

than its fellow, phrase 2, not only by being kept in the original key but by being lengthened to *five* measures, much as when we have something important to say we speak with a certain deliberation. The third and fourth phrases are repeated.

Folk-Songs are “Distinctive”

JUST as we saw that the communal character of folk-songs keeps them primitive, so a little thought will show that it will also, by eliminating foreign elements, keep them distinctively local. If any individual adds a feature to them which is not recognized and understood by the group as a whole, it will immediately fall out and be forgotten. So long as groups are small and cut off from each other, the distinctive character of each—its "local color," as we say—will be strong and undiluted. In sixteenth-century England, when the inhabitants of the next county were called "foreigners" and hated as such, the folk-songs of each county remained true to provincial type. Even to-day in the mountains of Kentucky,⁴ where many people live and die without traveling more than ten miles from home, the folk music is essentially English, little changed from that brought over by their ancestors. Thus different provinces, nations, and even races, are differentiated by musical traits which make their music

⁴ See Mr. Howard Brockway's collection of "Kentucky Mountain Songs."

distinctive so long as they are not reduced to uniformity by intercommunication. Italian tunes tend to triple time, Negro tunes to duple, Russian (and Slavic tunes generally) to complex alternations of duple and triple measures, such as are illustrated in the 5-4 time of Tschaikowsky's "Pathetic Symphony" theme, or this delightful Russian song:

"Ah, See the Old Pear-Tree."

From "One Hundred Folk-songs of All Nations,"
Musicians Library.



Sometimes, while it is difficult to point to any special feature, there is nevertheless no doubt of the distinctive group character, as may be seen, for instance, by comparing any five German songs chosen at random from Erk's "Liederschatz," with any five songs from Tiersot's "Sixty Folk-Songs of France" (Musicians Library).

Intercommunication cancels out these distinctive peculiarities, or fuses them

evitably eclectic, and no amount of wishing that it were Anglo-Saxon, or Negro, or Indian will make it so.⁵ Rather than look romantically to a past that is fled forever, it would seem wiser for us to face realistically our position in the modern international world, and try hopefully to make a new art worthy of our new situation.

⁵ See the present writer's chapter on "Music in America" in "Contemporary Composers."

In subsequent issues of The Outlook there will follow other articles by Mr. Mason which will explain how musical material is handled by composers and built up into great art forms. These articles are meant for all who would like not only to enjoy music but to know the reason for their enjoyment—and who does not? The next subject will be "Art Songs"

The Hunt for Sea Chicken

By ROBERT H. MOULTON

OUT of Smuggler's Cove, Santa Cruz Island, California, swept a seaplane and drummed away toward Anacapa, patrolling the channel as carefully as if it were on watch for submarines. It described interlacing "figure eights" which permitted its observer to scan every wave that passed under him. Suddenly the plane ceased to swing from the horizon and buzzed like a bee, in narrowing circles, over something in the water. Then it swung back toward Smuggler's Cove, and from it was tossed a "bomb," which drifted down gently, as if very light, and floated buoyantly when it struck the water.

A man in the crow's-nest of one of the boats in the mouth of the cove saw the

FISH-HAWKS see their prey beneath the ocean's surface as in the war airplanes discovered submarines. Now in peace time airplanes have themselves turned fish-hawks and patrol the seas looking for schools of tuna and other fish to supply the tables of American homes. The Outlook published over three years ago an article in story form by Laurence La Tourette Driggs that peered into the future of this sea falconry. Mr. Moulton's article here printed shows that what was then foreseen has come to pass.—THE EDITORS.

“bomb” and excitedly shouted directions. In a minute the boat, which for hours had lain like a painted ship upon a painted sea, was speeding toward the floating speck, and two men in a dory soon captured it and brought it on board. It was a hollow, water-proofed, water-tight paper carton. The captain of the boat tore it open and spread out the paper that was in it. The paper was a map of the coast of southern and Lower California from fifty miles below San Diego to Point Conception, divided into ten squares by lines of latitude and longitude. In one of the two northernmost squares was an X, one point of which was an arrowhead.

