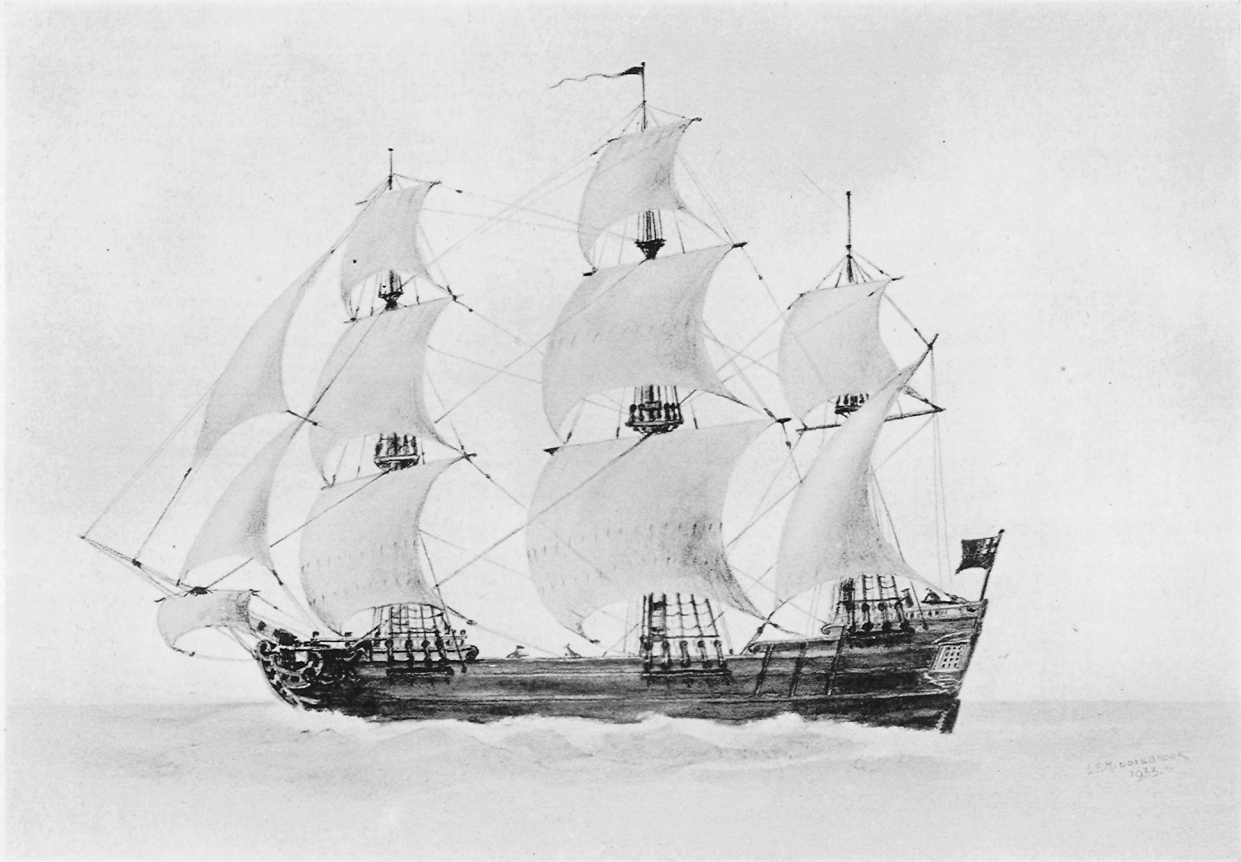


The fifty-eight foot ship MARY. Drawing by the author from Charles West's specifications and other contemporary ship-wrights' accounts. The MARY being the smallest full-rigged ship built in America from authentic records thus far discovered

THE SHIP *MARY* OF PHILADELPHIA, 1740

By LOUIS F. MIDDLEBROOK

A miniature full-rigged ship with no guns—not even one six-pounder "pelican" to use as a convincing salutation! This among others, is what has been found to have been built at West's shipyard on the banks of the Delaware, back in the "wooden" days in the colony of Pennsylvania.

In penetrating the records showing the methods and practices of early American shipbuilding, some private documents discovered in Philadelphia disclose a meagre though sufficiently penned "agreement" or specification for the construction of a ship named *Mary* which was ordered to be but *fifty-eight feet* long on keel, *twenty-one and a half feet* beam, and *ten and a half feet* depth of hold. She was ordered by a thriving merchant of London, Daniel Flexney, through John Reynell, merchant, of Philadelphia. The latter was known to be a reliable colonial merchant in the Quaker City and has been referred to in other articles in this magazine, particularly by Mr. Harrold E. Gillingham.[1]

Daniel Flexney of London was a merchant of considerable importance in his day, doing business in Little St. Helens, and later at "Broad Street Buildings" (Moorfields—right in the "city").[2] His will was proved January 13, 1747/8, dated December 22, 1747, and is abstracted as follows:

After payment of all just bills and funeral expenses, the following bequests to be paid:

To Mary Lowel of Chamber Street £ 10.

To Catherine Jobson of Chamber Street £ 10.

[1] "Some Colonial Ships Built in Philadelphia." By Harrold E. Gillingham. (*Pennsylvania Magazine of History and Biography*, LVI., April, 1932.)

[2] *Kent, London Directory and Guide to London*, 1738, 1740–1744. British Museum, London.

To two daughters, MARY and HANNAH FLEXNEY—all the messuages, tenements &c in Witney, Oxfordshire; also to these same two daughters all the residue of estate "in Great Britain or elsewhere" to be shared equally.

