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Flying Around the North Atlantic

ANNE MORROW LINDBERGH

Foreword by CHARLES A. LINDBERGH

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FLYING AROUND THE NORTH ATLANTIC

By ANNE MORROW LINDBERGH

With a Foreword by Charles A. Lindbergh

Foreword

TRANSOCEANIC routes constitute the last major problem in the development of the airlines of the world. The great distances between land on all routes south of the Arctic and the difficulties of climate and short hours of winter daylight on Arctic routes have combined to delay the inauguration of scheduled air services between the Eastern and Western Hemispheres.

The development of aircraft has now reached a point, however, which makes commercial transoceanic flying feasible. Consequently, the study of transatlantic air routes has become of immediate importance. Our flights around the North Atlantic in 1933 were for the purpose of studying the bases which might be used and the conditions which would be encountered along the various possible air routes between America and Europe.

The northernmost of these is through Greenland and Iceland. The most direct from New York is through Newfoundland and Ireland. The shortest water distance south of the Arctic is from Newfoundland to the Azores. More desirable climatic conditions would be met by flying over Bermuda and the Azores. The latter would be the southernmost route which would be practical for a commercial airline between the United States and Europe. The largest part of the South American traffic would probably be by way of Africa.

It is interesting to note that where distances between land are the shortest, the

climatic conditions are most severe. Consequently, the great advantage of the Greenland route from the standpoint of frequent bases and refueling facilities must be weighed against the extreme climate, while the attractions of a more southerly route must be largely discounted due to the much greater distances between land.

A commercial airline must eventually pay its cost of operation from the revenue received from the load it carries. Therefore, it is desirable from an economic standpoint not to have refueling bases too far apart. Every additional mile which must be flown without refueling means that more fuel and less payload are carried.

It seems probable that methods will be perfected to refuel planes at sea in the future. They may be refueled from a ship or on a landing platform or from another plane in flight. All of these possibilities must be considered.

Climate, harbors, airport locations, floating bases—these and many other problems must be studied in relation to practicability and economy of operation before an air route is finally decided upon. Even then it is necessary to visualize as far as possible the future development of aviation. For a route which is the most practical for aircraft of to-day may be made obsolete by aircraft of to-morrow.

Intermediate facilities which now seem desirable may be made unnecessary by the long ranges and higher efficiencies of future aircraft. Any of the transatlantic routes

can be flown regularly. It is no longer a question of whether it is possible to operate an airline across the Atlantic—rather it is a question of which route can be flown now, and in the future, with the highest degree of efficiency.

In equipping for our flight it was necessary to select, first, the equipment which would be required for the normal conditions we would encounter, and, second, the equipment which would be necessary in case of a forced landing. The latter had to be subdivided into that which would be necessary in case of a forced landing at sea and that which would be necessary for a forced landing on land.

Our plane, the *Tingmissartog*, is the same which we have used on various flights in the United States and in which we flew to Japan and China in 1931. It was built in California in 1929. As emergency equipment for a forced landing at sea, we carried a specially built collapsible rubber boat with waterproof cover and a small sail, a water-

proof radio set, eight gallons of water, food for several weeks, sextant, and other articles of equipment and clothing. Under ordinary conditions we could have abandoned our plane at sea and existed for at least a month after doing so.

Our most difficult problem for an emergency landing was the possibility of being forced down on the Greenland ice cap. On our flights in Greenland, we were prepared to walk halfway across the ice cap if it became necessary. This equipment consisted of a sled in three sections, snowshoes, six weeks' food, heavy clothing, and many other articles. We also carried full hunting and camping equipment, so that we could have lived comfortably for an indefinite period wherever game was available.

In all, there were several hundred articles of emergency equipment. We planned first to avoid as far as we could the possibility of forced landings; second, to equip to meet them under any combination of circumstances.

CHARLES A. LINDBERGH.



Photograph by Acme Newspictures

"ALL SET"

Charles and Anne Lindbergh, in the cockpits of their Lockheed Sirius monoplane, about to be shoved down the ramp at Glenn Curtiss Airport, Long Island, New York, for the start of their aerial circumnavigation of the North Atlantic, July 9, 1933.

FLYING AROUND THE NORTH ATLANTIC

BY ANNE MORROW LINDBERGH

“TOOK OFF FLUSHING BAY 03:37
—JULY 9th 1933.”

It was a hot afternoon, the kind on which one looks at the sky from time to time for ripening thunder storms. My husband was already at the airport making the last tests before our departure.

When I arrived at three o'clock the red-winged plane stood on a cradle at the head of the ramp leading down into the water. It was surrounded by a circle of photographers' tripods, cars, movie trucks, and a small crowd of onlookers. My husband, standing in the cockpit, signaled above the crowd that everything was ready.

The emergency equipment and our two blanket rolls of clothing had already been stowed away in the baggage compartment. I handed up my coat and a folder of radio papers, pads, and pencils. I jumped on the cradle, up onto the pontoon and then onto the wing. Here I always had to stop and turn around. It took three more steps to get up into my cockpit—left, right, left, over the steel steps which slid out of the fuselage.

RADIO, MAPS, AND A SHELF

Once in my cockpit, everything appeared much as it had on our trip to the Orient. I settled down in my seat and looked around. There were, of course, the dual controls which had been in the ship since it was first built; the stick between my knees, the rudders at my feet, and the throttle and stabilizer control at my left hand. To the right and a little back of my husband's seat, where we could both see it, was an aperiodic compass. This completed the flying equipment.

But on this trip I expected to do much more radio work than flying. The transmitter key was on the right side of the cabin, in easy reach of my right hand. Below it on the floor was the box of transmitting coils which were plugged into the set to change the frequency. Leaning forward a little, I could reach the receiving set, about halfway between my husband's seat and mine. The top of its case formed a convenient shelf on which to pass notes and sandwiches up to the front cockpit.

On the other side, at my left shoulder, was the aluminum map case in which we kept almost everything: maps, pads, pencils,

an extra pair of earphones, gloves, helmets, a sweater, cotton wool, rags, twine, and our sandwich lunch. (Nothing but sandwiches would fit. I once regretted putting in a pear.)

In front of the map case, facing me, was the transmitter; below it, the fair-lead and antenna reel.

On this same side, behind my seat on the floor, the dynamotor was installed. Behind and to the right of my head was a condenser for the loop antenna. The loop antenna was wound around the inside of the fuselage behind my seat. There was also a "B" battery box on the floor under the receiver.

All this equipment was the same as that used on the Orient trip. You would not think there was room for anything else. But there was. For this trip the Gatty drift and ground-speed indicator was installed on the right-hand side, somehow deftly avoiding coil-box and transmitter key, which were both in the same general vicinity.

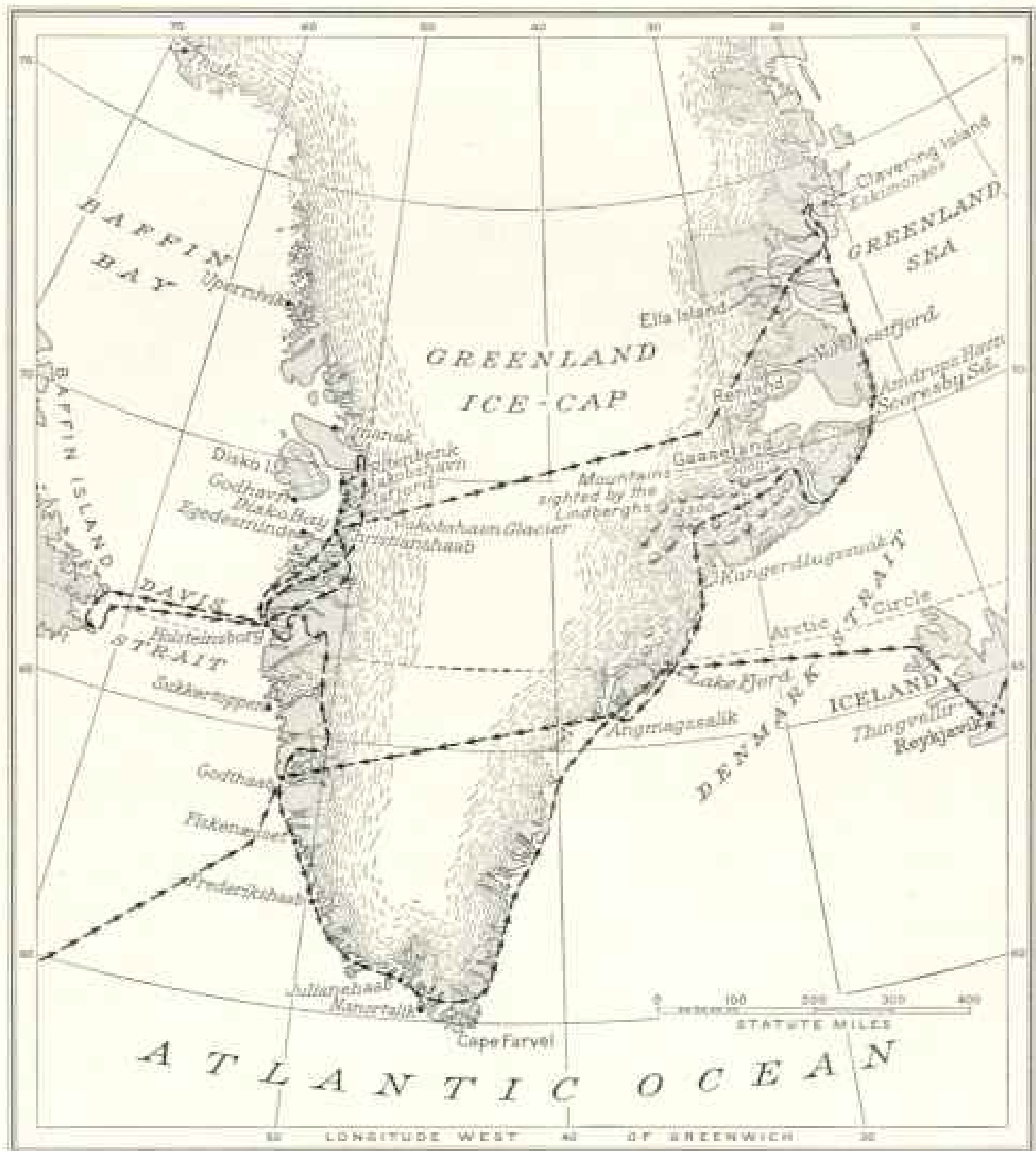
There was one other thing. Instead of a parachute to sit on, we had, this time, air cushions. We were not doing night flying and the parachutes, we decided, would be of little value over the ocean or over the Greenland ice cap, where it would be impossible to live without having the emergency equipment from the plane. We also had life preservers which we could inflate for use when taking off or working on the plane in deep water.

After a glance around the cockpit, I tied on my life preserver and blew it up. Next, I fastened my helmet and the safety belt. Then I looked out.

“UP ON THE STEP”

The ship was being pushed down the ramp, mechanics on each side guiding it. The movie-tone trucks behind us were taking their last shots. “Hey! Look this way!” — “Give us a smile!” — “Wentcha wave at us?” Shouts on all sides of us. We were watching the cradle, below us, approach the water. One more push.

“This one will make it,” I heard a mechanic say, and we slipped into the water. The engine, which my husband had idled as we went down the ramp, quickened to a roar as though feeling its power.



Drawn by Norman Burnham

THE LINDBERGHS CHANGED THE MAP OF "GREENLAND'S ICY MOUNTAINS"

Ranges never before charted were discovered, as their red-winged plane roared southwestward along the rugged eastern margin of the world's largest island. They are drawn in here at the right, just below Gaaseland, from the Colonel's own terse description, scribbled in pencil on his charts: "High range, maximum height 12,300 feet by altimeter corrected for sea-level pressure at Angmagasalik"; and again: "Snow-covered range about 10,000 feet." The Lindberghs found mountains extending about 100 miles inland at that point instead of about 30 miles, as shown on maps. Eloquent arrows show, too, how they crossed Davis Strait back to barren Baffin Island, twice traversed Greenland's great interior ice cap, flew up to Clavering Island, their "farthest north," and finally winged on to Iceland, bound for Europe.

It was a long take-off, for we were heavily loaded with fuel. I held my arm over the map case as the force of the wind, when taking off with both cockpits open, was terrific and would blow everything out. First, that surge of spray, and for a few seconds the plane seemed not to be making much

headway. Then the spray fell below us. We were "up on the step." Then the quickening spans as the pontoons hit the waves—one, two, three, four. Suddenly, imperceptibly, they smoothed out into a long roar.

We were off. I pulled back my hatch,



Photograph by Keystone-Underwood

THE COLONEL PICKS UP A MOORING BUOY AT HALIFAX

Members of the Royal Canadian Air Force help moor the plane to one of their buoys, which is carefully covered with a rubber tire to prevent its denting the pontoon. Here the engine was carefully checked and more fuel taken aboard.

shutting out the noise and wind, and looked down. We were over the river now, ferry boats and barges slowly cutting their tracks in the water below. There were other planes in the air I had not noticed before—photographers trying to get close-ups.

We banked to avoid a plane crowding uncomfortably near our left wing, only to find two others we had not seen still closer on our right. One of them seemed to miss striking us by a few feet only.

Never again on our entire trip did we come as close to having a serious accident.

I reeled out the antenna and started to call WCC (Chatham, Massachusetts). My eyes on the pad on my lap, a pencil ready for messages, the rest of the trip slipped by under me, hardly noticed. We were bound for North Haven, Maine. I knew the way very well and only looked up now and then to familiar scenes. Little white sailboats on the Sound—storms—New Haven—Hartford. The next time I looked up—Lowell, Massachusetts. Then the coast and low

fogs. Appledore Island, that gray slab of stone, out to sea.

It was clear at Portland. Then we hit a sea fog and started inland where we were sure to find better weather. My husband tried two or three times to work back to the coast. Then, shaking his head, he picked out a nice long pond, circled a few times and landed. We strung the antenna out on the wing and called WCC, telling him where we were. "Forced down by fog. Landed South Pond, Maine, 6:38 p. m."

THE BIRCHES AND PINES OF MAINE

This was our first chance to use the outboard motor. My husband pulled it out of the baggage compartment and attached it to the spreader bar between the pontoons. Very quietly and slowly, as if blown by a little wind, the big red-winged plane slipped in toward shore.

"Well, I guess these folks are the Lindberghs," we were greeted as we stepped on



Photograph by Charles and Anne Lindbergh

THE SEAPLANE HALTS "DOWN EAST" BEFORE HEADING NORTHWARD

This was the last anchorage in the United States. Here, in the Fox Islands Thoroughfare between North Haven and Vinalhaven, in Penobscot Bay, the same plane anchored in the same place before the Lindberghs started for China.

dock. That night we were made at home in a summer camp among birch trees and pines.

"You have been all over the world," our host said to us. "Do you know any finer place to live than Maine?"

"No," I was ready to say quickly.

Certainly on all the rest of the trip we were not treated more hospitably nor, I must add, did we meet anyone who delighted me as much with her charming frankness as an old lady who climbed up the steps to the porch the next morning.

My husband was out on the plane, but she came up to me cordially. "I would like to shake hands with Mrs. Lindbergh—though I'd much rather shake hands with her husband!" Happily, she was able to, a few minutes later.

OVER BEAUTIFUL NOVA SCOTIA

The next day we flew from South Pond to North Haven and on July 11 left the Thoroughfare, where we had anchored, for a short flight of a little more than two hours to Halifax, Nova Scotia. My husband refueled and checked the plane that evening

with the assistance of the Royal Canadian Air Force.

We took off the next morning for St. John's, Newfoundland. After five hours of flying along the beautiful coasts of Nova Scotia and Newfoundland, we circled over the cliffs of St. John's harbor and landed at 20:44 G.M.T. (Greenwich Mean Time) in Bay Bulls Big Pond, a short distance south of the city.

"THE END OF THE WORLD"

We planned to leave the next morning for Cartwright, Labrador, and hoped to see Balbo and the Italian flyers who had just flown across from Iceland, but a thick fog kept us from starting until the following day. After refueling at Botwood, we arrived at Cartwright, where the *Jelling*, the Pan American Airways expedition ship, was waiting for us, at 20:57 G.M.T., July 14.

When we arrived at Cartwright, I had a vague impression that it was the end of the world. The physical appearance alone was rather desolate; the low mountains, unspectacular after the great cliffs and bluffs of Newfoundland; the scrubby pine trees; the



Photograph by Charles and Anne Lindbergh

THE SHAGGY BLACK DOG'S PICTURE GRACES A NEWFOUNDLAND POSTAGE STAMP

Newfoundlands, renowned for life saving, are often harnessed between the shafts of light carts. They are a common sight on the road from St. John's to Bay Bulls Big Pond.

rocky shore; the gray water—all combined to give an impression of bleak monotony.

The town itself was unprepossessing—a scattered group of whitewashed houses; a steeple; a fenced-in graveyard on the hill, in which we saw one day a monument to George Cartwright, the founder of the town, "who paved the way," according to the inscription, "for the introduction of Christianity to this benighted people"; and, across the bay, the Grenfell Mission buildings.

We knew, of course, that Cartwright was one of the centers for Sir Wilfred Grenfell's splendid medical and educational work on the Labrador coast. But we still felt that it was a very quiet place. We soon found out our mistake.

General Balbo's whole Italian squadron had just come and gone the day before. Signs of the excitement were still visible when we arrived. The *Alicia*, their gleaming white yacht, was still there and its small seaplane was anchored in one corner of the harbor. Strings of flags were flying in celebration from the three big boats, the *Jelling*, the *Alicia*, and a salmon refrigeration and canning boat, the *Blue Peter*. A huge pile of empty gasoline cans on the Grenfell Mis-

sion dock was rapidly diminishing, for the natives of Cartwright had discovered their usefulness.

A WEEK IN CARTWRIGHT

But it was the life of Cartwright itself, centered about the main dock, which changed my opinion. For we were a week in Cartwright, making one reconnoitering trip across the mountains to Northwest River and then waiting in fog and rain for clear weather before taking off for Greenland. When the *Jelling*, which had been our home, left, preceding us to Godthaab, we moved to the "hotel," a small frame house on the end of the point (see page 270).

Every morning we walked from here to the dock to reach the plane. The path, running along the water front, took us past whitewashed houses and fenced-in gardens, past fishermen spreading out their nets on the stones, past many huskies and the settlement's one horse, and usually two or three native girls in calico dresses.

The dock itself really started with a boardwalk or porch to the Hudson's Bay post. This long white shack held various activities under its red roof. First, the radio

office, where people gathered for messages and news. Then the Hudson's Bay store, which held everything—cans of food, clothes, blankets, boots, leather and seal-skins, real and toy guns, and many other things. The third door was the post office.

The boardwalk met the icehouse, where fish were salted and packed, and passed through it under the peaked roof to the dock. Here there were always men in boots and oilskins rolling barrels up and down the rails to the icehouse or unloading boxes of fish from the small boats.

By the end of our visit I realized that Cartwright was not the end of the world: in retrospect from Hopedale and Hebron I looked on it as a hub of civilization. One morning, after a week of bad weather, the overcast sky rolled back like a great curtain, exposing the northeast horizon—blue and lovely.

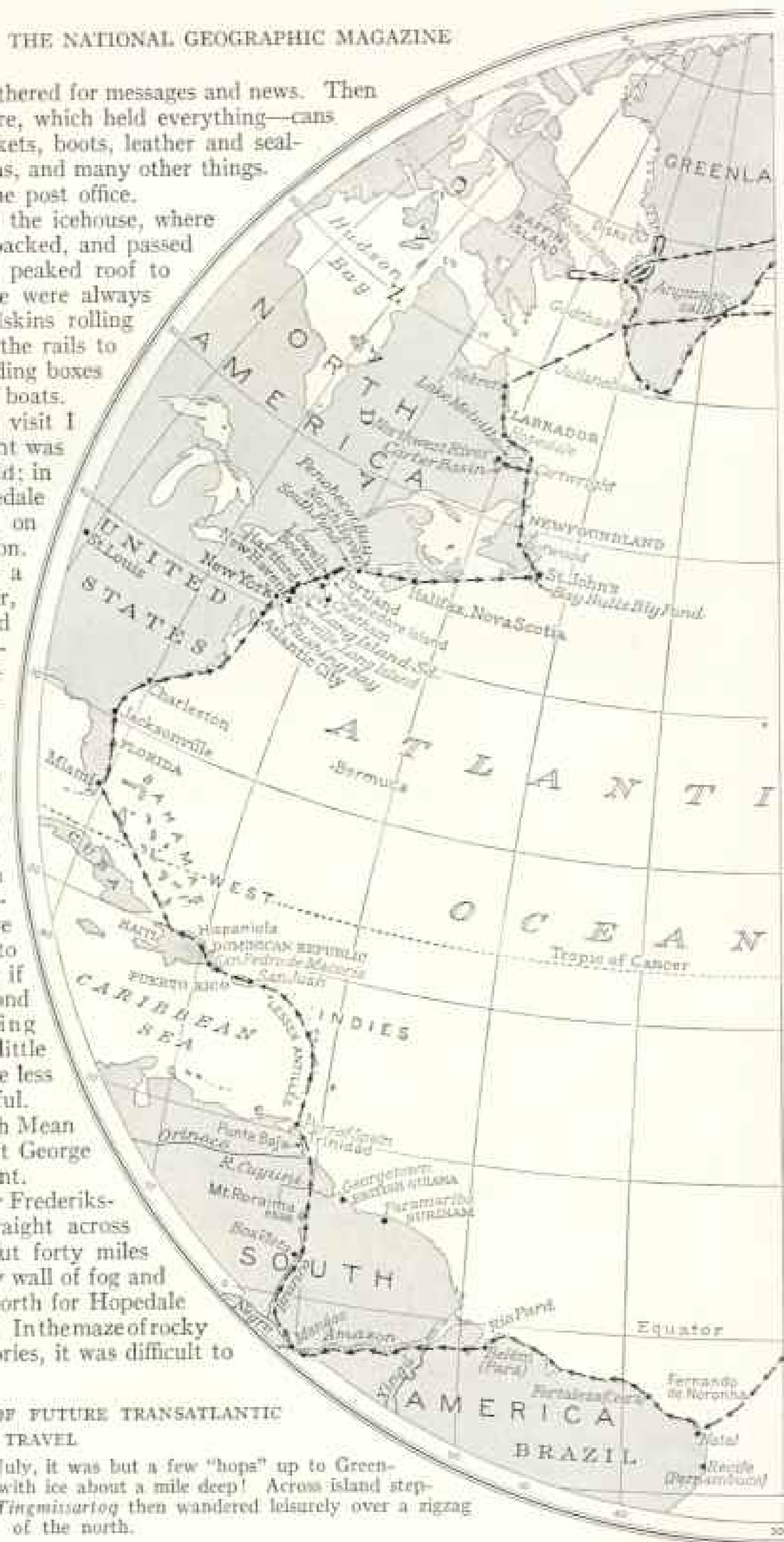
We started out hopefully into the outer harbor only to find there was no wind and we could not get off the water with our heavy load of gasoline. We had more than enough to go to Greenland and return if necessary. Our second attempt the following morning, with a little more wind and a little less gasoline, was successful.

At 14:22 Greenwich Mean Time, July 21, we left George Cartwright's settlement.

We were headed for Frederikshaab, Greenland, straight across the water. But about forty miles out we struck a heavy wall of fog and changed our course north for Hopedale on the Labrador coast. In the maze of rocky islands and promontories, it was difficult to

OVER AIR ROUTES OF FUTURE TRANSATLANTIC TRAVEL

From New York, in July, it was but a few "hops" up to Greenland, its inland covered with ice about a mile deep! Across island stepping-stones to Europe, *Tingmiartog* then wandered leisurely over a zigzag course among the lands of the north.



find the little settlement crouched at the foot of a barren mountain.

There were no trees except a small growth of pines in a ravine behind the houses and there was snow higher up in the crevasses. The little group of red-roofed houses were huddled together, as though from loneliness, around two large white buildings, one of which was the Moravian Mission. The missionary came out and took us ashore.

ESKIMOS AND HOWLING DOGS

A crowd of dark-faced Eskimos and howling dogs met us on the dock. This *must* be the end of the world, I thought. The howl of a husky is a peculiarly lonely sound. But the missionary's two daughters took me up to the Mission House very hospitably while my husband refueled. They had not expected us, as they had no radio operator in the settlement at the time. What was the news of Cartwright? "The *Blue Peter* has left for England," I said. "With its load of salmon? Oh, yes." They explained to me that salmon boats never came up as far as Hopedale. Only occasionally would a ship call for a load of salted cod.

I asked how many people lived in Hopedale. Besides the Eskimos, just their family and the Hudson's Bay family—that was all.

"But who is the doctor?" I inquired, for I saw a dentist's chair in a small room in the mission.

"Why, mother, mostly," the daughter answered. "Mother and father—but

Drawn by Newman Dumetrad

CHARLES AND ANNE LINDBERGH LINK TWO HEMISPHERES

Steps became strides south of Rotterdam. Halfway to America and back again; this time to the desert coast of Africa. Eighteen hundred miles of ocean to South America. Lost for a moment over the Amazon. Finally, the United States.





CLIMBING ON THE WING TO PICK UP A MESSAGE

Charles Lindbergh in a southwester, after picking up a weather report from a small boat. The rough water and a strong wind made it difficult for the boat to approach the plane.



Photographs by Charles and Anne Lindbergh

ANNE LINDBERGH AT THE CONTROLS OVER HER HUSBAND'S ANCESTRAL HOME

Usually busy at the radio, she takes the stick while he turns to photography. *Tingmissartog* was flying between Stockholm and Karlskrona, Sweden, when the picture was taken.

sometimes a dentist comes up here and we use this chair."

But in spite of their isolation they had made a charming and comfortable home in the Mission. I saw a radio and organ in their living room. They had the luxury of fresh eggs from chickens in their yard, fresh vegetables from a garden fenced in from the winds, and even—up among the stunted trees—blue larkspur growing about a summer house.

We went away very much refreshed after coffee and cake given us by the missionary's wife. "Tell them at Hebron that the boat left here several days ago," they said—and we were off.

ASSAILED BY MOSQUITOES

We did not appreciate what "the boat" meant until we arrived in Hebron, after a two-hour flight up the coast, over white sheets of field ice. Very much like Hopedale in its setting, red roofs perched against a snow-patched mountain, it was far more barren and desolate.

The Eskimos who came out on the point to meet us were dark and ragged looking, all wearing hoods, some fur-lined, to protect them from the mosquitoes. For, as the breeze from the engine stopped, we found swarms around our heads. It was impossible to brush them off. We pushed up our collars, pulled our helmets down, and smeared our faces and hands with citronella oil. But it was not until we had climbed up the steep hill, entered the Mission House and shut the door behind us, that we were free of them.

"We are almost starving, literally," said the missionary, as his wife and little daughter hurried about to find something for us to eat. "Our boat has not come in. Have you any word of it?" For they had no radio or regular communication of any kind except this yearly provision boat. We told them it had left Hopedale and that we had passed over it about a hundred miles to the south. They had no flour, no sugar, no vegetables.

My husband went back to the ship to get the sandwiches and one banana saved from the lunch we had been given in Cartwright. It seemed impossible that we could have left such luxury only that morning. Even Hopedale was looked back to as a land of plenty.

"It was different in Hopedale," the missionary's wife said wistfully, as she showed

me a single rose in a tin can, the only one of five to survive the freezing winter. "It was not so cold in Hopedale. Here in winter we leave this room uncomfortably warm at night, the stove going full. But in the morning the walls are coated with ice—oh, it is so cold here!"

But this year they were going home on leave. The boat from Hopedale which was bringing the substitute missionary would take them to England. Our arrival with the news of its approach was very encouraging to the missionary and his wife. But not to little five-year-old Joan. She prattled on to me as we drank some much-appreciated tea. She had heard the big noise and thought it was the ship. But it was only a plane and so she had cried. We knew there was nothing we could do to lessen her disappointment. But we gave her the one banana—to show our sympathy.

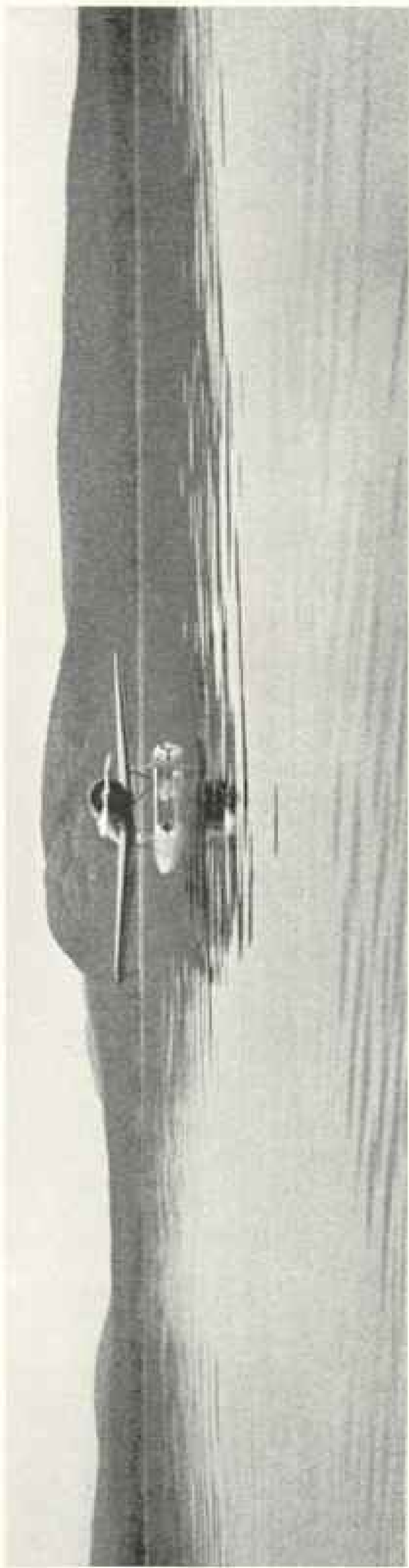
GREENLAND'S ICY MOUNTAINS

We were three hours out from the coast of Labrador when we first saw them. Behind us lay the wavelike formation of fog on the surface of the water which we had just crossed. The sea was blue ahead and the sky clear and cloudless. And, there they were, "Greenland's Icy Mountains!"

First we could see only their tops, like clouds on the horizon, then a jagged blue line, and finally, as we came nearer, white caps and white-streaked sides stretching as far as one could see. We were flying quite high as we came toward them. Below us glistened a few icebergs like small white sails. But the mountains towered up magnificently to meet us, a great wall against the sky. There were cuts in the wall, too, through which a white glacier gleamed occasionally at the end of a deep fjord.

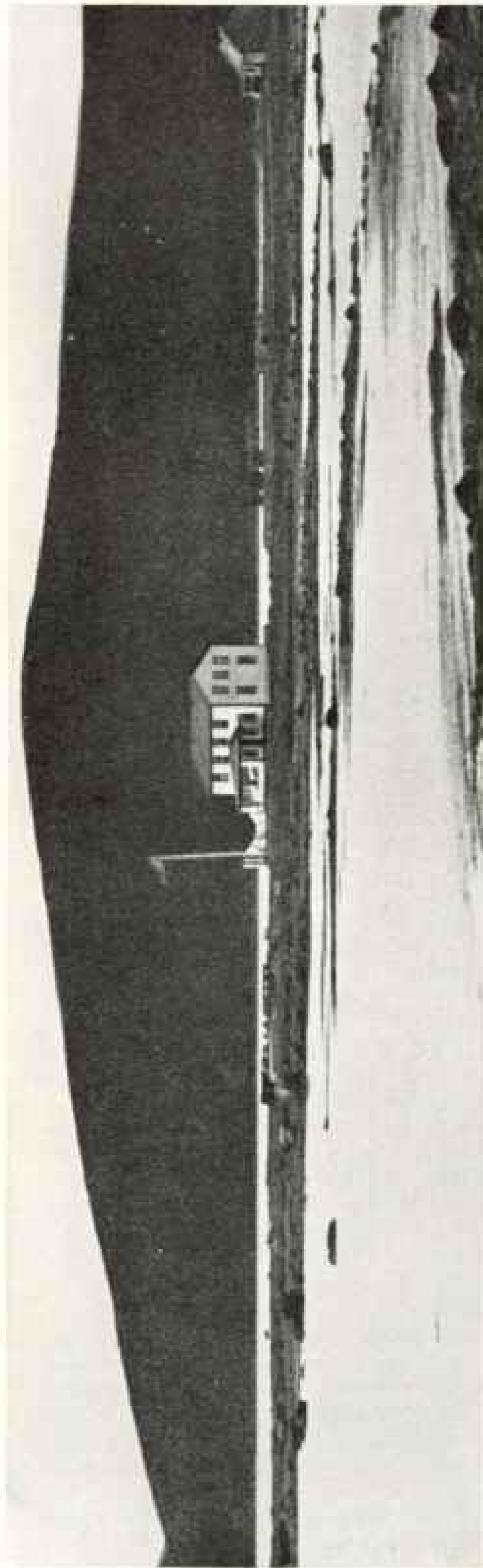
We began to notice, now, the lower land in front of the mountains. A bare rocky coast, much cut up by fjords and dotted with islands, it did not show any sign of growth or vegetation. Not until we were quite near did we see something that looked like green moss in the steep valleys.

Godthaab was in one of these valleys, facing a half-moon harbor. The tiny settlement in a scoop between rocky hills looked even smaller against the background of distant peaks. After landing outside, we taxied first into the storm harbor behind the town and dropped anchor; then, as the self-starter would not work, we were towed into the



TAKING OFF A MAXIMUM LOAD FROM "GLASS WATER" AT CARTWRIGHT WAS IMPOSSIBLE.

With no helping wind or wave, it is difficult to break pontoon suction when a heavily loaded seaplane attempts to "get up on the step." The second attempt the following morning, with a little more wind and a little less gasoline, was successful.



CARTWRIGHT HAD THE ONLY HOTEL BETWEEN NEWFOUNDLAND AND ICELAND

"The low mountains . . . the scrubby pine trees; the rocky shore; the gray water—all combined to give an impression of bleak monotony." This frame house was home to the flyers after their base ship, the *Jelling*, had left for Greenland (see text, page 264).

Photographs by Charles and Anne Lindbergh

town harbor by an official Danish welcoming boat.

We were slightly ashamed not to be under our own power as we rounded the point and heard the town cannon welcome us three times. Nevertheless, it was an exciting entry.

ESCORTED BY KAYAKS

Kayaks on all sides kept up with us easily, cutting knifelike through the water with hardly a splash or mark, the narrow two-sided oar going deftly into the water like a needle.

The town as we first came upon it looked like a toy village, with its bright-colored houses just set down by a child playing—a red church with white trims, a green house with yellow shutters, a yellow house with green shutters, and, perched on a cliff, a small bright-red house with a green door, just like an apple.

The dock was jammed with people in gay colors, reds and blues. Coming nearer, we could see the Greenland women all dressed in holiday style—high red boots, sealskin pants, bright blouses, and tall knitted caps.

As we stepped from the boat to the dock they all shouted and followed us up the street to the Governor's house, where the Governor and other members of the colony gave us a hearty Danish welcome. Here we met Commander Dam, the representative of the Danish Government who was to accompany us on the *Jelling*, and who gave us much assistance during our flights in Greenland.

That evening, in the bright golden light, the *Jelling* came in from the fishing bank outside of Godthaab, where it had been stationed, waiting for us. The church steeple was outlined like a pointing finger against one jagged purple mountain; and down on the dock, the Greenland belles were walking up and down in their bright boots.

ESKIMO HUTS WITH WINDOW PANES AND FLOWERS

The next day we had a chance to see the town. It seemed quite large after Hebron, and very prosperous. The square frame houses were well built and freshly painted, some with little fenced-in gardens. A store and warehouse, a church, a hospital, a large school with an equipped gymnasium were a few of the prominent buildings.

The Greenlanders (they are always called Greenlanders here and not Eskimos) that

we met as we walked around were prosperous looking. Healthy and gay, they were in their best clothes, for it was Sunday and therefore no one was working. The long kayaks were pulled up on shore and fish were drying on overturned boats. We saw a few of the original style of Eskimo huts, made of turf and stone bricks. But even these had window panes, through which, in one case, I could see a flower growing in a can, a needle and thread, and a cup of coffee.

Next door to this old hut a Greenlander was building a fine frame house. He was allowed to work on his own house on Sunday. Down in one of the green valleys some young Greenlanders were playing football. The boys wore hooded blouses and trousers, but I wondered how they could kick the ball with their soft sealskin boots.

Our walk ended at the red church just as afternoon services were beginning. The Greenlanders were gathering from all sides—running down the hills and strolling up the paths in their gay clothes. The women, in addition to yesterday's costume of boots, pants, and blouses, wore large, many-colored bead collars, strung in geometric design and reaching almost to the waist. The little girls wore dresses just like their mothers'; and the boys and men were in blouses, usually blue, and trousers.

Blue, green, and red mingled together in front of the church until, just at five, four little white doors on the square steeple flew open and a bell began to chime. Then with a sudden flutter of voices, like a flock of startled birds, all the bright crowd swarmed up the steps and into the door. The last two to go in were an old woman, thin and bent but still brave in her red boots, and a little boy on crutches. The doors shut behind them and for a moment there was silence. Then, muted as though at a great distance, voices woven in one firm band of sound—the pure square tones of an old hymn.

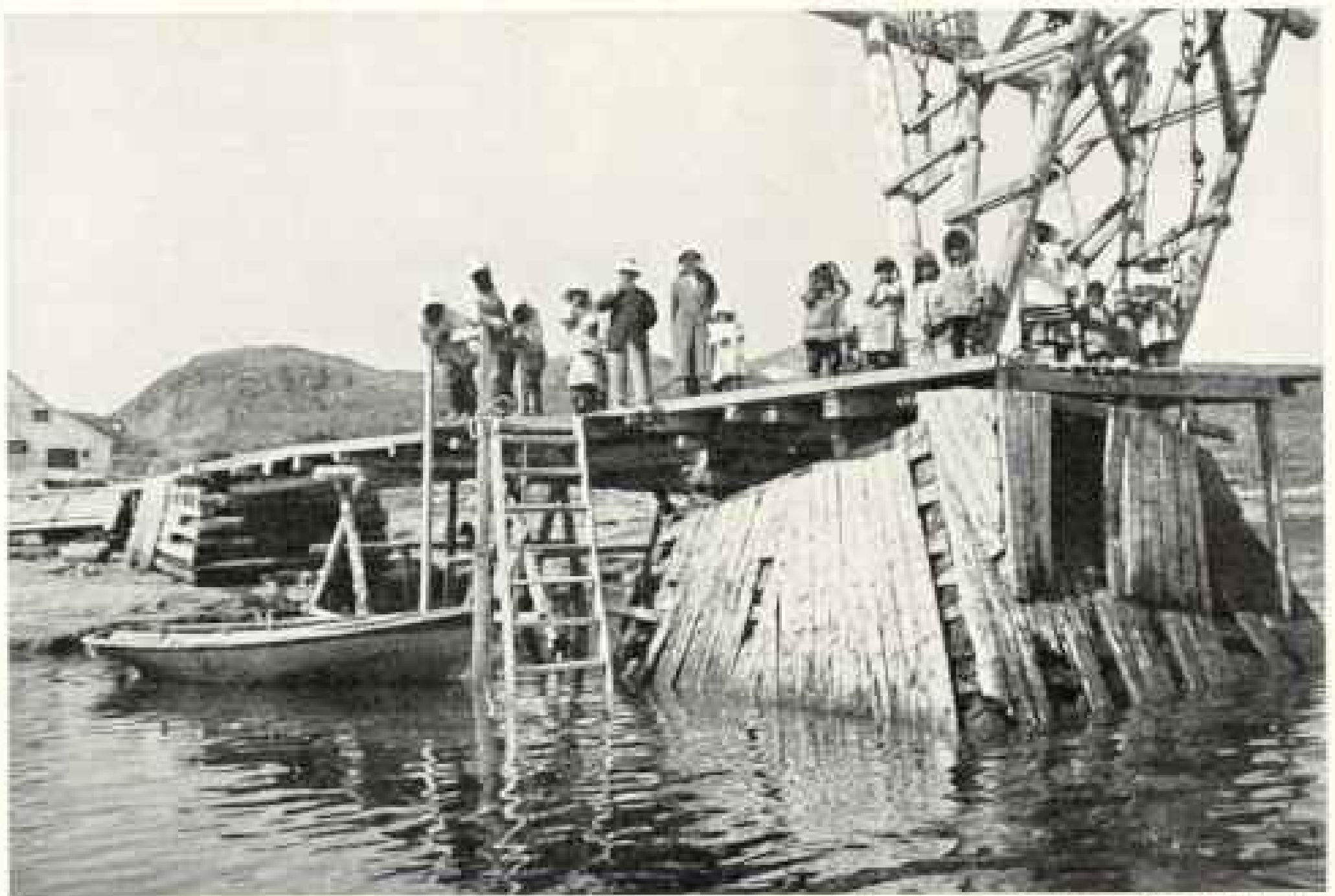
We were to hear them sing again the next evening in the gymnasium—the song of the motor boat with the engine chorus "Shoo, shoo, shoo," the whaling song ("The Boat Is Coming In with the Whale"—in Eskimo language, of course), followed by dancing.

I expected to see something quite new in these Greenlander dances and was surprised to have two old men with fiddles sit down and begin a jig. The men and girls lined up for regular old English country dances like "The Hay," "Gathering Peasecods," and "Paul Jones," all taught them, I was told,



AT HEBRON EVEN THE ESKIMOS WORE HOODS TO PROTECT THEM FROM MOSQUITOES

The insects swarmed around the heads of the Colonel and his wife when he cut the motor, thus shutting off a gale from the propeller. Natives, watching them from the dock, are wearing parkas to protect them from bites.



Photographs by Charles and Anne Lindbergh

AT THIS ISOLATED MISSION LITTLE JOAN WAS DISAPPOINTED AT SEEING AN AIRPLANE

She cried because the buzzing noise she heard in Hebron's harbor was only an airplane's motor—not the yearly boat which would bring fresh food. The Lindberghs comforted her with a few sandwiches—and one banana—left in their plane, which they had brought from more accessible Cartwright (see text, page 269).



Photograph by Charles and Anne Lindbergh

IN GAY ATTIRE GREENLANDERS TURN OUT FOR CHURCH

Anne Lindbergh and Commander Dam (center); Major Logan, Dr. Duffield, and Mr. Jarbo of the Pan American Airways Expedition (right); meet some Greenlanders in Sunday dress at Godthaab. Greenland women usually wore high, bright boots, sealskin pants, gay blouses, and many-colored bead collars.

by early Scottish whalers and traders. The dances had a different flavor to them here in the north, gayer and rowdier as though done by children, perhaps because of the red boots of the women or the stamping and clogging of the men or a quickened time.

And, as always, the side play: the old man who clogged so hard, just a little harder than anyone else, his body bent over in the exertion, and kicked a little higher with more dash so that the crowd all shouted with delight. (One of those wonderful people alike in every race who know how to add the flourish to life.)

Then, the young blades after each dance finished, coming up to the fiddlers and asking them (so I guessed), "Do you know—tum te tum tum tum? It goes like this" (hands and feet all going). The fiddlers trying it, the tune petering out feebly.

The man with the accordion starting to play. Someone coming in with candles, which were set in the high windows. The dance which started out beautifully and ended in a chatter of confusion, explanation and laughter. The galloping Virginia reel which ended in a man chasing a girl in

and out of the lines—the girl's hair falling down—and someone's bead collar ripping.

Then suddenly it all stopped and, quiet and shy, they streamed out into the cold mist and strolled down the hill arm in arm. The women, I was told, must go to bed early, for they have work to do in the morning, hauling coal and working on the roads and docks. The men will not do anything like that. Their traditional job is hunting and fishing, and manual labor at home is beneath them.

THROUGH FOG TO HOLSTEINSBORG

It was true, the next morning as we left the storm harbor, that all the women in working clothes, short skirts and sweaters, were unloading a schooner by the warehouse. When the *Jelling*, which was also setting out, blew her whistle, they all dropped their loads and ran shouting to the top of the hill to see her off. There they stood waving as we took off a few minutes later for Holsteinsborg.

