful arch leading the stem head. It began in the Baltimore Clippers where it provided an extended knee to hold the gammoning which held down the mighty bowsprits of nearly one and a half feet diameter. At any rate, this distinctive stem still curved forward below the bowsprits of the Chesapeake sloops, the pungies, the brogans, skiffs, log canoes and bugeyes, and finally the skipjacks. It provided that distinctive backing for the decorative trail boards and gilded nameboards. There were other Chesapeake styles introduced that the sloops did not adopt and remained

aloof from throughout their distinctive existence.

The popularity of the sloops was at first restrained and slow, and not until after the mid-century mark were there more than ten sloops registered. This documentary evidence of existence does not necessarily reflect the true numbers built-but if the vessels were to bring produce to large centers of population and engage in any general trade-they must eventually have had to register. The exceptions were undoubtedly in local fishery or oyster industry where sailing the catch to distant markets was impractical. After the blight of the Civil War we can see an explosive growth and popularity of the sloops.

In the pre-Civil War years, the demand for oysters from Chesapeake Bay steadily increased. The dredging, tonging and scraping processes were all techniques which were done from as many or more types of craft. There was no more uniformity to the methods or the watercraft than there was in the regulatory laws and enforcement thereof. Schooners and sloops from as far away as Delaware Bay and Long Island Sound invaded the Chesapeake. This also resulted in a repression of native Chesapeake craft. Maryland in these pre-war years finally took political action that was equally repressive in its overkill. This law prohibited taking oysters from all public waters (state-owned) within the Maryland portion of the Bay. This unhappy situation brought only confusion, law breakers and violent oyster warring. Finally, in 1865 the law was eased and certain large state-owned waters with abundant oyster beds were opened to the oyster gathering craft.

By and large, the best way to take oysters is by towing a dredge across the beds. Such dredging by sailing craft still exists in a limited way here on the Bay. However, when in the 19th century there were no capable power-driven boats, this business was the monopoly of large

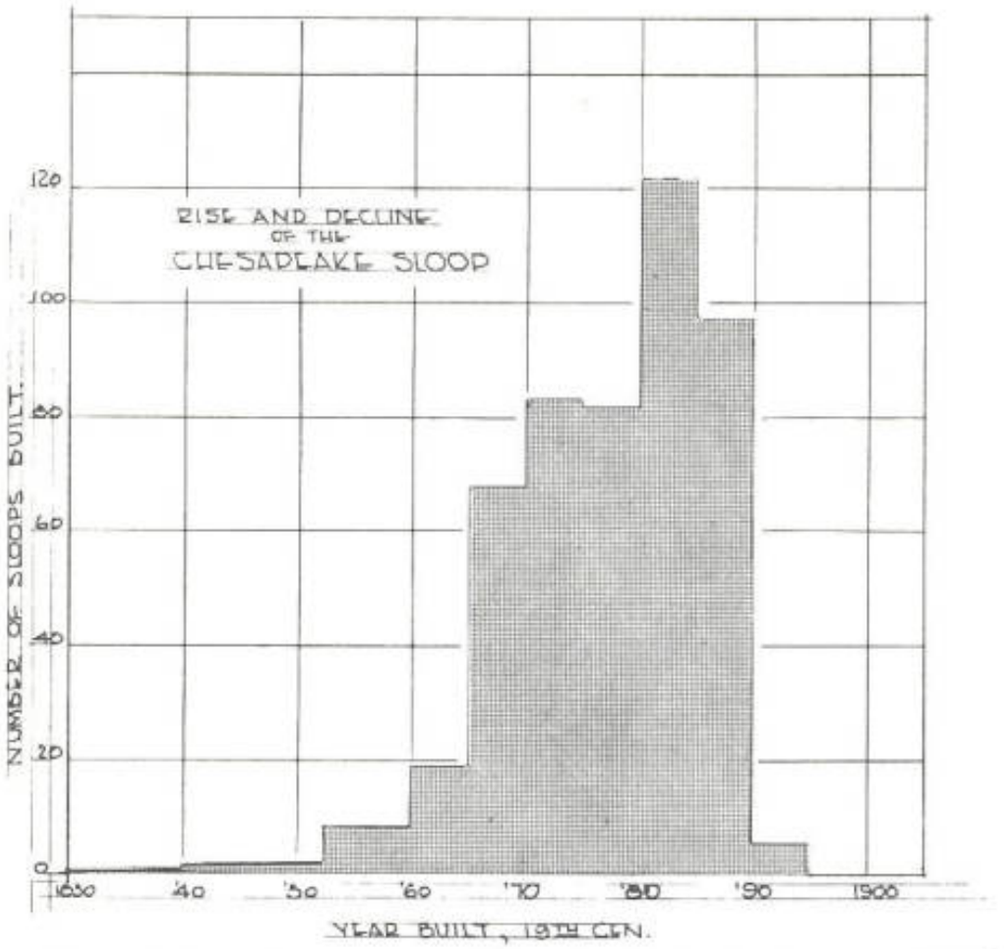
wind-driven boats. The largest and most capable were, of course, the sloops. These great single-masted boats carried the drive and power to pull an overflowing dredge net through the grounds which was lacking in the early, smaller bugeyes. The bugeye, a two-masted rig on a five-log bottom, was not as beamy, hence lacked the stability for a single large driving sail.

The relaxed fishing and oystering laws were immediately reflected in the great increase in building sloops. This can be seen in the chart (p. 13) where the number of boats built suddenly jumps from 19 to nearly 70 in 1865. The numbers of new sloops continue thereafter, indicating a new and increasing prosperity among oyster vessels in which the sloop was dominant for nearly 25 years. Alas, they were too extravagant to be working in such a rough industry and, as will soon be seen, doing work that could be done more economically and abundantly by a simple, cheap, single-mast boat which never presumed the dignity of the sloop.

The larger sloops served as "buy" boats instead of dredgers, which accounts for the great separation in capacities between the sailing dredge boats of 6 to 12 tons and the greater capacity boats of 25 to 40 tons. These later boats in the off oyster season also would be the impressive market boats, sailing agricultural products to western shore ports.

The numbers of sloops registered thus naturally show an increase of over threefold in the years between 1865 and 1870. We see now, too, the building locations spread evenly between the yards of Maryland and Virginia and the Eastern and Western shores. The sloop had become a truly indigenous Chesapeake boat and in addition it had retained much of the character and identity of its international roots. The Chesapeake sloop, regardless of its size, 50 tons or five tons, was a well-built, sawn frame and

planked hull of good proportions and form with but two lower sails—a large jib and large gaff headed main sail. They generally carried a fidded topmast with a plain gaff topsail. The deck was flush fore and aft with a central cargo hatch, below which was a shallow hold separated port and starboard by the large centerboard case. A deck house and below-deck space aft made for small but adequate quarters for the captain and whatever members of the crew with whom he cared to share the space.



The period of the true Chesapeake working sloop in her heyday was the mid-19th century. This rise and decline is easily seen graphically. The peak building period followed the relaxing of oystering and fishing legislation, which occurred after the Civil War. The great majority of the boats built were 10 tons capacity or less with perhaps an additional 80 boats as large as 15 tons. These boats would have been used actively in oyster dredging. There were larger sloops, as great as 40 tons or more, which were used as "buy boats," general market craft and sailing freighters. (Thomas C. Gillmer)

The names of these sloops, if they reflected anything in the character of the people who owned them, indicated the solid virtues of strong family ties with Anglo-Saxon origin. The most frequent usage is first name-family name combination, predominantly female. A wife's name, most likely of the Captain-owner, was common: *Annie, Catherine, Emma, Hattie, Julia, Kate, Mary, Jane, Lizzie,* etc. There is also an abundance of male names reflecting a fully-developed male pride in ownership. And finally it must be acknowledged that there is a substantial number of graceful names reflecting some abstract appreciation and fondness for the sea. There were several *Sea Gulls,* and such as *Silver Spray, Undine, White Foam, Rainbow, Ocean Pearl, Morning Star, Levant, Gulnare, Dolphin, Coquette* and one named simply *Delight.*

The greatest number of documented Chesapeake sloops, as can be seen in the Appendix, came between 1880 and 1885, when the number built rose to 122. After these years the number fell off to 98 between 1885 and 1890 and then the precipitous drop in 1890 to 1895, when only five were built. This sudden decline reflects the change in the economy of those years, together with the advent of the Industrial Age and steam vessels making an inroad, together with railroads linking the Eastern Shore's agricultural area with markets elsewhere. But most of all it was the introduction of a totally new type of boat.

This inevitable replacement was the two-sail (or three-sail) bateau. Later and more popularly this craft was called the "skipjack," a name that originally on the Bay's Eastern shore was used to identify its simple, leg-of-mutton triangular rig. This new type, with its nearly flat bottom (actually very shallow "V" deadrise), its slab-planked flat sides meeting the bottom in a hard chine, could be built with unskilled country labor at a fraction of the cost of a sloop, with its elegant hull and heavy rig.

The sloops continued for a few years to be strong in the oyster and maritime market industry, as they were still abundant in number by the beginning of the 20th century. However, the skipjacks with their simple rigs, good capacity, and cheaply-built hulls, quickly picked up in size and number. By the first decade of the 20th century it was evident that the Chesapeake sloop was doomed. Skipjacks dominated the ever-growing oyster industry in those Edwardian pre-World War I years, and in the 1920's skipjacks numbered well into the thousands.

As we know today that which has been evident since before World War II, the skipjack also is sinking into the oblivion of all working sailing craft. There seems to be at the present time, because of high fuel prices, a slight rejuvenation of building. This remains a marginal risk with the cost of building anything.

* * *

It was a cold and dreary February day in 1976 when I arrived at Navy Point, St. Michaels, where the old sloop *J. T. Leonard* was hauled out on the Chesapeake Bay Maritime Museum's slipway. This boat was the last existing Chesapeake sloop intact, with its proper original rig and mostly original fittings. (There was one other old sloop hull with a skipjack rig which placed it in a lesser category, somewhere on the upper Choptank.) The *Leonard* was built in 1882 at Taylors Island by Moses Geoghegan. She had a long working career and finished her working years in 1968 to become an exhibit at the Museum.

Her years were obviously numbered by this idleness and progressive decay already much advanced. After a few severe winter years and sinkings, when she was finally hauled out it was obvious that she could not be kept afloat

much longer. She was pitifully hogged and decayed. The spars were removed and all hardware worth preserving was removed. I thus went aboard and made the necessary measurements and took notes for the record as well as photographs. Shortly after leaving, about several hours later, the wreckers moved in and the last Chesapeake sloop, indeed, the last American working sloop, was gone.

