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Map Supplement of Africa

Alaskan Highway an Engineering Epic

With 21 Illustrations and 4 Maps FROELICH RAINEY

Curação and Aruba on Guard

With 12 Illustrations and 1 Map

W. ROBERT MOORE

Oil Isles of the Caribbean
10 Natural Color Photographs

Convoys to Victory

With 24 Illustrations

HARVEY KLEMMER

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Convoys to Victory

BY HARVEY KLEMMER

OU will find your ship at the explosives pier." I pricked up my ears at the mention of explosives. The mere sound of the word gave me a sinking feeling at the pit of my stomach. There was nothing that could be done about it now.

I had been very casual about the whole idea of crossing the Atlantic by freighter. It was

too late to back out.

There was nothing to do but go through with it and hope for the best. Besides, the explosives probably didn't amount to much. A few antiaircraft shells, perhaps, or some bombs with the fuses removed. I had a good lunch and set out for a certain desolate area adjoining one of our great ports.

A couple of friends, Jesse Saugstad and Inman Payne, came along. They said they wanted to have a look at the explosives pier. Actually, I think they wanted to make sure

I didn't change my mind.

We found the pier area surrounded by barbed wire. There was a guard every hundred feet. Some carried rifles, with bayonets attached; others were armed with shotguns. Our papers were examined carefully, and we were asked to surrender any matches we might have in our pockets.

We were allowed to drive our car to the end of the pier; there we transferred to a dilapidated truck, in which, after a lengthy session with immigration and customs officials,

we were taken to the ship.

Sailors were battening down a hatch as we came aboard, preparatory to loading Army trucks on deck (page 196).

"What's in the Hold?"-"TNT!"

"What's in the hold?" I asked with as much nonchalance as I could muster, looking over my shoulder at the rows of guards and the piles of neat white boxes standing on the dock.

One of the sailors rubbed the sweat from his face and came over to where I stood.

"TNT," he whispered.

I may have been seeing things, but I imagined that Payne and Saugstad were a bit profuse in their farewells when it came time

for them to go ashore!

The ship was a modern vessel. Like all Norwegians, she was well kept and beautifully clean. The steward gave me a comfortable little room on the bridge deck, next to the captain's quarters. Here I was to spend a quiet and, in view of the circumstances, a not uncomfortable three weeks.

The captain, Frode Bjorn-Hansen, was a great lean man with large hands and a strong face. He was typical of the Norse seafarer—quiet, capable, determined. He had been at sea since he was a boy. I could tell at once (as a former seaman) that he was a real skipper.

Like most captains, he lived a lonely life aboard ship. Yet he was held in high esteem by his men, and the work went forward with-

out fuss or bother.

The ship was built in Germany. The Norwegians paid for her with fish. It was an ironic thing, I thought, that this product of Dr. Schacht's barter system should now be on her way to Europe with a cargo of death for the people who made her.

Bremen gave this ship to the world. Now Bremen, in retribution for a crime against humanity, would be made to suffer through

the instrumentality of its own skill.

The men were obviously good sailors. They bore the stamp of an early start and long experience—twin requisites of good seamanship. Many had worked in sail. Some had already had experience with Nazi U-boats. One chap, a mere boy, had survived three sinkings—twice by torpedo, once by mine.

The crew was almost entirely Norwegian. The exceptions were in the steward's department. There we had a sort of international brigade. The cook was Norwegian. His three messboys were divided up as follows:

one Canadian, one Scot, one Czech.

The men were of all ages. The oldest was

57, the youngest 17.

Most of the men had families in Norway. The steward was married a few weeks before the war, and had not seen his wife since. The saloon messman had not heard from his family in nearly three years. The radio operator had only a wedding ring to remind him of a happy marriage.

The skipper's brother is in a concentration camp. He has had no news of his wife and children except a letter from a relative, smuggled out by way of Sweden, which said, "It is not so bad for the older people, but it is pitiful to see the children go hungry."

It is no accident that Norwegian seamen, when attacked, fight in a cold fury and that, when their vessels go down, they ship again

at the first opportunity.

The Norwegians have been maintaining a good portion of the Atlantic life line, and I was anxious to see them in action.



The Author Tries on a Regulation Rubber Suit

The Norwegian Government provides such exposure outfits for every man who sails in danger areas. Seventeen thousand were ordered at one time. Many lives have been saved and arms and legs preserved through their use (page 211). hundred Norwegian seamen have lost their lives. But Norwegian

Ships have been Norway's number one contribution to the war effort. Before the war, the Norwegians had the fourth largest merchant fleet in existence. The Germans got some of it, but the balance, amounting to some 900 ships of more than 6,000,000 deadweight tons, was thrown into the Allied war effort.

It is hard to imagine what we would have done without this fleet. Norwegian vessels were at one time carrying nearly half of Britain's oil supplies, and a good percentage of her other requirements. The work of these vessels was so outstanding that a British editor was prompted to write:

"It is probably an understatement to say that, at the present time, this fleet is worth more than a million soldiers." Norway has also contributed much to the war effort of the United States. Norwegian vessels have brought in prodigious quantities of raw materials essential to American industry. Outward bound, they have carried supplies required abroad (principally in Latin America) to enable our friends to carry on.

These ships carry cargoes designated as essential by the American Government, and they work for rates set by the War Shipping Administration. Their assistance has been hardly less important to the United States than to Britain.

The Norwegians, like the British, the Dutch, the Greeks, the Yugoslavs, and now like ourselves, have had to pay dearly for their devotion to the cause of freedom. To date, some 350 ships aggregating more than 2,324,000 deadweight tons, have been sunk or captured. Eighteen hundred Norwegian seamen have lost their ships, and Norwegian

seamen, continue to sail the seas.

"We Moved Majestically Out to Sea"

We left at noon. It was a beautiful day and the harbor was aglow with light and color. Coast Guard vessels escorted us through the traffic. It was an unnecessary precaution. The red flag on our foremast seemed to have an almost magical effect on other vessels and we were given a wide berth. Preceded by our outriders, we moved majestically out to sea.

Our progress from there on wasn't quite so majestic. We were bound for another port, several days away, where we were to join a transatlantic convoy.

Enemy submarines had been operating in the vicinity and we were forced to proceed with extreme caution. We traveled part of the way in a coastal convoy, part of the way alone.

It gave me a queer feeling, in view of the reliance which we once placed on distance, to be slinking thus along the coast of my own

country.

We saw at one place the masts of a sunken ship, rising from the sea within sight of land. At another place we passed the smoldering remains of a onceproud tanker demolished in the midst of a futile attempt to deliver gasoline to the eastern seaboard. We wondered about the crew.

It took us a week, including a three-day stop en route, to reach the port from which we were to leave for Britain. The harbor was crowded with ships. Big ships. Little ships. Immaculate cargo liners and rusty old tramps.

They lazed at anchor and awaited the signal that would send them plowing across the

the graves of hundreds

of their predecessors. The skippers scurried about on shore attending to the seemingly endless paper work connected with clearing a ship in time of war.

There was also the convoy conference to be attended, a meeting called by naval authorities to instruct the merchant captains in the technique of sailing in convoy (page 199). After the conference there would be the business of getting out to the ships, and then we would be off.

The convoy in which we came up the coast had been disbanded. A new convoy, 60 vessels strong, was formed for the trip across. I will discuss this convoy in some detail to show how the system operates and to give an idea of the patience and skill required to



