

EIGHTEEN NEW SUBMARINES FOR UNCLE SAM

TO the tiny submarine torpedo boats has been delegated a lion's share of the work of protecting Uncle Sam's great seacoast from attack.

Somewhat slow at first to adopt the newest and most radical of devices for combat on water, the United States has suddenly developed into an enthusiast, and no measure passed by the recent congress was more important than that which placed \$3,000,000 aside for use in building of submarines.

Lewis Nixon, the well known naval constructor, who has figured very largely in the building of American under water fighters, calls the submarine a steel fish, with human brains and incalculable power to inflict damage.

Navy officials were taught a lesson of appreciation by the purchase of American built submarines by both Japan and Russia in the recent war. The department has now ruled that which was good enough for other warlike powers ought to be of value at home, hence the important movement toward assembling the world's most powerful fleet of these mysterious protectors for the United States.

Many congressmen fought against authorizing two new 20,000 ton battleships, each superior to the British Dreadnought, but not a word of protest greeted the plan to put Uncle Sam in the forefront of the submarine owning navies. This is a straw which shows how legislators have been educated to the value of the submarine.

As a lover of peace the United States has ever been opposed to any naval and military plan that involved a huge outlay of public money with the idea of provoking conflict with any nation. But that policy which meant only protection was ever heartily supported and will continue to be.

Submarine Mainly Defensive

Here rests the value of the submarine. It is pre-eminently defensive in its purpose. The wonderful little fighters of the Lake and Holland type now in Uncle Sam's navy, could not cross the Atlantic to levy war against England or France. The farthest distance the best of them can travel is 500 miles—250 coming and going. Under water they can only go about 15 miles each way. This limits their sphere of action to the home coasts and ports.

The new fleet, to amount which \$2,000,000 is to be expended, will supplement the monitors and shore batteries that now would have to bear the brunt of defense against attack.

The United States now has a dozen submarines, and with the ones just authorized will soon boast a fleet of thirty, a respectable force that ought to make it possible to take ample care of the principal ports of the Atlantic and Pacific coasts, as well as those on the Gulf of Mexico and at the mouth of the Mississippi.

In providing for the purchase of the submarines the law makers specified that they must be equal to the best class of that kind of boat now in the United States navy, which is another way of prescribing that the new under water warriors will be not less than 64 feet in length and 12 feet in width, displacing, when submerged, about 125 tons of water.

The tests which shall determine the exact model to be utilized are scheduled to begin over the course in Narragansett bay, and the navy department has ordered students of the naval training station to lay out the course and make necessary preparations.

The navy board appointed to supervise the tests consists of Captain Adolph Marx, president; Naval Constructor D. W. Taylor, Commander Burns T. Walling, Lieutenant Commander William S. Smith, Lieutenant John W. Timmons and Ensign F. H. Sadler, recorder.

There will be two fully equipped boats submitted in the contest—the Octopus, built at the Fore river shipyards by the Electric boat company, and the Lake, built by the Lake submarine boat company at New Haven. The sub-surface boat company of New York will also submit a model.

The Octopus was constructed under contract with the navy department, and is the largest submarine ever built in this country. She is of the same type and general design as the several submarines now in the navy and built under the same patents as those which the British navy is constructing.

She is approximately 255 tons, a little more than 100 feet in length and about 12 feet beam, with a radius of action of more than 1,000 miles. At her recent builder's trials at Boston she exceeded by more than one knot her contract requirements, which it is understood are for 10 knots on the surface and 8 knots submerged. The navy department's requirements are that she carry at least four large torpedoes.

The tests really leave for their purposes to decide as to the relative merits of the Holland and Lake styles of the submarine. The Octopus represents the Holland idea. It was the first to win favor in Washington, and all the boats now in the American navy are built on the Holland model.

The wonderful performance of the Lake model in the war between Japan and Russia suggested the advisability of further experimenting.

The speed trials will be over a measured course of one mile in three conditions of the vessel, namely: "light," with all ballast tanks empty; "wash," with vessels not showing more than half of the conning tower above water, and "submerged," with the conning tower not less than ten feet below the surface. These runs at maximum speed will be followed by runs by four or five runs back and forth at progressively reduced speeds.