The Structure of a Sloop

A Chesapeake sloop, among boats, might be thought of by those who entertain a consciousness of class as a lady of background, refinement and breeding; a boat that was condescendingly associating with her inferiors in the oyster "drudging business." It is true that she has a far older heritage, having ancestors who came to America even earlier than the *Mayflower*. She grew and developed a distinguished style, serving in the early Revolutionary Continental Navy and in many services of that period contributing to the successful struggle for independence. It was during the colonial period that the development of the type named "sloop" set it apart from other vessels of America and as a type became a style as well.

The well-known Falconer's Marine Dictionary in 1769 defined a sloop thus: ". . . a small vessel furnished with one mast, the mainsail of which is attached to a gaff above, to a mast on its forward edge, and to a boom below, by which it may be shifted to either quarter. It differs from a cutter by having a fixed, steeving bowsprit and a jib stay, nor are the sails generally so large in proportion to the size of the vessel."

This definition was to hold for nearly another 150 years. The distinguishing mark of difference from the British cutter was its up-raked centerline bowsprit-jib boom atop the stemhead. The cutter, the smack, the hoy, and the other single-masted vessels of the same approximate size,

all had "running" or "housing" bowsprits aside the stemhead to be run out and in and consisting of only a single spar. This difference in the sloop established the rig as a permanent arrangement allowing it to develop along with the rigs of the larger vessels such as the brigs, the schooners, barques and ships. This sort of categorization was the very likely factor that stated the status of her type. It stayed with the sloop until the end.

Sloops were always precisely-built vessels, framed like the larger vessels, carrying heavy wales in the sides below the deck line and with a graceful rise to the sheer in the ends. The stern in the 18th century sloops acquired the graceful up-tuck under the double transoms which was the century's mark of stern styles in the larger vessels. As a matter of fact, the first Chesapeake sloops, taking their fashion from Bermuda sloops, had raised and covered quarterdecks.

In the Chesapeake, when sloops finally settled into their allotted place as working types near 1830, after acquiring the centerboard, they had dropped much of their former rakish, fashionable character. They wisely became plain and rather unassuming. The bowsprits became shorter, the square topsails and courses disappeared, and the hulls became broad and without the former depth and drag to the keels. The older style, where they remained, were called "he-sloops."

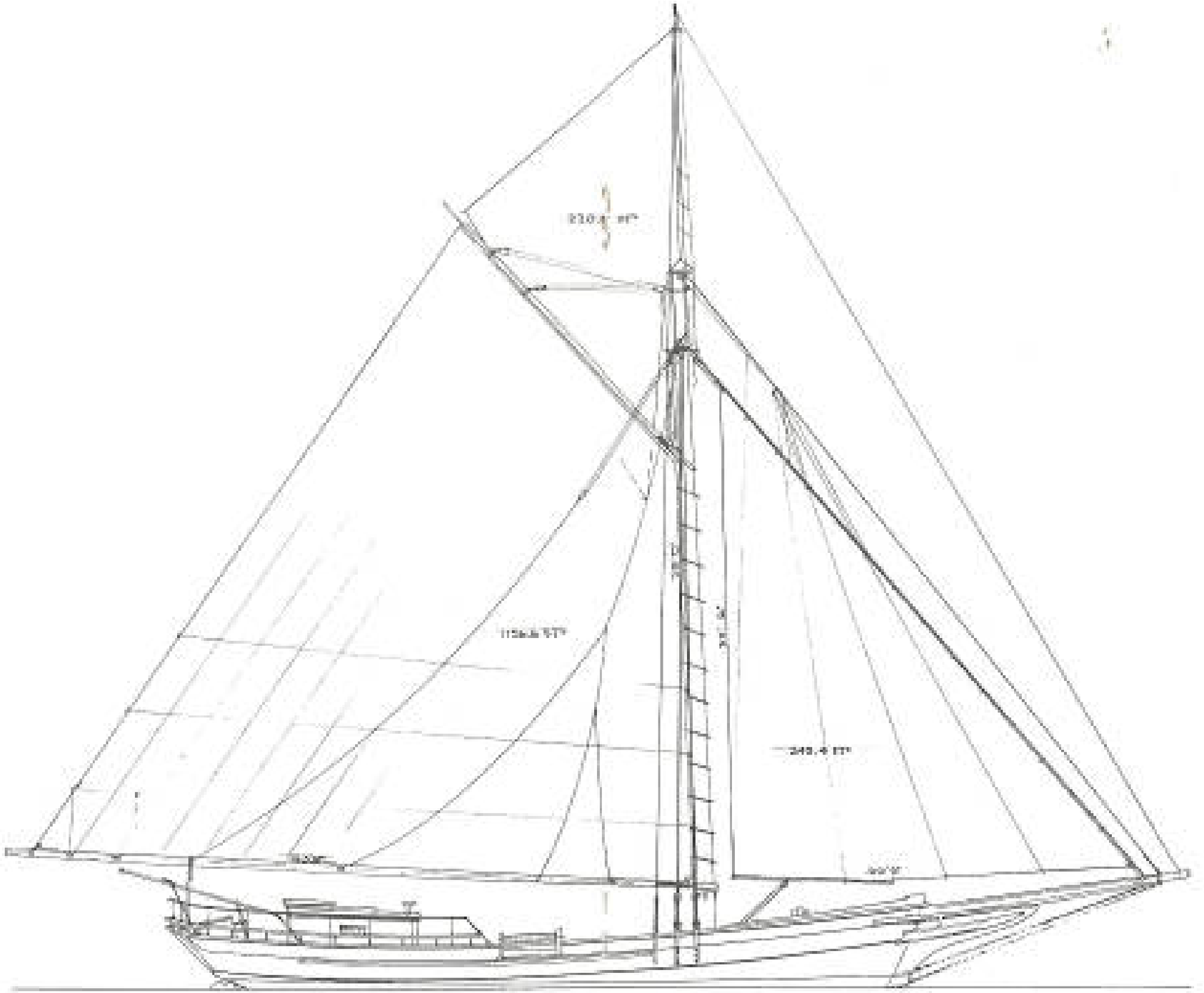
The Chesapeake's last sloop, the *J. T. Leonard,* was typical of this "new" Chesapeake style. Yet, like the tradition of the sloops as briefly recalled above, she was of elegant and refined construction. The construction as it was still existing in 1975, though in unsalvable state, was most obviously of old tradition and may be briefly described as follows.

Her hull (p. 22) was typical in both form and dimension. Her capacity of 10.4 gross tons is close to the average

for those sloops which were built for oystering and general commerce. The hull was round bilged with a moderate deadrise angle and with fine ends. The length to beam ratio was 2.6, typical of the large beamy, centerboard craft. Her keel at the sternpost was 1½ feet deeper than at her stempost, and her draft aft was 4 feet 4 inches. At this draft she displaced 23.89 tons. The hull was framed in oak, double sawn frames, 4″ x 8″ placed on 22″ spacing.

Her keel was hewn of black gum and was at its midship section 14 inches sided and 9 inches molded. It was slotted for the centerboard, which was 11 feet in length, and tapered to 10″ siding aft and approximately 8″ forward. Atop the keel amidships was the oak centerboard bed log, a timber 14″ wide and 10″ high and 13½ feet long. The centerboard slot was 4″ wide throughout. The bed log served as keelson for its length and was spliced to regular keelsons forward and aft, which were also oak 14″ sided and 4″ molded on top of the frame-floor futtocks. The frame heels were mortised into the center bed log. The mast step was cut into the keelson forward. The centerboard case was built up of sides of 3″ oak and with end posts of 6″ x 10″ timbers between keel and deck beams.

The deck of pine was laid on deck beams of pine, 6″ sided and 4″ molded except in way of centerboard trunk, where they were doubled at 3½″ sided and 5½″ molded. The hull's planking was 1⅞″ thickness in pine and the main wale was 14″ wide and 3″ thick. There was a low bulwark with gunwale set on top of a 2¾″ deck stringer and extended one foot high to a 2½″ x 8″ cap. Extending around the after deck, about one half of the whole perimeter, was an open iron stanchion rail with 2½″ x 4″ cap about 9″ high above the gunwale cap. Above this was an open iron ¾-round iron railing and stanchions 15″ above the stern rail.



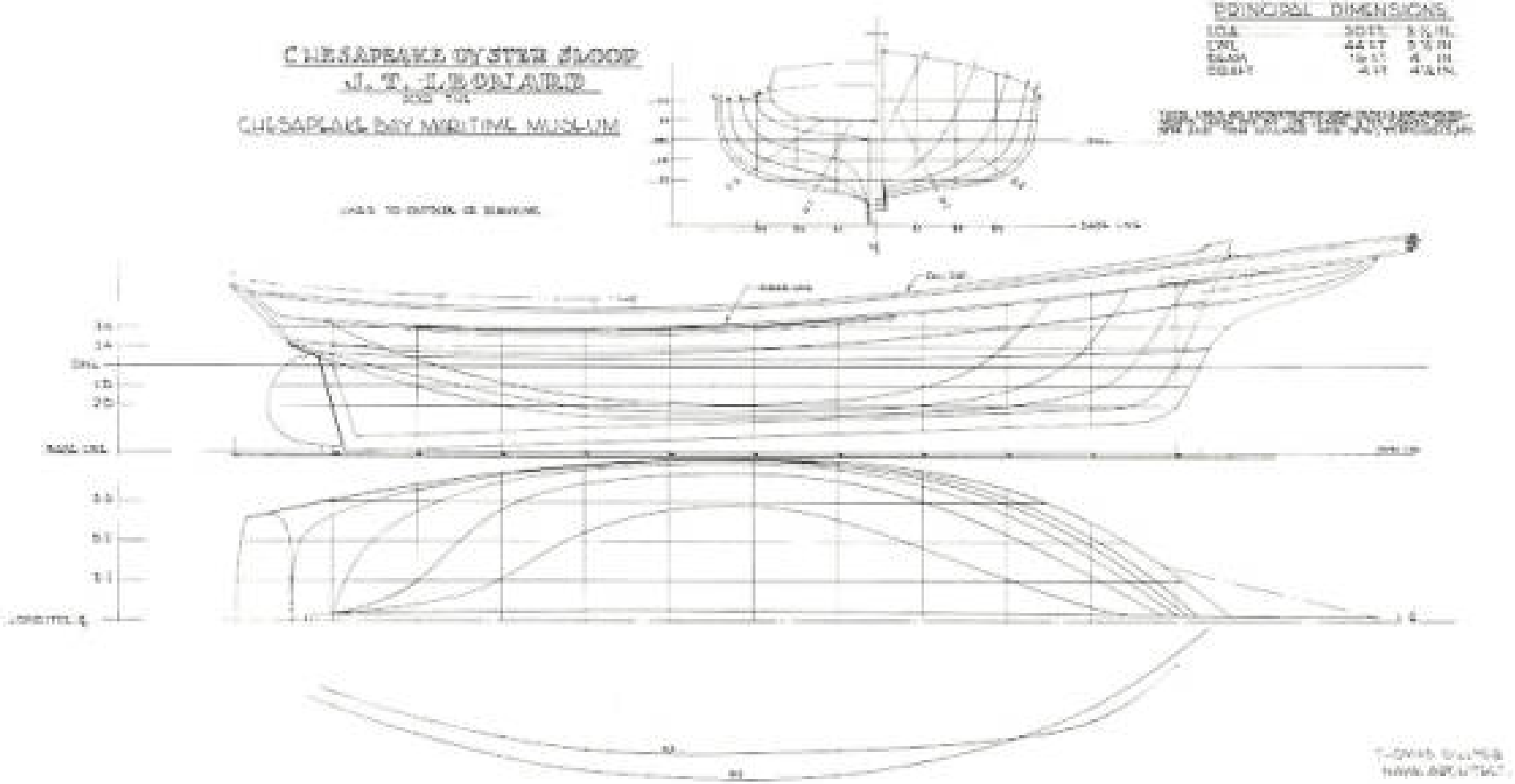
SAIL PLAN & OUTBOARD PROFILE | J.T.LEONARD | DESIGN Nº 490 , SHEET THREE | ANNAPOLIS | 1970's

CHESAPEAKE OYSTER SLOOP

J. T. LEGGETT

CHESAPEAKE BAY MARITIME MUSEUM

PRINCIPAL DIMENSIONS		
LOA	50'11"	15.31 M.
LWL	44'11"	13.70 M.
BEAM	16'11"	4.98 M.
DRAFT	4'11"	1.49 M.

