

TRIGGER II— Sub Killer

By Commander Edward L. Beach, U. S. N.

AN ARGOSY SPECIAL: The commander of the world's hottest super-secret sub takes you below on her first hunt and tells the thrilling story of her great tradition

I CHRISTEN thee *Trigger*, and may God grant thee first, honor, with which to defend thy country, and next, good fortune, that thou mayst protect the men who will serve in thee."

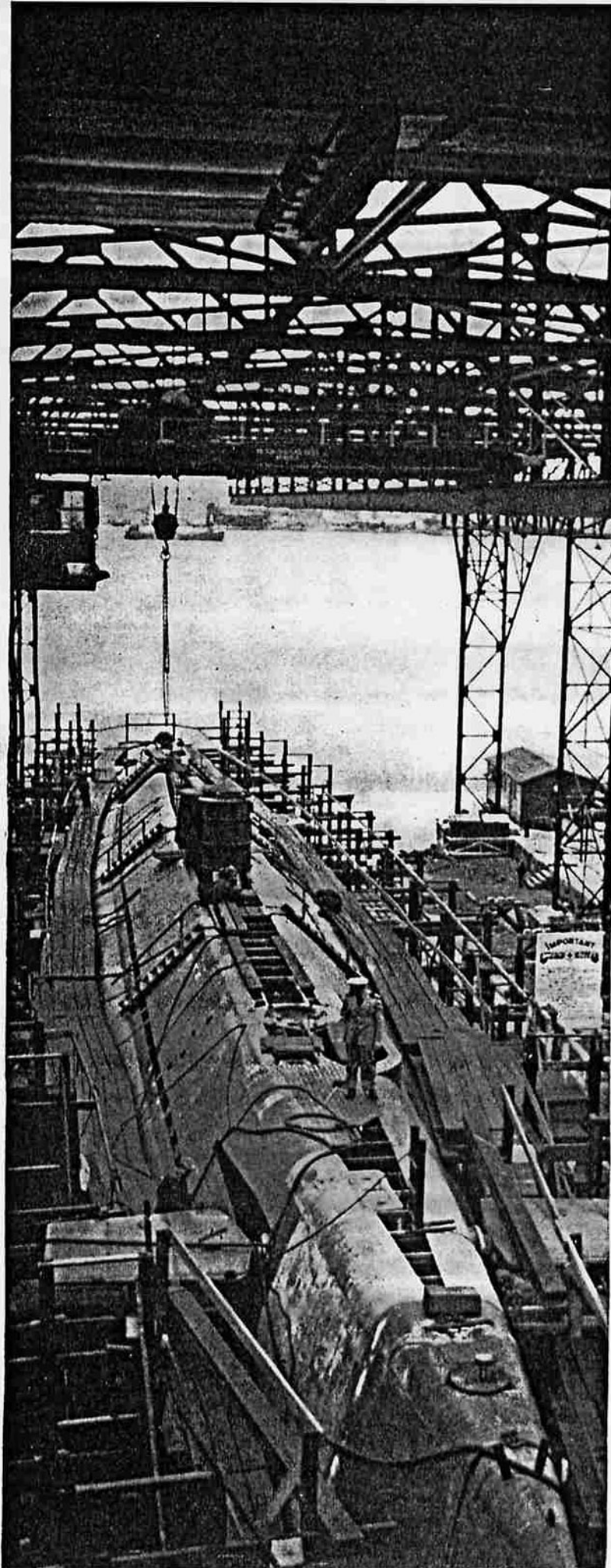
A lot of sentiment can be tied up in a relatively simple thing like a launching. There was plenty on the 14th of June when *Trigger II* took the water at the ship-building works of the Electric Boat Company in Groton, Connecticut. It built up to a climax

when Vida Connole Benson smashed a bottle of champagne over the inanimate, bunting-draped bow of the new ship. From that moment henceforth, *Trigger* has been a living personality, a part of our Navy and of the lives of those of us who form her crew, just as the first *Trigger* was.

To Vida Benson in particular, the ceremony meant a lot, and to Captain Roy Benson, USN, it meant nearly as much. Vida's son, Ricky Connole, at least must have realized that something

PHOTOS FOR ARGOSY BY HOMER PAGE

COMMANDER BEACH plots sonar approach in sub control room.



intimately connected with his dead father had taken place.

For Commander Dave Connole, USN, was the fifth skipper of *Trigger I*, and will hold that post forever, deep under the western seas. One of his predecessors, who had been skipper when the veteran submarine was new and untried, when she sank her first ship and received her first depth-charging was the then Lieutenant Commander Robert Benson. About two years after the end of the war, I was one of Captain Benson's ushers when he and Vida Connole were married in the Naval Academy Chapel at Annapolis.