The "bomb" was from the intelligence

service of a large fish-canning company, and from the map and the accompanying foot-notes the captain knew that a large school of tuna swimming northwest had been spotted about five miles north of Anacapa.

In an instant the boat was racing to intercept the fish and the great purse-seine, twelve hundred feet long, was being prepared. It was a thrilling race for a worthy prize—thousands of dollars to be divided among the men on the boat if they should capture the school—but tuna can swim about ninety miles an hour.

Every man was at his post, quivering with eagerness, when an exultant shout from the crow's-nest told them the prize was within their grasp. Two men, holding one end of the great seine, immediately leaped into the dory, and the fishing boat, urged to the limit of its speed by its seventy-five horse-power motor, circled ahead and around the on-coming fish, playing out the seine as it sped. The top line of the seine was on the surface, while the leaded edge swiftly sank thirty fathoms. The leaping, playing fish dashed into it, and before they could dash out the under end of the seine had been drawn taut, closing them in like the flap of a purse, and 60,000 pounds of tuna were in captivity.

An Eastern magazine recently contained an article entitled "Wanted: A Master Fisherman," which lamented the asserted fact that the fish industry has not progressed. The great pastures of the sea, the article said, could supply more food than the great pastures of the land have supplied to the meat-packing companies if only some Armour or Swift of the fish business would put some system into it.

Evidently the author of that article was ignorant of the advanced methods employed by Los Angeles fishermen. Twenty-four fish-packing companies, the investments in which range from \$100,000 to \$1,500,000, are operating in the Pedro-Wilmington-Long Beach district, canning fish brought there from as much as nine hundred miles away, and in some ways their progressiveness is setting the pace for the fishermen of the world.

In the use of seaplanes, for instance, they are pioneers; in the equipment of boats they are ahead of most districts; in the maintenance of a fishing fleet of more than five hundred boats they have worked out a system of remarkable efficiency; and in the avoidance of waste they excel even the meat-packers. Every ounce of every fish is used, and some of

it is used twice. From much that cannot be packed as food fish oil is extracted, and then the residue is made into fish meal, much in demand as fertilizer for orange and other fruit ranches.

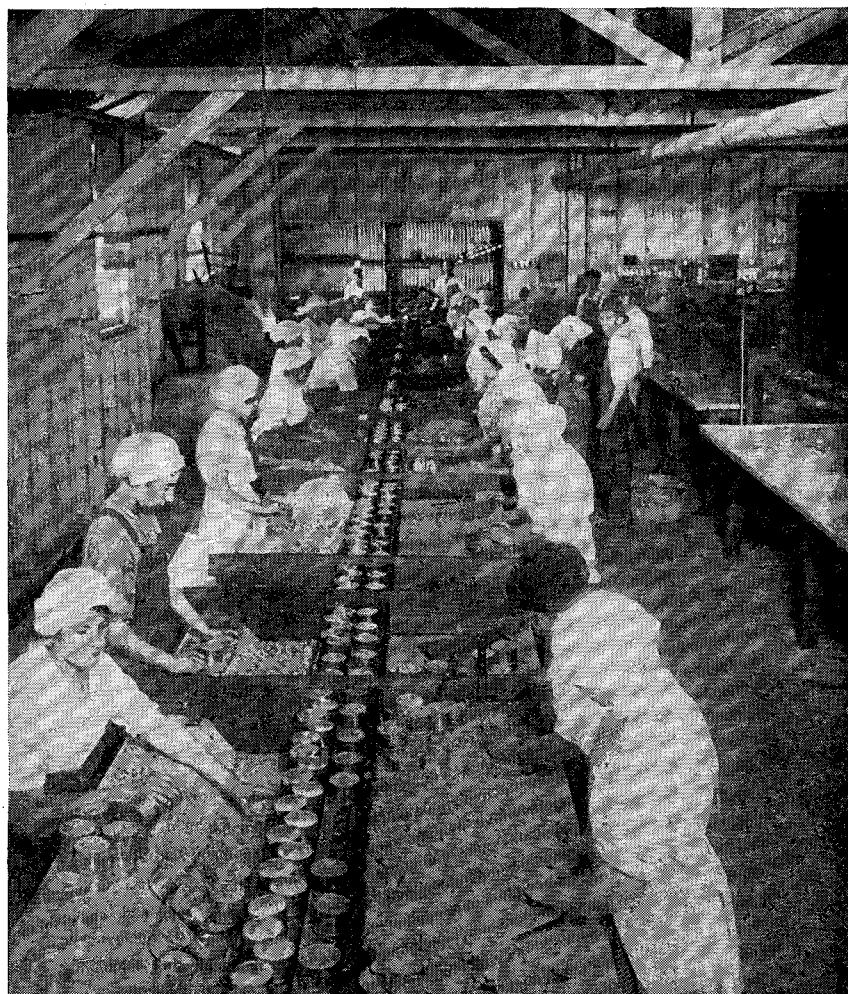
It is estimated that last season the Los Angeles canneries packed 30,000,000 tins of tuna. The tuna season ends in September, but following that the sardine season begins, and some of the packers do a bigger business in the winter than in the summer.

