# Warships to Workboats

A Joint Publication of the Modelshipwrights and Warrior Groups

Volume II
Number 4

Winter,
2004


## The Whiskey Strake

This year, the holiday season finds us wrapping up our second full year of publication. Thanksgiving may be over, but I find there are many things that I'm thankful for.

First are the people who have contributed an article, a book review, some photographs and/or a tip or two. The list reads like a who's-who in the world of ship modeling: Thomas Aleksinski, David Antscherl, Russ Barnes, Morey Benton, Randy Biddle, Gary Bishop, Al Blevins, Mark Brown, Bob Craig, Bob Crane, Mike Draper, Wayne Drusch, John Fox III, Bob Giles, Terry Godwin, Art Herrick, Neb Kehoe, Jim Krauzlis, Phil Krol, Terry Lynock, Dan Pariser, Bob Powell, Gernot Reisner, Dick Remillard, Joel Sanborn, Bill Short, Bob Squarebriggs, Bob Steinbrunn, Kurt Van Dahm, and John Weliver. Without them, there is no magazine.

Second, I can't thank our intrepid proof-readers enough. They have saved me time and time again from embarrasment, unreadability, and worse. Many thanks to Bob Craig, Dave Hill, Neb Kehoe, Joel Sanborn and Bill Short. Neb and Bill have also been invaluable to me as assistant editors; hustling up articles, plugging the product, providing all sorts of support, and talking me down off the ledge when necessary.

Next up is Christmas, and do I have a Christmas wish? Of course I do. What I wish is that by this time next year, the list of contributors will be at least twice as long - that we can publish some names we haven't seen before - so that the knowledge that I know is out there, gets shared with the whole community. You don't want me to get just coal in my stocking, do you?

*-The Editor*

**CONTENTS**




# Schooner *Chance*

-by Randy Biddle

*Chance*, the subject of my model, was built in 1926 in Shelburne, Nova Scotia by John McKay, son of Winslow McKay. Yes, they are part of the famous Donald McKay family tree, but exactly how, I don't know. I first became acquainted with *Chance* by reading Ed Dodd's fine book, *Great Dipper to Southern Cross*, about his voyage from New England to Sydney, Australia in her in 1928. Eventually, I published a short history of this beautiful schooner in the *Nautical Research Journal*, Winter, 2002. We also published a fine Morris Rosenfeld portrait of *Chance* in a subsequent *Journal*, which proved invaluable during model design and construction. I will not repeat her history here, except to note that in appearance, *Chance* is much like a Grand Banks fishing schooner, but she was different enough that certain problems presented themselves in modeling her.

First, she is narrower and deeper proportionately than a fisherman and, at only 76'8", considerably smaller. I was in Mystic Seaport after finishing the model, and comparisons to the full-sized *L.A. Dunton* were instructive. The proportions are important because we were unable to locate any lines plan or builder's half-hull model of *Chance*. Consequently, I first had to prepare a set of reconstructed lines. In doing so, I looked for hull forms that were similar to her as she appeared in the numerous photos available to me, a couple of which showed her hauled out. No good

prototypes were found, so I began from a clean sheet of paper and developed the lines from the photographs, and from her Register Dimensions in Lloyd's Register of American Yachts. The lines were vetted by Wm. J. Cox of Shelburne, who was familiar with the work of the McKay yard. Regrettably, only one lines plan survives from that once prolific yard, and it is of a much larger fishing vessel.

Chapelle's *Yacht Designing and Planning* was an essential reference, as were other books on yacht design and naval architecture from my library. I finally bought a full set of Copenhagen ship's curves and a set of spline weights, or ducks, as well. The latter were cast for me by Bryan Hughes (www.highlandforge.ca). I performed some of the basic naval architect calculations on the hull design and, once the hull was formed and sealed, we floated her in the kitchen sink – wrapped in Saran®, and to my great pleasure she rode on an even keel, right near her designed L.W.L. I say "designed" because, even though I was attempting to reconstruct *Chance* as closely as possible, the lines did in fact represent my own new design for a schooner yacht of that period and configuration.

*Foredeck and water butts*

Photos indicated a somewhat complex and crowded deck layout, and all the things that belonged there – houses, wheel box, windlass, scuttle, chain boxes, pumps, exhaust, and a dory and skiff – had to fit properly and be of the proper size to be correct and workable at sea. A special wire hawser winch for oceanographic work had to be fashioned too. Unfortunately, although many photos were available, it was rare to find a complete view of a particular part of gear or furniture and therefore some (hopefully) intelligent extrapolations needed to be made. One such item, a c.1925 Evinrude outboard motor was made up from hazy photos in old Evinrude catalogs. Only about a third of the wire hawser winch (the top…) was visible, and in only one photo, so imagination needed to

*The completed winch*

serve me there also. Bob Weinstein's old saw, "How was this used?" was constant guidance.

There is nothing particularly remarkable about the method of construction of the model. She is layed up of doweled and glued basswood lifts. False deck beams are set atop the uppermost lift (of the layed up hull, not of the complete hull lines), the sheer and camber worked into them, and the bulwarks individually planked. Setting in the bulwark stanchions was challenging because they are actually part of the top timbers and therefore their faces are perpendicular to the centerline of the hull and not to the run of the bulwark sides. The deck is individually planked, houses and other furniture built up and affixed thereto.

