

WASHINGTON, D. C., SUNDAY MORNING, AUGUST 29, 1915.

Inadequate Number of Destroyers for the U. S. Navy

BY PROF. WILLIAM LEDYARD CATHCART.

THE value of the destroyer in a modern fleet is as marked as its absence in adequate strength from the United States Navy...

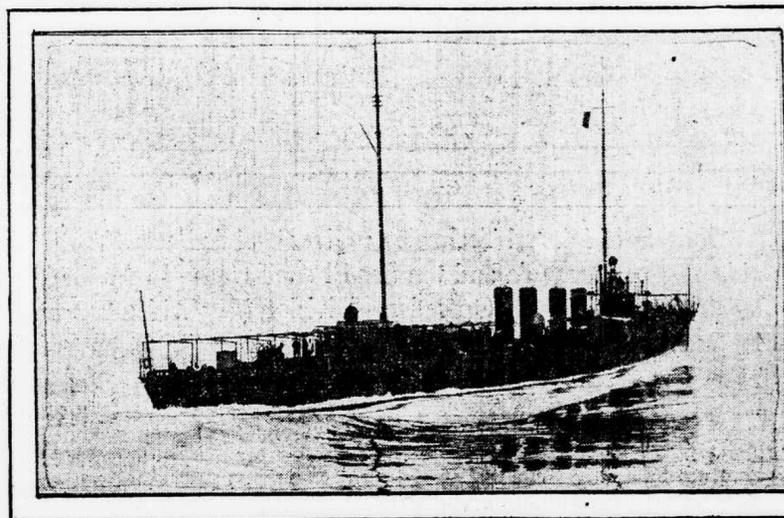
of romance, is long and low, extremely fast and mobile, and, with smokeless steering, invisible in dim light at any great distance...

The Benham's high forecastle enables her to be driven against a heavy head sea. She can rise from moderate to maximum speed in a few minutes...

This Country Sadly Lacking in Its Force of Seagoing Destroyers, Says Prof. William Ledyard Cathcart, Formerly of the United States Navy and Graduate of Naval Academy...

more than ten minutes to traverse that distance. During this time the gun can discharge thirty shots, each with a muzzle energy of 73,000 foot-pounds...

So, for years, naval men have given exhaustive study to methods of attack by and defense against the torpedo boat...



UNITED STATES DESTROYER DUNCAN UNDER FULL STEAM.

and fierce fight they completed the destruction of the United States. Four German destroyers were sunk with 133 men. The British casualties were five wounded...

the intermittent way in which the submarine blockade has been pressed. The investment of Santiago by Admiral Sampson's fleet was probably the last instance of battleships being used in close blockade...

latter is led by light cruisers to their prey, whose probable location is known from prior scouting. In close formation, at high speed, and with all lights masked except a glimmer at the stern...

heavier, out-of-date vessels of what they call the "Foreign Hope" section of their fleet, but the bitter lesson of the loss of the Aboukir and her consort...

Apparently, both the destroyer and the submarine must keep to the distinct fields which they fill so effectively now. Admiral Mahan was quick to predict the primary value of the destroyer in close blockade...

JOHNNY APPLESEED AN ODD CHARACTER OF PIONEER DAYS

As the country matures, its history lengthens and the pioneer days recede, greater interest in pioneer history grows stronger and more and more persons develop an interest in the pioneers...

When the important chapter in the life of Johnny Appleseed opens he had an orchard in the wild but growing town of Pittsburgh, and the site of that orchard was in the east...

There was a famous spring on Chapman's little farm and a great many persons went there to drink. Loving his own apple trees and seeing so many men and women leaving the east...

Johnny Appleseed planted a bed of seed on the farm of Commodore Whipple, near the town of Marietta, and from that nursery distributed trees throughout the region...

All the old families in Indiana and Ohio hold this old man in loving remembrance and most of the newcomers into those parts have learned to respect his memory...

In that country there are countless tales and legends concerning Johnny Appleseed and it is said that large numbers of the trees which he grew from seed...

Getting Round It. JOHN L. SULLIVAN said at an Atlantic City dinner party: "You can't cheat the booze. The booze makes you pay up. You can't get round the penance of the booze..."

An Extremist. DISCUSSING the law against cigarettes with a group of actresses in New York, Douglas Fairbanks said: "I agree with you. When the actresses are extracted painlessly from the living bird—which, you say, is the new method—then the law against them becomes absurd..."