MARY and HANNAH FLEXNEY appointed joint executrixes [*sic*]. Hannah is so to act notwithstanding that she is now under the age of twenty-one years. No husband or husbands of either of them shall intermeddle with this Will, bequests &c.[3]

The will is signed by Daniel Flexney and witnessed by Mary Inman, Thomas Powell and Blunt Rogers. It was proved at London, January 13, 1747/8, by Mary and Hannah Flexney, spinsters, daughters and executrixes. There was no inventory with the papers indicating any items that he may have owned at the time of his death, and his property, outside of that stipulated as being at Witney in Oxfordshire, which is expressed as "estate in Great Britain or elsewhere", was "residue" —probably including his vessels—for there is evidence that he had more than one;[4] and lands in the colonies. In Reynell's Day Book, August 11, 1742, it is recorded that Daniel Flexney owned 1500 acres in Bucks County, Pennsylvania, and Reynell paid John Watson £ 2.9.0 for re-surveying the land and dividing it. How much if any, he owned elsewhere, is unknown. It therefore seems quite likely that he named the little ship built in Philadelphia, after his daughter MARY.

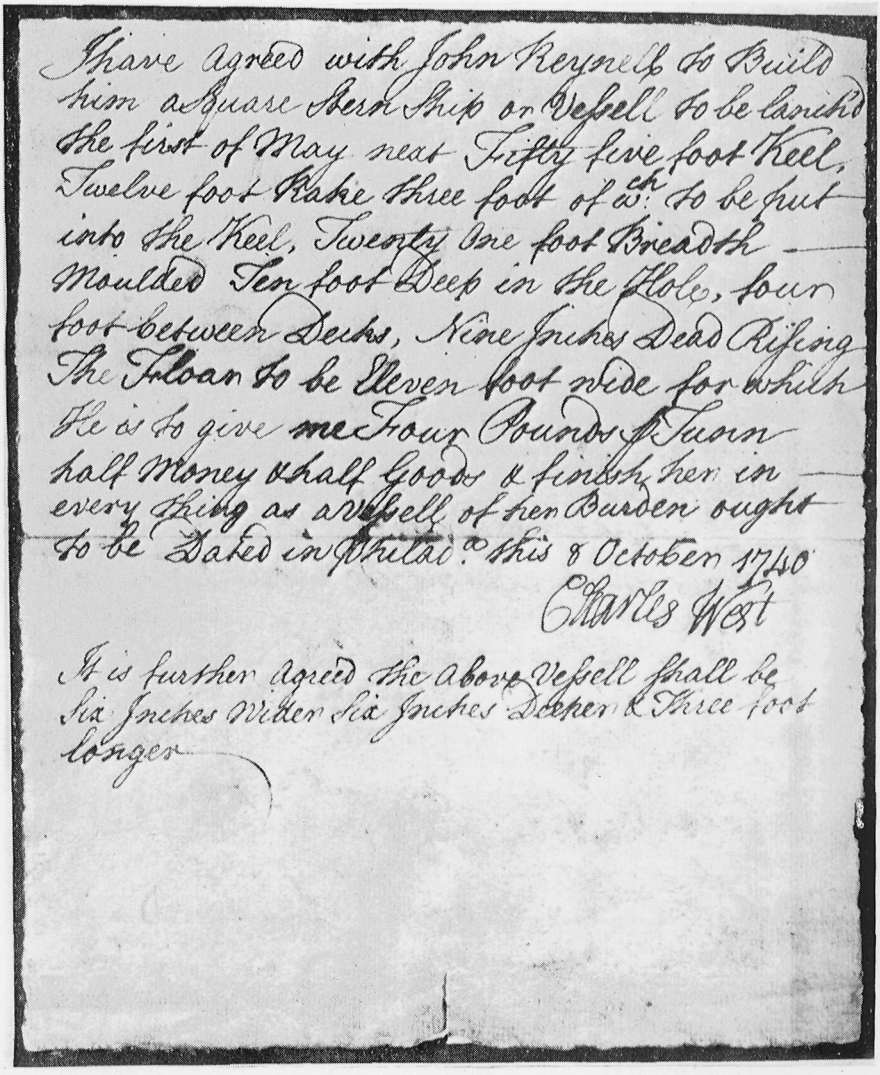
The brief "agreement" reads as follows:

I have Agreed with John Reynell to Build him a Square Stern Ship or Vessel to be lanch'd the first of May next Fifty five foot Keel, Twelve foot Rake three foot of wch to be put into the Keel, Twenty One foot Breadth—Moulded Tenn foot Deep in the Hole,[5] four foot between Decks. Nine Inches Dead Rising, The Floor to be Eleven foot wide for which He is to give me Four Pounds pr Tunn half Money & half Goods & finish her in every thing as a vessell of her Burden ought to be Dated in Philadel[a]. this 8 October 1740. CHARLES WEST

[3] From records at Somerset House, London.

[4] Flexney to Reynell, August 8, 1740, a ship built at Portsmouth, New Hampshire, by Henry Sherburne.

[5] Depth of Hold was measured from lower deck beams to keelson, amidships.



I have agreed with John Reynell to Build him a Brase Stern Ship or Vessell to be launch'd the first of May next Fifty five foot Keel, Twelve foot Rake three foott of wch to be Let into the Keel, Twenty one foot Breadth Moulded Ten foot Deep in the Hole, four foot between Decks, Nine Inches Dead Rising The Tuloan to be Eleven foot wide for which He is to give me Four Pounds p Tunn half Money & half Goods & finish her in every thing as a Vessell of her Burden ought to be Dated in Philad.a this 8 October 1740

Charles West

It is further agreed the above Vessell shall be Six Inches Wider Six Inches Deeper & Three foot longer

Charles West's agreement to build the ship MARY. Original in collection of The Historical Society of Pennsylvania

"It is further Agreed the Above vessell shall be Six Inches Wider Six Inches Deeper & Three foot longer", and on the back of the original agreement is endorsed "Lower Deck Beams to Round Nine Inches". In a postscript of a letter from Daniel Flexney to John Reynell, dated September 16, 1741, he states that "the new Ship is to be called Mary". Evidence on file points to the fact that she must have been a staunch vessel and a fast sailer,[6] made in strict accord with British requirements.