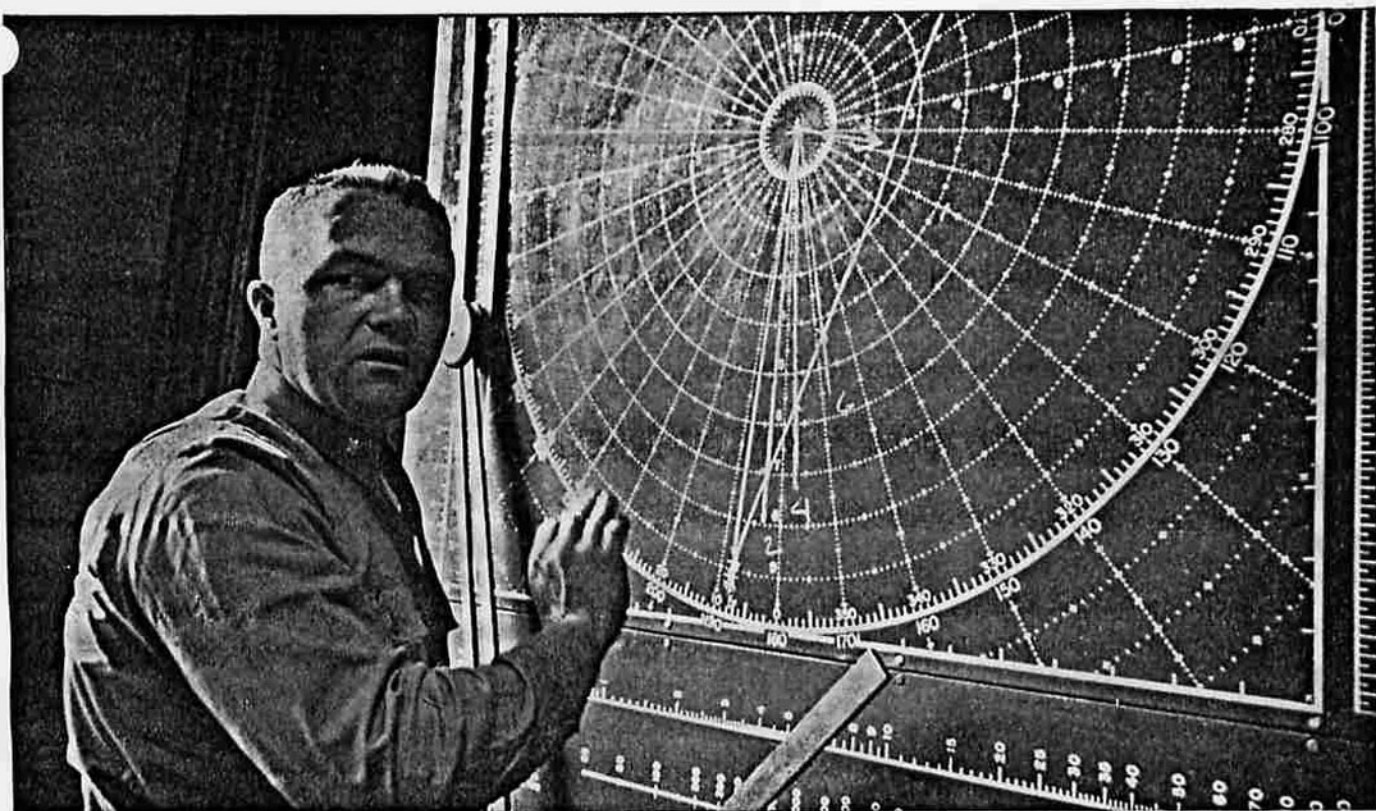
Though the new ship is in the water at last, a lot of work remains to be done before *Trigger* will be ready to take her place on our defense line. To begin with, she is not yet complete. Launching is something like the birth of a new life, but it only marks the end of one phase of the construction period. Several months of labor on the part of the builders are still required to fit her for sea. At the same time, we who will compose her crew must also fit ourselves to take her there.

Our Navy badly needs high-speed, long endurance submarine cruisers able to shift position rapidly across the broad reaches of the oceans. We have converted some of the very efficient war-time boats to meet the new facts of naval warfare, but *Trigger* is the first of an entirely new class of submarines, built from the keel up to be the most up-to-date in the world. She is designed to be the stealthy, silent hunter in the deep of the sea, the far-ranging "safety man" of our undersea defenses. Her mission will be to hunt enemy submarines en route to or from their bases, when they, logically, would presume themselves to be most safe from attack.

Much careful study and preparation will be necessary before *Trigger* is even ready for her trials, and training ourselves, first to operate her correctly, and second to get the most out of the capabilities the designers put into her, will be a slow process.

In the first place, *Trigger* will be sleeker, more heavily built, considerably faster than any of her predecessors—even than the highly successful "guppy-snorkel" conversions—and she will correspondingly impose more stringent requirements upon her personnel. It is the tradition of the submarine force that every (Continued on page 72)

SUBMARINE HULL No. 564, before official christening as *Trigger*, nears completion at Groton, Connecticut.



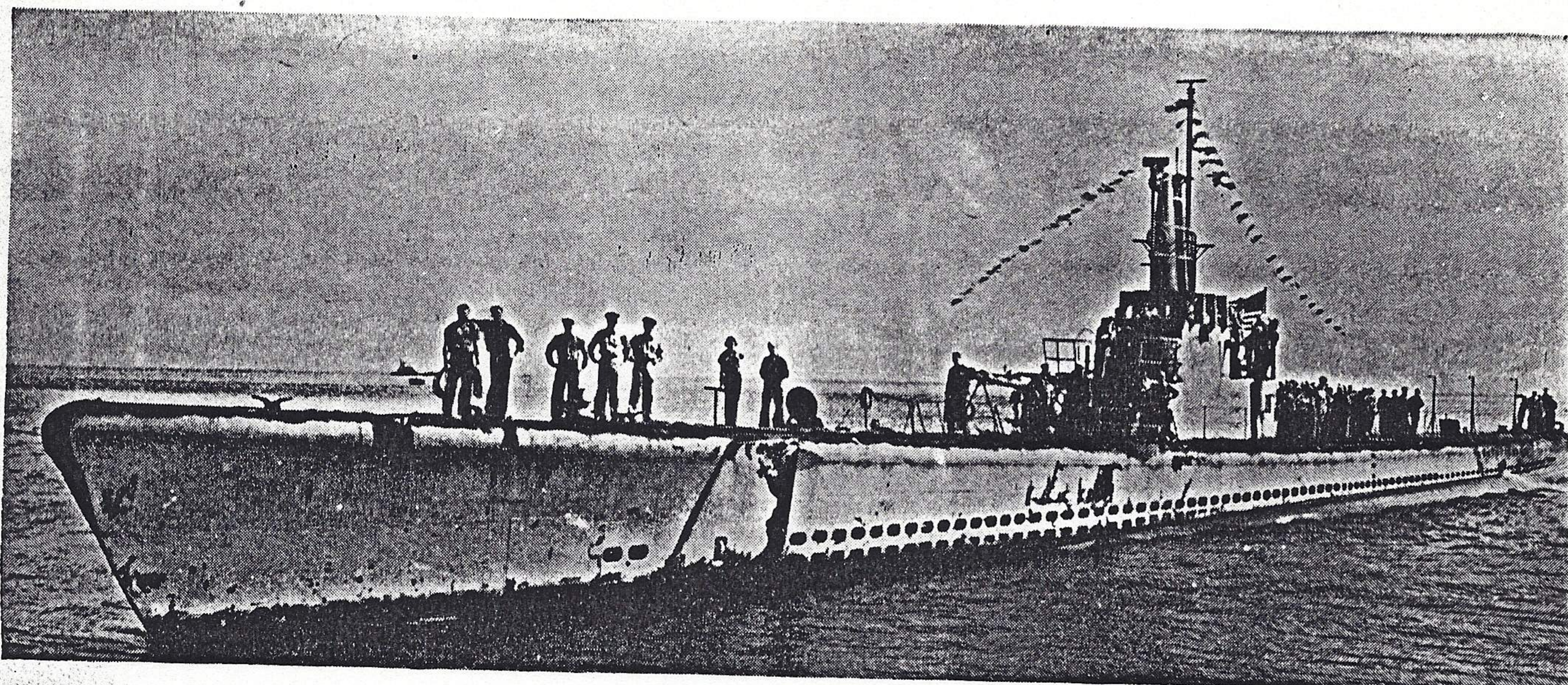
COMMANDER BEACH illustrates point of tactics on "maneuvering board" to class of the Submarine School at New London. Crew of newly launched *Trigger* will do theoretical study of her special capabilities.



