

BIGGER AND BETTER THAN ANY DREADNOUGHT AFLOAT!

Uncle Sam's Powerful New Floating Fortress, the Giant U. S. S. Tennessee, Leads Navies of the World in Point of Size, Cost, Armaments and Ability to Inflict Punishment on a Foe

Copyright, 1919, by Public Ledger Co.

By IRVING R. BACON

WHAT appears to be the culminating stage of the sixth period in the world's naval architecture was inaugurated on April 30, when the giant super-dreadnought Tennessee was launched at the New York Navy Yard, in Brooklyn.

Simultaneously with the birth of this latest of floating fortresses, three others which, in their day, scarcely more than two decades ago, were considered the "last word" in fighting machines—the Indiana, Massachusetts and Iowa—were put out of commission by the navy department as too antiquated for modern warfare.

"Sic transit gloria mundi!" ("Thus passes the glory of the world!") The Tennessee is 624 feet long; 97½ feet beam; has 32,600 tons displacement, and its boilers will generate 28,000 horsepower. She is calculated to make twenty-one knots speed.

Her value, as she slid down the launching ways, was above \$7,000,000. By the time she is completed, armed and equipped she will have cost above \$15,000,000.

She is to have twelve fourteen-inch guns, mounted in four triple turrets for an elevation giving a range of eighteen miles; and her secondary battery will include fourteen five-inch guns, four six-pounders, four three-inch anti-aircraft guns and two submerged torpedo tubes.

Her personnel will consist of fifty-eight officers and 1024 men.

The sister-ship of the Tennessee, the California, is under construction at Mare Island, and three other super-dreadnoughts will soon be on the ways, and to these are to be assigned the names of the three which have just been retired.

What a lesson in "the survival of the fittest" the Indiana, Massachusetts and Iowa afford!

A fourth one, the Oregon, sister-ship of the Indiana and Massachusetts, will be spared, at least for the present. There are sentimental and, perhaps, state reasons for this. The sentimental reason is the historically sensational role the Oregon played during the Spanish war, when she steamed around South America from her North Pacific station and reached the Atlantic fleet in time to take part in the battle against Admiral Cervera's fleet.

In the Days of the Iowa

The Indiana during the battle was in command of Captain Taylor, her former commander; "Fighting Bob" Evans, having succeeded to the command of the newer and more powerful Iowa. It was Captain Phillips who shouted the words which are probably the most humane ones ever uttered in behalf of an enemy by a commander in battle.

"Don't cheer, boys; they're drowning!"

When the Iowa was placed in commission at the League Island Navy Yard, June 16, 1897, a year before the Spanish War, the newspapers devoted many columns to describe her greatness. Here are some of the headlines of an article devoted to her in the New York World on the day following that event:

"Our Biggest Battleship."
"Old Glory Has a Great Defender in the Ponderous Iowa."
"She's a Navy in Herself."
"Able to Throw a Storm of Iron Many Miles, and Capable of Butting an Island."

And now?

The scrap heap!
Compared with the Tennessee, the Iowa is, indeed, almost pathetically puny. She is 360 feet long, 172 feet 2½ inches beam and in her balmyest days carried four twelve-inch, eight eight-inch and some five-inch guns.