British Combine

There Is No Time for Frills aboard Ship

plowing across the North Atlantic over

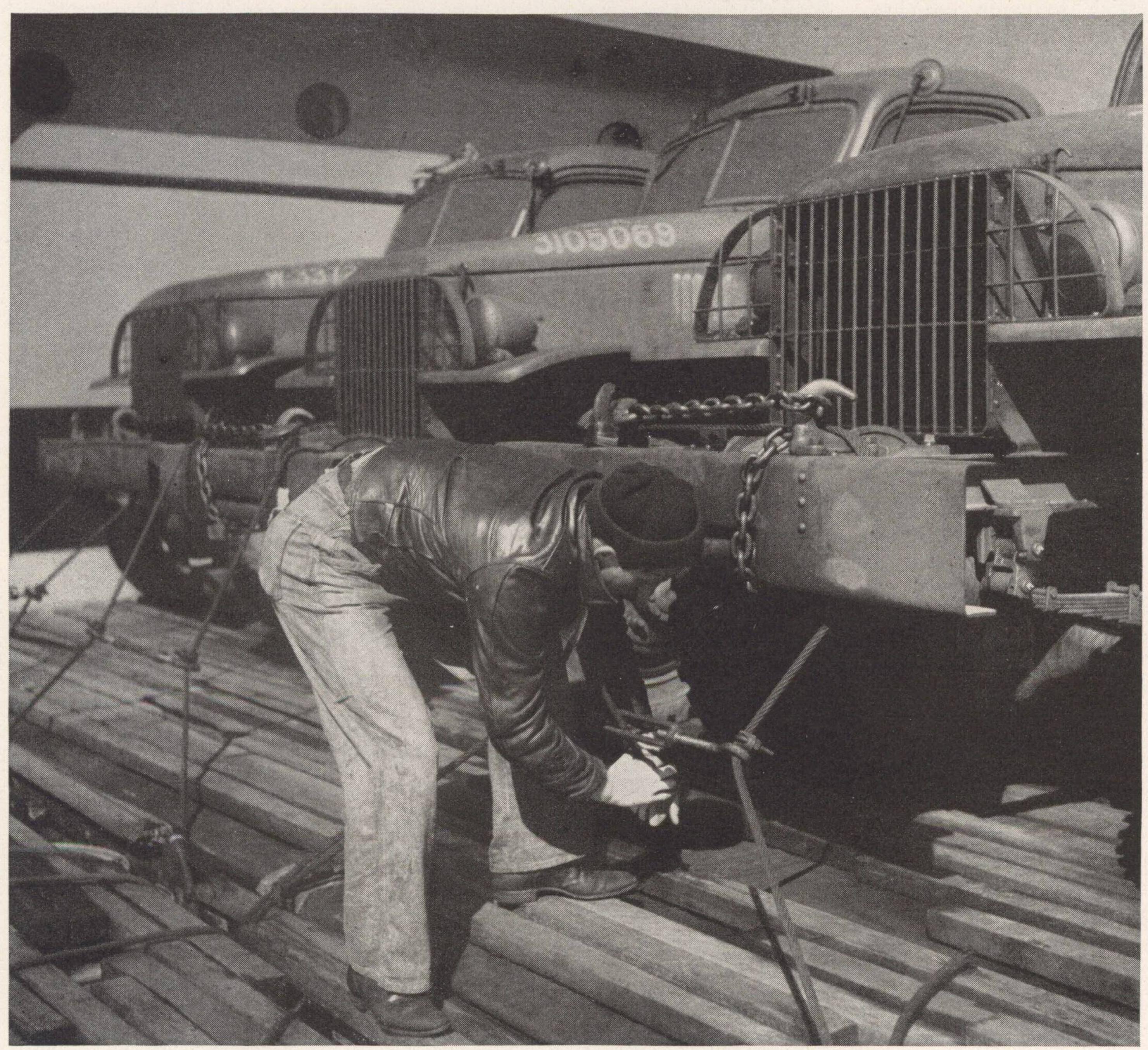
Convoy men have to be ready for action at all times. Every man must be at action stations within 90 seconds after an alarm. This gunner takes no chances; he puts a mirror on the gun and shaves at his post.

move such an aggregation of vessels across 3,000 miles of ocean. Sailing 60 ships in a group would be a feat of seamanship in time of peace; in time of war, it is sheer genius.

Making Up a Convoy

Making up the convoy is a complicated operation. We were told to be ready to leave at 3 o'clock. At 2:45 the pilot came aboard, and sharply at 3 we received the signal to upanchor and put to sea. Twenty or 30 ships had already left and were now taking the places which had been assigned to them.

Each skipper had been given a diagram of the convoy at the conference, showing the position to be taken by his ship. We made our way slowly out of the harbor, joined the



Harvey Klemmer

It Takes All Kinds of Cargo to Win a Modern War

United States is sending men abroad with the tools they need to do a good job. We are also helping to victual and munition our allies. To speed the tempo of distribution, thousands of sturdy American trucks are shipped as deck cargo. Lest they shift in bad weather, they are secured with cables and chains.

other ships outside, and finally, after considerable maneuvering, found our place in the line-up. they can detect a submarine some distance away. In case of attack, they race to the scene and drop depth charges in a pattern

Convoys, contrary to popular opinion, do not proceed in long lines fore and aft. Instead, they are spread out sideways. A convoy is thus likely to be wider than it is long (pages 198, 201, 206).

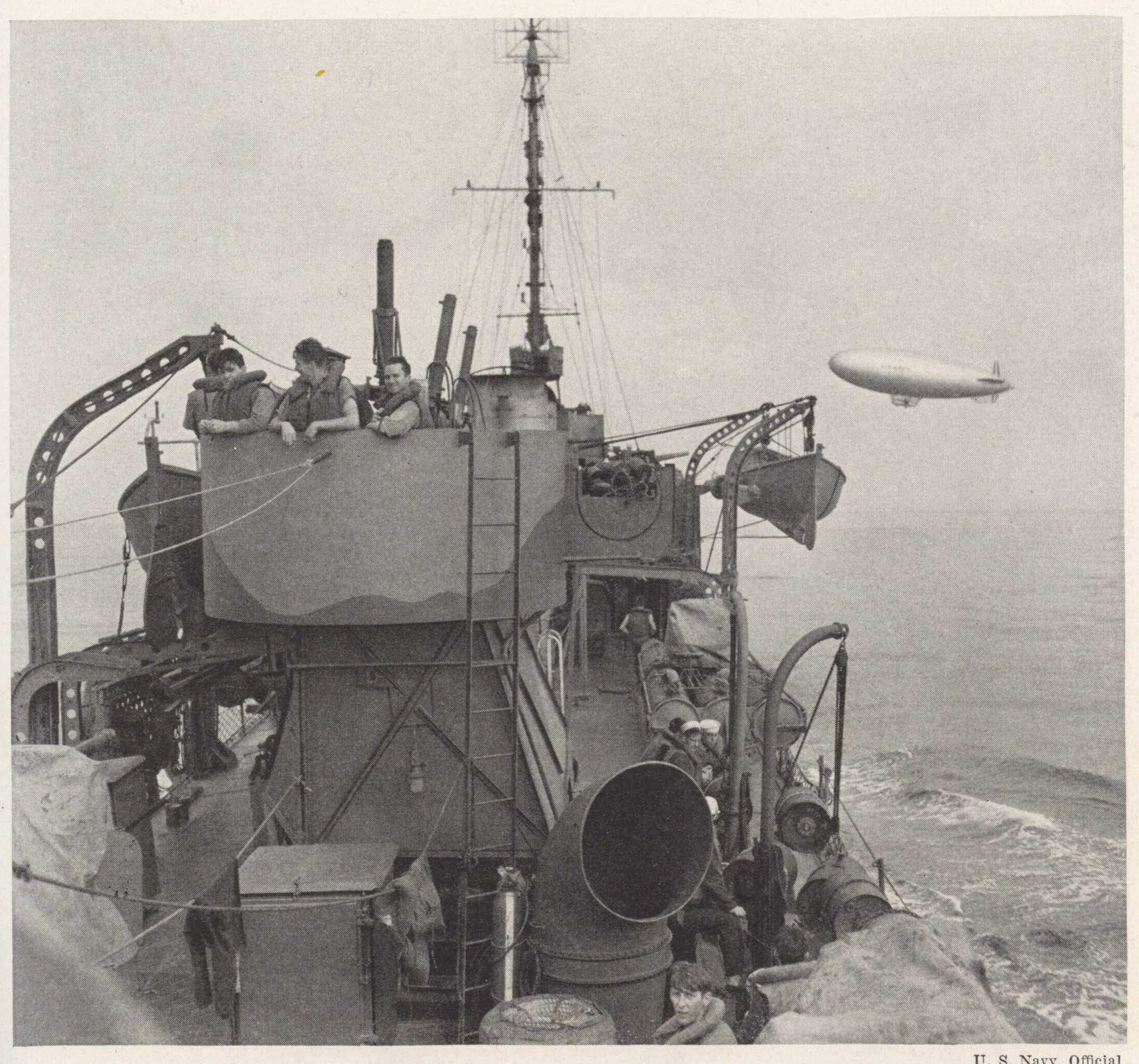
The reason for this method of grouping is that ships are more vulnerable to attack from the side than they are from the bow or stern. Ships sailing side by side protect one another's flanks. Moreover, a group of this sort is more compact than one containing long rows of vessels in a fore-and-aft line and consequently is easier for the escort ships to watch.

The latter vessels take up positions before and after the convoy and on the flanks. They have sensitive listening devices with which they can detect a submarine some distance away. In case of attack, they race to the scene and drop depth charges in a pattern designed to trap any submarine within the danger area. The system must work, for subs have become increasingly wary in their encounters with convoyed vessels.

Submarines Greatest Menace

I am naturally unable to say much about the escort accompanying our convoy. There were destroyers and corvettes. The protection was much less than I had imagined it would be. It apparently was enough, for we saw no sign of the enemy on our trip.