The use of the seaplane in locating tuna fish is comparatively new, and only the larger canning concerns are able to afford this form of scouting. The smaller companies and the independent fishermen rely upon the time-honored custom of sending their boats out cruising around until they find a school of tuna and then catching them with hook and line.

The hook-and-line boats start out of the harbor at two o'clock in the morning. There may be fifty or a hundred boats, and at practically the same moment they all lift their anchors and race for the open ocean. They are going after bait, which is in the form of sardines about four or five inches long and which are caught just outside the harbor. The sardines are caught in nets, and, as it is quite dark at the hour, each net is attached to a sort of floating dishpan in which a lighted lantern is placed. This lantern is to guide the man at the wheel, who gives the boat a slow turn while the net is being paid out. If he had judged correctly, when the net is all out his boat is again near the lantern. The fishermen then begin to pull in the net from both ends.

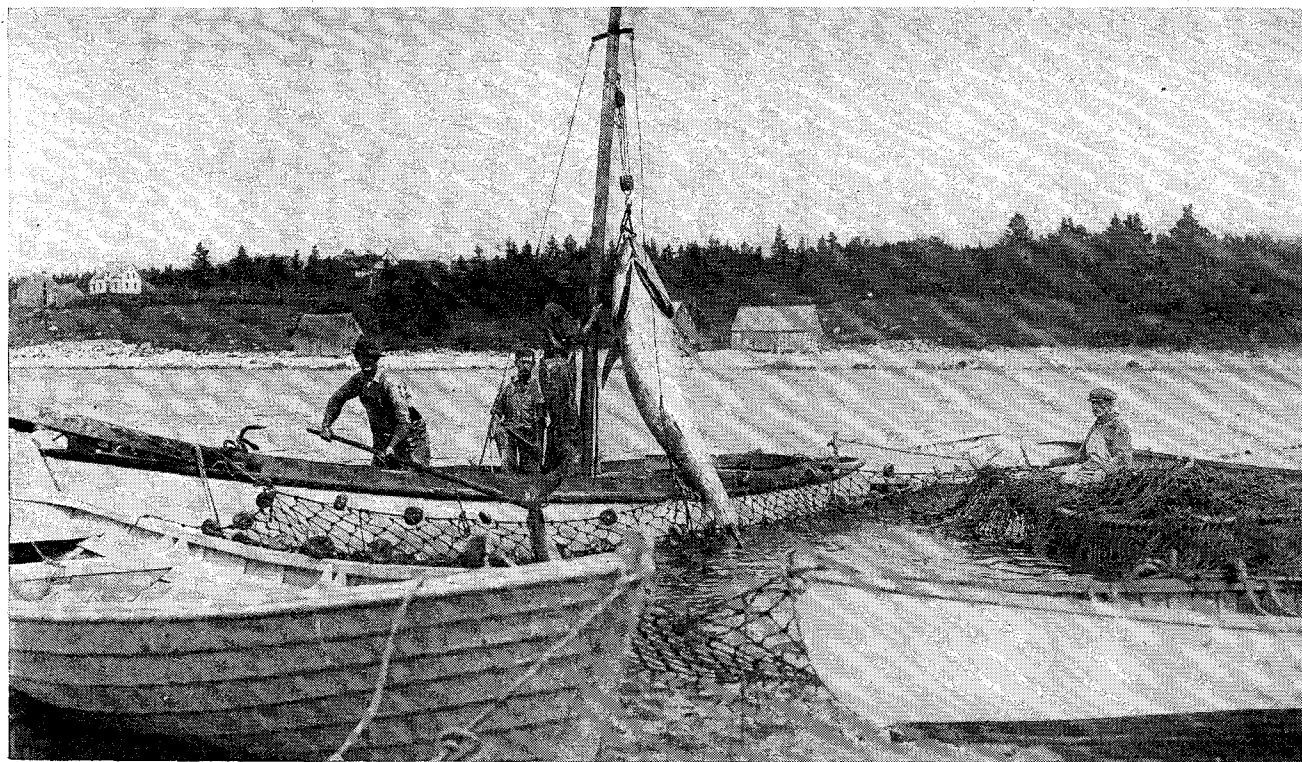
If they have good luck, there are many thousands of sardines in the net. These are used for live bait to tempt the tuna. If the first haul does not bring in a sufficient number of sardines, the net is again lowered and the boat noses around until an adequate supply is caught. The live sardines are then carefully lifted from the net with big dipper nets and placed in a huge tank built on the deck of the boat. It is necessary to keep a stream of fresh salt water constantly running through the tank, and this is accomplished by means of a hose attached to the engine of the boat. If for any reason the engine stops running, the fishermen grab buckets and dip water from the ocean into the tank until the engine starts again. The bait must be kept alive at all hazards.