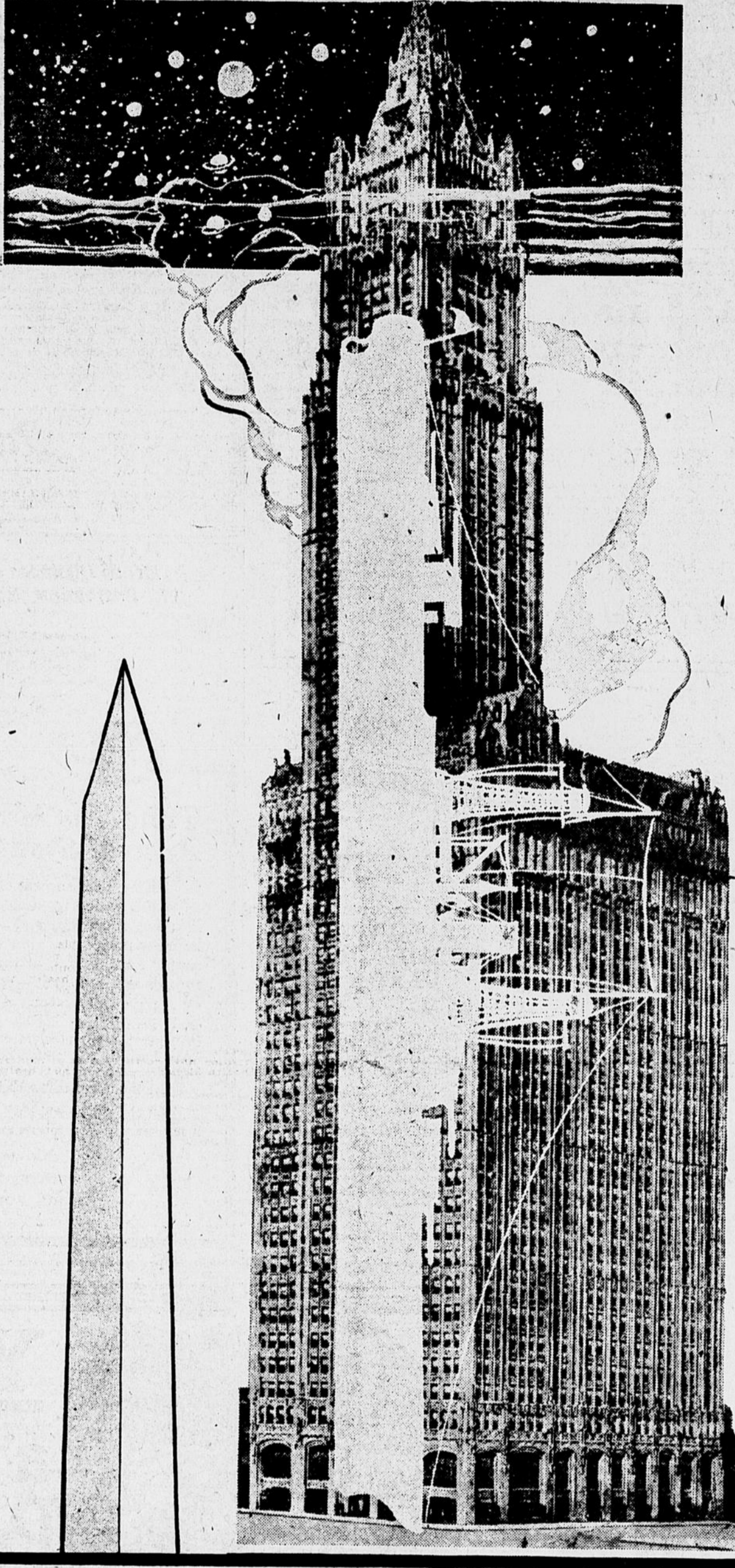
When men first fought on water, they employed rafts—trees fastened together with willow twigs. It probably took ages before they entered upon the second period, when rowboats were employed for this purpose.

The biremes, triremes, quadriremes, according as they had two, three or four banks of oars, supplemented by sails, constituted the third period of naval fighting. It was with nearly 1000 of these that Julius Caesar made his descent upon the British coast, fifty years before the Christian era.

And the huge, unwieldy galleys with ten banks of oars in the fleet of Marc Antony and Cleopatra which were destroyed by the lightly moving biremes of Octavius (afterward the Emperor Augustus) at Actium, in the battle for the mastery of Rome, were but an expansion of the same period type.

Vessels propelled exclusively by sails fill the history of the fourth period of naval warfare until shortly before our own Civil War when, for the first time, steamships were employed.

Beginning in 1844 the United States navy began building steamships, and by the time the internecine fight began in 1861, we had seven screw frigates, six screw sloops-of-war of the



Standing on her bow the U. S. S. Tennessee would tower nearly a hundred feet higher than the Washington Monument, or about three-fourths the way to the top of the Woolworth Building

first class, eight of the second class and five of the third class.

Among the frigates was the Merrimac, which at the outbreak of the war was set afloat and sunk at Norfolk. On June 10, 1861, Lieutenant John M. Brooke, of the Confederate navy, who had been in the American navy, was commissioned by the Confederate Navy Department to design an ironclad sufficiently strong to gain control of the navigable waters in and about the Chesapeake Bay. As a result of

the plans which he drew, the frigate Merrimac was raised and utilized as the basis for his superstructure. Associated in this work with Lieutenant Brooke was Constructor J. L. Porter. The following description of the manner in which they wrought is taken from John R. Spears' "History of Our Navy," volume IV, page 187:

"Porter, having got the hull in the drydock, cut it down to where the berth deck had been. Then he laid a heavy timber deck over the entire

hull, and on this, amidships, he erected a casemate, with its walls inclined in at an angle of about thirty-six degrees," according to one of her officers, and forty-five, according to another.