"The sea does not exist for the Germans now," says the French minister of marine. And this is true, except for future submarine attack on merchantmen...



THE DESTROYER BENHAM, ONE OF UNCLE SAM'S NEWEST BOATS OF THIS CLASS.

BILL TO STEVE

BY RING W. LARDNER.

N. Y. CITY, August 28.—Steve. Well Steve womens allways holling on a bought they should ought to have suffrage and vote but if I was them I would try and lern some thing before I tride to but in on business affairs and voting and so fth. If all of them is as smart is Gussy I would try and lern something if I was them.

May be I told you all ready a bout our scheme for getting rid of this here Babe that was visting us and the way we was to get rid of her was me writing Gussy a fake letter and tell her to come and join me on the rode on acct. of I being lone some and then when Babe seen Gussy was getting ready to go a way she would half to leave her self and go home where she bellongs. So I wrote the letter while I was in Philly and Gussy got a hold of it last Mon. and when she read it she says to Babe well I and you have got to part finely because my husband insist that I got to join him on the rode and I got to start right a way so you will half to pack up and go home so Babe says lets see the letter and Gussy showed it to her in Black and White and there it was and no getting a way from it. So Gussy says I will half to pack right up and you better begin packing and I will call up and see what time both our trains go and may be we can go to the depot to gather.

So Gussy went to her rm. and begin to pertend like she was packing up but Babe didnt come a long in there with her so finely Gussy went out in the parlor and says why wasnt Babe packing up and Babe says she would want and find out what time the trains went so Gussy telephoned to the R. R. on the phone and found out where they was a train leaving for grand Rabbits at 5:30 and I leaving for Boston at 5:30 only from diffrent depots on 2 diffrent Lines. So Gussy says that was fine business and may be they could go down town to gather and then she begin to pertend like she was packing up some more close but still Babe didnt start doing no packing yet and it was 3 a clock in the P. M. so Gussy sat her again why she didnt begin and pack and Babe says wasnt Gussy a scared to leave her flat alone and Gussy says no and then Babe says would Gussy mind if Babe staid in the flat while Gussy was on the rode with me. What do you think of that Steve. And Gussy says why who would cook your meals and wash the dishes and make the bed because I havent saw you do nothing sence you been here. So Babe says dont worry about that I can do every thing necessary and I will stay and keep your flat clean for you and they cant no body steal nothing. Well Steve Gussy should ought to have told her right there that she didnt want her in the place no longer and quarled with her and in the stead of that she hemed and haud and Babe kept coxing her and finely Gussy give up to her and says she could stay. Mind you Steve I wasnt in earnest when I ast Gussy to join me and she knowed it was just a fake and still all she left this here woman put some thing over on her and then Gussy has to pack up her stuff in earnest and go down and catch the 5:30 train and she got to Boston Tues. night and was there in the hotel waiting when we come in Wed. A. M. Well Steve when I seen her setting there you couldnt of knocked me down with a feather.

I says whats the matter with you and she told me the hole story and I balled her out good but whats the use of balling them out when its all been done and over and she begin to cry and this in that till you couldnt rest. A fine thing they Steve to let that woman get a way with a trick like that and it will cost me about a hundred bucks having Gussy along including her R. R. fair and where the 1 hundred bucks is coming from I dont know where its coming from and Gussy buys some thing new every time she goes out of the Hotel and the worst part of it is that this here Babe will be there still waiting for us yet when we get home but I wont go home Steve and it will lern Gussy a lesson and I will sleep in the gutter some where before I go home until this here woman beats it out of there. There all a like Steve and if brains was money theyd be poppers in the poor house. Respy. BILL.

While effective against contemporary torpedo boats, these gun-boats are far from being fast enough now, and so the torpedo boat destroyer—the "destroyer" of our time—was evolved.

The "destroyer of destroyers" has now appeared in the British light cruisers of the Arctura and Undaunted class, which have done such noteworthy service in the North sea. They are thirty-knot vessels of 3,500 tons displacement, carrying two six-inch and four four-inch guns and carrying four thirty-one-inch torpedo tubes. In one action the Undaunted sank four German destroyers.