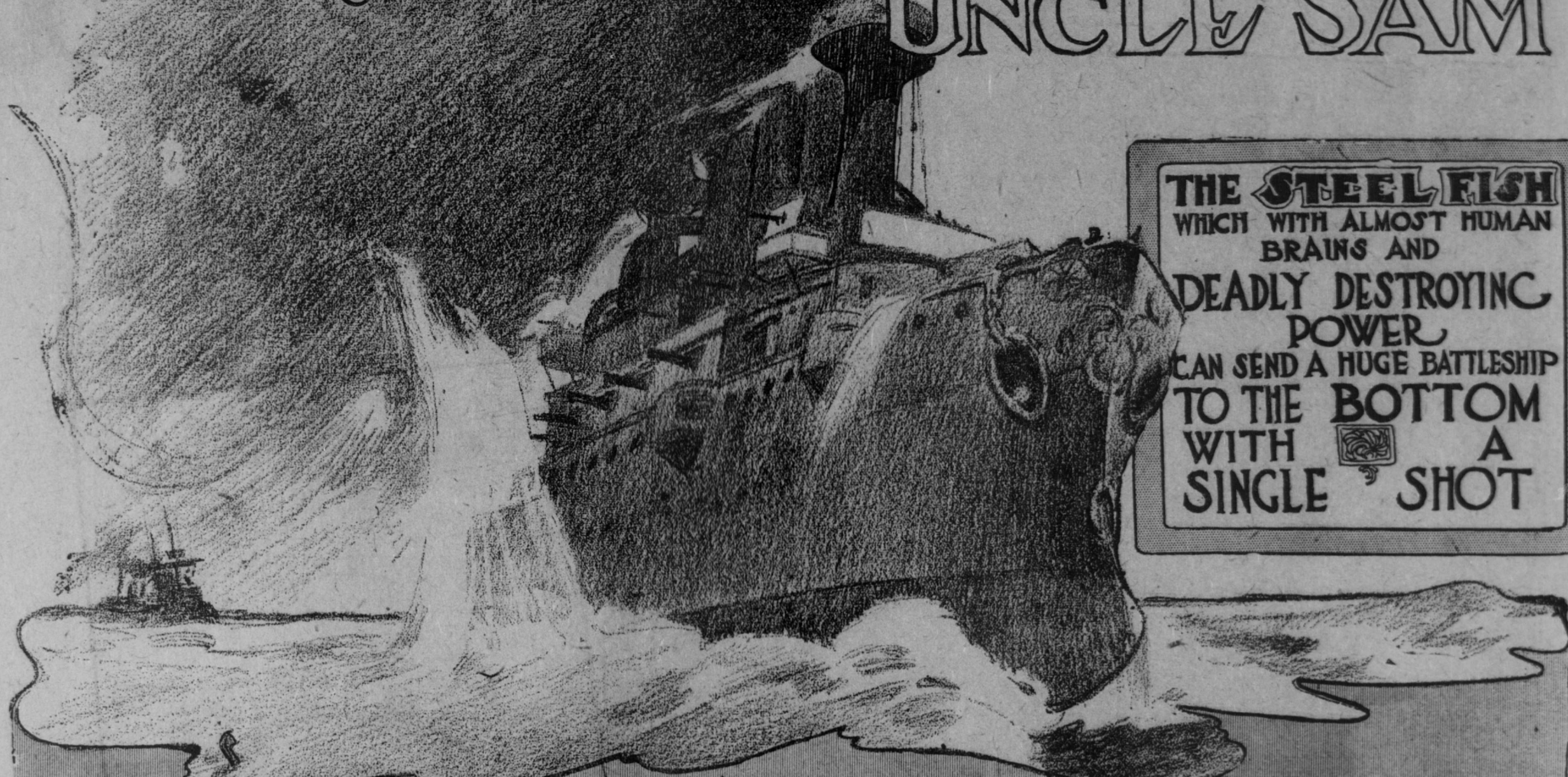
Th board that is to have charge of these tests and which is headed by Captain Marx has decided that it will not be practicable to conduct the tests simultaneously.

Possibly one explanation of this is found in the fact that the Lake type of boat is in reality a submarine rather than a submarine—it descends beneath the water on an even keel, whereas the Holland type of craft dives toward the bottom.