When the boats have their tanks full of bait, they move farther out into the ocean, in different directions, until they usually lose sight of one another. By this time the sun is almost up, and a sharp lookout for tuna is kept. A line is let



(C) Pacific Fisherman, from Underwood

"It is estimated that last season the Los Angeles canneries packed 30,000,000 tins of tuna"



Underwood

Tuna travel in schools, are located by seaplanes, and then netted by fishermen. One prize catch totaled 60,000 pounds

out about a hundred feet on each side of the boat, and at the end of the line is a wooden contraption with a fish-hook, arranged to whirl like the spoon used in inland waters by amateur fishermen. When a curious tuna spies this affair, he makes a grab for it, is hooked, and immediately a watchful fisherman on the stern of the boat lets out a yell. This means that the boat has run into a school of tuna browsing around for breakfast.

Great activity on the boat then ensues. The man at the wheel makes a kick at a lever that slows down the engine and shifts the wheel to bring the boat around in a circle. A couple of men in the stern of the boat dip out the live bait and scatter it around on the water with prodigality, while all the other fishermen grab hooked and baited lines and cast them overboard. Then the fun and the business begin. The tuna grab the sardines, are hooked, and then unceremoniously hauled onto the deck. The hook-and-line fishermen use barbless hooks, so that no time will be lost in getting a fish off. A good fisherman in a big school will swing a fish out of the water, flop it loose on the deck, and swing the line back to the water almost in one unbroken motion.

The fishermen work fast and furiously until, all at once, the tuna cease to bite. They have finally got wise to the fact that they are being buncoed, and disappear as suddenly as they came. It is then necessary to troll around until another school is located—the fish never travel singly—when the fishing begins

again. This is kept up until the boat has its full load of fish or no more schools can be found, after which it heads for the cannery.