Rigging was another challenge in that *Chance* had wire standing rigging and turnbuckles instead of deadeyes on her shrouds. Wire rigging is stronger than hemp and therefore is of a smaller diameter. The turnbuckles were quite spindly in appearance. They had to be reproduced in miniature as closely as possible, and yet be strong enough to mate the shrouds to the chainplates and not break. Regrettably, even 0-90 thread bolts were too large to use, so the turnbuckles, although (I am told) quite authentic looking, are not operable. To be able to properly set up the shroud tension, I had to use linen instead of wire so that I could twist the shroud until it was taut, and then insert the sheer pole, and attach the shackle to the chainplate. Fun.

*The turnbuckles. Also note the dory and skiff with attached Evinrude outboard motor.*

The paint schedule was another research project. All the photos were black and white, and there was little indication in the log of her trip as to her coloring, other than black topsides and a copper antifouling bottom. I modeled her when about 9 months old, after a maiden voyage to Labrador in the late Summer of 1926. I wanted to show an appropriate amount of wear, but not too much. The colors I eventually picked were after consultation with George Kirby of Kirby Paints (www.kirbypaint.com). He still manufactures traditional marine colors. They seem to have worked out well, as one of the first comments by the customer upon seeing *Chance* was, "Gee, I really like the colors you chose!" Dumb luck?

Other gear presented additional challenges and choices because Canadian foundry work and designs of the period were somewhat different than American. Her pumps are not Edson, nor is her wheel, but rather modeled after those of the Lunenburg Foundry and the Thompson Bros. Foundry respectively, for which I 'found' old catalogs. The wheel is 6-spoked rather than 8, so no kit parts would work here. Blocks are from Bluejacket, but with a lot of fiddling and coloring. Line is real Cuttyhunk linen, and DMC crotchet cotton as I deemed appropriate. Other items – running lights, anchors, etc. were derived from Perko and Wilcox & Crittendon catalogs and others, and worked up accordingly. As you may know, local 'bead shops' have a wealth of useful oddments for making unusual fittings.

*The 6-spoke iron wheel*

Her boats are built over plugs, and planked with heavy Strathmore bond paper, and then finished with wood ribs, gunwales and similar. The dory is the Shelburne rather than Grand Banks design. The skiff is an interpolation from limited photo views, and frankly, the part of the composition with which I am least pleased.

I must say, that *Chance* was exceedingly well-received by the customer, and by the retiring Chairman of their corporation to whom they made a gift of the model. I was pleased to be invited out to their home on Cape Cod, where we selected a special place for the model, shared some champagne and conversation, and made new, lasting friendships. Unfortunately, the model is not available for public viewing.

Ironically, I never intended to model *Chance*. However, the Journal article fell into the hands of my eventual customer, and they inquired about a model. My wife Rita and daughter Olivia encouraged me to accept. So, I proposed a scale/size, cost and schedule, and the customer agreed. On May 10, 2004, after a wonderful cross-country AMTRAK trip from Los Angeles to Connecticut plus a short trip by car, *Chance* was delivered safely.

*The mainmast*

As is my habit, I continue to encourage each of you to find an historically significant vessel like *Chance* – one that has not been modeled at all, or perhaps not researched or modeled well, and have at it. You will have an enormous amount of fun, and in the bargain make a contribution to your art and maritime history that can never be matched by another, metaphorically speaking, *Constitution* or *Cutty Sark*.

And speaking of art…I submitted photos of *Chance* (along with *Grampus*, *Gaslight* and *Hannah*) and was recently accepted to the Georgia Registry of Artists; the only ship model maker / marine model artist in that group as far as I know. We're making headway, mates.

*Randy Biddle, Buford, GA, USA*

*The Derby House, Salem, Massachusetts*

# Two Centuries of Salem Shipbuilders*

by Robert F. Craig

If we all traveled to Salem, Massachusetts we could take a quick look at reminders of her glorious maritime heritage — the elegant mansions along Chestnut, Essex and Federal Streets — the remaining waterfront — the collections at the Peabody Essex Museum (though most of their maritime collection is in storage) — the East Indiaman *Friendship* and privateer schooner *Fame* recreations — all point to a maritime heritage instrumental in the economic development of the region as well as the emerging nation. However, what shows on the surface hides the reality of the economic turmoil of the average marine artisan. The economic success of the merchant families was not reflected in the bank balances of those who built and maintained the vessels with which they amassed their wealth. This essay does not attempt to explore other marine crafts or broaden our investigation beyond the town of Salem, but suffice it to say, the situation was probably similar in other crafts and locations.

Salem was settled in 1626 by a remnant of homesick fishermen displaced by the bankruptcy of the Dorchester Company. With new financing, the remaining tatters of the Dorchester Company were collected into the New England Company, which sent John Endicott and a number of craftsmen to Salem to prepare the tiny community for an expected inrush of immigrants from England. Among the contingent arriving in the summer of 1629 was a group of "six shipwrights, of whom Robert Moulton is chief."[1] These individuals were charged with the responsibility of building three shallops, two for use by the company and the third for the economic benefit of Matthew Cradock, then governor of the company still residing in England. Thus began the shipbuilding industry of infant New England.