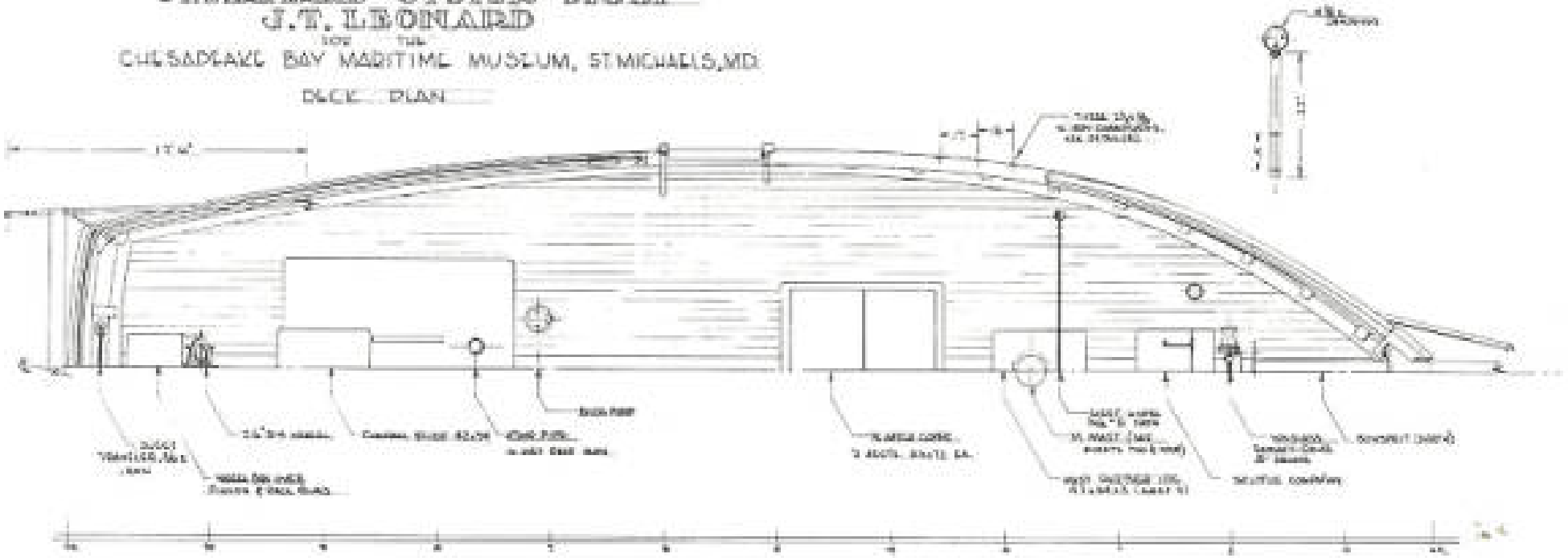


CHESAPEAKE OYSTER SLOOP
J.T. LEONARD

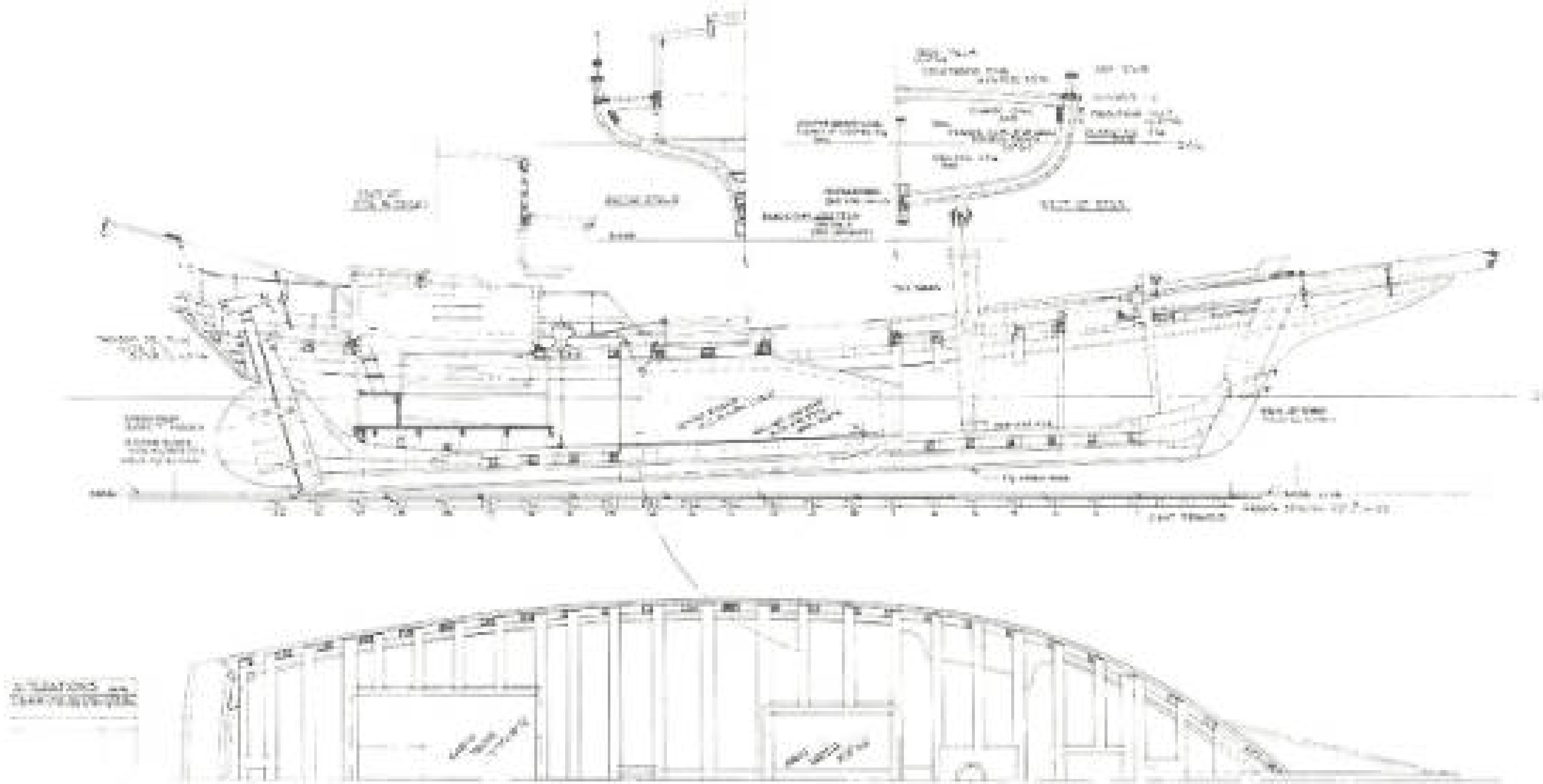
FOR THE

CHESAPEAKE BAY MARITIME MUSEUM, ST MICHAELS, MD.

