Josiah Fox,
Gentleman, Quaker, Shipbuilder

Soon after the close of the Revolutionary War, American merchant ships trading in the Mediterranean were seized and their crews imprisoned by pirates from the Barbary states.¹ In order to protect American commerce, members of Washington’s administration proposed the creation of a naval force, and in 1794 Congress authorized the building of six frigates. General Henry Knox, Secretary of War, being uninformed in matters of shipbuilding, sought the advice of a Philadelphia builder, John Wharton, who, it is believed, recommended the services of a business partner, Joshua Humphreys. To assist Humphreys, a young English immigrant, Josiah Fox, was recommended by Andrew Ellicott, surveyor general for the national capital then building in Washington. The ubiquitous Dr. Benjamin Rush also encouraged Knox to discuss the proposed plans with Josiah Fox, with whom he had become acquainted through his brother, Dr. Spicer Fox, a surgeon in the British Army. Fox and Humphreys thus became the key figures in the designing and construction of the first ships built for the United States Navy: the 44-gun frigates United States, Constitution, and President, and the 36-gun frigates Constellation, Chesapeake, and Congress.

Joshua Humphreys claimed sole credit for the design of the fleet. His most ardent champion in later years was his son Samuel, chief naval constructor from 1826 to 1846. In more recent years, letters from private holdings have been found which tell a different story. It is the purpose of this study to demonstrate that new conclusions can be drawn from the numerous papers left by Josiah Fox. They indicate that his contributions were of major importance and had a marked influence on American naval design. Since 1827, a con-

¹ This paper was read before the Cumberland County Historical Society and Hamilton Library Association at Carlisle, Pa., on Mar. 15, 1963.

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troversy has existed over the question of who was the principal designer of “Old Ironsides” and her sister ships.

Both Josiah Fox and Joshua Humphreys were Quakers. Humphreys was born in 1751 near Philadelphia and at the age of fourteen was apprenticed to James Penrose, who died before Humphreys could finish his term. He was nevertheless given the remainder of his time by Penrose’s widow. During the Revolution, Humphreys entered into business with his cousin John Wharton, and together they built the Randolph, the only Pennsylvania-built frigate to make a cruise under the Continental colors. When in 1793 the creation of a navy was under consideration, Humphreys suggested that the government build 44-gun frigates, ships large enough to be effective, if necessary, against the European navies. He believed, as did the War Office, that one large ship would provide better protection at less cost than two smaller ones. His purpose in writing the government was to secure, if possible, the contract for the frigate to be built at Philadelphia. General Knox, after conferring with Humphreys, requested that he prepare plans and models for the ships. The following year he was appointed constructor for the Philadelphia frigate. During the construction of this vessel, later named the United States, Humphreys was disowned by the Society of Friends for building ships of war. He died in 1838 after a long and active career.

Josiah Fox was born at Falmouth in Cornwall, England, in 1763. He was apprenticed at the age of eighteen to the master constructor at His Majesty’s dockyard at Plymouth. Upon the completion of his term he was employed as a shipwright at this yard. Later, he made a number of voyages aboard the snow Crown, owned by G. C. Fox & Co. and captained by one of his brothers. Unlike Humphreys, Fox had been to sea, and his voyages provided him an opportunity to study ships under sail and a chance to visit the principal building yards in England, Archangel, Cadiz, and the Arsenal at Venice. In 1791, he was employed at the royal dockyard at Deptford in London. Becoming dissatisfied with this position, his thoughts again turned to travel, this time to America. His education as a naval constructor had been carefully planned and scheduled with the assistance of an

2 Undated rough draft of letter by Fox to the Navy Department. Unless otherwise noted, all manuscripts cited are in the author’s possession.
uncle and other interested Friends and relatives. Fox was, in fact, the only formally trained shipwright concerned with the design of early American ships.