If anyone nowdays should even consider such a diminutive production, clothed, rigged and appurtenanced to withstand the extensive voyages, storms and liabilities of the sea that the *Mary* withstood, he would certainly be set aside as troubled with a disordered intellect. A century before the *Mary* was built there are plenty of records of pinnaces, skiffs and long-boats from 22 to 36 feet long that were carried on board.[7] The long-boat of the *Sovereign of the Seas* (1637), measured 50 feet long[8]—almost as long as this little ship *Mary* itself. It was probably the cost per ton that influenced the merchants and traders of London, as a merchantman of 250 tons burthen would usually cost about £ 5. to £ 7. per ton built in England or Scotland,[9] while in the American colonies it could be produced as low as £ 4. per ton.

Therefore, to the colonies they turned for the production of their transporting agency—the ship—and it had to be a thing of ideal faultlessness or as much so as care and caution could bring forth. As a rule the individual merchant of London did not need excessive tonnage to sustain his trade and could not afford to pay for it together with the taxation and wage required for

[6] "*MARY arr. in London 29 days from Delaware Bay (Reedy Island).*" Flexney to Reynell, February 8, 1744.
[7] Chatterton, *Sailing Ships*, 1909, p. 242.
[8] *Ibid.*
[9] *Ibid.*, p. 246.

operation and upkeep, until his trade had increased enough to warrant it. The abundance of craft of small tonnage is thus accounted for in early colonial days in America.

Whoever made the statement[10] that south of New York during colonial times there was little or no construction of vessels, must have overlooked the fact that ample evidence is afforded from the City of Philadelphia, for there are numerous Custom House records[11] still extant, containing the registrations of a great many vessels of all classes that were built on the banks of the Delaware long before the Revolutionary War. But the complete agreement or document stipulating detailed items of shipbuilding is rarely encountered. While some of them are moderately clean-cut understandable documents, others contain expressions without even a faint option or mild inkle offered as a comparison with present English diction to release from oblivion the meaning of many nautical words that were dipped from the ancient inkhorn by the colonial shipwright for his records and books. His language was a dialect all by itself. On that account many important words imparted to certain parts of his product are out-glossaried, and lost to the present-day historian.

After the Spanish Armada, the Anglo-Saxon race gradually developed its clanishness, for since that time it seemed to be a sort of hereditary duty for the English at home to extend their trade everywhere as well as its accompanying influences to their own colonists. Their mercantile requirements became enormous. The processes employed to fabricate those requirements formed into influences that were especially significant where coöperative results would be the most promising. Their own countrymen who had created and developed the means in their newly established colonies for the

[10] *Encyclopedia Americana*, 1904, XIV., "Sailing Vessels."

[11] *Pennsylvania Magazine of History and Biography*, XXIII, XXVII.

advancement and maintenance of their trade, were eager to help the national organization of commerce. They gradually banded themselves together for this common purpose. Colonial merchants and craftsmen were willing and anxious to pool their efforts, energies and industries. The early foundation of their trade was necessarily of a maritime nature because the great inland terrain had not been opened up or settled. It was wild, inaccessible and uninhabited except by savages. All exertive influences therefore were coastwise.

As records prove, anything British made or conceived in colonial days conveyed stability, power, quality to endure, security, firmness; nothing fragile nor weak. Their naval architecture and shipbuilding especially bear out this statement.[12] American made vessels were ordered from Great Britain. The British merchant was extremely meticulous about their construction, and by experience he had reason to be. His shipping extended to all parts of the world. No matter how much time was employed, it was with no indifference that a ship owner (merchant) devoted serious attention and pains to his specifications for the production of the agency to be used and for providing proper strength and security so essential to the success of his ventures. These merchant owners invariably laid special stress upon thorough seasoning of timber by natural processes of ageing in the open. Keels, stem and stern posts, floors, transoms, fashion pieces and other frame work were required to stand on the stocks in ship building yards many months before the actual work of housing-in, planking, decking and the finishing of vessels for the launching, was allowed. No kilns nor any other means for artificially drying out any kind of wood to produce a forced seasoning were to be countenanced. The gradual effects obtained by the prolonged natural method were required. Any other

[12] *H. M. S. Victory*, built 1765, and still afloat 1934.

agency employed for expediting the process of seasoning was considered as making for unsound construction,—something shaky and unsafe for the hazards of the sea. All weakening factors were shunned because the natural fibre and fabric of wood were to be preserved as a necessity. Creaks, cracks, checks and flaws therefore were as a rule noticeable by their absence. Tallow and tar however were accepted as an assistant antidote even in the seasoned work, and the locust or hickory treenail or peg formed the regulation administrator for the security in the making of floating estates of by-gone days. Its fastening and faying power was positive, permanent and absolute, once it became swelled in its place with tar, and it was seldom that the use of iron was observed in any such capacity where the action of salt water was involved. Iron hand-made, and copper nails were used in inside and topside construction, but even those metals were considered to be irregular elements of strength compared with the locust treenail. The inverted iron, copper, or alloyed horse-shoe however, was a thing of reverent necessity as a fastening agent of impregnability on the sides of the stem timbers just forward of the keel. A ship was seldom considered complete without this guardian of firmness, security and goetic magic, and no thinking shipwright would or could omit such a talismanic appendage from the stem of his product. The general use of anything made of iron in underwater construction was avoided because of corrosion, and no reputable shipbuilder in colonial days would deviate from the treenail as the reliable holding power invariably used in his work.

