The glery of ships is an eld, old seng,
In the days when the sea revers ran,
In their open boats thru the rearing surf,
And the spread of the world began,
The glery of ships is a light on the sea,
And a star in the story of man.

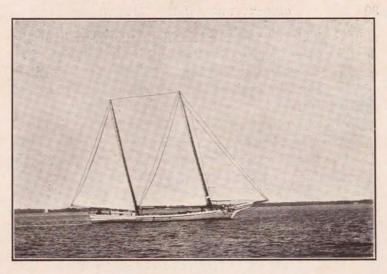
Henry Van Dyke.

William F Korff 5/3/26 The History and Development of Shipbuilding in Baltimere.

The history of shipbuilding in Baltimore must be traced back to the very founding of Baltimere town in 1729. The hearty founders drew their existence from the water about them and of necessity built the craft which supplied them with the means of obtaining their livlihood from the river and bay. Thus developed a craft which in its growth produced the larger ships as the more ambitious spread out into larger fields of enterprise. The skipjack, a light boat, not much larger than a skif, equipped with a single mast was the recognized beat of the fisherman, while the bugeye with its graceful lines and two towering masts was used by the eysterman. As the tewn grew and the rich agriculture fields about were cultivated, ships from foreign waters entered the harbor and we learn from history that they penetrated as far as Elkridge Landing on the Patapace River to load tobacco for Europe.

The small repair wharves were enlarged to meet the demands of the unceasing trade and the building of larger ships at Baltimore town was begun. From this infant industry grew the famous shipyards of Baltimore, which built a type of ship recognized over the entire world as the most beautiful and fleetest that sailed the sea. The Baltimore clipper carried the city's commerce on every sea and their talk masts and full

TYPES OF VESSELS USED IN THE OYSTER INDUSTRY

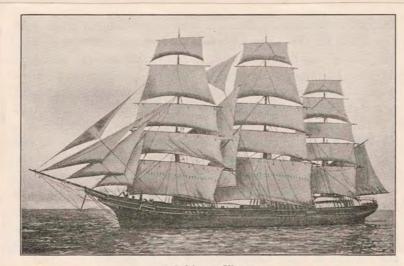


Bugeye used for dredging.



A Maryland skipjack.

sails under a weight of canvas enabled them to show a clean pair of heels to any craft which raced with them



A Baltimore Clipper After a contemporary photograph

Rothing was more conducive to the building of these fast and beautiful vessels than the Brazilian coffee trade. The rival merchants of Baltimore vied with one another in securing the greatest amount of trade with this South American port, Rie de Janerie. Chesapeake to Brazil became the cry of shipowners and shipbuilders. Masters and hearty seamen strained every nerve to reach Brazil and return to Baltimore shead of their rival. Josephine 11, ewned by C. Norton Stewart, held the record for the fleet as making the fastest passage from Rio de Janerie. She was reported off Cape Henry taking pilot on board, twenty-two days from the South American port. The report was unbelieveable to the owner and doubted by the wiseacres of the waterfront. The Frances,

Captain Peter Erickson, also of the Stewart fleet, followed in twenty-six days from Coffee Port, having missed the unprecedented streak of favoring winds that had driven Josephine 11 to make a record never equalled.

Although these vessels were built for peaceful pursuits, the war of 1812 found them ready and willing to defend their rights on the ocean. Baltimore sent out more privateers than any other shipbuilding port and was called by the angry British a nest of pirates. The masters and sailers were so confident and proud of the speed of their vessels that one daring privateer leader, Captain Boyle, proclaimed a blockade of the British coast. Of course this could not be carried out, but ships built at Baltimore made many captures in the harbors of England.

