

## Shipbuilding along the Pettaquamscutt fosters design innovation

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As signs of spring emerge, coastal thoughts naturally turn to boating. For anyone who's spent time on the water in the Pettaquamscutt River, it's not hard to imagine that humans must have been boating these waters since they inhabited the watershed.

It's a larger stretch of the imagination to picture the golden age of shipbuilding in the Pettaquamscutt River between 1813 and 1854, when approximately 20 vessels were built here by Captain John Aldrich Saunders (1786-1832) and his son Captain John A. Saunders II (1808-1882). These ships were used for trade locally, up and down the Eastern Seaboard, and as far south as the West Indies and South America. The Saunders family took a share in some ships they built, at times commanding them personally. The largest vessel (82 feet and 200 tons) was used for whaling off Japan. These ships were built at four locations along the river: at the training lot; by Bridgetown; in front of the Glebe; and at the mouth of Gilbert Stuart Stream. Evidently, the benefits of the sheltered setting and the proximity to lumber outweighed complications in moving the completed hulls from the river. The opportunities and challenges of building in the Pettaquamscutt watershed fostered a new vernacular in ship design.

It is not clear what brought John Aldrich Saunders from Westerly to the bustling community of Tower Hill, but he established a boatyard on the training lot, the flat field on the west shore of the river at the foot of Torey Rd, so named because militia had trained there. Captain Saunders is credited with building the first known centerboard vessel in the region, called the *Dolphin* built in 1813. The Saunders' centerboard was eventually patented by his grandson, John G. Saunders (1831-1877), in 1867. Captain Saunders next built the *Eagle* in 1814, the second of nine vessels he built on the training lot, for John Jay Watson, who used her for general freighting at the pier he had just founded on the east side of Boston Neck. The *Commerce*, built in 1815, had a movable keel made in three different portions, so that one, two or all three could be lowered.

The most notable of the ships built in the Pettaquamscutt is the *Nonsuch* which was completed in 1824 at the head of the river, west of where the Gilbert Stuart Stream enters the Upper Pond. The oak and chestnut timber for the vessel was cut on the Hammond farm, just uphill, and 'hailed from the stump in one day'. The *Nonsuch*, as her name suggests, was a peculiar flat-bottomed schooner nicknamed the 'Sea Serpent' or the 'Flying Dragon'. According to the records of Hazard 'her frame was laid with three keels parallel with each other 65 feet in length, with a sheath in the middle for the centerboard or the movable keel that adapted her to shoal water as well as deep...her beam was 18 feet, her depth amidships only 2 feet.'

The unique design of this sailing barge with a broad flat bottom, granted her a spacious hold relative to her weight, while drawing very little (10 inches draft when light and 24 inches when loaded). In addition, her three-masted schooner rig was an innovation, allowing her sails to be

handled from the deck with a low center of effort while reducing the heeling moment. Both these features made her a practical work vessel, allowed her to reach shallow estuary headwaters and the intertidal zone, loading and discharging cargo at minimum expense without reliance on a wharf.

Her first cargo was a load of 20 cords of wood taken from the Nathan G. Hazard farm which abutted the Upper Pond, not far from where she was built. The *Nonsuch* was later used for carrying granite to build Fort Adams at Newport and stone navigational beacons that marked the channel at the entrance to Providence harbor. At least some of this stone was quarried from the Narragansett Pier granite outcrops located on the north limb of the mouth of the river, where drill holes can still be found. When business was slack, at one point, *Nonsuch* was stored in Wesquage Pond, in those days connected to the Bay by a tidal inlet.

After his father's death in 1832, Captain John Aldrich Saunders II took over the shipbuilding operations at the training lot yard. He built *Farmer's Returns*, a 60-foot schooner, for general freighting in Long Island Sound, at the Glebe in 1837. *Peacedale* was built at the training lot in 1842. In 1855, at the encouragement of the Carpenter and Rodman families, John Aldrich Saunders II and family settled 'Willetville', later known as Saunderstown, establishing a shipyard in the current location of the Saunderstown Yacht Club.