The hazards which beset a ship these days are many. The greatest menace remains the submarine. Long-range bombers, from which the Germans expected good results, have not



U. S. Navy, Official

Wherever Men Sail, Wherever Cargoes Move, the Navy Stands Guard

They have been called "shepherds of the sea," these swift patrol ships of the United States Navy. "Wasps of the sea" would be more appropriate. A look forward from the afterdeckhouse shows a machinegun nest for fighting off enemy aircraft, center; torpedo tubes for use against surface vessels, right; toward the camera, depth charges so deadly to U-boats. The blimp is part of the Atlantic patrol maintained for the protection of coastal convoys.

proved to be much of a menace. Any convoy which can send up fighting planes, either from a carrier or by catapult, seems to be safe from the type of big bomber which the Germans used to use in the Atlantic.

The ordinary bomber has proved to be very dangerous in restricted areas, especially in north Russia and on the route to Malta. Even here, however, carrier-based fighters give promise of relief from the admittedly heavy losses of the past. The great September battle off the North Cape proved that a convoy with air support and plenty of escort vessels can fight its way through hostile areas.

The losses of merchant vessels in that convoy were nothing like those claimed by the Germans. Not a single escort ship was lost.

The British apparently have the mine situation under control, including the deadly magnetic mine. Surface raiders have not played as much havoc with Allied shipping in this war as they did in the last.

The fate of the Graf Spee and the Bismarck has caused other warships to stick pretty close to their home ports.

Vessels of Many Types

Our convoy included vessels of every type. Freighters, of course, predominated. There were oil tankers, including some very fine ones. There was a famous whaling ship, with the greatest carrying capacity of any ship now affoat. There were little ships. There were oil burners and coal burners, and motor-



run vessels must forces in the Solomons, ve the 6,100-mile great-circle id to our fighting much longer than across aid Convoy savage warfare now raging at sea. In carrying a San Diego to Guadalcanal their winding track is cargo craft submarines. unescorted s gantlet of place for dangerous no 13 re

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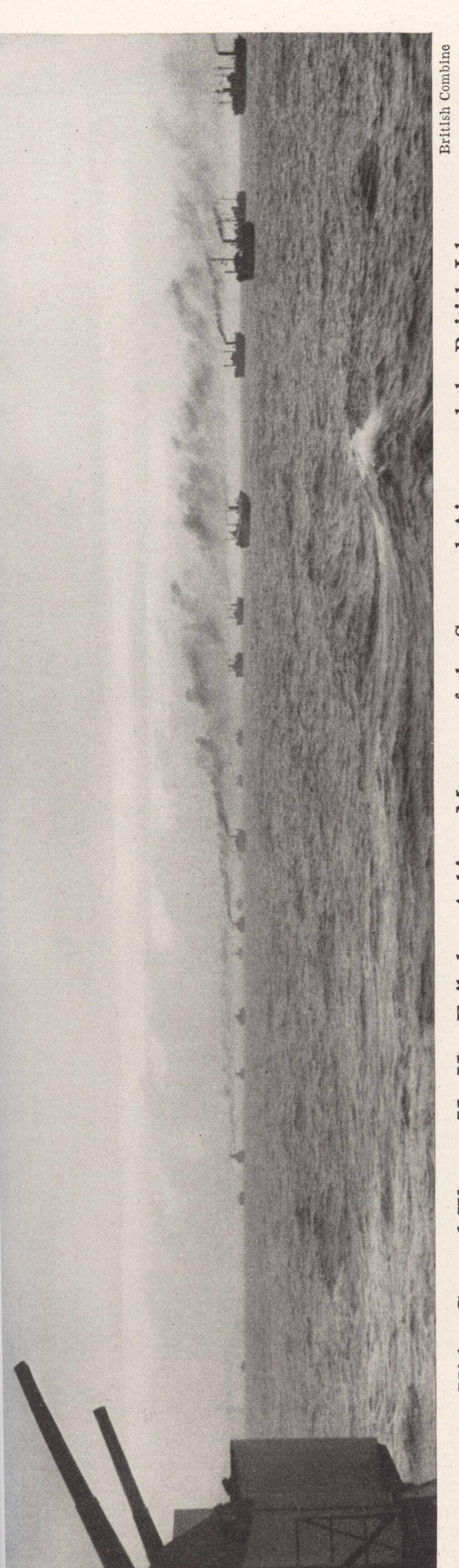
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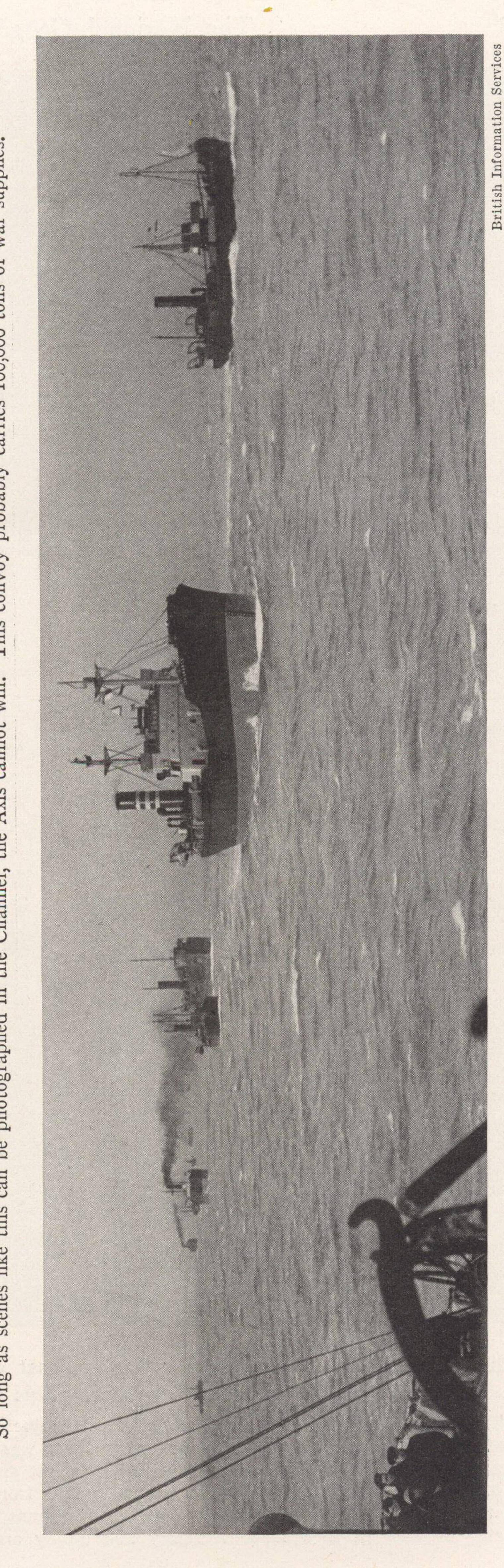
instru (page Voy the followed, precautions to be taken, and showing their positions in the convoy Instructions for Last-minute together to discuss the route to be receive code books and a diagram Receive of Merchant Vessels all captains t Captains Convoy Conference, calls the Commodore of emergencies. sailing, before



numbers 500 vessels. This nation of only eleven and These figures were announced recently by the Canadian M that now d Russia! built a navy to Britain an rn neighbors have convoying supplies Starting from scratch, our northern 45 percent of vessels co



supplies. war Isles the British This convoy probably carries 100,000 tons and Air around the Seas win. of to Achieve Mastery cannot Axis the the Channel, Failed in Has be photographed He Guessed Wrong; can this scenes like Hitler So long as



Supplied with Food, Arms, and Raw Mate this bastion of freedom. month to preserve the British Isles every -Keep Britain must reach Empire British ships Eight hundred Convoys Link the



U. S. Navy, Official

With a Thunderous Roar Depth Charges Blast a U-boat's Lair in the North Atlantic and Save Merchant Ships from Torpedoes

Two "ash cans," exploding simultaneously, raise geysers of death. This remarkable photograph suggests a gigantic bloom or a huge watery "V for Victory." It was taken from a speedy little PC boat of the United States Navy while an attack was being launched against an Axis submarine. Such fast submarine chasers, 173 feet long, are now prefabricated and turned out rapidly from the shipyards. They carry crews of about 50 men with three to five officers. Equipped with three-inch guns, they can put up a stiff fight against dive-bombing aircraft. Because of their maneuverability and deadly armament they are extremely effective.

ships. There were reefer (refrigerator) ships. There were old ships and new ships.

The only thing that matters in a convoy is speed. Ships doing 10 knots, say, go in one convoy; ships doing 12 knots go in another. The type of vessel doesn't count.

Several nationalities were represented. Britishers were first. Next came the Norwegians, with 14 ships flying the blue cross. A half-dozen Americans, a Swede, and a couple of Dutchmen completed the roster.

The fact that Sweden, a neutral who continues to trade with Germany, finds it necessary to put her ships in Allied convoys affords an interesting commentary on the ruthlessness of submarine warfare.