The Civil war however, caused a decline in the ship building industry in Baltimore since the lanes of the South American commerce were menaced by the confederate privateers. This fact caused many Baltimore ships to seek foreign registry by which they were permitted the freedom of the seas. These vessels with alien nurses never laid their heels within the national limits, over which the flag they assumed had jurisdiction.

while we may trace the beginning of our great shipbuilding industry to the time before the Givil war it did not reach its zenith until the close of the conflict and the seas were then clear of confederatecruisers. Our shippards and dry docks increased in number and size and the industry was revived with new vigor. However, Baltimore was unable to meet the demands for new bettoms and many ships, still known

as Baltimore clippers, were built elsewhere. The other builders deviated somewhat from the original clippers type, which was barked rigged and built a barkentine, which lost the grace and speed of the original, but gained greater cargo capacity. Thus the type of which Baltimore was so proud gradually lost its identity.

During the peak of this industry, fereign nations were alive to the value of this fleet winged messenger of the seas and on many occassions spies visited Baltimore shipyards in order to learn the secret of construction of these vessels. Mr. C- G- Davis, a ship architect. While searching the New York City library for information pertaining to his vocation, found among some old plates on machinery and steamboat design, the plates of M. Marestier. a French spy, who sent data home to France describing fully the lines of a Baltimore clipper. It was from this information that we were able to learn some of the particulars of our lost art. Mr. M. Marestier writes in reference to this historic vessel that the rigging was remarkable for its lightness. Other marine writers in endeavoring to locate the manner of construction, have teld us that they were copies of the French luggers that came to aid America during the Revolution. Others siad that they were the product of the war of 1812. Mr. Davis however, contends that the Swedes of the Chesapeake built what was a national type of eraft, but in the sheltering water of the Chesapeake built them light and rigged them with simplicity of gear, that is in itself an aid to speed in saaling craft.

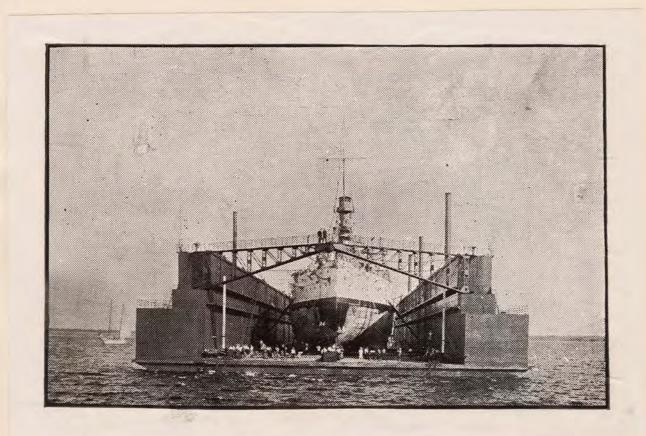
With the advent of steam, the shippards and dry decks were gradually used for the construction of the later type vessels and the whole atmosphere and the characters which predominated around the water front changed.

Baltimore is known as a city of first things and in this industry of which I am writing, has the distinction of building the first successful submarine. Although many experiments had been performed, the first real submarine te perform satisfactorily under test, was the Argenot. built Simon Lake, at the Columbia Iron Works of this city. It was an automobile type of submarine with the power to float, sink and propell itself, while submerged, slong the bettem. (The prime object of the building of this submarine was to salvage wrecks. Quite different from the idea prevalent at this time, a diver was able to leave the vessel and return while submerged, and attach a cable to the wreckage to be moved. While on the bottom it ran en three wheels which had gripping teethe on the circumference The air breathed by the occupants was supplied from the surface and the Arganot remained under water during its trial trip fer four hours. Although the principle of the embedied in the Arganot was quite successful, the propelling of wheels on the bottom was discarded in later types. Following the Arganot another submarine was built about the year 1896, by the Holland Company. Little did we think that the ideas embodied in this primitive submarine could be utilized in the construction of the monster of the deep which almost annihilated the world commerce.

The reputation of the shipyards of Baltimore had become so famous, that the first commercial foreign submarine, the Deutchland, selected this harbour as its landing place after its wonderful epoch making trip across the Atlantic.