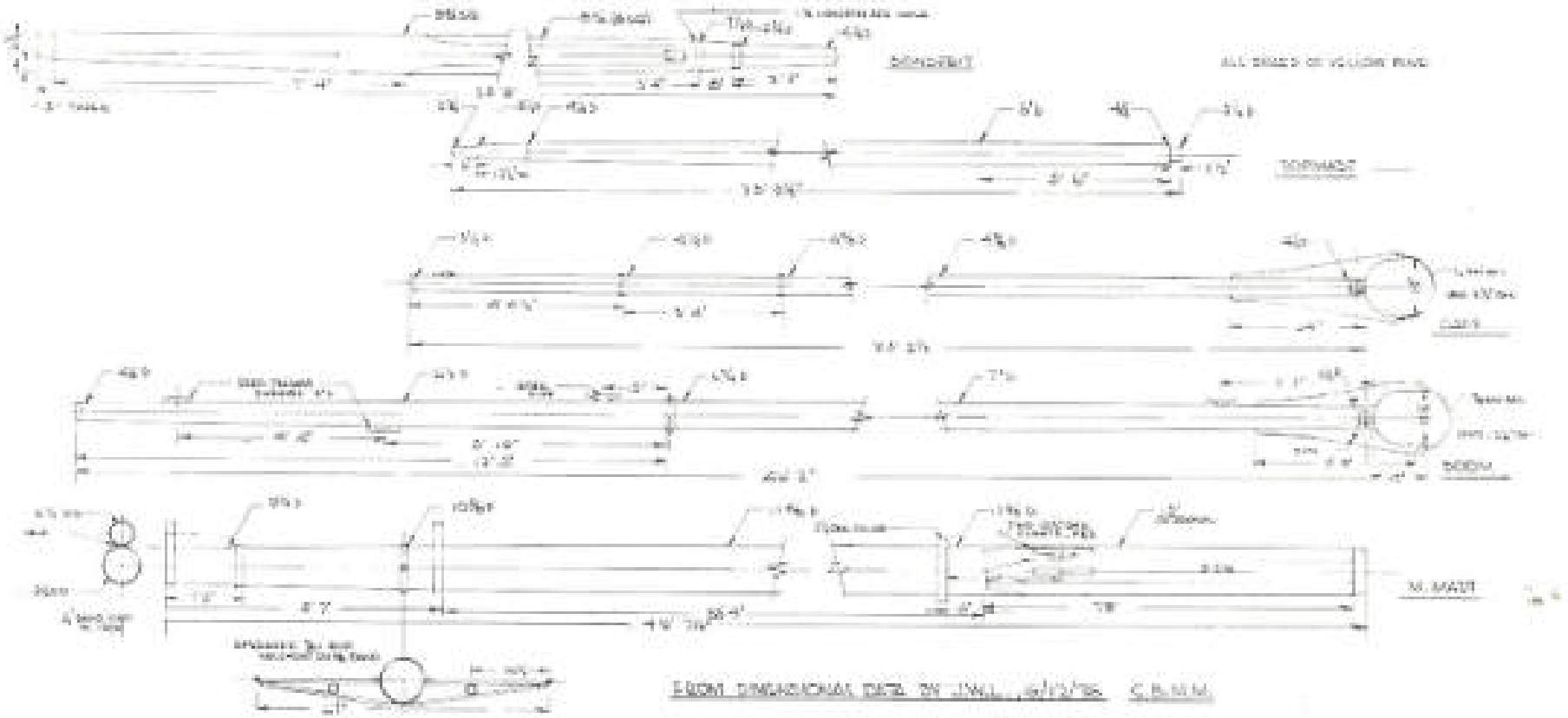
DECK PLAN



DECK & TOPSIDE ARRANGEMENTS | DESIGN 490 | SHEET FIVE | ANNAPOLIS, 12/31/76

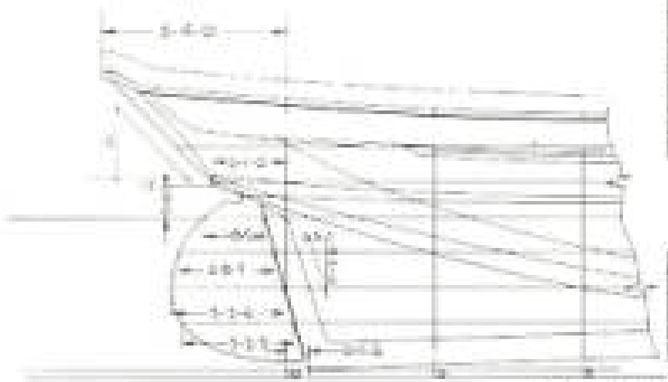


CONSTRUCTION PROFILE & SECTIONS J.T. LEONARD DESIGN No 490 SHEET TWO ANNAPOLIS 10/5/76



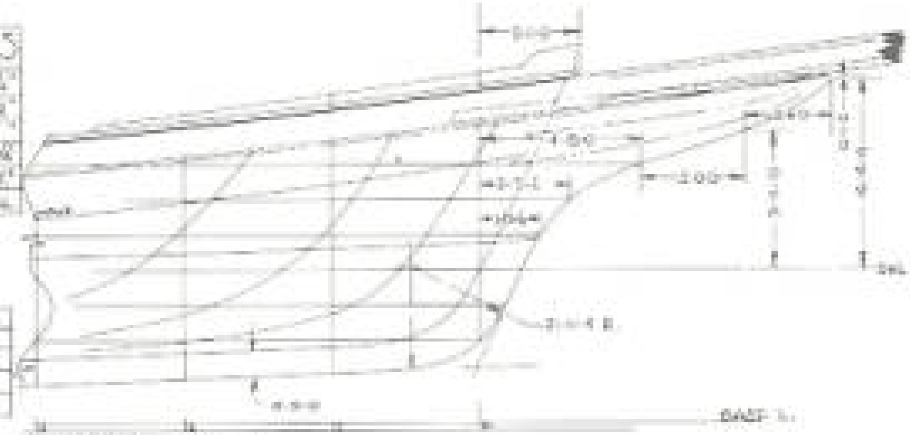
FROM DIMENSIONAL DATA BY J.W.L. 9/12/36 C.B.M.M.

SPARS OF THE SLOOP "J.Y. LEONARD" | DESIGN 490, SHEET FOUR | ANNAPOLIS 12/20/36 | SCALE 1"=1FT.



PRINCIPAL DIMENSIONS	
LENGTH OVERALL	50' 5 ½"
LENGTH WATERLINE	44' 5 ½"
BEAM OUT. DECK (WALE)	16' 4"
DRAFT AT STERN	4' 4 ¾"
SAIL AREA	1706.55 ft²
DISPLACEMENT	23.00 TN

REFERENCE LINE SPACING	
SECTIONS	4' 5 ⅜"
BUTTOCK LINES	2' 0"
WATER LINES	1' 0"



DIMENSIONS GIVEN IN FEET, INCHES AND EIGHTS TO OUTSIDE OF HULL.

STATION	0	1	2	3	4	5	6	7	8	9	10
HEIGHTS ABOVE BASE											
SHEER LINE	8-6-4	8-0-3	7-6-6	7-1-2	6-9-3	6-6-1	6-4-1	6-3-1	6-3-0	6-4-4	6-7-4
B 1	7-8-3	3-1-7	2-3-7	2-0-4	1-10-1	1-8-3	1-8-3	1-8-7	3-3-7	3-3-3	4-6-6
B 2	—	5-7-1	3-1-4	2-4-6	2-1-4	2-0-1	1-11-7	2-2-4	3-10-4	3-3-6	4-10-2
B 3	—	—	5-6-4	3-3-7	2-7-5	2-5-0	2-3-6	2-9-0	3-6-0	4-1-1	6-5-1
RABBET LINE	4-4-2	2-7-1	2-0-0	1-10-0	1-8-0	1-6-0	1-4-2	1-2-1	1-0-4	0-10-3	4-4-2
KEEL (℄ PROFILE)	2-4-0	1-4-1	1-5-0	1-1-0	0-1-0	0-9-0	0-7-2	0-5-1	0-3-4	0-1-3	2-3-0
HALF BREADTHS											
SHEER LINE	2-4-3	4-11-4	6-7-6	7-7-0	8-0-2	8-1-4	8-1-1	7-10-0	7-5-0	6-5-4	6-0-3
WL 2A	2-8-0	4-7-3	6-6-1								
WL 1A	1-3-4	4-2-7	6-2-6	7-4-4	7-10-1	8-1-2	8-1-0			6-9-1	5-11-2
WL 1A	0-5-0	3-3-4	5-10-5	7-2-1	7-9-6	8-0-4	8-0-3	7-9-4	7-5-5	6-6-7	5-3-4
DWL	0-3-6	3-2-1	5-4-2	6-3-6	7-7-3	7-0-6	7-10-3	7-7-0	6-11-1	5-8-0	0-4-4
WL 1B		2-3-2	4-4-3	5-11-1	7-0-4	7-5-0	7-3-5	6-10-5	5-9-5	2-0-0	
WL 2B		1-8-3	2-1-4	3-3-1	5-1-0	3-3-4	5-7-0	4-3-1	3-1-1	0-5-6	
WL 3B											
RABBET LINE	0-3-6	0-4-1	0-4-2	0-4-3	0-4-3	0-4-3	0-4-5	0-4-4	0-4-4	0-4-4	0-4-4

CHESAPEAKE OYSTER SLOOP
J. T. LEONARD
FOR THE
CHESAPEAKE BAY MARITIME MUSEUM

OFFSET TABLE
DESIGN Nº 450
SHEET SIX
DECEMBER 31, 1976
ANNAPOLIS, MD.

The detailed structural arrangement can be seen on p. 54, and it should be noted that the component parts compare in location and purpose to the corresponding details of larger vessels of the 18th and 19th century, with allowance of course, for the difference in overall size and interior arrangement.

The mast is of two spars, lower and topmast with doubling top irons and cap. The mast is 13″ diameter and 8 squared at the partners to heel. The bowsprit is 10″ squared where it crosses the stem and gammoning. The stem knee and head boards extend forward eight feet ahead of the bow. The overall length of the *Leonard* was 51 feet from stempost face to after edge of the transom cap rail. (This does not include the length of the stem knee, head board, etc.)

The total sail area of this sloop was a substantial 1,706 square feet, including her gaff topsail and single foresail or jib.

Altogether, the *J. T. Leonard* was a very fine example of the better working sloop built in the Chesapeake in the 19th century. It can be easily seen when studying her construction plan the contrast with the similarly-dimensioned typical skipjack-rigged, two-sail bateau; the *Geneva May* is an example. This bateau's working gear and deck arrangement are very much the same; her hull dimensions are similar except for the *Geneva May's* light draft of 3′ 1″. Yet the simplicity of the skipjack's structure, straight sides and bottom cross planking requires no frames; the whole structure can be laid out and measured in the simplest geometry. It is little wonder that these rugged and plain skipjacks or bateaux, with their basic cheapness of construction, eliminated the refined ladies that were the Chesapeake sloops.

The Origins and Nature of the Centerboard In Chesapeake Sloops

The very early adaptation of boards or plates to help a shallow boat work upwind is rather obscure. It is quite universally agreed that the Dutch, in their wide shallow hulls as early as the 16th century, were using leeboards. It is likely that they brought the device with them into their first North American settlement on and near the Hudson River. The attachment, however, was lost and on later boats of the region never found to be of interest or use. On the other hand, the prevalence and original adaptation of a centerboard has been credited to 18th century American boats by European writers who say that it was an ingenious American device that never found acceptance in European waters. This is a flattering recognition but there seems to be no record or documented evidence in spite of such fine credit.

Actually the first record, contrarily, seems to credit the invention to an Englishman. This may well be where the credit should be, but there is evidence that centerboards were used in Oriental and African native craft one or two centuries before. It was not a new contrivance at the end of the 18th century, however. In 1774 Captain John Shank, RN, at the suggestion of the Duke of Northumberland (whatever his interest), built a boat with a "sliding keel." This was done in Boston, apparently, while the Captain was on duty there, as it is told by William Baker

in his account of sloops and shallops through the Revolution. This device was apparently a drop keel or dagger board.

Again, further refinement of this centerboard must be credited to the British Navy when in 1809 an English Navy prisoner of war in France, a Mr. Shuldham, made a model of a boat with a pivoted centerboard. It is a board of this style and design that became the common device in the later Chesapeake working craft and in many of the Northern inland, sailing workboats, as well as uncounted thousands of shoal draft sailing yachts yet to be built.

In 1811 a patent was issued by the U.S. Patent Office for a pivoted centerboard in a case lifted by a lanyard at its after end. This describes essentially the centerboard mechanism and apparently protected it from infringement. It is said to have been used first a few years later on several Hudson River sloops. These graceful sloops of the Hudson were similar in form but larger than the sloop or shallops used at the time in the Delaware and Chesapeake. The Hudson sloops also spread greater sail, greater not only because of their larger size but greater in relation to their full length and displacement. This was needed to reach light airs above the hill sides and bluffs which border this handsome river.

Centerboards in another half dozen years were to be found in general use throughout the Chesapeake Bay and it was this useful development that allowed the sloops to live and, eventually to modestly thrive for some 40 years, working alternately in shallow and deeper water. This they did in the oyster industry, working both as large buy boats and marketing craft and in smaller sizes as the "drudge" boats.