We had cargo of every description—food, explosives, ammunition, steel, medical supplies, guns, bombs, machinery, planes, tanks, timber, trucks. Also an item that bodes no good for the Axis in Europe—invasion barges.

Most of the freighters carried deck cargoes. They were piled high with vehicles and machinery to the point where some of them looked more like warehouses than craft capable of putting to sea.

They did put to sea, however, and hundreds of others like them put to sea every month, as concrete proof that America is beginning to hit her stride and that the products of the Arsenal of Democracy are finding their way overseas in ever-increasing numbers.

It was dusk by the time we were all clear of the harbor and squared away for the long voyage ahead.

Commodore's Flag Flies from a Freighter

The Commodore's flag flew bravely from a large freighter in the center of the convoy; other vessels carried the flags of the Vice-Commodore and the Rear Commodore.

If anything happened to the Commodore, the Vice-Commodore would take over; if anything happened to the Vice-Commodore, the Rear Commodore would take over.

I don't know where the line of succession would go after that. It probably wouldn't matter. A convoy which had lost all three commodores very likely would be at the stage where it was every man for himself.

We had a position at the outside of the convoy. The skipper grumbled a bit at that.

"I don't suppose it makes much difference," he said, "but you always feel safer in the middle."

The skipper had every reason to know what he was talking about. He had just survived a torpedoing that cost the lives of 14 of his men and subjected the rest of them to one of the most terrible ordeals thus far recorded in the Battle of the Atlantic.

The men escaped with only the clothes on their backs. One group, with the captain in charge, spent 10 days in a lifeboat. A second group spent 16 days in a dory. The rest of the men, who were on rafts, drifted 48 days before being picked up.

The men lived on rain water, which they caught in a sail, and raw fish, which they

caught with safety pins.

All of them, including those who had been out 48 days, were able to climb aboard the different ships which rescued them. Such is the stuff of which the men who sail our convoys are made.

Convoys Don't Turn Back

The coastline receded behind us and finally faded from view. We were off. Gone was the sight of friendly faces, the hubbub of cities, the security of the land.

We were on our own individually and we were on our own as a group. We were a little world in ourselves: 60 ships, 3,000 men, pledged to deliver the materials and the implements of war to those who would use them on the other side. We would not turn back,

no matter what might lie ahead.

Convoys don't turn back. The toll may be heavy, and they may be forced to scatter, but, sooner or later, they turn up at the ports to which their cargoes are consigned. Convoy captains just don't think in terms of retreat.

The night came down black as ink. Naval vessels signaled about us. We plowed on, dark and silent. Enemy subs were known to be in these waters. They lay in wait throughout the broad Atlantic.

Would a "tin fish" come crashing through the side of our little ship and send her plunging to the bottom of the sea? Would we have to leap into the cold water and pray that the vigilance of the Navy would save us from death? Would we drift for days and even weeks in an open boat?

Perhaps a torpedo would find its way into those neat white boxes. In that case, no further questions would be necessary.

Captain Bjorn-Hansen took no chances. He was a fanatic about precautions. Our boats were swung out before we got out of the harbor and made ready for instant use.

Chips (the carpenter) spent days greasing and oiling the gear so that everything would work smoothly if we had to abandon ship. The battery in the motorboat was watched like a baby to make sure that it was fully charged.



© Malek from Three Lions

Sailors, Like Soldiers, Want to Hear from the Folks Back Home

If you have any friends or relatives at sea, write to them. Nothing cheers the boys up better than a batch of letters from the home front (page 210).

The skipper was always looking around to make sure that everything was in readiness.

"We had three minutes to get off the ——," he would say. "On this ship, plan on one minute. If we escape the first torpedo, don't wait for another. We might be lucky once, but it isn't likely that we would be lucky twice."

One night the skipper smelled gasoline. He couldn't rest until the source of the fumes was established. It turned out that the men had spilled a little gas while filling the tanks in the motorboat. His attitude toward those fumes was typical of Captain Bjorn-Hansen's attitude toward everything on the ship.

The skipper was especially particular, it goes without saying, in respect to the boats.

"We had a little dory on the ——," he explained. "She was used as a work boat and not considered to be suitable for a lifeboat. Well, I had her stocked and cut the lashings so that she would float free if the ship went down. Sixteen men are alive today as a result of that simple precaution."

I learned later, from another source, that they had been able to launch only one lifeboat. Another boat, with 11 men in it, was blown to pieces by the second torpedo. Sixteen men, who had jumped into the sea, were

able to reach the dory which had floated free—as the skipper intended—when the ship went down.

Lifeboats Stocked with Supplies

The lifeboats on our ship were stocked with an elaborate assortment of supplies (page 205). There were sufficient water and food to keep us alive for a couple of weeks.

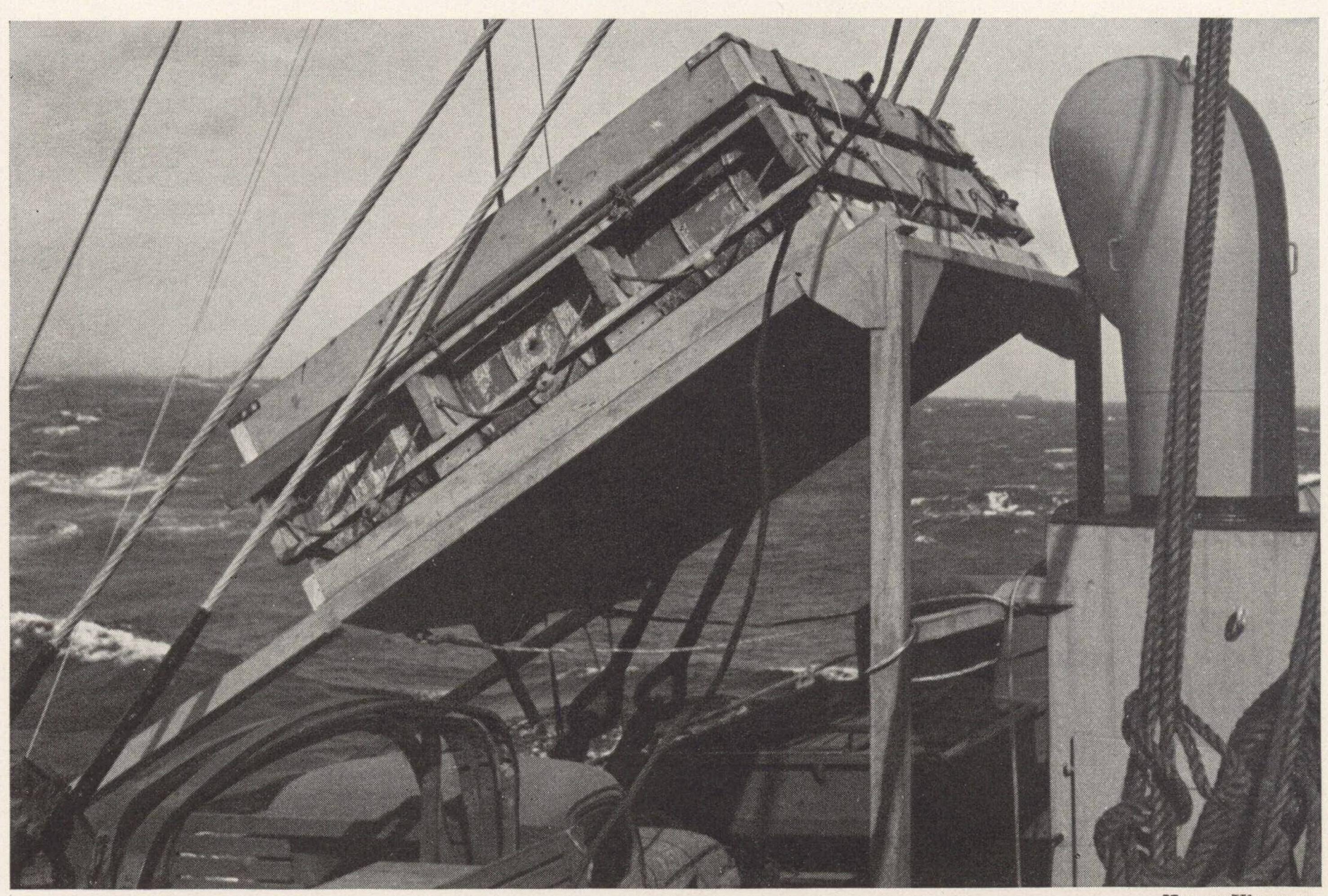
There were hatchets to be used in clearing away debris, extra clothing for every man, first-aid kits, matches, flares, flashlights, lanterns, and fishing tackle. There were canvas covers to keep off the sun by day, to protect against cold at night, and to be used for catching water when it rained.