In 'Bathymetric implications of historical shipbuilding along the Pettaquamscutt River', an appendix to his 1975 PhD Dissertation for the Graduate School of Oceanography, Arthur Gaines addressed the argument that the shipbuilding history was evidence that channel depths were much greater in the past. He asserted the *Nonsuch* was the only vessel recorded to have left the watershed carrying cargo, but her uniquely shallow draft would probably have allowed her to repeat the trip down the river under current conditions. The largest ship built in the Upper Pond, the *Albany*, measured 62 feet by 20.5 feet and drew around 5 feet when fully rigged, ballasted and loaded. Dr. Gaines observed that although there are not records of her removal, it is possible that under a spring tide it would have been possible for her to float out under current conditions, especially as a bare hull. Sponsons added to her hull could also have lessened her draft.

That is not to say removing a 60 foot ship from the watershed was not without its challenges: There are records of the abutments of 'lower bridge' being taken out to get ships through. John Aldrich Saunders IV recalled stories from his ancestor's experiences getting the ships out of the River. A second generation Saunders remembered a ship moored near the present Sprague Bridge: 'and then after loading, what an exciting time (for me) was the getting down the river and out the bar. The sounding out the channel through the breakers...'

Besides the now common centerboard and three-masted schooner designs, there are few legacies of this great era to remind us of the shipbuilding industry and innovation in our watershed. As reported in his PhD dissertation for the Graduate School of Oceanography in 2006, Jeremiah Hubeny did tease out some legacy records from the sediments beneath the river. Dr. Hubeny

found a spike in levels of retene around 1840 in sediment cores he took from the Lower Pond. This compound is produced from the degradation of pine tars, which could have been found in pine wood decks or preservatives for wood and rigging.

*This article is based on research in the collection of John A. Saunders IV and Laura Smith Saunders kept at Mystic; the collections of the South County History Center; and Cole's History of Washington and Kent Counties, Rhode Island, including their early Settlement and Progress to the present time (1889).*



Figure 1: A postcard from 1764 showing the landscape of the Upper Pond, and Casey's sill or the Narrows, looking much as it does today, a constriction point in the watershed.