PRACTICE CRUISE of the USS *Entemedor* reunites three officers of the first *Trigger*. L. to r., Herbert R. Brown, Chief Electrician's Mate; Commander Beach, Daniel T. McLoed, Torpedoman's Mate 1st CL.

Trigger II—Sub Killer

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USS TRIGGER I, top killer of Jap subs in World War II, enters Midway after her ninth war patrol. Official U.S. Navy Photo

member of a submarine crew must be completely master of his duties; those who are "qualified in submarines" must also demonstrate competence to perform the duties of everyone else in the crew. How much more difficult will this be when all of *Trigger's* equipment is new, different from anything any of us have seen before.

So I, who fought the war in the old *Trigger* and was her "exec" have my work cut out for me. The dream I've harbored for six years is coming true. I am to be the first commanding officer of the *Trigger* reborn.

When I read my orders on her narrow quarterdeck a few months from now, and order the commission pennant hoisted and the first watch set, it will have been nearly 10 years since, as a newly graduated submarine school "student officer" (hated title), I listened to Lieutenant Commander J. H. Lewis do the same for the first *Trigger*. And it will have been seven years since that musty night off Kyushu, in the Yellow Sea, when she should have made rendezvous with *Tirante*, and did not.

The total life of *Trigger I* lasted only three years, yet she was old and tired when the end came. During that time her stout frame and thick steel plates had been wracked by over 400 depth charges, her mechanical innards knocked more than once askew, her very design outmoded by her newer sisters who had come along. But none could match her record of Japanese ships sunk or damaged.

It was just eight years ago that the uncompleted aircraft carrier *Hitaka* spent about three months half-submerged on a reef in Tokyo Bay, with two of our torpedoes in her engine rooms. We lay for a month on the bottom of Tokyo Bay waiting to torpedo the Jap flat-top as she slid off the launching ways—and had

sunk one or two other ships during that period. We tagged *Hitaka* on her maiden trial trip, as she poked her freshly painted nose outside the torpedo nets.

Just for the record, we did not get away completely unscathed from that encounter, either.

It was the 10th of June, 1943, about five o'clock in the afternoon. "Captain to the conning tower!" Benson dashed past me in the control room, leaped up the ladder to the conning tower where Lieutenant (JG) Willy Long had the periscope watch. "Smoke inside the harbor!" I heard Willy tell the skipper. "Looks like it's coming this way!"

You could feel *Trigger* draw a deep, hushed breath. Captain Benson ordered me to plane upward two feet, to allow him to raise the periscope that much higher out of the water so as to see a little farther. Then the 'scope came slithering down and the musical chimes of the general alarm, vibrant with danger, reverberated through the ship.

Most of the crew had somehow quietly and unobtrusively already appeared at their stations. A few whisked by me after attending to some last-minute duty, and seconds after the last chime had died away, one after the other all stations reported manned and ready. Then the captain's voice, as it always did, came to us through the ship's public address system: "Men," he said, "we have an aircraft carrier up here. He's coming out of Tokyo, making lots of speed. He's got two destroyers with him, and we're right on their track."

Hitaka's escorts—we didn't know her name then, naturally—were two of the biggest and most powerful Japanese destroyers. And they were certainly doing a bang-up job of patrolling for submarines! The carrier was making sortie at high speed, zigzagging radically, but

the tin cans were working on a complete patrol plan of their own, and they were all over the lot. Long before we reached firing position we rigged *Trigger* for depth-charging and silent running. I knew we were going to catch it—the was simply no way to avoid it, if we did our job properly.

There was even a good chance that we'd be detected before shooting, the way the escorts were covering the area. But after we had fired, when a long, thin fan of bubbles suddenly appeared in the unruffled water—well, at the apex of the fan one was pretty sure of finding the submarine responsible.

I can remember how the palms of my hands sweated, and how the flesh crawled around my knees, as we bored steadily into firing position. This way and the zigzagged the carrier, and that way and then the other went our rudder as we maneuvered to keep ourselves in position ahead of the task group.

"Make ready all tubes!" The order indicated that Captain Benson was taking no chances, planned to have all three torpedoes ready and shoot from either end of the ship. "Stand-by forward."

I shouted for more speed, which we would need to control the depth while shooting. Each torpedo, with warhead being some 300 pounds heavier than the water it displaced, we stood to become 3,000 pounds lighter all of a sudden.

"Fire!" from the conning tower. I could feel the repeated shocks as the six torpedoes in the forward tubes were ejected at rapid intervals. And, as we in the control room fought savagely to keep from broaching surface, four loud, solid explosions resounded through the water.

Benson waited only long enough to confirm the hits, then spun the periscope around. Large in its field loomed the cavernous bows of the nearest ti

can, racing down the diverging tracks of bubbles left by the torpedoes. "Take her down! Take her down fast!" The annunciators clicked over to "All ahead emergency" as I, with a single sweeping hand-motion, ordered the diving planes to full dive and the negative tank flooded. Air whistled into the control room through negative vent, and *Trigger's* nose inclined gently downward.

We had forward trim tank flood wide open to sea, taking as much water as would come in, but it took several seconds to collect the ton or so more weight we needed up there, and we went down with maddening slowness, just in time. I can still hear the *thumthumthumthum* of the propellers as they swept overhead and the *wham—wham—wham!* of the depth charges below. The air became filled with particles of paint, cork, and dust. Men clutched for support at tables, ladders, anything. The steel skin of the ship buckled inward with each blow and sprang out again. The whole stout hull beat like a huge drum, whipping and shuddering with every explosion, while we inside fought to preserve our control of her, and cursed the Japs topside.