Each boat, in addition, carried the usual complement of oars, a sail, and a sea anchor. The latter is a cone-shaped affair made of canvas, designed to keep the boat steady.

The lifeboats even carried oil with which the men could massage their arms and legs to keep from becoming rigid after days of sitting in cramped positions.

One boat carried a portable radio set which, when turned on, would automatically broadcast SOS signals.

The days of hardtack are over for lifeboats. Modern science has given to seafarers special



Harvey Klemmer

Lives Depend upon Quick-acting Lifesaving Equipment

Lifeboats, in time of war, are augmented with rafts. These cumbrous but effective devices are mounted on stands so they can be released by cutting a line. If the ship goes down before the rafts are loosed, they will float free. All lifeboats and rafts are stocked with food and water, warm clothing, medicine, lights, signal flares, navigating instruments, and fish lines (page 204).

rations containing ten times the nourishment of hardtack. One of these products is known as the "C ration" and tastes like a graham cracker. Another is a sort of pemmican, made from dried meat, raisins, and sugar.

There are also chocolate tablets (including some which won't melt in the sun) and milk tablets.

Self-heating Foods

One of the most interesting things in our boats was an assortment of self-heating foods. These foods are packed in a special can which, when punctured to admit air, will become piping hot in 15 minutes. Coffee can also be secured in these remarkable containers. We found it difficult, on our ship, to withstand the temptation to try one of these things just to see how they worked.

In addition to boats, we also had several rafts on board. These were lashed to the rigging in such a way that they could be dropped into the sea merely by releasing a gripe. The rafts were equipped more or less the same as the boats.

We kept double lookout throughout the voyage; one man on the bridge, another on the fo'c'sle head. In addition, the officers

usually overstayed their watches, while the Old Man more or less lived on the bridge.

Sometimes, with the officers and the quartermaster, we would have as many as six people scanning the sea ahead. That would be people on duty. Those of us who weren't on duty also spent a great deal of time scanning the sea. Somehow, crossing the Atlantic in time of war, with TNT for company, makes one very conscious of the beauties of Nature!

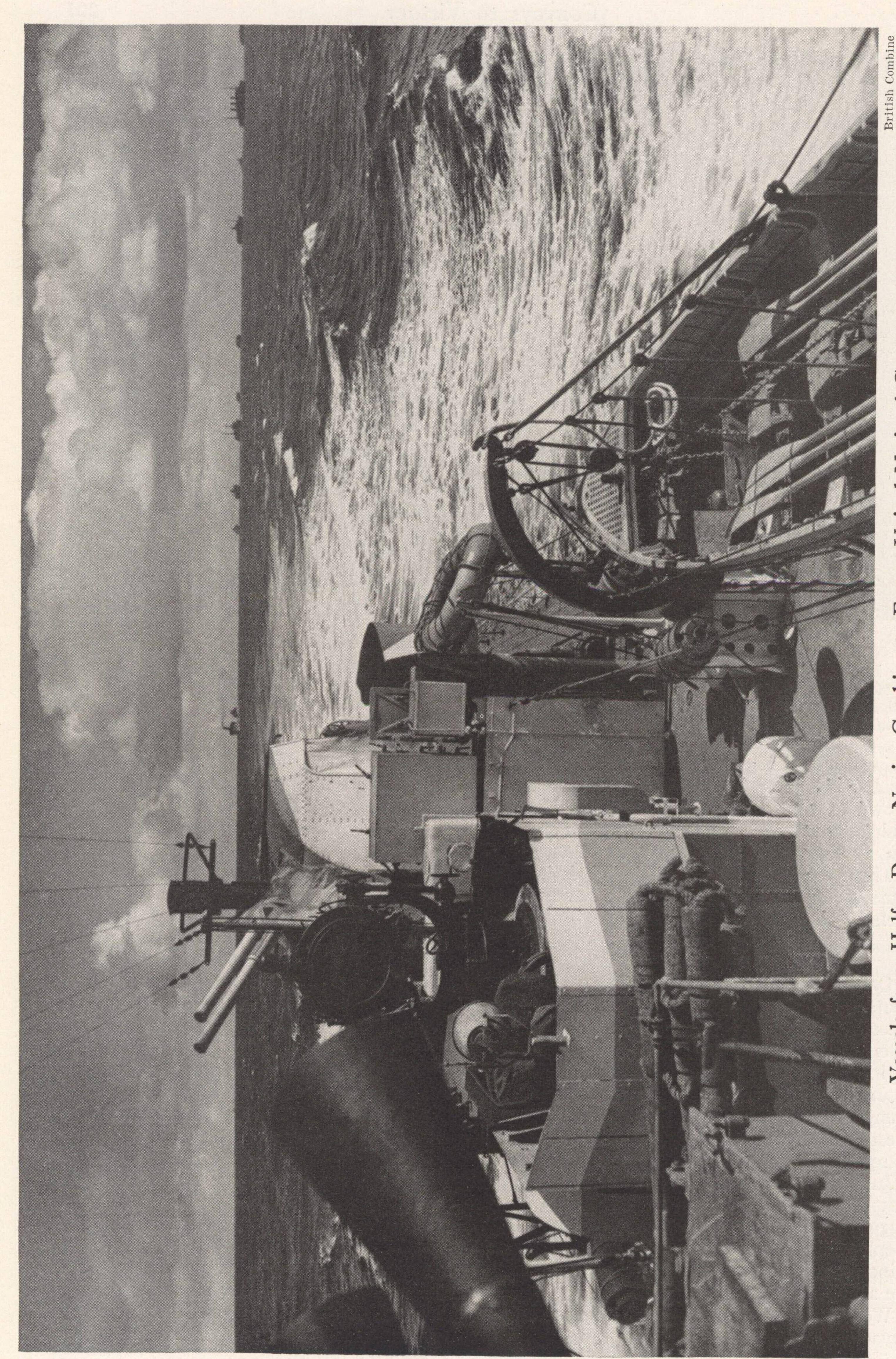
All ships naturally are blacked out. Portholes are painted over. Outside lights are removed, while alleyway lights are replaced with blue bulbs.

The dining saloon and a few other rooms on our ship were equipped with wooden shields which could be put over the portholes at night and then removed in the morning to admit light and air.

Most of the portholes were painted over, however, so that if it was too cold to open them the men had to use artificial light day and night.

The Commodore was very particular about the blackout. One morning he signaled:

"The convoy was endangered last night by an unauthorized display of light. Be more careful in the future."





British Combine

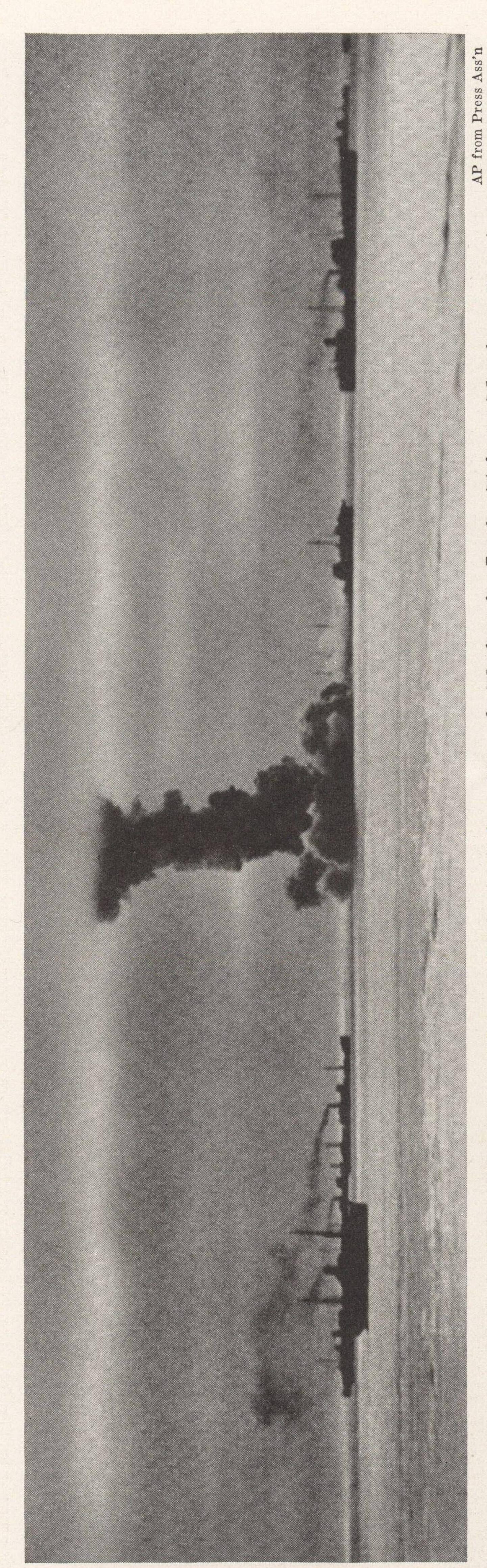
Music Airmen Fear the Enemy

convoy. It is wallop deadly because which the Naval men these days have a device which enemy bombers attempting to intervene in the the pom-pom, dubbed the "Chicago piano" by which can be played on it with 1.1-inch shells.