These statements are substantiated in the many instances, evidenced not only by the laws of England in certain American colonies, but also by the discovered documents that reveal the importance of careful construction to support those British Acts that formulate the reasons for closely observing a practice considered

so necessary for the safety and endurance which human endeavor bestowed on all maritime affairs so dependent upon the material that went into the building of the ship. As an example of how careful the British were, the following letter from Daniel Flexney to John Reynell relating to one of his ships to be built in Philadelphia, is appended:

June 18, 1740. . . . I wrote thee some time ago to build a vessel about 120 tons for wch if I hear from thee this fall that she is like to be launch'd before Winter, shall send thee sail Cloth and Cordage &c provided it Comes in time that she may sail before the Ice sets in either to Lisbon or to Ireland or to London &c. I now acquaint thee that notwithstanding that [I] have agreed to build another for Capt. Stephenson abt 130 tons 58 ft. Keil & 20, ½ Beam according to a Draught wch Capt. Stephenson will Carry with him, Shall likewise send by him the Stem Stern Post Transomes and Fashion Pieces of good English Oak and would have the frame[13] Cut out and set up while he is there to *Stand on the Stocks till next Summer to be well seasoned* and therefore desire thee to agree with Some Builder to prepare the Timber against his arrival that During his Stay there the whole frame May be set up let it be the Best White Oak the Country affords. . . .

and here follows a law that has been discovered touching upon the subject which was enacted in May, 1678, at the Session of the General Court of the Colony of Connecticut held at Hartford:[14]

WHEREAS: The building of Ships is a business of great importance for the common Good and therefore sutable care ought to be taken that itt will be well performed according to the custome of England and other places, Itt is therefore ordered by the Authority of this Court, that when any Ship or other vessell is to be built above five teene tunns, the owner or builder in his absence shall before they begin to planke, repayr to one or two of the next Magistrates or Commissioners, uppon the penalty of tenn pounds, who shall appoynt one able man or more to suruey the worke and workemen from time to time, as is usuall in England, and the same so appoynted shall haue such liberty and

[13] When the keel and dead-wood, stem, apron and knights heads, sternframe, floors and the whole of the frames with the hawse-pieces, counter timbers and keelson, stemson and sternson were in their places, and the frame secured and shored, the ship was said to be "in frame" and in that state she remained to season from six to twelve months or more.

[14] *Colonial Records of Connecticut, 1678–79*, pp. 84–85.

power to suruey the sayd Ship or vessell as belongs to their office. And if any Ship carpenter shall not uppon his or theire aduice reforme and amende anything which he shall find to be amiss, then uppon complaynt to the Authority aforesayd, he or they shall appoynt two or more Sufficient carpenters within theire precincts or within the Collony or one Ship master and a carpenter if occation require, and shall authorise them from time to time, if there be occation, to take view of every such Ship or vessell and all workes thereunto belonging and to see that itt be performed and carryed on according to rules of art. And for this an oathe shall be administered to them to be faithfull and indifferent betwene the owner and the workemen; and theire charge to be borne by such as shall be found in deffault and if no deffault appeare, the charge shall be borne by the builder and owner by equall proportion. And these viewers shall haue power to cause any bad Timber or other insufficient worke or materialls to be taken out att the charge of them through whose deffault it grows.

While the stipulations of Daniel Flexney to Reynell in his letter of June 18, 1740—to allow the ship to stand on the stocks until "next summer" were evidently heeded by West,—"next summer" meaning the summer of 1741, the *Mary* was apparently launched then according to expectations; but even so, Flexney writes Reynell September 26, 1741—" I could [have] wished her frame had stood on the Stocks till *next* summer before planked that it might [have] been well seasoned". This would have meant the summer of 1742. And he adds "have accordingly shipt . . . Cordage Anchors Sail Cloth Blocks and Ship Stores for the New Ship", which would indicate that the *Mary* was probably ready for sea in the fall of 1741, but did not sail on first voyage until after the ice had cleared in the spring of 1742, as the Register of the *Mary* reads as follows:

Philadelphia, Jan. 25, 1741–42—Ship MARY, Wm. Fishburne Jr. Master, 100 tons, built in Philadelphia, John Reynell of Philadelphia & Daniel Flexney of London, owners[15]

And from the *Pennsylvania Gazette* of June 10, 1742, appears the clearance notice: "Cleared. Ship MARY,

[15] *Pennsylvania Magazine of History and Biography*, XXIV., 113.

George Davis, to London". On the same page of the *Gazette* also appears the following notice inserted by John Reynell for which he charged Daniel Flexney 19 shillings according to his day book entry of June 28, 1742, which was the amount of Benjamin Franklin's bill for advertising the ship and sailors:

> Deserted from on board the Ship MARY, George Davis, Master, bound to London; One George Turner, a lusty Well-set man, . . . Michael Quin, an Irishman, tall with black bushy hair, . . . And Dennis Burne, an Irishman, a big mouth'd fellow, with a brogue on his tongue, . . . each of them received four pounds advance. Whoever takes up the said deserters, and brings them or either of them to John Reynell, in Philadelphia, shall have Forty Shillings reward for each, besides what the law allows.

If obtainable the ship's articles, log and other papers would reveal the names of her crew; but the *Mary* proceeded on her way as the clearance states, June 10, 1742, bound on her maiden voyage to London, without disclosing her crew list, cargo manifest, cockets, etc., but from the above it is quite evident that three of her people did not stay "entered" on board. Whether they were ever apprehended or not remains unknown. The registration of the *Mary* shows plainly enough that "Wm. Fishburne *Junr.*" was her master, but her clearance paper given from the same source, *viz.*, the Custom House in Philadelphia, gives George Davis this honor, and John Reynell also refers to George Davis as the commander of the *Mary*, in his accounts. From the fact that "Capt" William Fishburne is mentioned in Reynell's accounts as charging for "wharfage"—it would seem quite plausible to assume that the reference to his son "Wm. Fishburne junr." as "master" as shown in the registration of the *Mary* was an error, or it might have been that "Wm. Fishburne junr." had been selected temporarily as the *Mary's* master in January, 1742, and relieved by the selection of George Davis at the time of clearance in June of that year. At any rate George Davis sailed as master of the *Mary*,

June 10, 1742, as shown by Reynell's day book entry of June 8th in two references therein, and hereinafter included.

The date of the launching of this staunch and lively little *Mary* has not been found, but it must have occurred in the summer of 1741. The newspapers of the period were not inclined to recognize ship launchings in their columns as anything out of the ordinary in those days, and some of the local news was quite generally overlooked, in preference to the more important happenings in other localities, and what European items came in that were of more interest to their subscribers. Launchings therefore were for the most part confined to the people most interested, the shipwright, the representatives of the owners and the craftsmen of all kinds contributing to the ship's construction.