The centerboard on the *J. T. Leonard* is typical in its construction and proportionate size to those used on most centerboard working boats whether they were or are

sloops, skipjacks, log canoes, working schooners, etc. General construction scantlings were indicated in the foregoing description of the *Leonard's* construction. It may be of interest to record further that it is customary in Chesapeake construction to fit and brace the end posts of the centerboard's case between keel and deck. The centerboard's case is fitted on top of its heavier bed logs all the way up to the underside of the deckbeams. The centerboard case is sometimes sloped down on its forward end about one-third to one-half its length, as in the *Leonard's* structure. This is done, obviously, to fit the board's shape, which often is slightly tapered, so as to present its greatest immersed area when lowered. The board's length itself was built to some popular rule of thumb based on the waterline length of the boat. Perhaps the greatest number of skipjacks found the waterline length to centerboard length satisfactory at 4:1. Others cut the ratio to 3½ to 1 or as long in some cases as 3 to 1, showing commendable independence of thinking. At any rate, the length of board seems in nearly every case to be some whole or even half-unit ratio between one quarter and one third of the length on the water.

The boards were built up of heavy, generally 3- to 3½-inch green oak stock fastened on edge and held by long iron drifts. The boards were always kept wet from the time of their initial construction. When the boats were hauled out for bottom work the boards were first dropped out and kept in the water until the boat was refloated. Such practice was the approved Bay waterman's routine and still prevails. It keeps the board free from most decay, change of shape and loosened fastenings caused in drying and swelling.

The side clearance of the board was generally about one-fourth of the slot's width in the casing. In the *Leonard's* case, the board is 3 inches and the slot is 4.

the Museum worked frantically to acquire the funds, facilities and the skills to cope with the problems of wooden boat geriatrics.

A marine railway was built on the Museum's grounds in 1974, and the *Leonard* and the *Lockwood* would be hauled frequently for caulking and applying generous applications of seam compound. Caulking the *Leonard* was like caulking a split watermelon. The okum and compound were pushed cautiously into her seams with a light tap-tap; her hull wouldn't stand the usual resonant ring of the caulker's mallet. It was obvious that a fateful decision on the future of the *Leonard* had to be made, as well as on the *Edna E. Lockwood,* the Museum's aging nine-log bugeye.

Experts were called in to make an independent study of the *Leonard* and her problems and to recommend the course of action that the Museum should take.[1] It appeared that rebuilding the *Lockwood* would be a much easier task than rebuilding the *Leonard.* After careful study of the independent opinions expressed on the *J. T. Leonard* by experts in the field of wooden boat design, construction, maintenance, restoration and exhibition, in May 1975, the Museum's Board of Governors resolved:

(1) that restoration of the *J. T. Leonard,* based on the financial and physical capabilities of the Museum, is an impossibility within the framework of good judgment;

(2) that the *J. T. Leonard* be kept afloat as long as safety permits without incurring major expenses for repairs or restoration;

[1] These experts included: Maynard Bray, Assistant Curator for Ship Preservation, Mystic Seaport; Joseph L. Conboy, of Joseph L. Conboy and Associates, yacht builders, Urbanna, Virginia; Richard W. Howell, Museum Boat Shop Manager; Melvin Jackson, Curator of Marine Transportation, National Museum of History and Technology; Josef Liener, retired superintendent of Small Boat Shop, Philadelphia Navy Yard; Thomas M. Lucke, President, Dickerson Boat Builders, Trappe, Maryland; James B. Richardson, boat builder, Cambridge, Maryland, and Ralph H. Wiley, naval architect and boat builder.

(3) that an appropriate *J. T. Leonard* exhibit be considered using salvageable and exhibitable parts of the vessel in conjunction with an accurate, well-made large scale model of the vessel.

It was as if the *Leonard* sensed this decision. She quietly waited through the summer and the fall. As if in respect for her age, visitors were not allowed to walk the decks which had been part of her life for so many years.

The winter was unusually cold. One quite clear evening in February, 1975, ice formed in the Bay. It pulled at her caulking along her waterline, and the *Leonard* slowly slid beneath the surface at her shallow berth at the Museum.

The following morning members of the local volunteer Fire and Rescue Squad came with two pumpers. Plywood was nailed over hatches; the pumps worked full blast, and she was floated once again. A large black plastic shroud was slid under the vessel to keep her floating.

When the ice thawed, the *Leonard* was moved to the Museum's marine railway to be hauled out for the last time. The *Leonard's* spars and rigging were carefully removed and such memorabilia as trail boards and hardware set aside for exhibit purposes. With completion of the beautifully-detailed ¾″ to the foot plank-on-frame model by Bill Bromell and Tom Gillmer's account of the gaff-rigged Chesapeake Bay round-bottomed sloops, the Board of Governors' last resolution in regard to the *J. T. Leonard* has been fulfilled.

R. J. Holt
Director, Chesapeake Bay Maritime Museum

SLOOPS

Built on the Chesapeake and Included in List of Merchant Vessels of the United States

SLOOPS

Built on the Chesapeake and included in List of Merchant Vessels of the United States (LMV)-1890—Except as Noted
Compiled by John Earle

OFFICIAL NO.	NAME	GROSS TONS	YEAR BUILT	WHERE BUILT	NOTES
105972	A. Powell	14.11	1881	St. Michaels, Md.	
105320	Albert W. Cook	10.33	84	Cambridge, Md.	
106107	Alzenia	5.98	82	Hampton, Va.	
106000	Amanda Stanley	8.22	81	Elkton, Md.	
105655	Amelia Ann	9.86	76	Newtown, Md.	
105830	Americus	8.06	79	New Point, Va.	
674	Amphibious	35.29	42	Richmond, Va.	
1964	Ann Elizabeth	9.65	70	Norfolk, Va.	
105081	Ann Elizabeth	10.46	71	Norfolk, Va.	
105562	Anna	8.95	75	Tobacco Stick, Md.	(Dorchester)
105678	Anna	11.10	76	Alexandria, Va.	
1859	Anna Cora	10.29	69	Somerset Co., Md.	
105072	Anna M. Moore	5.28	77	Havre de Grace, Md.	
1376	Annie	26.73	65	Annapolis, Md.	
1981	Annie Bell	6.18	70	York Co., Va.	
1973	Annie Jewell	6.38	70	Denton, Md.	
106347	Annie Isbom	5.52	85	Norfolk Co., Va.	
105219	Annie Phillips	7.81	73	York Co., Va.	
1850	Anne Tennis	8.67	68	York Co., Va.	
106323	Annie F. Duncan	8.05	84	Tilghman's Is., Md.	
105941	Annie K. Teller	5.79	80	Norfolk, Va.	
106321	Augusta	7.42	84	Annapolis, Md.	
2771	B. H. Lambert	15.18	71	Alexandria, Va.	
2840	B. T. J. B. Jones	10.10	73	Somerset Co., Md.	
3025	Bay Queen	9.56	76	Havre de Grace, Md.	
3088	Belle	5.94	79	Norfolk, Va.	

2002	Belvidere	10.77		Bell Point, Va.	
2030	Bill Byrne	11.28	50	Baltimore, Md.	
5093	Birdie Brooks	7.31	79	Lakeville, Md.	(Dorchester)
2300	Bivalve	9.52	75	Crisfield, Md.	
2769	Blanche Tennis	11.68	71	Norfolk, Va.	
4002	Blue Dick	6.53	59	Baltimore, Md.	
3336	Brothers	8.57	85	Norfolk, Va.	
2851	Bruff	10.24	73	Talbot Co., Md.	(Sharp's Is.)
125531	C. Hiltz	26.73	76	Baltimore, Md.	
126281	C. A. Robinson	7.02	84	Taylor's Is., Md.	
4053	C. C. Gary	13.26	60	King Wm. Co., Va.	
125694	C. D. Smith	9.58	78	Dorchester Co., Md.	
126217	C. V. Owens	7.81	84	Norfolk Co., Va.	
126257	C. W. Sinclair	6.53	84	Dorchester Co., Md.	
4914	California	5.33	63	Deals Is., Md.	
126167	Calypso	9.43	83	Cambridge, Md.	
126366	Caroline	10.44	86	Charlestown, Md.	
126036	Carrie	41.14	82	Havre de Grace, Md.	
126328	Carrie P. Gambrill	9.28	84	Solomon's Is., Md.	
4465	Catherine Combs	6.57	57	Baltimore, Md.	
126387	Catherine Davis	5.87	86	Pocomoke City, Md.	
4908	Catherine Francis	6.75	64	Norfolk, Va.	
126315	Catherine Allen	5.91	85	Portsmouth, Va.	
126464	Cavalier	8.37	87	Northumberland Co., Va.	
5581	Champion	6.15	68	Baltimore, Md.	
3619	Charles O. Milbourn	24.05	62	Somerset Co., Md.	
125970	Charles H. Atkins	9.49	81	Onancock, Va.	
126928	Charles M. Kelley	33.84	92	Gloucester Co., Va.	See LMV '95
126071	Charles W. S. Banks	26.97	82	Cambridge, Md.	
125855	Clara	9.61	80	Madison, Md.	
125881	Clara	9.50	81	Havre de Grace, Md.	
125639	Clara Belle	7.92	77	York Co., Va.	
5879	Col. S. H. Gover	8.36	70	Baltimore, Md.	

SLOOPS

Built on the Chesapeake and included in List of Merchant Vessels of the United States (LMI)-1890—Except as Noted
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OFFICIAL NO.	NAME	GROSS TONS	YEAR BUILT	WHERE BUILT	NOTES
126498	Cooper	21.88	1880	Washington, D.C.	
5586	Coquette	5.31	70	Norfolk, Va.	
125441	Cora Delphine	9.32	75	Lancaster Co., Va.	
125451	Cora T. Rubark	9.85	75	Dorchester Co., Md.	
5582	Cricket	8.58	68	Baltimore, Md.	
126308	Cris	10.33	85	Cambridge, Md.	
157214	Daisy	9.97	88	Fredericksburg, Va.	
157185	Daisy V.	5.66	86	Nansemond Co., Va.	
157254	Daisy M. Tall	10.50	89	Madison, Md.	
157200	Daniel H. Mayne	6.82	87	Cambridge, Md.	
6325	Daybrook	6.64	60	Norfolk, Va.	
157155	Delight	9.64	85	St. Michaels, Md.	
6615	Dolphin	5.92	68	Baltimore, Md.	
157153	Dorado	6.40	84	Portsmouth, Va.	
6858	Douglas D. Fletcher	5.46	72	Pocomoke, Md.	(sic)
8694	E. Virginia	17.64	70	Talbot Co., Md.	
8560	E. C. Strong	8.62	60	Baltimore, Md.	
8465	E. J. Henkle	17.04	68	Baltimore, Md.	(in 88 as Eli J. Henkle—14-55T (1859)
135511	E. V. Capitola	17.04	78	Chrisfield, Md.	
135613	Edith	8.12	82	Chrisfield, Md.	
135524	Effie A. Chase	22.74	81	Pocomoke City, Md.	(Changed to sch. by '95)
135813	Effie E. Mace	16.15	84	Madison, Md.	
8468	Elizabeth J. Wright	19.19	69	Denton, Md.	
8911	Ella M. Turner	5.76	73	Mathews Co., Va.	
135208	Ellen Lee	9.09	76	Messango, Va.	