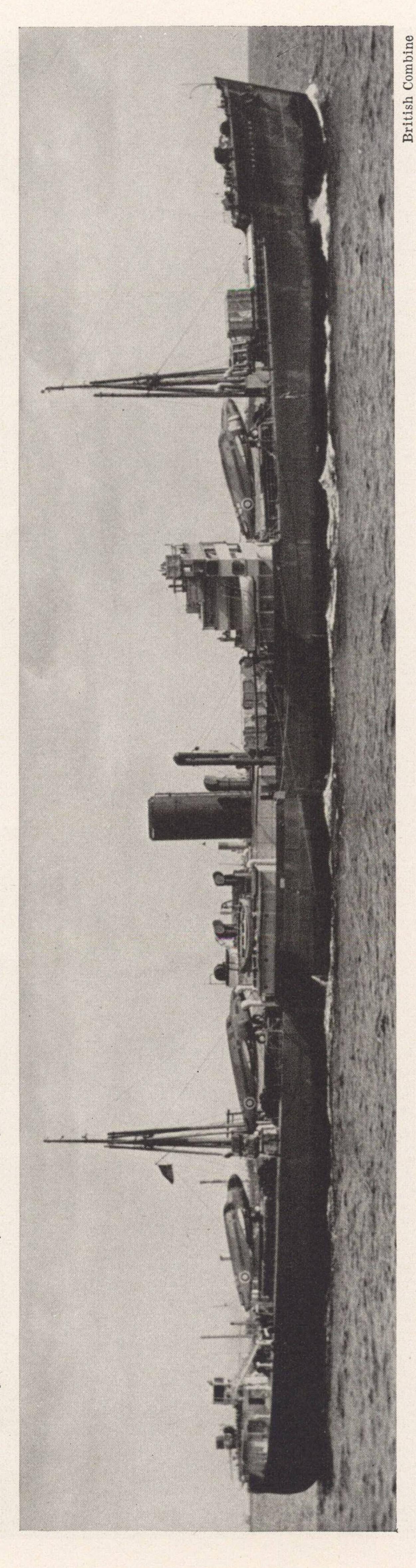
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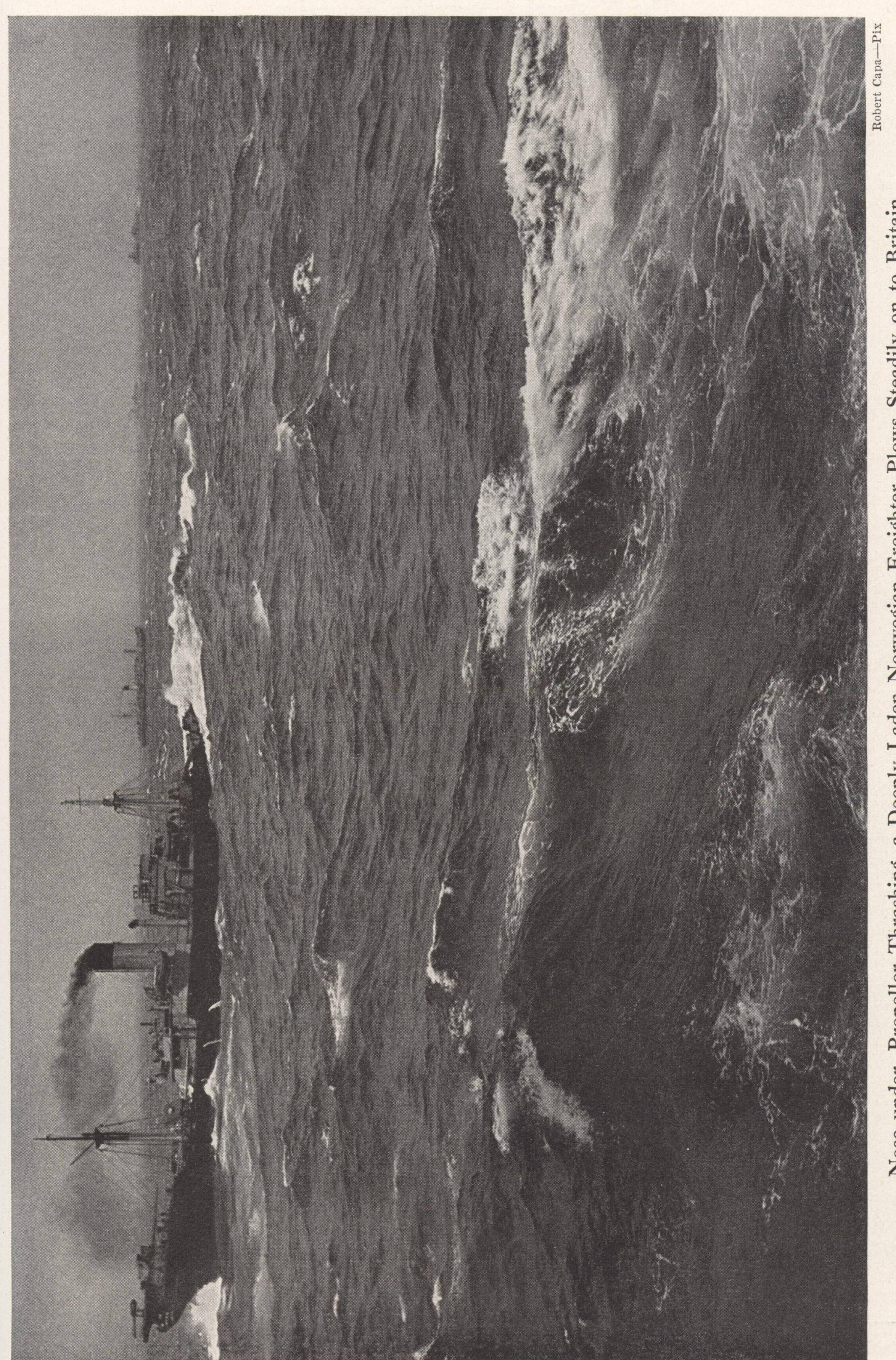
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materials weather and cause. Day and night, month after month enemy could invent has stopped the flow the vast bridg with cargoes Nose under, serves great



British Information Services

A Destroyer Postman Comes Alongside to Collect and Deliver Convoy Mail

Without slowing down, escort ships put mail aboard whenever possible (page 204). In good weather, contact is established between two ships by passing a line from one to the other. In bad weather, it may be necessary to shoot a line from a gun. Dispatches are passed from one to another in the same manner.

Personal radios are tabu in convoy. So are vacuum cleaners, electric razors, and the like. The enemy apparently can pick up the buzz made by electrical appliances. For that reason, all radios on our ship were locked up at the beginning of the voyage and the men were warned not to use appliances.

New Rubber Rescue Suits

The Norwegians have introduced to sea warfare a device which has saved scores of lives and which, in my opinion, should be standard equipment for all ships. That is the rubber rescue suit.

The first night we were at sea the skipper came into my cabin with a contraption which looked like a cross between a diving suit and a Dr. Denton sleeping garment. It also showed traces of an Eskimo parka.

"Here," said the skipper, "let me see you

get into this."

I untangled the contraption and finally, after a considerable struggle, found myself encased from head to foot in black rubber (page 194). The skipper looked at his watch.

"That won't do," he said dryly. "Keep on practicing until you can get into this suit in

15 seconds."

I kept on practicing until I could get into the suit in 15 seconds. It made the voyage

much pleasanter.

The Norwegians have ordered one of these suits for every sailor on their boats. The suit consists of a pair of heavy rubber boots, a coverall, and a bright yellow hood. Yellow is the easiest color to spot in water.

The top part is rolled down over the boots. The procedure for getting into the suit then is to jump into the boots, push your arms into the sleeves, and pull the suit up over your head.

The sleeves are equipped with tight cuffs to prevent leakage, and the whole suit is drawn around the neck with a cord to pre-

vent water from getting in there.

We kept these suits by our beds throughout the voyage. It improves one's morale immeasurably to know that he can leap safely into the water and drift for days, if necessary, without suffering any ill effects.

A gruesome aspect of the war at sea has always been the large number of seamen suffering from exposure. There must be some hundreds of men who will never be able to go to sea again because of the loss of arms and legs. Rubber suits will prevent these tragedies, at least.

The boots are weighted with lead to keep

the wearer upright in the water.