Trigger was forced deep below her designed depth by the merciless hammering, and how she held together I'll never know. But hold she did, on account of some good work back in Mare Island, California, where she had been built. Finally, running deep and silent, the rugged old fighter managed to crawl away.

The thousands of Japanese who saw four huge plumes of water blossom alongside their newest and largest flat-top, and the still more thousands who saw her come dragging into Sagami Wan at the end of a towline, there to settle ignominiously into the mud, were officially informed that the submarine re-

sponsible had met her just deserts at the hands of the two escorting destroyers.

When we finally shook them, and got back to the surface, some 12 hours later, we were pretty well in agreement.

Later we discovered that our first two torpedoes, which had apparently hit forward of amidships, had "prematured"—exploded just before reaching the target—and *Hitaka* had in fact received only two holes in her hull, both of them aft. It wasn't our fault that the enemy had time to tow her back into the shallows, for the four hits we had earned should have taken care of her immediately. But that was small comfort.

Seven years ago, under the command of "Dusty" Dornin, brilliant Annapolis athlete, and now an equally brilliant and aggressive submarine skipper, we sank *Yasukuni Maru*, and sent down with her the Admiral in command of the Imperial Japanese Submarine Force.

For nearly a month *Trigger* had plied the traffic lanes between Guam and Truk, fruitlessly searching for targets. Nothing whatever did we see, except an occasional plane or various brightly colored ocean birds, until only two or three days before shortage of fuel would have started us back to Pearl Harbor. And then one night the sonar operator thought he heard something in his earphones. He listened intently. There could be no doubt of it. There had been an explosion in the water—many miles away. And then another.

Fandel, onetime country schoolteacher, marked the time, listened a little longer, marked the time once more, and called for the skipper. "Captain," he reported, "somebody is dropping periodic depth charges. Listen."

Dusty and I heard the fifth and sixth explosions. They seemed to be a little louder to the south.

"All ahead flank!" The soft mutter of one Diesel engine pushing us along at slow speed was suddenly augmented by three more. Four plumes of Diesel exhaust smoke poured from *Trigger's* exhaust ports onto the surface of the ocean, and a long, white, tumbled wake commenced to stretch aft. On the bridge seven pairs of eyes peered through the darkness, seven pairs of high-powered binoculars searched the dim horizon, and above all of them the radar rotated slowly. Ten miles we let the ship run.

"All stop! Secure the engines!" *Trigger* coasted, silenced, slowing down. "Rig out the sound heads!"

The pressure-proof speaker on the bridge blared: "Bridge! Sound reports distant depth charges, dead ahead!"

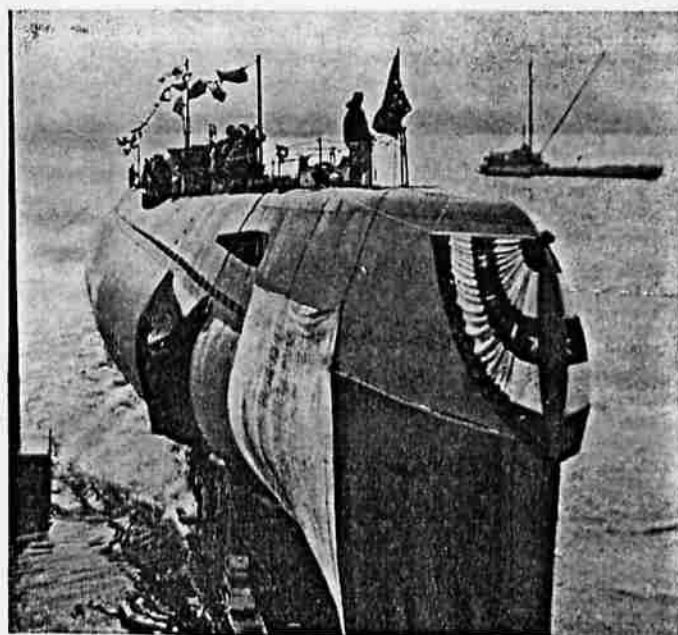
"All ahead flank!" We were getting closer. As *Trigger* picked up speed once more, we carefully adjusted the radar, peaked its tuning and ring time. This was the instrument which ought next to come into action. We concentrated it dead ahead, with occasional sweeps sideways to prevent being taken by surprise.

It came at last. "Radar contact!" The two radarmen on watch, with the simplicity of long practice, swung into the routine of feeding the essential information to the tracking parties. When combined with the known inputs of *Trigger's* own course and speed, the result was enemy course and speed—data essential to the correct torpedo fire-control solution.

I could feel a more determined throb, a slightly deeper note, in the exhaust roar of our Diesels. We had sensed this before—this putting out a little more when the chips were down. Once we had logged 22 knots with a lame engine, outrunning a Jap tin can. *Trigger* seemed to do better when it counted. . . . "Conn! What speed we showing?"



VIDA CONNOLES BENSON, widow of one *Trigger* officer and wife of another, christens the new submarine.



TRIGGER II takes to water at shipbuilding works of the Electric Boat Company at Groton, Connecticut.

"Twenty and a half, sir! Picking up slowly!"

We continued to eat up the distance on the enemy convoy's left flank, reaching out ahead to get into attack position. With Dusty working out the fire-control solution and handling things from the conning tower, I held the bridge and strained my eyes to spot targets. With my back up against the rotating radar mast, I could tell from its motion when it was on the target. A glance at the antenna, and I knew exactly where to look. Finally I could make out a faint place on the horizon where the haze was a little darker. "Conn—bridge. Enemy in sight. Standby for a TBT bearing!"

Six Ships Sighted

I jammed my binoculars into the target-bearing transmitter, centered them on the smudge, pressed the button. The skipper's rasping voice came back: "That's him! How many can you see?"

I thought I could see three smudges now, and my stomach tightened when the word came back that there were, indeed, three large ships on the radar, plus three smaller ones.

An hour and a half later, we had attained a position broad on the bow of the zigzagging convoy's base course. *Trigger* turned her lean snout toward the enemy.