With the issuance of a royal charter, the New England Company became the Massachusetts Bay Company with Salem as the site of local governance and John Endicott as governor. The seat of government of this joint-stock adventure moved to New England in June 1630 with the arrival of Governor John Winthrop, charter in hand, deposing John Endicott from his position of power. Winthrop disliked both Salem and John Endicott and moved the seat of governance of the colony to Charlestown and later Boston. Shipwright Robert Moulton accompanied the Winthrop party. While there, he was involved in the construction of the *Blessing of the Bay* launched into the Mystic River at Medford, July 4, 1631.[2] Moulton and his family returned to Salem in 1636, however, not to build ships but to farm. No evidence supports the idea that Robert Moulton ever built any vessel of consequence while living on the shore of Salem's North River. The probate records of his estate indicate practically all he owned was associated with farming.[3]

Salem's first shipbuilder of merit, at least from documentary evidence, was Richard Hollingsworth, who settled in the town in late 1635. Hollingsworth left a broad paper trail through the colonial records. Richard appears to have been a misfit, at least in the eyes of community and company. He was frequently in court as either defendant or plaintiff, reprimanded for sleeping during Lord's day morning worship and for often missing afternoon services[4], placed in the stocks in 1638 for "prophaning the saboth in traveling…"[5], and was, in general, a trouble maker. Interestingly he was never banished from the community, probably because he was regarded as an economic necessity in Salem's development, and thus tolerated. Despite his civil and ecclesiastical problems Richard Hollingsworth was a prolific builder. In June 1641 he launched the 300 ton *Mary Ann* after a construction period begun in February that same year.[6] This feat was accomplished with the aid of only five or six assistants in only five months! During the construction of *Mary Ann*, a workman, Robert Baker, was killed by a falling timber, which crushed him when its tackle parted. Hollingsworth was judged responsible and ordered to pay a £10 fine to Baker's widow.[7] This judgment was probably the first industrial accident award in Massachusetts, possibly in North America.

Richard Hollingsworth's business success is demonstrated in that he was one of only a handful of Salem shipbuilders who gained financially in his profession. He died in 1654 leaving a moderate £365 estate, including a number of incomplete vessels, but most of the estate value

was in real estate.[8]

Over the next century an active shipbuilding presence continued in Salem. The names of many of the players are known, but little of what they built is documented. Most ship construction during this period was accomplished by members of four families: Gedney, Lambert, Bacon and Becket(t). Of these a most interesting individual was Ebenezer Lambert who died in early 1728 with negative assets of £217. The listing of his indebtedness is a who's who of the region. Lambert appears to have been an

*The Friendship of Salem, a reconstructed East Indiaman*

accomplished craftsman but a very poor businessman. He borrowed to purchase stock, bought and sold land to repay loans (usually losing money in the transactions), sinking deeper into the debt hole with each transaction. This lack of business acumen seems to have been endemic in the shipbuilding profession at Salem.

Beginning in the middle decades of the eighteenth century and through the American War of Independence a lull in shipbuilding activity hit the community. Most marine artisans kept busy doing maintenance work but aside from a hull or two, little was built. However, independence brought new life to the Salem waterfront.

This renaissance of ship construction was not instituted by native Salemites. There appears to have been a surplus of shipwrights on the south shore of Massachusetts. As a result several of these craftsmen relocated to Salem, rejuvenating her shipbuilding industry. Those of particular prominence were Ebenezer Mann, Christopher Turner and Enos Briggs. Ebenezer Mann was an interesting but, unfortunately, an elusive individual. After several years of success, he built forty hulls in seventeen years; he became disenchanted with his craft, and in 1800 "retired" to run a grocery until he died in 1834. The cause of his disenchantment can only be speculated upon. In 1798 Mann built a disastrous vessel, appropriately named *Hazard*, he was passed over by the selection committee to build the frigate *Essex* in 1799, and had a brush with the law that same year — all of which probably contributed to his "retirement." Unfortunately, no probate records have been located for Mann, which makes it impossible to assess his success or failure as either shipwright or grocer. It is suspected, however, that Mann put down his adz because it was impossible to support his family by building ships.

Christopher Turner, who had been Mann's apprentice, succeeded him and continued building at the same site until the War of 1812. During the early stages of the conflict he was employed at the navy base at Charlestown, Massachusetts. His output was nineteen vessels launched between 1800 and 1811. These ranged in size from the 22-ton sloop *Jefferson* to the 296-ton ship *Hunter*. *Jefferson* was built as a pleasure yacht for George Crowninshield, and enjoyed by many prominent Salem residents, including the Rev. William Bentley. Commenting on an outing aboard the yacht, Bentley wrote: "Capt. G. Crowninshield jun$^{r}$ carried me in his remarkably fast sailing Boat from Salem into Beverly Harbour. We made the whole course in 15 minutes & returned in 34… I never did sail so much at my ease in any other boat."[9] Christopher Turner's creations were known for both sea worthiness and durability. As an example, the 234-ton ship, *Endeavor*, launched in 1803, was reported still afloat after the Civil War.[10] Unfortunately, Turner was another poor businessman. Like Ebenezer Lambert he bought and sold land to finance the purchase of stock, and often found himself at the short end of a sheriff's sale because he could not repay his creditors. He died unexpectedly in December 1812, at 46, leaving an estate valued at a meager $305.75, every penny of which was distributed. His wife and children were left with absolutely nothing.[11]

In sharp contrast was Enos Briggs. Briggs, like Mann and Turner, was from a South Shore family with shipbuilding roots extending back to early seventeenth-century