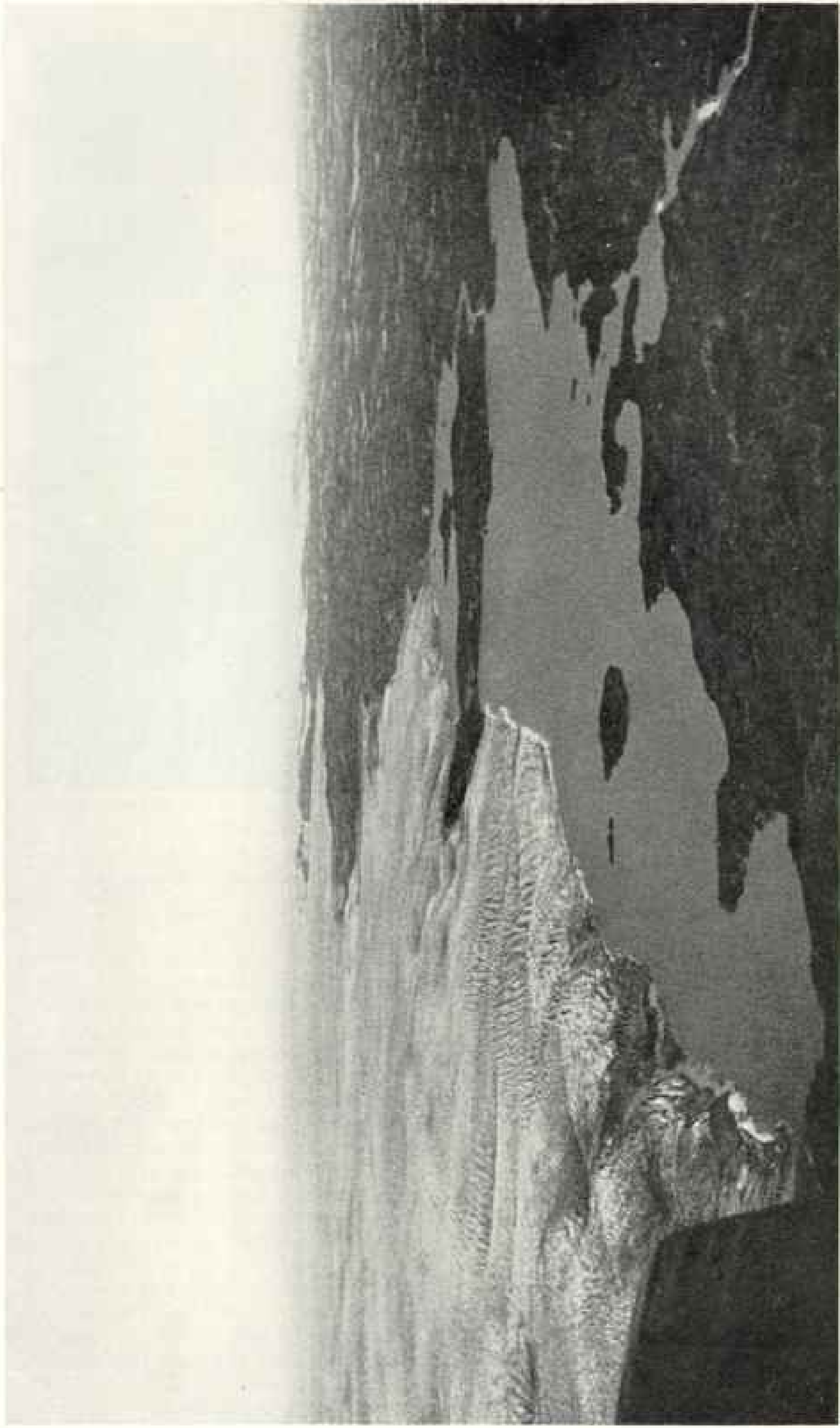
There was fog over Godthaab as we left—a low thick fog on the sea, extending to the first barrier of rocky islands. Here it



Photograph by Charles and Anne Lindbergh

AGAINST THE BACKGROUND OF DISTANT PEAKS "TINGMISSARTOO" RIDES IN THE STORM HARBOR OF GODTHAAB

This was the Lindberghs' first stop in Greenland. Here, in 1898, the Norwegian explorer, Fridtjof Nansen, completed the first crossing of the ice cap. The base ship, *Jelling*, lies at anchor across the harbor from a Danish warehouse.



Photograph by Charles and Anne Lindbergh

PARTS OF NEW ENGLAND MAY HAVE LOOKED LIKE THIS SOME TENS OF THOUSANDS OF YEARS AGO

Greenland's inland ice cap here extends a broad glacial tongue, crevassed and dirty, toward the sea between Godthaab and Holsteinsborg (see map, page 262). Melting, the ice forms a lake, bottled in by low hills, and a cascading stream carries off the overflow to an ocean fjord.



Photograph by Charles and Anne Lindburgh

"THE MOST BEAUTIFUL WINDOW IN GREENLAND"

Governor Rasmussen's guests spent many evenings at his window in Holsteinsborg, "watching the fog curl over the mountains; or the little boats in the harbor, trailing their ripples in the satin water; . . . or the huskies snapping at flies in the dusk; or a Greenland mother, with her baby on her back, balancing back and forth from one foot to another to put him to sleep."

seemed to pile up and break, like foam on a shoal, leaving the country inland clear and cloudless.

Following a fjord up to the ice cap, we flew north, skirting its edge; across ice-filled fjords and their long mountains; across tongues of glacier; for a time even, across part of the ice cap itself—until we reached Hobbs' base.

After circling his camp—a few huts on a fjord near the foot of the ice cap—we headed out to the coast. Seeing a small group of houses at the mouth of a fjord, we landed about four hours after leaving Godthaab. This must be Holsteinsborg, we thought. There are so few settlements one can hardly make a mistake. Some Greenlanders came out in boats to meet us.

"Holsteinsborg?" we shouted. "Holsteinsborg?"

They shook their heads and pointed northwest. We had landed southeast of the town. This settlement was several hours' boat ride away. As we started to pull up anchor again, a Greenlander in the nearest boat took a pad and pencil out of his pocket, wrote a note and handed it to my husband. "Holsteinsborg," he said smiling and pointing. It was, we discovered, a note for the Governor of Holsteinsborg.

I do not know whether the Greenlander had ever seen a plane before, but certainly he took it as a matter of course, and was quick to avail himself of the advantage of airmail. He might have done even more had we not left immediately. The next day a goose came by boat to the Governor of Holsteinsborg from the same Greenlander, with a note, "It is too bad I did not think to send the goose by the flyer."



Photograph by Charles and Anne Lindbergh

TO THEM THE LINDBERGHIS WERE MERELY THE ONES WHO FLY LIKE A BIG BIRD.

A cluster of curious faces gathers outside the window in the guesthouse of Mr. Rasmussen, Governor of Holsteinsborg, where the aerial explorers stayed. Extremely fond of children, Greenlanders rarely punish their sons and daughters. In the background is the blue schoolhouse.

The harbor of Holsteinsborg was shielded on the north by a long bare mountain. The little town, growing up a green slope, had, like Godthaab, a distant peak for its background. The slope itself was much steeper. The little houses, perched on the sides of the hill and halfway up the cliffs, looked like mountain goats; the church, sitting erect on top, like a watch dog guarding its flock. The houses, too, were bright-colored as in Godthaab, the red church, the blue schoolhouse, the yellow house of the minister, the red store.

We came to know them very well during our week in Holsteinsborg. They all faced the little village "square"—or circle, it was really—on the crest of the hill. Here the paths around the flagpole were worn dusty with many feet passing all day long; children on their way to school, mothers carrying their paper bags full of sugar, raisins,

and coffee (all in one bag) from the store, people on their way to the hospital or the church or the bakery or the Governor's office.

They all passed under the gate or arch of two enormous whale bones which marked the entrance to the "square." And they all passed under Mr. Rasmussen's window.

Mr. A. A. C. Rasmussen, the Governor of Holsteinsborg, was about to leave on his vacation. But he and his wife took us into their home with the most wonderful hospitality. They sent us out and welcomed us back on our various reconnoitering trips up the coast and to Baffin Island, never ceasing to marvel at the speed of air travel—"You have been all the way to Ritenbenk!—to Ritenbenk and back to-day!" Or, after our four-hour trip to Baffin Island, "Welcome back from America!"



A FRESH-WATER EXPEDITION FROM THE "JELLING"

Left to right, Dr. Duffield, Major Logan, and Anne Lindbergh climbing along the side of a rocky hill near Holsteinsborg, in search of a mountain stream.



Photographs by Charles and Anne Lindbergh.

SAFELY BACK FROM A KAYAK RIDE AT HOLSTEINSBORG

This narrow craft is difficult for the beginner to balance. The double-bladed paddle laid across the deck in outrigger fashion steadies the kayak. When a Greenlander hunts seal in choppy waters, he keeps himself and his kayak dry by lashing under his armpits an apron secured to the manhole ring.

We spent many evenings at Mr. Rasmussen's window, watching the fog curl over the mountains; or the little boats in the harbor, trailing their ripples in the satin water; or the Greenlanders padding up the hill; or the huskies snapping at flies in the dust; or a Greenland mother with her baby on her back, balancing back and forth from one foot to another to put him to sleep, "Ajungilak, Ajungilak" (Be good, be good).

For it was as they said, "The most beautiful window in Greenland" (see page 276).

ACROSS THE ICE CAP

One morning we passed under Mr. Rasmussen's window for the last time. We were leaving Holsteinsborg. All the Greenlanders were there to see us off. I do not know how they knew we were going, for our plans were full of sudden changes. But they always knew. They were always the first to see the plane returning from a trip.

Long before anyone else could hear the hum of an engine, all the dogs and children would run out onto the point and the sharp cry of recognition would be picked up by one person after another, "Ting-miss-ar-toq—Ting-miss-ar-toq!" (The one who flies like a big bird.)

They were all there to see us pass under the whale-bone gate with our bundles and also with sandwiches and cookies from Mrs. Rasmussen's blue kitchen, several cans of halibut from Mr. Rasmussen's canning factory, and warm dogskin-lined *kamiks* (seal-skin boots) made for us by an old Greenland woman. I saw her there in the group as we waved good-by. "Goo'by," answered



Photograph by Charles and Anne Lindbergh

REFUELING AT BOTWOOD, NEWFOUNDLAND

Seated on the engine cowling, Charles Lindbergh holds the nozzle of the refueling hose. At low cruising speed the Lockheed Sirius consumed 25 gallons of gasoline per hour while covering 118 miles.

some of the Greenlanders. "Hullo," said others; still more, the Danish "Farvel," and, last of all, "Inudluarna" (the Greenlanders' good-bye, or, more accurately, "May nothing go wrong with you").

We left Holsteinsborg at 14:42 Greenwich Mean Time, August 4, for the east coast, a trip which would have taken one of our Danish friends over a year, unless he chartered a ship. They could sail on the next boat from the west coast back to Denmark, but then (for it would be too late in the summer for a boat to reach the frozen east coast), they would have to wait until the next year to take the boat back to Scoresby Sound or Angmagssalik.



Photograph by Charles and Anne Lindbergh

BUSY DAYS AHEAD FOR THE INTERNATIONAL ICE PATROL!

With a sinister roar heard miles away, icebergs calve from the glacier-choked mouth of a fjord in Disko Bay. Weeks later these same bergs may drift across North Atlantic steamship lanes.

We planned on going straight across the ice cap, but first followed the coast north to gain altitude. Rocky islands and steep-walled fjords passed under us and one glacier coming down to the sea, where great blocks of ice were breaking off and floating away—new-born icebergs. An hour later Disko Bay spread blue far below us and we turned east.

"Posn (position) at 16:00," I radioed back to the *Jelling*. "Over Christianshaab at 5,400 feet—taking 69° course."

LAKES LOOK LIKE TINY POOLS

We were approaching the ice cap now, climbing slowly upward. That smooth white dome seen beyond the rim of mountains was so unreal that I had nothing in my mind to compare to it. It hardly looked like snow. When we were actually over the ice cap, it did look like snow, but dirty and streaked as though raked by snow plows. The long, crooked lines were melted streams running down into fjords, the longitudinal wrinkles were crevasses.

We very quickly passed this crevassed area and were flying over clean white snow and occasional ice-blue pools. They must

have been lakes, but, as we were flying high and there was no object of comparison to give any idea of size, they looked like small pools to me.

"Posn 16:55—about 70 miles inland on ice cap."

The mountains behind us on the coast were sinking fast below that white dome. Still black on the horizon, soon they would be submerged from our sight. Ahead—nothing but dazzling white, a white that had no depth or solidity but looked like clouds or fog under a glaring sun.

"Posn 17:48—On 69° true course, speed 100 knots."

We were flying by dead reckoning now. There were no landmarks. Everything looked the same below us, and even above us, for the sky was overcast. With no horizon distinguishable, the whole world looked like a gigantic white bowl. My husband pushed back his hatch and put on a pair of amber glasses with which he could see through the haze and glare to wind ridges in the snow below. It began to be rather cold, although the temperature was never lower than 13 below centigrade, and this at an altitude of 13,000 feet.



Photograph by Charles and Anne Lindbergh

THE ENGINE'S COWLING UNDERGOES REPAIRS ABOARD THE "JELLING"

Mr. Homan takes advantage of the bad flying weather to weld a crack. In the interested audience, left to right, are Captain Hogestadt, Dr. Duffield, and the *Jelling's* engineer.

I was wearing, in addition to woolen underwear, one thin wool shirt, one thick wool shirt, one wool sweater, wool riding trousers, several pairs of wool stockings, fur-lined kamiks and helmet, and over everything the hooded white blanket parka designed for us by Dr. Stefansson. I was quite warm except for my feet, which I sat on, and my hands, on which I put another pair of mittens. A third pair would have been very comfortable, but would have made my fingers too bulky to handle the radio key.

"Posn 19:10—course 78° true—direct line Christianshaab to Scoresby Sound—Speed 100 knots—altitude 11,500."

We were now about halfway across. My husband handed me back a note: "Every five minutes we save a day's walk!" That was encouraging. Also we began to hear the Danish ships on the east coast. Wonderful feeling—while still in contact with the *Jelling* behind us, to be able to reach out to a helping hand ahead.

"Posn 19:45—250 miles on 258° true course from Amdrup Havn in Scoresby Sound."

We were really approaching the other

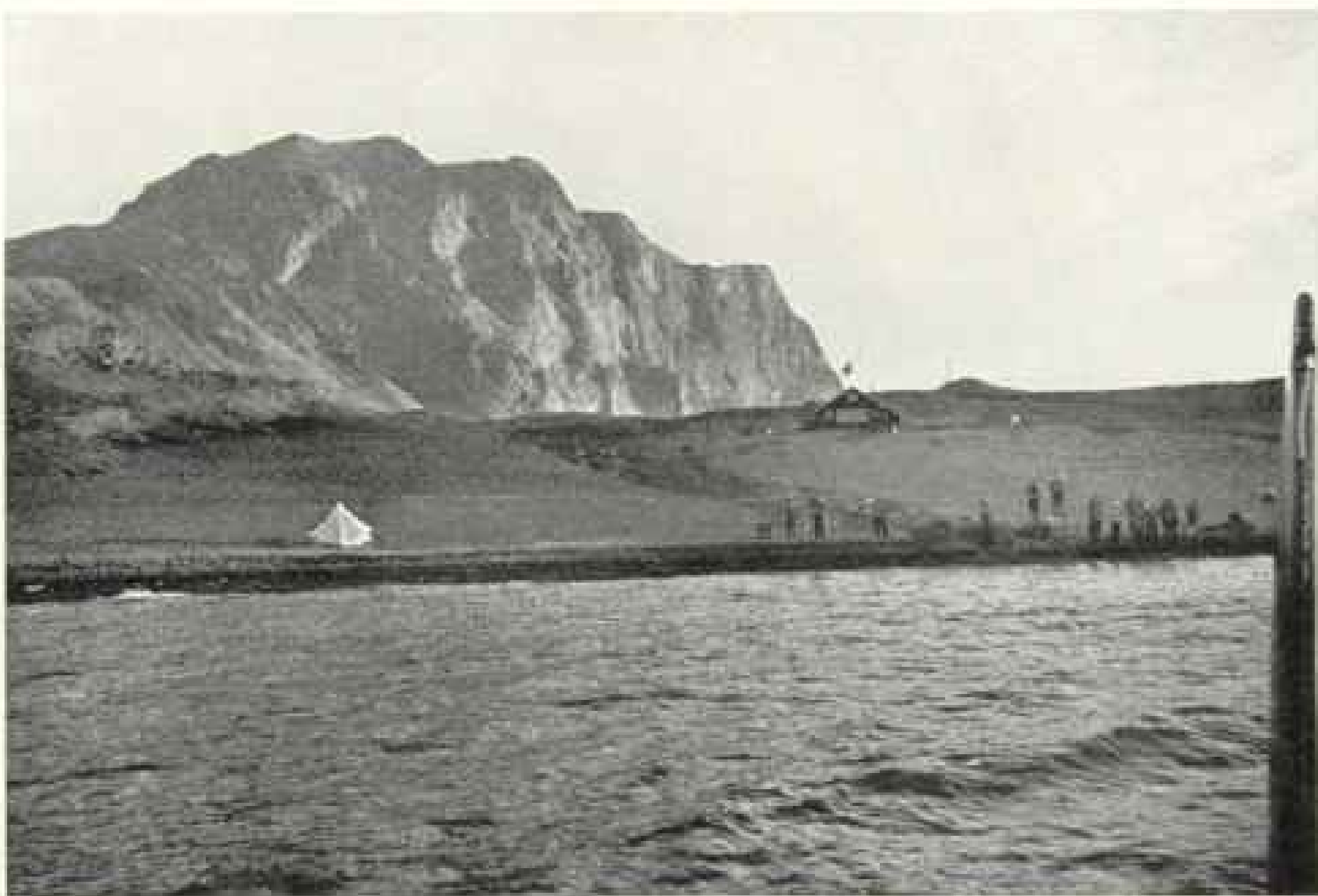
side and began to send messages asking where the Danish planes were stationed on the east coast. Dr. Lauge Koch, the Danish explorer, had an expedition which was carrying out an aerial survey of the northeast coast (see illustration, page 284).

"20:05—mountains visible on east coast."

They were still only dark shadows on the horizon, a relief to the eye after the dazzling white of the ice cap, when Dr. Koch's base ship answered us. They advised us to go to Ella Island, where one of their planes was anchored. "Good weather, no ice, always calm"—it sounded like a safe and restful haven.

"Changing course to Ella Island," we replied. Being assured by radio of a safe anchorage while one is still over icy wastes is a miracle to which there is no parallel. The comfort of it is rather like walking through a dark room, always keeping one's eyes on that light beyond in the hall.

Now the mountains were quite visible, sticking their heads up out of the white crust. I had the illusion that the snow had just fallen, it was so clean and fresh, and that it was deeper than on the west coast.



Photograph by Charles and Anne Lindbergh

WIRELESS ACROSS THE ICE CAP INVITED THE AVIATORS HERE

Hearing by radio that there was a safe anchorage at Dr. Koch's base at Ella Island, the Lindberghs landed here after crossing the Greenland ice cap from Holsteinsborg. This picture was taken from the plane by midnight sun.

Here the snow-covered mountains came down much nearer to the sea. Soon after we reached them we saw the head of a fjord. I sent my last message to the *Jelling* on the east coast.

Over the ice cap it went, "Posn 21:00—over head of Nordvestfjord north of Renland—landing in 30 minutes."

Over the ice cap came back the "dit darr dit—dit darr dit—dit darr dit—(Received OK). They had followed us all the way across for seven hours. Ella Island was below us in the hard crystal light of a northern evening, its high cliffs rising up sheer from the water, frozen into the sky. At their feet, a low beach on which we could see Dr. Koch's camp and the brave red Danish flag (see "Flags of the World," page 385).

"Landed Ella Island 22:00 G.M.T."

Eskimonaes, on Clavering Island, Dr. Koch's second base, was the northernmost point we touched, about 74°. With its great mountains and fjords, its cliffs and glaciers, its lack of human habitation, and—always behind, just out of sight—that mammoth ice cap, it seemed like a land hewn by giants. I felt that it was not made for us, but for

another people and another age—as indeed it was. The herds of musk ox we saw testified to that. For the musk ox, although to me rather like a buffalo, is, I am told, an almost extinct animal of the ice age.

On August 6 we started south from Clavering Island, flying just inside the coast line between ice pack on one side and glaciers on the other. At one point along the route, seeing a range of mountains where none was charted on the map, we turned inland for fifty miles, following an ice-filled fjord which extended beyond its location on the map, almost connecting with a branch of the long fjord of Scoresby Sound south of Gaaseland.

This fjord led us nearly up to the mountains. Turning south, we found another higher mountain range which extended far inland, although the map showed the ice cap coming down almost to the coast. Flying a hundred meters to the side of the highest peak, we found it to be approximately 12,300 feet above sea level.

Amdrup Havn, in Scoresby Sound, was the only settlement we passed, circling over its ice-filled harbor on our way to Angmags-



Photograph by Charles and Anne Lindbergh

A DANISH SURVEY PLANE CONVOYS THE FLYERS TOWARD THEIR FARTHEST NORTH

Dr. Lange Koch, in a hydroplane, guides the explorers over broken field ice to his base on isolated Clavering Island, Greenland. They saw numerous herds of the musk ox, and one polar bear. During the summer season, grass and flowers grow in this mountainous region north of the Arctic Circle.

salik, which we reached in the late afternoon. The harbor at Angmagssalik was so full of icebergs that the *Jelling* could not have come into it without striking them; but the plane managed to thread a landing between them and taxied slowly into the tiny inner harbor (see pages 291 and 296).

Angmagssalik was the only settlement we visited in east Greenland. It seemed a little like the other coast—but intensified. There was the same background of mountain peaks, but the peaks were sharper, blacker, and more snow-streaked. There was the same setting of bright houses up a steep hill. But the hill was steeper and the houses were brighter—all red.

The Eskimos themselves were more Eskimo, dark and slant-eyed, all wearing native costume, many of the women with their hair drawn into a tight topknot, old-fashioned Eskimo style. There were more turf houses than we had seen before and, as we came into the harbor, there were more howling dogs. It was more isolated, more primitive, more beautiful—well, it was *more*.

We visited one other colony in Greenland, Julianehaab, on the west coast. A day or two after landing in Angmagssalik, we flew back across the ice cap to Godthaab and down the coast to Julianehaab. This southernmost and largest colony was perhaps the most prosperous and attractive. It was evening when we arrived. We were now hundreds of miles south of the midnight sun. There were lights on in the town, a fountain going in the little square.

GREENLAND'S "GAY" METROPOLIS

The *Disko*, the official boat from Denmark, was just pulling into the harbor on one of its three trips to Greenland. On the white bridge the Greenlanders were dancing. Across the water I could hear them singing, "The Boat Is Coming In with the Whale" (see page 298).

Godthaab was the first colony we saw and it created our impression of Greenland. Holsteinsborg was our favorite, for we were there the longest time. Julianehaab seemed the gayest. But Angmagssalik was our last port, after cutting across Cape Farvel from



Photograph by Charles and Anne Lindbergh

BLOOD OF THE VIKINGS FLOWS IN THEIR VEINS

Colonel Lindbergh, whose paternal ancestors were Swedes, faces the sun with his host, Dr. Lauge Koch, a Danish authority on the geology of Greenland, and a member of the latter's expedition (see text, page 281). Chivering Island was the most northerly point reached on the flight.

Julianehaab. And it was Angmagssalik that remains in my mind—prickly, flame-like mountains across the fjord, red houses climbing up a green gully, patches of bluebells halfway up the hill, bright boots hung up to dry in the sun, and Greenlanders, in the evening light, twirling round and round on a dusty path to the whine of an accordion.

It was at Angmagssalik we were fortunate enough to meet the late Dr. Knud Rasmussen, the famous explorer, and his mapping and surveying party. It may have been their interpretation of Greenland that unconsciously influenced us. Dr. Rasmussen has interpreted Greenland to many people through his books, and wherever he was and among the people who worked with him, there was a remarkable enthusiasm and spirit. They would rather be in Greenland working with Knud Rasmussen than anywhere else in the world.

And it was at Angmagssalik, finally, that our plane was christened. Sitting on the wing when it was at anchor, a young Greenland boy painted on its side "*Ting-míss-artog*," the name the Greenlanders had given it. He put the lettering parallel to the

water and not to the lines of the plane, but we would not have it changed for anything; it was done at Angmagssalik (page 294).

BACK TO CIVILIZATION—IN ICELAND

On August 15, at 15:27 Greenwich Mean Time, we left Greenland for Iceland, detouring up the coast to fly over Lake Fjord, that deep trough in the mountains where the British Watkins expedition was stationed (see page 300). After about three hours over water we were in sight of Iceland and landed near Reykjavik at 20:44 G.M.T.

The contrast between Greenland and Iceland was far more than our slight five-hour trip seemed to warrant. This high and mountainous land looked as if all the tops of the mountains had been leveled off evenly with a trowel. Great bluffs dropped down steeply to a rolling coast, which was very green and dotted occasionally with little farms. Reykjavik, spread out below us, looked enormous. Rows of modern houses, good roads, cement and corrugated iron buildings, automobiles, docks lined with boats—all showed that we were back in civilization.

I left Greenland with the impression that it was the country, gigantic and untamed, which dominated life, and that man was only a minor character who had adapted himself to the rigors of this life; I left Iceland feeling that here, in this people, were the giants who conquered the land. They had cultivated the thin-soiled, stony fields, raised cattle on the volcanic slopes, and had even, in some places, harnessed Nature's hot springs to heat their buildings and greenhouses. A parliament was held by them in the plain of Thingvellir, 930 A. D. Certainly they had established a remarkable civilization in a beautiful but rather forbidding land.*

We had a chance to see more of it on our departing flight around Iceland: the white-topped volcanoes with their hardened streams of lava blackening a valley below; the stony fields; the rough coasts; and the steep fjords, which cut into the heart of the country. In one of these fjords on the east coast we landed and spent the night in the fishing village of Eskifjörður (304).

On August 23 we left Iceland for the Faeroes.† These beautiful rocky islands are famous for their bad weather. We came upon them in what we thought must be a typical day. They were wreathed in mist, and the long open fjord which we followed from the west side of the islands to the east was like a tunnel through the fog. We could never see the tops of the walls which formed it (see illustration, page 308).

When we finally reached the east side and made our way through patches of bad weather to the southernmost island, we found the entrance to the Tverá Fjord almost blocked off (see page 306). The fog was right down on the water. Could we get in? Circling around, we managed to squeeze under a 200-foot ceiling, and landed in a light drizzle below the banks of Tverá.

I breathed a sigh of relief and thought we were lucky to get through. Our Faeroese host thought we were lucky, too—but for other reasons. As we climbed the hill in the rain, he remarked, "Good weather *now*; it's lucky you didn't come this morning."

We never saw any real Faeroese weather, for we left the next day with beautiful clear

* See in the NATIONAL GEOGRAPHIC MAGAZINE, April, 1928, "The Island of the Sagas," by Earl Hanson, and "A Walking Tour Across Iceland," by Isabel Wylie Hutchison.

† See "Viking Life in the Storm-Cursed Faeroes," by Leo Hansen, in the NATIONAL GEOGRAPHIC MAGAZINE for November, 1930.

skies which lasted to the Shetland Islands. Here in Lerwick (page 301) we had one day of bad weather which we were happy to spend in that charming gray-roofed, gray-walled town before continuing on our way to Copenhagen (Köbenhavn).

ALONG NORWAY'S COAST AND OVER DENMARK'S FIELDS

On August 26 we flew over the North Sea, past the coast of Norway and over the flat green fields of peaceful Denmark. After a five-hour flight, we landed in the harbor of Copenhagen,* among hundreds of little boats that looked from the air like myriads of white butterflies and gnats on a summer's pool (see page 309).

Tingmissartog had a 9-day holiday in Copenhagen, as we did, and was beautifully cared for by the Air Force of the Danish Navy. It was quite ready to start again on September 3 for a flight to Sweden—over the square fields of Skåne† patterned below us, shadows of windmills moving black across them; red-roofed towns and their church spires pricking out of trees; forests and lakes; the coast, cut up into pine-covered islands; and finally, Stockholm—spires and ships and towers and bridges and pine trees, all set down in sparkling water (see illustrations, pages 310, 311, and 312).

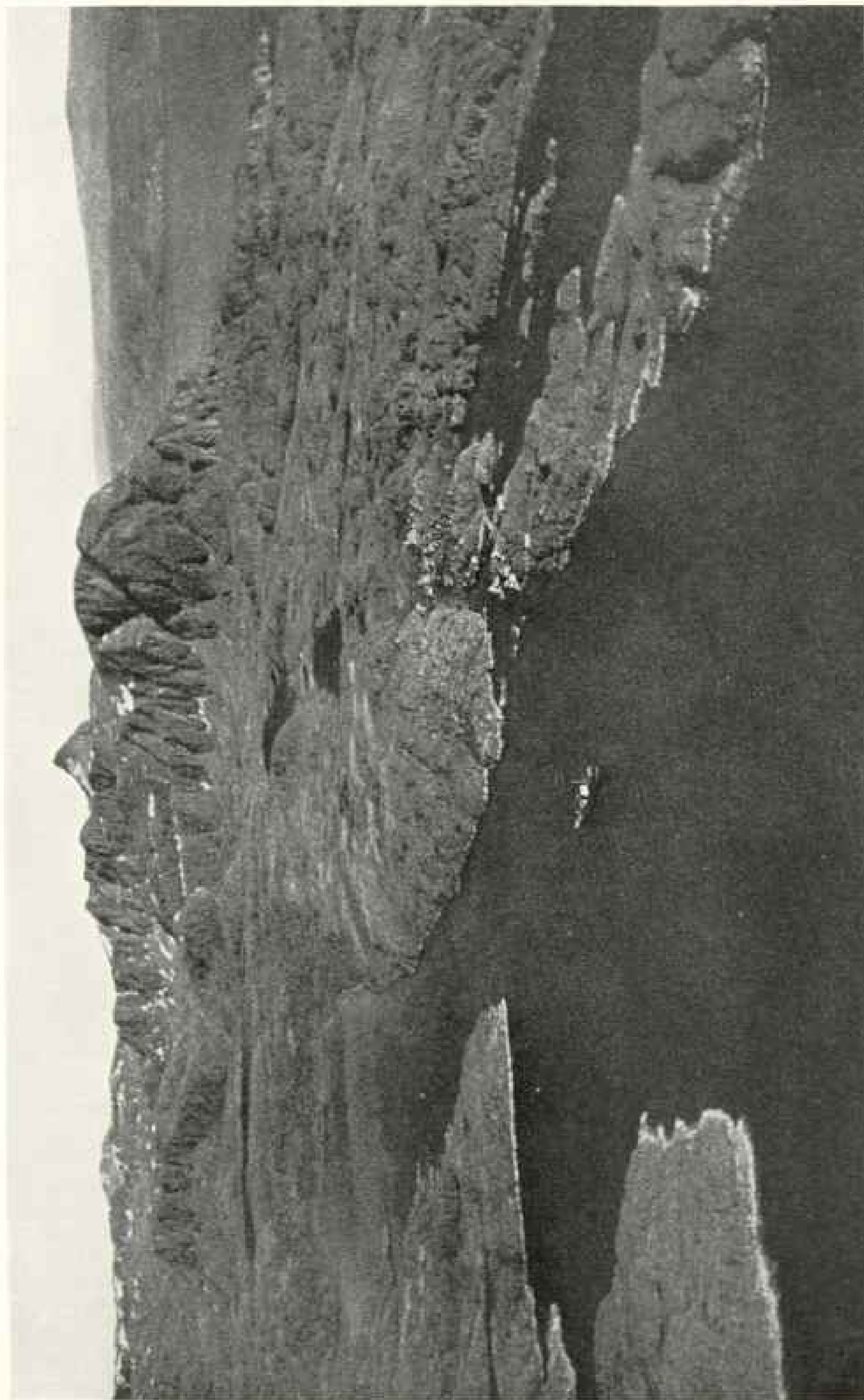
After another holiday in the waters of Sweden, ending with a flight to Karlskrona, *Tingmissartog* left for Helsingfors (Helsinki) on September 20. Our route from Karlskrona lay over the long island of Öland, where Nils and the geese once spent the night; and Gotland, where the walled town of Visby stands ringed with fortresses facing the sea, just as it always has since the days of the Hanseatic League. Then, straight over the Baltic to Finland, with its thousand pine-covered islands and, set down among them, Helsingfors, its modern capital.

TOWERS AND BRIDGES OF LENINGRAD

From there, it was a very short flight up the Gulf of Finland to Leningrad. In less than two hours we met the welcoming Soviet planes. The mosque on the island of Kronstadt was below us and ahead we could see the towers of Leningrad with the gold dome

* See "Royal Copenhagen," by J. R. Hildebrand, in the NATIONAL GEOGRAPHIC MAGAZINE for February, 1932.

† See "Country-House Life in Sweden," by Amelie Posse-Brázdová, in the NATIONAL GEOGRAPHIC MAGAZINE, July, 1934.



Photograph by Charles and Anne Lindbergh

HOLSTEINSBORG IS A TINY HANDFUL OF HOUSES, LIKE A SCATTERING OF PEBBLES, AGAINST GIANT MOUNTAINS

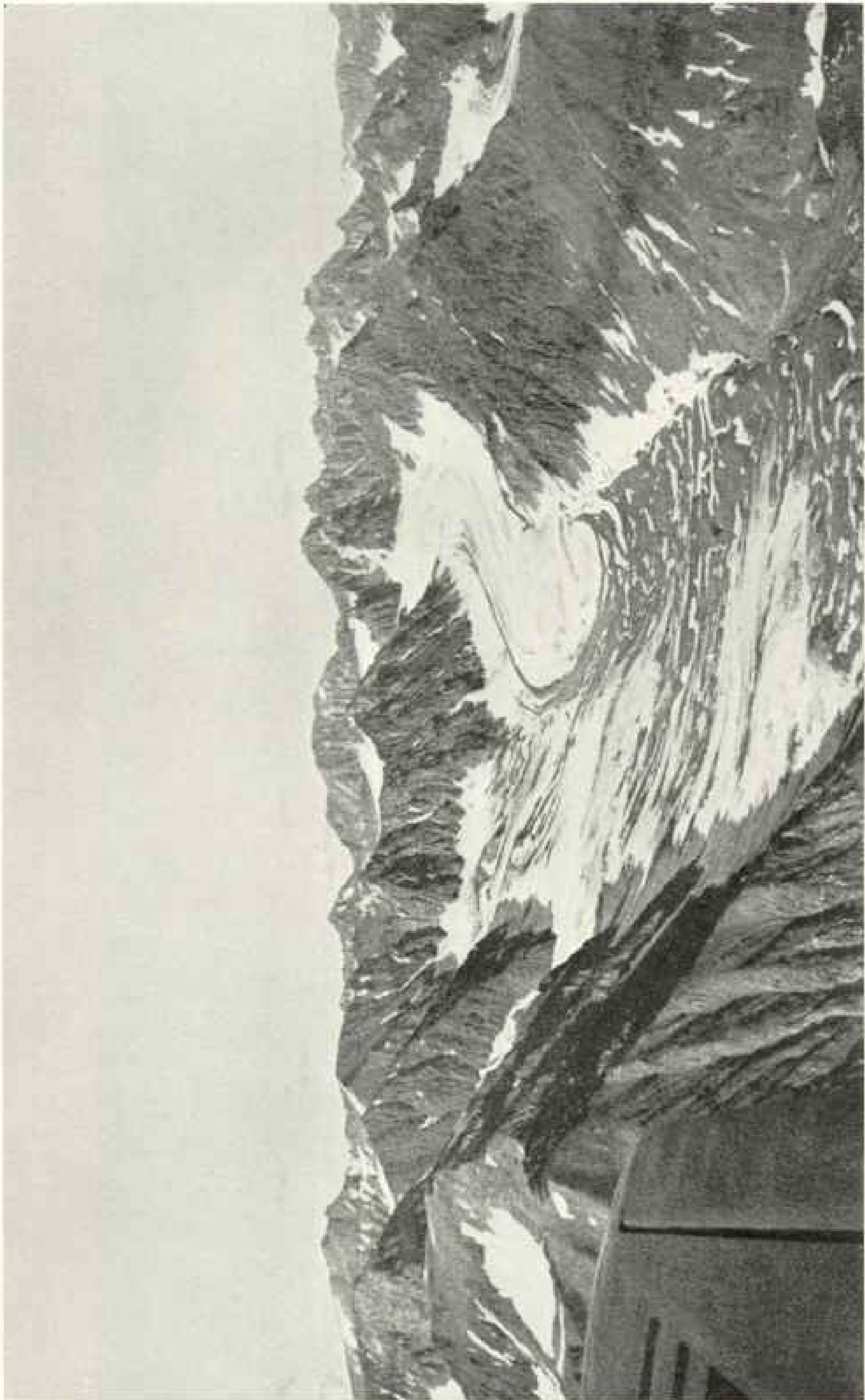
The little colony of bright-red, green, and blue houses climbs a rocky hill. The *Jelling*, Pan American Airways Expedition ship, looks like a toy boat in the outer harbor. This picture was taken from an altitude of about 4,000 feet.



Photograph by Charles and Annie Lamborgh

BLACK MOUNTAINS PUSH JAGGED POINTS THROUGH SNOW AND ICE

A tip of the wing shows in the picture as the plane skirts the ice cap southward from Clavering Island to Angmagssalik.



Photograph by Charles and Annor Lindbergh

A SETTLEMENT IS ONLY A FEW MINUTES AWAY, BY AIR: IT WOULD BE WEEKS, BY LAND

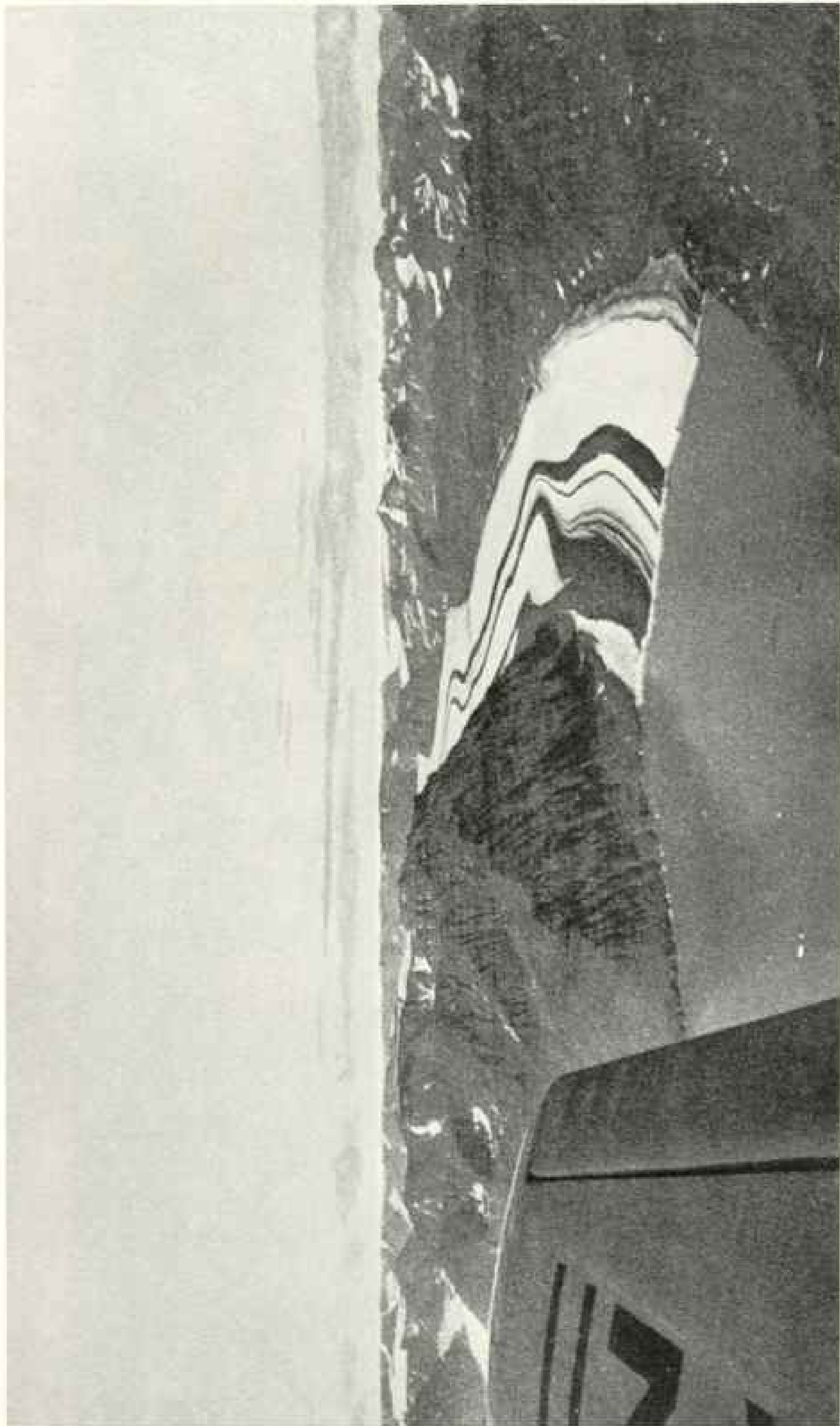
Here loose snow and rock have gathered, packed into ice, and formed a U-shaped glacier, gradually receding from the coast, north of Scoresby Sound. Amstrup's Haven is less than a hundred miles to the south.



Photograph by Charles and Annie Lindbergh

TWO FRENCH BOATS AMID SHIFTING ICE OFF THE LITTLE TOWN IN SCORESBY SOUND

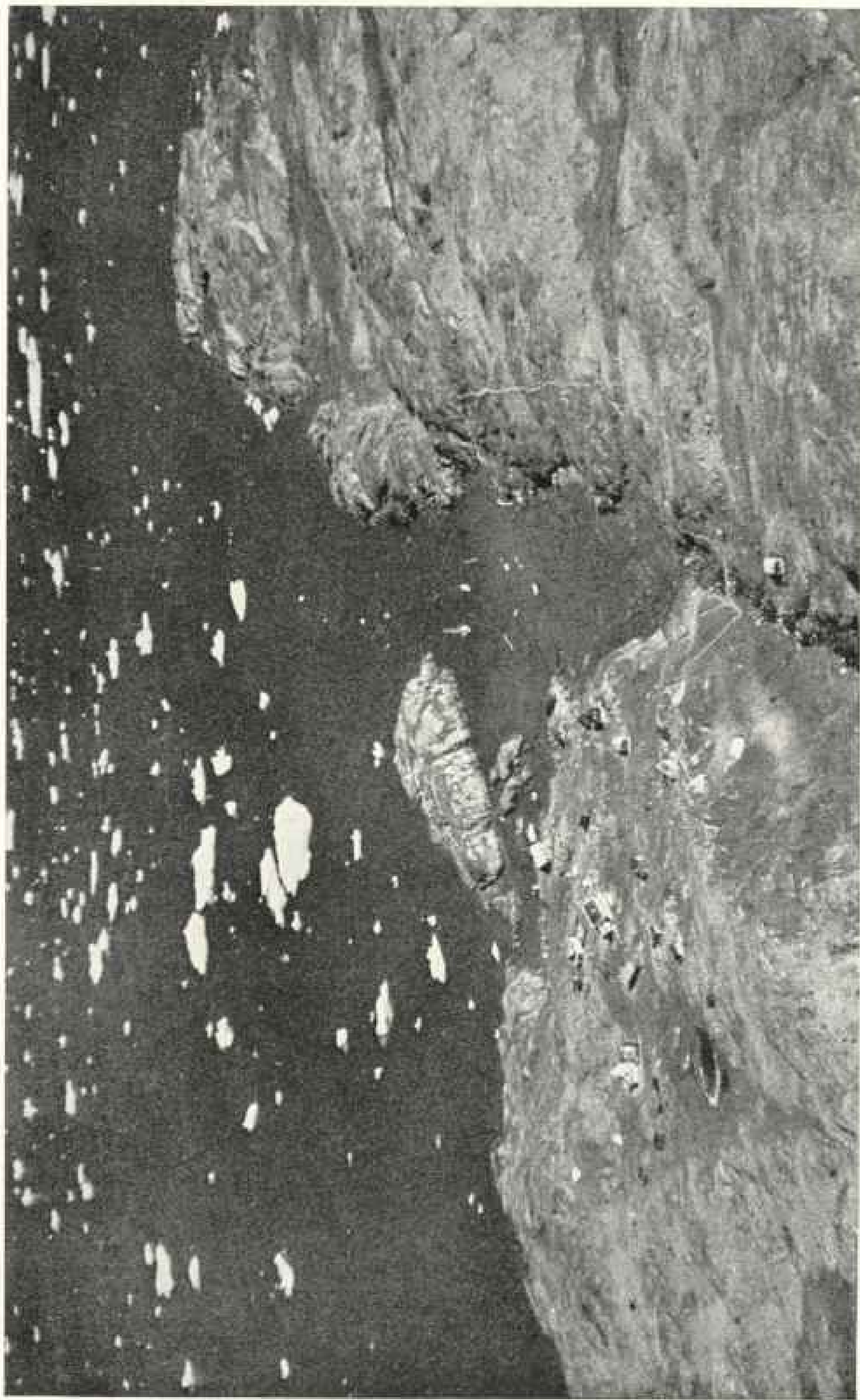
Submerged portions of bergs may be seen distinctly in the crystal-clear waters of the harbor, where the sea penetrates far into Greenland. A steep-walled amphitheater was hollowed by a grinding glacier from the rocky hill above the village.



Photograph by Charles and Anne Lindbergh

FROM THE AIR THIS BROAD GLACIER SEEMS LIKE STREAKED MARBLE BETWEEN BLEAK MOUNTAINS

The white is ice and snow, while the black bands are rock fragments and dirt scraped from the base of mountains and carried along for miles on the back of the glacier. Huge chunks, gnawed by the sea from its edge, appear as tiny white sails on the waters of this fjord, south of Scoresby Sound.



Photograph by Charles and Anne Lindbergh

THE PLANE THREADED A LANDING BETWEEN ICEBERGS AT ANGMAGSSALIK

Then it taxied into the inner harbor below the steep hills of the town. One of Dr. Knud Rasmussen's expedition ships lies just inside the harbor entrance.



FOG VEILS THE MOUNTAINS NORTH OF KANGERDLUGSSUAK



Photographs by Charles and Anne Lindbergh.

OVER TWO MILES HIGH AND UNCHARTED!

As the Lindberghs flew close to the top of the highest peak in this snow-strewn range, the altimeter indicated 12,300 feet.

of St. Isaac's Cathedral (now a museum) glinting in the sunshine.

We were in Russia one week, including two days of flying, and we accomplished, I am sure, a month of sight-seeing. From our quiet landing in Leningrad, where the plane was quickly and efficiently moored, to our departure from the Moscow (Moskva) River, everything possible was done for us and perfectly arranged by The Intourist Association. After our rather full program, however, my mind was crowded with pictures and impressions.