Late in 1793, he arrived in the United States with plans to study American timber and to visit friends and relatives in Philadelphia, then the capital city. The following April, General Knox, learning from Dr. Rush that Fox was about to sail for England, discussed the proposed navy with him and employed him to assist in the design and construction of the ships. Fox, like Humphreys, was recommended by a cousin, his respected kinsman Andrew Ellicott. Since there was no appropriate opening available at the time, Fox was appointed temporarily as a "Clerk" in the War Department (the Navy Department was not established until 1798). His appointment dates from July 16, 1794, eighteen days after Humphreys'. Thus, both men had prepared preliminary designs for 44-gun frigates prior to their official appointments.

Within a year, Fox was promoted to the rank of assistant navy constructor and assigned to construct the frigate to be built at Norfolk, but when peace was effected in 1795 with the Barbary states, all work on the frigates was stopped. One condition of the treaty with the Dey of Algiers was that the United States would give the Dey four vessels, the largest of which was to be a frigate. Josiah Fox was selected to design this ship, which was named the *Crescent*.

In 1797, Fox, like Humphreys, was disowned by the Quakers, the Northern Meeting of Philadelphia advising him as follows: "Josiah Fox . . . (Shipwright) having a Right of Membership with us . . . hath been tenderly treated with on account of his deviation from our discipline by going in marriage . . . with a woman not in membership with us and in accepting an employment under [the] government . . ."

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3 Dr. Joseph Fox to Charles Fox, Sr., 1786, owned by Miss Esther Fox, Ferrun, Va.
4 Fox to Thomas Ellicott, 1846.
5 Andrew Ellicott (1754–1820), surveyor for the western and northern boundaries of Pennsylvania as well as the ten-mile square ceded by Maryland and Virginia which became the District of Columbia. Ellicott redrew Pierre Charles L'Enfant's plan for the city of Washington after L'Enfant's dismissal in 1792. Andrew Ellicott and Josiah Fox were second cousins, both being descended from Francis and Joan Fox.
in which he hath assisted in building vessels intended for the purpose of war contrary to our peaceable principles; and not appearing qualified to condemn the same we hereby testify that we do not consider the said Josiah Fox as retaining a right of membership in our religious Society, desiring nevertheless that by attention to the renewed influence of divine Grace he may become sensible of the inconsistency of his conduct and witness qualification to condemn it." 8 Fox, however, did not consider the Philadelphia Meeting to have jurisdiction over him and therefore chose to ignore their condemnation. He had married Anna Miller, daughter of Peter Miller of Philadelphia. In 1807, she was accepted 9 as a member of the Society of Friends and was later honored by them. Apparently, Fox had little concern for the Quaker restrictions regarding marriage. Earlier correspondence from his father reveals that during Josiah's apprenticeship at Plymouth the Society had refused him a certificate (later granted) because of his attention to a certain captain's daughter whose connections were considered unacceptable. 10

Not long after his disownment, Fox was transferred from Philadelphia to Norfolk to "commence" the Navy Yard there and to construct the frigate Chesapeake. Of this assignment, he says "That during the whole of the period he was employed in building and equipping that frigate, he had the sole charge of conducting the business as no Naval Officer was appointed to that yard, which has been the only instance of the kind in the Navy Department." 11

When hostilities began with France in 1798, the government encouraged merchants to subscribe a new frigate in each of the principal seaport cities. Of the five cities that responded, Philadelphia and Charleston commissioned Josiah Fox to design their vessels. 12 It was the famous frigate Philadelphia that was burned by Stephen Decatur at Tripoli in 1804.