8647	ELLIE	8.47		Sussex Co., Va.	This ELLIE was in 1888 LMV, not 1890—probably "dead" by '90. No Sussex Co. in Va. that I can find. It was probably Sussex Co., Del.
7806	EMERY SUSAN	6.71	64	Norfolk, Va.	
135181	EMILY	6.47	75	Wicomico Co., Md.	
8586	EMMA	6.89	69	Norfolk, Va.	
135065	EMMA	6.18	74	Cecil Co., Md.	
7805	EMMA EUGENIA	7.28	69	Norfolk, Va.	
8952	EMMA FRANCIS	10.55	73	Warwick Co., Va.	
135312	EMMA MISSOURI	6.05	77	Norfolk, Va.	
135067	EMMA P. COOK	14.51	74	Somerset Co., Md.	
135808	ENERGY	9.36	84	Norfolk Co., Va.	
135188	ERLANDER	8.43	76	Yorktown, Va.	
135822	ETHEL	6.70	84	Accomac Co., Va.	
135635	EUGIE PRESTON	10.41	82	Cambridge, Md.	
135179	EVA	12.78	73	Accomac Co., Va.	
135804	EVA SULLIVAN	9.96	84	Tilghman's Is., Md.	
8587	EVA A. HUBBARD	5.97	76	Gloucester Co., Va.	
9758	F. J. CASIMEL	5.28	73	Norfolk, Va.	
9243	FAIRPLAY	8.72	63	Washington, D.C.	
120639	FAIRPLAY	8.35	85	Morris Point, Va.	
9772	FAIRVIEW	7.48	66	Deals Is., Md.	
120089	FAIRVIEW	48.91	73	Louden Bridge, Va.	
120598	FANNIE	9.07	84	Cambridge, Md.	
120229	FANNIE MAY	9.78	73	Dorchester Co., Md.	
120723	FANNIE C. NORTHERN	7.20	88	Solomon's Is., Md.	
120382	FANNIE SHEPHERD	13.02	79	St. Mary's Co., Md.	
120267	FLEETWING	9.53	76	Oxford, Md.	
9897	FLIRT	10.05	77	Crisfield, Md.	See LMV '95
9994	FLORA	14.68	71	Somerset Co., Md.	
120612	FLORENCE	6.68	85	Norfolk, Va.	
120782	FRANCES S. MOORE	8.56	89	Wicomico Co., Md.	

SLOOPS

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OFFICIAL NO.	NAME	GROSS TONS	YEAR BUILT	WHERE BUILT	NOTES
120706	Frederick G. Haynes	6.75	1887	Essex Co., Va.	
9809	Friend's Assistance	8.00		Somerset Co., Md.	
85174	G. W. Smith	6.39	71	Norfolk, Va.	
10965	General Robert E. Lee	7.45	69	Baltimore, Md.	
85906	General Fitzhugh Lee	10.41	85	Pocomoke City, Md.	
85104	Genie	7.78	67	Dorchester Co., Md.	
85900	George Beulah	6.04	85	Norfolk, Va.	
10989	George Christopher	10.21	73	Crisfield, Md.	
85110	George Washington	12.09	69	Norfolk, Va.	
85644	George O. James	19.59	80	Cambridge, Md.	
85819	George T. Johnson	10.04	83	Cambridge, Md.	
85829	George W. Dill	5.66	84	Norfolk Co., Va.	
85295	George W. Driver	15.55	69	Accotink, Fairfax Co., Va.	See LMV '83
10813	George W. Hardesty	15.41	68	Annapolis, Md.	
86110	George W. Jackson	10.47	90	Cambridge, Md.	See LMV '95
85857	George W. Woolford	9.20	84	Cambridge, Md.	
85639	Georgiana	6.60	80	Richmond, Va.	
85547	Gertrude	8.90	78	Messongo, Va.	
85335	Gilsimer	16.	74	Cambridge, Md.	See LMV '98
10987	Goldleaf	6.10	69	Mathews Co., Va.	
85311	Golden Rule	9.93	74	Norfolk, Va.	
85804	Good Templar	10.17	83	Norfolk Co., Va.	
85655	Grace Hope	7.12	81	Norfolk, Va.	
85787	Grace V. Mills	10.20	89	Cambridge, Md.	
86062	Gracie Leonard	10.50	89	Cambridge, Md.	
85475	Granger	8.19	76	Deep Creek, Va.	

86002	Grant & Wilson	7.67	71	Washington, D.C.	
85096	Grape Shot	12.08	69	Tappahannock, Va.	
10537	Grape Shot	7.40	80	Norfolk, Va.	
85359	Gray Hound	6.95	72	Baltimore, Md.	
86070	Grey Eagle	6.57	89	Grove Wharf, Va.	
10536	Gulnare	7.11	60	Norfolk, Va.	
11900	Harp	17.41	68	Baltimore, Md.	See LMV '95
95498	Harp	5.86	87	Norfolk, Va.	
95404	Harry White	6.37	75	Crisfield, Md.	
95596	Hattie J. Bradshaw	13.73	75	Newtown, Md.	(old name for Pocomoke
11899	Hattie & Sam	12.52	68	Baltimore, Md.	City)
95066	Haze	6.99	70	Yorktown, Va.	See LMV '93
96054	Hector	12.73	85	Washington, D.C.	
95790	Helen Josephine Mansfield	13.03	84	Norfolk Co., Va.	
95826	Henry W. Ruark	10.22	84	Taylors Is., Dorchester Co., Md.	
95497	Hettie & Elizabeth	8.67	77	Messongo, Va.	
95570	Horace S. Peed	14.22	79	Norfolk, Va.	
95618	Horn Point	12.56	80	Annapolis, Md.	
95858	Howard To. Leach	10.33	83	Somerset Co., Md.	
11097	Hugh Bouton	18.37	55	Anne Arundel Co., Md.	See LMV '95
95447	Humming Bird	9.87	76	Cambridge, Md.	
100215	I. C. Covert	13.33	78	Norfolk, Va.	
100117	Ida	8.27	72	City Point, Va.	
12240	Ida Bennett	13.10	66	Baltimore, Md.	
100282	Ida Denmead	13.00	81	Johnson Landing, Va.	
100256	Ida Ross	7.04	79	Newtown, Md.	(old name for Pocomoke
100094	Ida Wake	7.18	75	Elizabeth City, Va.	City)
100243	Independence	11.29	79	Cecil Co., Md.	
12584	Integrity	11.70	67	Baltimore, Md.	
100387	Ione	10.59	85	Taylors Is., Dorchester Co., Md.	
12410	Irene	6.95	73	Somerset Co., Md.	
12442	Isabel	5.82	67	Baltimore, Md.	

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OFFICIAL NO.	NAME	GROSS TONS	YEAR BUILT	WHERE BUILT	NOTES
17814	Mary Jane	8.51	1867	Talbot Co., Md.	
90731	Mary Jane	7.11	70	Nashville, Va.	
17742	Mary Lamb	8.71	67	Norfolk, Va.	
91943	Mary Lucree	6.88	87	Norfolk Co., Va.	
90781	Mary Pace	7.19	85	Portsmouth, Va.	
91149	Mary Sabonia	10.50	79	Talbot Co., Md.	
90222	Mary Virginia	7.67	69	Norfolk, Va.	
90589	Mary Washington	7.38	74	York Co., Va.	
91413	Mary A. Gray	7.81	82	Norfolk, Va.	
90649	Mary C. Ball	16.45	74	Talbot Co., Md.	
91891	Mary E. Adams	10.07	86	Seaford, Del.	
90589	Mary E. Cummings	10.02	77	Talbot Co., Md.	
91166	Mary H. Cuckoo	16.66	79	Dorchester Co., Md.	
90299	Mary L. Shultz	13.63	70	Tobacco Stick	(Old name for Madison, Md.)
91785	Mary M. Owens	6.59	84	Norfolk Co., Va.	
90167	Masonic Guide	10.13	70	Crisfield, Md.	
17948	Matilda Ann	7.63	69	Accomac Co., Va.	
91801	Matilda F. White	8.95	85	Whitehaven, Md.	
91820	Mattawoman	10.80	80	Eastville, Va.	
91842	Mattie	9.62	85	Solomons Is., Md.	
92060	Mattie	19.41	88	Fredericksburg, Va.	
91560	Mattie Biddood	10.17	83	Portsmouth, Va.	
91836	Mattie Lee	7.09	86	Pocomoke City, Md.	
91841	Maud R.	8.12	85	Solomons Is., Md.	
91734	Maud S.	9.92	84	Milton, Dorchester Co., Md.	
91644	Maud Muller	9.34	83	Sharptown, Md.	

91203	MAY	6.42	79	Alexandria, Va.	
91509	MELIA & B.	6.73	82	Dorchester Co., Md.	
90328	MELISSA WASHINGTON	11.92	71	Somerset Co., Md.	
90300	MESSENGER	9.23	78	Somerset Co., Md.	
91618	METHODIST	8.30	83	Little Choptank R., Md.	(Dorchester)
90325	MINERVA	8.48	71	Crisfield, Md.	
91270	MINNIE	9.32	80	Cambridge, Md.	
91150	MINNIE A.	10.19	79	Smithfield, Va.	
91956	MINNIE BLANCHE	8.06	87	Pocomoke City, Md.	
17989	MINNIE CLYDE	9.43	67	Baltimore, Md.	
92044	MINNIE ESTELLE	6.96	88	Pocomoke City, Md.	
90393	MINNIE ESTELLE	9.92	76	Dorchester Co., Md.	
90405	MINNIE OWEN	6.25	72	Norfolk, Va.	
92124	MISSOURI	8.65	89	Messongo Wharf, Va.	
90220	MOLLIE	11.62	70	Washington, D.C.	
90738	MORNING STAR	5.40	74	Norfolk, Va.	
17269	MUSIC	11.35		Norfolk, Va.	
90310	MUSIC	6.66	71	Norfolk, Va.	
18974	N. WHEATLEY	11.04	74	Baltimore, Md.	
130239	NANNIE GERTRUDE	31.37	82	Madison, Md.	
18682	NASSAWADDOX	6.07	72	Eastville, Northampton Co., Va.	
130358	NELLIE	9.69	86	Cambridge, Md.	
130281	NELLIE E. NICHOLS	10.47	83	Cambridge, Md.	
110567	ROBERT E. LEE	5.70	83	Norfolk, Va.	
21921	ROBERT F. BRATTEN	13.16	81	Dorchester Co., Md.	See LMV '95
110402	ROBERT J. SLATER	8.76	71	Baltimore, Md.	
21922	ROBERT T. BANKS	12.13	69	Baltimore, Md.	See LMV '95
110810	ROBINSON CRUSOE	9.43	88	Lee Mont, Va.	See LMV '95
110490	ROSIE BEATRICE	25.31	81	Madison, Md.	
110650	ROSIE PEARSON	7.67	84	Pocomoke City, Md.	
116136	S. WEINGART	8.01	86	Washington, D.C.	
115850	S. H. MILLS	20.02	82	Crisfield, Md.	
116031	S. K. MARSHALL	5.29	84	Severn River (Mobjack Bay), Va.	