"This casemate was two feet thick and was made of twelve-inch timbers standing on end, covered with eight-inch timbers laid horizontally, which were in turn covered with oak plank four inches thick.

"On these were laid iron plates two inches thick and eight inches wide, placed horizontally with another layer of the same dimensions over them, placed vertically. The side walls of this casemate projected down and out over the sides of the hull like the eaves of a country house to protect the water line, and the hull itself was plated with one-inch iron for two feet below the deck, although the design called for three-inch iron.

"The inclined sides were carried up high enough to give seven feet head room inside, and then a heavy flat deck twenty feet wide with hatches in it was laid across. On the bow, two feet below the water line, was bolted a cast-iron wedge that projected two feet from the stem and was for use as a ram.

"The battery of the Merrimac contained six of the nine-inch Dahlgrens found in the Norfolk navy yard and four rifles designed by Brooke. Two of these rifles were mounted as pivots at bow and stern and two smaller ones were in the broadside."

It was not until August 3, 1861, that the government at Washington began to think seriously of an ironclad as an offset to the one the Confederates were building. On that day Congress made an appropriation; but it was not until October 4 that the contract with the famous inventor, John Ericsson, for the construction of the vessel was signed.

"This was a needless delay," says Mr. Spears in the book already quoted, "and this fact is worth emphasizing because it is not unlikely that similar delays will be experienced whenever the nation is again unexpectedly plunged into war."

When it is considered that the book was published in 1899, these words seem singularly prophetic.

"But if the authorities were dilatory," the author continues commenting, "the mechanics were not. The keel was stretched in that part of the Brooklyn water front called Greenpoint before the end of the month, although working plans had to be laid in the mold loft and contracts for materials made.

"Three gangs of men were employed, working eight hours each, in succession: the iron was kept hot from the day the work began until January 30, 1862, when the hull was sent afloat in the waters of the East river, under the name of Monitor."

The Merrimac was finished first, and on the morning of Friday, March 8, 1862, she steamed from her berth at Norfolk, accompanied by two Confederate gunboats. She had come forth to make a test, and material for this was close at hand. Half a dozen United States ships, including the sailing frigate Congress and the sailing sloop-of-war Cumberland, were lying in Hampton Roads, between Fortress Monroe and Newport News.

When the Merrimac had approached to within three-quarters of a mile, the Cumberland's ten-inch pivot gun opened fire and was followed by a salvo from the Congress. And the Merrimac responded with broadside for broadside.

And thus was begun the battle which forever swept away the old-style warship and inaugurated the sixth period, the period of the armor-plated fighting ship which has just attained its culminating point in the Tennessee.

The Merrimac had things her own way in that entire day's battle turmoil. The shot that fell upon her from frigate, sloop and land batteries rebounded without as much as denting her plate. She ramméd the Cumberland and raked her, fore and aft and sideway, with shot and shell, killing 140 of her crew of 376. Nevertheless the old order of things died game.

When called upon to surrender, the Cumberland's acting commander, Lieutenant George U. Morris, replied:

"Never! I'll sink alongside."

Death of the Cumberland

And his gun crews kicked off their shoes, as the ship was settling and the rising water made it hard for them to hold their footing, and they stripped to the waist.

And, as the Cumberland was preparing for her final lurch, her one gun, which could still be worked, was fired. The smoke from this parting shot was still hovering over the water when the gallant ship sank, with her flag flying.

Lieutenant Morris was among those saved and he and the other survivors were honored and feted everywhere.

The Congress was not more fortunate than the Cumberland had been. She was so badly mauled that Lieutenant Joseph B. Smith, her commanding officer, surrendered. But, in the confusion which followed, the Merrimac poured broadside after broadside of red-hot shot in the surrendered vessel, setting her afire.

It was five o'clock in the afternoon by this time and the ebb-tide was beginning to set in. The Merrimac, fearing to ground, now withdrew, her commander, Commodore Buchanan, intending to return the following day.

He did; but the Monitor, under command of Captain J. L. Worden, also appeared upon the scene. And then began the most memorable naval fight ever fought up to that time—the fight which made it clear that nothing but heavy armor could thereafter avail to save ships from the guns of enemies, and that nothing but guns capable of piercing the hostile craft's armor could be decisive of battles.