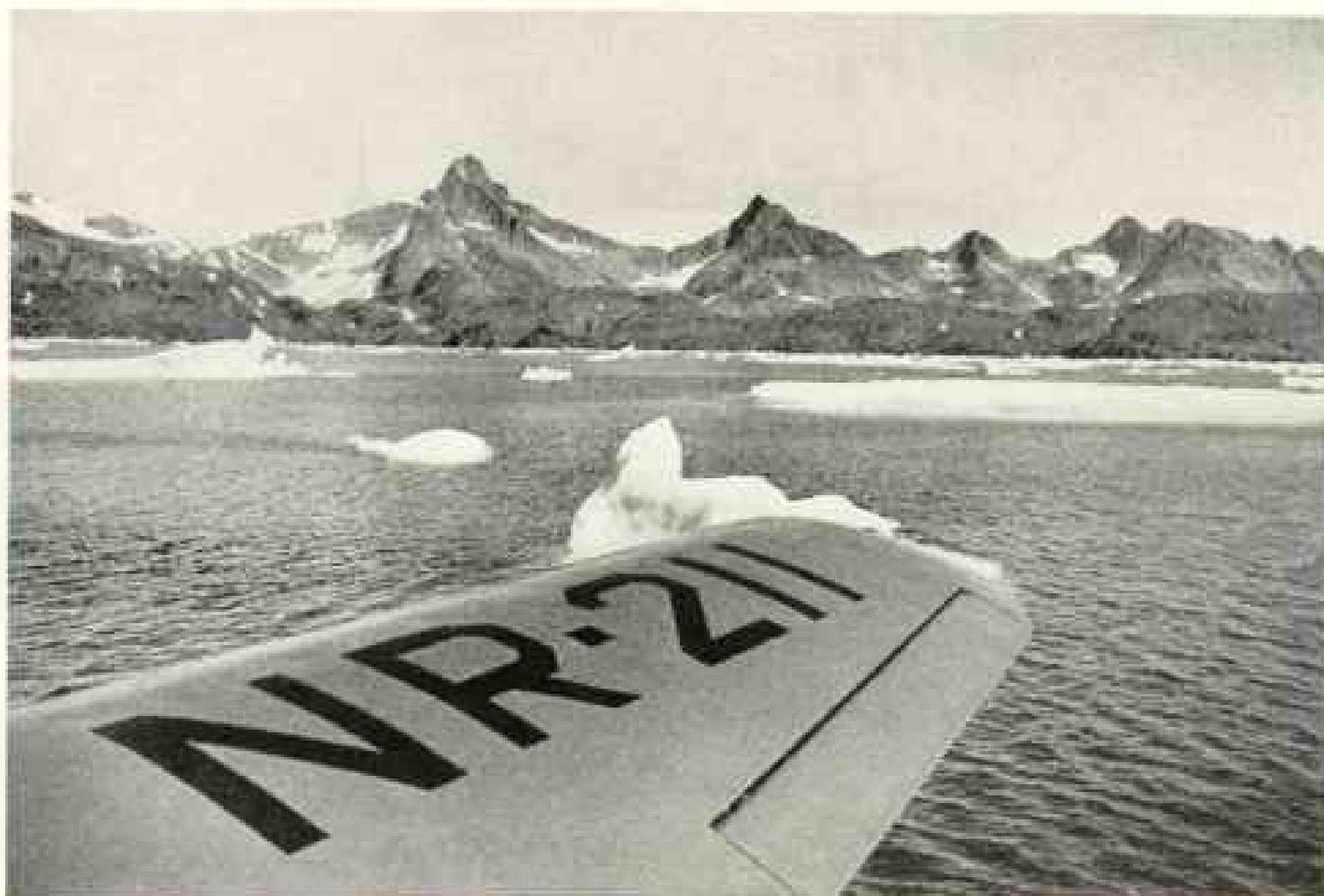
Leningrad—its wide boulevards, its towers and palaces and parks, its long vistas, its river, crossed and recrossed by lovely low bridges—had, on first sight, the air of a magnificent capital. But, on second sight, one had the indefinable sense of a beautiful city gone a trifle shoddy: the paint coming off the buildings; the stones crumbling in places; the streets untidy with debris, as though a great flood had swept over the city and no one had bothered to clean up afterward.

The crowds of people on the streets, all dressed in shabby clothes, all looking the

same, all going in the same direction. The color and gayety and dazzle of an exquisite ballet, performed in a begilded and ornamented opera house and applauded by an audience all dressed in black clothes. The art treasures of the Tsars. Palaces more gorgeous and extravagant than fairy tales. Lenin's picture everywhere. His bare rooms in the old convent. Many modern buildings going up outside of the city itself; factories, apartments, Halls of Culture. A fireman's formation in the big square in front of the pink Winter Palace—red flags and an enormous picture of Lenin hung from the top of a building and reaching to the ground.

But perhaps the most vivid picture is our arrival in Moscow. The flight from Leningrad, over wooded and farm country, reminded one of parts of our Middle West with its sense of space and fertility. At the end of three hours we were met by Soviet flyers outside of Moscow and saw the river circling ahead of us.

Moscow from the air is a wonderful sight, an amazing combination of old and new. It looked enormous, spread out beneath us



Photograph by Charles and Anne Lindbergh

DODGING ICEBERGS REQUIRED SKILL AT ANGMAGSSALIK

High winds and shifting ice made landing and taking off difficult. Even small chunks of floating ice might easily tear the thin skin of the pontoons.

and sprouting with new construction on all sides, so that I felt it was growing under my eyes. In the center, not overawed by the arrogant new buildings, was the old red-walled Kremlin, holding in the circle of its arms fantastic fairy-tale domes.

LANDING BETWEEN BRIDGES AT MOSCOW

The river was quite narrow and wound through the heart of the city. We were to land in a rather short stretch of water between two bridges. There was a grandstand packed with people on one side of the river and a public park on the other. I wondered if we could "make it"; and just what would happen if we didn't. After circling low over the river several times, we skimmed over the top of the first bridge, side-slipped steeply down to the water, straightened out, and landed with plenty of room ahead. As we turned back to the dock I was conscious of the roar of cheers from the grandstand—an enthusiastic welcome to Moscow (see page 314).

The enthusiasm of this welcome created an impression which remained in our minds throughout our short visit. There was perceptible, even to superficial sight-seers, a

spirit and driving force in Moscow that we had not felt in Leningrad. For in spite of the new construction going on there, Leningrad seemed a city whose glories were in the past, now living in a state of nostalgic old age. While Moscow, in spite of its somber sides, had an unmistakable air of youth.

There were still those drab crowds, those long lines in front of the stores, the uncompleted disorderly look to much of the work (although an amazing amount finished); but there certainly was activity, feverish activity and tireless energy everywhere one looked. The faces of the people, though not exactly happy, were certainly interested—intent on their work in the streets, in the factories, and on the air field. The theaters and museums were always crowded.

The interest in the works of art seemed to be social rather than esthetic: "See the rich robes in this picture! In those days the poor peasant—." But the interest was there and very real. I found myself enthusiastic about the work that was being done for mothers and children: my husband was impressed by the work being done in aviation. Perhaps it was in this latter field that we were particularly conscious of the enthu-



Photograph by Charles and Anne Lindbergh

"TINGMISSARTOQ!" ESKIMOS SHOUTED WHEN THE MONOPLANE CIRCLED OVERHEAD

So *Tingmissartog* it became—"The one who flies like a big bird." The long word, painted on the fuselage by this Angmagssalik boy, was not changed by the aviators, although it paralleled the water rather than the graceful lines of the monoplane (see text, page 284).

siasm. Not only were the aviation people keen and forward-looking, but there seemed to be a great general interest in planes. There were always crowds on the bridge above the river looking down on our ship anchored below (see page 313).

On September 29 we took our last look at the Red Square; the beautiful wall of the Kremlin, a red tower at each end and its gold domes beyond; at St. Basil's Cathedral (now a museum), with its jeweled bubbles looking as though they had just risen from a magician's wand; and Lenin's small tomb, impressive in its stern simplicity, at the foot of all this splendor. We dipped our wings in salute over Moscow and flew west.

THE "MYSTERY TRIP" TO WALES

We arrived at Tallinn, the capital of Estonia, in the middle of the afternoon and after a day in the walls of that charming medieval town, went on across the Gulf of Finland, over Sweden to Norway. Oslo, set down among islands and pine trees, was lit by the turning leaves of autumn, reminding us that we must finish the northern part of our surveying and turn south.

On October 3 we left Oslo for a flight across to Bergen and down the beautiful coast of Norway, stopping a night at Stavanger. On October 4 we arrived in Southampton. Leaving our plane under the excellent care of the Supermarine plant, we proceeded on what the newspapers called a "mystery trip," to visit my sister in Wales.

October 23 to November 15 was spent in flights about Europe. The log mounts up hours swiftly:

"October 23rd—Took off Southampton 11:26 Greenwich Mean Time, landed Galway, Ireland (after flying up the coast from Valencia) 16:45 G.M.T. October 25th—Took off Galway 11:23 G.M.T., landed at Inverness (where we did not see the 'Big Beastie of Loch Ness') 15:21 G.M.T. October 26th—Took off Inverness 13:12 G.M.T., landed Les Mureaux 17:23 G.M.T. (Thanks to the splendid arrangement of the French Air Ministry, we were able to land quietly at the Naval Base on the Seine near Paris.) November 2nd—Took off Les Mureaux 12:16 G.M.T., landed Amsterdam 14:49 G.M.T. November 7th—Took off



Photograph by Charles and Anne Lindbergh

BOOTS ARE A LARGE PART OF THE FAMILY WASH IN GREENLAND

The ventilation system of Eskimo *kamiks* (seabird boots) is so poor that the same pair may not be worn with comfort for more than a few days at a time. When dried, these brightly colored boots at Angmagssalik will be scraped until they are soft again.

Amsterdam 11:29 G.M.T., landed Rotterdam 15:55 G.M.T."

This entry in the log usually raises the comment, "But they're less than 40 miles apart! That shouldn't take more than twenty minutes. What were you doing all that time?" The answer is that we were trying to reach Geneva (Genève) through what I considered very thick fog, but which my husband said "wasn't bad at all." Perhaps it wasn't bad. I only know that we spent a good deal of time circling small ponds under the mist. I thought we were about to make a forced landing, but my husband said he was looking at castles. I was all ready to step out in Geneva, and we turned up in Rotterdam! But it didn't matter. I was very glad to see Rotterdam even if it was a five-hour trip from Amsterdam.

"November 8th—Took off Rotterdam 11:38 G.M.T., landed Geneva 14:50 G.M.T. November 11th—Took off Geneva 11:05 G.M.T., landed Santoña, Spain, 16:14."

The weather through Europe was, on the whole, rather bad—fog, rain, storms, and, on the day we left Geneva, snow. I longed for the clear, sharp days of Greenland. When

we reached Spain we looked for sunshine. But there were local storms all down the coast and, at Santoña, where we were forced down by blinding rain, *Tingmissartog* came very near to being seriously damaged.

The wind rose to a gale that night and the plane, dragging two anchors, started drifting down the harbor. It just missed a corner of the stone breakwater before it was rescued with the assistance and skill of the Santoña fishermen and moored with additional lines.

"CUTTING CORNERS" ACROSS SPAIN

After a day in Santoña we started out again, hoping that the worst of the storm had passed. But we were to catch up with it. "Storm at Vigo!" shouted someone just before we took off. "You must not go!"

"Oh, we'll go and see what it looks like!" shouted back my husband.

Not content to see "what it looked like" from the coast, he decided to make the trip shorter by cutting across the corner of Spain to Portugal. Squeezing between low clouds and the peaks, we crossed one range of mountains and a high, bare plateau.



Photograph by Charles and Anne Lindbergh

HERE THE ESKIMOS CLING TO THE COILED HEADRESS OF FORMER DAYS

Because of icebergs, only once in about four years could the *Jelling* (at anchor on the left) enter Angmagssalik harbor. This photograph was taken one week after that on page 291, in which time the harbor had almost completely cleared of ice.

The ceiling lowered as we pursued, through rain and fog, a winding, tortuous course southwest. I had no idea where we were, and felt sure we would eventually land on the plateau.

Finally we came upon a river, cutting its way down a canyon several hundred feet deep—flowing west! We had passed the divide and knew that the river would inevitably lead us out to the west coast of Spain or Portugal. We followed its winding course for half an hour down into broader valleys. The fog became lower as we approached the sea and the visibility worse as the afternoon progressed. Suddenly, as the fog ahead dropped down to the tree-tops, my husband, with a quick gesture to me, circled to land on the broad stream.

We were flying rather low and I had 150 turns of antenna trailing out below the ship. In a panic I wound frantically but could not reel it all in before we struck the water. The ball weight on the end snapped off—the first one I had ever lost. We taxied upstream to a still pool out of the current, while people from both sides of the river began to row out to us. I reached for a small Spanish dictionary and shouted with appropriate gestures, "Mal tiempo—Santofia—Lisbon—Mal tiempo—No puede—Lisbon—Aqui" and then hopefully, "Persona inglesa?"

PLANE WINGS TIED TO WILLOW STUMPS

Perhaps they understood; or just on general principle rowed back to the nearest town for someone who could speak English or a strange mixture of Portuguese and "New Yorkese." In the meantime my husband was much more successful without a dictionary. Taking out a map, he made them show him where we were: Rio Minho on the border between Spain and Portugal; just upstream from two small towns, Tuy on the Spanish side and Valença on the Portuguese.

We pulled the plane up against a bank in a small inlet off the main stream, and tied the wings to low willow stumps. Here we were quite comfortable for the night, spreading out our bundles for a mattress in the long baggage compartment—the large bulky bundles underneath, and the softer ones—slickers, white parkas, flying suits, air cushions, and life preservers—on top.

In the morning we were waked by the murmur of voices, at first low, and then

rising to a chatter like that in a theater before the curtain goes up, which, as a matter of fact, was exactly the case. Peering out of an opening we could see crowds of people lining both banks of the inlet and a small rowboat doing a busy trade of ferrying them from the opposite side to ours.

MEETING CAMERAS WITH A CAMERA

Men, women with babies in their arms, children and dogs, all stood waiting for us to appear out of the plane. I dressed, knocking my elbows on the sides of the narrow fuselage, with the feeling that there were hundreds of eyes turned upon me, shielded only by the thin walls of the plane. There were numerous cameras set up ready to snap at us as we popped our heads above the cockpit. My husband surprised them by jumping up quickly and taking their pictures before they could take ours. I think, on the whole, we got the best picture.

But the crowd on the bank, we soon discovered, wanted to do all they could to help us. The mayors of both Tuy and Valença, the international police, the river boat patrol, the customs officers—everyone turned out to give us a good time during our chance visit (see illustrations, page 318).

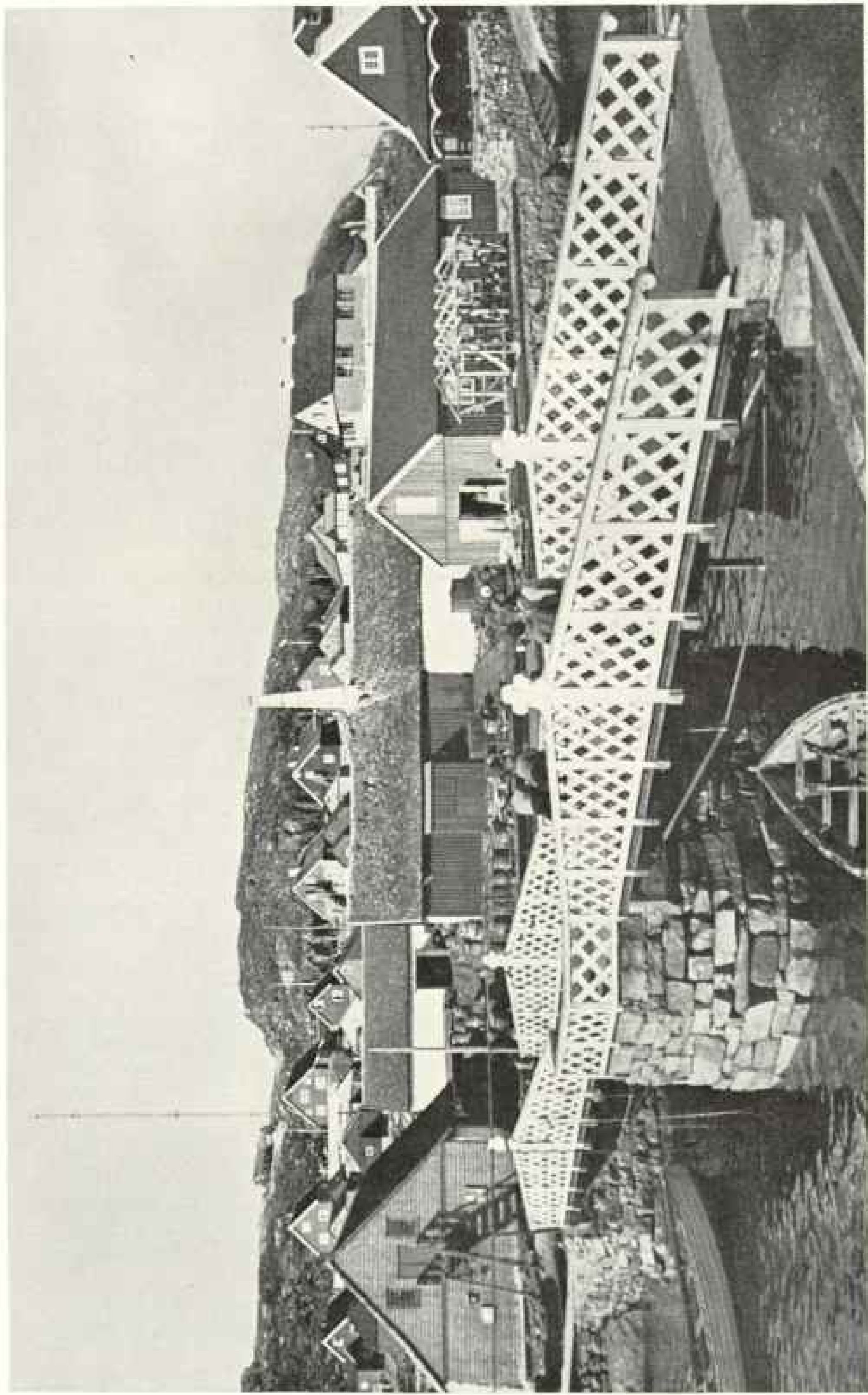
"Now youse—Missa Annie—don' be bashful—you wan' anyt'ing? If youse like—I taka youse out riding."

When the weather cleared a little, we left for Lisbon (Lisboa),* which was only two hours away. The great bay sparkled with boats and sunshine. Good weather at last and a wonderful rest, at the American Legation, before our flight to the Azores.

On November 21 at 7:08 G.M.T. (day-break) we left Lisbon for the Azores. Accurate navigation probably was more important on this trip than on any other, for the point we aimed at was small, and we did not have enough fuel to return after going the full distance. It was essential to strike the islands.

We relied primarily on dead reckoning checked by sun sights with our sextant. We also had radio contacts, carefully arranged by the Naval Station in Lisbon, to help us. I operated the radio and drift meter and flew the plane while my husband took sights on the sun.

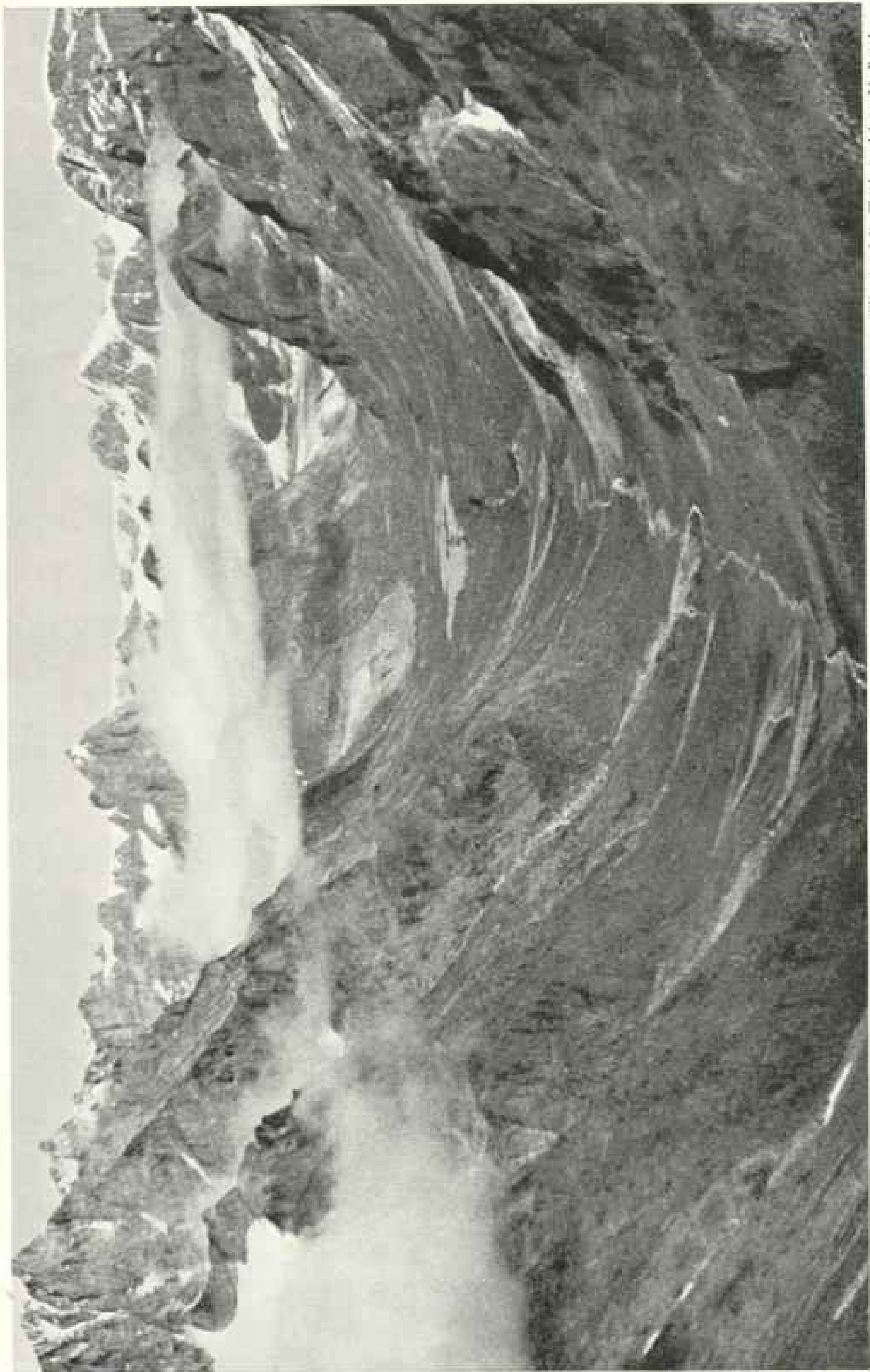
* See "An Altitudinal Journey Through Portugal," by Harriet Chalmers Adams, in the NATIONAL GEOGRAPHIC MAGAZINE for November, 1927.



Photograph by Charles and Anne Lindbergh

ON LONG SUMMER EVENINGS THIS WHITE BRIDGE SHAKES TO THE RHYTHM OF A GREENLAND "PAUL JONES"

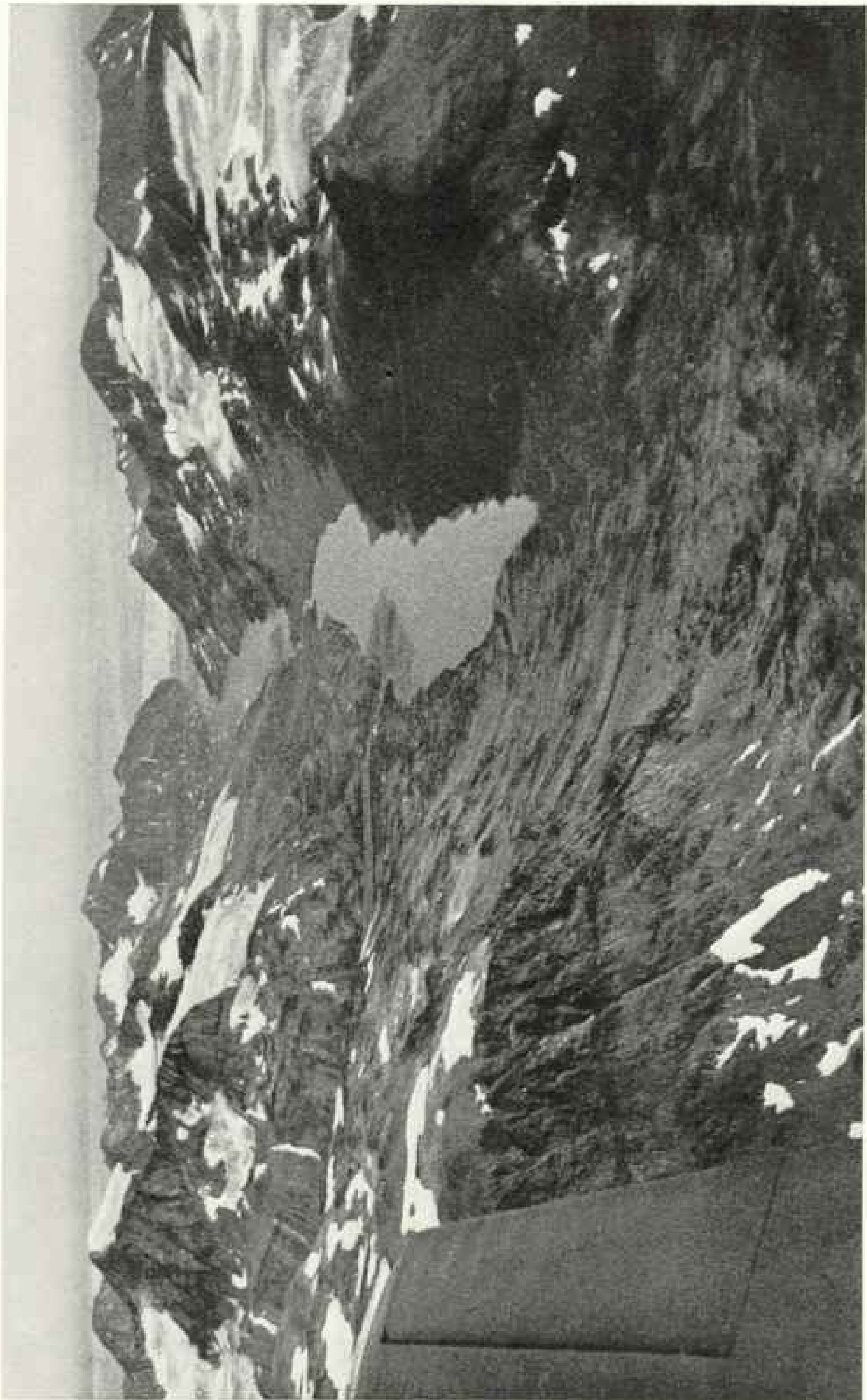
When the flyers dropped anchor, they heard villagers singing "The Boat Is Coming In with the Whale" (see text, page 271). This largest settlement of Greenland has electric lights and a fountain in the little square (see text, page 283). It is only in this district that fresh milk may be had in Greenland.



Photograph by Charles and Anne Lindbergh

GREENLAND'S ONLY FOREST LINES THE STREAM IN THIS DEEP VALLEY

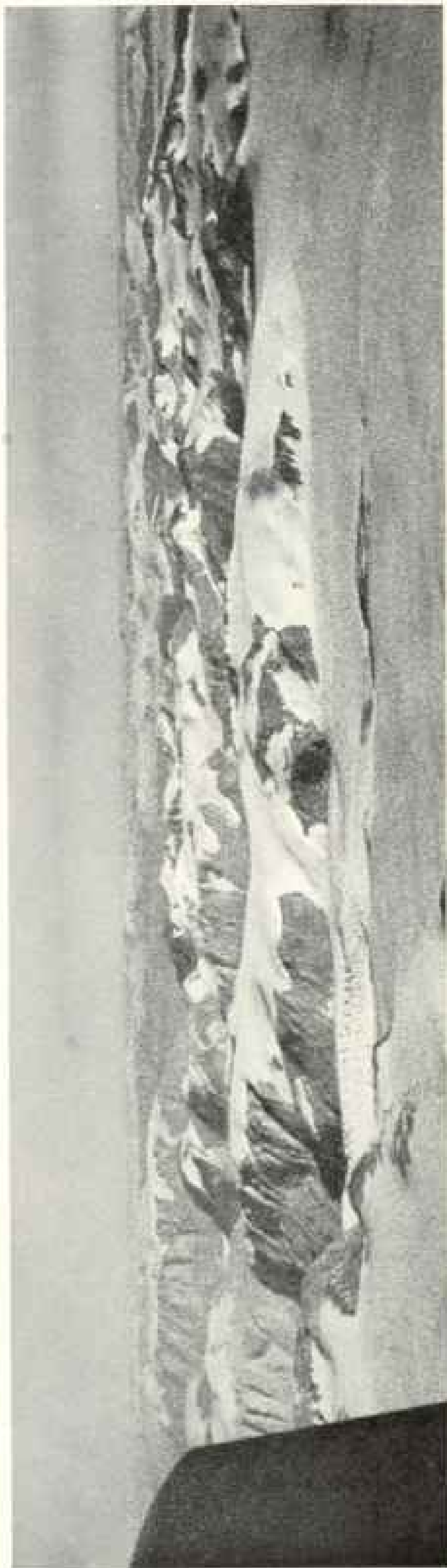
Eric the Red may have viewed this green canyon when he landed south of Julianehaab some ten centuries ago. The thickets of willow and birch "trees," carpeted with ferns and moss, never grow higher than 18 or 20 feet. The light clouds are remnants of sea fog which has drifted in and been broken up among the high mountains.



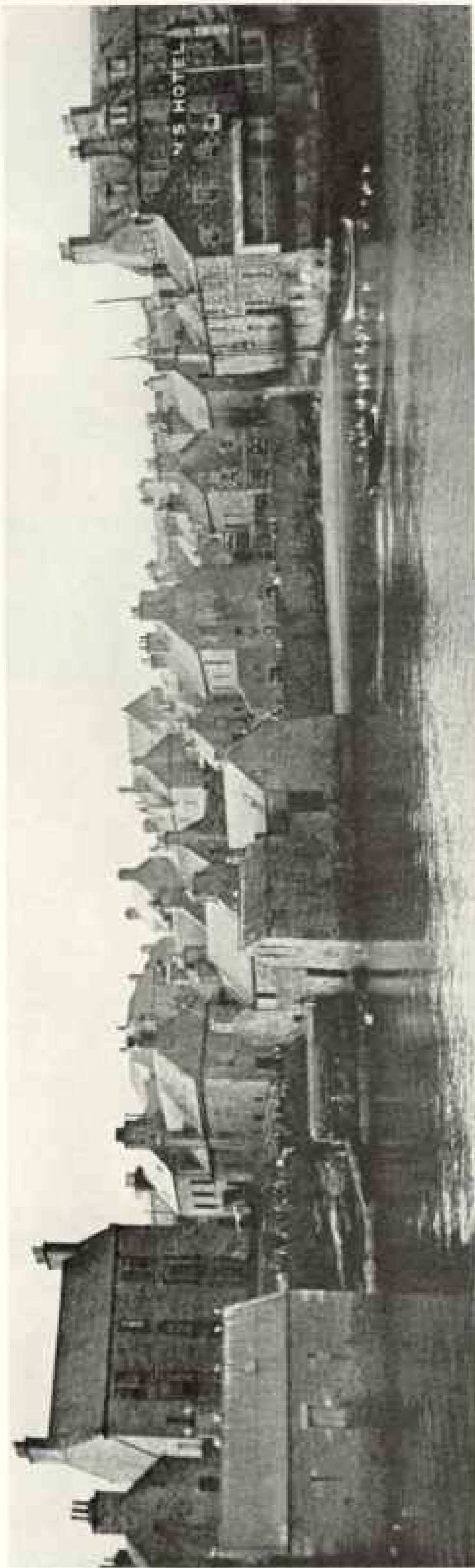
Photograph by Charles and Anne Lindbergh

FAREWELL TO GREENLAND'S BLACK PEAKS, HER ICE CAP, AND PATCHES OF BLUEBELLS

A melting glacier tongue forms Lake Fjord, which was the base of the British Watkins expedition (see page 284). It nestles in a valley whose slopes were furrowed out by scouring ice of former years. The parting view of Greenland was taken at *Þingvallavatn* winged its way toward Iceland.



THESE RUGGED MOUNTAINS WERE A WELCOME SIGHT AFTER SEVEN HOURS' FLYING OVER GREENLAND'S ICE CAP
 As the flyers approached the east coast, Colonel Lindbergh passed a cheering note back to his wife: "Every five minutes we save a day's walk."



THE "CHARMING GRAY-ROOFED, GRAY-WALLED TOWN" THAT IS LERWICK
 When *Thorgaustauriq* moored for an overnight stop, crowds lined the short streets of this village in the Shetlands, famous for shaggy little ponies and herring fisheries
 Photographs by Charles and Anne Lindbergh



Photograph by Charles and Anne Lindbergh

FLOATING ICE ISLANDS ARE NEARLY AS HIGH AS THE UNITED STATES CAPITOL.

Despite their enormous size, these east-coast bergs are much less dangerous to transatlantic shipping than calvings from west-coast glaciers. Wind and current carry them around the southern tip of Greenland, up the west coast, and, if anything is left, into the warmer waters of Davis Strait—their journeys' end far north of steamship lanes.

In the first part of the day, we had to fly above the clouds in order to take sights. But in the afternoon, under clear skies, we flew very near the water, using the natural horizon for our observations. After eight hours we saw the volcanic slope of Terceira rising into the clouds. At 16:25, a little over nine hours from our take-off, we landed in the harbor of Horta, a steep hill behind us and a steep cliff ahead of us.

We had thought of going from Horta straight to Madeira, but the harbor at Horta was too small for us to take off with a sufficient load of fuel, and the swell outside was too great. We decided to refuel at Ponta Delgada, an hour-and-a-half flight from Horta. We arrived in the evening and left early the next morning for Madeira. Here again navigation was important, but this time there was always the coast of Africa to catch us should we miss our island. Due again to the great assistance of the Portuguese naval radio stations, we had accurate weather reports, and could send back our position en route.

We had a beautiful day and, with the

sextant checking our dead-reckoning positions, in about four hours saw the bluffs of Madeira straight ahead of us.*

This steeply terraced island looked very charming; but the small breakwater at Funchal hardly kept out the rolling sea swell. It looked too rough to land and much too rough to take off again. We circled, radioed our regret at not being able to stop, and went on to the Canary Islands. About seven hours after leaving Ponta Delgada we landed at Las Palmas. Here we entered into a zone of permanently good weather, clear and dry and sunny. It was deliciously warm and not yet hot. At Villa Cisneros, our next stop, it began to be hot.

On November 26 we left Las Palmas for Africa. The coast of Spanish Rio de Oro looked like Africa—brown-yellow sand as far as one could see, falling down abruptly in low cliffs to the sea.

Villa Cisneros (page 324) lies on the spit of land between the mouth of the Rio de Oro

* See "Madeira the Florescent," by Harriet Chalmers Adams, in the NATIONAL GEOGRAPHIC MAGAZINE, July, 1934.



Photograph by Charles and Anne Lindbergh

ICELAND'S VOLCANIC PLATEAUS CONTRAST WITH GREENLAND'S ICY PEAKS

Many lava flows, laid one upon another, have leveled off the northwest coast of Iceland until it looks like a table top. These rocky tracts often reach heights of 3,000 feet.

and the sea. Nothing but a few flat-topped white buildings, a group of brown tents and a large hangar on the sand. The hangar represented a regular stop on the French air route to South America; the white buildings, a large square Spanish fort and its surrounding houses. Farther along the peninsula, from sea to bay, stretched a row of smaller white forts, joined with a wide barrier of barbed-wire fencing. Here, apparently, the Spanish traded with the Moors. "And that," so read the African pilot book, "only under their guns."

Beyond this boundary line the real desert began. Looking down that stretch was, in its endlessness, like looking out to sea. Trails ran off in the sand and on the horizon, a group of figures, men and camels on the way—out.

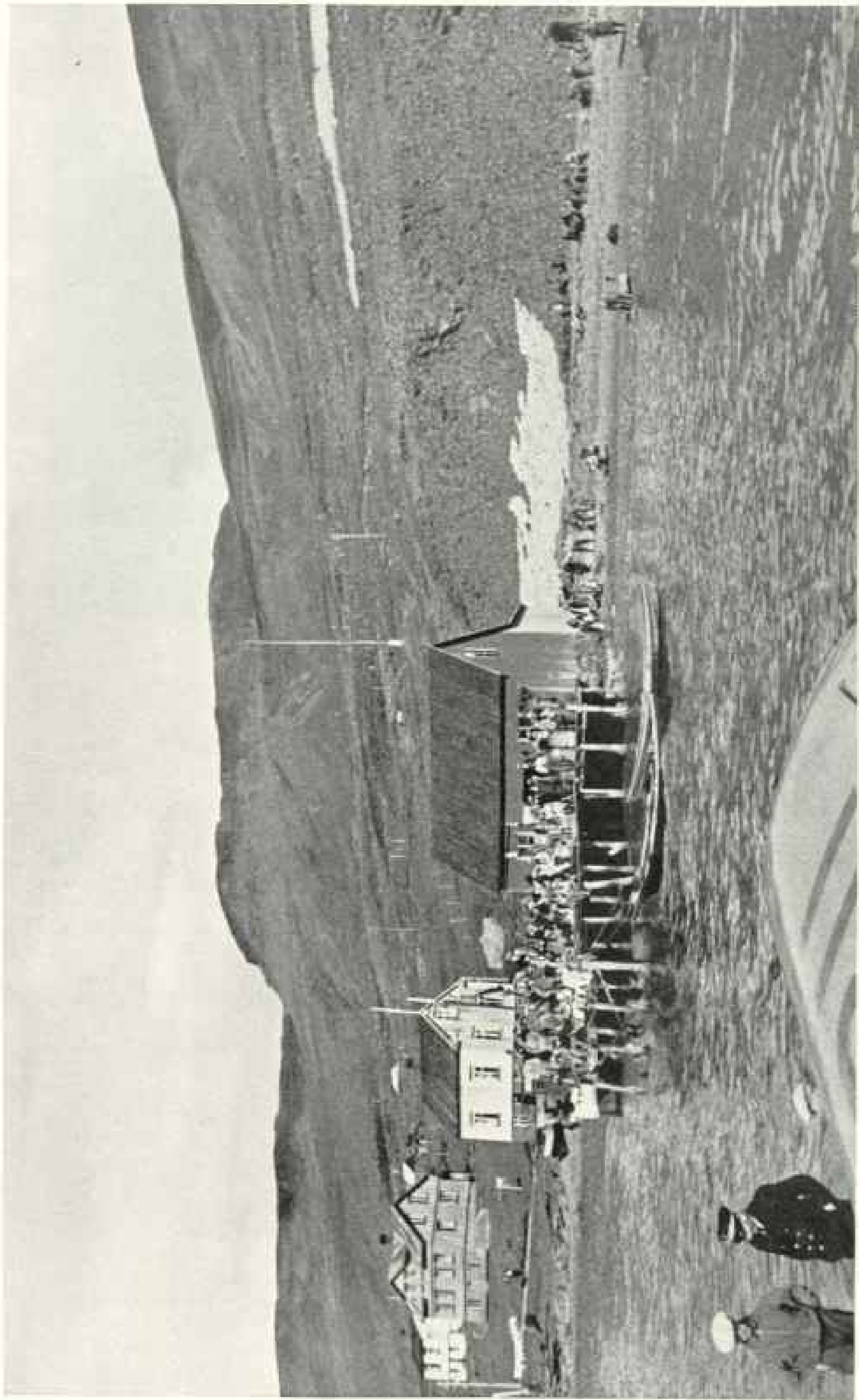
"INFINITE DIGNITY" OF THE MOORS

We landed in the middle of the morning. The light was intense; bright water, bright sand, bright white houses. One looked for relief to the sharp line where the cliff made a shadow on the bay, to the dark cool cave of the hangar, and the black tents of the Moors. Even the clothes of the Spaniards

were white. They are undoubtedly cooler, but not as easy to look at as the dark evening blues that swathe the Moors.

The Spanish Governor and his family welcomed us to the fort with the greatest cordiality, while the Moors, huddled in the small corners of shade, sat motionless as we passed. Veiled up to their eyes, they did not turn their heads and yet seemed to be aware of us. Even when we met them moving gracefully across the sands with their camels, they never stopped to look at us, or showed by any sign that they noticed the two strangers in their settlement. The infinite dignity of their manner was as restful to the emotions as their dark clothes to the eye (see illustration, page 327).

In the evening the sand glowed softly, a dull gold, and the sky and sea deepened to a dark-green blue. The cool air rested on one lightly. Out of the shadows rose the Moors in their flowing robes, like part of the evening, and came to greet us at a meeting. They listened quietly, with interest but no excitement, while the Governor explained to them where we came from and where we were going. Then one of the Moors, who had been in French Africa, rose



Photograph by Charles and Anne Lindbergh

LEAVING THEIR FISH TO DRY ON THE ROCKS, THESE HARDY VILLAGERS CROWD ESKIFJÖRDDUR'S PIER TO EXTEND A WARM WELCOME. As the plane's motor stopped, the flyers heard the roar of many mountain streams tumbling down the steep hills. Next morning they were off for the Faeroe Islands and Europe.



Photograph by Charles and Anne Lindbergh

WHITE PATCHES OF DRYING FISH BRIGHTEN BLEAK SLOPES

Coastal storms forced the Lindberghs to spend the night at the fishing village of Eskifjörður, sprawled along the bank of one of many deep fjords. Icelanders have conquered the hostile land and put its rugged resources to use. Cattle graze on volcanic plateaus, hot springs heat greenhouses, waterfalls supply power, and crops are cultivated on thin-soiled, stony fields (see text, page 255).



A CLEAR DAY IN THE FAROES, RENOWNED FOR FOG

The previous day the Lindberghs squeezed under a 200-foot ceiling and landed on the choppy waters at Tverá.



Photographs by Charles and Anne Lindbergh

WAITING FOR THE COLONEL TO "GIVE HER THE GUN"

The little fellow in the dark suit (right center, front row) and the lad peering over his right shoulder seem genuinely concerned for the safety of the Lindberghs, but the sturdy young lady with blond hair (left) knows the take-off at Tverá will be perfect.

and spoke to us. The heads of all the tribes, he said in French, wanted to welcome us and to wish us a good journey.

THE MOST THRILLING HALF HOUR

The next morning we left for the Cape Verde Islands. It was a beautiful day and the trip was uneventful except for half an hour which was, for me, one of the most thrilling of the summer. In between my regular contacts with Las Palmas, I was sending out CQ's (General Call) on short wave, hoping that one of the Pan American stations on the coast of South America might perhaps hear, although we had not planned any schedule.

Listening on 24 meters at 11:30 G.M.T. I heard very plainly WSL at Sayville, Long Island, also sending out a CQ. That was not so very unusual. It was a big station and I had heard it several times during the summer. I decided, rather recklessly, to call him.

"WSL—WSL—WSL—de—KHCAL—ans (answer) 24." I tapped it out easily, confident that my 15-watt transmitter would never reach him. Silence—and the CQs at the other end stopped. Then clearly:

"KHCAL—KHCAL—KHCAL—de—WSL." He was answering! I was hot and cold from excitement and did not dare touch the set, lest it should break the contact.

"QRK" (I receive you well, your signals are good), he went on. "QRU"? (Have you anything for me?)

QRU—casually, like that! Though I realized that naturally he was not excited. He heard ships as far away as this every day. I would let him know, anyway, that we were not just around the corner at Atlantic City.

"Lindbergh plane—en route Cape Verde Islands—min pse" (please wait a minute). Then, signaling my husband, I received a message to send him for New York and got back the "received OK." Over 3,000 miles away! I couldn't believe it. We arranged for another contact in an hour and signed off.

I decided to leave the set as it was—not to move anything—just as, waking in the middle of a good dream, one tries not to move one's head on the pillow, hoping it will come back again. Then I remembered I had not yet contacted the Cape Verde Islands for their weather. I changed the coils and the antenna. I know I put them back again in exactly the same position for

my next contact. Changing them probably made no difference—but I cannot help regretting it. It was fatal, just like turning over in one's sleep; I never contacted WSL again.

In the late afternoon we flew over Santiago in the Cape Verde Islands. The harbor of Porto Praia, where we had planned to land, was small and open to the sea. A big swell rolled right up to the beach. A few miles west we saw a tiny opening in the rocky coast, at the end of which was a hangar and derrick—the French transatlantic seaplane base (page 328). We could not possibly land inside the harbor, but it offered a protected mooring for the plane.

ROLLERS AND WIND HANDICAP LANDING

We picked out a stretch of water, which looked a little calmer than the rest, between two points of land, and landed, the ship spanking hard on the rollers. Even then it was difficult taxiing into the narrow entrance, for there was a strong northeast wind blowing (see page 325).

This hot, dry trade wind blew steadily all the time we were there. We went to sleep listening to it. As we lay in our plane, baked hot by the unrelieved sun, I would wait in vain for the long roar to break, like a wave on the beach. But there was no relief from it.

Every morning we woke and looked out to sea hoping for a calm day. Always, the heavy swell and the wind. It seemed to make everything harder work, on the plane or climbing up the hill to the radio station—as if one were pushing against it all the time. I had the feeling sometimes that we must be on the prow of a ship, steaming forward. Motion only could create that constant wind. And sometimes, as though it were not an outward physical force but an inward illness, a fever, a pressure on my temples.

"Is it never calm here?" we asked. We had stationed our fuel at Porto Praia and hoped to take off for South America from this point.

"Yes, it is sometimes calm—but never this time of year. It will blow like this for six months."

"And no change? No storm or change in the wind?"

"Never—always like this."

We began to realize that, as we could not take off from these rollers with sufficient gas to reach South America, we would have



TVERÅ'S HOMES SEEM TO LEAN BACKWARD TO KEEP FROM SLIPPING OFF
From the west to the east coast of the Faeroes, *Tingmissartog* followed a fjord similar to this—"like a tunnel through the fog."



Photographs by Charles and Anne Lindbergh

WINGED CLIFF DWELLERS HONEYCOMB THE FAEROES' ROCK WALLS

Thumping waves tear away the base of these soft rock peaks a thousand feet below the ledged home of birds—source of meat for the islanders' winter board.