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OFFICIAL NO.	NAME	GROSS TONS	YEAR BUILT	WHERE BUILT	NOTES
115955	S. L. Housman	12.94	1883	Nansemond, Va.	
116202	Sallie	11.05	88	Norfolk, Va.	
115869	Sallie Lindsey	25.41	82	Chesapeake City, Md.	
115927	Sam Seed	12.82	83	Portsmouth, Va.	
115816	Samuel J. Tilden	8.34	77	York Co., Va.	
115558	Samuel J. Tilden	7.77	76	Messongo, Va.	
115725	Sanca Celexe	26.30	80	Dorchester Co., Md.	
115772	Sarah Ann	11.49	81	Onancock, Va.	
23820	Sarah Camilla	5.70	70	York Co., Va.	
115495	Sarah Florence	8.04	76	Hampton, Va.	
115659	Sarah Jane	9.44	77	Alexandria, Va.	
115076	Sarah Matilda	6.49	72	Talbot Co., Md.	
116027	Sarah Moore	5.78	84	Nansemond Co., Va.	
115805	Sarah Travers	11.37	84	Baltimore, Md.	
23899	Sarah E. Harrison	9.67	76	St. Michaels, Md.	
116003	Sarah F. Lawson	8.84	84	Barren Creek Spring, Md.	
116067	Sarah J. Lee	5.82	85	Accomac Co., Va.	
115819	Sarah Jane Wright	10.58	82	Norfolk, Va.	
23082	Sea Gull	10.50	59	Baltimore, Md.	
115418	Sea Gull	8.75	75	Dorchester Co., Md.	
115603	Sea Gull	8.94	78	Norfolk, Va.	
23924	Sedonia Ray	9.17	70	Talbot Co., Md.	
115794	Sendra Brown	10.02	81	Portsmouth, Va.	
115435	Silver Moon	11.78	75	Sussex Co., Del.	Cedfield hail, '90
115907	Silver Spray	10.48	82	Cambridge, Md.	
115885	Stonewall Jackson	6.28	82	Cambridge, Md.	

115364	Sunny South	6.88	75	Red Bank, Va.	
115629	Surry	31.72	78	Norfolk, Va.	
115479	Susan J. Smith	8.38	77	Pocomoke City, Md.	
23936	Sweepstakes	12.49	78	Norfolk, Va.	
115105	Sweepstakes	10.45	72	Dorchester Co., Md.	
145381	T. C. Maslin	9.13	82	Rock Hall, Md.	
145500	T. F. Fletcher	11.15	88	Flag Point, Va.	Onancock hail, '90
24741	T. J. Francis	8.75	67	Crisfield, Md.	
24939	Theodore D. Malone	14.96	73	Wicomico Co., Md.	
145431	Theodosia E. Bell	8.92	80	Powellton, Va.	
145463	Thistle	8.13	87	Cambridge, Md.	
145497	Thistle	10.49	88	Cambridge, Md.	
145458	Thomas Moody	5.33	87	Nansemond Co., Va.	
145331	Thomas Warren	7.89	89	Westmoreland Co., Va.	
145048	Thomas C. Bunting	11.10	75	Eastville, Va.	
24987	Thomas E. Cook	17.68	77	Baltimore, Md.	
24818	Thomas H. Rubark	16.05	69	Crisfield, Md.	
24383	Thomas S. Sumwalt	9.01	64	Norfolk, Va.	
145437	Three Brothers	7.78	87	Crisfield, Md.	
24384	Three Sons	7.84	66	Norfolk, Va.	
24851	Tillie	7.22	70	Norfolk, Va.	
145386	Traveller	6.51	84	Cambridge, Md.	
145070	Twilight	7.30	75	Baltimore, Md.	
24690	Two Brothers	7.79	68	Tappahannock, Va.	
24713	Two Brothers	13.55	68	Baltimore, Md.	
24744	Two Brothers	7.82	68	Crisfield, Md.	
24813	Two Brothers	7.70	68	Jones Creek, Va.	
145000	Two Brothers	9.87	74	York Co., Va.	
24710	Two Friends	5.31	68	Accomac Co., Va.	
25149	Undine	6.45	66	Somerset Co., Md.	
25832	Varina	5.58	76	Norfolk, Va.	
25800	Velocipede	9.86	69	St. Michaels, Md.	
161531	Village Belle	6.24	84	Somerset Co., Md.	

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25809	VIRGINIA	8.07	1860	Baltimore, Md.	
25967	VIRGINIA	7.96	79	Poquoson, Va.	
161546	VIRGINIA	15.74	85	Norfolk, Va.	
25881	VIRGINIA MISTER	16.88	73	Calvert Co., Md.	
25502	VIRGINIA VICKERS	20.99	57	Dorchester Co., Md.	
25782	VIRGINIA WASHINGTON	5.37		Crisfield, Md.	
161619	VIRGINIA D. MAYNE	10.45	90	Cambridge, Md.	
161550	VIRGINIA L. JOHNSON	9.21	84	Dorchester Co., Md.	
161597	VIXEN	9.38	88	Poquoson, York Co., Va.	
81135	W. E. BRADSHAW	8.60	86	Isle of Wight Co., Va.	
81274	W. S. BRUSSTAR	8.38	90	Baltimore, Md.	
81095	W. MASON SHEHAN	10.23	85	Cambridge, Md.	
80699	WADE HAMPTON	14.90	78	Baltimore, Md.	
81005	WALLACE JOHNSON	10.35	83	Cambridge, Md.	
81228	WAR EAGLE	9.87	89	Pocomoke City, Md.	
26990	WHITE FOAM	5.63	68	Crisfield, Md.	
81236	WILLIAM AUSTIN	9.94	89	Solomon's Is., Md.	
80217	WILLIAM ELLIS	13.61	71	Crisfield, Md.	
26853	WILLIAM MAY	12.18	53	Norfolk, Va.	
26989	WILLIAM SAPPINGTON	7.05	68	Crisfield, Md.	
26254	WILLIAM WESLEY	7.72	74	Crisfield, Md.	
80601	WILLIAM WILLIAMS	13.53	76	Crisfield, Md.	
80449	WILLIAM F. ALLEN	11.57	74	Norfolk, Va.	
81113	WILLIAM F. ALLEN	15.45	86	Norfolk Co., Va.	
81088	WM. F. TURNER	9.88	85	Sharptown, Md.	
80658	WILLIAM G. HITCHINGS	10.13	77	Portsmouth, Va.	

26057	WILLIAM H. COOK	8.70	51	Anne Arundel Co., Md.
80709	WILLIAM H. HALL	15.57	79	Baltimore, Md.
80596	WILLIAM M. MAGUIRE	7.95	76	Newtown, Md.
80527	WILLIAM J. LEONARD	16.70	75	Somerset Co., Md.
80099	WILLIAM J. WALTER	8.77	69	Crisfield, Md.
81132	WM. M. BRITTAIN	10.95	86	Mansemond Co., Va.
81106	WM. M. WARD	12.02	86	Urbanna, Va.
81235	WM. R. PRITCHELL	8.04	89	Cambridge, Md.
80128	WILLIAM S. CALVIN	13.15	70	Baltimore, Md.
26985	WILLIAM & FANNIE	6.96	68	Crisfield, Md.
26556	WILLIE ANN	9.62	61	Potomac, Va.
80320	WILLIE D. MULHEIM	7.91	74	Red Hills, Va.
80988	WILLIE F. THOMAS	25.66	83	Dorchester Co., Md.
81232	WILSONIA	12.73	89	Pocomoke City, Md.
80555	WREN	9.75	75	Dorchester Co., Md.
81062	WYANDOTTE	7.93	84	Norfolk, Va.

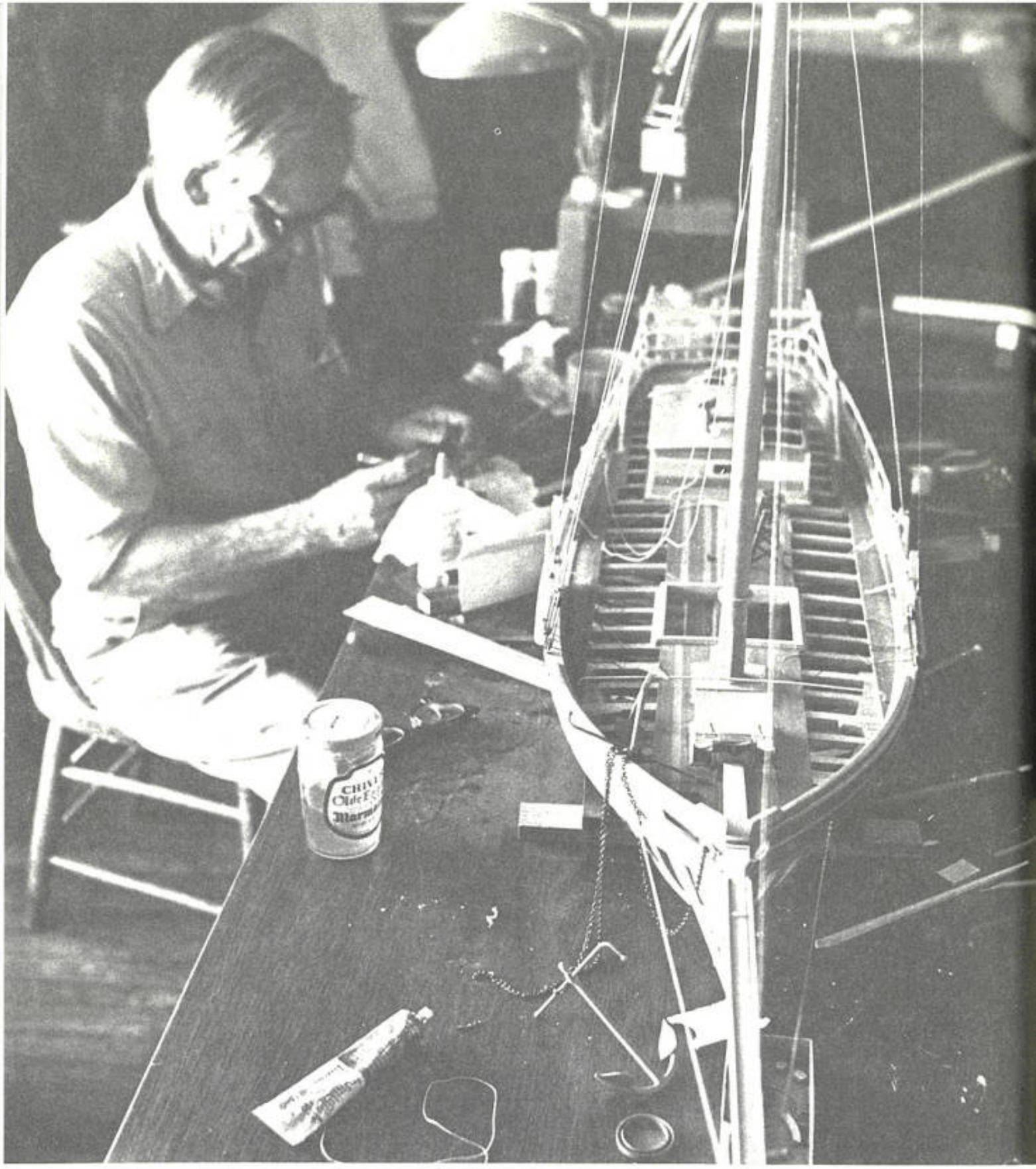
I References to LMV-1895 are due to inclusion in that volume of information, usually names of places "where built," which were wanting in the 1890 volume. In certain cases incorrect information given in 1890 was corrected in 1895.