Warships to Workboats

***is a joint publication of the Modelshipwrights and Warrior Groups. For information on the groups, please see our websites:***
**www.modelshipwrights.net**
**www.warriorgroup.org**

Editor ..... Tom Babbin (babbint@comcast.net)
Assistant Editors .... Neb Kehoe (nebk@together.net)
Bill Short (modelshipwright@sympatico.ca)
Affirmation ..... Bob S. Yeruncle (bsy@surely.com)

Massachusetts. While working at Pembroke he had built a number of vessels for Salem's Derby family and as a consequence was invited to Salem in 1790 to build two vessels for Elias Hasket Derby. Briggs, however, appears to have been a much more savvy businessman than most of Salem's shipbuilders of any age. He acted as a general contractor arranging subcontracts for much of the construction work on the vessels he built. However, at least in the case of *Grand Turk* and *Henry*, the responsibility for paying the subcontractors was not his, but the ship owner's. Additionally, the owner, taking the burden from the shipwright, also contracted the purchase of timber for these two vessels.[12]

Briggs built his first two Salem creations, *Grand Turk* and *Henry*, on Mr. Derby's wharf in plain view of most of Salem's citizens. *Grand Turk* was much too large to be built at the selected site (selected by Derby not Briggs). In order for the ship to be launched it was necessary to dredge a channel to receive her, and the launch proved very difficult, requiring several days of intense effort. However, ego on the part of Mr. Derby was probably the main ingredient for selecting the construction site.[13] Because of delays in timber shipment *Henry* was completed prior to *Grand Turk*. And to the horror and amazement of the citizenry Briggs successfully launched this brig, constructed from lowly native white pine, sideways from the wharf where she was built.[14] With these two successes behind him, Briggs purchased a building site in South Fields opposite Union (now called Pickering) Wharf on the South River and proceeded to build many fine vessels for Salem's merchant families. His private efforts were interrupted in 1799 when he was selected to build a frigate to be loaned to the U.S. Navy. His work on *Essex* won him more praise and additional contracts.

Enos Briggs practiced his craft at South Fields for twenty-six years, launching forty-eight hulls. Had he been able to maintain his building pace through the Embargo and the War of 1812, he would have been Salem's most prolific builder. However, he was forced to stop building during these periods, which made no sense to his strong Federalist leanings. He wrote in his account book: "1808 this year i was Embargod (sic) and [?] for 18 months." and "Began a Schooner of 137 Tons in January 1812 which Stood upon the Stocks through the Whole of Madesons [sic] foolish and unnesesary [sic] War and then Sold her to Stephen Brown and others and Launched her the 11 of July 1815 Called *Aurora*." Enos Briggs retired in May 1817, just short of his seventy-first birthday. He wrote at the end of his vessel list: "The vessels that i have Built in Salem Since i Left Pembroke is 51 in Number [?] [?] being 11285 Carpenters Measurement." He died two years later.[15] After his debts were satisfied Enos Briggs left a modest estate of $5666.24.[16] Not much when compared to the man who brought him to Salem: Elias Hasket Derby is purported to have died America's first millionaire.

*Derby Wharf, ca. 1880*
*photo Courtesy of Peabody Essex Museum*

The last member of note in this group was Retire Becket, a fifth generation Becket to practice marine arts in Salem. In local circles he is probably the best known of all of Salem's shipbuilders. He built slowly, only twenty-five or twenty-six vessels in thirty-four years, but he built well. Becket began his career working for his father William, from whom he learned his craft. Together with other Becket family members they were active in ship maintenance and repair. When William died in 1784 Retire ventured into building on his own. He built a 72-ton schooner that year named *Experiment* — was this an experiment in naval architecture or business? Over the next ten years "Tirey," as he was called, built and launched only two more vessels. However, in 1794 he purchased the family shipyard from his father's estate and began building in earnest, producing vessels of more substantial proportions. During the period 1794 to 1802 he launched sixteen vessels, many exceeding 200 tons.

For some unknown reason Retire Becket, though he built beautiful craft, had difficulty launching them. William Bentley observed: "An attempt to launch a vessel at Becket's of 180 Tons. But from some cause all our efforts were ineffectual & we left her upon the Stocks." "We had an attempt to launch a Vessel at Becket's but failed." "Dunlap's Ship….was launched at Becket's. We were agreeably disappointed in a good launch, for at this yard

they have repeatedly failed." Bentley never explained whatever the problem was.[17]

Retire Becket not only had launching problems he also had severe financial difficulties which he kept well hidden. On January 29, 1803 a commission of bankruptcy was issued against him. William Bentley made note of his pending bankruptcy two weeks prior to the legal action; however, he explained his problem only cryptically. Whatever brought Retire Becket to financial ruin is unclear. The results, however, are not. His remaining real and business property was sold at public auction and he was left with nothing but his skill and reputation as a master shipwright. In the final accounting he was indebted to 104 individuals or businesses to the sum of $10,173.17, not an insignificant amount in 1803. After the sale of his personal and real property and expenses were deducted, the bankruptcy commission awarded "Seventy Dollars for every hundred dollars, in proportion to their several respective debts."[18] Once the dust had settled from this sad experience, Retire Becket had nothing to look forward to except a bleak future.