The launching of a wooden vessel in colonial days, as at the present time, was the final event of the achievement of a nautical science that emphasized the idea of a distinguished endeavor in craftsmanship and the shipbuilder's art—the completion of the vessel for the sea. It was the starting of her career, a birthday of no small import to those who had a feeling for her success and safety while wandering about the seven seas. It was the culmination of a real enterprise and an unmistakably thrilling sight to behold. No one attending such an event could display any lack of enthusiasm as the huge hull so quickly and majestically slid from lea to sea.

But it has been said of one antiquated Yankee partisan of ultra conservativeness, controlled by his natural element of immovable pococurantishness, and who had been invited to witness such an occasion, that so far as he could see, there was nothing very wonderful about it; that he would just as lief see a turtle slide off an old log into the mud! However, it is pleasant to relate, from a casual glance at some of the bills of account rendered by John Reynell that these occasions,

happening at the foot of Vine street[16] in Philadelphia during colonial times, seem to have been quite generally observed in the regular way, and that the placidity of Quakerism was at least temporarily laid aside.

THE SHIP-LAUNCHING IN COLONIAL DAYS

In the absence of any known published description of launching, and the methods and practices employed by early shipwrights, the following is submitted as a matter for record:

The means and appurtenances used in launching wooden vessels of small tonnage were not so complicated then as now. They were simple contributions of applied mechanics plus gravity. The stocks or frame work upon which the vessel rested while being built, consisted of a series of shore-timbers on either side and heavy blocks beneath. The launching timbers were made up into a cradle supported by bilgeways. The sliding, or slip-ways beneath consisted of a series of straight, parallel, heavy timbers placed upon suitable foundations. These sliding or slip-ways were carefully surfaced and beveled at the joints to prevent any part of the bilgeways catching as the ship in its cradle, descended. They were shored between and on either side to keep them parallel, and were properly inclined toward the water. Between the vessel and the slip-ways were the bilgeways, filling pieces, poppets and dagger planks[17] making up the cradle containing the ship. When the whole of this cradle was completed, fastened and fitted, it was taken apart, and the underside of the bilgeways and the upper surfaces of the slip-ways were lubricated with hot tallow or train oil, and sometimes with soft soap. The cradle was then refitted, securely

[16] "Some Colonial Ships Built in Philadelphia", by Harrold E. Gillingham, *Pennsylvania Magazine of History and Biography*, LVI., 171.

[17] Timbers placed between the vessel and bilgeways, fore and aft, as a support in launching. The bilgeways were made of heavy timbers in series, carefully jointed and supported the poppets and filling pieces.

held by dog-shores, and the process of wedging-up then followed by driving wedge-like slices of wood between the filling pieces and bilgeways and planking under the poppets, and set in tight so as to bring the weight of the ship off the blocks beneath and make it rest in its cradle on the lubricated slip-ways. The slip-ways were reinforced on either side with heavy coaked and bolted ribbands to prevent the bilgeways on the bottom of the cradle from spreading or sliding off on the way to the water. At the forward or upper ends of the ribbands,[18] heavy dog-shores[19] were bolted on each side, outside, their fore ends capped with iron, and resting against dog-cleats bolted to the sides of the bilgeways. These dog-shores held the ship on the slip-ways and acted as latches or triggers. (In some cases the practice was to provide but one dog-shore or heavy timber to hold the bilgeways, placed in the center, and then saw it in two, thus freeing the vessel.) In launching the ship, the long shore-pieces against the sides were taken down, the blocks under the keel removed beginning at the after end. This brought the ship to settle in her cradle and upon the inclined slip-ways, held there only by the dog-shores.

The call for the launching would be made about an hour before time of high water at the shipyard. The workmen with their mauls and wedges would be mustered and would begin at a given signal on both sides of the ways. The process of wedging-up made a thrilling noise as the ceaseless din of so many wooden mallets resounded and re-echoed throughout and beneath the hollow of the hull of the ship above. When all of the wedges had been driven, the ship eased from her blocks and resting upon the slip-ways, all the workmen would be called from underneath, and inspection

[18] Heavy timbers carefully fitted and bolted to outside edges of slip-ways to form a trough for bilgeways.

[19] A timber to hold the ship firmly and prevent her moving while the blocks are knocked away.

made by the foreman, when, if all the blocks were loose, all hands would repair to the bows to witness the final ceremony. Here they would oftentimes indulge in chanties, or on some occasions, listen to an address reviewing the history of the work that had been accomplished, including praise for the excellence of the craftsmanship, carving of the figurehead, stern badges, trailboards, etc., details of construction, names of the workmen employed and what particular work they were responsible for, and finally the intended voyage when ready for her clearance papers. Then, if music was available (and there was usually at least a drum to add to the din and lend the proper Britishness to the occasion), "To Quarters" would be sounded, while all hands including the workmen and their families, would stand and listen to the rumble of the "Long Roll" and the singing of "God Save Our King". (This tune was first played on the pipe organ in "Merchant Taylor's" Hall, London, by Dr. John Bull, in 1607.) When finished the foreman would call out to two husky workmen with their sledges to "Knock Down the Dog-Shores". This would be accomplished by two mighty simultaneous blows on the iron-capped dog-shores, and released, by gravity, the last phase of the ship's terra firma existence would take place and the *cup of wine*[20] dashed over her bows with her name announced to complete the christening, accompanied by the huzzas of the witnesses. Slip-stoppers on the cables provided by the workmen on board the ship would suddenly release the anchors, the vessel would "come to" the ensign staff stepped ready for the display of the colors, and as a rule, a saluting gun reposing in a conspicuous place in the shipyard would speak out its approval. The deck hands would then be brought ashore, and nothing remained but the proverbial feast at the long table that

[20] In colonial days, bottles were made by hand, moderately expensive, and not generally used for breaking on the bows at launchings.

was spread with an overabundance of viands and liquid refreshments to be enjoyed as the closing phase of a sumptuous entertainment and celebration.