Again Baltimore came forward in making one of the greatest advancements of the shipbuilding industry of the world. Heretofore there had been difficulty in decking the large vessels of the United States fleet. Although Baltimore had the second largest docks on the Atlantic seaboard, they proved inadequate, as the vessels of our government increased in size. Hence it became necessary to build another type of drydock to accomodate the ever increasing tennage. To meet this demand, on October 15, 1901, a large steel floating drydock, constructed by the Maryland Steel Company at Sparrows Point, for the United States Government, started on a veyage of two thousand miles, towed by powerful sea-going tugs, to Algeria, La. where it was put into service. The whole world watched this experiment, and although many could realize the use of such a dry dock at the point of its construction, very few admitted that it could be towed from place to place successfully, and few others than the designers had hopes of it reaching its destination two thousand miles away.

It is certain that this emmense piece of marine mechanism for lifting giant vessels out of the water to clean and repair is without equal in its line. It can riase a fifteen thousand ton battleship and have its floors two feet above the water level, which is demanded by the



Drydock "Dewey" with 3.3. lowa.

government, but with the floor even with the water level it can lift an eighteen thousand ton ship. An remarkable fact is that the dock can dock itself for repairs and painting.

Just how this is done I will explain later.

Following this wonderful marine achievement the Maryland Steel Company at Sparrows Point, in the year 1905. completed the most valuable drydock in the workd, which was named by Mrs. Maude Endicott, daughter of Rear Admiral Endicett. Chief of Bureau of Yards and Docks. U. S. Navy. Dewey. This menster was built for service in the Phillipine Islands. It was towed to Selemen's Island, at the mouth of the Patuxant River and subjected to severe government tests, accepted and prepared for its voyage across the Atlantic. It started on this unprecedented voyage near the close of the year 1905, expecting to reach its destination in May 1906. Unlike the other dock which was towed to Algiers, La., by sea-going tugs, this newly constructed dock was towed by three United States colliers, and after many mishaps and vicissitudes. reached its destination in safely. This is truly a triumph for the Baltimere shipbuilding industry, since they agreed to deliver it at Manila. The centract price of this steel fleating machine was \$1.124.000 with additional charges for charges and medifications of details. The dock would float a ship of 24,447 tons, although the contract called for 16,000 tons: thus it was prepared to take care of gradual increasing size of warships.

Similiar to the dock that was built for Algiers, La., the Dewey was built in three divisions, which enabled the dock to dock itself for repairs. One division was larger and two were smaller. When the bettem of the larger sect: ion needed cleaning the other two did the work.

The dock was built on shore. A deep pit, eleven feet under water level was dug and a coffer dam constructed to keep the water out. Piles were driven and plates of deck were laid. At launching the coffer dam was removed, the water allowed to flow in and the dock floated.

Centents of Drydock Dewey

3- B.W. Beilers

3-24" Centrifugal Pumps

Complete machine shop

Telephone communication with all parts of ship.

3- Sections divided into 64- water tight compartments.
centrelled at pumping compartment for use in the raising

complete valve house

and lewering of dock.

Conveniences and quarters for crew

Bathrooms and kitchens

The dock was not commanded by the officers of the U.S. Navy, but was officered by a subordinate dept.

The dock was designed by Mr. Gerhard Styrlander Cheif Draftsman of the Maryland Steel Co. He won in competion with six others, of plans submitted by other companies to the Bureau of Yards and Docks, of the Navy

Department.

Mr. Styrlander was responsible to its builders for every piece of machinery, used with its construction.



Baltimore has always played an important part in the shipbuilding industry of the world. During the world war when iron and steel became scarce the building of wooden ships was revived and many old square riggers, built many years ago applied to our shippards for repairs. Our shippards were busy twenty-four hours a day and many a slacker used this as an excuse from duty abroad. About this time an attempt was made to build ships of concrete, but the war closed soon thereafter and the demand for ships decreased, and the experiment was not completed. Our yards and docks

are still angaged in caring for the thirty-four steamship lines which enter our harbor from foreign and domestic perts, besides the thirteen thousand vessels of all classes which are used in the Bay trade.

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