Photograph by Charles and Anne Lindbergh

"LIKE MYRIADS OF WHITE BUTTERFLIES AND GNATS ON A SUMMER'S POOL"

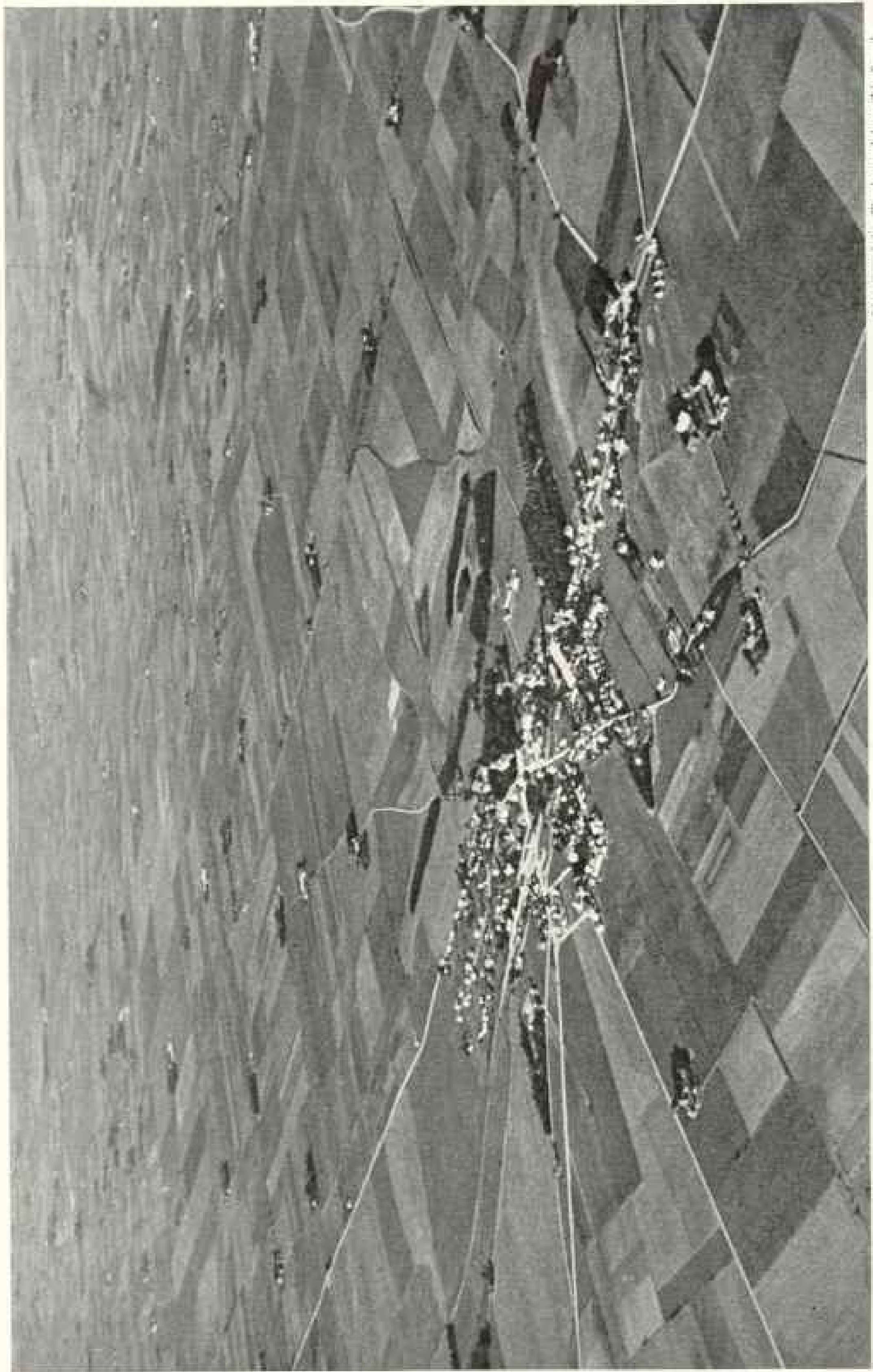
In boats resembling the Eskimo kayak, Copenhagen youth paddle out into their harbor to greet the Lindberghs, ending a 600-mile flight from the Shetland Islands.



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"TINGMISSARTOQ" ABOUT TO GET ITS FIRST SHORE LEAVE SINCE NEW YORK

Colonel Lindbergh watches mechanics of the Air Force of the Danish Navy slide a cradle under its pontoons prior to hauling it into a hangar at Copenhagen.



Photograph by Charles and Anne Lindbergh

THE FLAT FIELDS OF SKÅNE PROVINCE MAKE A MOSAIC CARPET—WHERE A SEAPLANE COULD LAND SAFELY

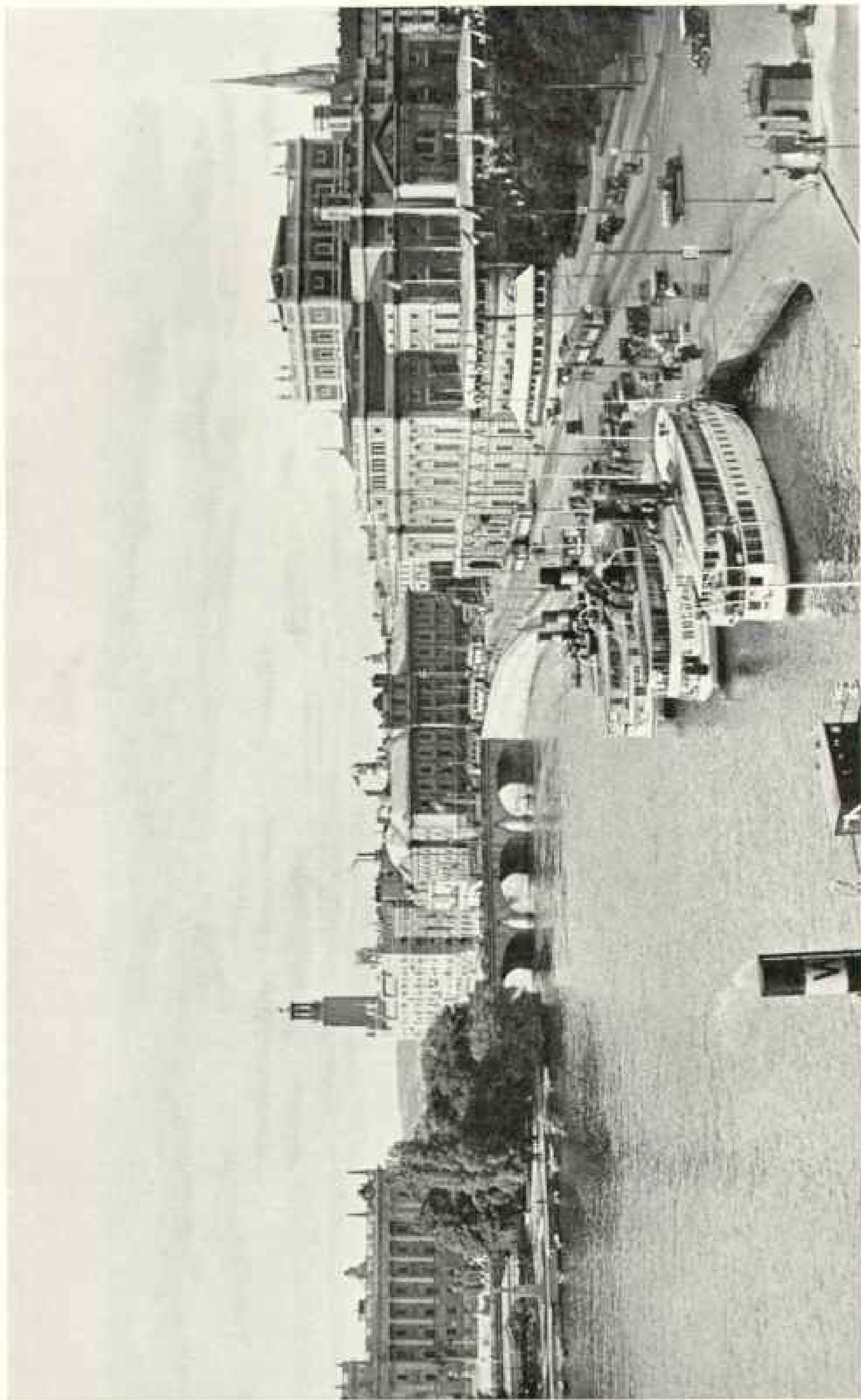
This little village in southern Sweden shares in growing a third of all the wheat and barley produced by the country. Just over the Sound from Copenhagen, the old province sprawls flat and low across the southernmost tip of the Scandinavian Peninsula. Shadows of windmills move black across its patchwork, church spires prick out of trees, and red-roofed houses relieve monotonous green.



Photograph by Charles and Anne Lindbergh.

WEDGING OUT TO THE WATER FRONT, STOCKHOLM'S LIFE SPILLS OFF INTO SHIPS

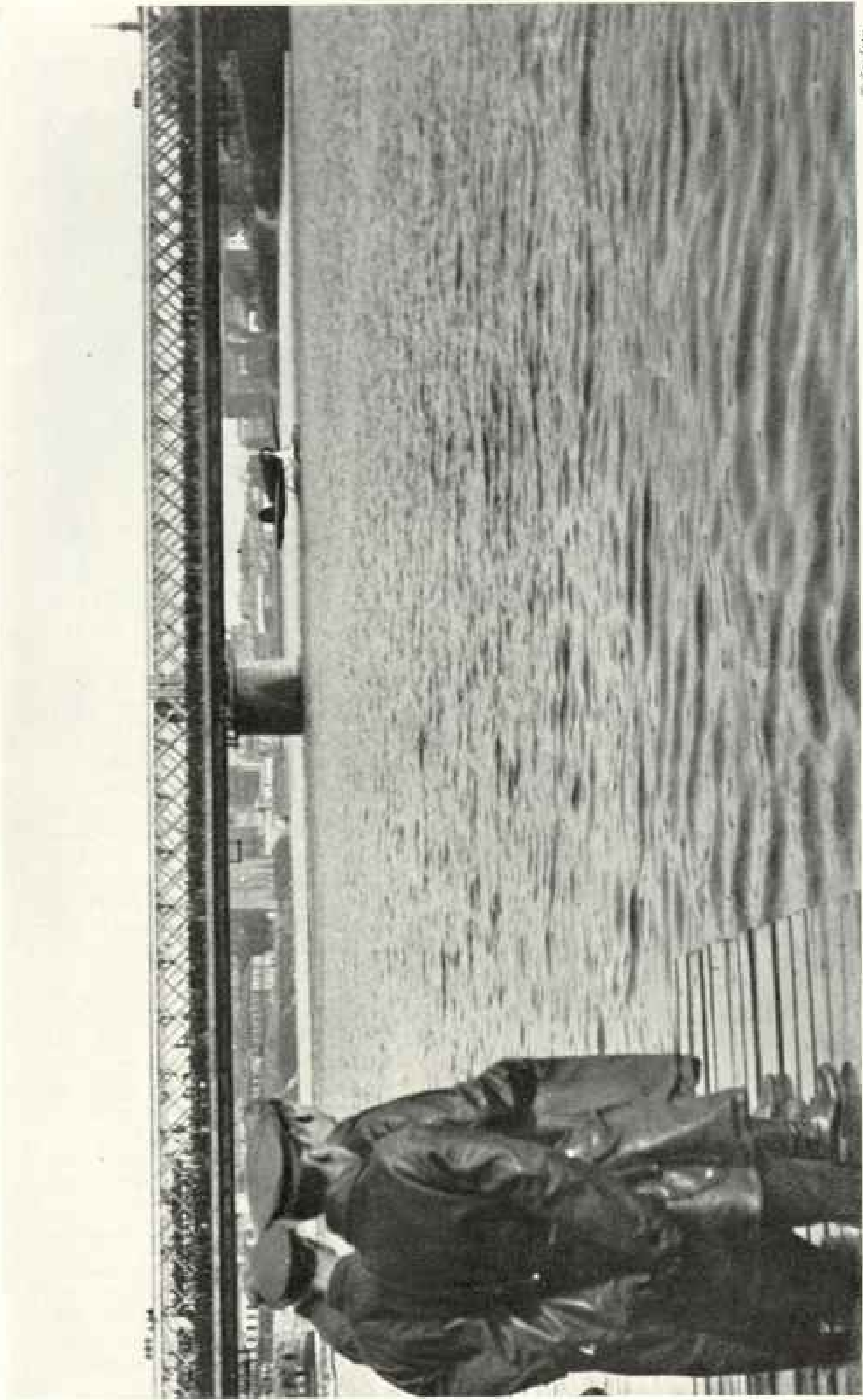
"Spires and ships and towers and bridges and pine trees, all set down in sparkling water"—such was Anne Lindbergh's impression of toering Stockholm from the cockpit of *Tingmånartog*, flying over the city. Nearly forty miles from the Baltic, the city thrives at the junction of the sea and Lake Mälaren.



Photograph by Charles and Anne Lindbergh.

STOCKHOLM'S TOWN HALL TOWER HOLDS A HIGH FINGER TO CIVIC PRIDE

Neither unsightly wharves nor unpleasant odors mar the beauty of Stockholm's water front, kept spotlessly clean the year round. A wing of the House of Parliament (left) reaches toward the tower, and the Royal Opera House abuts the quay (right).



© Sonfoto

THRONGS OF RUSSIANS JAM A BRIDGE OVER THE MOSCOW RIVER TO BID ADIEU TO THEIR FLYING GUESTS

Tingimiontoq has been taxied down close to the bridge and is swinging around into the wind, its metal propeller churning the air. The rear from the big Wright Cyclone engine mingles with the shouts of the crowd. The Colonel banks his plane, dips a wing in farewell salute, and heads west.



© Sovfoto

"THE ENTHUSIASM OF THIS RECEPTION . . . REMAINED IN OUR MINDS"

Roaring cheers from a large crowd at the Dynamo Stadium, Moscow, were echoed by other crowds on the opposite bank of the Moscow River, where the Colonel completed a skillful landing by skimming the top of one bridge, side-slipping steeply, and leveling off to the water (see text, page 293).

to go back to Africa and start from there, even though it would be 200 miles farther.

BACK TO AFRICA FOR A TAKE-OFF

On the morning of November 30 we left Porto Praia, bouncing several times as much as ten feet in the air, striking one roller after another. Each time I thought we were off we would come down again with a worse spank than before. Finally, stalling off, we headed for Bathurst.

Originally we had planned to go to Dakar, but after being warned of the yellow fever epidemic and quarantine there, we changed our plans and obtained authority to land in British Gambia. After about three hours' flying, we saw Cape Verde, stretching out to sea ahead of us, then the flat green shores of British Gambia.

In the early afternoon we landed on the muddy river at Bathurst.

Bathurst, with its harbor full of little boats; its gently waving palms; busy, well-ordered streets; white-uniformed, sun-helmeted officers; throngs of negroes in many-colored robes; freshly painted houses and neat fences; cricket grounds; cool, lovely

Government house and the British flag—all breathed an air of peace, order, and security.

It was amusing later to see the accounts in the newspapers of our trials in the mosquito-filled marshes. We could not have had a more comfortable, restful haven in which to study the problems of a South Atlantic crossing, nor, which was most important, more helpful and sympathetic people around us (see illustration, page 330).

The greatest problem was the time of take-off. We had only a little over 13 hours of daylight to count on for the trip. If we went as fast as possible, we could perhaps accomplish the whole trip, including take-off and landing, by daylight. But we would have too small a reserve of fuel in case we encountered strong head winds or found it necessary to detour storm areas.

THREE CHOICES FOR TIMING FLIGHT

We abandoned this possibility, although it was attractive with its shorter hours. We must have that extra margin of safety. The speed for greatest fuel economy was about 100 knots. At that rate it would take us



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"TINGMISSARTOQ" WAITING FOR A TOW IN BRITISH WATERS

The motor launch is swinging around, kicking up the froth at its flat stern, as a greeting party prepares to throw a tow line to the seaplane. This first stop in Great Britain was at Woolston, near Southampton.

about 16 hours to reach Natal, the nearest point in South America.

The alternatives left to us were: first, to leave at night and arrive in daylight, in which case our take-off would be the most difficult part of the trip; second, to leave in daylight and arrive at night, which would necessitate locating our position on the coast of Brazil and making a landing in darkness; third, to leave at sunset, fly through the night, and arrive at daybreak. Originally this plan seemed the best.

The take-off, the ascertaining of our position on the opposite coast, and the landing—most difficult parts of the trip—would be in daylight. Navigation with the stars by night would also give our position more accurately than with the sun by day.

Another factor entered into this general problem of light. We had a full moon, which made a night take-off perfectly practicable, and a night landfall and landing comparatively simple.

As a matter of fact, the local conditions, wind, sea, and atmosphere, had more influence on us and were harder to gauge than the other problems. We needed a wind to

help us take off our heavy load; but we did not want a sea swell like that off the Cape Verde Islands. There was not much wind in the harbor at Bathurst. It was usually—so we were told and according to our observation—dead calm at twilight, when we had hoped to take off. We would have to leave, we soon discovered, either at daybreak or at night when there was usually more wind.

After a day or two of preparation we were ready. The plane was refueled; radio schedules with the Pan American stations on the South American coast, with Bathurst, and our friend at the French seaplane station at Porto Praia were already arranged. We had also asked for daily weather forecasts from Pernambuco (Recife) and Pará (Belém) on the South American coast. The encouraging word came back, "Weather Pernambuco—Pará—always good—never fog—"

We decided to try to take off at daybreak, the time of most wind, with all fuel tanks full, part of which we could unload if necessary and still have a safe reserve. The morning of December 3 we taxied out into



© Planet News, Ltd.

THE COLONEL SETS THE PACE

Escorted by British officers, the Lindberghs go ashore at Woolston, near Southampton, to visit the Supermarine Aircraft Factory.



Photograph from Wide World

JUST BEFORE THE PONTOONS HIT THE SEINE

Two French sailors straddle *Tingmissartog's* tail, lest its heavy nose hit the water too soon. Colonel Lindbergh slips on a waterproof coat in the front cockpit while directing the work of lowering his plane at the seaplane base, Les Mureaux, near Paris, France.

the bay, the pontoons almost submerged under their heavy load, the plane heaving bulkily from side to side as we taxied across the wind and waves. After several hopeless attempts to take off—the spray sluiced down over the wings continually and we never got up on the step—we turned back to the mooring. Unloading our extra gasoline, we tried again. But the wind had dropped by then, and though this time we got up on the step we could not get off the water. We decided to go back and wait for a wind.

That night at midnight, we tried again with the moon just past full, lighting a path for us on the water. I watched the red light on the wing-tip glow, disappear, and glow again as the spray passed over it, and held my breath to lighten the load. It was no use; after several attempts we taxied back to the lights of the town.

"What was the matter, Colonel?" asked a friend who had kindly stayed to watch us.

"Overload, that's all," answered my husband. "We've taken off with that much before (in Greenland). But it's different down here in the Tropics; different air."

We drove home through the dark streets in silence and went to bed very tired after our long unsuccessful day.

"We still have a few tricks to try," said my husband.

I wondered what they were. We could not take out any more fuel without cutting down our reserve of safety. We could not leave out the emergency radio set, or the boat, or any of the food or water. What could we do?

In the morning we began to get telegrams: "Suggest barnacle inspection," and from the propeller company, "Press reports you using wood propeller." (Colonel Lindbergh was seen filing the splinters off his wood propeller!) "Please cable why steel propeller unsatisfactory." The tip of our metal propeller had been somewhat eroded by the spray in the long take-offs, and it was necessary to file it down.

My husband spent the day inside the plane, cutting out an unused gasoline tank, piece by piece, with tin snips. It was very hot with the sun beating down fiercely on the outside of the ship, and the fumes from the empty tank were suffocating. He was tired at the end of the day, but much more cheerful at the thought of the saved weight.

We decided not to try until the next night. Although the moon was waning, a good sleep seemed more important.

LIGHTENING THE LOAD

By the next evening we had cut out even more weight: some emergency chocolate (there was still enough food and water left for a month); the anchor; the rope; the tin bucket; a great many tools; the flying suits; the sleeping bag; all our clothes, except the ones we wore; our duffel bags, and many other things—a total of about 150 pounds.

The day seemed unusually calm, the tops of the palms hardly stirring. At sunset, when I walked out on the pier, there was not enough wind to lift a handkerchief. The moon rose about nine, reddish and grown lopsided since the night before. "It's certainly the last night we can use that," I thought.

"We could still take off at daybreak, couldn't we?" I asked my husband.

"No," he answered. "You see, the moon rises later every night—and it wouldn't be light enough when we reach the other side to land by."

There was never any wind at sunset; this seemed to be our last chance as far as Bathurst was concerned.

We left Government House at 10:30, local time, carrying only what we wore, some lunch, and two sun helmets. It took us a long time to get started after we reached the plane. First we pumped out the pontoons. They were loaded so heavily that the back ends had to be lifted out of the water by a rowboat under the tail. Next, we sealed up the anchor box in the pontoons with putty, to prevent water from leaking in during taxiing.

"There's about a five-mile wind right now," said my husband cheerfully to the Captain of the Port, who had come out to help us.

Our friend held up his hand. "You air folks must look at it differently," he replied.

"Why? What would you call it?" my husband queried.

"Almost a dead calm."

We all laughed. My husband took off the lantern and the plane's mooring bridle and handed them to the Captain.

"If we come back we'll want these; otherwise—" he stopped for a moment and then—"we'll have another try, anyway"—and off we went.



Photograph by Charles and Anne Lindbergh

PORTUGAL PROVIDES AN AUDIENCE BEFORE BREAKFAST

When they awoke and looked out of the cockpit, the Lindberghs were greeted by this group gathered on the Minho River bank. The Colonel aimed his camera at the crowds and obtained his picture first (see text, page 297).



Photograph from Wide World

FORCED DOWN BY FOG AND STORM ON THE MINHO RIVER, PORTUGAL

Tying its wings to low willow stumps in an inlet off the stream, *Tingmissartog's* occupants spread out slickers, white parkas, flying suits, air cushions, life preservers, and called it a day on their improvised mattress. At daybreak the spectators began to gather.



Photograph from Keystone-Underwood

"TINGMISSARTOQ" LANDS AT A MID-ATLANTIC PORT

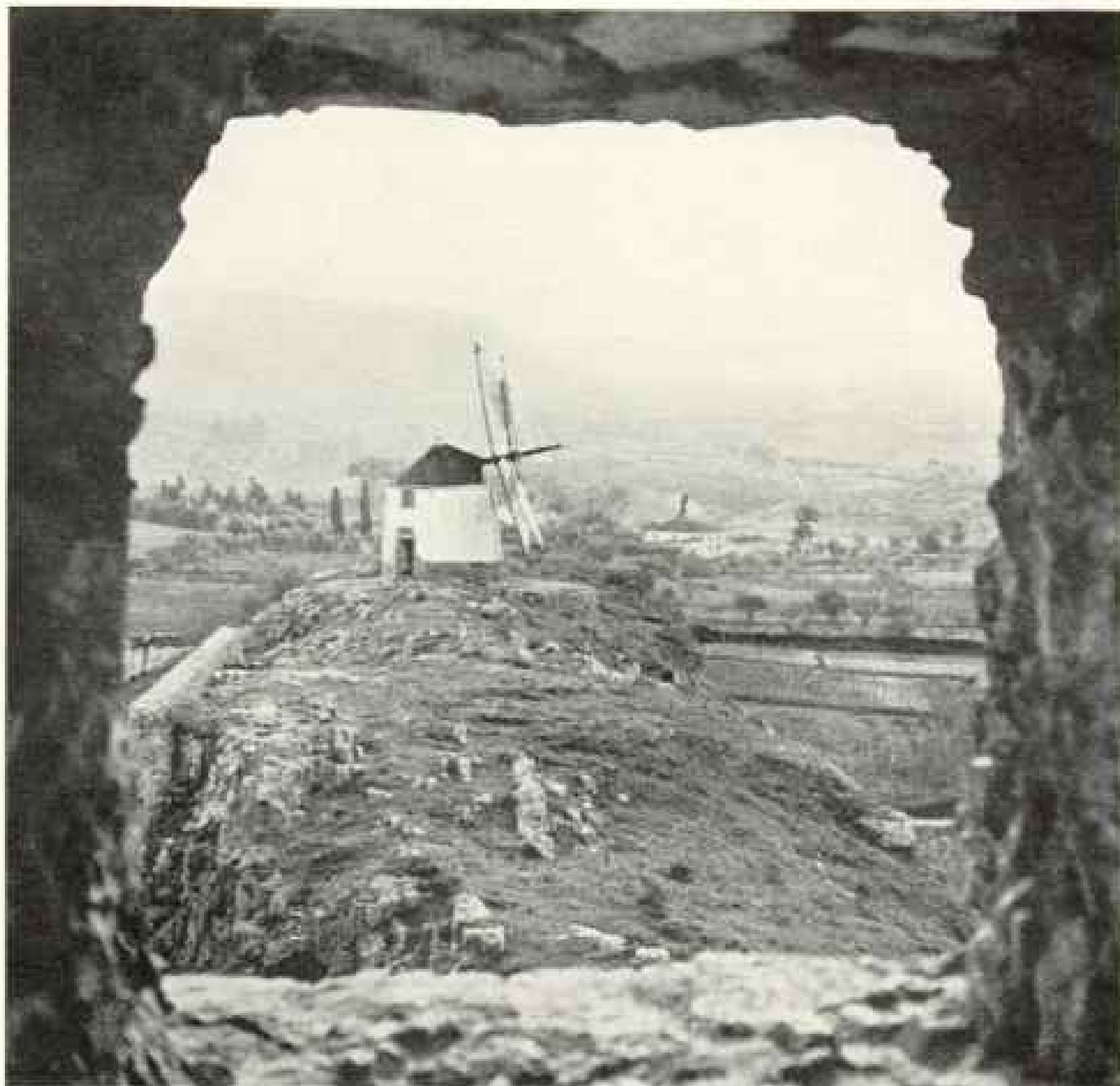
A stop for fuel here at Ponta Delgada, on the São Miguel Island of the Azores, was made necessary because Horta's harbor, on Fayal Island, was too small to take off with gasoline enough for a non-stop flight to Madeira as originally planned.



Photograph by Charles and Anne Lindbergh

SENTINELS OF THE ENGLISH CRUSADERS MAY HAVE GUARDED THIS WALL

While guests of the American Minister and Mrs. Robert G. Caldwell in Portugal, the Lindberghs visited Óbidos, a small town about 45 miles from Lisbon. On their way to Palestine, in the 12th century, Crusaders stopped in Portugal to aid in driving the Moors from Lisbon.



Photograph by Charles and Anne Lindbergh

THROUGH A HOLE IN THE WALL OF A PORTUGUESE FORT

While walking along a battlement of the fort at historic Óbidos, Colonel Lindbergh came upon this view of a windmill—like a framed picture. Fort and ruined walls may have been the scene of the battles in which Crusaders joined native armies to establish Portugal's independence (p. 319).

I looked back in the tail to be sure that everything was securely lashed; sat on my extra shirt; stuffed the lunch into the map case; put the radio bag in the seat beside me, and fastened the belt. The lights of the town were on our left and, above them, the palms were outlined quite plainly in the moonlight. Out in the bay there was more wind. We turned, slowed up, throttled down. A pause for breath.

"All set?"

"Yes, all right."

"WE'RE OFF"—AFTER A STRUGGLE

Then the roar—the spray. I watched it over the wing and looked down at my watch. The spray stopped. We were spanking

along—up on the step—a good deal faster than before. Sparks from the exhaust. We're going to get off! I thought in a flash of realization. But how long it takes! We're off? No—spank—spank—spank—but almost—

I held my breath. We're off! No more spans. I looked at the watch—just 2:00 G.M.T.

Yes, we're off—we're rising. The engine smoothed out into a long sigh, like a person breathing easily, almost like someone singing, ecstatically. We turned from the lights of the city. The plane seemed exultant, then, even arrogant. We did it—we did it! We're up above you—we were dependent on you, just now, River, asking



A WARNING TO SEA CAPTAINS BETWEEN THE MADEIRA AND CANARY ISLANDS

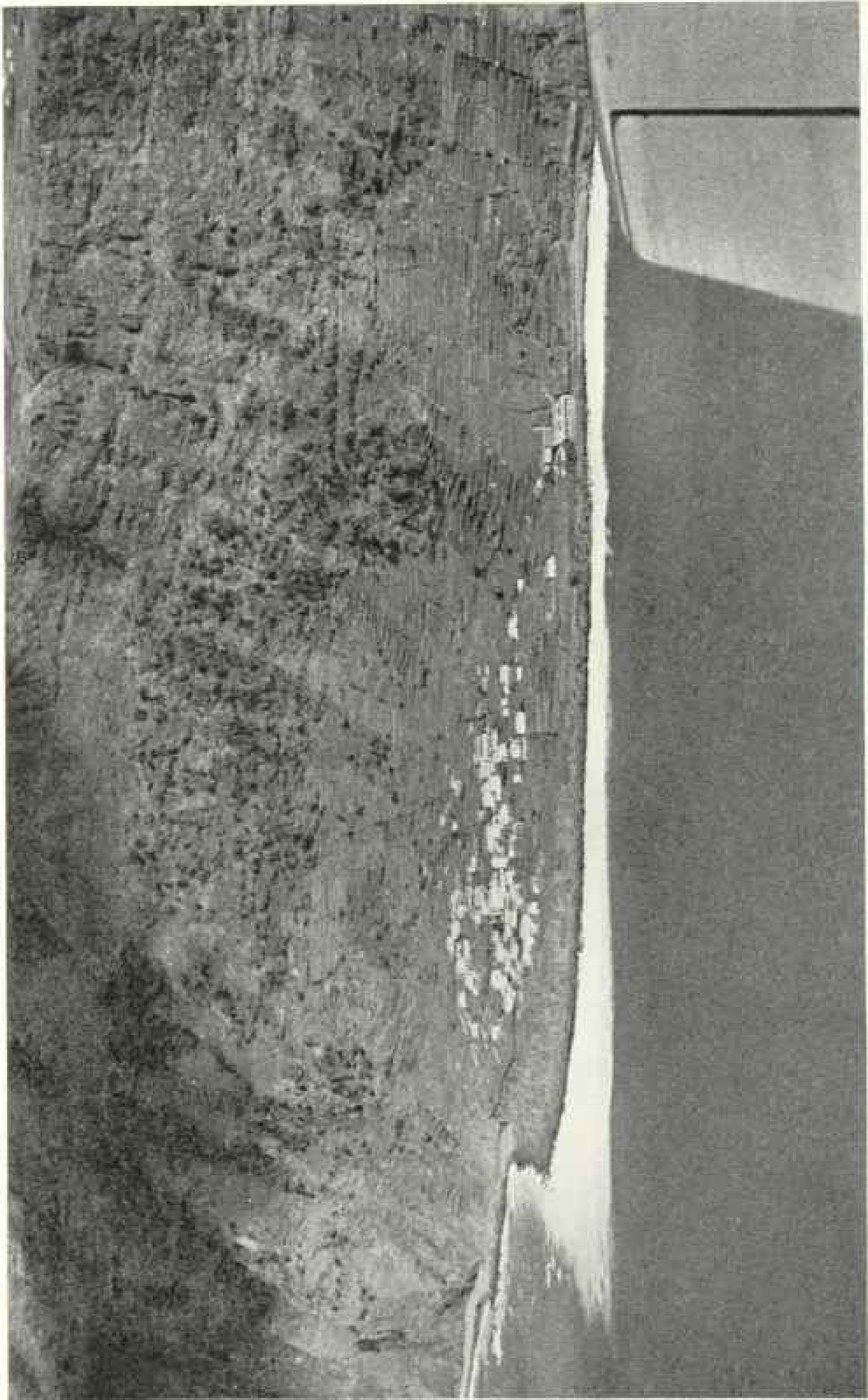
A volcanic peak has shoved its grotesque nose above the pounding sea where it breaks over one of the lonely Salvage group. The white line running through its sand and gravel floor is a trail worn by fishermen from the Canaries who go to the island during the summer. A corner of *Tingmisiartog's* tail surface shows at the left.



Photographs by Charles and Anne Lindbergh

ROLLING SEAS PREVENTED A LANDING HERE

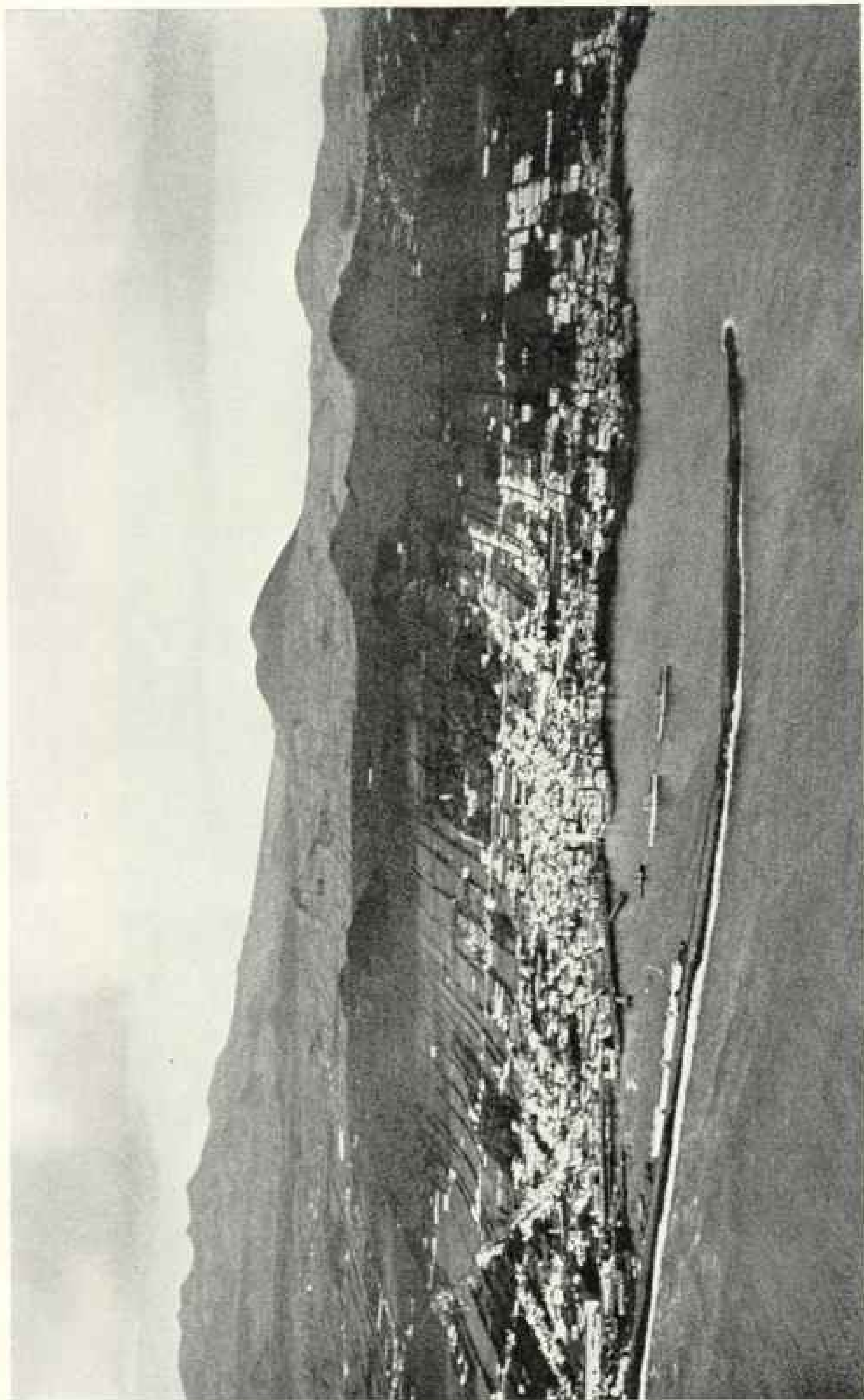
Funchal's little harbor on Madeira seemed to the Lindberghs too small for a landing, so *Tingmisiartog* dipped its wings in greeting and proceeded to Las Palmas, in the Canary Islands.



Photograph by Charles and Anne Lindbergh.

MADEIRA'S TERRACED GARDENS LOOK LIKE ROWS OF SEATS IN A FOOTBALL STADIUM

These red-roofed houses huddle together on a shelf between the bluffs and the sea. However, most of the villages on this coast lie at the top of the cliff.



Photograph by Charles and Anor Lindbergh

WALLS OF BEECH TREES AND VOLCANIC ROCK PROTECT PONTA DELGADA'S ORANGE GROVES

A curved breakwater shelters two warships in the harbor—the Portuguese convoy sloop which had maintained radio contact with *Tingimistoy* between Lisbon and the Azores, and the French sloop which the Lindberghs first met in Greenland (see page 289). The flyers caught a night's rest here before taking off for the Canaries, last island stepping stone to the African continent.



Photograph by Charles and Anne Lindbergh

FIRST AFRICAN STOP—ON A SPIT OF LAND BETWEEN THE MOUTH OF THE RIO DE ORO AND THE SEA

The Tropic of Cancer cuts across the Spanish Colony of Rio de Oro on the West Coast of Africa. Here, at Villa Cisneros, the flyers brought their plane down in glaring morning light, near the white Spanish fort (right center). Beyond the fort is a hangar and landing field of the French air route to South America. Like strings of black beads carefully placed in a row are the tents of the Moors.



Photograph by Charles and Anna Lindbergh

"TINGUMISSARTOQ" GOT A SOUND SPANKING COMING DOWN ON TOP OF THE ROLLERS OFF THE CAPE VERDE ISLANDS

Hot, dry winds, always from the same quarter, blow steadily across the islands for six months, smashing breakers against a rocky coast. The flyers gave up plans to reach South America from here and returned to the African coast. The white shed is a hangar built by the French as a transatlantic seaplane base.



Photograph by Charles and Anne Lindbergh

AN AFRICAN FISHERMAN TAKES A REEF IN HIS SAIL

Fish are a means of livelihood to a part of the 50,000 wandering tribesmen who roam the desert and coast lands of Spanish Rio de Oro. These turbaned nomads are for the moment more interested in the Lindbergh plane than their fishing.

you for favors, for wind and light. But now, we are free of you; we are up—we are off. We can toss you aside—you, River—there below us, a few lights in the great, dark, silent world that is ours—for we are above it.

My husband switched on the cockpit lights to check the instruments and our compass course. Then, quickly, off again. We were flying quite low over the strip of land between the river and the ocean. I decided not to turn on my lights until we were over the water. They might make it harder for my husband to see. Still very excited, I wrote down by moonlight my first message, "Left Bathurst 2:00 G.M.T."

Looking at it on the top of the bare sheet of paper, I realized that there was no reason to feel so elated. We had the whole trip ahead of us. This was just the beginning.

I called an African station and, hearing no reply, sent out this first take-off message "blind." Then I began to call the Pan American stations on the South American coast, not hoping to get any answer so early on our trip, but because we had arranged a schedule each hour on the hour as soon as we were in the air.

At three o'clock, however, I heard a reply. The static was very bad, but in the welter of sounds I heard my name—KHCAL, friendly and comforting, across the ocean and through the dark. The first radio contact. What was it? PVB, Bahia (São Salvador), down the coast of Brazil. Right on the watch—good for him! I thought. I poked my husband excitedly and passed forward a note: "I have Bahia! Any message?" We were over the water now and I switched on the light to send our first position.

"Posn 03:00 G.M.T.—12° 17' north—17° 50' west—course 224° true."

A VIGIL IN A MOONLIT CABIN

From then on, through four hours of darkness, I stayed bent over in front of the dials, straining to hear through the crashes of static, sending the position reports every hour, and picking up a few words of the weather reports sent back to me from Brazil—"Visibility good."

Only once, looking out, I saw the lights of a ship far down below us. But without looking, I knew the weather was good, for the moon lighted the cabin dimly.



Photograph by Charles and Anne Lindbergh

THEIR MANNER IS AS RESTFUL AS THEIR CLOTHES

The Moors of Villa Cisneros scarcely showed that they noticed the two strangers from another continent, except upon such occasions as this when the flyers were taken by the Spaniards to meet the chiefs.

After four hours the radio began to be much better. I could hear Rio now, and, relaxing, began to realize that we had really taken off and were on our way to South America.

About 5:30 G.M.T. we began to hit clouds. Flying under them we lost the moon for periods. The periods became longer. I could still see a kind of horizon where water met clouds, a difference in darkness. Then we lost the water and flew blind. I turned off the light quickly to avoid any reflection in my husband's cockpit.

Now we were out again. There were holes below us through which one could see the dark water, and holes above us through which one could see the dark sky. More blind flying. But day was coming—it must come soon. I tried to figure it out. It should be day in an hour, anyway. We were climbing up through the clouds. I could not see to receive, but continued to send, "QRX (Stand by) QRX—going through clouds—*min pse* (Please wait a minute)."

More clouds ahead. More blind flying. It began to get cold. We must be quite high. I put on my extra shirt and sent

again, "QRX — QRX — all OK." Then, after about an hour of this flying, my husband handed back a message to me, for Rio:

"8/10 overcast—scattered squalls—visibility three miles—daybreak."

Daybreak! I had not realized that the clouds were now distinguishing themselves, more and more, from the water and the sea. The night was over. When the sun actually rose, we were still flying through black thunder clouds, but there was better weather ahead. "Visibility unlimited outside of squalls."

The radio was good. I received intact (after repetition) a long message from Rio about the landing arrangements in Natal. It seemed very strange to be taking down the practical details of landing when we were still so far away—a whole ocean away.

"PAA barge at Natal (Would we ever really get there?) located on river at southwest edge of city (It is hardly daybreak yet) between city and large Aeropostale hangar and ramp (As though finding it would be any difficulty!). Caution tall radio masts at Aeropostale hangar (Caution!



"OUT OF THE SHADOWS ROSE THE MOORS IN FLOWING ROBES"

Evening—the sand glowed softly and the air was cool—and the Moors, like part of the evening, came to "welcome us and wish us a good journey." In the morning *Tingmicarteg* left the Rio de Oro to wing westward to the Cape Verde Islands.



Photographs by Charles and Anne Lindbergh

THE OPERATOR SMILES AFTER RADIOING NEW YORK—OVER 3,000 MILES AWAY!

Anne Lindbergh realized one of the most thrilling half hours of the entire voyage when, off the coast of Africa, she established contact with the station at Sayville, Long Island (see text, page 387). Here, on the Cape Verde Islands, the French have established a transatlantic seaplane base.

Radio masts in full daylight—caution!—after that moonlight take-off!). Few spare parts available on barge." (They sound as though they really expect us.)

This anticipation of arrival gave me a feeling of confidence. The very attention to detail took for granted our safe arrival. I ate one of my sandwiches and felt refreshed.

At 8:06 G.M.T., I heard another note coming in over the radio, a new loud voice calling me, "KHCAL-de WCC—answer 54 or 36 (meters)." WCC was Chatham, Massachusetts. I could not quite believe it and looked up in the call-book to make sure—Chatham, Massachusetts, calling me!

It seemed very unreal, but the whole night had been unreal. So I answered rather casually on 54 meters (the wavelength I was using), not bothering to change frequencies. He answered immediately, the notes coming in very loud and clear, every word intact. I did not need his triple sending, but hardly dared interrupt.

WANTED: A MID-OCEAN INTERVIEW

Chatham—think how thrilling! The sentence dribbled out slowly on the page: "Would-you-answer-answer-answer-few-few-questions-questions-questions—first-radio-radio-radio-interview-interview-interview-from-from-from-airplane?" Newspapers here, too! Out in the middle of the ocean. It made the whole trip more unreal than ever. I sent back my answer: "Sorry too busy here—must get weather—from PVJ."

No matter how thrilling a contact with Chatham, Massachusetts, might be, we certainly had enough to do without giving interviews. I was relieved to get PVJ (Rio) again, this time on 36 meters.

"Posn 09:00 G.M.T.—05°—00' north—23°—40' west—course 224° true—2/10 overcast at 1500—9/10 overcast at 8000—visibility unlimited—sea calm—wind 0—altitude 1200."

There was also the drift meter to use, sighting down carefully at the water through the eye-piece; and at this point, for we were nearing the halfway mark, the sun was high enough in the sky for my husband to take sights. I had to fly the ship and missed some of my radio schedules. It was very refreshing to sit up straight after the cramped position over the dials, and to look out at the clouds and sea.

I would have enjoyed it if I had not been trying to read the results of the sextant in my husband's expression. He did not look satisfied. In between the sights, I tried to recover the lost contacts. But, incredibly stupid and slow, I could not seem to make anything work.

My back was stiff from bending over the dials and my ears hurt from the clamp of the phones. I sent with closed eyes. And yet none of these things were very hard in themselves; they could easily be overcome, with a little will power. But when one is very tired it does not seem worth the effort. Nothing seems worth the effort.

My husband was taking the sextant to pieces in the front cockpit. What was the matter? Had the sights turned out badly? We were over halfway across and it was more necessary than ever to keep radio contact. Roused from my lethargy, I reached for the canteen. A drink of water, a little on my face, and another sandwich refreshed me. I continued calling constantly.

Our first answer came back from the African side, although much farther from us than South America. It was CRKK, the French station at Porto Praia we had tried to get when we left Bathurst.

"Posn 12:00 G.M.T.—01°—30' north—28°—20' west—4/10 sky overcast—visibility unlimited—sea light."