This was always the crucial part of the night surface attack—the run-in. You kept your bows on the enemy so as to give him as little to see of you as you could, and you came in fast to get it over with quickly. Then just before shooting, you had to slow down to let the fish get away properly. Having put your torpedoes in the water, you spun on your heel and ran, trusting to the confusion generated by exploding warheads to help you get away. If there were escorts present the problem was complicated by the necessity to come in more or less under their sterns, where they would have to turn all the way around to get at you.

The engines were still wide open, and now we and the Japs were approaching each other at our combined speeds. At a closing rate of 35 knots it didn't take long. . . .

"Range, three five double oh!"

"All tubes ready forward!"

"All ahead one third—standby forward!" The last was the skipper's voice.

I had been keeping my eyes on the nearest escort, a rather mean-looking destroyer. No sign yet of his having seen us, but he surely knew his job, or he was patrolling the convoy's quarter, and thus making our shot at the big ships very difficult. To get at the big fellows we would have to shoot right across the tin can's bow—then we would have to let him have it also, because he was so close and would be upon us in a matter of minutes.

A ticklish decision, quickly made. The first three fish at the nearest big

ship, and the next three at the tin can. That would not give us much time. . . .

"We're shooting now, bridge!" That wasn't necessary, for I could hear Dusty shout, "Fire!" And I could feel the lurch as the first torpedo was expelled. *Trigger* lurched three times, as three times a ton and a half was ejected from bow tubes. In the water a long, thin fan reached for the last transport. Now for the destroyer! "Fire four! . . . Fire five! . . . Fire six!"

"Right full rudder!" I screamed. Before my eyes, number four barely missed ahead. Number five ran erratically to the left—and number six circled erratically to the right. No hits! The destroyer fired three green flares off his stern, commenced to turn toward us. From amidships a gun went off, and there was a sharp ripping sound overhead.

Two things to do: avoid those deadly circling torpedoes, and get out of the immediate vicinity. I put my face against the bridge speaker, pressed the button. "Maneuvering—he's after us! Give it everything you've got!" A rather unorthodox order, but it got results.

A cloud of black smoke poured out of our exhaust pipes, as *Trigger's* stern skidded across the slight chop.

"Rudder amidships!" We steadied with our stern dead on the destroyer. With our smoke riding high into the air astern, we could hardly see him. . . .

"Standby aft!" Dusty shouted. "Bridge, give me bearings on the tin can!"

"Bearing—mark!"

"Fire!" and four torpedoes flashed out from our stern.

We had to hand it to that tin-can skipper for a neat job of sidestepping between torpedoes. Not one touched him.

But at any rate they held him up for a little, and in the meantime *Trigger* was showing a shade under 23 knots, so the legend goes. And then came a most welcome sound—depth charges! Having lost us in the smoke from our groaning Diesels, not realizing that we could not possibly have dived, the destroyer had ceased gunfire and was depth-charging the area! Our respect for his acumen diminished a bit.

In the meantime, our first three fish had evidently not hit their target either, perhaps because of a zig executed when the flares went off. But as we watched—and ran—a heavy flash of light suddenly showed up alongside one of the other escorts, a cloud of smoke appeared over him, and he disappeared. Not what we had been after, but we were not completely empty-handed.

I realized that Dusty was standing beside me on the bridge. I pointed out the locations of the enemy convoy, the sunken destroyer, and our friend sowing ashcans astern.

He took it all in, then leaned against the speaker button: "Plot, give me a course to intercept the main body!"

"One six five, bridge!" Plot hadn't yet heard about the little flail we'd just

had, else I doubt they'd have been able to come up with the answer like that.

"Left full rudder! New course one six five!" Dusty howled the order down the hatch to the helmsman, and off we dashed after our fast-escaping quarry.

It soon developed that the Japs had upped their speed about two knots, and that we would be lucky to get close enough for another shot before dawn. Dornin set his jaw in characteristic fury, hurled imprecations into the humid grayness, and drove on insanely after the three plainly visible transports. Just before daybreak, we caught them again.

"Bridge! Bearing on the nearest one." I could tell from the preparatory commands floating up the hatch that Dusty was getting ready to shoot. The biggest and nearest target happened to be the right-hand ship, the last one in the column. I trained the target-bearing transmitter exactly on his fat stack—and that's how I became responsible for the demise of the Japanese ComSubPac, and put the finger of fate on *Yasukuni Maru*.

We hit her fair with two torpedoes, and she sank in half an hour, taking ComJapSubPac with her. One destroyer remained at the scene, picking up survivors. The other two ships turned their sterns toward us, and disappeared over the morning horizon.

Five convoys we shattered with Dusty Dornin at *Trigger's* conn; then Admiral King ordered him to Washington to become his aide, and Fritz Harlfinger became the fourth master of my old queen.

Harlfinger's first patrol was also my last in the old ship, for orders to Portsmouth, New Hampshire, to report as executive officer of the as yet unfinished *Tirante*, were waiting for me when we returned. *Trigger*, badly battered on that run, was sent to the States for repairs.

When she headed west again, after a thorough overhaul, she waved a cockcomb of 36 miniature Jap flags, a Presidential Unit Citation pennant, and a homemade blue flag with a large white numeral 1 on it, emblazoning her claim to be number one submarine. She never knew that she had also been awarded the Navy Unit Commendation, for it was delivered posthumously.

Her Last Patrol

In March, 1945, *Trigger* departed from Guam on what was to be her last patrol. She had a new skipper, her fifth—David Connole—and she sank two more ships. Then the everlasting silence closed around her.

Deep on the ocean floor, somewhere off the coast of Kyushu, she will remain forever—she and her 91 gallant dead—in company with the 41 other boats from whom the last full measure was demanded, and in company, also, with the 2,000-odd enemy vessels she and her sisters sank.

For six years those she left behind have looked forward to the time when there would be another *Trigger* to carry

on the memory and traditions of the first one, to have enshrined in her the Presidential Unit Citation and the Navy Unit Commendation which she earned. Much has happened since that day in 1945. Having destroyed one set of enemies we now find ourselves threatened by another, and no one can predict what the future will hold. During these conditions of uncertainty which may well culminate in another world conflict, *USS Trigger* is returning to the Navy.

For me, who finished the war in another submarine, who, except for Walter Pye Wilson, our devoted Negro cook, now Chief Steward, US Navy, made more patrols with *Trigger* than any man, who knew her better than anybody else, who cursed her, fought her, and prayed with her—and begged to have her for my own—there is a big job ahead.