At the time he gave me my rubber suit, the skipper also handed me a life jacket to be

worn inside the suit; a knitted helmet; a long-bladed hunting knife; a whistle, and a red

flashlight.

"The jacket, in conjunction with the lead in the boots, will keep you upright and at the same time keep your head well out of the water. The helmet will protect your head from the cold rubber of the hood. The knife will enable you to cut yourself loose if you get caught in any lines, and it will be useful also if we should have to lash things together in making a raft. The whistle is to be used instead of yelling, in order to save energy. The red flashlight will help rescuers find you in the dark."

That skipper certainly didn't miss anything. I was especially grateful for the knitted helmet, having heard that bald-headed men suffer agonies in the rubber suits unless their pates are suitably separated from the hoods.

Ship Was Well Armed

Our ship was well armed. There was a new gun aft, a brilliant weapon which we never tired of inspecting. The gunners spent a great deal of time cleaning and polishing it and trying out the various instruments with which it was equipped.

The gunners had just come from a training camp in Canada and they were anxious to try their skill. Unfortunately for them—fortunately for the rest of us—they didn't get an opportunity to sight on anything more tan-

gible than clouds.

We did have a couple of practice shoots with the antiaircraft guns, of which we carried four. Two of these were a new type capable of amazing performance. The mate one day gave me an opportunity to try one.

I touched the trigger timidly and then jumped out of the way to keep from being knocked down by the recoil. The men had

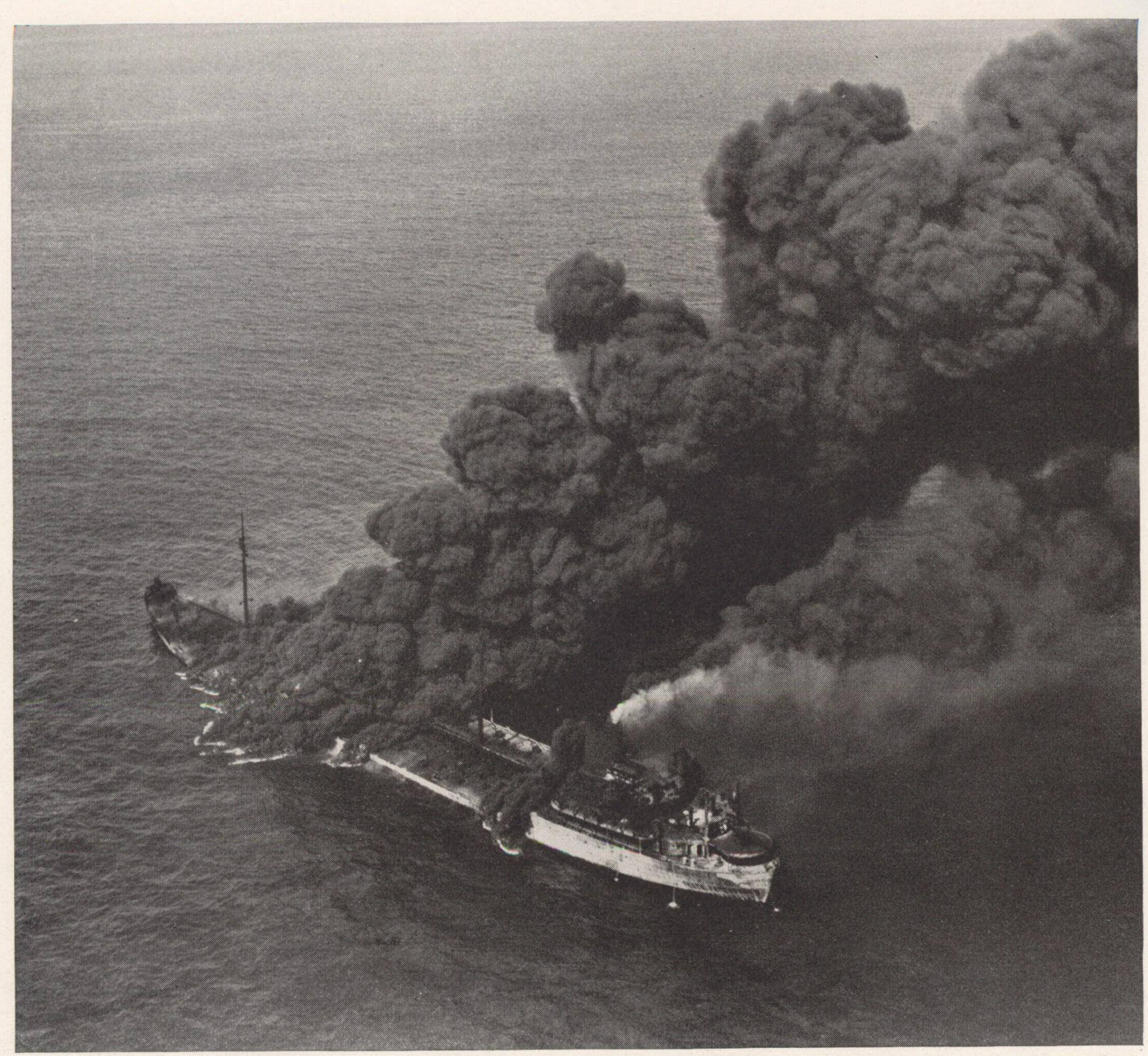
a good laugh.

"No," said the mate, "grab onto it. This is not a rifle. It is not a shotgun. It is a hose, and you must squirt it like a hose."

I squirted it like a hose. The bullets went out in a red stream. I should hate to be the pilot of a dive bomber rushing into that stream.

The ship had been strengthened in various places as a protection against bombing and machine gunning. The bridge was encased in cement blocks; also the radio shack. The gunners were protected by steel shields. The pilothouse looked like a machine-gun nest. The helmsman, when he took his eyes off the compass, gazed upon the outer world through a loophole the size of a shoe box.

The days went by. We loafed and read



U. S. Navy, Official

Here Is One the Axis Didn't Get: An American Tanker Shortly after Being Torpedoed

Despite a raging fire which sent columns of oily black smoke billowing into the sky, crew members remained aboard and succeeded in saving their ship. The battered craft was towed to port by a U.S. Navy vessel; her doughty crew saved from death.

and sat in the sun and did the work of the ship. At night we argued and cussed the Jerries and worried about the future of our respective countries. We slept in our clothes.

"If you have to undress, do it in the daytime," said the Old Man. "I don't want anybody running around in his nightshirt when it comes time to abandon ship."

I found it difficult to sleep with my shoes on, so I compromised by putting on an extra pair of woolen socks.

We let our whiskers grow. The men, I noticed, managed to keep clean. I bathed once or twice but soon got out of that habit.

Invariably, as soon as I stepped into the tub we would get some kind of signal from the Commodore and I would have visions of having to go overboard au naturel. Civilization

has spoiled us to the point where we are very helpless without clothes.