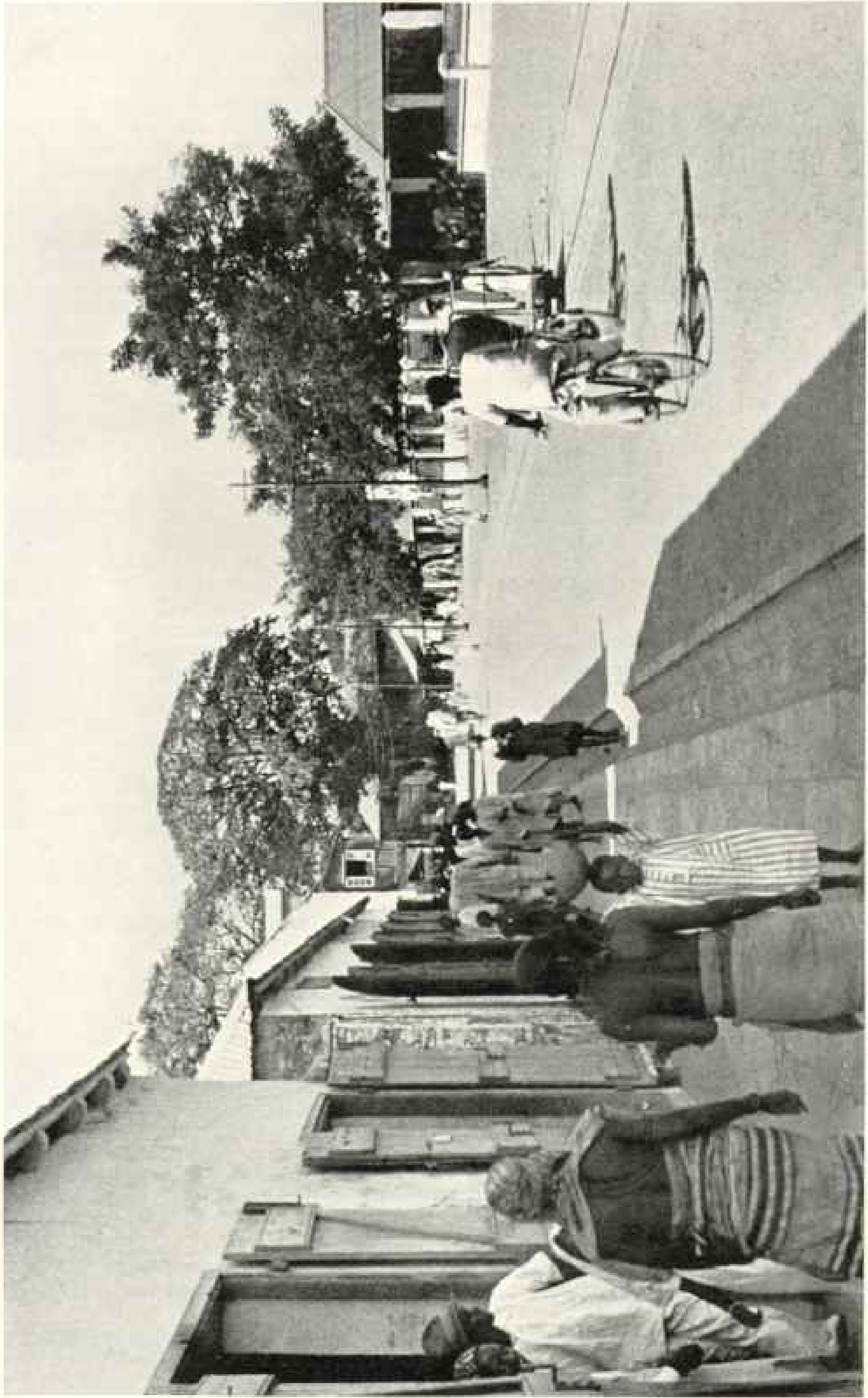
After losing contact with CRKK, I began to send a CQ (General Call), signing not only with our call sign, KHCAL, but also adding "Lindbergh Plane." This had worked before. Stations absolutely deaf to KHCAL sometimes answer "Lindbergh Plane." It was like changing the fly on the end of one's fishing rod.

FIRST BOATS ON THE AMERICAN SIDE

We very quickly had a bite. "Lindbergh—Lindbergh," came back the answer. "S.S. *Caparcana*—bound Rio." A boat off the coast of Brazil—I was delighted. Everything began to be easy after this. They very kindly said they would relay our position to the stations on the coast of South America. The sextant was intact again, and my husband evidently satisfied with the sights.

"Posn 13:00 G.M.T.—00°—15' north—29°—25' west—1/10 overcast—visibility unlimited—sea light—wind 135°—10 miles—altitude 800."

At about 14:00 we saw our first boat on the South American side. We had not seen



Photograph by Charles and Anne Lindbergh

THE TAKE-OFF, NOT THE MOSQUITOES, WAS WHAT BOTHERED THE LINDBERGH'S AT BRITISH GAMBIA

The warm hospitality of the people of Bathurst, just above the Equator, made a pleasant task of studying the problems of a South Atlantic air crossing. White-uniformed, sun-helmeted officers direct leisurely traffic which weaves in and out of rows of freshly painted houses.



THIS BOY ONCE WAS A DESERT NOMAD

Instead of a camel for a pet, he now has a curly-haired dog. Born in a caravan, the young Moor is a Spanish errand boy. Like many of his brothers at Villa Cisneros, his head is shaved except for the umbrellalike forelock.



Photographs by Charles and Anne Lindbergh

TROPICAL FLYING MEANT A BATTLE WITH THE SUN

Two native boys of the Cape Verde Islands help Colonel Lindbergh, who is "doping" cracks on the plywood wing covering, caused by intense heat which also constantly curled up the edges of the cloth strips.



Photograph by Charles and Anne Lindbergh

"SHE SHALL HAVE MUSIC WHEREVER SHE GOES"

A Bathurst baby rides in the back pocket of her mother's colored dress with its broad-leaf pattern. She is kept in good humor by tiny bells jingling on her wrist as the mother moves.

one since the lights below us off Bathurst, eleven hours before. A tiny white speck to our right, it looked comforting as the first sight of land to me.

At 14:20 we passed over a freighter, the *Aldebaran*. From 13:55 to 15:30 we were in contact with the *Westfalen*, the German catapult ship, which had passed Fernando de Noronha that morning. After hearing our position report at 14:00 G.M.T., they said we were going to pass very near them and gave us our radio bearing from their ship. We turned slightly off course and flew over them at 15:20 G.M.T.

In the excitement of diving down, I remember only the white wake surging behind the ship, all arms waving from the deck,

and, on top, their plane and catapult. They gave us a bearing to Fernando de Noronha and to Natal and signed off with "Xmas wishes and Happy New Year."

After passing the *Westfalen* I felt we had reached the other side. We had been right on course; we were sure of our position; and the skies were "unlimited" ahead of us. I felt very happy. Only the noise of the radio in my ears was a constant annoyance. I was now in contact with Ceará (Fortaleza), Pan American station north of Natal.

I knew he was just as tired as I was, after listening for my signals all night. In fact, he was much more tired. I did not realize it until afterwards, when I found out that practically all the Pan American stations from Miami to Rio had been on 24-hour duty for almost a week during our attempted take-offs. They were on constant watch for us, not

being certain when we were going to leave Bathurst.

We passed Fernando de Noronha soon after we left the *Westfalen*. Flying by a huge, round volcano, which sticks up straight on one side of a bare island, like a long French roll, we set our course for Natal. I received again from Ceará the message I had heard ten hours earlier from Rio, while we were still in the dark on the other side of the ocean.

"PAA barge at Natal (The coast of South America spread low and green in the slight haze ahead) located on river at southwest edge of the city (We came on it very quickly, following the coast only a few minutes) between city and large Aeropostale hangar

(My husband looked back and signaled with his hand, 'Five minutes more!'). Caution tall radio masts—(There they were—we were circling.)—Few spare parts available on barge." (I could see it now—a small square barge in the river, crowded with people.)

"Landed Natal 17:55 G.M.T."

Natal treated us very calmly. The people were used to South Atlantic flyers, and knew that they like plenty of sleep, good meals, and a day's rest. We were considerably given all three and left the morning of December 8 for Pará, about 1,000 miles along the coast. Except for local rainstorms, blinding in their intensity, but usually quite small, we had an uneventful trip.

READY FOR NEW ADVENTURES

About seven hours after we left Natal, we landed on the river at Pará. From here on I had expected an easy flight, up the usual coast route—Paramaribo, Georgetown, and Trinidad—all of which we had visited three years earlier. How wonderful it would be, I thought, to come to a place I had seen before. My husband evidently did not feel the same way. Whether or not it was the rest we had in Natal and Pará which refreshed him, he felt ready for new adventures.

"How about stopping at Manáos on our way to Trinidad?" (He looked a trifle sheepish.)

"On our way!" I felt insulted. "You mean that place a thousand miles up the Amazon? How about leaving New York and stopping in Jacksonville on our way to St. Louis? I think it is a punk idea! Why?"

"Well"—(he did have a reason)—"we



Photograph by Charles and Anne Lindbergh

HER HEAD MAY STAND IT, BUT WHAT OF HER KNEES?

The woman is the delivery van of Bathurst's markets. Roads leading out of the village are often crowded with natives carrying heavy loads on their heads.

run a line up there now—and I'd like to see it."

"Well, I'd like to see it, too," I admitted, warming up to the idea, "and it would be fun following the Amazon. Would we come back here afterward?"

"Oh, no," he said casually. "It would be stupid to come back here so far out of our way. We'd just cut across to Trinidad."

"Charles!" On my map, one of the North and South Atlantic, there was a large blank space in that thousand miles between Manáos and Trinidad—no rivers, no towns, nothing.

"It wouldn't be so bad." He did not wait for me to argue. "You'll find there are rivers all through that country, and flat spaces,



Photograph from Keystone-Underwood

FROM AN AFRICAN MOONLIGHT TO A SOUTH AMERICAN AFTERNOON IN 16 HOURS

The fourth attempt, at midnight, to get up off Bathurst's almost windless river was successful. Riding up a moonlit lane, roaring over a black sea, climbing through storms at dawn with radio crackling, droning out long hours under a tropical sun, Anne and Charles Lindbergh bring *Ving-missartog* in for a night's rest at Natal, Brazil.



Photograph © International News

BACK TO THE UNITED STATES, WITH NEW YORK ONLY TWO FLIGHTS AWAY!

Seven hours earlier the flyers took off from San Pedro de Macoris, in the Dominican Republic, flew along the coast of Haiti, detoured to pass over Christophe's Castle atop a high peak, and brought their rugged "ship" to port at the Pan American Airways dock in Miami.

too, to land on. We could get down there anywhere—might smash the plane up, but we'd get out all right. Besides," he added, "I'd like to see that country."

"Why didn't you say that in the beginning?"

LOST—THE AMAZON RIVER!

On December 10 we took off from Pará at 11:53 G.M.T., following the Rio Pará west toward Manaus. The weather was rather bad, overcast with low rain clouds, which became lower as we progressed, forcing us down right over the water and preventing us from seeing the river as a whole. Banking and turning through the fog and rain, over the labyrinth of streams in the Amazon Delta, we followed any channel we could, keeping in the general direction of the river.

Suddenly we came to the rounded shores of a lake. Dead end! My husband looked around at me, smiled, and shook his head. Where were we? Then turning sharply, we started west, skimming right over the tops of flowering trees.

"Have you any idea where we are?" I passed a note forward. "Where is the river?"

"Do not know," came back the answer. "But am heading west to get out of delta. Will then pick up river."

The feathery wisps of fog over the jungle stretched like the waves of the sea ahead of us. But, after flying over it for some time, we could see a break in the white sea—a darker band on the horizon. Was it the darkness of a thicker band of fog, of thunderstorms, or of solid earth, showing through a gap in the mist? It turned out to be a river, the Xingú, a large tributary which led us quickly into the Amazon.

Though we were flying again under low clouds, it was easy now to pursue the muddy course. The delta with its many islands was behind us, and the river, here a single broad channel, curved peacefully ahead.

The country was flat and thickly covered with jungle, although, as we progressed upstream, there were more open stretches and green marshes, and hills began to rise on the horizon to our right. At about 19:20 we came upon the junction of two rivers. A jagged line midstream marked the advance of the blue waves of the Rio Negro into the muddy waters of the Amazon.

Just beyond the junction, on the steep banks of the Negro, was Manaus. We had passed only small river villages and scat-

tered huts on our way up the Amazon. After them, it was rather startling to see a city as large as Manaus. White stucco houses, towers, smokestacks, a rubber factory, the dome of an opera house, a large pier crowded with people, and a big river boat at anchor—all set down in the middle of the jungle.

On December 12, after a day's work on the plane, we left Manaus at 9:48 G.M.T. (daybreak) for Trinidad. We flew up the Rio Negro—through scattered squalls—to the Rio Branco, which we followed north.

"Posn—12:10 G.M.T.—following Rio Branco, about 180 miles south of Boa Vista. 7/10 overcast at 8000—visibility unlimited."

We began to see mountains now, first on the horizon to our left, and then to our right also, rising out of the flat llanos and jungle. For the jungle, as we approached Boa Vista, was only a narrow strip along the banks of the river. Beyond lay great stretches of open land—with occasional small lakes. By the time we reached Boa Vista (14:08 G.M.T.) we were almost in the foothills of the mountains, and started to cut across them to Trinidad.

"14:40 G.M.T.—now following true course of 357° from Boa Vista."

We had left the river now, and were over the mountains; our hardest stretch. It did not look very formidable. The skies were clear except for a few puffy white clouds, which seemed to accentuate the appearance of good weather. The ridges, although steep, were separated with wide valleys and open stretches. One could see occasional huts by the streams. Every fifteen minutes we had radio contact with Port-of-Spain, Trinidad.

JUNGLES OF BRITISH GUIANA

When we passed over the ridges into British Guiana, the country became much wilder. The wide valleys and open stretches disappeared; the steep mountains were completely covered with jungle. I looked in vain for streams, and could not see any landmarks, except for Roraima, a high peak in the distance, wreathed in clouds.* These clouds, at first only a few in the sky, soon became numerous enough to cover all the tops of the mountains. Diving through them or flying above them, we saw very little of the jungle below.

* See "Through Brazil to the Summit of Roraima," by G. H. H. Tate, in the NATIONAL GEOGRAPHIC MAGAZINE for November 1930.



© International News

TWO HOPS AND A SKIP—LIKE A FLAT STONE SKIMMING ACROSS THE WATER

December 19, 1933—Charles and Anne Lindbergh set *Tingmissartog* down on "home" waters, five months and ten days from the day they headed toward northern skies. Two rippled pools trail off behind the plane.

But evidently the jungle saw us—or heard us, through the occasional thunderstorms. Long after we had returned home, a story drifted back from the native tribes in British Guiana. A jungle myth was born following our flight that afternoon. Once upon a time, the god became vexed and created a big mosquito, which he sent buzzing like the wind over the jungles. Just after it passed, a bolt of lightning struck the chief's house, ran down a pole, melted the head of his spear, and split his ceremonial seat in half.

At 16:00 G.M.T. the jungle green was broken by a straight white thread on our left—a long waterfall. The stream was flowing northeast, emptying into one of the rivers of British Guiana. We had passed the divide and were now gliding down over lower mountains.

"Posn—16:15—Passing Rio Cuyuni, 7/10 overcast—visibility unlimited."

Diving down through clouds and rainstorms we were soon over the flat jungles of the Orinoco Delta.

"Posn 17:30—Passing mouth of Orinoco—many rain squalls—otherwise 8/10 overcast and visibility unlimited."

VIOLENT SQUALLS FORCE LOW FLYING

As we crossed the water from Punta Baja to Trinidad, the squalls became much more violent, forcing us down to less than a hundred feet from the water. It looked black on all sides of us, with the visibility less than half a mile.

At 18:50 the storms lightened a little, and the south coast of Trinidad loomed up suddenly ahead. Feeling our way around to the west coast, through low clouds and rain, we landed at Port-of-Spain at 19:25 G.M.T. As I looked up at its familiar steep green hills, covered with tropical growth, at its harbor and town, at the Government House and its lovely gardens, I felt extremely happy, as though at home again. At last, I thought, here is a place I have been before.

From Trinidad our course lay over the circle of the Antilles, green volcanic moun-



Photograph from Keystone-Underwood

30,000 MILES, FOUR CONTINENTS, AROUND AN OCEAN, TWICE ACROSS—SAFELY
HOME AGAIN

The propeller turns over for the last time as the pontoons nose up to the ramp at College Point, Long Island, the exact point of departure. Familiar ferryboats in the background ply across Flushing Bay in a December haze.

tains pushing their heads out of an azure sea, the Caribbean route we had flown three years before.

On December 14 we left Port-of-Spain for San Juan, Puerto Rico, where we landed at 18:32 G.M.T. After a night in Fortaleza, the old Spanish fort that is now the home of the Governor, we went on to the Dominican Republic, where we stopped for a night in San Pedro de Macoris. On December 16 we left San Pedro de Macoris at 11:31 G.M.T.; flew across the Dominican Republic and the coast of Haiti, detouring to pass over Christophe's Castle; and out across the Bahamas to Florida.

The white skyscrapers of Miami were visible about 18:02. We landed in the blue bay at 18:20 G.M.T.

We had about ten hours of flying from Miami to New York and broke the trip by stopping overnight at the Navy Yard in Charleston, as we had done many times before. On December 19 we left Charleston.

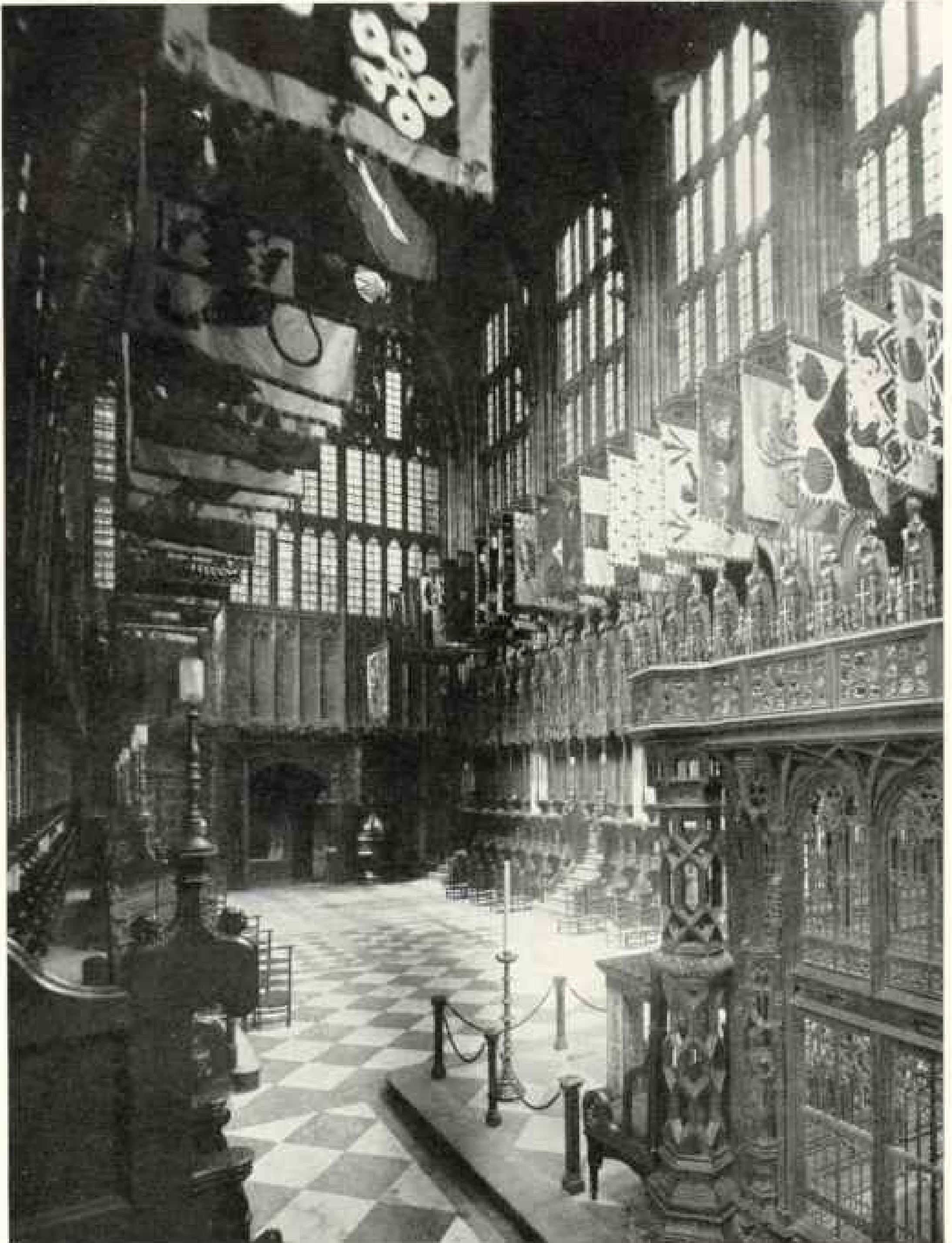
Six hours later the towers of Manhattan rose out of the haze.

Now we were over Flushing Bay. The black runways of North Beach, and the ramp we had left nearly six months before, were below us.

The ferryboats were still cutting their tracks in the water. Except for the gray, wintry look of the landscape, everything was the same, only—we had flown around the North Atlantic.

As we circled to land, I tried to hold on to the trip, now slipping by me, turning over in my mind the pictures, fingering them with pleasure like lucky pieces in my pocket: the white peaks of Greenland, a wall against the sky; the view from Governor Rasmussen's window; white butterflies on the bay at Copenhagen; the gray walls of Visby, looking out to sea; the volcanic slopes of Terceira, rising into clouds; the lights of Bathurst below us in the dark; miles and miles and miles of ocean; and that great serpent, the Amazon, stealing through the jungle.

"Landed Flushing Bay 19:37 G.M.T., December 19, 1933."



Photograph from Publishers' Photo Service

THE BANNER OF EACH KNIGHT OF THE BATH FLIES ABOVE HIS STALL IN WESTMINSTER ABBEY

In this Chapel of Henry VII, Knights of the Bath are installed with medieval pomp and ceremony. Below the stalls are seats, carved with their coats of arms, for the gentlemen who attend the knights as their esquires. Kings and queens, including Mary Queen of Scots, lie buried here.

FLAGS OF THE WORLD

BY GILBERT GROSVENOR AND WILLIAM J. SHOWALTER

THE years since the World War have witnessed more changes in the flags of civilization than any other period of like duration in the history of humanity.

Out of the fallen empires of that greatest war of all times have arisen kingdoms, republics, colonies, and mandated territories.

Such ancient countries as Afghanistan and China have adopted new flags, while recent-born Manchukuo has advanced a claim to a place in the family of nations and established a flag in accordance with that claim.

Even in such settled governments as those of the United States and the British Empire there have been many changes in the flags secondary to Old Glory in the one and to the Union Flag in the other.

Practically all of the United States military flags that shared the battlefields with the National Standard, whether colors of infantry regiments, standards of mounted troops, or the command flags of ranking officers, have joined the ranks of the obsolete. The War Department, wishing to have its whole series of flags designed in harmony and in keeping with the finest standards of heraldry, has almost entirely remade that part of the Army Regulations prescribing the designs and colors of the Army's flags.

MANY STATE FLAGS CHANGED

Fourteen States of the Union have changed their flags entirely, by legislative action; in eighteen other States the vagaries of embroidering designs upon flags have left their imprint in such a way as to create change by usage.

In the British Empire, the Union of South Africa and the Irish Free State have created their own national flags; while in all of the mandated territories and some of the old possessions, such as Nova Scotia, new badges have been approved. These badges are worn at the intersection of the crosses on the Union Flag (326) and in circles in the fly of the Blue Ensign (329) and the Red Ensign (328).

The flags and pennants of the International Code (525-564) also were redesigned and the changes put into effect on January 1, 1934. This group of flags and pennants was developed to enable all nations to communicate with one another on the high seas.

As used for many years, some of the letters of the alphabet were represented by pennants and others by square flags, while all numbers were expressed by pennants. In order to overcome possible confusion, the newly revised code makes all flags representing letters of the alphabet oblong and all numerals pennant-shaped.

It has been said that flags were divinely ordained; that when Jehovah made His covenant with mankind that all flesh should never again be destroyed by a flood, He sealed the pledge by unfurling across the heavens the great banner of the ages—the rainbow itself.

STANDARDS ARE HEADINGS IN CHAPTERS OF HISTORY

From that time forward men in turn have lifted up standards, emblems, and colors around which they have kindled their fires of patriotism, developed their sense of loyalty to one another, and bound themselves together with ties of nationality.

Explorers have discovered on the monuments and in the tombs of ancient Egypt carvings and paintings depicting troops in formation with their standards uplifted and their banners streaming.

The people of Israel had their standards. We read in *Numbers*: "And the Lord spake unto Moses and unto Aaron, saying, Every man of the Children of Israel shall pitch (his tent) by his own standard with the ensign of their father's house."

As far back as 800 B. C. the Persians revolted against the tyranny of a despotic ruler. It was a good blacksmith by the name of Koah who led the cause and his apron became the standard of the revolt.

At the time of Cyrus the Persians used a white flag on which was a golden eagle.

The Roman Republic borrowed its silver eagle, holding in its talons the thunderbolts of Jove, from the Etruscans. Augustus lifted high a globe to commemorate his conquest of the earth. Constantine adopted the Cross to signalize his vision.

The early Greeks had a piece of armor on a spear; the Athenians used the olive and the owl as their emblem, and the Thebans lifted aloft a sphinx.

The efforts of the people of America to express their sentiments in flags constitute one of the romances of our history.

As the rising tide of resentment against British rule swept the Colonies, the faith of the people and their attitudes burgeoned forth on their flags. New England's protest was against the illegal acts of the British Ministry. It believed those acts would be repudiated by the King when he realized the injustice being done to his subjects in the Colonies. Therefore, Massachusetts petitioned the King to restore her rights, opening her statement of grievances with the phrase "Appealing to Heaven for the justice of our Cause." The expression caught the imagination of the people; the pine tree became their symbol and "An Appeal to Heaven" their motto (244).

Virginia-born George Washington complimented the New England spirit by suggesting the pine-tree flag and its motto for his cruisers (244), a series of schooners transferred from the merchant fleet to aid the army around Boston.

The Southern Colonies were in a mood of defiance rather than of appeal to God and Justice, and the rattlesnake became the expression of their attitude toward the home government. "Don't Tread on Me" was the warning command on most of the rattlesnake flags (253-256-262).

But as war stepped in and drove peace away, most of the leaders hoped to be able to show the King that theirs was not a war on him but a war only against what they considered the unlawful acts of the Ministry.

General Washington himself was careful to emphasize in all his early utterances as Commander-in-Chief that it was a war against the Ministry and not against the Sovereign.

Deep concern, therefore, was felt that a flag should be made that would proclaim at once loyalty to the Crown and resentment against the Ministry.

WASHINGTON WANTED A SINGLE FLAG

When General Washington took command of the Continental Army at Cambridge, he found that the divided loyalties of many flags made it essential to a hope of victory that the colonial units under him should be forged into one organization with a united outlook and continental loyalty. His orders, reports, and letters from that time forward contained many references to the difficulties encountered in building up an army that would acknowledge a single flag, and in combating the wranglings and rivalries in his existing force. He reported

to the Continental Congress that he found a wide-spread unwillingness of officers of one colony to accept service with troops of another.

General Washington looked forward with eagerness to the first day of January, 1776, for it was on that day that his old army, with all of its conflicts, was to pass out of existence, and the new one, which he hoped would be free of the weaknesses of its predecessor, was to come into being.

But the last month preceding the transformation was one of utter anxiety for the Commander-in-Chief. On November 28, 1775, he wrote his military secretary that he "should not be at all surprised at any disaster that may happen," and added, "Could I have foreseen what I have, and am likely to experience, no consideration upon earth should have induced me to accept this command. A regiment or any subordinate department would have been accompanied with ten times the satisfaction, and perhaps the honor."

THE GRAND UNION FLAG

There was, however, much hard work included in this period of anxiety. Among the things to be done was to provide a flag which should at once be expressive of the union of the Thirteen Colonies in a single purpose and of the hope of those Colonies that reconciliation still remained possible. The Grand Union Flag (251), with its old British jack in the canton and its thirteen red and white stripes for its fly, was the outcome of the efforts made to find such a banner.

Historians have searched in vain for the slightest inkling of its designer or the authority under which it was established. Some have represented that a Congress Committee which visited Boston considered and authorized it, but a thorough search of the reports of this committee and the correspondence of those who constituted it fails to reveal any action or consideration by this committee.

Our first view of this flag was when it was hoisted aboard the *Alfred*, the flagship of the Congress Navy, lying in the Delaware River on December 3, 1775.

We get the fact of this significant event from no less an authority than John Paul Jones himself. He was at that time the senior lieutenant of the American Navy and was attached to the *Alfred*, the flagship of the fleet, his position corresponding to that



Photograph by Ewing Galloway

"I PLEDGE ALLEGIANCE TO MY FLAG AND TO THE REPUBLIC FOR WHICH IT STANDS"

Each week boys and girls of many schools throughout the United States pause to pay patriotic tribute to the Stars and Stripes. While they stand at salute, in this ceremony in Evander Childs High School, New York, pupils recite the famous pledge which was prepared by the American Flag Association.

of executive officer in the Navy to-day. In a letter to Robert Morris, Jones declared: "It was my fortune, as the senior of the Lieutenants, to hoist *myself* the Flag of America the first time it was displayed. Though this was but a slight Circumstance, yet I feel for its Honor, more than I think I should have done, if it had not happened."

Jones failed to give the date of that raising of the flag, but not so a loyalist reporting to the Earl of Dartmouth. Writing on December 20, 1775, the Earl's correspondent advises: "An admiral is appointed, a

court established, and the 3d instant, the Continental flag on board the *Black Prince** opposite Philadelphia was hoisted." On December 12, a British spy at Philadelphia reported that "the commodore who commands this fleet comes from Rhode Island, his name is Hopkins."

On January 4, 1776, the British Intelligence Service sent a dispatch from Philadelphia, saying: "This day about one o'clock sailed the *Alfred* and the ship *Columbus* with two brigs . . . Hopkins commands

* The correspondent had not learned of its being rechristened the *Alfred*.



Photograph by Ewing Galloway

BANNERS OF THE 48 STATES EXHIBITED AT RICHMOND

This colorful display of State flags was held on the grounds of the Virginia War Memorial Carillon. The old flag of Vermont, with its 8-pointed star and red stripes (lower right), has been discarded (see No. 204), while the flag of Wyoming (inner circle, lower left) now has the head of the buffalo turned toward the staff, the point of honor (see No. 209).

the *Alfred*. She has yellow sides, her head the figure of a man, English colours, but more striped."

Thus out of the mouths of diverse witnesses are established not only the raising of the flag but also the date of the ceremony and the description of the ensign.

There has been much confusion about the flags which were displayed on the *Alfred* on that historic December day. The statement is often correctly made that Commodore Hopkins hoisted the Gadsden flag (253). To anyone acquainted with naval usage both then and now, this is no contradiction of the assertion made by John Paul Jones. Flagships display three flags when in port—the ensign flown at the stern, the flag of the commanding officer displayed at the mainmast if he is present, and the jack hoisted at the bow.

Commodore Hopkins was the commanding officer; therefore, his flag flew at the

mainmast. It was the Gadsden flag. The jack displayed was a small, nearly square, flag of alternate red and white stripes bearing a crawling snake with the legend "Don't Tread on Me" (252).

The navies of the world have always led in flag matters because international law has made ships that do not bear recognized ensigns liable to charges of piracy. It is on the basis of this fact that we may assume that the Grand Union Flag was of naval origin.

AN ARMY TRULY "CONTINENTAL"

The new Navy in front of Philadelphia barely had time to become accustomed to its new Continental colors before the long-awaited and planned-for day dawned at Boston when the old Colonial Army should be mustered out of existence and the new Continental one assigned to its trenches. Washington rejoiced that he had come



Official Photograph, U. S. Army Signal Corps

MEMORIAL DAY SERVICES IN HONOR OF AMERICA'S UNKNOWN SOLDIER

Few spots in all the United States witness so constant a procession of pious pilgrimages as this simple tomb in Arlington National Cemetery. Wreaths and flags of many lands are carried there every year to keep green the memory of all who died to uphold the flag of the United States.

at last into the command of an army "which in every point of view is entirely continental."

"We had hoisted the Union Flag (251) in compliment to the united colonies," Washington wrote in commenting on the events marking the birth of the new army. In a letter to the President of the Congress he declared: "It is not in the pages of History perhaps to furnish a case like ours. To maintain a post within musket shot of the Enemy for six months together (without powder) and at the same time to disband one Army and recruit another within that distance of twenty odd British regiments, is more than probably ever was attempted."

It has often been urged that the Grand Union Flag (251) was not raised at Cambridge but at Prospect Hill, in Somerville. However, a study of Washington's general orders shows that the Laboratory on Harvard Common in Cambridge shared with Prospect Hill the glory of being sites from which the flag was flown. Thus we are saved

the necessity of believing that the principal post for the display of the Grand Union Flag was entirely outside the headquarters of the Commander-in-Chief and within the boundaries of one of his corps commanders, and are permitted to believe both Cambridge and Somerville shared the honor of the first display of the Grand Union Flag on the day the national army was born.

When General Washington shifted the scenes of the early Revolutionary struggle from Boston to New York by forcing the British to evacuate the former, he made July 9 another gala occasion. In his general orders for the day he recited that "The Hon. The Continental Congress, impelled by the dictates of duty, policy and necessity, having been pleased to dissolve the Connection which subsisted between this Country, and Great Britain, and to declare the United Colonies of North America free and independent States: The several brigades are to be drawn up this evening on their respective Parades, at Six O'clock, when



Photograph from Keystone-Underwood

KING IBN SAUD'S ARMY CARRIED THIS FLAG IN ITS DESERT CONQUESTS

On a green field is the white Arabic inscription, "There is no god but God, and Mohammed is the Prophet of God." Below the inscription is a white sword. When the powerful King of Saudi Arabia visited Germany two years ago, this flag was broken out in his honor by the officials of Tempelhof, Berlin's huge airport.

the declaration of Congress, shewing the grounds and reasons of this measure, is to be read with an audible voice.

"The General hopes this important Event will serve as a fresh incentive to every officer, and soldier, to act with Fidelity and Courage, as knowing that now the peace and safety of his Country depends (under God) solely on the success of our arms."

After the reading of the Declaration, the Grand Union Flag (251) was raised over his fortifications and headquarters at what is now the Battery in New York. Ambrose Searle, confidential secretary of Admiral Lord Howe, a few days later wrote of the American troops:

"They have set up their standard in the fort upon the southern end of the town. Their colours are thirteen stripes of red and white alternating, with the union canton in the corner."

We may follow the Grand Union Flag over the seas for many months. On November 16, 1776, the *Andrea Doria* sailing under it saluted the Dutch flag and received a Dutch salute in return. In September, 1776, the brig *Reprisal* sailed from

Philadelphia for France, carrying the Grand Union Flag as her ensign and Benjamin Franklin, newly appointed minister to France, as her most distinguished passenger. It was also the Grand Union Flag which Benedict Arnold carried on the *Royal Savage* in his Lake Champlain expedition.

THE BIRTH OF THE STARS AND STRIPES

How long the Grand Union Flag was flown has never been definitely established, but the official records of the Navy fail to show that any other ensign was in use until after the resolution creating the Stars and Stripes was adopted by the Congress. It was not until June 14, 1777, nearly a full year after the Declaration of Independence, that the Continental Congress took action substituting the Stars and Stripes for the Grand Union Flag. The records are entirely silent regarding the author of the resolution. The only hint we have as to who sponsored it is the fact that the resolution stands sandwiched in between a group of other resolutions clearly of marine import and that it therefore probably came from the Marine Committee.

The difficulties involved in presenting a work on the flags of the world that is absolutely up-to-date at the moment of its appearance are manifold. For instance, at the time the flag plates had to go to press, the future of the Saar Basin Territory faced the doubts of a plebiscite, and no one could say whether the existing flag (with its three horizontal bars, upper and lower blue and middle white) would continue to represent the Saar or whether it would give place to the French or German flag.

SWIFT CHANGES OF GEOGRAPHY REFLECTED
IN FLAGS

Likewise, no one at that time could predict what the fortunes of war would bring in the land of Arabia, with its divers flags of uncertain tenure. Ibn Saud, after having been proclaimed King of Hejaz in 1926 and King of the Nejd in 1927, established himself as King of Saudi Arabia. He has since continued his career of conquest. His flag, illustrated on page 344, is said to have been designed by his grandfather about a century ago. The field is green and the inscription and keen-edged scimitar are in white.

The Kingdom of Manchuikuo came into being just in time to permit a flag (491) to find its proper place in our plates.

Even at home there were difficulties. The Department of the Interior holds that the stars on the flag of the Secretary of the Interior refer to bureaus and not to the rank of the head of the Department. Therefore, every time there is a shift of bureaus involving the Department of the Interior, the flag must be changed accordingly. The result was that the flag had to be changed three times during the process of making up page 347. After the plates were arranged, the Bureau of Insular Affairs was transferred from the War Department to the Department of the Interior, and it remains a question whether the chief of the bureau will take his flag (37) with him or whether he will have a flag in his bureau's new affiliation.

EXTENSIVE RESEARCH REQUIRED TO TRACE
OUR FLAG'S HISTORY

The research involved in the preparation of this Flag Number represents six months of unremitting study and checking of facts.

Believing that one of the most regrettable gaps in our patriotic literature is the absence of authoritative data on the origin of both the Grand Union Flag (251) and the Stars

and Stripes, the record was reexamined to see whether the historians might not have overlooked some item which would clarify the situation. All the published proceedings of the Continental Congress were re-studied; the Revolutionary records of the Navy were recanvassed; the historical archives of the several Colonies were searched again; the diaries and correspondence of those who in committees or elsewhere might have had some hand in bringing the two flags into existence were resurveyed; the correspondence and military orders of General Washington were scrutinized once more.

But the historians had turned and examined every stone, and the only hope that remains of finding new contemporary light upon the origin of these flags lies in some unknown attic among old records that have been lost to human ken.

One question the research did definitely answer was the date when that degree of unanimity in the Continental Congress was attained which made the Declaration of Independence and the adoption of an Independence Flag possible.

That unanimity had not been reached on May 31, 1776. On that date General Washington advised his brother Augustine that whole delegations in the Congress were still hopeful of reconciliation with England—"still feeding on the dainty food of reconciliation," he quaintly phrased the situation.

It was not until the British plan to take New York and the surrounding country became apparent that all hope of reconciliation was abandoned and the Colonies were ready to transform their war against the British Ministry into one for independence.

THE GEOGRAPHIC'S FIRST FLAG NUMBER

The first Flag Number of the NATIONAL GEOGRAPHIC MAGAZINE, issued in 1917, when America was well launched in the World War, was widely hailed upon its appearance. It included the flags of all nations of that time and also the major flags flown when Thomas Jefferson was President and when Christopher Columbus discovered America. Likewise, it included the code flags of our own Navy and those of international usage, making the most comprehensive presentation of the flags of the world then current and historical ever published.

President Woodrow Wilson joined with his Secretary of War, Newton D. Baker, and his Secretary of the Navy, Josephus

Daniels, in hailing the Flag Number as a distinct contribution to the morale of America as it marched on to the victory that ultimately crowned the arms of the Allies.

Librarians everywhere declare that *THE GEOGRAPHIC 1917 Flag Number* from the date of its appearance to the present time has constituted the most consulted work on the subject of flags on their shelves.

The high mortality of the flags of the world since 1917 and the high birthrate of new banners since that date have made necessary an entire new series of flag plates. Yet so accurate were the researches of Lieut. Comdr. (now Captain) Byron McCandless, the co-author of that Flag Number, upon the history of the American Flag that seventeen years before the critical eyes of millions of readers have not served to reveal a single change that should be made in the story of the Stars and Stripes as therein presented. On the other hand, new facts have come to light confirming the details of that story.

WHAT THE FLAG COLOR PLATES SHOW

It will be noted that pages 347, 350, 351, 354, 355, 358, 359, 362, 363, 366, and 367 are devoted entirely to current American flags, with those of the President, the members of his Cabinet, the General of the Armies, the United States Military Academy, and the United States Naval Academy sharing page 347 with the National Flag.

Pages 355, 358, 359, 362, 363, and 366, inclusive, show the flags of the 48 States, which are arranged alphabetically rather than according to the order of their admission to the Union.

Pages 370 and 371 present the historical flags of the Americas, including those under which the New World was explored and ruled prior to the Revolution. Pages 374 and 375 show the flags and badges of the British Empire.

The flags displayed on pages 378, 379, 382, and 383, inclusive, are those of the countries of the world outside of the United States and the British Empire. They are arranged in alphabetical order except where they are dependencies of other countries, as in the case of Chosen (485), formerly Korea, now an integral part of Japan.

On page 386 will be found the American Yacht Flags, International Code Flags and Pennants, and Code Signals.

Page 387 shows a series of Marine Signals and a group of important 18th-century flags.

Pages 390 and 391 show the flags and funnels of leading steamship lines and the rank flags of the world's major navies. Page 394 is devoted to the military and naval aircraft markings of those countries which maintain air establishments.

The Society acknowledges its deep indebtedness to Mr. A. E. Du Bois, the flag authority of the Quartermaster General's Office, for his fine helpfulness in the reproduction of the flags of the United States Army; to Lieut. Comdr. John W. Roper, of the Code and Signals Section of the Navy, for his splendid assistance in reproducing the other flags; to Mr. Herbert J. Pitt, of London, one of the world's leading authorities on flags, for his generous aid and guidance in securing the latest possible data on the flags of foreign nations.

FLAGS OF THE FEDERAL GOVERNMENT

1. UNITED STATES FLAG AND ENSIGN.—It was not until July 4, 1912, that the United States Flag received its finishing touches. That year marked the emplacement of the two additional stars which represent Arizona and New Mexico. The Artillery did not carry the Stars and Stripes until 1834, the Infantry until 1841, and the Cavalry until 1895.

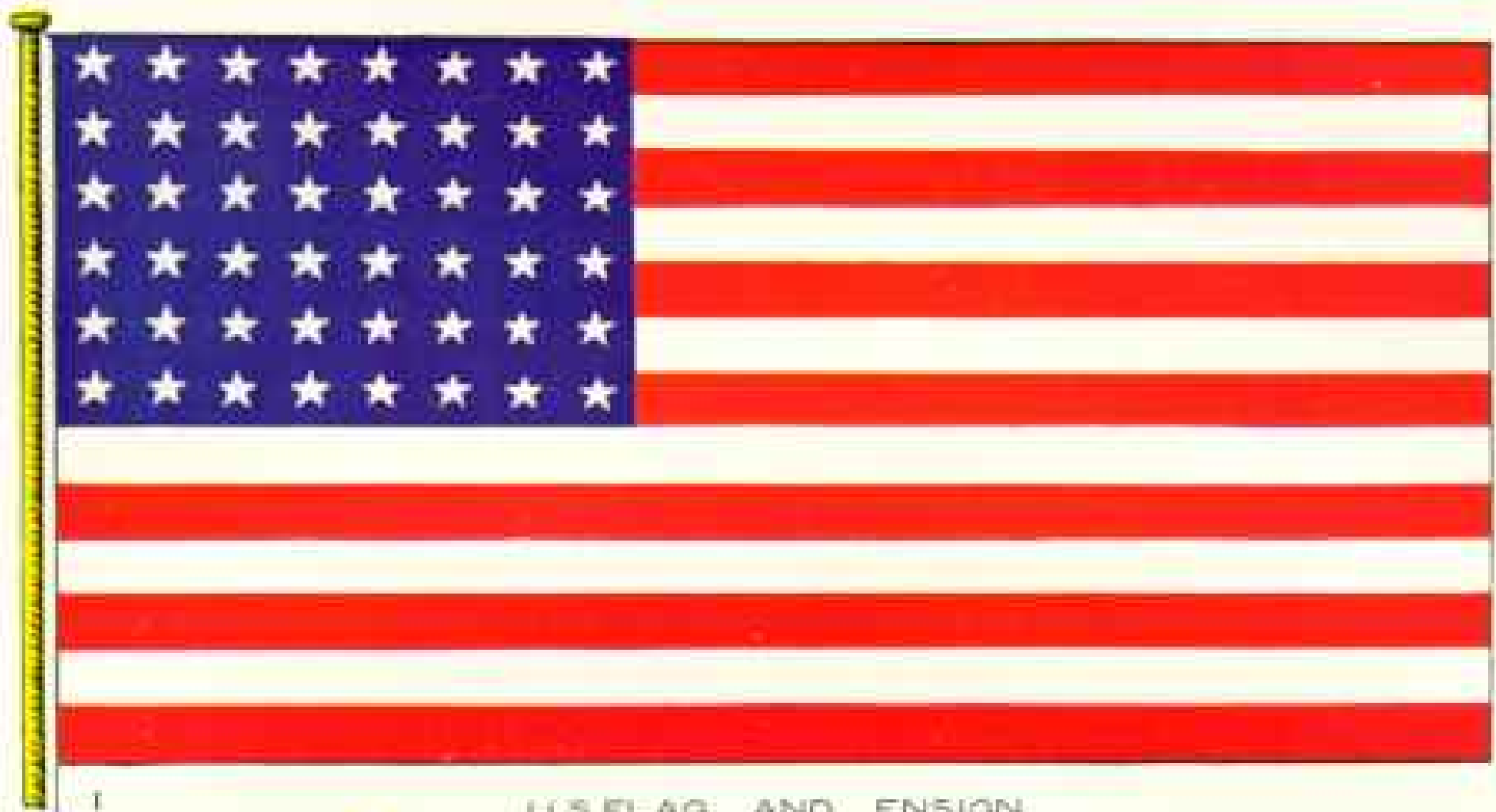
2. PRESIDENT'S COLORS.—The colors and flag of the President of the United States are used respectively on land and sea. The coat of arms on the colors and flag is a reproduction of that on the President's Seal.

3. GREAT SEAL OF THE UNITED STATES.—This seal was adopted by the Continental Congress on June 20, 1782. The design on the ob-

verse side is the one illustrated. That on the reverse side never has been cut and therefore never used. At the present time the seal is affixed only to important commissions, treaties, and the like, which bear the President's signature.

4. SEAL OF THE PRESIDENT.—The personal seal of the President is seen not only on his colors and flag but also in bronze on the floor of the entrance corridor of the White House. This is an impression seal and has no prescribed colors.