In late 1804 or early 1805, out of need or benevolence, the Crowninshield family hired Retire Becket on a per diem basis to build for them. He continued practicing his craft until 1818, when at age sixty-five he retired. During these fourteen years he built six vessels, all but two for the Crowninshield family. One of these was his ultimate masterpiece of ship-craft, *Cleopatra's Barge*, a 191-ton brig built as a pleasure yacht for George Crowninshield. "The workmanship was done in the best manner, and no expense was spared to render her the best built vessel in the world… She was built for a voyage of amusement and travel…"[19] His last creation, a brig of 128 tons built for John Crowninshield, was named *Becket* after him by the family as a fitting tribute to this master craftsman. Once retired, he slipped into oblivion, receiving only token notice when he died thirteen years later.

There were others: Hawkes and Babbidge, Barker and Magoun, Jenks and Holt, Elijah Briggs. Their economic fate was much like the others. Why did they persist? Why do people climb mountains? 'Because they are there' is the usual answer. In the case of craftsmen like those we have explored it may have been a passion for their craft that was a far more important driving force than economics. We who love things maritime should be ever thankful to these men of skill who created such beautiful examples of form and function. They laid the foundation for much of our craft as model shipwrights.

*Bob Craig, Danvers, MA, USA*

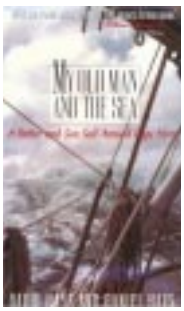
Build me straight, O worthy Master!
Staunch and strong, a goodly vessel,
That shall laugh at all disaster,
And with wave and whirlwind wrestle!
*Longfellow, "The Building of the Ship"*

Notes:

* This effort is a revision of a paper presented at the Spring meeting of the New England Historical Association, 24 April 1993 and was extracted from the author's masters thesis, "The Era of Salem Shipbuilding, 1629-1850: People, Personalities and Potential(?) for Profit" (Salem State College, 1990).

1. Nathaniel B. Shurtleff, ed., *Records of the Governor and Company of the Massachusetts Bay in New England, 5 vol. in 6,* (Boston: William White, 1853) 1:394. (hereafter cited as *Massachusetts Records)*
2. John Winthrop, *Winthrop's Journal, "History of New England,"* James Kendall Hosmer, ed., 2 vol. (New York: Charles Scribner's Sons, 1908) 1:65.
3. *The Probate Records of Essex County Massachusetts.* 3 vol. (Salem: Essex Institute, 1916-1920), 1:210-211. (hereafter cited as *Essex Probate*)
4. George Francis Dow, ed., *Records and Files of the Quarterly Courts of Essex County Massachusetts.* 9 vol. (Salem: Essex Institute, 1911-1921, 1975), 1:159. (hereafter cited as *Essex Quarterly Court*)
5. *Records of the Court of Assistants of the Colony of Massachusetts Bay, 1630-1692. 3 vol.* (Boston: County of Suffolk, 1904), 2:80. (hereafter cited as *Records of the Court of Assistants*)
6. George F. Chever, "Some Remarks on the Commerce Of Salem from 1626-1740." *Essex Institute Historical Collections,* 1:75.
7. R*ecords of the Court of Assistants*, 2:103.; see also, *Massachusetts Records,* 1:314; *Essex Probate,* 1:13.
8. Ira J. Patch, ed., "Abstracts from Wills, Inventories & c., on File in the Office of the Clerk of Courts, Salem, MA." *Essex Institute Historical Collections,* 1 (1859): 11; *Essex Probate,* 1:171-173.
9. William Leavitt, "Materials for the History of Ship-Building in Salem." *Essex Institute Historical Collections,* 6 (1864):137, 140. (hereafter cited as "Materials for Ship-Building," E.I.H.C.,*);* William Bentley, *The Diary of William Bentley, D.D.: Pastor of the East Church, Salem, Massachusetts*, 4 vols. (1905-1914; reprint, Gloucester: Peter Smith, 1962) 2:376. (hereafter cited as Bentley, *Diary*,)
10. James Duncan Phillips, *Salem and the Indies: The Story of the Great Commercial Era of the City* (Boston: Houghton Mifflin Company, 1947): 154-155, 157.; "Materials for Ship-Building," *E.I.H.C.*, 6:254.
11. Essex County Registry of Probate, Docket no. 28353.
12. Derby Family Papers, Phillips Library, Peabody Essex Museum, Salem, Massachusetts.
13. Bentley, *Diary*, 1:156, 260-261.; "Materials for Ship-Building," *E.I.H.C.*, 6:226.
14. Bentley, *Diary*, 1:256.
15. Enos Briggs: Account Book, Phillips Library, Peabody Essex Museum, Salem, Massachusetts.
16. Essex County Registry of Probate, Book 396, Pages 360-361.
17. Bentley, *Diary*, 2:109, 146, 187, 204.
18. Records of the District Court of the United States for the District of Massachusetts, Commission of Bankruptcy against Retire Beckett, National Archives and Records Administration, Waltham, Massachusetts.
19. "Materials for Ship-Building," 7:208, 213.; A recreation of the salon from *Cleopatra's Barge* as well as a model of the vessel by Richard Orr can be seen at the Peabody Essex Museum in Salem, Massachusetts. Included are original furnishings from the vessel.

# My Old Man and the Sea: A Father and Son Sail Around Cape Horn



David Hays and Daniel Hays
Algonquin Books, 1995 (hardback)
Harper Perennial, 1996 (paperback)
xiv, 223 pages, appendix.