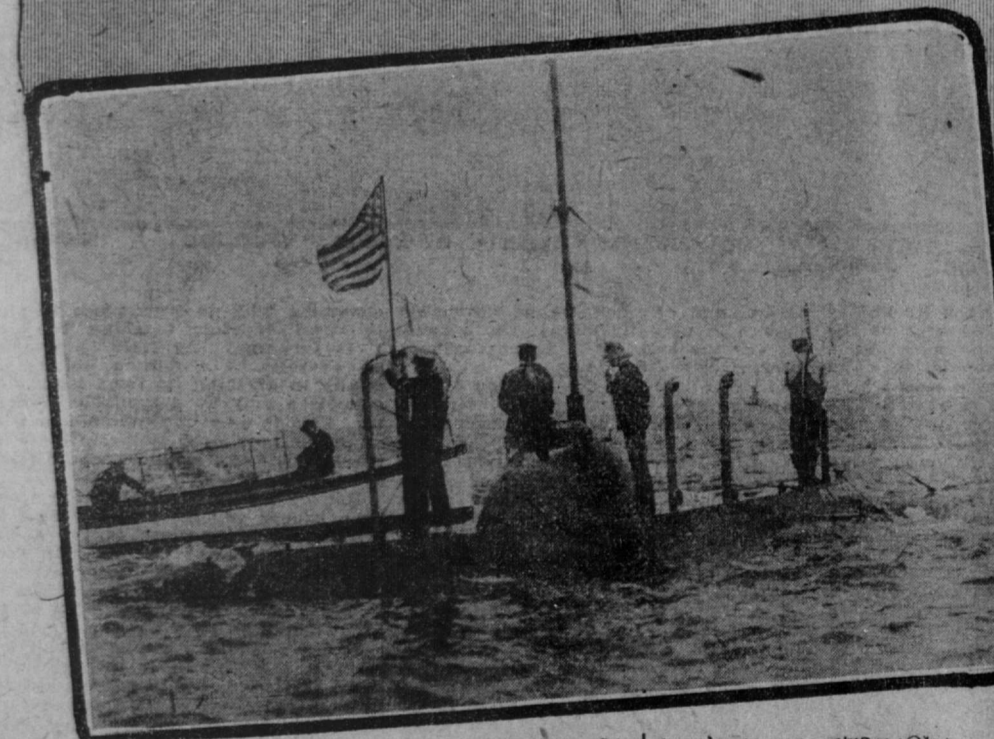
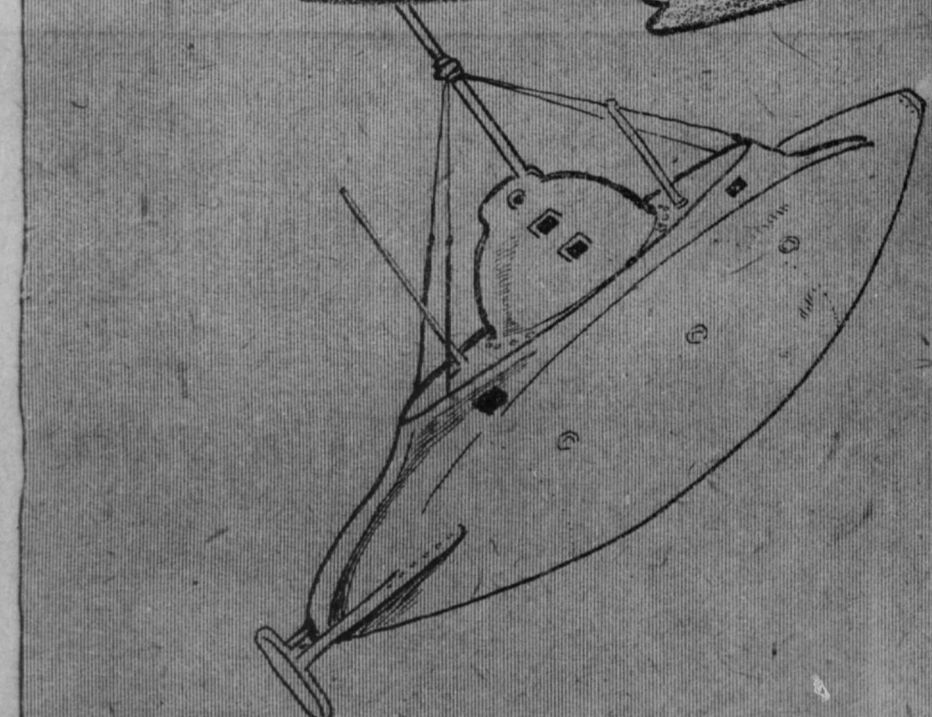
The Rival Tests

However, the comparative tests will be more thorough than any other form of demonstration could be expected to be. Each contestant, in addition to speed trials under all conditions, will discharge all her torpedoes at targets, engage in cable cutting operations and otherwise illustrate her adaptability for the difficult work of a submarine in time of warfare.