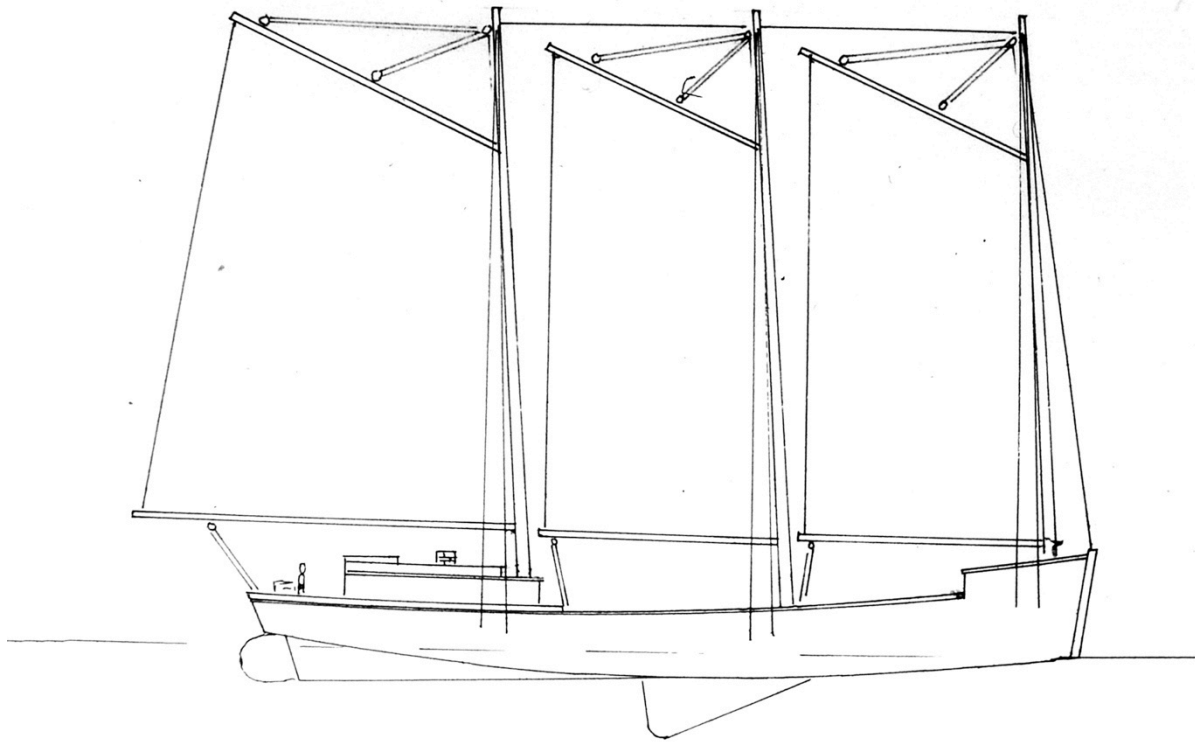


Figure 2: A sketch of the *Nonsuch* with a gaff rig. *Nonsuch*, John Aldrich Saunders' 13th vessel, was built in 1824 at the head of the upper pond of the Narrow River, just south of Gilbert Stuart's birthplace from oak and chestnut timber from the abutting farm. (Saunders family collection)

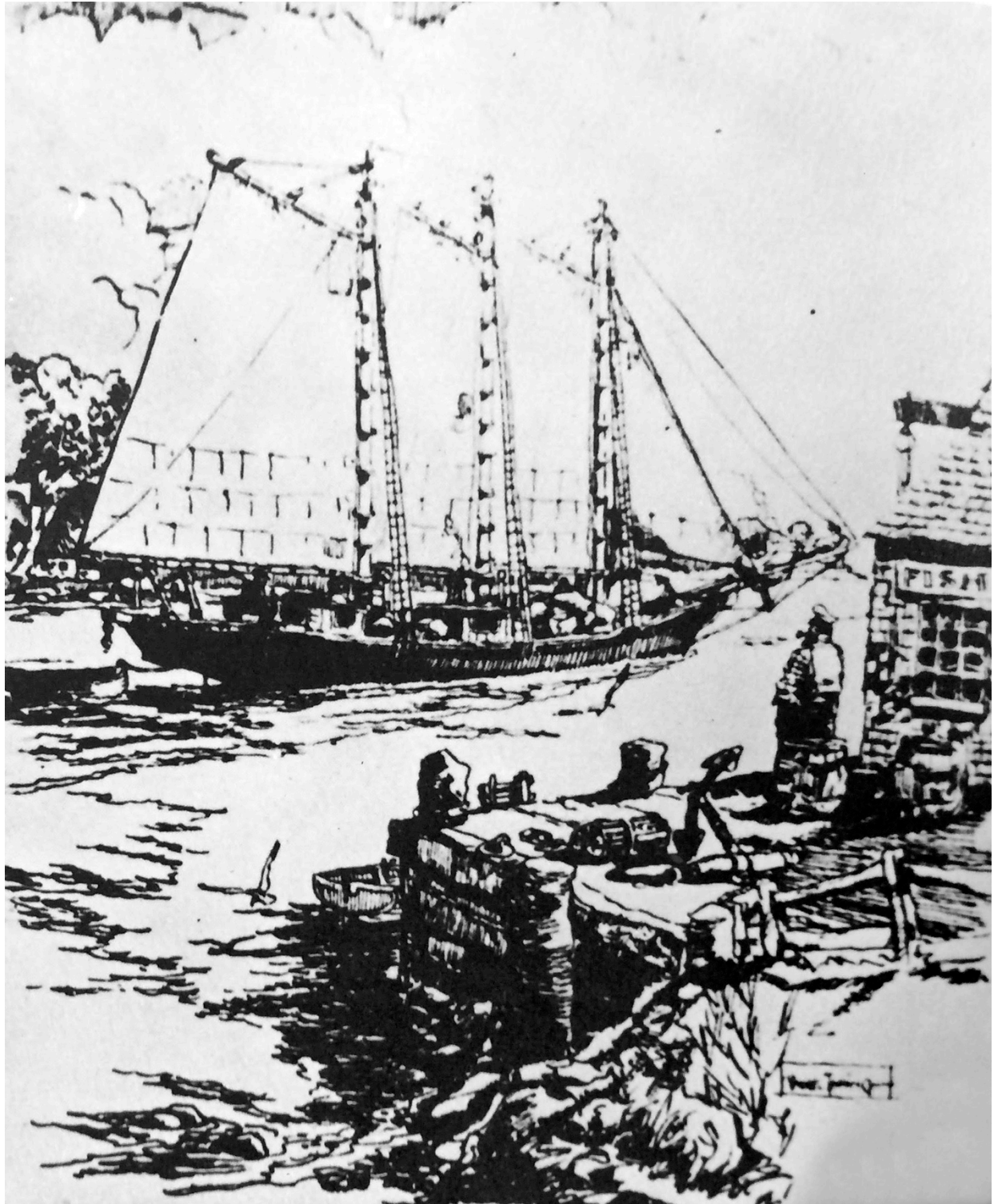


Figure 3: Artist Paule Loring's interpretation of what the *Nonsuch* may have looked like under sail.