When you hear the term Cape Horn, what goes through your mind? Scenes of clipper ships under a double-reefed fore topsail and storm trysail fighting snow, sleet, hail and monstrous head seas making little or no progress for days, or perhaps Richard Henry Dana aloft trying to furl sail with gloves that are frozen stiff, or… Whatever picture fills your imagination; it undoubtedly is steeped in perilous adventure.

*My Old Man and the Sea* is the result of a lifelong dream of David Hays to sail around Cape Horn in a small boat, without auxiliary power, radar, or satellite navigation. The dream began to become reality with the purchase of the bare hull of a 25-foot Vertue cutter, which he and his son Daniel named *Sparrow*. In the Prologue, David Hays wrote: "This is a book of passage, of two who sailed together, rarely three feet apart… by two authors, each speaking in his own voice. We occasionally agree on a subject." This describes the book in a nutshell.

David and Daniel Hays have given us a very well written account of not only designing, completing, and safely sailing *Sparrow* some 17,000 miles to the "bottom of the world" and back but, beyond that, sharing the tensions and joys of finding not only themselves, but each other as they shared their adventure. The book is an easy, enjoyable read which I found difficult to put down. If you have not read *My Old Man and the Sea,* put down your Patrick O'Brien or C.S. Forester, and take a break with a present-day voyage around the Horn.

*Robert Craig, Danvers, MA, USA*

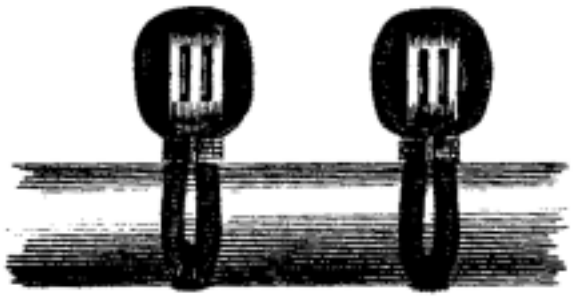


# Dremel® Mini-Lathe

by Bob Crane

It was hot here in Texas. So damned hot the birds were wearing mitts to pluck well done worms out of the ground. I needed to do some miniature lathe work but my big wood lathe was out in the shop with no air-conditioning. It was well over a hundred degrees out there. How nice, I thought, if I had one of those little miniature lathes that I could set right here in front of my nose in the comfort of my air-conditioned office/building area. Well I don't have one, and I needed to do this work now. My thoughts rambled back to something I had seen on the Nautical Research Guild site, a Dremel® lathe that used a commercially available aluminum extrusion as a bed for the Dremel® and tailstock. Hmmm, the old light bulb flickered on and out to the shop I went. In less than thirty minutes I had all the pieces cut and was back in the house assembling the little guy and waiting for the glue to dry.

The lathe was designed around my ol' trusty Model 370 variable speed Dremel® tool. I wouldn't advise using any other than a variable speed which can be set to the 5000 rpm low end speed. This is still rather fast for a wood lathe, but it will work. Those with newer model Dremels® or other rotary tools may have to adjust the dimensions to fit the newer/other case designs. Some of the dimensions are rather arbitrary and are just what I came up with that day. The length of the lathe is up to you. I have since made a longer one for an attempt at those long sticks we call spars; more on that later.



**Let's make it**

I used available scraps, ¾" lumber, ½" plywood, and ¼" Masonite®. MDF (medium density fiberboard) works well also. If you have a table saw, getting out the parts is duck soup. If not, perhaps a friend has one. When cutting the base and sides, cut sufficient material with the same saw settings so that you will have extra to make the tail stock, and tool rest, and other things you will come up with. This ensures that these parts will fit in the channel with a snug fit. Choose a length for your lathe, cut the channel parts to length, and assemble. Cut the tailstock parts to length and assemble. I used a bandsaw to cut an arc on the top of the tailstock to match the diameter of the Dremel®. Then the clamps can be made identical. This is, of course, not necessary if you use some other means to clamp the tailstock. The clamps were laid out and bandsawn from ½" plywood. Of course other materials and/or methods can be used. I drilled and tapped the plywood for a ¼-20 bolt. No metal insert is necessary; just tap the wood, it works fine.

With all assembled, mount the Dremel® and insert a 1/8" drill bit. Place the tail stock in the channel, seat it well and slide it into the drill bit to create the hole for the brass tail stock. This ensures that the centers are aligned. Cut a suitable length of 1/8" brass rod and insert it into the Dremel. With a file, create a point on the end of the brass rod: this is the tailstock center. CA glue it into the hole in the tailstock. Try to match the taper angle of the Dremel rotary cutter that looks like a cone. We will use this cutter later to create the centers in our stock to be turned. Do the same for the headstock, except before filing the conical point, file a small flat on the end, center punch for a drill, and drill a hole through the brass of a suitable diameter for a wire pin (see the diagram, p. 10). Then create the conical point, solder in your pin, trim the pin ends if necessary, clean up with a file, and we are in business.

The headstock center as pictured and described above, works well for light turning work. For heavier turning where the part will be in the lathe for some time, the head stock center can wear in the wood and begin to wobble. Pedestals for mounting hulls to baseboards are an example of this type of work, a lot of material to be removed. In those cases I cut a short section of 1/8" sacrificial brass rod, CA it into a hole in the work piece end (the work piece is longer than the finished piece) and chuck it directly into the Dremel® collet. I have also tried 1/8" wooden dowel, but this will eventually begin to slip in the Dremel® collet.