Whether the *Mary* underwent this entitled and customary maritime ritual or not in just this fashion, will never be known. The chances are however that a large percentage of the mechanical ordeal was performed. From an item appearing in the bill prepared by John Reynell charged for % of Moses Hewes for ten gallons of rum @ 4/6=£ 2.5.0, the evidence seems strong (or potent), and certainly the shipyard of Charles West must have had its usual reputation to uphold upon such occasions.

The following interesting items are taken from John Reynell's Day Book of 1741–1746, including West's bill for the building of the *Mary:*

June 8th 1742

DANIEL FLEXNEY for Building his Ship *Mary* & her Outsett for London George Davis Comr. to Sundry Accounts DR.

To Charles West Ship Builder for his Bill	£567.12.10
To Joseph Oldman, Smith, for his Bill	206.10. 3
To John White Ship Joyner for his Bill	42.10. –
To Stephen Bazelee Blockmaker for his Bill	25. – –
To Anthony Wilkinson Carver for his Bill	19. – –
To Deborah Connoly Ship Chandler for her Bill	13. 5. –
To Benjamin Betterton Cooper for his Bill	8.10. –
To Robert Wakely for Iron Hoops for the Water Casks &c	5.11. 8
To Abraham Mason Sailmaker for his Bill	22.10. 6
To John Phillips Ropemaker for his Bill	8.16. 8½
To Robert Taylor for Rigging the Ship	14. – –
To Charles Jones for Hides	1.10. –
To Christopher Marshall Painter & Plummer for his Bill	20. 7. 6
To George Okill Tallow Chandler for his Bill	5.17.10½
To Randle Dicas Ditto for Ditto	2.16. 9
To Thomas Griffitts Baker for his Bill	5.16. 8
To Abraham Taylor for 5 Barrels of Beef @ 30/	7.10. –
To James Reynolds Mastmaker for his Bill	5. 5. 7
To William Parker, Smith for his Bill	2.13. 3

To William Fishbourn for Wharfing		10. 4. –
To Cha. & Saml. Norris for Brimstone		–.11. 3
To Isrl. Pemberton Jr. for a Barrel of Pork		3. 5. –
To Cash paid James West, Carpenter for Recorking the Ship		14.11. –
To James Wood Boat Builder for his Bill		14. 5. 6
To Moses Hewes For 10 Gallons of Rum @ 4/6		2. 5. –
To D. F. pr. Success For 152 Pounds of Nails 8d	5. 1.4	
To T. S. & Compy. For 45 Pounds of Ditto 8d	1.10.–	6.11. 4
To Capt. William Fishbourn for his Acco't. of Disbursements		54.14. 8½
To Cash pd. Capt. Geo. Davis the Balance of his Acco't. of Ditto		32. 7. –
To John Jones for Pylotage		6.10. –
	£	1130. 9. 4½
To Trade For my Commissions at 5 p.Ct. on £ 1196.1.4¼ Being the Amot. of Said Accot. of Sd. Ship		59.16. 0¾
	£	1190. 5. 5¼

In addition to the above, other subsequent items appear to have been charged in Reynell's accounts, *viz.:*

Nov. 11, 1740—	
To cash paid the Governours Secretary for a Regester	£ 0-14-0
Nov. 8, 1741—	
To cash pd. Towards 8 Thousd. Locust tronils (treenails)	£ 16- 0-0
June 8, 1742—	
Benjamin Franklin's bill for advertising 3 deserters in the *Gazette,* and for £ 4. advance paid to each of them as mentioned in the advertisement	£ 12-19-0
	£ 29-13-0

In John Reynell's Day Book, under date of June 28, 1742, appears the following charge:

Daniel Flexney His Accot. Curt. Dr.	
To His Accot. of the new Ship Mary for the Building of Said Ship and her Outsett for London Geo Davis Comr. as per Accot. Rendered Being	£ 1255-17-5

This, then, was the total charge for the ship *Mary* built at Philadelphia. The difference between this amount and the £1190.5.5,1/3, plus the £29.13.0 additional as above shown, charged in his original bill of June 8, 1742, would leave to be accounted for as an expenditure, £65.12.0. This last amount, therefore, would provide enough for "advance money" referred to in the advertisement in the *Gazette,* as allowed to the three deserters at £4. each, for an actual crew of sixteen men besides Captain George Davis and Captain Nicholas Stephenson. The latter evidently sailed in the *Mary* on her initial voyage to London, perhaps as a sort of "supercargo" or passenger, as it appears in a letter from Daniel Flexney to Reynell that he hoped the *Mary* would not start until Captain Stephenson arrived from Carolina. It is apparent that he did arrive before the *Mary* cleared June 10, 1742, for on the return voyage of the *Mary* to Philadelphia, a letter from Flexney dated London July 27, 1742, gives Captain Stephenson in command of the ship with a consignment of goods to Reynell.

It would therefore seem probable that the *Mary* sailed her maiden voyage with a crew of at least sixteen men, which would include a mate and cook, and if so, the final amount charged would balance within £1.12.0, not accounted for in discovered evidence. It may be that the "advance money" to the mate might have been more than to the others which, if allowed at £5.12.0 instead of £4, would balance the rendered account.

The *Mary* sailed from Reedy Island in Delaware Bay about June 11 or 12, 1742, and arrived in London in time to discharge whatever she had as cargo, reload and return on July 27, 1742. This indeed indicates that she was a speedy traveler and well handled by her captain and crew on her maiden voyage.

The charge of Joseph Oldman, smith, for iron work,

etc., is one of interest as there apparently was an outlay of £ 206.10.3, showing that considerable iron and labor was expended.