5. SECRETARY OF STATE.—The flag of the Secretary of State has the national coat of arms upon it and carries four stars. Until recently it had only two stars. But when Secretary



1 U.S. FLAG AND ENSIGN



3 GREAT SEAL, U.S.



2 PRESIDENT'S COLORS



4 PRESIDENT'S SEAL



5 SECRETARY OF STATE



6 SECRETARY OF TREASURY



7 SECRETARY OF WAR



8 ATTORNEY GENERAL



9 POSTMASTER GENERAL



10 SECRETARY OF THE NAVY



11 SECRETARY OF INTERIOR



12 SECRETARY OF COMMERCE



13 SECRETARY OF LABOR



14 GENERAL OF THE ARMIES



15 U.S. NAVAL ACADEMY



16 U.S. MILITARY ACADEMY

FLAGS OF THE UNITED STATES

Hull went to the Montevideo Congress, he had it redesigned to embody the regulation four stars in the flag of ranking civilian officials. In the Army the four stars of a General are distributed in a straight line across the fly of the flag. In the Navy the four stars of an Admiral are distributed as if placed at the angles of a diamond (see 104).

6. SECRETARY OF TREASURY.—The flag of the Secretary of the Treasury was designed before it became the practice to give ranking civilian officials four stars placed in the respective corners of the flag. His flag therefore carries 13 stars, representing the Thirteen Original States.

7. SECRETARY OF WAR.—The flag of the Secretary of War carries the United States coat of arms and the four stars of the ranking civilian officials of the Government.

8. ATTORNEY GENERAL.—The flag of the Attorney General is one of the newest, having been only recently designed and used. The inscription is *Qui Pro Domina Justitia Sequitur* (He who seeks justice for the people).

9. POSTMASTER GENERAL.—The flag of the Postmaster General is one of the latest additions to the Cabinet series, and its design commemorates the era of the Pony Express rider.

10. SECRETARY OF THE NAVY.—With its white anchors and stars on a blue field, the flag of the Secretary of the Navy is the most frequently flown of all the Cabinet flags.

11. SECRETARY OF INTERIOR.—The Secretary of the Interior departs from the 4-star usage in his flag and uses instead stars that indicate the number of bureaus in his Department.

12. SECRETARY OF COMMERCE.—The Secretary of Commerce uses the device on the official seal of the Department as the particular insignia on his flag.

13. SECRETARY OF LABOR.—The device on the flag of the Secretary of Labor is taken from the seal of the Department of Labor.

14. GENERAL OF THE ARMIES.—This flag, now used by General Pershing, with its gold fringe, four stars, and spread eagle, is one of the most attractive of the newly designed flags of the War Department.

15. UNITED STATES NAVAL ACADEMY.—These colors are carried by the regiment of midshipmen along with the National Colors.

16. UNITED STATES MILITARY ACADEMY.—The colors of the corps of cadets wear an escutcheon bearing the National Colors, upon which is placed the cap of Mars. The streamer carries the words "Duty, Honor, Country—West Point MDCCCII U.S.M.A."

17. GENERAL, CHIEF OF STAFF.—The colors of the Chief of Staff of the Army represent a striking departure from the usual by having their field made up of two triangles, the one white and the other red. In the Army, colors are carried by dismounted troops, and standards by mounted or motorized units. With colors, cords and tassels are used, but not with

standards. The inscription is *E Pluribus Unum*.

18. CHEMICAL REGIMENT COLORS.—The colors and standards of regiments differ from one another as the arm or service varies. In the Regular Army a regiment having an approved coat of arms carries its own shield embroidered on the eagle's breast, the regimental motto on a scroll in the eagle's beak, and the regimental crest above the eagle's head. A regiment having an approved badge but no coat of arms will have the eagle's breast feathered, the regimental motto will be placed on the scroll in the eagle's beak, and the regimental badge will replace the crest above the eagle's head. The difference, therefore, in the flags from 18 to 29 inclusive (with the exception of 22 and 23, which are respectively the colors of the Reserve Officers' Training Corps and the Citizens' Military Training Camp) will be noted mainly in the color of their respective fields, the crests above the eagle's head, and the devices on their breasts. The motto of the First Chemical Regiment (18) is *Ago Ardorem Fumumque* (I rule the fire and smoke).

19. COAST ARTILLERY REGIMENT.—The motto of the 64th Coast Artillery Regiment is "We aim high."

20. ENGINEERS REGIMENT.—The Second Regiment of Engineers has for its motto *Ardens et Tenacitas* (Eagerness and tenacity).

21. INFANTRY REGIMENT.—The 140th Regiment of Infantry carries the motto *Sempre Lesto* (Ever ready).

22. RESERVE OFFICERS' TRAINING CORPS.—Camp Color (see 18).

23. CITIZENS' MILITARY TRAINING CAMP.—Camp Color (see 18).

24. AIR CORPS GROUP.—The Eleventh School Group of the Air Corps has for its motto *Audacia Scientia* (Boldness, skill).

25. CAVALRY REGIMENT.—The motto carried by the 114th Cavalry Regiment is *Via Vi* (A way by force).

26. FIELD ARTILLERY REGIMENT.—The 152nd Field Artillery Regiment has for its motto "On the Way."

27. MEDICAL REGIMENT.—The 135th Medical Regiment's motto is *Auxilium Omnibus* (Aid for all).

28. QUARTERMASTER TRAIN.—The Forty-fifth Division Train of the Quartermaster Corps has for its motto "Peace and progress."

29. SIGNAL BATTALION.—The Fifty-first Signal Battalion has *Semper Constantis* (Always constant) for its motto.

30. TABARD.—Tabards are banners of silk or other suitable material, attached to the crooks of bugles or trumpets by silk cords having acorns at each end.

31 TO 52 INCLUSIVE.—With the exception of the flags of the Christian and Jewish Chaplains (32 and 33), and the Commission Pennant of War Department Vessels (34), all of this group

of flags are the automobile flags of the ranking officers of the several branches of the service. They are all flown from a staff of wood surmounted by an acorn-shaped head. With the exception of the flag of the Bureau of Insular Affairs (see page 345), they all bear the two stars of the Major General and the devices of their respective arms or services—the shield of the Adjutant General's Department, the propeller and wings of the Air Corps, the crossed sabers of the Cavalry, the benzol ring and crossed retorts of the Chemical Warfare Service, the cannon and projectile of the Coast Artillery, the castle of the Corps of Engineers, and the crossed field guns of the Field Artillery, etc. The inscription on the flag of the Major General, General Staff (44) is *E Pluribus Unum*, while that on the flag of the Inspector General (46) is *Droit et Avant* (Right and forward).

53. HARBOR DEFENSE COMMANDER.—This flag is flown on a halyard by the officer in charge of the harbor defense.

54. FLAG OF THE CHIEF UMPIRE² AT MANEUVERS.—This flag is carried by the officer who has been designated to head those who determine the victors in war games.

55. AMBULANCES.—This is the flag of the Geneva Convention. As illustrated here, it is the Ambulance flag, but it is also flown over hospitals and hospital ships.

56. VETERINARY AMBULANCES.—This flag is flown by veterinarians of the Army on their missions of mercy to heroic war horses.

57. MINE PLANTER.—The flag of a mine planter, with its interesting device, is flown from a halyard.

58. ARMY TRANSPORTS.—This flag is flown by Army transports from a halyard. With slight changes it has witnessed the carrying of hundreds of thousands of Uncle Sam's soldiers and marines.

59. GENERAL HEADQUARTERS.—This flag of General Headquarters and 60, 61, 62, 63, 64, 65, 66, and 67 constitute the distinguishing flags of corps, corps areas, cavalry corps, cavalry divisions, infantry divisions, artillery brigades, cavalry brigades, and infantry brigades.

68 TO 81 INCLUSIVE, GUIDONS OF THE ARMY.—Guidons prescribed for use by troops have colors corresponding in general to the colors of the arm or service to which they belong. As in the case of colors and standards, they are surmounted by spearheads, which formerly were used as emergency weapons by their bearers.

82. MARKING PENNANT.—This pennant is used to mark off areas such as parade grounds.

83. COAST GUARD ENSIGN.—The badge on this ensign is surrounded by the motto *Semper Paratus—1790*, meaning "Always prepared." The Coast Guard Standard and the flag of the Coast Guard Commandant carry the same motto. In time of war the Coast Guard oper-

ates as a part of the United States Navy and uses the flags and pennants of the naval service.

84. COAST GUARD PENNANT.—This pennant is worn by Coast Guard cutters in commission during peace times.

85. COAST GUARD STANDARD.—The Coast Guard Standard, with its spread eagle wearing the shield of the United States on its breast, has been somewhat revised from the eagle carried in the canton of the Coast Guard Ensign.

86. COAST GUARD ANCHORAGE FLAG.—Cutters patrolling anchorage grounds of large harbors carry this flag at their jack staffs.

87. COAST GUARD COMMANDANT.—The flag of the Commandant of the Coast Guard has the two stars of a Rear Admiral and the insignia of the service.

88. COAST AND GEODETIC SURVEY.—It is under this flag that the Coast and Geodetic Survey charts the harbors and maps the seas for the guidance of shipping.

89. COAST AND GEODETIC SURVEY PENNANT.—The pennant of the Coast and Geodetic Survey is flown at the mainmast while the vessel is in commission, that is, while it is in actual service.

90. COAST AND GEODETIC SURVEY DIRECTOR.—The flag of the Director of the Coast and Geodetic Survey is distinguished by its white triangle.

91. BUREAU OF FISHERIES.—The flag of the Bureau of Fisheries, with its red diamond and white fish, was adopted in 1896.

92. COMMISSIONER OF FISHERIES.—The flag of the Commissioner of Fisheries dispenses with the red diamond and shows the white fish on the blue field.

93. UNITED STATES POWER SQUADRON.—Power boat squadrons counter the design of the Yacht Ensign in having blue perpendicular stripes where the Yacht Ensign has horizontal red stripes; the Yacht Ensign has a blue canton while the power boat squadrons have a canton of red.

94. PUBLIC HEALTH SERVICE.—The flag of the United States Public Health Service, with its field of international quarantine yellow and its device of the caduceus and the fouled anchor, was adopted in 1894.

95. UNITED STATES IMMIGRATION SERVICE.—The seal on this flag is that of the Department of Labor, to which the Immigration Service belongs.

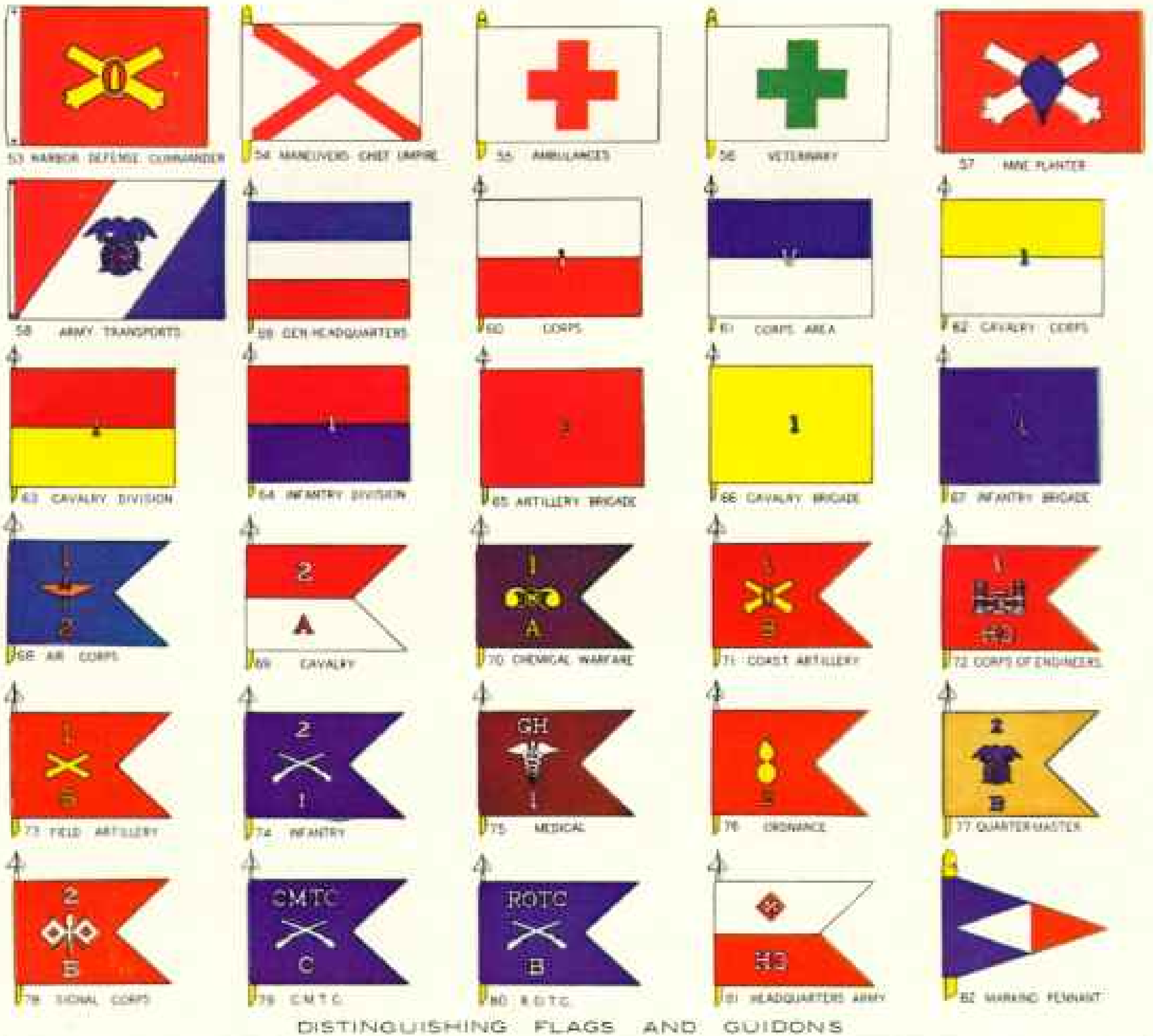
96. UNITED STATES CUSTOMS.—The United States Customs Flag is the same as the Coast Guard Ensign with the device of the Coast Guard Ensign omitted.

97. BUREAU OF NAVIGATION.—The service flag of the Bureau of Navigation, with its white ship on a red disk amid a blue background, is flown by all vessels of the Navigation Service during daylight hours.

98, 99, 100, BUREAU OF LIGHTHOUSE FLAGS.—The common feature of the three flags of the



REGIMENTAL COLORS, STANDARDS, AND FLAGS OF COMMAND, U. S. ARMY



Bureau of Lighthouses is the lighthouse with its three windows and its lantern.

101. UNITED STATES MAIL VESSELS.—This pennant is no longer required to be flown aboard United States mail vessels or vessels carrying United States mail, but many of them still keep it floating.

102. PAN AMERICAN UNION.—The flag of the Pan American Union is a pennant which was adopted in 1907. It embodies all the colors in the flags of the 21 republics.

103. ASSISTANT SECRETARY OF THE NAVY.—The flag of the Assistant Secretary of the Navy became the flag of the Assistant Secretary of the Navy for Air, but when that office was abolished it reverted to the Assistant Secretary of the Navy. Most of the assistant secretaries of the Government Departments use the flag of their respective chiefs with colors reversed—that is, the device and the stars take the color of the field of their chief's flag and the field of their flag takes the color of their chief's device.

104, 105, 106, 107.—These ranking flags of the United States Navy have the four stars of the Admiral, the three stars of the Vice Admiral, the two stars of the Rear Admiral, and the one star of the Commodore. The grade of Commodore has been abolished, and as there are only a few retired Commodores, the flag soon will pass completely from naval usage.

108. BROAD COMMAND PENNANT.—This flag used to be that of the commander of a destroyer flotilla.

109. BURGEE COMMAND PENNANT.—This pennant is flown at the after masthead of a ship or in the bow of a boat in which is embarked a regularly assigned Division Commander of a type of ship other than battleship or cruiser. The pennant of the commander of a destroyer or submarine division is surcharged with the number of the division in red Arabic numerals.

110. SENIOR OFFICER PRESENT.—When naval vessels are together, with no flag officer present, the Senior Officer uses this triangular blue flag to signify that he has taken command of the group. The flag flies at the starboard main yardarm.

111, 112, 113. NAVAL DISTRICT FORCE COMMANDER.—Patrol Force Commanders fly this swallow-tailed pennant; Section Commanders under them use a smaller flag of the same type with Roman numerals on it (112). Each section in turn is set up in divisions and each Division Commander carries a triangular pennant with Arabic numerals on it (113).

114. INFANTRY BATTALION FLAG.—When the Navy lands men as infantry for shore duty, they carry this flag.

115. ARTILLERY BATTALION FLAG.—Naval artillery landed for shore duty carries the red flag with a white diamond on which is imposed a red anchor.

116. RED CROSS FLAG.—This flag is flown from naval hospitals and hospital ships.

117. CHURCH PENNANT.—This pennant is flown whenever divine services are held aboard ship (see illustration, opposite page).

118. BATTLE EFFICIENCY PENNANT.—No banner in the American Navy is more earnestly contested for than this pennant, which is awarded annually to the ship making the best rating in battle efficiency.

119. COMMISSION PENNANT.—The Navy has latterly discarded the old 13-starred Commission Pennant and gives to its ships the 7-starred pennant instead. This pennant is flown at the mainmast as long as a ship is in commission, except when under command of an officer higher than the rank of captain, when the flag of command takes its place.

120. QUARANTINE FLAG.—As an evidence of contagion aboard, this is the most unpopular of all flags in the American Navy. The same flag is used by commercial ships.

121. MERCHANT MARINE NAVAL RESERVE.—The flag of the United States Naval Reserve is displayed on ships which have been awarded certificates that they belong to the United States Naval Reserve.

122. NAVAL RESERVE YACHT PENNANT.—The yacht pennant of the Naval Reserve may be worn by those yachts which have become a part of the Reserve forces of the country.

123. NAVAL MILITIA COMMISSION PENNANT.—This pennant is carried by vessels of the Naval Militia at the mainmast while in commission, unless the commanding officer has a higher rank than captain.

124. NAVAL MILITIA DISTINGUISHING FLAG.—This flag is authorized to be flown from the foremasthead of vessels lent by the Navy, and actually maintained by a State, for the training of Naval Militia personnel, when such vessels are actually under the command of a Naval Militia officer.

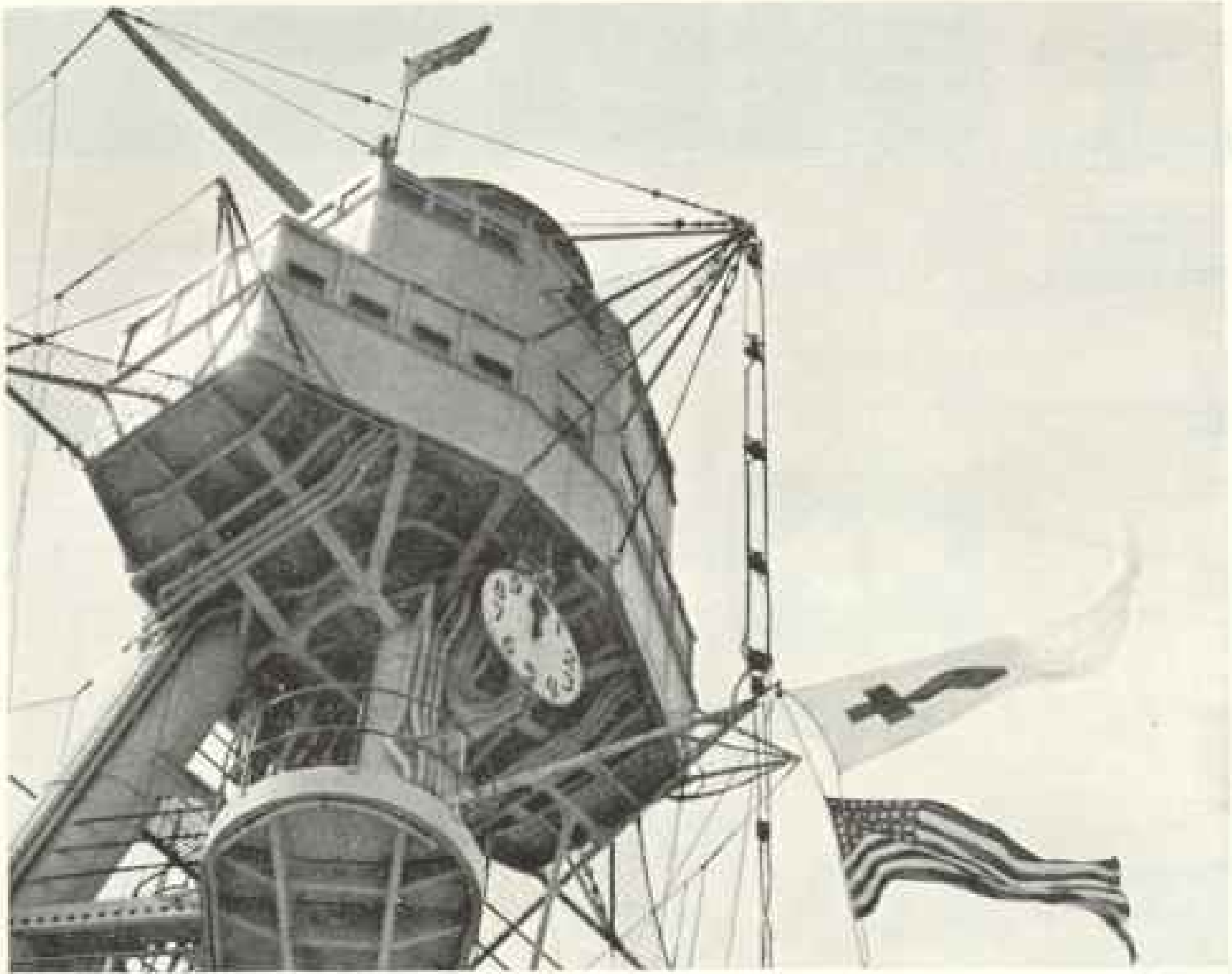
125. CONSULAR FLAG.—This flag is carried on ships when a consul is aboard.

126 TO 149 INCLUSIVE.—These are signal flags of the United States Navy with their respective meanings set forth beneath them.

150. MARINE CORPS STANDARD.—The only existing standard of the Marine Corps is at the Marine Barracks in Washington. It bears the Corps' motto *Semper Fidelis* (Ever faithful).

151. REGIMENTAL STANDARD, MARINE CORPS.—With its blue field, red streamers, and eagle perched upon the top of the world, the Regimental Standard of the Marine Corps quickens the blood of admirers of the Marines everywhere. Only the new regiments fly this standard. The older regiments still keep the standards, slightly variant, that have gone with them to the ends of the earth.

152. BRIGADE PENNANT, MARINE CORPS.—This pennant has a blue field and white lettering.



Official Photograph, U. S. Navy

ALL SAILORS KNOW FROM AFAR WHEN THE PRESIDENT WORSHIPS AT SEA

At the main truck of the Presidential ship flies the flag which proclaims his presence aboard. The church pennant, fluttering at the peak, is the only flag ever flown from the same hoist above the Stars and Stripes. It indicates the hour of divine service.

153. POST COMMANDER BOAT PENNANT, MARINE CORPS.—This pennant has 13 stars next to the staff and the device of the Marine Corps on the fly.

154. QUARTERMASTER SUPPLY DEPOT AND TRAIN PENNANT, MARINE CORPS.—It is under this flag that the Marine Corps moves its ammunition and the food which keeps the Marines in fighting trim wherever they go.

155. GUIDON, MARINE CORPS.—The red guidon of the United States Marine Corps has moved with the Marines into many a stirring encounter.

156, 157, 158.—These are the post and boat flags and the auto tag of a Major General of the Marines.

159, 160, 161.—These flags represent the post and boat flags and auto tag of a Brigadier General of the Marines.

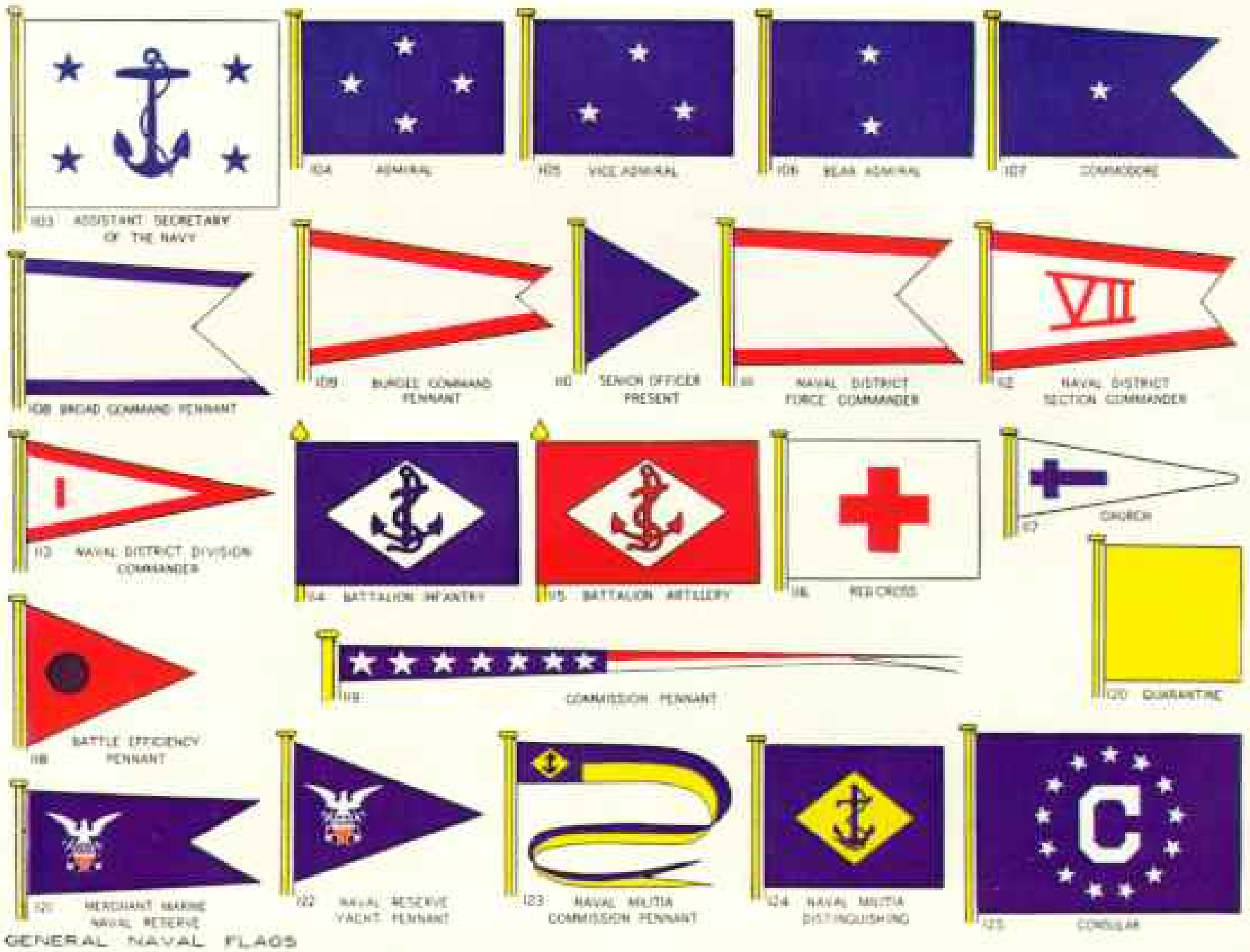
FLAGS OF THE STATES, TERRITORIES, AND POSSESSIONS

162. ALABAMA.—Colors for the State of Alabama were adopted by an act of February 16, 1895, which provides that the flag of the

State shall be a crimson Cross of St. Andrew upon a field of white. The proper size is 51 inches square over all, with the arms of the St. Andrew's Cross $8\frac{1}{2}$ inches wide.

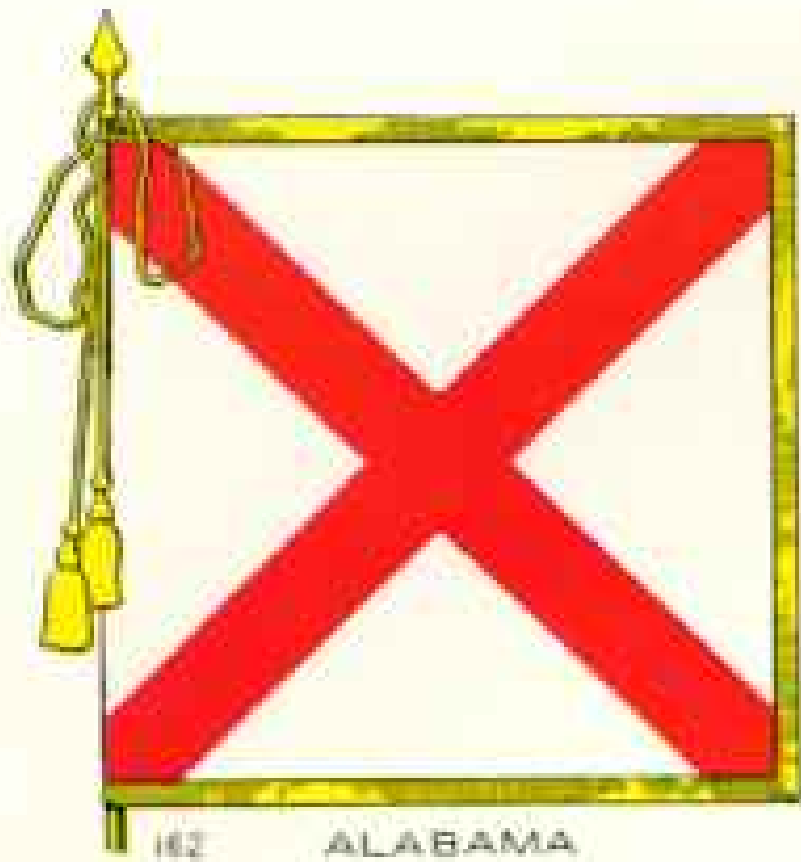
163. ARIZONA.—A bill making the flag of the battleship *Arizona* the banner of the Commonwealth for which it is named was adopted in 1917. The 13 rays represent the setting sun, facing which is the copper-colored star of Arizona. The hoist of the flag is two thirds of the fly.

164. ARKANSAS.—The present flag of Arkansas was adopted by legislative action on April 10, 1924. The 25 white stars show that Arkansas was the 25th State admitted to the Union. The blue star above "Arkansas" is to commemorate the Confederacy; the three blue stars below typify the three nations of Spain, France, and the United States to which the State successively belonged. They also indicate that it was the third State carved out of the Louisiana Purchase. Of these three stars, "the twin stars parallel with each other typify that Arkansas and Michigan are twin States, having been admitted to the Union together on June 15, 1836."



FLAGS OF THE U. S. NAVY





162 ALABAMA



163 ARIZONA



164 ARKANSAS



165 CALIFORNIA



166 COLORADO



167 CONNECTICUT



168 DELAWARE



169 FLORIDA

165. CALIFORNIA.—The Bear Flag was adopted by the California Legislature in 1911. This flag dates from the days of the California pioneers and commemorates the huge bear, the California grizzly, which is now extinct. The hoist of the flag equals two thirds of the fly. The red stripe at the bottom is one sixth of the fly.

166. COLORADO.—The flag now used by the State of Colorado was adopted in 1911, although in 1920 a new description was approved by legislative action. The hoist of the flag is two thirds of the fly.

167. CONNECTICUT.—Although in use prior to that time, the present State Flag of Connecticut was made official by an act of the legislature in 1897. The design in the center is the State seal, the three grapevines representing the three original settlements of Connecticut—Hartford, Windsor, and Wethersfield. The Latin inscription *Qui Transtulit Sustinet* is a survival of the Nutmeg State's colonial banner and, freely translated, means "He who brought us over sustains us." The hoist of the flag is approximately four fifths of the fly.

168. DELAWARE.—The official flag of Delaware was not adopted by legislative action but by a commission consisting of the State's President *pro tempore* of the Senate, the Speaker of the House of Representatives, and the Secretary of State, who devised the flag in 1914. The buff diamond bears the coat of arms of the State. The date refers to Delaware's entry into the Union.

169. FLORIDA.—The present flag of the Everglade State dates from 1899. The State seal in the center of the flag was adopted by the Constitutional Convention in 1868. The hoist of the flag is three fourths of its fly.

170. GEORGIA.—The legislature of Georgia adopted the arrangement of the bars of the Georgia flag in 1879. In 1905 the coat of arms of the State was added. This law was reenacted in 1916. The word "Constitution" appears on the arch of the coat of arms; the three pillars are engraved with the words "Wisdom, Justice, Moderation" to represent the legislative, executive, and judicial branches of the State Government.

171. IDAHO.—The State Flag of Idaho was created by legislative action in 1909. Idaho's laws forbid all military organizations within its boundaries from carrying any other flag or device than the National Flag and the flag of the Commonwealth. The coat of arms bears the legend *Esto Perpetua* (May she be perpetual). The hoist of the flag is approximately four fifths of the fly.

172. ILLINOIS.—Authorization for Illinois' State Flag was given July 6, 1915. The seal used on the flag was adopted in 1810. The streamer in the eagle's mouth bears the motto "State Sovereignty—National Union."

173. INDIANA.—Although the legislature of the State of Indiana declared in 1901 that its official banner should be the American Flag itself, it reconsidered this action in 1917 and adopted a State emblem. The torch represents Liberty and Enlightenment; the 13 stars in the outer circle, the Thirteen Original States; the five stars in the half circle below the torch, the States admitted prior to Indiana; the large star above the torch represents Indiana, the 19th State of the Union. The hoist of the flag is approximately four fifths of the fly.

174. IOWA.—The State Flag of Iowa as now used was authorized by legislative action on March 29, 1921. It is an adaptation of the design made at the time of the World War and accepted by the State Council of National Defense to be used by the State regiments. That "use of State flags was, however, rendered impossible by the policy of the War Department of assigning men to military units without regard to the State from which they came." The scroll in the eagle's beak contains the motto, "Our liberties we prize and our rights we will maintain."

175. KANSAS.—The Kansas Legislature adopted a flag for the State on March 23, 1927. The State seal bears the motto *Ad Astra Per Aspera*, meaning, "To the stars through difficulties." The sunflower is the official flower of the State, and the wreath signifies the Louisiana Purchase. "The thirty-fourth star represents Kansas as the thirty-fourth State admitted to the Union." The hoist of the flag is approximately five eighths of the fly.

176. KENTUCKY.—The flag for the Blue Grass State was ratified by legislative action on March 26, 1918. The goldenrod is the State flower. The original seal of the State, as shown on the State monument at Frankfort, portrays two pioneers in hunters' garb shaking right hands, embracing, and standing on the verge of a precipice. But the engravers of the State have uniformly dressed the figures more to suit their ideals, with varying heraldic effect. The dimensions of the flag also vary.

177. LOUISIANA.—The State Flag of Louisiana is over a hundred years old, having become the unofficial flag about the time of the War of 1812. It was ratified as the official State flag on July 1, 1912.

178. MAINE.—The flag of Maine was adopted by legislative action in 1909. The shield carries the word *Dirigo*, meaning, "I direct." The hoist of the flag is approximately four fifths of the fly. The fringe prescribed by law is two and one half inches wide.

179. MARYLAND.—In 1904, when Maryland's flag was adopted by legislative action, it was one of the oldest flags in use in the world. It was the flag of the Proprietary Government of Maryland generations before American independence was dreamed of and has continued



Photograph by Edwin L. Wheeler

MAKING STAR-SPANGLED BANNERS AT THE FLAG DEPOT, PHILADELPHIA

Girls fashion the bunting flags for the United States Army in this room on hundreds of machines, whose steady roar sounds like the hum of a mammoth beehive. Red and white stripes and blue fields are cut with a rotary knife; the stars are made in lots of fifty with a die stamp. While some women sew the stripes together, others stitch the stars on the blue fields, one star on each side in a single operation. Then fields and stripes are joined and the flag is completed.

in use from that time until the present. It represents the escutcheon of the paternal coat of arms of Lord Baltimore.

180. MASSACHUSETTS.—Legislative action of 1908 and further action taken in 1915 have combined to produce the present flag of the Commonwealth of Massachusetts. The coat of arms of the Commonwealth upon a white field, as shown in figure 180, is the obverse of the flag. The reverse shows a blue shield bearing a representation of a green pine tree upon a white field. The motto shown on the obverse of the flag is *Ense Petit Placidam Sub Libertate Quietem*, which may be translated as, "With the sword she seeks peace under liberty." No dimensions are prescribed by law, but the flag carried by the State troops has a hoist which is approximately four fifths of the fly.

181. MICHIGAN.—Legislative action on April 29, 1911, created the flag of Michigan. The coat of arms carries the motto *Si Quæris Peninsulam Amœnam, Circumspice*, signifying: "If you seek a pleasant peninsula, look around you." The word *Tuebor* means "I will defend," a reference to the frontier position of the State of Michigan.

182. MINNESOTA.—The Minnesota State Flag was adopted on February 28, 1893. The

other dates on the flag are 1819, the time of the settlement of Minnesota, and 1858, the year of the admission of Minnesota to the Union. The reverse of the flag is blue. The motto *L'Etoile du Nord* (The Star of the North) indicates the North Star State. The 19 yellow stars proclaim the fact that it was the 19th State admitted into the Union after the Original Thirteen.

183. MISSISSIPPI.—A committee to design a State Flag and seal was appointed by legislative action on February 5, 1894. The hoist of the flag is two thirds of its fly. The union square equals two thirds of the hoist.

184. MISSOURI.—Missouri formally adopted an official flag on March 22, 1913. The coat of arms carries the motto *Salus Populi Suprema Lex Esto*, signifying: "The welfare of the people is the supreme law." The hoist of the flag is seven twelfths of the fly.

185. MONTANA.—The State Flag of Montana was adopted by law in 1905, providing that it should be a copy of the flag borne by the First Montana Infantry, United States Volunteers, in the Spanish-American War, except that the device "First Montana Infantry, U. S. V." should be omitted. The scroll on the seal carries the words *Oro y Plata*, which refers to the gold and silver found in the State.



170

GEORGIA



171

IDAHO



172

ILLINOIS



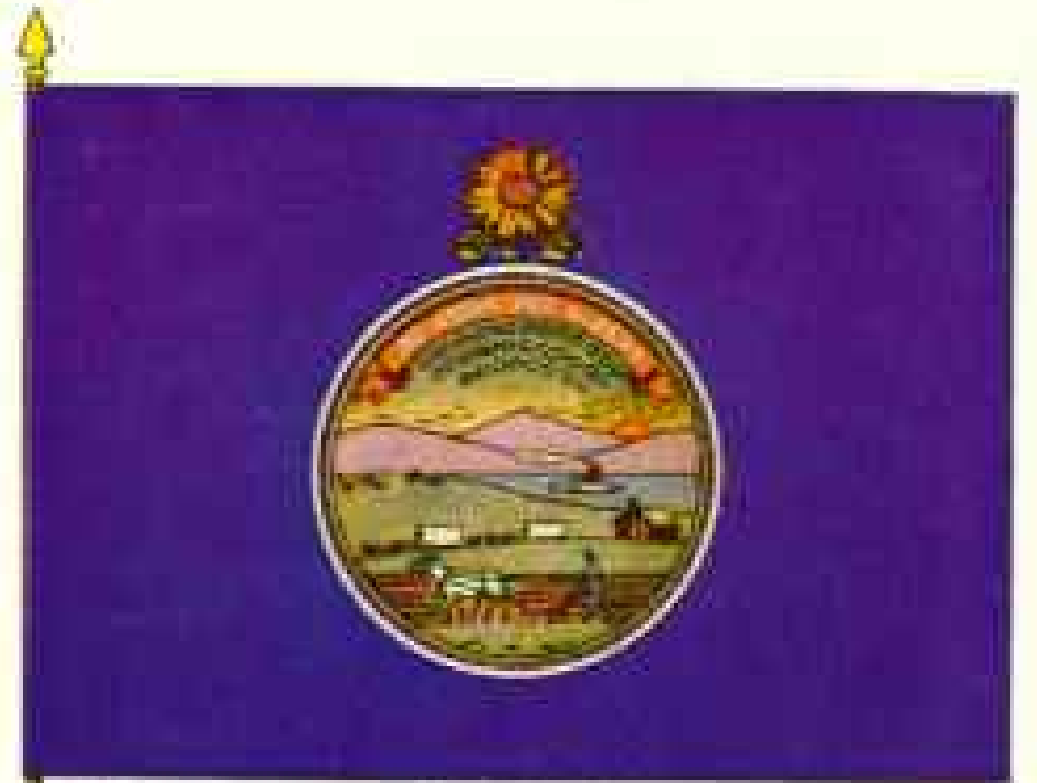
173

INDIANA



174

IOWA



175

KANSAS



176

KENTUCKY



177

LOUISIANA



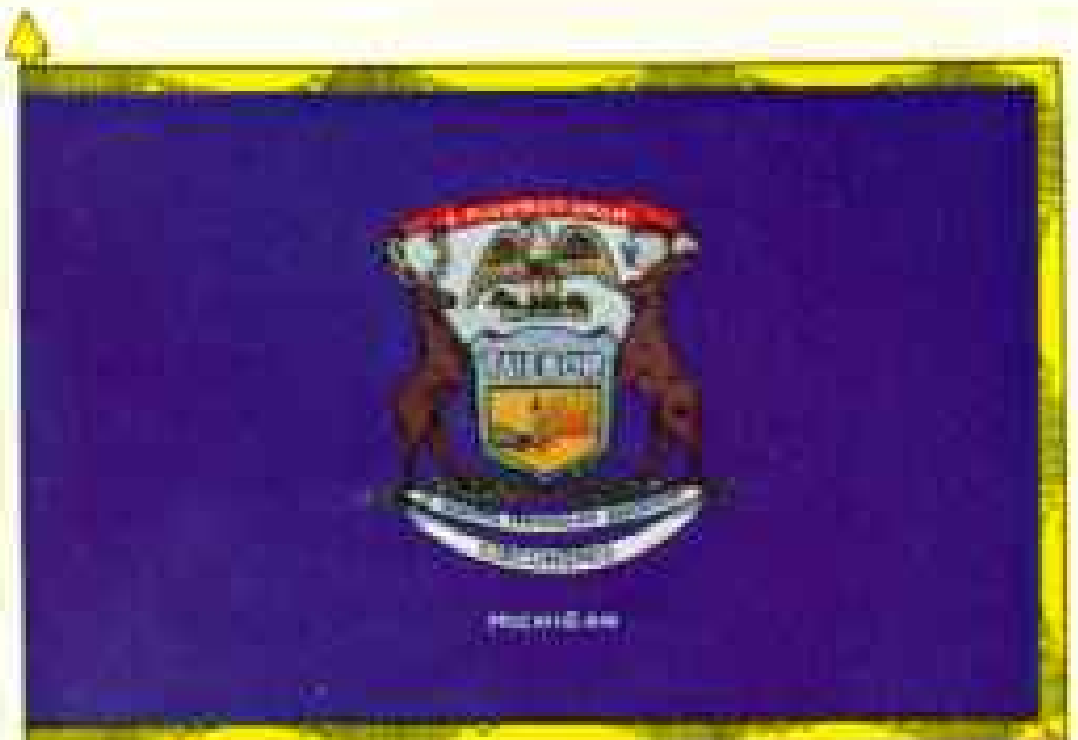
178 MAINE



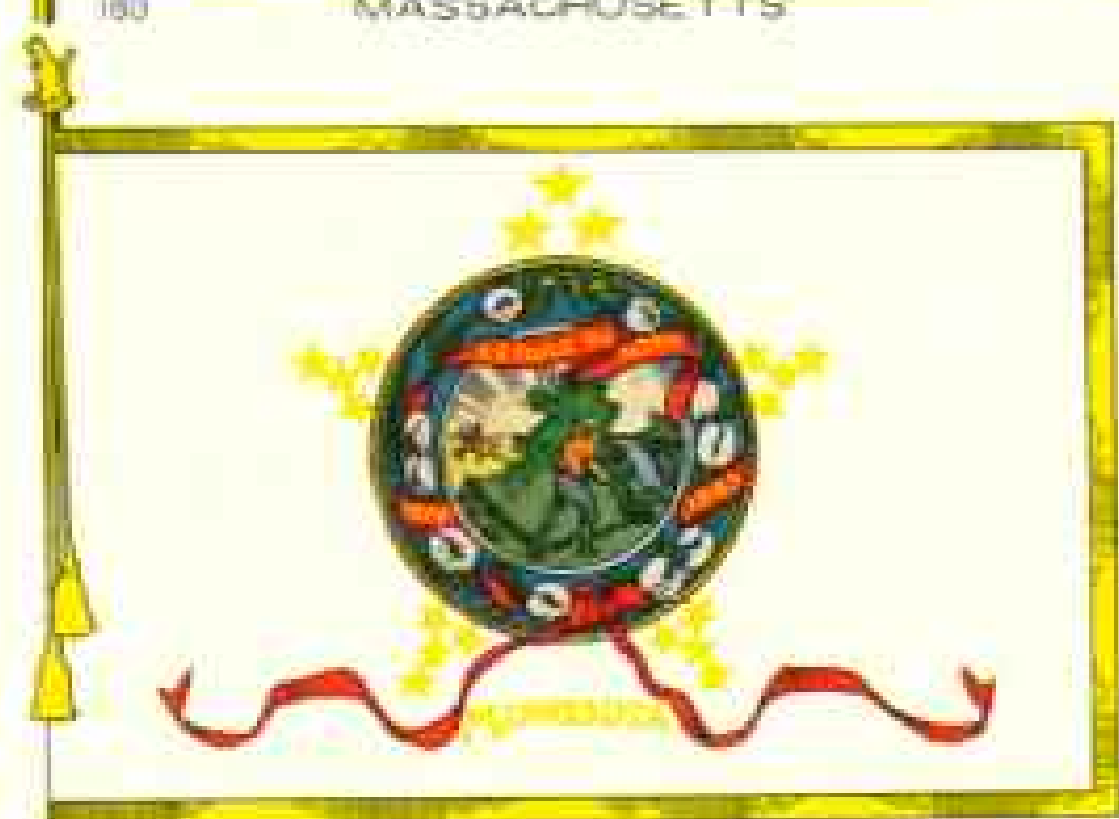
179 MARYLAND



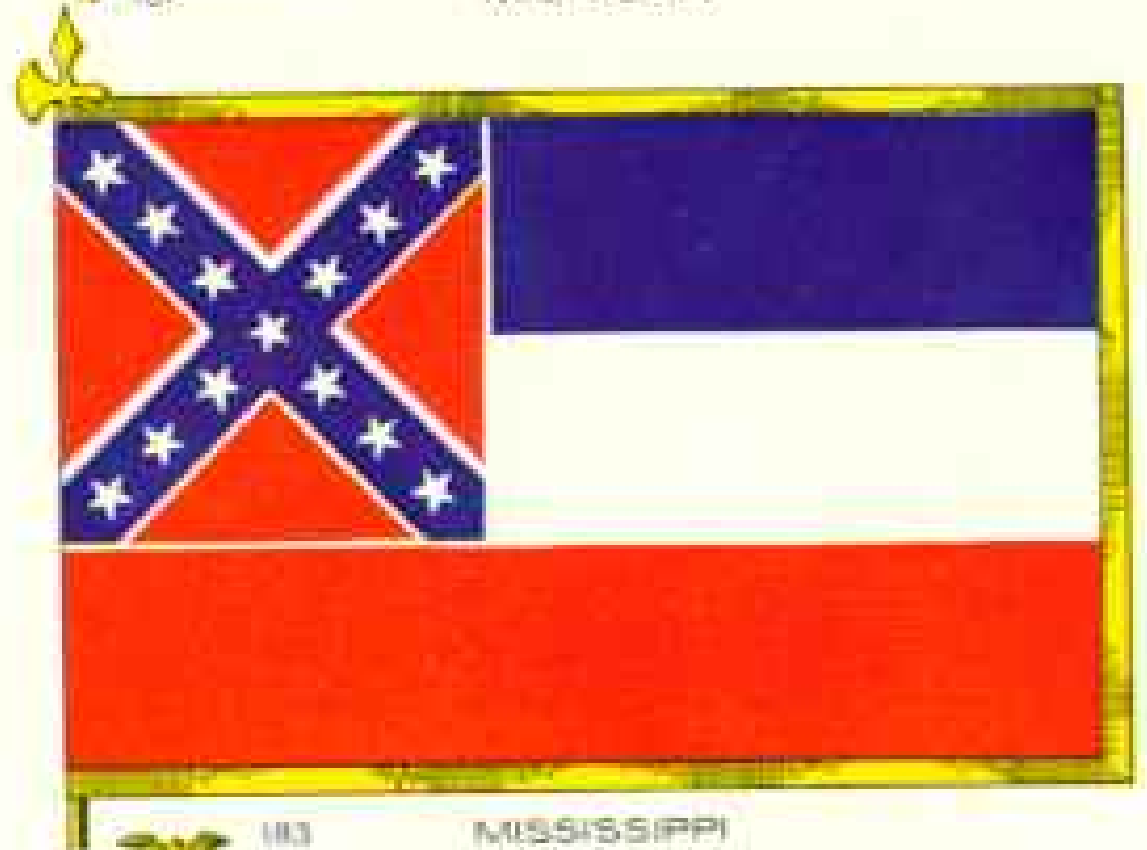
180 MASSACHUSETTS



181 MICHIGAN



182 MINNESOTA



183 MISSISSIPPI



184 MISSOURI



185 MONTANA

186. **NEBRASKA.**—The legislature of Nebraska authorized the flag of that State in 1925. The seal of the State was adopted in 1867 and carries the motto "Equality before the law."