**Cutting tools**

I made micro lathe tools to use with this lathe, but find that they only work well with short and stiff parts. Great care is required to keep the tools cutting and not gouging into the work. I can turn pedestals and capstans and barrels, for example, with tools, but not a spar of any length. Long and slender parts are almost impossible to cut with conventional lathe cutting tools as the whippiness can destroy a part in the blink of an eye. Far better are miniature files and a collection of sticks with various grades of sandpaper glued to them. I have turned cannon barrels by roughing with tools, and finishing with files and sandpaper. Experimentation will show what you can and cannot do.

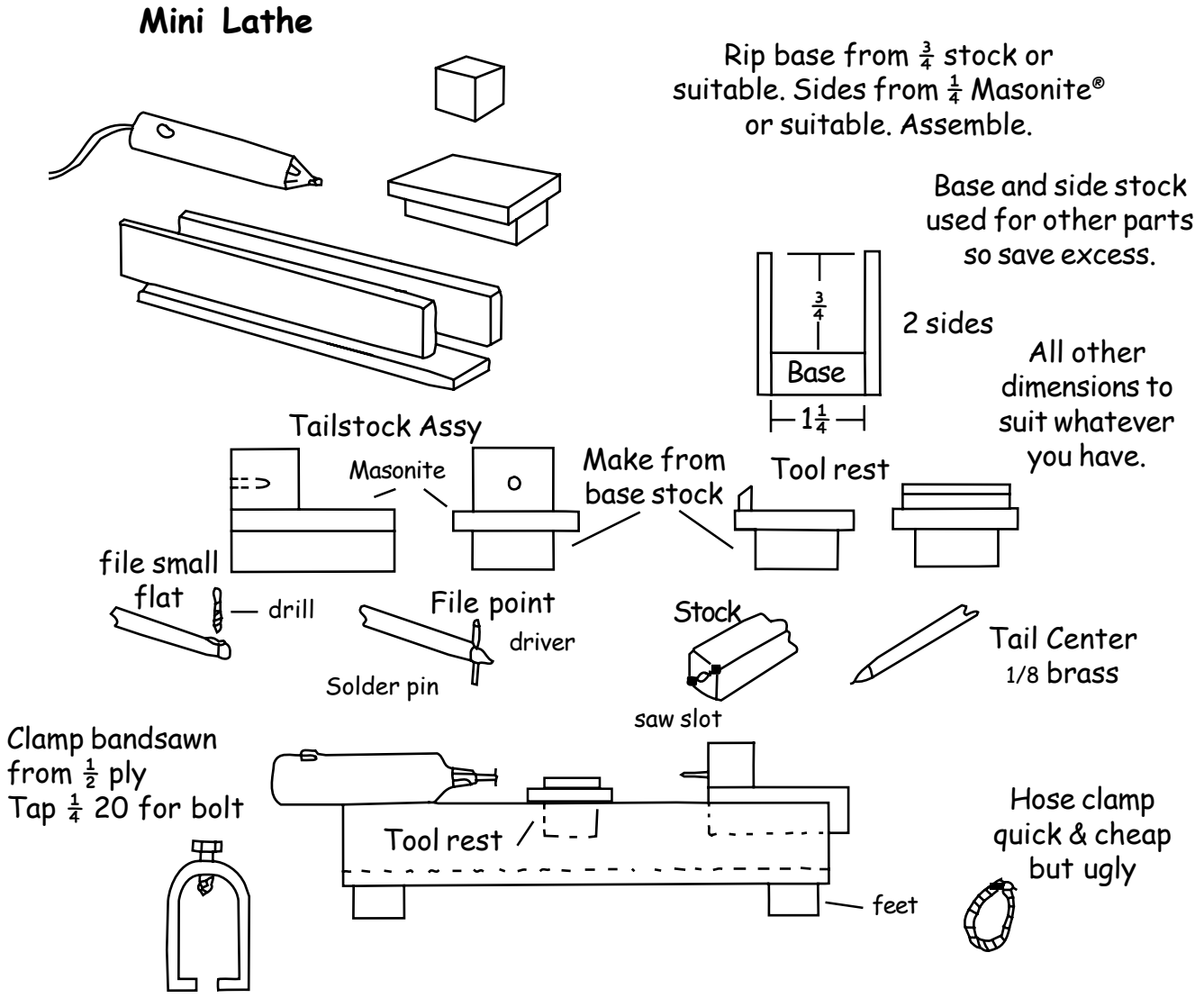
**Spars**

At some point almost every ship model builder has said, "Gee, I wish I had a lathe to turn all these spars". Well it just don't work all that well. The long slender parts are not stiff enough to bear the cutting forces of a sharp tool, and will bend and grab, chatter and shatter, and other fun stuff. All of my efforts to create a steady rest to support the turning stock have had limited success; actually, almost none. But there is a way.