The election of Thomas Jefferson brought about a reduction in the size of the Navy and the discharge of the constructors. Fox, though a

8 Fox's own copy, dated May 30, 1797.
9 Fox to his wife Anna, May 26, 1807.
10 John Fox, Sr., to Josiah Fox, Oct. 21, 1786.
11 Fox to Samuel Southard, Secretary of the Navy, Nov. 27, 1826, in Ernest J. Wessen, A Calendar of the Papers of Josiah Fox (Mansfield, Ohio, 1935), hereinafter cited as Calendar of Fox Papers.
12 Chapelle, 161.
Federalist, was nonetheless reappointed by Jefferson in 1804. However, his interest in politics and his habit of purchasing Negro slaves and manumitting them did not endear him to his superiors, and in 1809 his appointment was revoked. No new constructor was appointed to replace him. During Jefferson’s administration, Fox was responsible for designing “the greater part of the numerous gunboats,” as well as the sloops Hornet, Wasp, and Ferret. His papers reveal that he considered the gunboats to be “serviceable as auxiliaries to fortifications for defence of harbors etc., but I cannot approve of depending on them alone, particularly of such contracted size as those now building in various parts of the Union. They will however in a few years furnish our cities with good Oyster boats.”

In 1811, Fox removed to the headwaters of the Ohio River with plans to build boats for trade with the West Indies, a business venture that never materialized. Construction of ships on inland rivers, where timber and labor were more readily available, was then typical, but the Embargo Act of 1807 had taken its toll; the War of 1812 then halted virtually all commerce. In 1833, Fox inherited a sizable family estate and retired, spending the remainder of his life as a gentleman farmer. He was an active and progressive Quaker and a leader in the Hicksite rebellion at Mt. Pleasant, Ohio, in 1827. He died at Colerain, Ohio, in 1847.

The controversy over who designed the first ships for the United States Navy began, in a sense, during their construction one hundred and seventy years ago. Since it was not clear to government officials who had prepared the final drafts, one can find correspondence to support the claims of both Fox and Humphreys. As is true with most government projects, one person seldom has complete freedom of design in any venture. This project was no exception. Both Fox and Humphreys had prepared drafts for the proposed ships. Frigates of the size contemplated had never before been attempted in this country, and there ensued considerable discussion regarding the proper

13 Paul Hamilton, Secretary of the Navy, to Fox, Aug. 2, 1809, Naval Historical Foundation Collection, Library of Congress.
14 Fox to Andrew Ellicott, Mar. 7, 1807.
15 Fox to William Dickson, Nov. 10, 1810.
16 In an attempt to remain neutral in the conflict between Great Britain and France, Jefferson proposed an embargo which forbade foreign commerce and thereby nearly ruined all shipping interests.
dimensions that should be adopted. Eventually, a compromise was reached, and Fox was directed to prepare final drafts. The plans were to be used by various builders and were in some respects altered by them. Furthermore, it was common practice at the time to permit the captain assigned to the ship to make changes in the vessel, particularly with respect to its armament or rigging. It is therefore evident that the ships were not designed solely by one man.

In the beginning, Humphreys spoke well of Fox and is said, by Timothy Pickering, Knox's successor, to have stated that there were few men in the country equally qualified. However, by 1797, long after Fox had been appointed an assistant constructor, Humphreys was referring to Fox as a "Clerk in the Marine Department," and was resentful of his relaying orders from the Secretary of War. Howard I. Chapelle, author of The History of the American Sailing Navy, states "that Fox was far better trained than Humphreys in all respects, and was a far superior draftsman." Perhaps Humphreys was jealous of Fox's ability and disliked his officious manner. Whatever the reason, the two men remained on unfriendly terms the rest of their lives.

The first public notice of the controversy appears to have been taken when the frigate United States returned to this country in 1827. Off the coast of California, the United States staged a race with the French frigate Lafayette, which proved once and for all the superiority of American frigates. An account of this race was published in Niles' Register along with a reprint from the Wheeling Gazette of an interview with Josiah Fox discussing both his connection with the first frigates and their design.