But it will be a labor of love.

Labor, indeed! Too many people for too long have had the impression that the submariner is a reckless fellow who spends his time loping around under water with hardly a thought for the mission he is supposed to accomplish or the preparation he must make to accomplish it. Nothing could be more incorrect.

No one, in any walk of life, is more deliberate and studied in his approach to his profession than the submariner. No one is more cautious, all the time, whether he is out making practice approaches or doing the real thing in war. No one takes fewer chances, depends less upon the inspiration of the moment, is more dominated by the idea of thorough preparation. There are few things as complicated as calculating the speed and course of an enemy from a few quick "peeks" through a periscope—or with no looks at all—keeping up with his zigs and zags, maneuvering your own ship into position so that despite his zigzag plan he will go by within torpedo range, and then, with about a minute to go, combine his range, course, and speed into a hitting gyro angle, determine the periscope lead angle, get the 'scope back up, mark out a final bearing, and fire torpedoes. In the meantime you have to estimate the maximum depth you can run at and the minimum length of periscope you need, how far you dare go in your approach before you're in danger of being rammed by the target or one of the other ships—and how long before the escorts are upon you, and what you will do then.

Submarining is labor, all right, combined with a large degree of art—and science has in recent years given us many highly ingenious devices to improve our practice of the art. To name a few, there are the snorkel, the radar, the extremely acute sonar, the torpedo fire-control gear, the long-range homing torpedo, and the high-speed, deep-diving *Trigger* herself.

But these improvements in submarining have brought us more new problems than they have solved, for the means of countering enemy submersibles have not

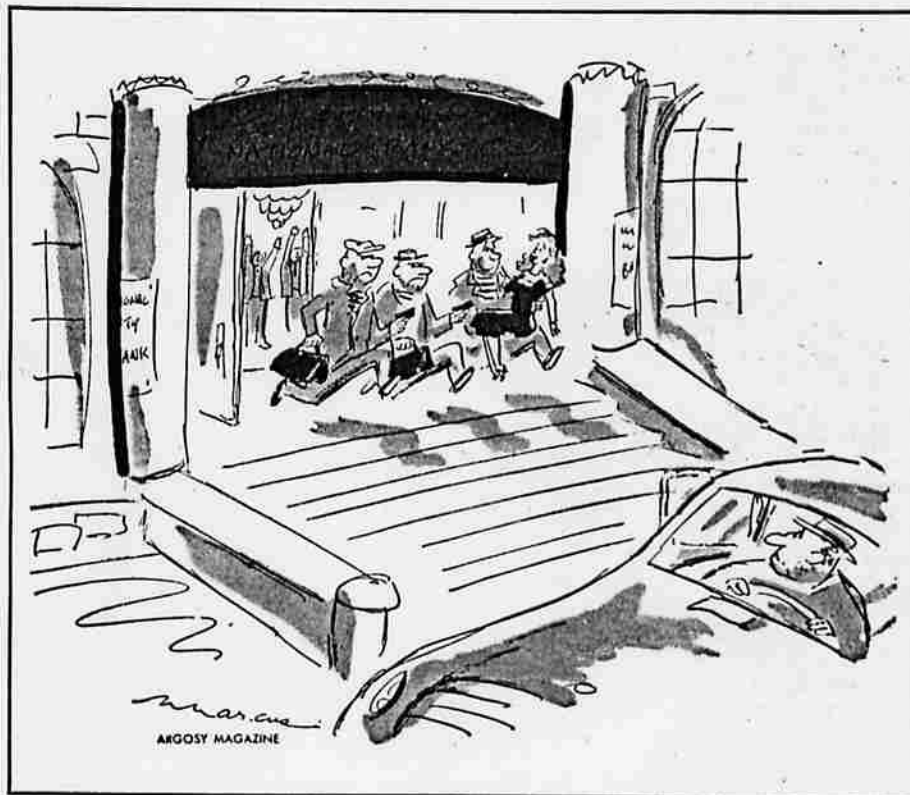
improved in the same proportion. Each such device means that we must prepare ourselves to have it used against us. It is fitting, therefore, that one of the most promising recent contributions in our campaign to protect our commerce has been made by our own submarine forces. The allies of the free world, dependent upon their maritime lifelines, have in the past had more reason to fear the submarine than to embrace it. Now *Trigger* and her sisters will send that fear back whence it came.

Trigger will be the strongest, most rugged, fastest submarine our Navy has ever built. She will not be the biggest, for we have long felt that a really big submarine is too easy to detect and too difficult to

while the ship was under construction, to inspect every inch of her hull, ballast tanks and pressure tanks, her internal and external ribs and bracing. We'll never have a better chance to learn all about her.

But assuring yourself that your ship is properly built and has the right equipment is not enough. Equally important is how you use the material and equipment you have on board. *Trigger's* snorkel, which she, like all modern submarines, will use when it becomes necessary to recharge batteries or change the air within the ship, will be a sure giveaway if not employed intelligently and cautiously.

Similarly, the torpedoes. You've got to give them a chance. Get your ship into



maneuver. Neither will she be one of the small, slow "killer" subs which we are commencing to build in numbers. The killer subs, or "K-boats," will be the defensive linemen of our undersea team; *Trigger* and her five sisters to follow will be the backfield. Any enemy submarine managing to get through the gantlet of K-boats clustered about his home bases will then have to get by the high-speed submarine cruiser, waiting in mid-ocean.

The demands this sort of operations will place upon *Trigger's* crew can be imagined, as can our intense interest in everything going into the new ship. Once a submarine is built, much of her structure will be virtually inaccessible. If, through some fault of design or construction, some vital part should prove defective, she might never be able to inflict damage upon the enemy. Worse, she might herself thereby be lost.

So we have taken every opportunity,

firing position, then take your time to get the "fish" off properly. Your fire-control equipment is the best there is—but it won't perform miracles.

And your ship. An unskillfully handled submarine, no matter how well designed or how modernly equipped, will never get the results she is capable of. *Trigger* has certain special characteristics which set her apart from the subs we have had. They will be mine—and my crew's—to do with as we will, and can.

The factor of surprise has always, in the past, been on the side of the submarines. This is because the submersible could remain invisible, unless grossly unfortunate or mishandled until she chose to reveal her presence—which, of course, she normally planned to do with torpedoes. And yet, even now the best we have for anti-submarine warfare requires a starting point where a submarine was known to have been recently.