As for the battle between the Merrimac and Monitor, each side claimed the advantage after an all day's fight. Historians, however, appear to regard it as "a draw."

The Six Tennessees

The principle in naval warfare which they had established had come to stay; and both North and South now hastened to turn every available vessel into an ironclad.

Lord Howard Douglas and other eminent British authorities had pooh-poohed the idea of an ironclad being as dangerous to an enemy as it would necessarily have to be to its own crew. They proved it with mathematical precision; and, no doubt, not they, but mathematics, were to blame for the unexpectedly wonderful results of the first action of the ironclads. And ever since then England has been foremost among nations in multiplying armored ships of war.

To return to the Tennessee, there have been six ships of that name in the United States navy.

The first Tennessee was a sidewheel steamer carrying five guns. She had gotten into the possession of the Confederates and was captured by Farragut at the taking of New Orleans, April 25, 1862.

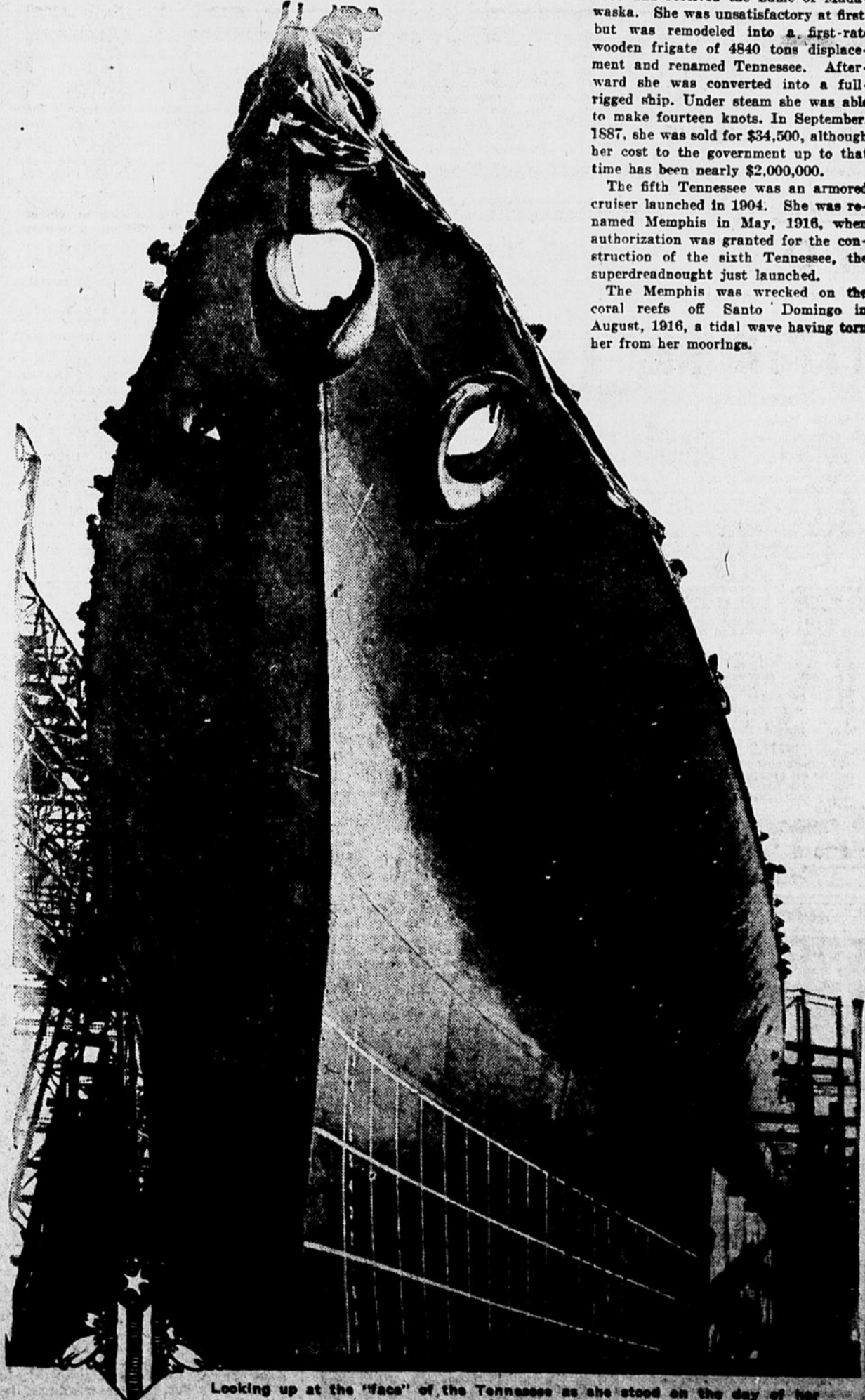
The second Tennessee was a big Confederate ironclad, captured by the federal forces when Memphis was taken, about the same time.