As was to be expected from its close patrol, the destroyer took part in the first sea fight between British and German warships, August 28, 1914, off Heligoland light. A strong force of British destroyers, acting as scouts and headed by the light cruiser Arctura, rounded up and attacked eighteen or twenty home-bound German cruisers and destroyers. Later, when enemy reinforcements appeared, the British battle cruiser squadron also arrived. After six hours' fighting, three German cruisers and two destroyers were sunk with 200 officers and men. The British casualties were sixty-nine killed and

Count von Reventlow, the German naval critic, says, feelingly: "The torpedo boat (destroyer) is the submarine's worst enemy." The count is quite right, for so far as is publicly known, submarines have been sunk only by swift light cruisers and destroyers during this war. Indeed, if England had had enough destroyers to patrol fully the North sea and her territorial waters Germany's submarine blockade, slight, relatively, as its results have been in many forms, but in most if not all

There are several reasons for the effectiveness of destroyers working together in close patrol over specified stretches of sea. A submarine must expose its periscope in order to sight the target and take aim. This instrument is essentially revolving, right-angled telescope, which views but a section of the horizon at one time. It is many forms, but in most if not all of them the enemy vessel is first "picked up" by a magnifying lens on the expanse, and then, when the magnifier removed, the speed and course of the target are estimated by normal vision. All of this takes a brief but appreciable time, during which an alert destroyer, sighting the periscope from his bridge, can either leap to the spot and ram the

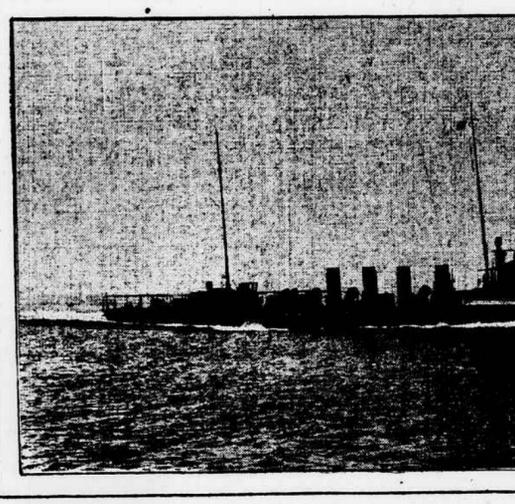
question, since it reveals her location. While the beam cannot dazzle the torpedo tube crews on the destroyer if they use tinted glasses, it can be kept steadily on the advancing craft and aid the aim of the battleships' gunners. For lack of actual war experience in this mode of night attack, its value is still debatable.

Intermittently, and especially since the outbreak of this war, naval inventors have advocated replacing the destroyer by a vessel capable not only of performing its duty on the surface, but of submerging and operating as well. Such a destroyer submarine would have great military value for attack on fleets and fortifications, but practical difficulties seem likely to prevent its realization.

It is possible, of course, to construct a submarine cruiser of any reasonable size, although increase of displacement both lessens invisibility under water and makes the boat slower in diving. When, however, such a submarine is required to be as efficient on the surface as the destroyer, the weight and cost of the machinery, and the practical difficulties seem likely to prevent its realization.

In the first place, the destroyer is speed incarnate, and everything else is sacrificed to this one quality. She has a long, lean, shallow hull of the finest type, built as lightly as seaworthiness will permit. Her engines, the acme of lightness and strength, are, for her size, of enormous power, weighing 33 per cent of her displacement, as compared with 8 per cent for the dreadnaught. Her propellers are machined all over for accuracy and are then polished like jewelry. It is evident that, for a vessel to be as effective as the destroyer, these conditions must be met in their entirety.

Now the conventional submarine hull—circular in cross-section to resist external pressure—is unsuitable for driving at high speed on the surface. The destroyer submarine would therefore require a double hull, ship-shaped without and circular within. Such a hull, substantially built to withstand pressure, would be necessarily much heavier than that of the destroyer, thus reducing the weight available for engine power and speed. To this excess weight must be added that of the storage batteries and motors for submerged running. Finally, a propeller has its maximum efficiency only at the fixed resistance assumed in its design. The destroyer submarine, on the contrary, would have two wholly different resistances—that in surface running and that when submerged, since, in the latter case, the body to be driven through the water not only differs in shape, but is greater in vol-



UNITED STATES DESTROYER AYLWIN.

wounded. While their cruisers took the principal part, the British official report says: "The destroyers themselves did not hesitate to engage the enemy's cruisers, both with guns and torpedoes." Had it not been for the high speed of the Arctura and her destroyer flotilla, the German squadron would have escaped.