187. **NEVADA.**—Nevada has had several State flags, the one currently used having been authorized by an act of legislature in 1929. The sagebrush shown on the flag is the State flower. The term "Battle Born" was applied to the State because it was admitted to the Union during the Civil War.

188. **NEW HAMPSHIRE.**—The State Flag of New Hampshire was adopted on February 24, 1909, the seal shown on it having been in use since 1784. In 1931 the seal of the State was redrawn, and the flag with the new seal was approved by the legislature on April 29 of that year. When used for military purposes, the flag conforms to the regulations of the flag of the United States.

189. **NEW JERSEY.**—Under a resolution approved in March, 1896, the flag of the State of New Jersey was created. When the measure was pending in the New Jersey Legislature, a memorandum was submitted showing why buff was chosen. This memorandum states that in 1779 the Continental Congress by resolution authorized and directed the Commander-in-Chief to prescribe uniforms both as to color and facings for the regiments of the New Jersey Continental Line. Accordingly, General Washington in general orders directed that the coat of such regiments should be dark blue faced with buff. Later it was ordered that the flag of the State troops should have a ground the color of the facing. Thus the New Jersey flag became buff under orders of the Father of His Country. It was displayed in view of the combined French and American Armies in the great culminating event of the Revolution, the capitulation of the British Army under Cornwallis at Yorktown.

190. **NEW MEXICO.**—The legislature of New Mexico on March 19, 1925, passed a law creating a flag to supersede the flag adopted in 1915. The new flag is "the ancient Zia Sun Symbol The colors shall be red and yellow of old Spain." The hoist of the flag is two thirds of the fly; the sun symbol is one third the length of the fly.

191. **NEW YORK.**—The device on the flag of New York, authorized by legislative act in 1909, is the coat of arms of the State, which has remained unchanged since 1778.

192. **NORTH CAROLINA.**—The flag of North Carolina was established by act of legislature on March 9, 1885. The date May 20, 1775, commemorates the "Mecklenburg Declaration of Independence," and the date April 12, 1776, commemorates the "Halifax Independence Resolutions."

193. **NORTH DAKOTA.**—North Dakota's flag, which was given legislative sanction in 1911, is

of almost unknown origin. With a slight change in the scroll below the eagle, this flag served as the regimental flag for the First North Dakota Infantry in the Spanish-American War and the Philippine Insurrection. The hoist of the flag is approximately four fifths of the fly.

194. **OHIO.**—The only State to adopt a pennant-shaped flag, Ohio sanctioned its banner by legislative action on May 9, 1902. The 17 stars represent all of the States at the time of Ohio's entrance into the Union.

195. **OKLAHOMA.**—On April 22, 1925, Oklahoma adopted its new State Flag. This flag depends upon the local scene for its inspiration. The circular rawhide shield fringed with pendent eagle feathers is typical of the American Indian warrior's equipment. The calumet, or peace pipe, another Indian symbol, is crossed with the olive branch of classical tradition.

196. **OREGON.**—A change was made in the State Flag of Oregon on February 26, 1925. The obverse of the flag carries the State escutcheon in gold supported by the 33 stars representing Oregon's place among the States. The date "1859" recalls the time of Oregon's entrance into the Union. The reverse of the flag shows a representation of the beaver in gold on a blue field.

197. **PENNSYLVANIA.**—The Keystone State's Flag was officially adopted June 13, 1907. It carries the coat of arms of the State in the center of both sides. The scroll is inscribed with the words "Virtue, Liberty and Independence." The hoist of the flag is approximately three fourths of the fly in law, but in practice it is nearly square.

198. **RHODE ISLAND.**—Although some authorities believe that the stars of the American Colors originated in Rhode Island's colonial flag, it was not until 1877 that this State officially adopted a flag. The flag law was revised in 1882 and again in 1897, when the existing banner was established. The hoist of the flag is approximately four fifths of the fly.

199. **SOUTH CAROLINA.**—South Carolina, when it withdrew from the Union in 1861, decided that it was a separate nation and should have a national banner. When it joined the Southern Confederacy, it kept its flag as a State banner and has maintained this flag in that capacity to the present day.

200. **SOUTH DAKOTA.**—By act of legislature in 1909, the flag of South Dakota was created. The obverse carries a picture of the blazing sun; the reverse, a reproduction of the great seal of the State. In practice, the seal is sometimes placed on the obverse side of the flag, a procedure which, while following the general principle of flag design, seems to be the opposite of the intent of the law. The hoist of the flag is approximately three fifths of the fly.

201. **TENNESSEE.**—The unique flag of Tennessee was adopted April 17, 1905. Tennessee

was the third State to join the Union after the Original Thirteen, a fact which the three stars recall. These stars also "represent the three political divisions of the State organized at different periods in its history. They are bound together by the circular blue field; the symbol represents three making one." The flag hoist is three fifths of the fly.

202. TEXAS.—The Lone Star Flag of Texas dates from the days of the Republic, the actual date of adoption being January 25, 1839. The manifold rules for the use of the flag are very explicit. The blue perpendicular stripe is one third the fly of the flag, while the two horizontal stripes are of equal breadth, the whole flag being formed by three equal-sized rectangles.

203. UTAH.—While the State Flag of Utah was approved by legislative action on March 11, 1913, the Secretary of State of Utah discovered in 1922 that the flag then in common use was not in strict accord with the description found in the law. A flag was made to conform with the description given in the statute and presented to the State. The date "1847" refers to the settling of the State, while that of "1896" refers to its admission to the Union. The sego lily shown on the shield is the State flower.

204. VERMONT.—Vermont's flag, adopted by the State Legislature in 1923, replaces an earlier flag adopted in 1837. The field of blue carries the coat of arms of the State.

205. VIRGINIA.—The State General Assembly in 1930 passed an act providing a flag for the Commonwealth. The seal portrays Virtus, the genius of the Commonwealth, dressed like an Amazon, resting on a spear in her right hand and holding a sword in the other. She treads on Tyranny, represented by a man prostrate, a crown fallen from his head, a broken chain in his left hand, and a scourge in his right. The State motto, *Sic Semper Tyrannis* (Thus ever to tyrants), appears on the arms. This seal generally duplicates the one prepared by a committee of which Richard Henry Lee and George Mason were members, and was adopted on July 5, 1776, one day after the Declaration of Independence was adopted.

206. WASHINGTON.—The State of Washington officially sanctioned in 1923 the flag which had been provided by a patriotic organization for it sometime before. The vignette of General Washington may be embroidered, printed, painted, or stamped thereon.

207. WEST VIRGINIA.—The present flag was adopted by the State Legislature May 7, 1929. The motto on the coat of arms of the State, *Montani Semper Liberi* (Mountaineers always freemen), typifies the spirit of its people.

208. WISCONSIN.—The Badger State officially acquired a banner by legislative action in 1913. The coat of arms is embroidered on each side with silk of appropriate colors. The

hoist of the flag is approximately four fifths of the fly.

209. WYOMING.—The distinctive flag of Wyoming was created by an act in 1917. The hoist of the flag is seven tenths of the fly. The outside red border is one twentieth of the fly.

210. ALASKA.—The flag of Alaska was adopted in May, 1927. It was designed by a boy 13 years old, named Benny Benson. He used the constellation of the Great Bear. The seven stars represent the great dipper and the larger star indicates the North Star. The legislature of Alaska appropriated \$1,000 to send the young designer to Washington to present the first flag of Alaska to the United States.

211. GOVERNOR OF THE PANAMA CANAL.—The flag of the Governor of the Panama Canal was established by an order of President Woodrow Wilson, June 8, 1915.

212. DISTRICT OF COLUMBIA.—In the absence of any official flag for the District of Columbia, the District Militia devised the one reproduced here, and until such time as it shall be replaced by law, it will be the flag of the District of Columbia, just as formerly the one with the hatchet had that status.

213. GUAM.—The flag of Guam, with its coconut tree insignia, is used subordinately to the United States flag, which is flown over all Government buildings.

214. HAWAII.—The present flag of Hawaii was officially adopted in 1925, when a law was enacted accepting the old Hawaiian flag as the authorized flag of the Territory, second only to the Stars and Stripes.

215. PHILIPPINE ISLANDS.—The flag of the Philippine Islands had been long in use before receiving official sanction. The authorizing law, enacted in 1920, provided that it should have the next post of honor to the flag of the United States when flown with other banners.

216. THE FLAG OF THE GOVERNOR OF PUERTO RICO.—The Governor of Puerto Rico, finding that there was no official flag in use, created one for himself. It carries on a field of white the seal of Puerto Rico which was granted by Ferdinand of Spain, November 8, 1511. The inscription is *Juanes Est Nomen Ejus* (His name is John).

217. VIRGIN ISLANDS.—The flag of the Governor of the Virgin Islands was adopted by executive order and uses the American eagle displayed with a shield upon its breast and an olive branch and bundle of arrows in its dexter and sinister claws, respectively.

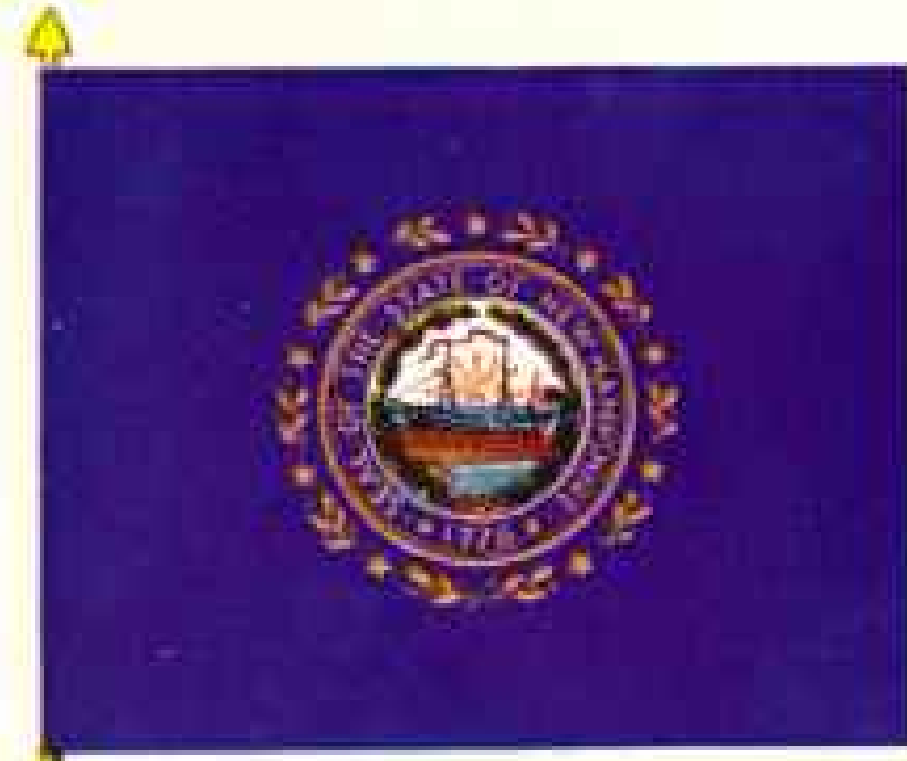
218. FLAG OF THE AMERICAS.—This flag, with its three wine-colored crosses and its sun of the Incas, was hoisted on October 12, 1932, in the Plaza Independencia in Montevideo. It was officially recognized and dedicated by supreme decree by the governments of Honduras, Nicaragua, Paraguay, Chile, Bolivia, Ecuador,



186 NEBRASKA



187 NEVADA



188 NEW HAMPSHIRE



189 NEW JERSEY



190 NEW MEXICO



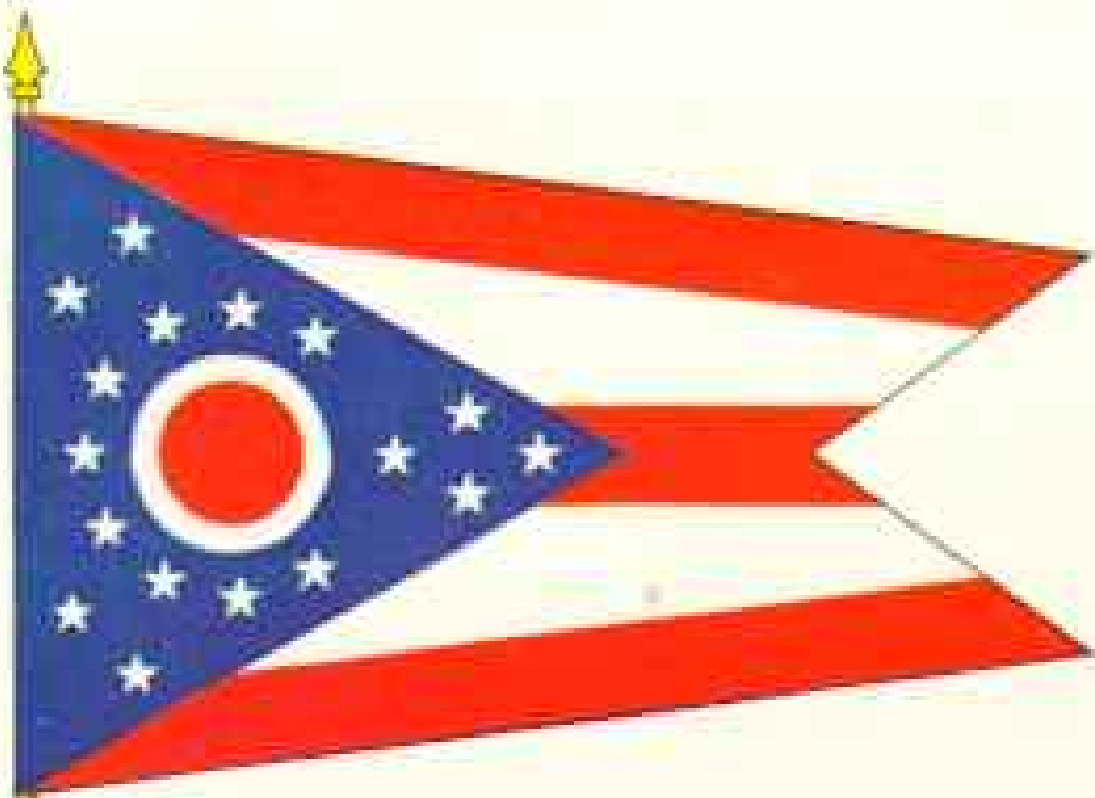
191 NEW YORK



192 NORTH CAROLINA



193 NORTH DAKOTA



184

OHIO



185

OKLAHOMA



186

OREGON



187

PENNSYLVANIA



188

RHODE ISLAND



189

SOUTH CAROLINA



200

SOUTH DAKOTA



201

TENNESSEE

Colombia, and Peru. All of the nations of the Americas hoisted it shortly thereafter.

219. **THE FLAG OF THE NATIONAL GEOGRAPHIC SOCIETY.**—With its colors of brown, green, and blue—typifying earth, sea, and sky—the banner of the National Geographic Society expresses the wide range of the interests of the organization which flies it. Explorers carrying it have fathomed the reaches of the stratosphere, plumbed the depths of the ocean, scaled the earth's main mountain peaks, peered into the remote past, sought the secrets of volcanism, crossed the earth's opposite poles, and brought the wide world to the illustrated and printed page. Ever this flag is one of both adventure and conquest—adventure because men under its aegis have dared push on beyond the realms of the known in the hope of discovering new continents of good for humanity; of conquest because it ever floats upon the distant horizon ready to march on and map the new provinces of knowledge the adventurers have discovered, so that millions still unborn may reap the golden harvest of expanding worlds of truth.

220. **FLAG OF THE DAUGHTERS OF THE AMERICAN REVOLUTION.**—The Daughters of the American Revolution were organized in 1890 and have done a work of inestimable value in bringing to the mind of present-day America a new appreciation of what our ancestors gave of life and blood, hardship and sacrifice in order that they might bequeath to the generations coming after them the priceless jewel of liberty.

221. **FLAG OF THE SONS OF THE AMERICAN REVOLUTION.**—Working hand in hand with the D. A. R.'s are the S. A. R.'s. America owes an immeasurable debt to its patriotic societies, for a Nation that forgets its heroic history pays a heavy price for its indifference.

222. **FLAG OF THE AMERICAN LEGION.**—The American Legion was organized and incorporated by act of Congress in 1919. At its first annual convention held in that year in Minneapolis, it had 500,000 members and nearly 5,000 posts. Its present membership, 767,000, is enrolled in 10,800 posts.

223. **FLAG OF THE VETERANS OF FOREIGN WARS.**—The veterans of Foreign Wars of the United States compose a national society founded in 1899. Its membership approximates 250,000 and it reports 2,900 posts.

224. **FLAG OF THE YOUNG MEN'S CHRISTIAN ASSOCIATION.**—The Young Men's Christian Association was founded in London in 1844 and established in the United States in 1851. There are 10,619 associations throughout the world and 1,444,315 members.

225. **FLAG OF THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION.**—The Young Women's Christian Association of the United States was founded in Boston in 1866 and organized as a

national body in 1906. The membership of the Association is approximately 600,000.

226. **FLAG OF THE BOY SCOUTS.**—The organization of the Boy Scouts of America was founded February 8, 1910, and granted a charter by Congress in 1916. The work of the Boy Scouts has made a deep impression throughout the United States and the world, and the training they receive not only affects the deeper currents of their own lives but also gives them equipment for national leadership as they emerge into manhood.

227. **FLAG OF THE GIRL SCOUTS.**—The Girl Scouts, Incorporated, is a national, non-sectarian, non-partisan movement which was founded in the United States in 1912 by Mrs. Juliette Low, of Savannah. It was patterned after the association of British Girl Guides and parallels among girls the work that is done for boys through the Boy Scouts of America.

FLAGS FAMOUS IN AMERICAN HISTORY

228. **VIKING BANNER.**—Five hundred years before the arrival of Columbus in the New World, Leif Ericsson is supposed to have guided his ships to the shores of Vinland (Labrador, Nova Scotia, or New England) and planted there the Raven Banner.

229. **COLORS OF COLUMBUS.**—The Standard of Spain was the flag which was planted on October 12, 1492, on what Columbus called San Salvador, now sometimes called Watling Island, in the Bahamas.

230. **ST. GEORGE'S CROSS—CABOT.**—John Cabot raised the first English flag in North America, probably on Cape Breton Island, in 1497.

231. **ST. ANDREW'S CROSS—NOVA SCOTIA.**—The inhabitants of "New Scotland" adopted the cross of "Old Scotland" for their own flag. The crown and cipher are those of James I.

232. **ST. PATRICK'S CROSS.**—This cross is attributed by some to St. Patrick, who was born in Scotland, and by others to Maurice Fitzgerald, a Norman invader.

233. **LILIES OF FRANCE.**—These golden lilies were carried by the explorers Joliet, Marquette, La Salle, Iberville, and Bienville.

234. **HUDSON'S FLAG.**—The letters "A.O.C." superimposed upon the Netherland flag made the banner of the Algemeene Oost-Indische Compagnie, the Dutch East India Company, under whose auspices Hudson sailed.

235. **DUTCH WEST INDIA COMPANY.**—The letters "G. W. C." (Geoctroyeerde West-Indische Compagnie) were added to the Netherland flag in 1621 to form the banner of the company. The orange stripe was changed to red about 1650 to accord with the change made in the Netherland flag.

236. **EXETER—1634.**—The Massachusetts colonists objected to the use of St. George's

Cross on their flag on the grounds of idolatry. John Endicott cut out part of the cross in 1634, but in 1651 the flag was officially sanctioned.

237. KING'S STANDARD.—The first and fourth quarters of this standard as used in 1635 show the two lions introduced by William II. The third lion, according to some authorities, was added by Henry II in honor of his wife, Eleanor of Aquitaine. The Lilies of France were added by Edward II when he acquired the title of King of France in 1340. The second quarter shows the Lion of Scotland, which James I added in token of the union of the two countries. The third quarter shows the Harp of Ireland, placed there by Queen Elizabeth in token of her success in dealing with that island.

238. SWEDEN'S SETTLEMENTS.—The flag of Sweden used by colonists in Delaware and New Jersey has undergone little change in more than two hundred years.

239. THREE COUNTY TROOP.—In 1659 three counties in Massachusetts—Suffolk, Middlesex, and Essex—raised a company of cavalry which lasted twenty years and probably took part in King Philip's War.

240. COLONIAL ENSIGN. 243. NEW ENGLAND. 249. CONTINENTAL BANNER. 250. BUNKER HILL FLAG. 258. NEWBURY, MASS. 259. TAUNTON.—These variants of the flag of the mother country indicate that there was an ever-widening breach between England and her American Colonies.

241. ANDROS FLAG.—Edmund Andros was made governor of Massachusetts after its charter was revoked.

242. ESCUTCHEONED JACK.—To distinguish them from ships of the mother country, colonial ships were ordered in 1701 to place a white escutcheon on the British Jack.

243. NEW ENGLAND.—See 240.

244. WASHINGTON'S CRUISERS.—This flag was used by Washington's six cruisers in 1775. After the Grand Union Flag (251) came into use, this flag was adopted by the Massachusetts Navy (257).

245. RHODE ISLAND.—This flag was carried safely through the struggle at Brandywine, Trenton, and Yorktown (see 198, 246).

246. COMMANDER-IN-CHIEF.—At Valley Forge, General Washington used this flag before his tent. It has been suggested that this is a possible source of the stars in our National Flag (see 198).

247. WASHINGTON'S GUARD.—The Life Guard, in which all of the States supplying troops to the Continental Army were represented, carried this flag with the motto "Conquer or die."

248. PRE-REVOLUTIONARY JACK.—This flag was probably displayed by the *Mayflower* and by the ships which brought the English settlers to Jamestown. After 1710 it was the only flag

officially used on land over public buildings in the Colonies.

249. CONTINENTAL BANNER.—See 240.

250. BUNKER HILL FLAG.—See 240.

251. THE GRAND UNION FLAG.—This flag served as the outward symbol of the Union of the Colonies from December 3, 1775, until the adoption of the Stars and Stripes (see page 344).

252. NAVY JACK. 253. GADSDEN. 256. SOUTH CAROLINA NAVY ENSIGN. 257. MASSACHUSETTS NAVY. 263. CULPEPPER. 275. WESTMORELAND.—These flags give some indication of the popularity of the snake design in Revolutionary times.

254. LIBERTY TREE—1776.—General Gage ordered the tree under which the Sons of Liberty met in Boston cut down. Thereafter the device frequently appears. When the flag of Washington's Cruisers (244) was taken over by the Massachusetts Navy (257), the coiled snake was added.

255. LINKED HAND.—Thirteen mailed hands grasping as many links of a chain foreshadowed the national motto *E Pluribus Unum*.

256. SOUTH CAROLINA NAVY ENSIGN.—See 252. Most of the Colonies maintained their own navies. Those of Massachusetts, Rhode Island, and South Carolina were particularly effective.

257. MASSACHUSETTS NAVY.—See 252.

258. NEWBURY, MASSACHUSETTS.—See 240.

259. TAUNTON.—See 240 and illustration, page 368.

260. COLONEL MOULTRIE.—This is, according to Moultrie's memoirs, "the first American flag displayed in the South."

261. BENNINGTON.—On August 16, 1777, this flag was carried at the Battle of Bennington, Vermont. This battle, in which Burgoyne's foraging forces were turned back and routed, paved the way for the American triumph at Saratoga.

262. CULPEPPER.—See 252.

263. FORT MOULTRIE.—It was over Fort Sullivan, later named Fort Moultrie, that this flag was raised at the battle on June 28, 1776.

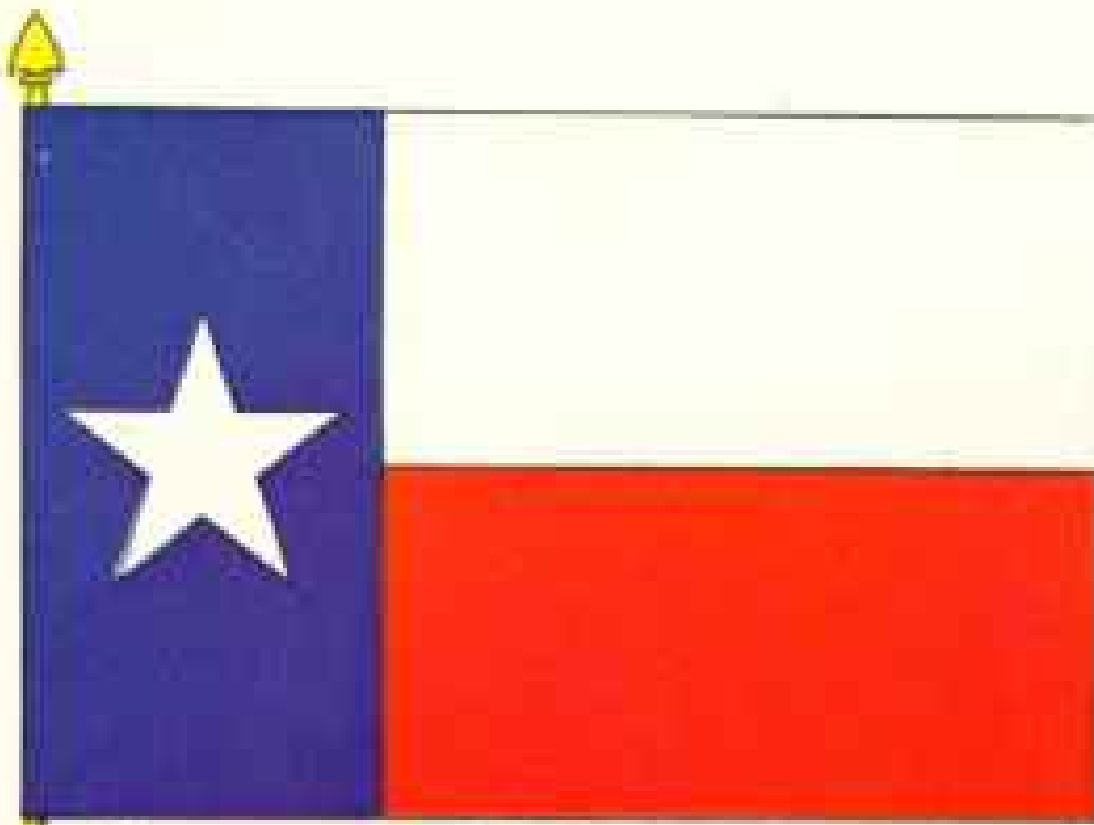
264. THIRD MARYLAND.—This adaptation of the Stars and Stripes was carried by the Third Maryland Regiment at the Battle of Cowpens.

265. NEW YORK.—Recalling the fur trade of early days, this flag was used on the armed ships of New York in 1775.

266. BUCKS OF AMERICA.—John Hancock, first governor of the State of Massachusetts, presented this banner to the colored company of that name for their valor.

267. GUILFORD.—The flag raised at Guilford Courthouse, March 15, 1781, is an evidence of the lack of specific regulations regarding the construction of the flag, as also in 261, 264.

268. HANOVER ASSOCIATORS.—These "volunteers" decided as early as June, 1774, "that in



202

TEXAS



203

UTAH



204

VERMONT



205

VIRGINIA



206

WASHINGTON



207

WEST VIRGINIA



208

WISCONSIN



209

WYOMING



210 ALASKA



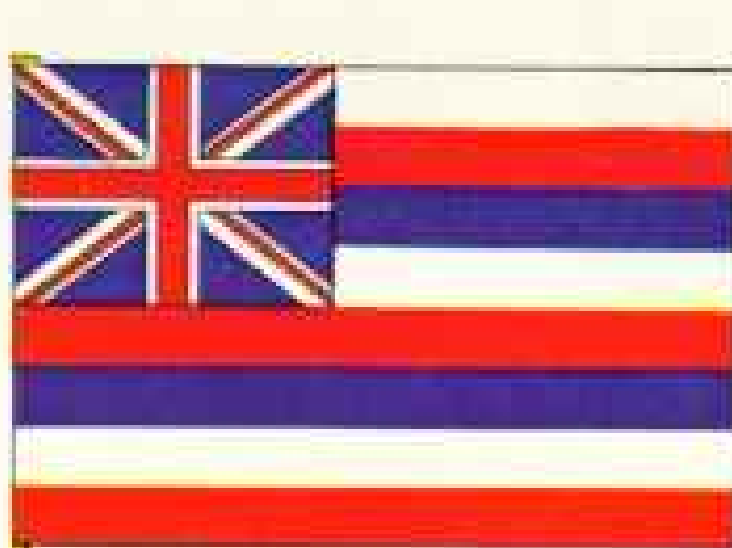
211 GOVERNOR OF PANAMA CANAL



212 DISTRICT OF COLUMBIA



213 GUAM



214 HAWAII



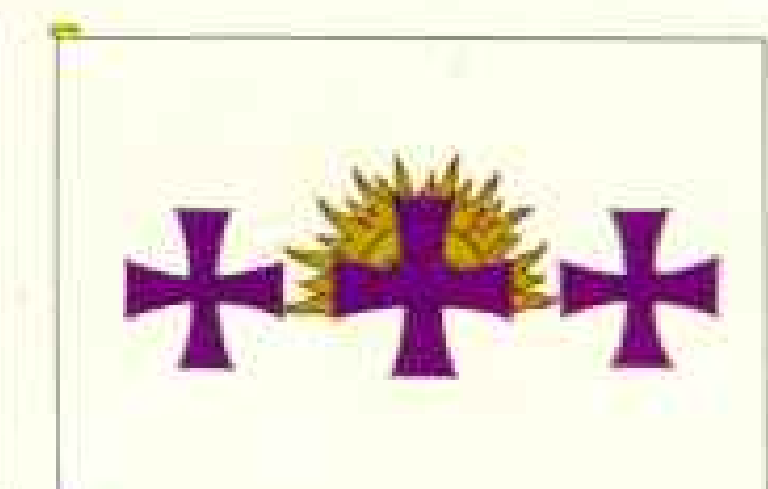
215 PHILIPPINES



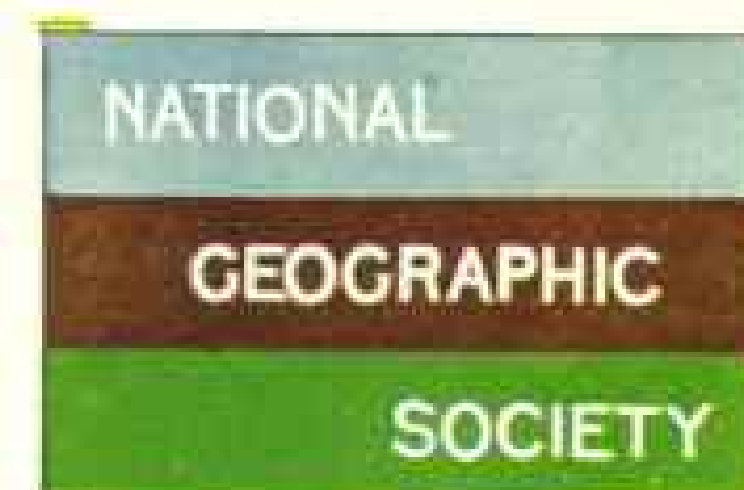
216 PUERTO-RICO



217 VIRGIN ISLANDS



218 FLAG OF THE AMERICAS



219 NATIONAL GEOGRAPHIC SOCIETY



220 DAUGHTERS OF THE AMERICAN REVOLUTION



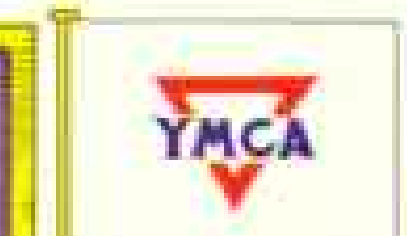
221 SONS OF THE AMERICAN REVOLUTION



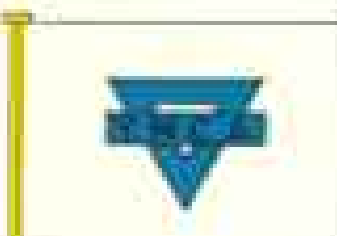
222 AMERICAN LEGION



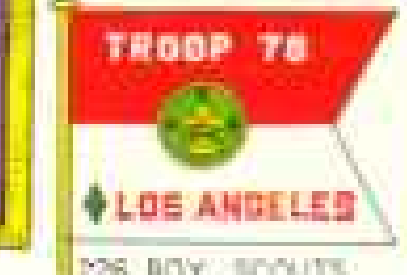
223 VETERANS OF FOREIGN WARS



224 Y.M.C.A.



225 Y.W.C.A.



226 BOY SCOUTS



227 GIRL SCOUTS



THE TAUNTON FLAG IS RAISED ON THE VILLAGE GREEN

Ralph Davol painted this mural for the Massachusetts town's public library. It portrays the raising of a historic banner, a British Red Ensign with "Liberty and Union" superimposed—one of the forerunners of the Grand Union Flag (see No. 251). The Reverend Caleb Barnum invokes a blessing, while David Cobb, afterward one of Washington's generals, hoists it to the top of the Liberty Pole, October 21, 1774. Robert Treat Paine, a signer of the Declaration of Independence, stands at the right, resting on his cane.

the event of Great Britain attempting to force unjust laws upon us by the strength of arms, our cause we leave to Heaven and our rifles."

260. **MERCHANT 1776-1795.**—Merchant vessels and privateers nearly always carried this ensign of thirteen stripes, the colors of the stripes varying with the fancy of the commanding officer.

270. **FIRST STARS AND STRIPES.**—The act of Congress of June 14, 1777, which gave our country its National Flag did not specify the arrangement of the stars. In the Navy it became customary to place the stars so as to form the crosses of St. George and St. Andrew, an arrangement illustrated in the Rhode Island banner (245).

271. **NEW YORK REGIMENT.**—These regimental colors were carried by Col. Peter Gansevoort at Yorktown. It will be seen that the coat of arms of the State (191) has remained almost unchanged in general design.

272. **PHILADELPHIA LIGHT HORSE.**—This troop carried their yellow colors when it escorted Washington from Philadelphia to New York on his way to Cambridge to take command of the Continental Army.

273. **TALLMADGE'S DRAGOONS.**—Maj. Benjamin Tallmadge and his dragoons fought at Brandywine and Germantown, Pennsylvania, and Monmouth, New Jersey.

274. **CONNECTICUT.**—The activities of 1775 and 1776 showed the need of colors to distinguish the various troops. Connecticut was one of the first States to adopt a banner (see 167).

275. **WESTMORELAND.**—The Westmoreland County Battalion of Pennsylvania was raised in 1775 by John Proctor.

276. **WEBB'S REGIMENT.**—This little flag belonged to the troops under Colonel Webb, probably the Third Connecticut Regiment.

277. **FIRST PENNSYLVANIA RIFLE REGIMENT.**—The regiment which carried this flag fought in every one of the Thirteen Colonies.

278. **BEDFORD.**—The Bedford Minute Men carried this flag, only two and one half feet square, with its brave motto "Conquer or die," at the Battle of Concord.

279 and 280. **NEW HAMPSHIRE REGIMENT.**—These two flags of the Second Regiment were captured by the British Ninth Regiment shortly before the Battle of Saratoga and returned to the New Hampshire State Historical Society in 1912.

281. **EUTAW.**—Miss Jane Elliott cut a square of damask from a drawing room chair to give her fiancé, Col. William Washington, for a flag. It was carried at Cowpens and Eutaw Springs, South Carolina.

282. **PULASKI.**—This banner was embroid-

ered for Count Pulaski by the Moravian Sisters of Bethlehem, Pennsylvania.

283. WHITE PLAINS.—American troops surrendered this flag to Hessian troops at the Battle of Long Island, August 26, 1776.

284. GATINOIS REGIMENT. 285. SAINTOGNE (or SAINTONGE) REGIMENT. 286. ROYAL DEUX PONTS REGIMENT.—These French regiments were a part of the French allies of America during the Revolution.

287. CHAMPLAIN AND DE GRASSE.—Samuel de Champlain used this flag in 1609 on the lake which bears his name. One hundred and seventy-two years later Count de Grasse with his 24 ships sailing under the same flag entered the Chesapeake Bay and cut off British communication between New York and Yorktown, thus aiding materially in forcing the final surrender of the Revolution.

288. LOUISIANA.—The Stars and Stripes replaced this flag on December 20, 1803, when the vast Territory was added to this country.

289. RUSSIAN AMERICAN COMPANY, ALASKA.—This company organized in 1799, remained dominant in Alaskan affairs for 60 years.

290. FORT MCHENRY FLAG.—When Vermont entered the Union (March 4, 1791) and then Kentucky (June 1, 1792), it was felt that they should have a representation similar to that of the Original Thirteen States, and Congress passed an act on January 13, 1794, adding two stripes and two stars to the flag. This was the flag which inspired Francis Scott Key to write *The Star-Spangled Banner*.

291. PERRY'S SIGNAL.—At the Battle of Lake Erie, September 10, 1813, Commodore Perry fought under a flag carrying the last words of brave Captain Lawrence.

292. STANDARD—1812.—This is the national standard as used by our light artillery in the War of 1812.

293. GREAT STAR FLAG. 294. FLAG OF JULY 4, 1818.—In 1818 the number of States in the Union had increased to twenty, and it was seen that to increase the number of stripes of the flag indefinitely would render them invisible at a distance. At the instance of Capt. Samuel C. Reed, Congress passed an act providing for the return to the original thirteen stripes and the addition of a new star for each new State. Reed also suggested that merchant ships have the stars arranged like a great star and war vessels in parallel rows. The addition of new States made the great star arrangement impracticable, and it was soon abandoned.

295. ALAMO.—This flag floated over the Alamo, the fortress at San Antonio, when Texas was fighting for independence.

296. TEXAS NAVAL.—After seceding from Mexico, Texas adopted this naval flag (April 9, 1836), antedating by several months the adoption of the first national flag of Texas.

297. MARINE CORPS COLORS—1830-50.—

These colors carry the legend "From Tripoli to the Halls of the Montezuma," referring to the engagements in which the Marines had participated.

298. U. S. FLAG—CIVIL WAR.—The Government did not change its flag during the Civil War or drop the stars representing the seceding States.

299. ARTILLERY COLORS—CIVIL WAR.—The 36 stars show that this flag was used after the admission of West Virginia and Nevada to the Union.

300. INFANTRY COLORS—CIVIL WAR.—Note the close resemblance these colors bear to the Standard of 1812 (292).

301. ARTILLERY REGIMENTS—CIVIL WAR.—The designation of the various regiments is given on the scroll below the crossed cannon.

302. CAVALRY GUIDON—CIVIL WAR.—This guidon was dropped when General Sherman was made Secretary of War, and the former guidon (69) was restored.

303. FIRST CONFEDERATE FLAG.—The Stars and Bars were used from March, 1861, to May, 1863.

304. CONFEDERATE NAVAL ENSIGN.—This was displayed by the ships of the Confederacy probably from 1861 to 1863.

305. CONFEDERATE BATTLE FLAG AND NAVAL JACK.—The flag as here shown was used as the Confederate Jack after May 1, 1863. The battle flag was like it except that it was square and all four sides were bordered with white.

306. CONFEDERATE FLAG—1863.—The Confederacy used this as its national flag from May 1, 1863, to March 4, 1865.

307. CONFEDERATE FLAG—1865.—This flag was adopted March 8, 1865.

308. AZTEC STANDARD.—Cortez took this standard at the battle of Otumba.

309. TLAXCALAN BANNERS.—These banners belonged to a tribe which was Cortez's ally against the Aztecs.

310. INCA BANNERS BEFORE PIZARRO.—The Incas used gaudy plumage from tropical birds to make the halyards supporting these banners.

311. CORTES (Cortez) STANDARD.—Seeking gold and glory, the Spanish explorers carried the banners of the Church with them.

312. FIRST MEXICAN FLAG.—The eagle and serpent are still found on the Mexican flag (492).

313. SPANISH MEXICAN.—Spanish troops carried this flag in the Mexican War of Independence.

314. PIZARRO.—This is the banner which Pizarro is said to have carried when he entered Cuzco a conqueror in 1533.

315. ORDER OF CHRIST.—Denys, King of Portugal, instituted this order in 1251 to expel the Moors from Bética. The Brazilian branch in later times used its banner in its activities in South America, particularly in Brazil.