The third was the still more powerful Confederate armored ram and required the concentrated efforts of virtually the entire fleet of Farragut to compel its surrender at the battle of Mobile Bay, August 5, 1864.

The fourth Tennessee was built at the New York Navy Yard in Brooklyn in 1865 and received the name of Madawaska. She was unsatisfactory at first, but was remodeled into a first-rate wooden frigate of 4840 tons displacement and renamed Tennessee. Afterward she was converted into a full-rigged ship. Under steam she was able to make fourteen knots. In September, 1887, she was sold for \$34,500, although her cost to the government up to that time has been nearly \$2,000,000.

The fifth Tennessee was an armored cruiser launched in 1904. She was renamed Memphis in May, 1916, when authorization was granted for the construction of the sixth Tennessee, the superdreadnought just launched.

The Memphis was wrecked on the coral reefs off Santo Domingo in August, 1916, a tidal wave having torn her from her moorings.



Looking up at the "face" of the Tennessee as she stood on the day of her launching

Who First Thought of League of Nations?

WHO first thought of the league of nations?

"Henry IV, the valiant king of Navarre," say the French people with one voice. "Or, if he was not actually the first to think of it, he was the first to work it out and present it to the people of Europe."

It was in 1603 that Henry IV, assisted by his able minister, Sully, proposed the foundation, "on a gigantic and almost incomprehensible scale, of a Christian republic, composed of fifteen states equal in power, which would establish perpetual peace in Europe." It was called "Le Grand Dessein" (the great scheme).

The times and conditions were similar to those today. "No century," to quote from Auguste Poirson's life of Henry IV, "had ever been so cruelly tried as the sixteenth century by wars, civil and foreign, political and religious, extending to all the nations of Europe, teeming at the same time with horrors which were revolting and with disasters which made one shudder. The most noble minds and the most generous na-

tures of the times were led of necessity to become engrossed with the idea of delivering humanity from these ills, and of seeking the means of victoriously combating the two principles of all these calamities: Religious intolerance on the one hand, and on the other the ambition of the Austrian house, which had been pursuing with perseverance for more than a half century its projects of universal domination."

"Religious intolerance" has vanished and the Prussian has been substituted for the Austrian house in the present discussion. Beyond these minor differences, the plans of Henry IV sound as though they might have been formed by President Wilson or Sir Robert Cecil.

"Regarding the general political state of Europe," to again translate from Poirson, "Henry IV wished to have associated as many sovereigns as possible in the plan he had formed, on the one hand to reduce the territorial possessions and the sources of revenue of Austria in such a manner that that power would cease to be eternally hostile and threatening to the other states,

and on the other to establish among the hereditary monarchies or the principal dominions of Europe an equilibrium of power of such nature that they might henceforth easily defend their own independence and that of weaker states against the attempts of restless and ambitious neighbors."

"The king and his associates were to work to make impossible the quarrels which up to that time had armed Christians states one against another, by establishing for each of them clearly defined borders and frontiers, and by settling with fairness their debated rights and their conflicting claims."

"The king was to try, by his example and advice, to lead the other princes to a movement toward giving to their people an interior government sufficiently moderate and wise to prevent revolts against the sovereign in the future, and to destroy the cause of civil wars.

"He would try, furthermore, to have the different states which form the Christianity of Europe convene to form a council where all would be represented

by their delegates, and which, by consent of all equally, would decide as a friendly arbiter their differences, and would replace war by conciliation."

The point of difference lies in the prominence then given to the question of religious wars, which were in vogue in the early seventeenth century. Catholics and Protestants waged war on each other, and both fought the "unspeakable Turk."

"Henry's ideas embraced both the religious state and the political state of Europe," wrote Poirson. "In whatever related to the religious state, he proposed to unite with the sovereigns of the states already his allies or disposed to become so in seeking suitable means to establish the three dominating cults—Catholicism, Lutherism and Calvinism—on such conditions of liberty and force that all those who professed them might henceforth follow their untroubled, that any of the three cults might not in the future oppress the other two, and that the principle of religious war might thus be destroyed."