Soon thereafter, Joshua Humphreys' son Samuel, then chief naval constructor, wrote the editor of the National Journal objecting to the credit given Josiah Fox and claiming that "the only part Mr. Fox took in the Business was making Copies from the Originals." Samuel Humphreys seems to have drawn upon his father's corre-

17 Calendar of Fox Papers.
18 Timothy Pickering to William Pennock, May 14, 1795, Naval Historical Foundation Collection, Library of Congress.
19 Chapelle, 122.
20 Aug. 18, 1827.
21 Ibid.
spondence with Timothy Pickering wherein an attempt was made by Joshua Humphreys to discredit Fox. Fox, in private at least, brushed aside Samuel's claims: "If Mr. S H had sufficiently informed himself before he undertook to give publicity to those assertions I feel Confident he would not have brought them before the View of the Public. I have always entertained a great respect for that Gentleman but as he was only a school Boy at the time & consequently unacquainted with the true state of the Business connected with those ships I feel disposed to pass over his assertion that the statement was 'incorrect.'" Josiah Fox then gave a detailed account of the controversial situation. This rough draft, rewritten several times, furnishes us with an opportunity to study his thinking and provides an important insight into the real issue.

I observed in Niles's Register of the 18th Ultimo That Mr. Samuel Humphries states that the extract of a letter from a Gentleman on his travels in the Western Country which appeared in the Wheeling Gazette is incorrect & asserts that the Original drafts of the Frigates United States, Constitution, President, Constellation & Congress—were drawn by Joshua Humphreys of Philada agreeably to Dimensions proposed by that Gentn to Genl Knox then Secretary of War & that the only part Mr. Fox took in the Business was making Copies from the Originals. He is willing to give to Mr. F. all the Credit that is due to him, & with that disposition states, that Mr. F. drafted the Frigates Philada & Chesapeake & the Sloop Wasp & built the two last named Vessels.

If Mr. S H had sufficiently informed himself before he undertook to give publicity to those assertions I feel Confident he would not have brought them before the View of the Public. I have always entertained a great respect for that Gentleman but as he was only a school Boy at the time & consequently unacquainted with the true state of the Business connected with those ships I feel disposed to pass over his assertion that the statement was "incorrect."

It never came to my Knowledge who gave Genl Knox the first or original dimensions for those Frigates, It only remains for me to say, that I opposed them—& that Genl Knox by my advice altered the dimensions of the 44 Gun Frigates those of the 36 Gun Frigates may have been as first proposed. That the drafting of the Frigates was Confided to me as well as laying them down in the Mould loft & making the Moulds, &c &c all which were done by my advice & assistance. Mr. J H did attempt to palm drafts upon me as the approved ones, but General Knox having rece[ive]d intimation of the

Circumstance, did in a public manner not only reject them, but laid an additional responsibility on me that I should undiviatingly adhere to my drafts as being the original ones approved by him. There may be Gentlemen yet living who can testify to those facts, if required. Mr. J H's drafts & Models were not only rejected by the Secretary of War, but by all the Master Ship Builders from the Swedes Church to upper part of Kensington, to whom they were submitted.

I admit that Mr J H was directed to Construct the Drafts & Models in which I was to assist him, he produced some drafts & models of his own to the Secretary of War, but on submitting them to the inspection of the principal Master Builders of Philada from Swedes Church to upper part of Kensington they were rejected by their unanimous voice. afterwards on my presenting a draft to the Secretary the attendance of same Gentlemen were required at the Office, who unanimously approved it. The drafting of the Frigates was thereupon confided to me, as well as laying them down in the Mould loft, making the necessary moulds &c &c all of which was done by my advice & assistance. Mr. J H on finding himself disappointed in his views attempted to palm an other draft upon me as an approved one—but Genl Knox receivjng intimation of it, did in a public manner not only condemn it in the presence of Mr J H and 5 or 6 other Gentlemen but laid a heavy responsibility on me, that I should undeviatingly adhere to my approved draft. there may be Gentlemen yet living who can testify to those facts.

I never copied any draft of Joshua Humphreys. The draughts were formed for the Builders by Mr. Wm. Doughty & me from Dimensions taken by me from the mould loft floor. Copies of which were had by J H & Mr. Wm. Doughty the former had transcripts made signed J H & sent to the War department; they are on record. I also retained a Copy.