I did all the spars for my *Fair American* by the following method. These spars have an octagonal center section, and a round taper terminating in a belled shape

and a pin at the ends. Normally I start with square stock, hand carve the straight center section and tapered ends to rough shape on four sides, then reduce to 8 sides, then round where required. In anticipation of using the lathe, I started with slightly oversize and over length square stock (boxwood). I made the centers for the head and tail stock and then planed the stock to eight sides. I mounted the stock in the lathe and made shallow marking cuts along the length delineating the octagonal section, the ends of the belled section and the very ends. I made these cuts wide enough and deep enough so that I could determine the true center of the piece relative to the lathe centers. With the stock removed from the lathe I planed the octagonal center section to final size, paying attention to which sides need the most stock removal in order to center the section. I then carved the tapers, bells and pins to an oversize condition. Now I could reinsert the piece in the lathe and "turn" to final shape, carefully. This was done with sandpaper sticks and files. These are delicate parts and require great care not to apply too much pressure. It helps to use your fingers on the back side and bottom to support the piece while spinning and applying the sanding sticks and files. Essentially what we have done is to establish lathe centers in the waste-wood on the ends of the spar before carving it, and only using the lathe for the final finishing. I only lost one in the process.

*Bob Crane, Georgetown, TX, USA*




Assemble Channel - Clamp Moto tool to channel. Use 1/8 drill and drill hole in tailstock for Tail Center. Do this right on the channel - centers then aligned. Make driver end Tail Center. Make some type of clamps, and you are done.

Caution!! Use only variable or slow speed moto tools. Saw a slot in work piece end for the pin and use a pointy end Dremel® tool to prepare stock ends. *Illustration - Bob Crane/Bill Short*

# Bits & Pieces

Ever have a great idea for a modeling tool? Ever create a subassembly that you're justifiably proud of? Well, here's your chance for fame. Send us a paragraph and a picture or two, and we'll post them here. Everyone has an *"Aha!"* moment from time to time, and this column will highlight several of them in each issue. Send your **Bits & Pieces** to Tom Babbin at babbint@comcast.net.

## A Scratch Built Battle Station

The summer is usually a difficult time for me: chores abound around the house, and there is seemingly something to do almost every day that precludes any useful time spent in the workshop. The summer of 2004 was no different. By the time late July rolled around, I was desperate. Something had to be done. What to do? Then it hit me. I was looking over the latest Model Expo catalogue and saw they still offered kit models of small battle stations. Not wanting to build a kit, I saw the potential for a quick scratch-built project.

I designed a simple deck section with a portion of bulwark and a single deck gun with a port at a scale of 3/8"=1' as it would offer a lot of details and some of the parts would be easier to fabricate. The deck space was made 5" across and 4 3/16" long. The deck was planked with scale 3" thick basswood strips 6" wide. To indicate caulked seams, I took a board of basswood 3/16" thick and painted one side of it black, then ripped off the deck planks so that when I laid them black edge to plain edge, I got a nice uniform caulked seam. For the bulwarks planking, I used cherry on the inner bulwark and boxwood on the outer bulwark. I penciled along the edge of the bulwarks planking to indicate the seams. Once everything was tree-nailed, I capped the bulwark with a cherry rail. Minwax natural oil-based finish was used to coat the deck and bulwarks.

Meanwhile, a battle station needs a gun, so I set about making the cannon and carriage. I turned a gun-barrel out of birch and painted it black. The carriage was built up using a drawing I found in Harold Hahn's *The Colonial Schooner*. The cannon is supposed to be a 4 pounder, but if I were to do it again, I might make the gun barrel a bit longer.

The rigging for the gun was made up out of linen thread. The finished size for the tackle was .024" while the breeching is about .040". Both lines were dyed with Minwax® Special Walnut stain. The blocks were built up out of boxwood and are 7" (scale) long. Their strops were made out of linen and finished at .024". They were dyed with Minwax® Jacobean stain. The iron work is blackened brass and blackened steel.

Back on the gun deck, I wanted to add some other fittings on the deck to make it look a bit more interesting. I made a hatch coaming out of walnut with half -lapped corner joints. I left a blank space on the deck for the coaming into which the assembly fit perfectly. With the hatch coaming in place, I made a boxwood grating for it, using a technique I read about in NRG's *Ship Modeler's Shop Notes*.

For the bulwarks, I decided to make a pin rail. I cut the rail to length and then drilled holes for six belaying pins. The belaying pins were hand-turned from cherry. They measure 15" in scale length and they have a shank diameter of just over a scale inch. I attached the pin rail to the bulwarks using locating pins. I drilled matching holes in the edge of the pin rail and the bulwarks. I glued in bamboo locating pins to the pin rail edge and glued the entire assembly into the bulwark planking.

I patterned my binnacle cabinet after the one described by Charles Davis in his book *The Built-Up Ship Model*. It was made of cherry. I made two side pieces with a rabbet for the shelves. Once it was assembled, the piece was very rigid. The top was given a beveled edge all around and then attached. The compass was made from a piece of dowel painted to look like brass.

This was a very nifty little project that took about two weeks and 34 working hours to complete.

*Russell Barnes, Biloxi, MS, USA*

# The Gloucester Schooner Festival, 2001

Photography by Tom Babbin

Blue skies, sparkling blue seas, and a few dozen schooners. Who could ask for more? Gloucester's Schooner Festival is held on Labor Day weekend and concludes with a schooner race in the tradition of the International Fisherman's Races.

①

②

③

④

⑥

⑤

*1 Chebacco Boat* Lewis H. Story
*2 Mainmast of the* Thomas E Lannon
*3* American Eagle *and* Harvey Gamage
*4* American Eagle
*5* Spirit of Massachusetts
*6 Ten Pound Island Light, Gloucester Harbor*