To wrest the offensive away from the enemy—to seek out his submarine in his own element—that's the gap in the chain. That's where *Trigger* will come in, to eliminate his almost exclusive possession of the element of surprise.

Next time the enemy submariner will be the hunted as well as the hunter. He will find himself pitted against submariners as skilled, as determined, and as relentless as himself, and one of his foes will be *Trigger*.

We will wait in the middle of the ocean—for days and weeks, if necessary. And we will be ready when the call to action is sounded. I can see it as plainly as though it were happening now. . . .

On Patrol

For the last 30 days, *Trigger* has been submerged in her assigned patrol area, where enemy submarines are likely to pass through. We have run sometime at periscope depth and sometime at deep depths. Sometimes we have snorkeled—just enough to keep our battery topped off. Through it all we have maintained a continuous careful sonar watch, probing the ocean sound channels for the tell-tale noise of machinery.

Several times we hear the noises of ships passing, identify them as convoys en route to our beleaguered allies. The slowness with which the bearing of the sound changes, its direction, and the very small arc it occupies, are indicative of the range at which the noise has been received. Now and then we come to periscope depth to make sure, and see the tops of their masts or a little smudge of smoke on the horizon.

For 30 days we have patrolled back and forth, eating, sleeping, and thinking of nothing but our major objective, destruction of all enemy submarines trying to pass through our area. So far we have seen none.

This business of dog eat dog is tough on nerves and spirit, and one big problem is to keep ourselves at the peak of efficiency, to prevent boredom and letdown. Thirty days, one after the other without enemy contact, can be disastrous to morale. Yet the danger is ever present. You never know when the trial may come, and when it does we want our hands sure, our minds swift and alert.

I am in the sound room, where I have been spending much of my time since arriving on station. Suddenly there is a faint noise in the equipment, and a tiny flicker of light appears for a moment on the face of a cathode ray tube. The operator on watch carefully and gently turns one of the knobs beside it. We search back and forth, listening intently on the bearing from which we thought a foreign sound had emanated.

It is too distant, too faint to determine with certainty what it is, but I can feel a very faint twitching in the ends of my fingers. This is not the bearing on which most of our convoys have been detected. This is a totally

different direction, plausibly that from which an enemy sub might approach.

Question: Is he coming our way, or is this merely the nearest tangential approach of someone going by at great range?

The important thing is not to lose the contact. We send word to the tracking party to man their stations. *Trigger's* bow is pointed directly toward the contact and we speed up—not too much, but enough to close the range so that we can hear him better.

The tracking party is quickly ready. The automatic equipment comes to life, and members of the hand-plotting group lay out their papers, pencils, and equipment on the wardroom table. We want more than excuses to offer if some unexpected failure should rob us of our automatic gear.

Now comes the tedious part—plotting—with at first almost nothing to go on. But drop by drop, piece by piece, bits of information are fed into the various computing devices and to the hand plot, each little morsel piled upon the next. We can hear him better now. He is evidently not coming directly for us—but not going by at a hopeless range, either.

Plot, estimate the distance—fit it in. Another bearing—fit that in. Own ship's motion, speed and depth, course by gyro compass—fit them in, too. Rate of change of target motion—rate of change of rate of change—that is the crux of it.

Several hours go by, and we know two things for sure: It is an enemy submarine and he is snorkeling at high speed, headed for our vital steamer lanes. Without having stirred from the console of the sound equipment, I am aware that every man in *Trigger's* crew has quietly appeared in the vicinity of his battle station. Sweat pours down my back as I give the order to rig ship for battle.

We Trail the Enemy

We have long since changed course to intercept, and *Trigger* is clawing through the depths to overtake the enemy, running deep and silent, as fast as she can without excessive noise. The sound of the enemy snorkel is coming in heavily now, its un-American rhythm pulsating through our sonar receivers.

Our torpedoes are ready, lying quietly in the tubes. Soon we will be close enough to shoot. We have homing torpedoes, and all we have to do is to get near enough for the source of noise to be loud enough.

The enemy is very clear now. He is coming on the range. We figure he is making 13 knots, evidently in a hurry.

Any minute now and I can give the order to shoot. Tension mounts in the conning center.

Without the slightest warning, the noise of the engines stops. Through our sonar receivers we can hear the clank as the snorkel valve is shut. The assistant approach officer looks at me, startled. Can he have heard us—detected us—

somehow? We don't see how that could be because *Trigger* is deep beneath him, pursuing stealthily. Maybe he's just decided to stop snorkeling for a while.

He certainly will have changed speed, but maybe not changed course. Anyway, there is no time to lose.

"Sound," I whisper into the voice tube, though I feel like shouting at the top of my lungs. "Sound. It is now or never. Give continuous bearings and stay on his screws!"

The tell-tale pointer of the sound gear inches across the torpedo data computer, is matched by the computer pointer wielded by the ship's torpedo officer.

We detect a change of course as well as speed, and the more solid throb of his propellers indicates that he may have increased depth. Maybe he has detected us, after all! We've got to nail him now, right away, before he gets deep.

But we are still a little too far away. We've got to get closer; so, reluctantly, we ring up full speed. *Trigger* leaps ahead with the increased drive of her motors, arrows through the depths, and the steady beat of the enemy propellers grows sharper. The decibel meter wavers in the red. Now is the time. . . .

"Fire!" I give the word out in a whisper which is almost a bellow. We can feel the recoil as *Trigger* takes the shock of expelling 3,000 pounds of torpedo.

Now we can hear two sets of propellers in the sound gear, slowly converging. Now it is up to the torpedo. You listen with goose pimples up and down your arms, sweat pouring off your face, and your muscles jumping.

Suddenly the measured beat of the enemy propellers increases rapidly, almost frantically. Our earphones pick up the whine of his motors as they dig into the water. The tremendous throb of his screws comes right through our hull.

We can visualize the sudden warning of emergency, the scream or full speed, the panicky attempt to out-run the deadly little fish with the affectionate electromagnet in its nose.

But it is too late. A sudden loud bang reverberates through *Trigger's* tough hide. The almost unbearable tension which has been upon us evaporates.