The Ships of War which I claim to have drafted are The United States, Constitution, the one intended to have built at Norfolk—

Mr. Wm. Doughty, whose able assistance I received in laying down the Frigates in the Mould loft & marking the Moulds &c afterwards drew the Drafts of the President & Congress & I have always considered him entitled to the meret of that service.

Mr. J. H. was directed by the Secretary of War to furnish Drafts & models for the Frigates in which I was to assist him & I was also directed to make drafts & Models at same time—but J H being over ambitious chose to submit those of his own Construction only for inspection—on those being rejected the principal Shipbuilders of Phila. from the Navy Yard to Kensington were called on to examine them. They rejected those furnished by Mr. J H in toto—and approved of mine.
Mr. J H was directed to furnish the Secretary of War the Drafts & Models for those Frigates, in which I was to have assisted, but being over ambitious, chose to submit only his own performance which were rejected by the unanimous voice of all the principal Ship Builders—from the N Yard to Kensington. Genl Knox then confided to me (by recommendation of those Gentlemen) not only the drafting the Frigates but, the laying down the drafts in the Mould loft & making the necessary moulds &c &c—all of which was done by my advice, assisted by Mr. Wm. Doughty. Mr. J H finding his views frustrated attempted to palm other Drafts on me as the approved ones, but Genl Knox receiving intimation of the Circumstance, did in a Public manner, (Vizt in the Hearing of J H & the presence of several Gentlemen) not only condemn it, but laid a heavy responsibility on me, that I should undeviating adhere to my approved Drafts. There may be Gentlemen yet living who can testify to those facts—I never copied any Drafts of J H’s; the drafts were formed for the builders by Mr. Wm. Doughty & me from dimensions taken from the mould loft floor. Copies of which were furnished to J H & W D—the former had a transcript made which he signed & sent to War Office, & recorded. I also retained a Copy—

Fox thus admits that Humphreys was directed to furnish drafts and models for the frigates and that he “was to assist him.” The implication is, however, that he did not assist Humphreys. Fox further states that Humphreys “produced some drafts & models of his own to the Secretary of War, but on submitting them to the inspection of the principal Master Builders of Philada . . . they were rejected by their unanimous voice.” In another version he says that Humphreys, “being over ambitious, chose to submit only his own performance which were rejected. . . .” Fox states, “afterwards on my presenting a draft to the Secretary the attendance of [the] same Gentlemen were required at the Office, who unanimously approved it. The drafting of the Frigates was thereupon confided to me, as well as laying them down in the Mould loft, making the necessary moulds &c &c all of which was done by my advice & assistance.”

“Mr. J H finding himself disappointed in his views attempted to palm another draft upon me as an approved one—but Genl Knox receiyng intimation of it, did in a public manner not only condemn it in the presence of Mr J H and 5 or 6 other Gentlemen

23 Except for bringing superscript letters to the line, the draft is printed as written.
24 Ibid.
but laid a heavy responsibility on me, that I should undeviatingly adhere to my approved draft.” Fox ends the draft with a statement that he “never copied any Drafts of J H’s; the drafts were formed for the builders by Mr. Wm. Doughty & me from dimensions taken from the mould loft floor. Copies of which were furnished to J H & W D—the former had a transcript made which he signed & sent to [the] War Office, & recorded. I also retained a Copy.” To date, no plans prepared by either Humphreys or Fox have been found.

In a signed statement submitted to the Secretary of the Navy in 1826 Fox asserts “that he introduced into the service the improved mode of drafting the Ships of War, and likewise the manner of making the moulds, and taking the bevelings of the timbers, and that he has reason to believe he was the first person who ever directed putting together a stern frame from moulds of a ship of war, before it was raised in the United States.”