In the colonial period in America, the British government naturally discouraged the efforts of the colonists to produce iron, to avoid competition with their industries at home. There were smithies, blacksmiths and iron craftsmen, forges and bloomeries in nearly all of the American colonies from the earliest settlements; and in some localities where ore was discovered,[21] these craftsmen who knew how, and could construct forges, provided the needed mechanics for the production of iron in small quantities. Bars, rods, sheets, straps and nails were thus made here in the early days as records show, by the process of hand-hammering of the bloom from the furnaces and forges, and by shaping it with rolls and forms propelled by water power; but a large percentage of the iron came to colonial merchants from Great Britain as a matter of course, and was "smithed" as needed by such colonial craftsmen as was Joseph Oldman of Philadelphia. No reliable statistics of the production of iron in this country were collected before 1810. Joseph Oldman's metal work in the construction of the *Mary* must have consisted of either iron or copper, presumably the former in quantity. Copper was expensive, but in some cases was used below water and up to about two feet above its surface to reinforce tree-nail work, and iron in the remaining parts of the upper works. Oxidation occurred when iron fastenings were subjected to the action of salt water and to that of the acids contained in the oak. Most of Oldman's work in ship construction would have been confined to supplying the gammoning, chain-plates and chains; the eye-bolts, dump-bolts and rings to drive them through for clinching, saucer and collar headed bolts in the up-and-down, and in-and-out fastenings of knees, beams,

[21] Salisbury, Connecticut, 1748.

etc., ring and hook bolts, tee, key, split and rag-pointed bolts, bill-board plates, hatch-bars, ratchets and pawls for the log-windlass, etc., and the work of William Parker (smith), might have been for the hinges, hooks and latches and such small hardware as would be required on bulk-head and cabin doors, as his bill was for but £ 2.13.3.

As previously referred to, Daniel Flexney wrote John Reynell September 26, 1741, that he had shipped cordage, anchors, sail cloth, blocks and ship's stores for the new ship. Iron anchors were of course expensive, and Oldman was relieved of this requirement by Flexney's importation of these most important fittings for the *Mary*. The cordage was also provided from England so that upon its arrival, all that remained for the attention of Stephen Bazelee, blockmaker, John Phillips, ropemaker, and Robert Taylor the rigger, was properly to assort this cordage, which doubtless included the cables, shrouds, stays, braces, tacks and small stuff, select and distribute, and strap and reeve the blocks and dead-eyes which also had been furnished, and belay it properly, as standing and running rigging demanded careful supervision by these important craftsmen. Their accounts appear to be for service rendered and not for materials supplied. To this triumvirate then, must be attributed the next imposing portion of the ship *Mary*, the rigging, after West and his men including John White the joiner had evacuated their position and work in the hull.

One of the most important charges for work on the *Mary* would seem to be that of Anthony Wilkinson, the carver, who evidently expended some time in plying his artistic abilities as a craftsman of no ordinary reputation, for he received £ 19.0.0 for the display of his ornamentation somewhere on this craft. It must have been a very complete barrage of wood carving from stem to stern, where permissible on the *Mary*. He men-

tions no "lyon" figurehead, for which work on other vessels he had charged a meagre sum of £4. or £5., which seemed little enough for the recognition of the British rampant symbol; and conjecture only remains to be applied to what he accomplished elsewhere on her topsides and stern indicative of the feminine loveliness that *Mary* must have been after he retrieved such an extravagant sum for his work. The handsome scroll fiddle-head may have been adopted in the absence of any specific request made by the owners, or indeed it may have been a bust-figure of a portly queen, with flowing wooden tresses to portray the youth of Daniel Flexney's daughter, to lead the way through calm and storm. In addition to whatever art he displayed beneath her bowsprit, there must have been a few elaborate effects produced from his chisels on each cat-head, the entering-ports (gangways), stern-boards, around her quarter galleries, hancing pieces, and beak-head bulkheads up forward in the bows, and possibly some carefully wrought badges or wreaths about the stern lights of the captain's cabin. At any rate, four times as much expense was bestowed on *Mary* in this direction by Anthony Wilkinson, as he was in the habit of expending on other vessels that cleared out of Philadelphia in colonial times. Perhaps the "draught" brought over by Captain Stephenson, approved by Flexney may have been responsible for influencing the outlay, and what a treasure that draught would be if now available! The British Admiralty issued an order in 1727 which permitted "the use of a figure instead of a lion-head especially on small ships". If Daniel Flexney and Captain Stephenson knew this, as they probably did, it would seem quite allowable to assume that a special plan may have been adopted for the ornamentation by Wilkinson, and thus accounting for the abnormal charge. A number of other orders from the Admiralty of like nature followed throughout the 18th

century, but the cost of carvings of that period was small as a rule; and in reviewing the different charges encountered in the books of account of shipwrights it is surprising to find that painting and gilding in general were more expensive than carving.

A valuable and luxuriously illustrated book on the subject of figureheads, entitled "A Survey of the Developements of Ship Ornamentation, Old Ships's figureheads and Sterns", written by L. G. Carr Laughton, contains much interesting and fascinating data relating to this historic practice of marine embellishment. "No better book than Laughton's", says Rear-Admiral Eliott Snow, U. S. N., "has appeared in the press of the English speaking world. Its wealth of detail is simply amazing".

The masterpieces of ship decoration by Pierre Puget (1622–1696), during the late 17th century, were without doubt the most famous contributions to the bold marine art displayed on French ships in the Royal Dock Yard at Toulon.

The clothing that *Mary* wore also came from England, because, like most all kinds of textiles, particularly of cotton, no wholesale plan of manufacture had been adopted or developed in the colonies. Hand looms had been in use for what small quantities of textiles were required but as the first cotton mills in America were not set up until about 1788 and 1789, at Beverly, Massachusetts Bay, and Pawtucket, Rhode Island, sail cloth was necessarily imported. All ship's apparel of this nature therefore came from Great Britain along with the cordage, blocks and ship's stores as referred to by Flexney in his letter to Reynell, dated September 16, 1741. Abraham Mason of Philadelphia as shown by his bill was the one who did the draping and fitting of *Mary's* original wardrobe, for which he received the modest sum of £ 22.10.6. Just how many sails he provided is unknown. In addition to the regula-

tion sprit-sail under the bow-sprit, and at least two other head sails, there would have been three square sails each on the fore and main; a lateen sail and its topsail on the mizzen, plus reserves for emergencies, some bonnets and drabblers, and possibly two or three stay-sails for use between masts. With this wingly outlay the *Mary* would have been sufficiently supplied for most any kind of blasty gusts, from poetic airs to stormy gales.