The purse-seine fishermen invariably follow the method described in the first part of this article. They rely on the man in the crow's-nest to locate schools of fish, and when they make a haul the prize is a rich one. Purse-seine boats have caught as much as sixty tons of fish at one haul. As a rule, however, they do not try to make too big a haul, as the frantic fish might break the net and get away. And a purse-seine costs around \$5,000, sometimes as much as \$8,000. As the purse-seine boats represent an original investment of \$15,000 or more each, it will be seen that fishing nowadays isn't altogether a poor man's job.

Most of the boats, however, are owned by the packers, in part or in full, and are known as contract boats, the fishermen agreeing to sell all their catch to those packers at stipulated prices. About ten per cent of the fishing craft in the vicinity of Los Angeles have been bought outright by fishermen who are independent operators, selling to the highest bidder. The contract boats have the advantage in that, no matter how overloaded the packers are, their fish must be accepted at the contract prices.

It is estimated that the hook-and-line boats will make average earnings of \$6,000 each in a season. After the expenses of the boat are paid the money is then divided among the crew, which averages four men. No wages are paid

on these boats usually, but the captain, especially on the larger boats, gets three or four shares in recognition of certain liabilities he incurs. The earnings of some of the purse-seine boats for the four months of the season are close to \$40,000 each, but the expense of operating these craft is greater and a crew consists of eight or ten men.

When the boats come in with their load of tuna, the fish are cleaned inside, the heads being left on, and then carried by conveyors to the canneries. After reaching the cannery they are weighed and hung up. They are then steam-cooked for two hours, and the dark meat separated from the white, only the white being used for canning. It comes out in solid chunks and resembles the white meat of chicken both in taste and looks. Hence the name "sea-chicken." Hundreds of women are employed in the canning process, and the routine has been worked out with great care, both as to cleanliness and economy of effort. Each can of tuna, after it has been sealed, is washed outside and then subjected to 240° of heat, guaranteed to annihilate any germ which might have been clever enough to get by all the other precautionary measures.

In districts where the tuna industry has reached its highest point the fish is known as "albacore," or, more familiarly, just plain "al." But, although the market fishermen have been catching them for years, they know as little about the habits of the tuna to-day as they did in the beginning. Even Uncle Sam has tried unsuccessfully to find out where the

fish comes from and where it goes. A few years ago several thousand were caught by a Government boat, thin metal rings fastened around the narrower parts of their tails, and then returned to the ocean. The idea was to see if any of

these fish ever came back to the same waters, or if they migrated to other parts of the ocean, and, if so, at what time of the year. But not a single one of those marked fish has yet been reported, although the fishermen have been given to

understand that a bounty would be paid for any fish caught with a ring around its tail. All that the fishermen seem to know about the tuna is that it makes its appearance in June or July, and may linger around until October—or it may not.

A Great-Grandfather of a Gale

By BILL ADAMS

A MAGAZINE has come to me filled with photographs of the old ships, and I am in a seafaring mood. There is, too, a fresh wind blowing from northwest down the valley, and the sea is ninety miles away in that direction.

The farmers will be complaining that the wind is drying out their soil, dropping or bruising their fruit, or irritating their cows. It makes me restless.

It would be a great day if in place of hog-stomached steamers beside the 'Frisco wharves there were ships. Those not yet discharged would be impatiently watching their laden sisters tow toward the headlands. But all the ships are gone. Eurydice and Cambrian, Sardonene and Lord of the Isles, Glenalvon and Goldenhorn. They are as rare today as is the passenger pigeon; rarer than the bison of the grassy prairie.

It is the time of the second dog-watch, and workingmen are walking home to their wives; to their bacon or beans, or layer cake and berries. Soon they will turn in to their long night's sleep. There will be no one to yell, "Rise and shine," in their ears; to order them aloft at midnight to a topsail a hundred feet high. A luxurious fellow, the shore dweller. Is he lucky or not? It is a matter of taste. I have a taste for roving.