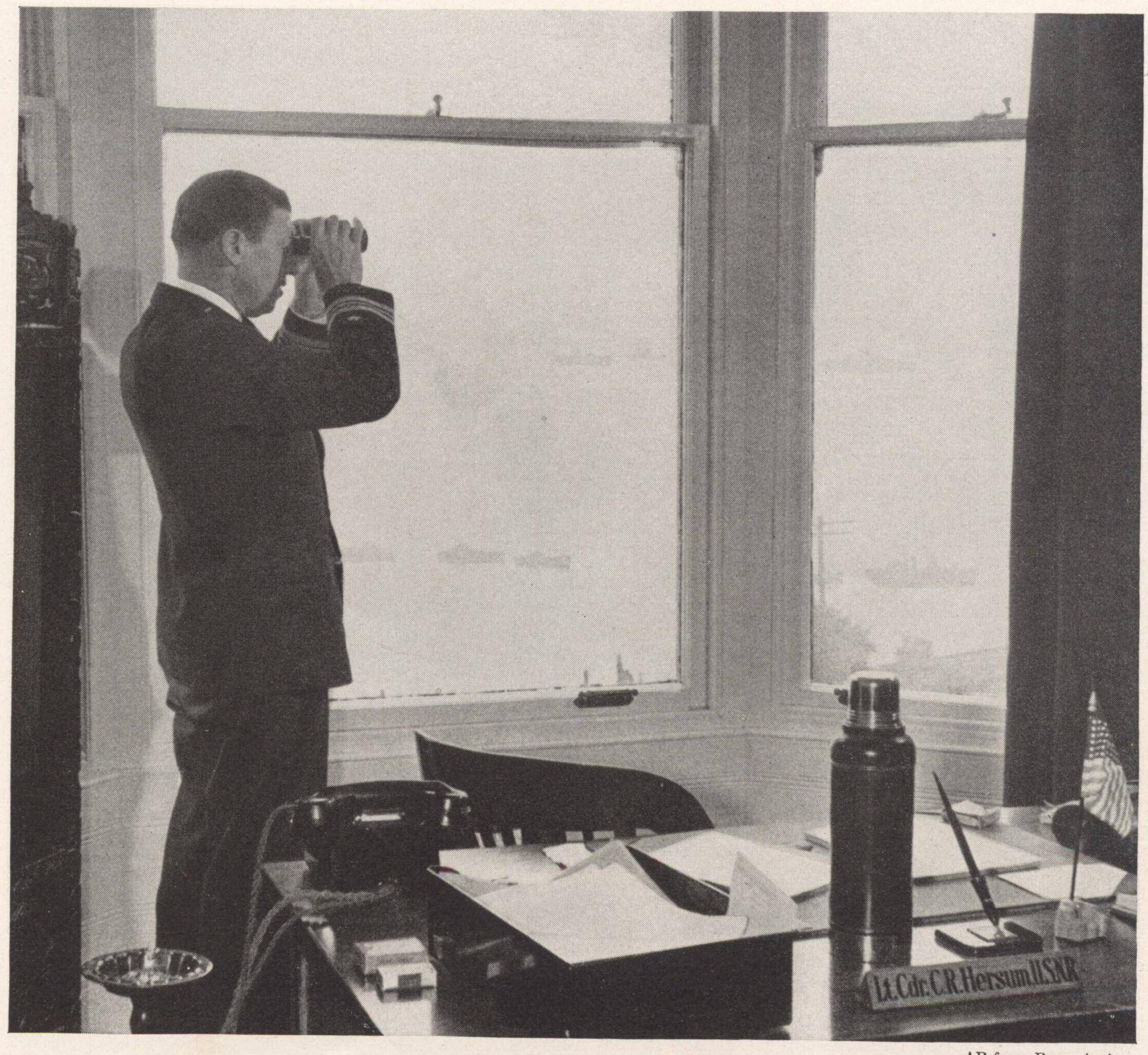
After a week of good weather, we ran into a bad fog. The skipper was on the bridge four days and four nights without respite.

60 Ships Keep Together in a Fog

Sometimes we could hardly see the bow of our own ship. Meanwhile, we were expected to keep our place in a great convoy containing 59 other ships. God must look after seafarers at a time like that.

It is nothing short of a miracle that ships in convoy are able to come through a North Atlantic fog without disastrous collisions.

Everlasting vigilance is the only safeguard. Officers and lookoutmen probed the mists hour after hour to spot any gray shapes which



AP from Press Ass'n

A Convoy Arrives in Britain, Bearing Sinews for the Second Front

Another voyage is over; another great caravan of weapons has arrived for use against the Axis. As many as a hundred vessels, carrying more than half a million tons of war supplies, have been sent to Britain in a single group. From his overseas office a U.S. lieutenant commander looks over the anchored ships.

might come too close to us. Sometimes they Notwithstanding our precautions, we were would get quite near before being detected. Then there would be a quick toot of the whistle, the flash of an electric torch, perhaps an abrupt change in course.

Once the Commodore signaled for all vessels except those at the end of a line to hang cargo lights over their sterns. We also put out our fog buoy. This device of wood and metal, when towed behind a ship, will keep other ships off her taffrail (page 214).

The buoy is towed several hundred feet behind the ship. It digs into the water in such a way that a sizable geyser results, much like the spout given off by a large whale. This spout can be seen quite a distance. It also makes enough of a hiss so that it can be heard as well.

hard put to keep our position and once or twice we strayed from the fold. On one occasion, we came out of a foggy night to discover that we were in the wrong line. That wouldn't have been so bad except that between us and the line where we belonged was another line.

Morning Search for Lost Ships

How we got through this intervening line without being challenged, or bumping somebody, must remain a mystery of the convoy system.

We were not the only ship to have this experience. In the morning, after a bad night, we would amuse ourselves by looking for lost vessels and laughing at the skippers



Harvey Klemmer

Convoy Vessels Tow a Buoy in Fog to Keep Ships Astern in Position

During the last war, such craft dragged barrels to prevent others from crashing into them during thick weather. Today our captains have a better device, the fog buoy, which resembles a surfboard and creates such a commotion in the water that it can be heard as well as seen for several hundred feet. In addition to skipping wildly from side to side, this contraption spouts water like a whale (page 213).

as they tried frantically to get back into their places.

Once or twice we got a little behind. I don't think anybody minded that. We all felt that, in a fog, our chances of going up in a collision were much greater than our chances of stopping a torpedo.

We never slowed down, no matter how thick the weather. We started off at a certain speed and we maintained that speed as best we could all the way over.

Sweet Soup and Fish Balls

The food on our ship was incredibly good. Norwegians know good food and Norwegian seamen are no exception.

We saw much of that old Norwegian stand-by—sweet soup—compounded of prunes, apples, and dried apricots. We also had sweet macaroni.

The cook used fish in endless variety.

Among the many fish dishes was a variety of fish ball known as the "Stavanger egg." The steward had put on a supply of lobsters and we worked on these all the way across.

The best part of a Scandinavian meal, so far as I am concerned, is the hors d'oeuvre.

The Norwegians are not behind the Swedes and the Danes when it comes to a smörgås-bord. In the afternoon at teatime, and in the evening, our messman would produce an array of canapés that would do credit to any hotel. I usually ate so many of these things that I could not do justice to the meal which followed.

The messman's ability with the smörgåsbord, we discovered, was explained by the fact that he had sailed on passenger vessels before the war. He had spent 28 years in the Norwegian America Line.

"How many times have you been across the ocean?" I asked him one day.



Harvey Klemmer

Fog Provides Welcome Cover but Makes Convoying Difficult

Sailing the 50 or 60 vessels of a large armada through mists of the North Atlantic requires dauntless seamanship and courage. This is especially true when one of the ships, such as the author's, carries a cargo of explosives! The thick weather lasted eight days. It hid the ships from the enemy but made the captains nervous (page 212).

He thought for a moment, then said simply: "This is my 564th crossing, sir."

We figured out that he had traveled the equivalent of nearly 100 times around the world.

One night a flare—the signal for subs—went up from one of the ships. We saw nothing further and concluded that it must have been a false alarm.

After the fog lifted, the weather grew colder. The sun shone dully, if at all, and the wind began to blow. We had cold, gray skies the rest of the way in.

The Refinements of Zigzagging

Several times during the voyage we had maneuvers. The Commodore would order two or three sharp changes of course. Sometimes we would all change at once; at other times each ship would proceed to a specified point and then turn.

These exercises were carried out to get the captains used to changing course en masse so that they would not become rattled in case of emergency.

Zigzagging, as practiced in the last war, has been greatly refined. Ships in this operation do not, as is popularly imagined, veer from side to side in a regular pattern.

They may make a long sweep to starboard, then work their way back in a series of short sweeps. There are numberless combinations, all worked out in the sailing instructions, that may be used to take a vessel off her course and get her back again without adding too much to the length of the voyage.

The purpose of zigzagging, of course, is to prevent subs from getting ahead of a vessel and then releasing torpedoes as the vessel goes by.

As we approached the coast of Scotland, signals came from the Commodore in quick



British Combine

Patrol Sailors in the North Atlantic Tend to Their Knitting

A major difficulty of convoy operation, in the long, cold months of winter, is keeping warm. Another problem is what to do with one's spare time. British tars shown here have solved both by making their own caps, socks, and sweaters. But woe to the Nazis who take these tough fighting men for sewing-bee softies!

succession. The whole convoy was due to be reshuffled.

Ships peeling off for Scotland were ordered to take positions at the left; ships going to Northern Ireland went to the right, while those which, like ourselves, were bound for England got in the center.

It took about a day to accomplish this. When it was all over, we on our ship found ourselves in one of the middle lines, right behind the Vice-Commodore.

I could see Captain Bjorn-Hansen growing by the minute. He saw us entering port at the head of the parade, with only the Vice-Commodore ahead of us. And that's the way it worked out.

The ships for Scotland duly left us, along with part of our escort. The Commodore split off with the ships going to Northern Ireland.

The rest of us steamed proudly down the North Channel and, late one evening, beheld the noble sight of Scotland rising on one bow, while, equidistant and equally beautiful, Ireland came up on the other.

The next day, at noon, we dropped anchor in English water.

We were there!

There was no man who had been so long at sea that he did not get a thrill from the thought. We had come over the greatest sea route of the war; we had faced the enemy and outwitted him; we had brought to the people of these harassed islands 400,000 tons of food and weapons with which to carry on the struggle against tyranny; we had helped to hold—briefly but effectively—the life line of liberty.

It was 21 days since we had come aboard this thing of steel and wood, and 13 days since we had watched the American mainland drop over the horizon.

We did not complain. We had played our little part in history and we were satisfied.

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