A long boat cradled on deck amidships, with euphroed falls overhead from the main stay was evidently all the *Mary* possessed at her "outsett", as the £ 14.5.6 as charged by James Wood the boat builder, would not be enough to provide another. No mention is made of even a Moses boat to dangle across the stern; and besides, if there were elaborate decorations there, it would be a desecration to molest Wilkinson's art with the unsightly appearance of such an appendage with its davits, blocks and falls.

The "ship's stores" alluded to as furnished from England can only be surmised or estimated in the absence of the list that probably accompanied them to Reynell. "Stores" as used in colonial days and by reference to other records, included a large consignment of sundries outside the category of ship chandlery, mostly imperishibles, such as salt, flour, liquors, blankets, hammocks, jackets, spun-yarn, deep-sea lead lines, hand-lead lines properly marked for fathoms, worming, tar, pitch, turpentine, resin, tallow, chalk, oakum, mops, frying pans, dishes, cups, bowls, mugs, tumblers, knives, forks and spoons, coffee pots, teakettles, spare blocks of all sorts, a few musquets, two or three pistols, a box of flints, musquet and pistol balls, a blunderbus and gun-powder, spare bolts of canvas, lanthorns, brooms, leg and hand irons and shackles, candles, candlesticks, buckets, wooden bowls and platters, axes, saws, a grindstone, a chest of carpenter's tools, crow-

bars and mauls and a small case of medical supplies and some tinder boxes. There would also be a set of colours, British, Dutch, French and Spanish, with "pendants". The cabin furniture would have included a table, chairs, cot, stools and benches, mattresses and a mirror.

The "chandlery" to be supplied would consist of various necessities such as long and short handled tar and scrubbing brushes, paint brushes and a quantity of paints, leather buckets, ballast shovels, pad locks, hour glasses, half-hour glasses, 14 and 28 second glasses, compasses for the binnacle, and for spare, "perspective" or spy-glasses, usually wooden barreled, deep-sea and hand leads, a hailing trumpet, charts, a spare tiller, cleats and pump gear, a Davis hog-yoke quadrant and possibly a cross-staff, an "Almanack", Colson's Tables, a Log-book, quills and ink powders, and a soapstone ink well with holes for the quills and other minor necessities. Added to all these requirements, and as last minute provisions, would be the barrels of beef, pork, bread, and such vegetables as the skipper might decide upon for current needs. The casks and barrels of water for the low stow would then complete the list.

It would indeed be very interesting to be able to find the log of the *Mary*, to glean from it the story of the day's work as performed in 1741–2, and to make a visit to the "Remarks", for there was always something important to record there as to what happened *en voyage,* and usually a reference or two to at least one member of the crew whose doctrine of life had become preponderatingly painful to him as the result of some misdemeanor. As John Lyly, the dramatist who died in 1606, said, "the mariner is pitied for being pinned in a few boards and within an inch of a thing bottomless, but he can shift the moon and sun; the lodestone that always holdeth his nose to the North, the two and

either end of the ship above the spar deck to give at least six or seven feet head-room. This was probably the arrangement adopted according to the practices of the period, for the proper accommodation of the crew, while the caboose would receive similar treatment just abaft the foremast, all of which would be entered through the usual companionways down three or four treads by means of covered hatches.

It is quite certain there were no luxurious lounges, banquet saloons, sweeping corridors or grand staircases aboard the *Mary;* but according to the following passenger list, there must have been *some* pretence of provision for the accommodation of the 35 souls, besides the crew, who came to Philadelphia in this 58 foot ship in November, 1743, and they must have been stowed away within the four feet between decks in somewhat the same manner that slaves were transported from Africa.

In a letter from her owner, Daniel Flexney of London, to John Reynell, he makes mention of her passengers as follows:

The Particular Acco^{t}. of Each Family—

John Ulrick Hagenbuck,	Wife	and	3	child^{n}.	aged	12-11-2
Felix Rebsamen	do	&	6	do	do	12-11-7-3-5-½
John Rueg	do	&	5	do	do	11-7-4-2-½
Jacob Rueg	do	&	3	do	do	18-12-11
Rudolf Epprecht	do	&	6	do	do	20-18-14-12-7-4
Henry Angst						
Elizth. Angst	do					

It is evident from supplied records that this fast little ship *Mary* made many more voyages from and to Philadelphia and that she proved a good investment to her owners, but what finally became of her will probably never be discovered, as Daniel Flexney died in 1747, and the vessel, with the rest of his estate was doubtless disposed of by his daughters Mary and Hannah, and the ship's identity lost to oblivion.

While this 58 foot ship *Mary* is thus far, the oldest and smallest recorded full-rigged ship (whose measurements have been discovered and given in an authentic document), built in America, it is also quite evident that the full-rigged ship *Torrington* referred to in Mr. Gillingham's[22] valuable brochure on "Some Colonial Ships Built in Philadelphia", and classed as a *50-ton ship,* owned by Richard Deeble and Thomas Warcup of Plymouth, England, and built by Aaron Goforth of Philadelphia, in 1729, was much smaller than the *Mary,* and ante-dated her by twelve years. Unfortunately, however, no "agreement" or specifications indicating her size has been found. From the shipwright's bill of cost, *viz.*, £ 487.7.0 against £ 567.12.10 charged by West for the *Mary,* the *Torrington* could not have been much if anything over fifty feet in length.

"The sea belongs to eternity, and not time, and of that it sings its monotonous song for ever and ever." *Holmes.*

[22] Grateful appreciation is expressed to Mr. Harrold E. Gillingham for his assistance in supplying data from original documents relating to the subject of this article, and for his generous courtesy in authorizing various references to his own valuable contributions on similar subjects. L. F. M.