Think of coming home to a wife after an absence of a year and a half at sea. Bringing her an armful of silks bought from a little fellow with a pig-tail on the world's other side; or sprays of pink coral and painted cocoanut shells traded for in the Marquesas; or a little gray parrot who already shouts her name, eh?

That was happiness. The stuff about a sailor having a wife in every port was a shore-going lie. We were like the rest of folks, only a bit fonder.

I have been thinking of a dawning long ago, on the voyage when we were bound from the Tyne to 'Frisco.

We were somewhere south of Staten Land, and for days, for weeks, had been endeavoring to beat to the westward. It was midwinter; hooting, screaming, August midwinter. We dwelt amid snow, hail, and driven rain. We stood a

fair chance of developing fins, or gills, or flukes, for we had been soaked to the skin for weeks on end.

Once the ship's galley had been wrecked, and for several days there had been neither skilly, coffee, nor hot soup to warm us. Then an unutterable calm had fallen upon us; the sea became like the inside of a whitewashed vault for dead whales; snow continual. Voices were audible fore and aft, the length of the ship. The thud of sea-booted feet sounded like the toppling of tombstones.

In those latitudes a calm means that the great-grandfather of all the gales will follow.

Now for six days that grandfather of gales had been romping on the Cape Horn sea. For over a hundred and forty-four hours he had buried us in the water smother, and the longer he raved, the harder his feet seemed to come down, the deeper he seemed to breathe.

During the calm the galley had been repaired; that calm that had lasted for twenty-four hours between the coming of the grandfather gale and the departure of the last storm, which had been a thrifty child of evil parents. But, repaired though the galley had been, it was well-nigh useless. We could not get to the fresh water. The cook could make neither soup, skilly, nor coffee. So we nibbled Liverpool pantiles, which were as hard and well-nigh as durable as Nebuchadnezzar's Babylonian brick and are not made nowadays. We greased the pantiles with rancid margarine from an old blue tin can and swore at the Danes for not making better butter. And of hot drinks we had none.

The fresh-water tanks were below deck, abaft the mizzenmast. The plunger rod of the pump was lowered into them through a hollow fife-rail stanchion at four o'clock every afternoon in possible weather, and at that time water was served out by Chips, the ship's carpenter, to the crew, the cabin, and the apprentices; and to the cook for our skilly, coffee, and soup. After the serving of the water allowance the plunger rod was always unshipped and carried away to his shop by Chips. A tight-

fitting wooden plug was rammed firmly into the hole at the top of the stanchion. The pump handle remained in place, bolted to the fife rail.

She was a four-master, and that part of the deck about the mizzen fife rail was the part most swept by seas in heavy weather. We had been unable to ship the plunger rod since the grandfather gale descended in full fury. The sea would have found its way into the tanks below; men would have been washed over the side, or broken on the deck. So for days we had bided our time, while the grandfather gale had chortled at our mastheads, jeering at us, and the Cape Horn sea had rolled shoulder high on the main deck. Sometimes snow fell, sometimes hail. Between times rain fell in such driven sheets that one could but vaguely discern the foremast from the poop. The ship was like a walnut shell in a washtub. Comparatively speaking, she had no wider view than has the walnut shell.

The nights were black. Almost black enough to lay the hand against, to feel, as one might feel the bulkhead of a mine far below ground.

For three days and three nights no one aboard had tasted anything hot.

Some ships had a boggy (a little heating stove) for warmth in the fore-castle. Some had one in the half-deck. We had none. The sole stove on the ship was the cook's stove. What warmth we had must come from our own bodies. While below in our quarters we were like hibernating bears or like Eskimo. While awake and off duty we kept our pipes going, for a bit of cheer, for the love of their ruddy glow. When once all our clothing was drenched so that we no longer had a shift of dry underwear, we could not protect our bedding from the wet. Everything was wet, sopping. We entered our cramped quarters with water flowing from our oilskins and squelching in our sea-boots. Water thundered against our steel door, against the bulkheads, and upon the top of the house above our heads. Our blankets became moldy with the warmth of our wet-clad bodies. Once we were out of them, they