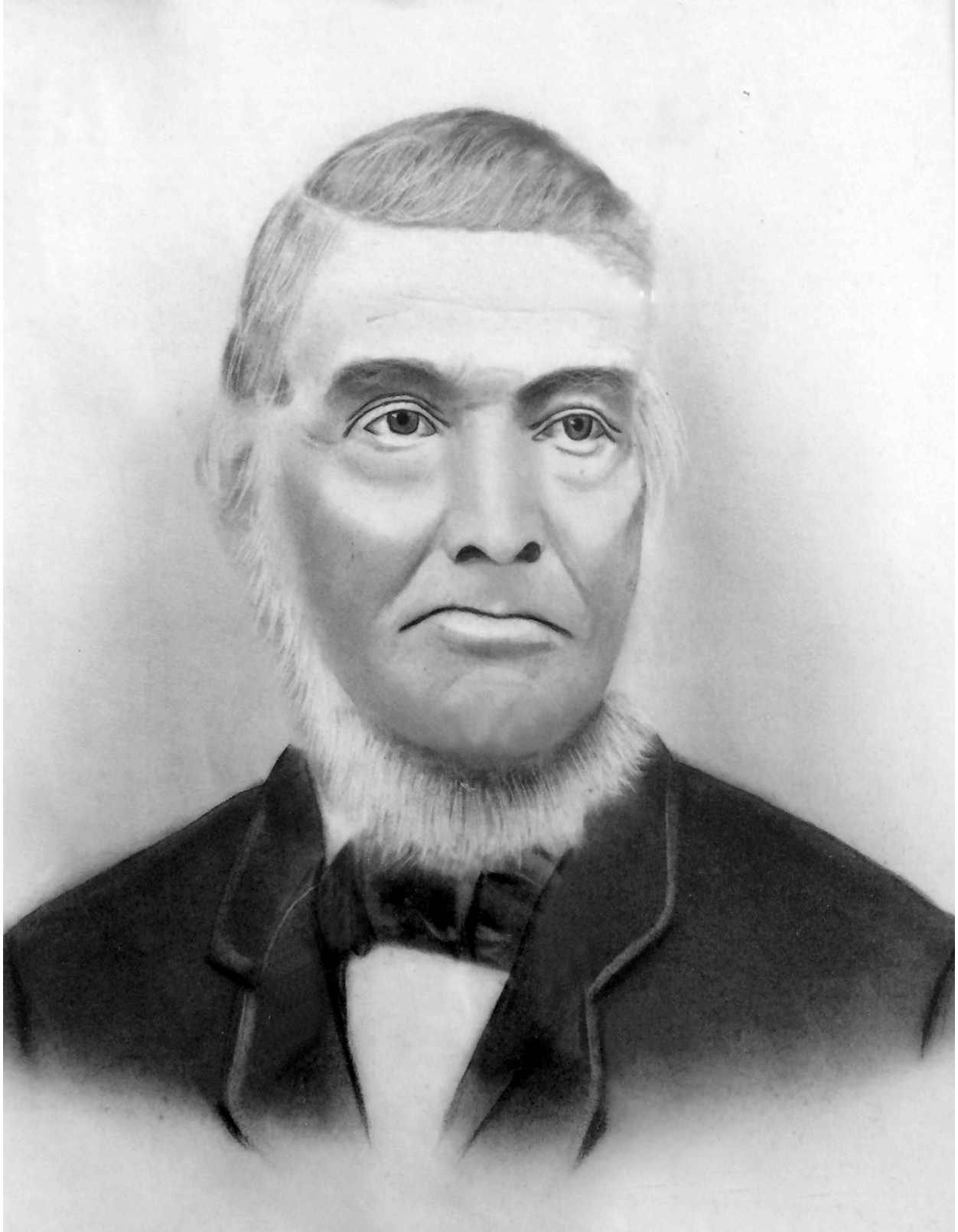


Figure 4: A portrait of Captain John Aldrich Saunders II (1808-1882) shipbuilder and founder of Saunderstown [in charcoal on paper (South County History Center)]