Out of this test is expected to come information that will enable Uncle Sam



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SHOT



THE "PLUNGER" ONE OF UNCLE SAM'S NEWEST SUBMARINES ABOUT TO TAKE A DIVE



THE LAKE'S SUBMARINE BOAT



U. S. SUBMARINE BOAT "PORPOISE" ALONGSIDE A TORPEDO BOAT

SUBMARINE PREPARING TO GO DOWN WITH PRESIDENT ROOSEVELT

A Winter Resort

CALLING attention to the convenience of travel between the United States and Cuba Consul Max Baehr of Cienfuegos reminds Americans that the city of Havana is only ninety miles from their own country and is in daily touch with it via Key West and a steamship service of only seven hours. Havana has been listed as a winter tourist point, enabling it to be reached from almost any city in the United States and return at rates very little in excess of the regular one way fare, such tickets being good for return until May 31, thus putting Cuba on a footing in cheapness of transportation with California, Mexico and other winter resort places. Excursion tickets can now also be obtained at Havana to nearly all points in the States at greatly reduced rates, and stopover privileges will be granted at all principal cities en route. The Peninsular and Occidental steamship company operates three sailings a week from and to Port Tampa, Fla., and three from and to Miami, Fla., all the year round, with the exception that during the summer months the service is reduced by one sailing from and to Miami. This gives almost a daily service to and from Havana via these fast mail steamers, which connect at their wharves with modern trains, making the time between New York or Chicago and Havana little more than two days and a half, including a stop of several hours at the island city of Key West. For those who like a longer sea voyage and are going or coming from western points the Ward Line steamers leave New York Saturdays, reaching Havana Wednesday, and leave Havana Saturdays, reaching New York Tuesdays. Havana is also a point of call for the Ward Line Mexican ships both ways, thus giving an additional sailing each week north or south bound. In addition to these, the Southern Pacific steamship company has two sailings a week during the winter months, and one sailing during the summer between New Orleans and Havana. There is also a regular service between Jamaica and the island through Santiago de Cuba. In another year or so, when the extension of the Florida East Coast railway, now under construction, is completed to Key West, and fast ships, modeled after the English channel vessels, bring Cuba within five hours by sea of an American railway running through Texas north, east and west, Havana may become the greatest winter resort in the western hemisphere. More than 30,000 passengers were handled in and out of Havana by the various lines during the last tourist season of December, January, February and March.

Actors Frequently Strangers to Each Other

HOW strange players in the same company often are to one another seldom is understood by one outside the profession. Actors seem to know little about their fellow players and to be absolutely indifferent at times to both them and the play. Much is said of the life behind the scenes, but in reality, there is none, as most players who have achieved success go immediately to their dressing rooms as soon as their scene on the stage is finished. Whenever William Gillette is not on the stage he hurries to his dressing room, where he devotes what time he has to writing letters. If he does not get time he will enclose some amusing newspaper clipping on which he will write a few humorous side notes. Marie Doro, his leading woman, is completely isolated during a performance, as the rules behind the scenes are unusually strict and Mr. Gillette will not allow any visitors.

Georgia Caine is deep in the intricacies of French verbs, and all her time is devoted to studying them. Blanche Deyo is too busy sewing to carry on much more than a desultory conversation with any member of the company. The plot of the "Countess Coquette," in which Alla Nazimova is playing, is carried on by only three characters, and from the time that Nazimova makes her first entrance she is hardly off the stage, and then only long enough to get ready for her next appearance. Louise Galloway is extremely popular in the profession, which fact is shown by the large number of telegrams she receives the first night of a new piece. After the first performance of "Told in the Hills" in New York she was able to cover the walls of her dressing room with telegrams from her wife.

she had received. These friendships were cultivated, however, outside of the theater. Cecelia Loftus is busy every minute that she is in the theater changing her costumes. Francis Wilson has little to do with the members of his company and devotes the time he is not acting to writing and reading. Richard-Carl composed many songs while waiting for his cues. He submits all that he writes to his wife, whom he calls his "chief blue pencil." So much is said of the unhappiness of theatrical marriages that it is a pleasure to see the devotion Thomas Ross shows to his wife. Mrs. Ross always comes to the theater with her husband and irons and presses his clothes. Mr. Ross nods and smiles with the rest of his company, but hurries back from the stage to his dressing room, where Sam Harris says "he makes love to his wife."

to take first rank as home of the most deadly of modern submarines. There are many problems to be grappled with, not the least of which is the difficulty of devising a method of under water navigation, which shall enable the captain of the craft, when submerged, to know to a certainty what is happening on the surface of the water. True, he always has the power to come to the top and find out, but by doing this he locates himself to the fire of the enemy, a danger made greater in view of the increasing power of the modern torpedo boat destroyer, a fighting engine born of the necessity of finding a means to circumvent the submarine. There is no such thing as seeing ahead under water. Eight feet is perhaps the greatest average distance the eye can pierce through the wall of water. An effort was made to find arc lights powerful enough to pierce the gloom for say 100 yards, but this not only proved a failure but was deemed poor tactics, because it would give a further means of helping the enemy find the deadly little boat creeping up to launch a torpedo. Thus far the best means of taking observations has been found to be in the use of the "periscope," a funnel shaped arrangement, which projects eight feet above the water when the body of the boat is submerged 15 feet. By looking up into this, the navigator sees surrounding objects such as the photographer locates scenes and people on the "finder" of his camera. But the periscope will not avail when it comes to a final test, the launching of a torpedo at the bottom of the enemy's battleship. With the ship stationary the periscope might give det-