II An exception to the above is the case of sloop CHARLES M. KELLEY, not built until 1892, but known from other sources as the largest sloop on the Bay at that time.

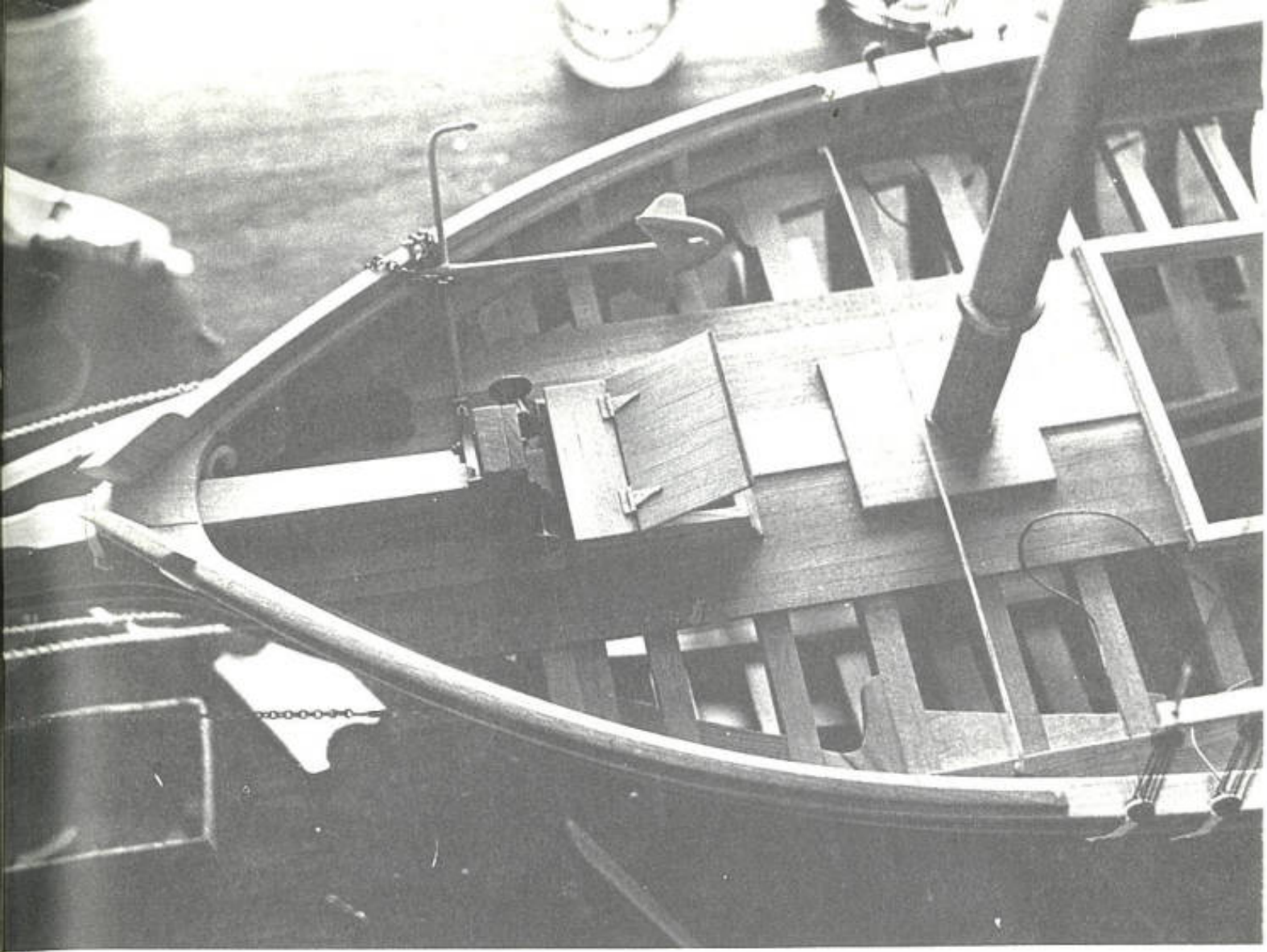
III "Hail" is used to denote "Home Port."

IV Geographical names:

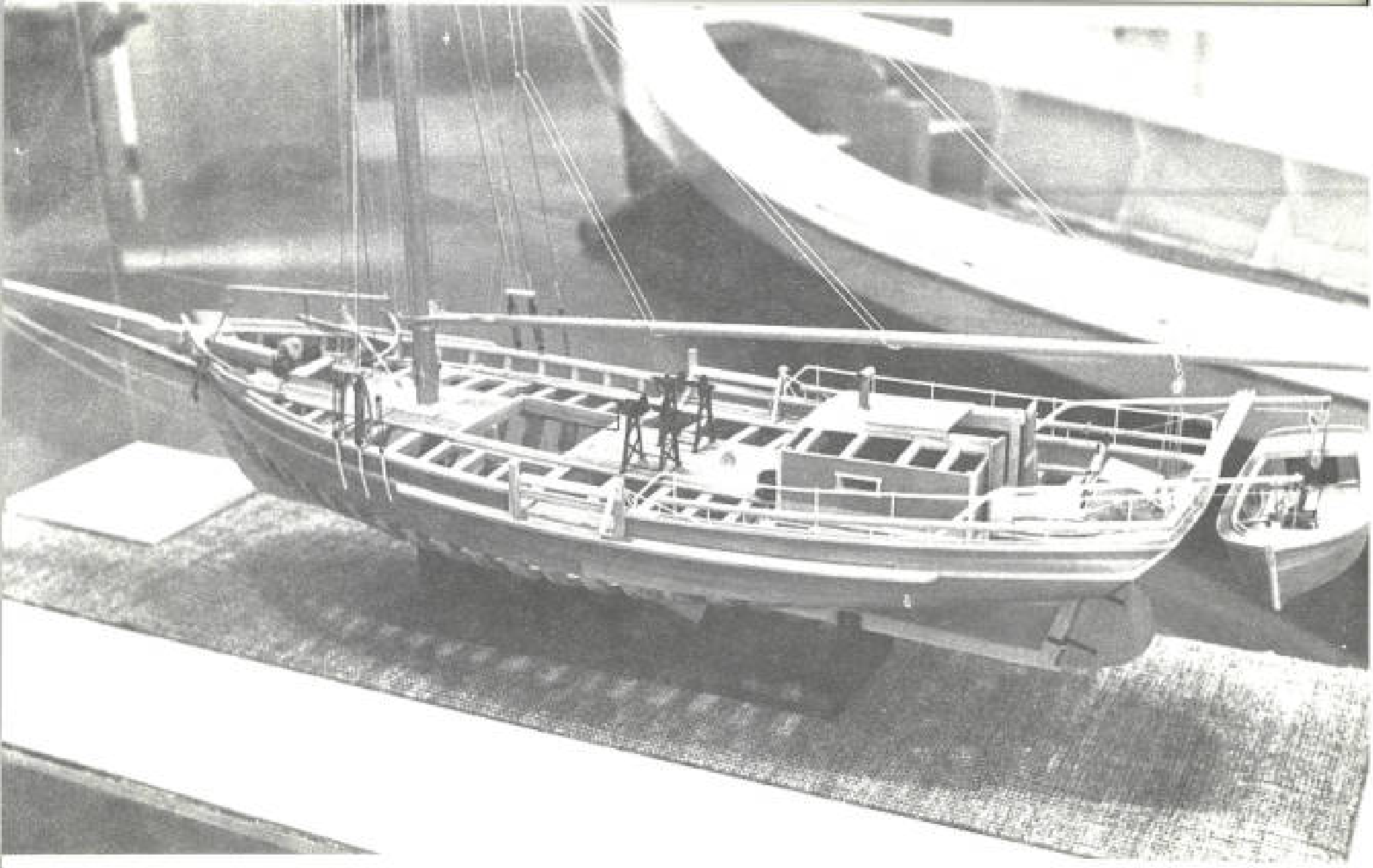
James Is., Dorchester Co., Md.
Lakeville, Dorchester Co., Md.
Madison, Dorchester Co., Md.—Formerly called Tobacco Stick.
Newtown, former name of Pocomoke City.
Sharptown, Wicomico Co., Md., on Nantocoke River.
Sussex Co., Del.; Headwaters of Nanticoke River.
Taylors Island, Dorchester Co., Md.



Professional model-maker Bill Bromell of Boston, Mass., working on the scale "admiralty" model of the *J. T. Leonard*, commissioned by the Chesapeake Bay Maritime Museum. (Ray Dilley photo)



Close-up of the foredeck of the *J. T. Leonard* model made for the Chesapeake Bay Maritime Museum by Bill Bromell of Boston, Mass. As in "admiralty" models, the planking was left incomplete to reveal structural details. (Ray Dilley photo)



Bill Bromell's *J. T. Leonard* model on display at the Chesapeake Bay Maritime Museum. (Ray Dilley photo)

Scale plans of the J. T. Leonard, drawn by Thomas C. Gillmer from lines taken off the vessel at St. Michaels, Md., are available from the Chesapeake Bay Maritime Museum, St. Michaels, 21663, at a cost of $5 per sheet.