The controversy lay dormant until March, 1907, when the San Francisco Chronicle published an article crediting Fox with the design of the ships. In August, the Chronicle published a reply from Colonel Henry H. Humphreys, USA, great-grandson of Joshua Humphreys. He had nothing of substance to add; instead, he vaguely tried to credit Humphreys with the birth of the Navy through his connection with the ships of the Revolution. The following year, The Journal of American History published an article entitled “Builder of the First American Navy,” written by Elizabeth Brandon Stanton, great-granddaughter of Josiah Fox. Mrs. Stanton quoted letters written by Secretary Pickering stating that Fox had prepared the drafts and molds.

Speaking before the Society of Naval Architects and Marine Engineers in 1914, Franklin D. Roosevelt, then Assistant Secretary of the Navy, discussed some then unpublished facts about the construction of the first frigates. Roosevelt’s source of information was a letter book containing out-letters of the War Department, 1790-1798. Roosevelt stated that Humphreys “was verbally asked to make calculations of materials and prices,” and that Fox was his “assistant in draughting the original plans. . . .”

25 Ibid.
26 Calendar of Fox Papers.
Two years later, Colonel Humphreys again attempted to settle the issue in an article published by *The Journal of American History* and reprinted in *The Pennsylvania Magazine of History and Biography*. This article entitled "Who Built the First United States Navy?" is believed to be inaccurate, particularly with respect to the circumstances surrounding the construction of the *Chesapeake* and the *Crescent*. The Fox papers show that the reduction of the *Chesapeake* from 44 to 36 guns was not a violation of the original Act of Congress, as then believed, but was caused by the use of her materials to complete the * Constellation*. It is a matter of record that Fox, not Humphreys, designed the *Crescent*. Some of Fox's offsets and dimensions for the *Crescent* are known to exist; the remainder of the dimensions are owned by the author of the present article.

In 1929-1930, a large portion of the Fox papers then in the possession of his descendants was secured by a collector and subsequently sold to the Peabody Museum in Salem, Massachusetts. Prior to their sale, a calendar of the papers was prepared which records for the first time the extent and importance of Fox's real connection with the building of the ships. Chapelle's 1949 account of Fox's many contributions is perhaps the first authoritative statement of the real circumstances surrounding the controversy. However, Chapelle did not have access to all the papers left by Fox. The issue still continues to be of interest to historians. The March, 1961, issue of the *Maryland Historical Magazine* discusses at length the building of the *Constellation*, revealing that the original plans were revised by the builder with the approval of Secretary Pickering and Josiah Fox.

The persistence of this controversy lends credence to the belief that history has falsely given sole credit to Joshua Humphreys for the design of the first ships for the United States Navy. It is evident that Josiah Fox played a major role in both their design and construction and that his contributions still have not been properly recognized. Fox's statements regarding Humphreys' vain attempt to alter the records and Knox's censure of Humphreys' actions are new

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29 See Bernard C. Steiner, *Life and Correspondence of James McHenry* (Cleveland, 1907), 180-181.
30 See Calendar of Fox Papers.
evidence recorded here for the first time. The great number of letters and documents of a technical nature connected with the vessels, many still in private hands, indicate the full extent of Fox’s participation. Included in this material are the dimensions, in Fox’s handwriting, of the French frigate L’Insurgente, the first ship captured by and later taken into the United States Navy. Since it was typical of Admiralty-trained shipwrights to measure a captured ship, it is perhaps not surprising that these dimensions should appear in Fox’s possession. Heretofore this data was thought to have been lost. Also included is Fox’s list of materials for the 74-gun frigates authorized in 1799 but never built, as well as the dimensions of the spars and other parts of the Constitution. Mr. Chapelle, writing to the author in 1962, stated that “the dreadful mistreatment of Fox indicated an astonishing creation of ‘authorities’ [which is] unbelievable.” He also wrote that “Fox was . . . the victim of Humphreys’ pride and dishonesty [and that] Fox’s name was actually erased from some of the plans he drew by Samuel Humphreys. . . .”

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