But we don't neglect to listen on the sonar equipment. We still hear the sound of enemy screws, and we hear a gurgling and bubbling noise as water pours in and air escapes out the hole we have made in his side. Now comes a high-pitched whistle—high-pressure air—and the sound of the propellers increases even more. He is trying to blow his tanks, get to the surface if he can. We, too, start up, though more slowly, to pick up survivors if there are any, to give the coup de grâce to the ship if she manages to make it.

But soon it is apparent that she isn't going to make it. The gurgling and blowing noises are still continuing and the frenzied propeller beat has not slackened, but they are now beneath us, and going down.

After a few minutes the propeller

noises slow down, and then stop altogether. Nothing can be heard but the greedy coughing and grunting as the slobbering water takes possession. Then, over the earphones, comes a noise none of us has ever heard before—a rending, crunching, smashing sound, like a thousand tin cans irresistibly flattened under a steam roller.

We cannot help feeling a little pity for the enemy submariners entombed in their crushed steel coffin at the bottom of the mid-Atlantic, but the same thing happened to the first *Trigger*, and to many other fine American submarines. The elimination of this enemy undersea boat will preserve the lives of thousands of soldiers on the transports they might otherwise have sunk, will permit the arrival of shiploads of supplies which might otherwise wind up in Davy Jones' locker.

And it will hurt the enemy's submarine campaign.

If five to ten of their boats turn up missing every month, the psychological hazard of fighting a submarine war against the United States will increase to impossible proportions. Their morale will wilt under that toll, as did that of the Germans.

And so, as we increase the hazard of submarining, the efficiency of enemy submarines will diminish, and our ability to maintain our forces overseas will increase. But it is a tough racket, one in which, despite the wonderful instruments which science has given us, the most important thing is still the skill, training and cool nerve of the men who have to fight with them. And yet this isn't the whole story, either. For when submarining gets deep inside of you it is not merely a

complicated tool, or even a part of your life's profession. Nor is it a question of just liking it or valuing it for what it can do. It is that, of course, but it is also the service you love, and the ships you love, and the magnificent undersea sailors who make them what they are. . . .

All this *Trigger II* meant to me as she slid down the ways. And who can tell what thoughts possessed young Rickart Alan Connole as he watched the living memorial to his father and his father's crew take the water? Maybe he dreamed that 16 years from now he, too, will serve in the Submarine Force. If he applies we shall welcome him sincerely, for submarining is a demanding occupation, and we shall always need men with interest, and enthusiasm, and understanding most of all, wearing the twin dolphins of the United States Submarines. • • •

Yankees On the Run

CONTINUED FROM PAGE 29

Rebels told us that if we tried again, we'd be shot.

"Well, Matt," Eben Jameson said after the guards left us. "Looks like we're licked. Might as well settle down."

"Not me," I said. "I'm going to get out of here some way."

"You heard what the man said. You'll get shot for trying."

"I'd sooner die that way than starve to death."

"It's quicker, anyway," Eben said.

Andersonville Prison, located at Camp Sumter, Georgia, was a rectangular pen, enclosed by a stockade. The pen was divided in the center by a creek about a yard wide and ten inches deep. On each side of this was a bog of slimy ooze one hundred and fifty feet wide, so yielding that it was impossible to walk upon it. From this swamp, sandhills sloped north and south to the stockade. All the trees within the sixteen acres of the pen had been cut down. There was no shelter of any kind provided for us. A few men had blankets or tattered pieces of canvas to make huts, but most of us used roots and swamp withes to weave frameworks for little dugouts which were covered with the few pine branches we managed to dig out of the sandy soil or with the leaves and stems of the sparse vegetation.

We had made our tunneling attempt in May. For the next month and a half, Eben Jameson and I talked about escaping every day, but there seemed to be little chance of it. The old men and young boys of the Georgia militia who guarded us that summer of 1864 paced the guard platform on the stockade day and night. There was a frail fence of nothing ten yards inside the stockade. It was called "the deadline." If you touched it, you were shot without warning.

As day followed day, there was no relief from the heat and the summer storms which beat down on us. The food was worse every day. Every so often we'd get



a piece of rancid bacon or beef, and occasionally a few vegetables, but most days we were issued dry corn meal which we had to cook with swamp water.

Prisoners had been dying since the Confederates had built the place in March, but in June scores of men died daily of scurvy and dysentery. It was a common occurrence to have a hundred bodies lined up at the main gate in the morning, ready to be carried out and dumped into the burial trench. The prisoners did the carrying and dumping. It became a privilege to help carry a body out, because the guards allowed the bearers to forage for firewood on the way back to the stockade. The bodies were naked when they were buried, because a dead man's friends usually divested him of whatever usable clothing he had left.

ONE morning in July, Eben Jameson and I carried a friend of ours down to the main gate. He was from Brattleboro, like me, and had been in our troop in the First Vermont Cavalry.

When the guards opened the main gate, there was an immediate scramble for positions at the head of the procession. The men up front could dump the bodies

they carried before the rest had reached the burial pit. Then they'd have first pickings on the firewood.

As we passed through the gate, Eben looked back at me. "How long will it be, Matt, before someone carries us through here?"

"I'm a long way from dying, Eben."

"Way it looks to me, we might last the summer out, but we'll never get through the winter."

"We don't have to worry about winter," I said. "Either the war will be over, or Uncle Billy Sherman will be here. Don't give up."

"I'm not giving up, Matt. I was just thinking about us carrying Ed here to the pit. Seems to me we ought to try to find him a place which ain't so crowded. Think they'd let us?"

"Won't do any harm to ask."

The sergeant in charge of the burial detail didn't mind if we buried Ed a little apart from the rest. He gave us a spade and said we could open a space at the far end of the long pit. As we dug, apart from the rest of the detail, I kept looking at the dense pine forest not fifty yards away. I knew we couldn't make it; it had been tried many times during burials. The guards were spread out to cover all the ground between the pit and the edge of the woods.

Eben saw me measuring the distance with my eyes.

"Don't get any foolish ideas, Matt," he said. "Let's get Ed fixed here and get back inside. I'm beginning to think about something."

"What is it?"

"Tell you when I've got it figured out."

"Suppose we died tonight, Matt?"

Eben said, back at our hut.

"You're not sick, are you, Eben?" I asked in alarm.

"Not me. I feel fine. But let's suppose we both died tonight. We'd be carried out in the morning, wouldn't we?"