228 VIKING BANNER



229 COLORS OF COLUMBUS



230 ST. GEORGE'S CROSS-CAROL



231 ST. ANDREW'S CROSS-NOVA SCOTIA



232 ST. PATRICK'S CROSS



233 LILIES OF FRANCE



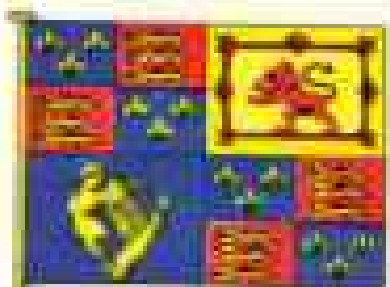
234 HUDSON'S FLAG



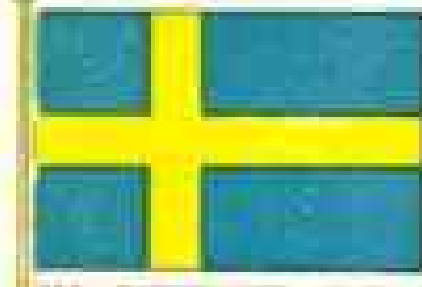
235 DUTCH WAGON



236 ENDICOTT-1834



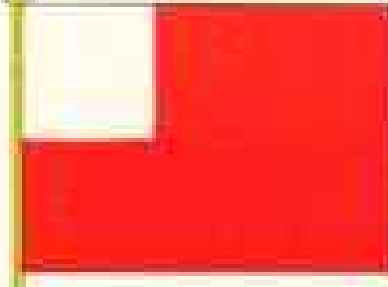
237 KING'S STANDARD



238 SWEDISH SETTLEMENTS



239 THREE GO TROOP



240 COLONIAL ENSIGN



241 ANDRE'S FLAG



242 ESCALATED JACK



243 NEW ENGLAND



244 WASHINGTON'S ENSIGN



245 RHODE ISLAND



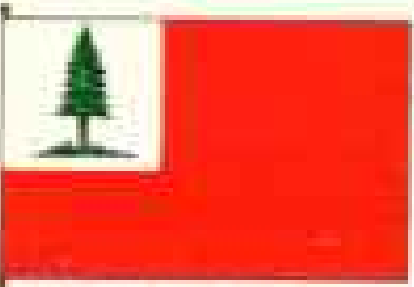
246 CONWAY'S ENSIGN



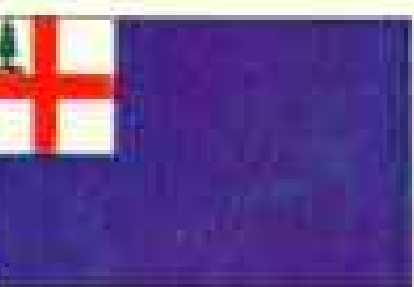
247 WASHINGTON'S GUARD



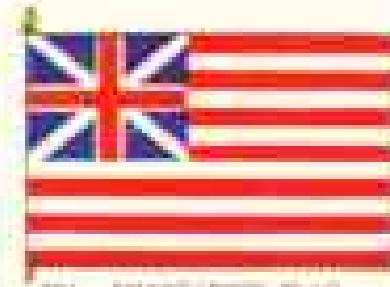
248 POP. REVOLUTIONARY JACK



249 CONTINENTAL BANNER



250 SUN OF HELL FLAG



251 GRAND UNION FLAG



252 NAVY JACK



253 GADSDEN



254 LIBERTY TREE-1776



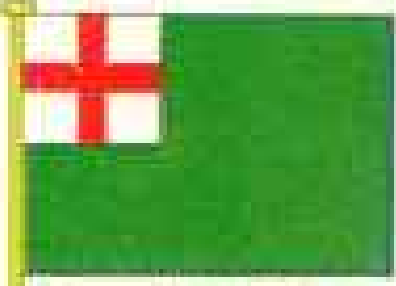
255 UNITED WAY



256 S.C. NAVY ENSIGN



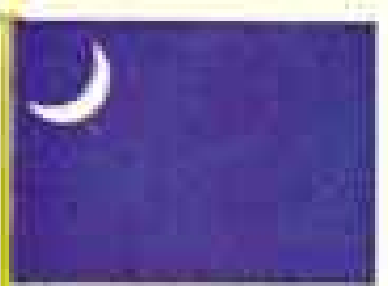
257 MASSACHUSETTS NAVY



258 NEWBURY MASS



259 TAUNTON



260 GAL. WOLFE'S



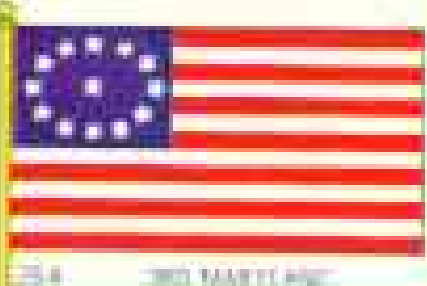
261 BENNINGTON



262 GADSDEN



263 FT. MIFFLIN



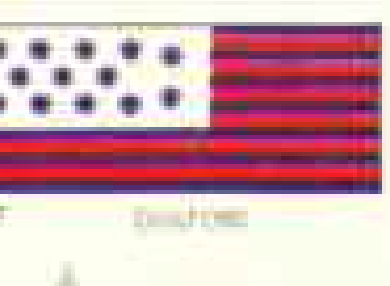
264 3RD MARYLAND



265 NEW YORK



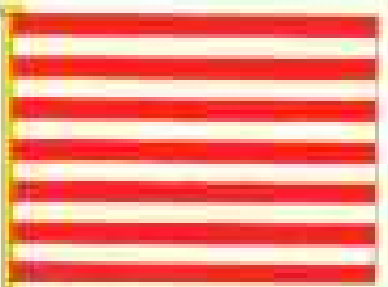
266 SONS OF AMERICA



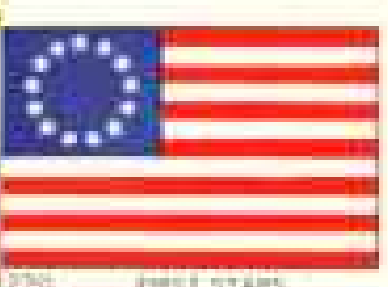
267 GUILFORD



268 HAVERHILL ASSN.



269 MERCHANT-1776-1779



270 FIRST STARS & STRIPES



271 N.Y. REGT.



272 PRE-1801 NOTE



273 TALLMADGE'S EMANCIPATOR



274 CONNECTICUT



275 WESTMORELAND



276 WEBB'S REGT.



277 1ST PA. RIFLE



FLAGS FAMOUS IN AMERICAN HISTORY

316. **BANNER OF HIDALGO.**—Mexico's soldier priest, who started a revolution against the Spanish rule, carried the sacred banner of the Virgin of Guadalupe.

317. **GUATEMALA.**—The flag here shown was used from May 31, 1838, until the present one was adopted (472).

318. **SPANISH-PORTUGUESE FLAGS.—TREATY OF TORDESILLAS.**—The treaty on which these flags appear gave Spain the control of almost the entire Continent of South America.

319. **SAN MARTIN.**—This banner was carried by General San Martin, who was born in Argentina and came to be known as "The Liberator of the South." After winning the freedom of his own country, he aided in the liberation of Chile and Peru.

320. **ARMY OF THE ANDES.**—General San Martin carried this banner over the Andes into Chile.

321. **BOLIVAR.**—It was under this flag that Simón Bolívar liberated Venezuela, Colombia, and Peru from imperial Spain.

322. **NEW GRANADA.**—The confederation of South American States, now largely included in the Republic of Colombia, used this flag.

323. **ECUADOR.**—When Ecuador was a part of the Republic of Colombia, it used this standard.

324. **SOUTH PERU.**—This was a short-lived flag, since the Peruvian-Bolivian Confederation, to which it belonged, endured only two years.

325. **EMPIRE OF BRAZIL.**—Driven out of their own country in 1808 by Napoleon's forces, the royal family of Portugal took refuge in Brazil, where they ruled until 1889, when the people revolted and established a republic.

FLAGS AND BADGES OF THE BRITISH EMPIRE

With all of its complex system of central government, dominions, colonies, protectorates, dependencies, and mandated territories located on every continent and among the islands of the Seven Seas, the British Empire has had to create the world's largest single group of flags and to develop the most complete body of flag regulations in the whole history of civilization. Wherever British authority extends, its principal symbol is the Union Flag (326).

Subordinate thereto are the Naval Ensign (327), which is carried by the British naval vessels; the British Merchant Flag (328), which is carried on privately owned ships; and the British Naval Reserve Ensign (329), which is carried not only by ships in the public and Admiralty services but also by merchant ships which fulfill the specifications of the Naval Reserve Acts. In the case of the public and Admiralty services at home and abroad, the Blue Ensign carries on its fly the badge of the service represented. Some of the dependencies

and the Confederated Malay States have flags of their own, such as we see from 421 to 433 inclusive.

326. **BRITISH UNION FLAG.**—This flag, with its combination of the Crosses of St. George (230), St. Andrew (231), and St. Patrick (232), was proclaimed on January 1, 1801, after the union with Ireland, throughout the Empire. Those who rule under it carry the badges of their respective territories at the intersection of its crosses, surrounded either by the laurel wreath as shown in 420, or by special wreaths as in the case of Australia, shown in 337, and of New Zealand, shown in 338.

327. **BRITISH NAVAL ENSIGN.**—Originally, the colors of the White, Red, and Blue Ensigns were borne by different warships to designate the squadrons to which they respectively belonged. The confusion that resulted was responsible for the placing of all naval vessels under the White Ensign, and the employment of the others to designate non-naval ships. The British Admiralty Regulations provide that no warship shall dip its flag to any foreign ship whatsoever unless the foreign ship at first or at the same time lowers its flag.

328. **BRITISH—MERCHANT.**—No other flag flutters to the breeze of as many ports or sails as far and wide as the Red Ensign of the British Merchant Marine. More passengers sail and more freight is carried under its regis than under that of any other flag in existence.

329. **NAVAL RESERVE ENSIGN.**—The Blue Ensign of the British Empire is flown by Naval Reserve vessels, public offices afloat, the Consular Service, and the Government vessels of the several dominions, colonies, and dependencies. It also is flown with appropriate badges over many types of public buildings.

330. **ROYAL STANDARD.**—With its three golden lions representing England, its red lion rampant standing for Scotland, and its golden harp speaking for Ireland, the Royal Standard in its present form was raised with the accession of Queen Victoria to the throne in the year 1837.

331. **AUSTRALIA—MERCHANT.**—The Merchant Flag of Australia, with its constellation of the Southern Cross, came into being in 1903. The large star originally had six points, but in 1908 the number of points was increased to seven to represent the six States and the territories of the Commonwealth. The Union Flag of the Empire, the Commonwealth or Blue Ensign, as well as the Merchant Flag, are all used on land.

332. **NEW ZEALAND—BLUE ENSIGN.**—The Blue Ensign, with the red stars of the constellation of the Southern Cross, constitute the National Flag of New Zealand. It came into use in 1901. As in the case of Australia, the Union Flag and the Red Ensign also are used on land as occasion demands.



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THE "EMANUEL," FLYING A PALESTINE FLAG, ANCHORS AT SOUTHAMPTON, ENGLAND

This Jewish trading vessel was the first to fly her country's new banner. Palestine, under British mandate, has a badge (see No. 419), but its Jewish population has created this flag of their own—Solomon's seal on a field of blue and white.

333. CANADA — MERCHANT. — Canada was the first British dominion to have a distinct Merchant Flag. The badge noted thereon illustrates the position of all badges on the Red and Blue Ensigns of the Empire. In 1802, some time after the arms of Ontario, Quebec, Nova Scotia, and New Brunswick were combined in one shield, the British Admiralty gave her the right to place her arms on the fly of the Red Ensign. The present arms of Canada were granted on November 21, 1921.

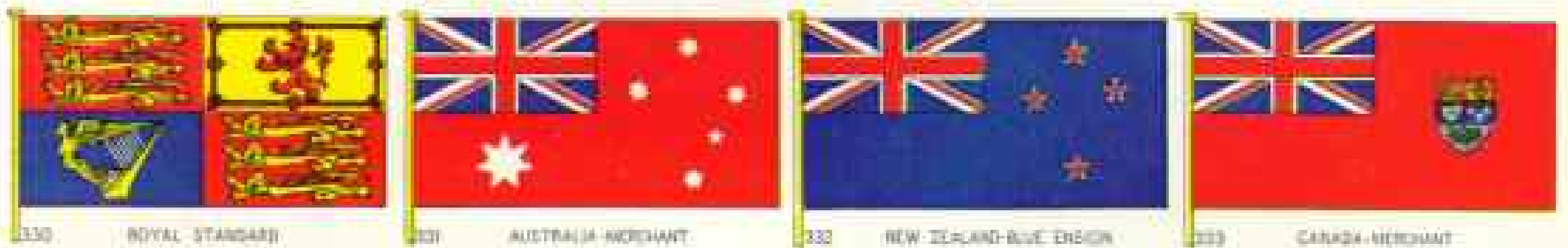
334. IRISH FREE STATE.—The National Flag of the Irish Free State, with its equal vertical stripes of green, white, and orange, is said to have originated in 1848 when the deputation of the Young Ireland movement returned from France, bringing with them such a flag made of the richest French silk, gorgeously trimmed and embroidered. The green represents the Catholics of Ireland, the orange the Protestants of Ireland, and the white the permanent peace invoked between them. In 1914 Patrick Pearse adopted it for his company of Irish Volunteers, and it was raised by them over the general post office in Dublin in 1916.

335. SOUTH AFRICA, UNION OF.—In this National Flag is reproduced the old Orange Free State Flag, the Union Flag of Great Brit-

ain, and the old Transvaal Vierkleur. Government vessels wear the Blue Ensign with the arms of South Africa on the fly. Merchant vessels carry the Red Ensign with these arms in a white circle on the fly. The South Africa National Flag was adopted in 1927 after bitter controversy. On certain official buildings the Union Flag is hoisted with it on a separate staff of equal height. The two flags thus simultaneously displayed must be of the same size and must be hoisted and lowered together.

336. CANADA BADGE.—This badge, which is placed on the Canada Ensign, has in its first quarter the three yellow lions on a red ground, for England; in the second quarter, the red lion rampant on a yellow ground within a floriated border, for Scotland; in the third quarter, the Irish harp on a blue ground, for Ireland. The lilies of France on the blue ground in the fourth quarter bespeak the days of French rule in the Canadian provinces. The three green maple leaves on the white ground speckled with blue at the bottom of the coat of arms complete the badge of Canada.

337. AUSTRALIA BADGE.—As shown, this is the badge of the Governor General, which is imposed upon the intersection of the crosses in





the Union Flag. The crown above the star bespeaks royal authority.

338. **NEW ZEALAND BADGE.**—When surrounded by a wreath of palm leaves, as shown, and imposed upon the intersections of the crosses of the Union Flag, it becomes the Governor General's emblem of authority. Its four stars pay honor to the Southern Cross.

339. **INDIA BADGE.**—As shown here, the Star of India is worn on the Blue Ensign. Surmounted by a royal crown and placed at the intersection of the crosses in the Union Flag, it becomes the emblem of the Viceroy and Governor General.

340. **ALBERTA BADGE.**—With its red St. George's Cross in the upper part, its glimpse of the snow-covered Canadian Rockies, its green hills, its wide prairie, and its waving wheat field, Alberta has a handsome shield.

341. **BRITISH COLUMBIA BADGE.**—British Columbia was granted her arms in 1906. They display a Union Flag at the top with a crown in its center and a sun with golden rays at the bottom. The inscription on the badge is *Splendor Sine Occasu*, which, freely translated, means "A radiance with no setting."

342. **MANITOBA BADGE.**—Manitoba's arms were assigned her in 1847. Beneath the red Cross of St. George stands a buffalo.

343. **NEW BRUNSWICK BADGE.**—New Brunswick was assigned its arms by Royal Warrant in 1868. The lion at the top betokens England, and the ancient galley or lymphad speaks of the maritime situation of the Province.

344. **NEWFOUNDLAND BADGE.**—Britain's oldest colony possesses a coat of arms granted in 1637. Its badge, however, which is always used upon the flags, shows the figures of Mercury, a kneeling sailor, and Britannia. When used with the Union Flag, the device is surrounded by a garland, but when used with either the Red or Blue Ensign the garland is omitted. The inscription on the badge is *Hæc Tibi Dona Fero*, which, translated, is "I bring you these gifts."

345. **NOVA SCOTIA BADGE.**—In 1929 Nova Scotia grew tired of the silver salmon and Scotch thistles of her old badge and was given another, which consists of a white shield with a blue saltier cross, at the intersection of which is imposed a smaller shield charged with the Royal Arms of Scotland.

346. **ONTARIO BADGE.**—The simple badge of Ontario dates from 1869.

347. **PRINCE EDWARD ISLAND BADGE.**—This emblem was granted by Royal Warrant in 1905. The motto, *Parva Sub Ingenti*, proclaims humility. Freely translated, it reads, "The small under the large."

348. **QUEBEC BADGE.**—The insignia of historic Quebec consists of a golden shield across the middle of which is a red fess charged with a golden lion of England. The fleurs-de-

lis at the top are reminiscent of the old French rule, and the spray of maple leaves at the bottom bespeaks Canada.

349. **SASKATCHEWAN BADGE.**—Saskatchewan was made a province in 1905, but it has been awarded its badge only recently.

350. **YUKON TERRITORY BADGE.**—This is another of the more recent badges adopted by Admiralty Warrant.

351. **BAHAMA ISLANDS BADGE.**—When placed on the Blue Ensign, the badge of the Bahamas is used as reproduced here. When used on the Union Flag, it is imposed on a white disk for contrast and circled with the usual laurel wreath. The inscription on the Bahama badge reads *Commercia Expulsis Piratis Restituta*, which, translated, is "Commerce restored on the defeat of the pirates."

352. **BARBADOS BADGE.**—This is an illustration of the type of badge which needs no white background to set it off. It is attached directly to the fly of the Blue Ensign and to the cross-intersection of the Union Flag. It shows Britannia, with her crown and trident, standing in a shell which is being drawn by sea horses.

353. **BERMUDA BADGE.**—This badge is reproduced as it appears on the Blue and Red Ensigns. When it is used on the Union Flag, it is first placed on a white circular disk within the usual laurel wreath. The lion supports a smaller shield on which is a representation of the wreck of the *Sea Venture* in 1609. Bermuda was granted her coat of arms in 1910.

354. **BRITISH GUIANA BADGE.**—Used on the Blue Ensign, this badge appears as illustrated. On the Union Flag it is set on a circular disk of white and bordered with the official laurel wreath. *Damus Petimusque Vicissim*, which may be translated "We give and seek in turn," is the inscription on the badge.

355. **BRITISH HONDURAS BADGE.**—The badge of British Honduras is designed on the lines of the coat of arms granted in 1907. The tools in the upper right-hand third of the shield are the axes and saw of the mahogany feller, an allusion to the fact that British Honduras is famous for its mahogany. The badge is worn on the Blue Ensign as reproduced. On the Union Flag it is placed on a white circular disk at the intersection of the crosses, and surrounded by the official laurel wreath.

356. **FALKLAND ISLANDS BADGE.**—This badge shows a white bull standing in tussock grass, with a full-rigged frigate in the river near by. This badge is used both on the Blue Ensign and the Union Flag in the form it appears here, though it is, of course, surrounded by the laurel wreath when used on the Union Flag.

357. **GRENADA BADGE.**—This badge is used on the Blue Ensign. It shows a two-masted, lugsailed vessel with a large stern cabin, approaching a coast. Translated, the legend on

the scroll, *Clavio e Tenebris*, means "Brighter out of the darkness."

358. JAMAICA BADGE.—Jamaica uses as her badge the coat of arms granted her in 1661. The shield bears the red Cross of St. George, which is charged with five golden pineapples. This badge is used as reproduced on both the Union Flag and the Blue Ensign, the official laurel wreath encircling it when used on the Union Flag. The motto on the scroll, *Indus Uterque Serviet Uni*, declares that "Both Indies will serve one."

359. LEEWARD ISLANDS BADGE.—It is said that the badge of the Leeward Islands was designed by its first Governor, Sir Benjamin Pine, and that he set the pineapples in their place of prominence as a pun upon his name. The badge is used on the Blue Ensign as reproduced, and on the Union Flag with the regulation garland of laurel.

360. ST. LUCIA BADGE.—St. Lucia is the chief coaling station for the British Fleet in the West Indies. The Union Flag is seen floating over one of the forts in the foreground and the Red Ensign over the other. The badge is used on the Blue Ensign as reproduced. The legend, *Statio Haud Malefida Curinis*, is a quotation from the *Aeneid*, which means "A trustworthy mooring place for ships."

361. ST. VINCENT BADGE.—This badge is taken from the coat of arms of St. Vincent, granted in 1912. It presents a classical tableau showing a yellow altar upon which a kneeling woman is offering a sacrifice to the flames, while a standing woman holds an olive branch over her head. This badge is worn as reproduced, on the Blue Ensign. The motto reads *Pax et Justitia*, which is "Peace and justice."

362. TRINIDAD AND TOBAGO BADGE.—This badge shows two ships at anchor, a wharf with a Blue Ensign on it, a boat in the foreground, and a high mountain in the distance. The badge is used on the Blue Ensign as shown, and on the Union Flag surrounded by the emblematic laurel wreath. "She is satisfied to unite nations and to make treaties" is the translation of the Latin inscription *Miscerique Probat Populos et Fœdera Jungi*.

363. TURKS AND CAICOS ISLANDS BADGE.—With its three-masted ship under full sail, two salt piles, three baskets, and a native in a red jacket, the badge of these islands forms an interesting conception. It is used on the Blue Ensign.

364. WINDWARD ISLANDS BADGE.—This badge is used as reproduced, with the addition of the laurel wreath, on the Union Flag. "Go on a lucky foot" is the literal translation of the inscription *I Pede Fausto* on the scroll.

365. NEW SOUTH WALES BADGE.—The cross on the badge of New South Wales is taken

from the first quarter of the arms of Australia. It is worn on the Blue Ensign as illustrated.

366. QUEENSLAND BADGE.—This badge, with its blue Maltese Cross charged in the center with an Imperial Crown in full color, is taken from the third quarter of the arms of Australia.

367. SOUTH AUSTRALIA BADGE.—The bird on the badge of South Australia shows a representation in black and white of the Australian piping shrike standing on a perch of red and green.

368. VICTORIA BADGE.—The five white stars on this badge represent the constellation of the Southern Cross. The Imperial Crown above them typifies royal authority.

369. WESTERN AUSTRALIA BADGE.—The black swan, first discovered on Western Australia's principal river, mounted on a yellow circle, constitutes the badge of Western Australia.

370. TERRITORY OF PAPUA BADGE.—The only note of color in this badge is the Imperial Crown in the upper section of the white disk.

371. TASMANIA BADGE.—This badge is taken from the sixth quarter of the arms of Australia. Its passant red lion with protruding tongue and letter "S" tail represents an interesting heraldic device.

372. FIJI ISLANDS BADGE.—The badge of the Fiji Islands is used as shown on the Blue Ensign. On the Union Flag it is superimposed upon the usual white disk and surrounded by the regulation laurel garland. The badge represents the full coat of arms which was granted in 1908. A free translation of the Fijian motto, *Rere Vaka na Kalou ka doka na Tui*, on the scroll is, "Fear God and Honor the King."

373. NEW HEBRIDES BADGE.—The badge of the New Hebrides is worn on the Union Flag as illustrated. On the Blue Ensign a simple black line takes the place of the laurel wreath.

374. WESTERN PACIFIC HIGH COMMISSIONER'S BADGE.—This badge is worn on the Union Flag with the usual laurel wreath.

375. WESTERN SAMOA BADGE.—This badge is used on both the Blue and the Red Ensigns as shown, and on the Union Flag with the laurel wreath.

376. STRAITS SETTLEMENTS BADGE.—The badge of the Straits Settlements consists of a red lozenge with a three-armed field of white upon which rest three Imperial Crowns in full color. On the Blue Ensign this device appears without a background, but on the Union Flag it is superimposed on the regulation white disk and is bordered by the official laurel wreath of the Empire.

377. CEYLON BADGE.—On the Union Flag the badge of Ceylon shows up strikingly, where it is used as shown, with the official laurel garland. On the Blue Ensign it is not so conspicuous but is used as shown.

378. HONG KONG BADGE.—The Chinese



434 AFGHANISTAN



435 ALBANIA - MERCHANT



436 ALBANIA - NATIONAL



437 ANDORRA



438 ARGENTINA - ENSIGN



439 AUSTRIA



440 BELGIUM



441 CONGO FREE STATE



442 BOLIVIA - ENSIGN



443 BRAZIL



444 BULGARIA - ENSIGN



445 CHILE



446 CHINA - ENSIGN & NATIONAL



447 CHINA - MERCHANT



448 COLOMBIA - MERCHANT



449 COSTA RICA - ENSIGN



450 CURA



451 CZECHOSLOVAKIA



452 DANZIG - MERCHANT



453 DENMARK - ENSIGN



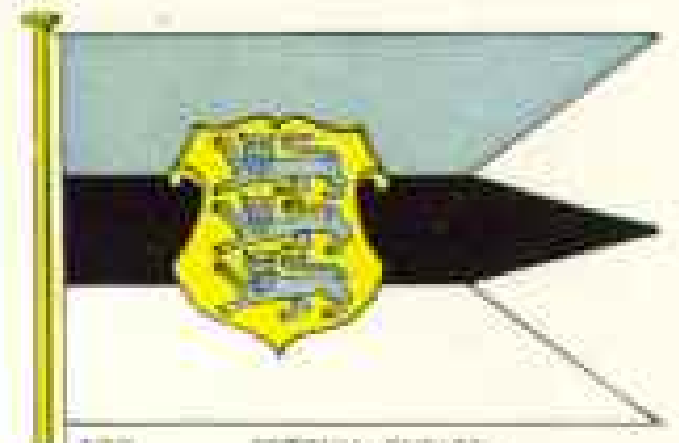
454 ICELAND



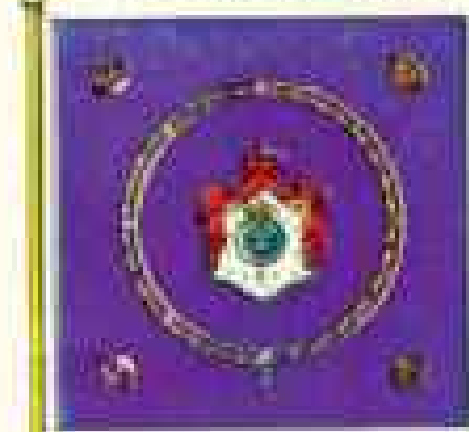
455 DOMINICAN REPUBLIC- ENSIGN



456 ECUADOR- ENSIGN & NATIONAL



457 ESTONIA- ENSIGN



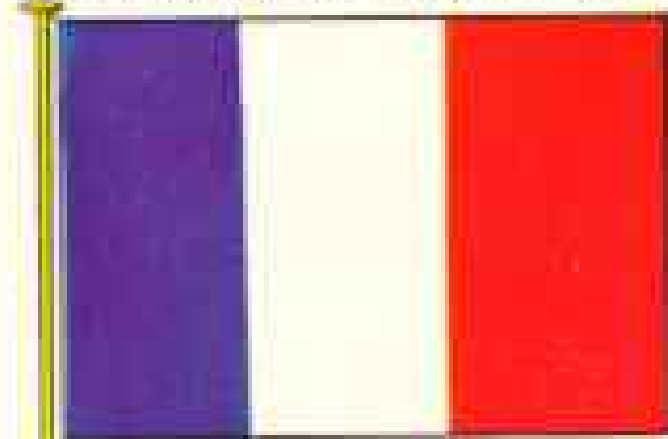
458 EGYPT-ROYAL STANDARD AFLOAT



459 EGYPT- MERCHANT



460 ETHIOPIA



461 FRANCE



462 SYRIA (FRENCH MANDATE)



463 TUNISIA (FRENCH PROTECTORATE)



464 MOROCCO- MERCHANT (FRENCH)



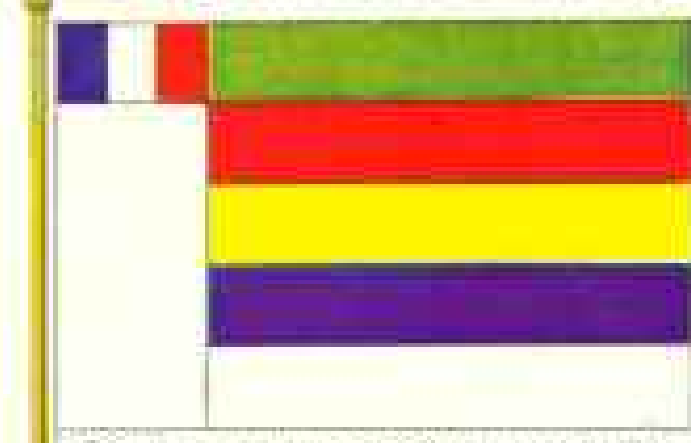
465 ANNAM (FRENCH PROTECTORATE)



466 CAMBODIA (FRENCH PROTECTORATE)



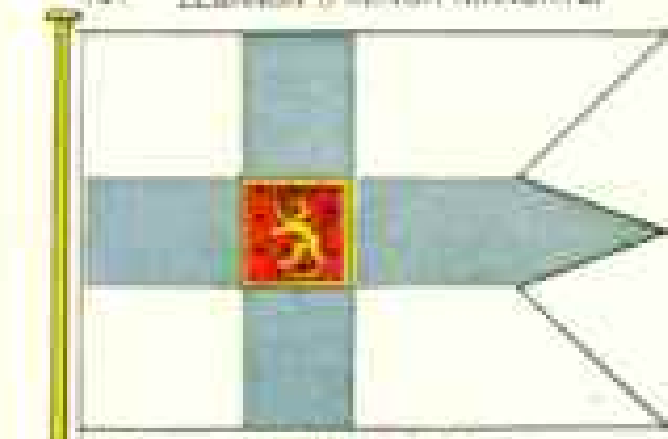
467 LEBANON (FRENCH MANDATE)



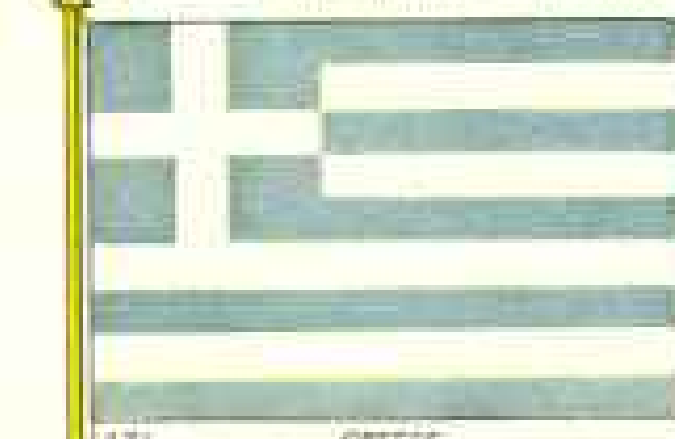
468 JEBEL ED DRUZ (FRENCH MANDATE)



469 LATAKIA (FRENCH MANDATE)



470 FINLAND- ENSIGN



471 GREECE



472 GUATEMALA- ENSIGN & NATIONAL



473 GERMANY- MERCHANT



474 GERMANY- SWASTIKA



475 GERMANY- NAVAL: ENSIGN & JACK

greeting the European in the foreground is said to be Tai Lo, the famous guide in the early days of the British occupation. The name Hong Kong means "Fragrant Waters." The badge of Hong Kong is worn on the Blue Ensign as pictured and on the Union Flag with the surrounding laurel wreath.

379. LABUAN BADGE.—The badge of Labuan has become more historic than current since the incorporation of that colony in the Straits Settlements.

380. MAURITIUS BADGE.—The badge of Mauritius represents the full arms granted in 1906. The supports are a dodo and a sambar deer. On the Blue Ensign the badge appears as illustrated, but on the Union Flag it is imposed upon a white background encircled by the laurel wreath of the Empire. The inscription on the scroll of the badge is *Stella Clavisque Maris Indici*, which has been translated "A star and a key of the sea for a sign."

381. SEYCHELLES BADGE.—The badge of Seychelles, with its contrasting colors and its tortoise, appears on the Blue Ensign as illustrated, and on the Union Flag with the addition of the official laurel wreath. *Finis Coronat Opus* is the motto on the badge, which tells us that "The end crowns the work."

382. WEIHAIWEI BADGE.—Weihaiwei is no longer a British possession, having been receded to China in 1930, but the badge is shown here for its historic significance as representing Great Britain's fine gesture in the direction of reconciliation in the Far East.

383, 384, 385, 386, 387, 388, 389, 391, 392, 393, 394, 396. BADGES OF NATIVE INDIAN STATES.—These badges represent native States of India and are used on the Red Ensign as shown.

390. MALACCA BADGE.—Malacca is one of the oldest European settlements in the East. Along with Singapore (395) and Wellesley (397) it constitutes a part of the Crown Colony known as the Straits Settlements.

398. GAMBIA BADGE.—The badge of Gambia is used on the Blue Ensign as shown, and on the Union Flag with the laurel wreath surrounding it.

399. GOLD COAST BADGE.—The only difference between the badge of Gambia and that of the Gold Coast is that the one shows the letter G. beneath the elephant and the other the letters G. C. The affixture of the two badges on the Union Flag and Blue Ensign follows identical practice.

400. KENYA BADGE.—Kenya displays a red lion rampant guardant on its badge. It is used as illustrated on the Blue Ensign, and on the Union Flag it is displayed on a circular white disk and surrounded with the regulation laurel wreath.

401. NIGERIA BADGE.—Nigeria uses as its badge a red disk upon which are interlaced

triangles in the form of a 6-pointed Solomon's seal. In the center of the seal is a laurel crown. The badge is used on the Union Flag enclosed in the regulation laurel wreath, and on the Blue Ensign as shown.

402. NORTHERN RHODESIA BADGE.—This badge was created after the British South African Company ceased to administer Northern Rhodesia in March, 1932. The yellow eagle holding a white fish is symbolical of the fauna of the country, and the white wavy pallets or lines constitute a conventional heraldic representation of white foaming water flowing over black rocks, symbolizing the Victoria Falls on the Zambezi River. This badge is worn on the Union Flag with the white circular disk and laurel wreath, and on the Blue Ensign as illustrated.

403. NYASALAND BADGE.—Nyasaland uses the arms assigned to her in 1924 for her badge. On the Union Flag this badge surmounts the regulation white circular disk and is surrounded by the imperial laurel garland. On the Blue Ensign it is used as illustrated.

404. ST. HELENA BADGE.—The ship on the St. Helena badge is supposed to be sailing between two cliffs. The badge is worn as illustrated on the Blue Ensign, and on the Union Flag with the white background and garland.

405. SIERRA LEONE BADGE.—The badge of Sierra Leone, with its combined crosses of St. George and St. Andrew, its liberated slave, and its palm tree, is used as illustrated on the Blue Ensign, and with a surrounding laurel wreath on the Union Flag. The inscription under the shield reads *Auspice Britannia Liber*, which may be translated as "Free under the protection of Britain."

406. SOMALILAND BADGE.—The Somaliland badge shows the head and shoulders of a koodoo, a member of the antelope family. It is used as shown on the Blue and Red Ensigns, and with a surrounding garland on the Union Flag.

407. SOUTHERN RHODESIA BADGE.—This badge, with its golden pick symbolizing the mining industry, and its passant red lion between two thistles taken from the arms of the Rhodes family, was granted by Royal Warrant in 1924. It is used as illustrated on the Blue Ensign and with the white disk and laurel wreath on the Union Flag.

408. TANGANYIKA BADGE.—The giraffe's head which constitutes the badge of Tanganyika Territory is used as shown on the Red Ensign, with the surrounding garland on the Union Flag, and without the white disk on the Blue Ensign.

409. UGANDA BADGE.—The bird on the Uganda badge is the African Balearic crane. It is used as shown on the Blue Ensign, and with the laurel wreath on the Union Flag.

410. ZANZIBAR BADGE.—The badge of Zanzibar has a dhow or Arab ship at sea, flying a red flag at the stern. It is used by the British Resident on the Union Flag, as shown, with a garland surrounding it.

411. ALDERNEY BADGE.—The badge of Alderney is used on the Union Flag with surrounding garland.

412. CYPRUS BADGE.—Two red lions constitute the badge of Cyprus. This badge is used on the Red Ensign as illustrated, on the Union Flag with the laurel wreath added, and on the Blue Ensign without the white background.

413. GIBRALTAR BADGE.—The badge of Gibraltar is used as illustrated on the Blue Ensign, and on the Union Flag it is placed upon the white circular disk surrounded with the laurel wreath. The inscription on the badge of Gibraltar carries us back to the time when that great rock was known as *Mons Calpe*. It reads *Montis Insignia Calpe*, or "The badge of Mount Calpe."

414. GUERNSEY BADGE.—The Guernsey badge is used as illustrated, in an enclosed laurel wreath, on the Union Flag.

415. ISLE OF MAN BADGE.—The three armored legs on the badge of the Isle of Man are supposed to have been introduced by King Alexander of Scotland in the 13th century. There is a theory that the legs are intended to represent the sun running his course through the heavens. The badge is worn on the Union Flag as shown, with an encircling garland.

416. JERSEY BADGE.—The badge of Jersey, in its design, follows that of Guernsey, except that the latter has a sprig of golden leaves. It is used on the Union Flag as shown, with the regulation laurel garland encircling it.

417. MALTA BADGE.—The badge of Malta is a simple shield used as illustrated on the Blue Ensign. On the Union Flag it is imposed upon a white circular disk and surrounded with the laurel wreath of the Empire.

418. BADGE OF THE GOVERNOR OF NORTHERN IRELAND.—The Governor of Northern Ireland flies the Union Flag, at the intersection of whose crosses is placed his badge as shown. The Blue Ensign of Northern Ireland bears a white circle on the fly, upon which is imposed the plain letters G. N. I.

419. PALESTINE BADGE.—The badge of Palestine heretofore consisted of a plain white circle upon which occurred the word "Palestine." Since the plate went to press, a new badge has been adopted which shows a castle set on a hill.

420. UNION FLAG WREATH.—This wreath made up of laurel leaves and berries is the device with which all badges are surrounded when placed upon the intersection of the crosses of the Union Flag of the British Empire to betoken the presence of the appropriate representatives of the Empire when this flag is dis-

played. There are only a few instances in which the wreath used departs from the regulation form. These exceptions include the Governor's Badge of Northern Ireland (418), the Governor's Badge of New Zealand (338), and the Governor's Badge of Australia (357).

421. TONGA—STATE FLAG.—The State Flag of Tonga, or the Friendly Islands, a British protectorate, is flown on March 13, the birthday of Queen Salote, who was born in 1900, and on October 11, the coronation day of the Queen, who was crowned in 1917.

422. SARAWAK—MERCHANT.—The merchant ships of Sarawak, whose present Rajah is Sir Charles Vyner Brooke, fly this striking combination of yellow, red, and black.

423. FEDERATED MALAY STATES—ENSIGN.—The Ensign of the Federated Malay States has bars of white, red, yellow, and black, representing the States of Perak, Selangor, Negri Sembilan, and Pahang, which compose the Federation. These States are in the Malay Peninsula and under British protection.

424. PAHANG—ENSIGN.—In this flag, adopted December 28, 1903, the white is supposed to represent the Sultan, the black the Dato Bendahara and the Raayats who are faithful to and dependent upon the Sultan.

425. NEGRI SEMBILAN—ENSIGN.—In the Negri Sembilan Ensign the red stands for the Government, yellow for the Rajah, and black for the Undang, who are important territorial chieftains in Negri Sembilan.

426. PERAK—ENSIGN.—In this Ensign, white stands for the Yang di-Pertuan, yellow for the Rajamuda, and black for the Bendahara, these being the three chief officers of the State.

427. SELANGOR—ENSIGN.—The four quarters of this flag indicate the union of four districts which were previously independent under one Sultan. The colors are said to represent the blood relationship which binds the people of the four districts together, and the yellow crescent and star symbolize the light which guides the destiny of the State.

428. KELANTAN—STATE FLAG.—The Malay States not included in the Federation are five in number—Johore, Kedah, Perlis, Kelantan, and Trengganu. The State Flag of Kelantan, with its white crescent moon, two lances, two krises, and a five-pointed star, is solid red, a color which symbolizes the people of the State, while the white in the device signifies the Sultan. The lances and krises are national weapons of the Malays.

429. PERLIS—STATE FLAG.—The yellow in the State Flag of Perlis is the Rajah's color. The date of the adoption of this flag is unknown, but is said to have been in the reign of Syed Safi, father of the present Rajah.

430. JOHORE—NATIONAL FLAG.—The Maharaja Abu-Bakar is supposed to have brought



476 HAITI-ENSIGN



477 HONDURAS-ENSIGN



478 HUNGARY-NATIONAL & MERCHANT



479 ITALY-ENSIGN



480 ITALY-MERCHANT



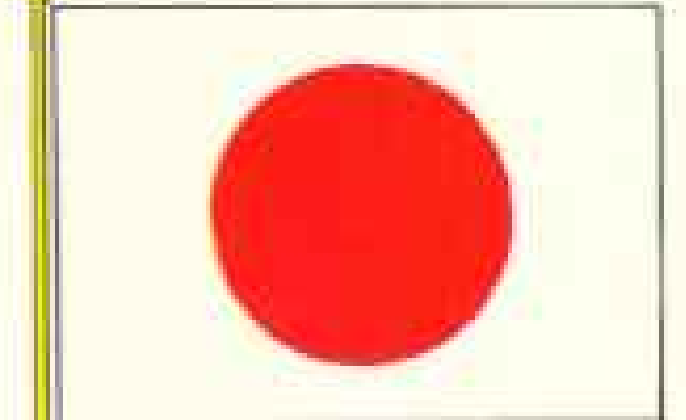
481 IRAQ



482 JAPAN-EMPEROR'S STANDARD



483 JAPAN-ENSIGN



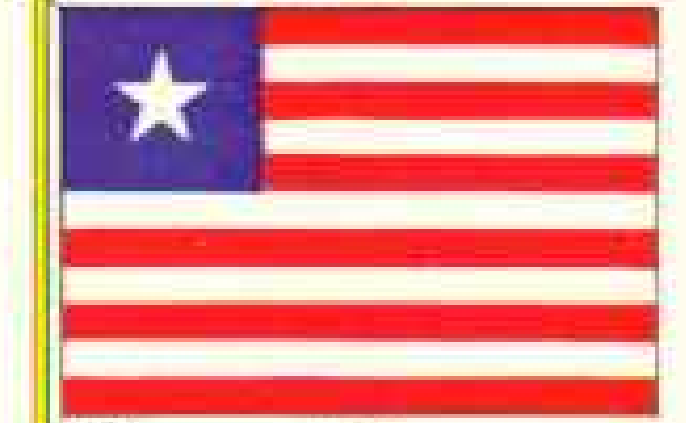
484 JAPAN-MERCHANT



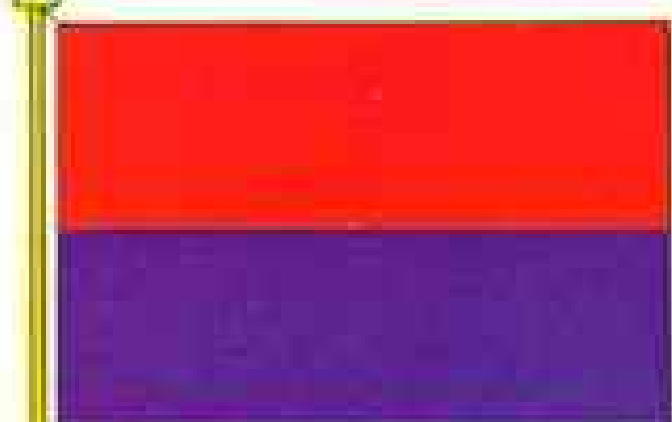
485 CHOSŬN (JAPAN)



485 LATVIA-NATIONAL & MERCHANT



487 LIBERIA



488 LICHTENSTEIN



489 LITHUANIA-ENSIGN



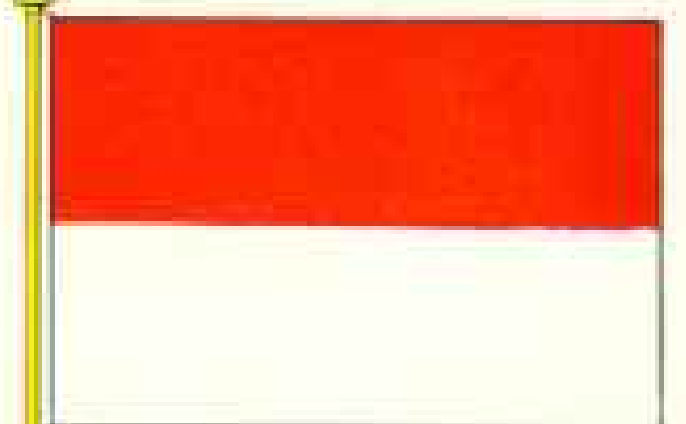
490 LUXEMBOURG



491 MANCHUKUO (MANCHUKUO)



492 MEXICO-ENSIGN



493 MONACO-NATIONAL



494 NETHERLANDS



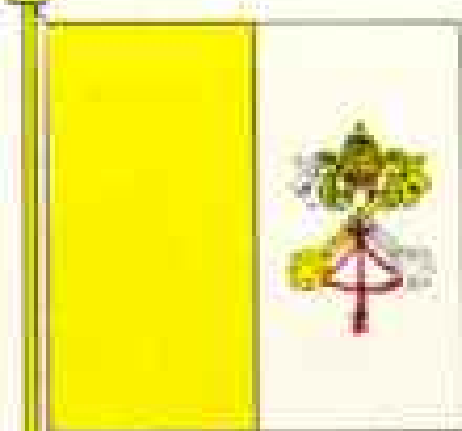
495 NICARAGUA



496 NORWAY-MERCHANT



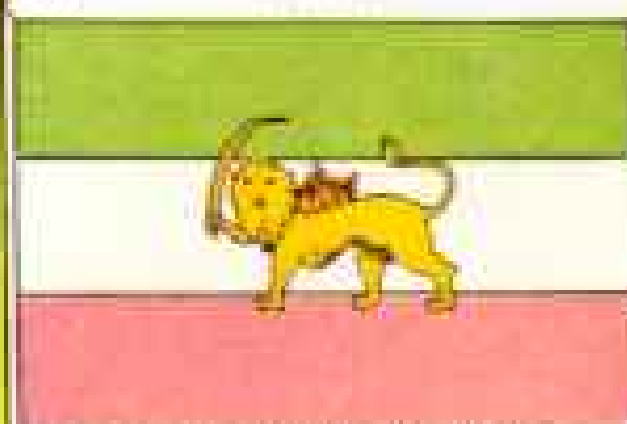
497 PANAMA



498 PAPAL STATE



499 PARAGUAY



500 PERSIA-ENSIGN & MERCHANT



501 PERU-ENSIGN & NATIONAL



502 POLAND-MERCHANT



503 PORTUGAL



504 ROMANIA-DESIGN & NATIONAL



505 SALVADOR-ENSIGN & NATIONAL



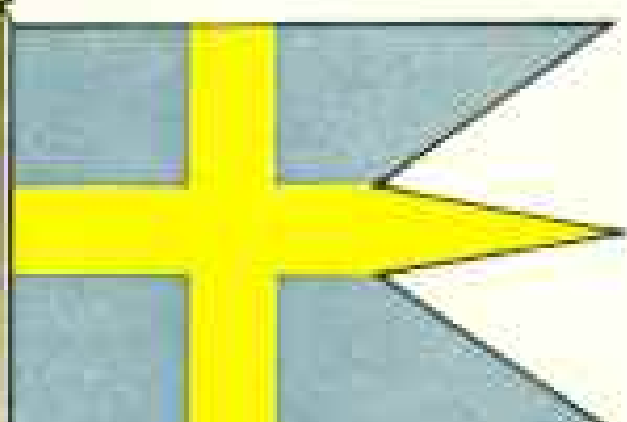
506 SAN MARINO



507 SIAM-ENSIGN



508 SPAIN-ENSIGN & NATIONAL



509 SWEDEN-ENSIGN



510 SWITZERLAND



511 TIBET



512 TURKEY



513 U.S.S.R.-ENSIGN



514 U.S.S.R.-NATIONAL & MERCHANT



515 URUGUAY



516 VENEZUELA-ENSIGN



517 YUGOSLAVIA

this flag into use in 1871. White is the Sovereign's color, red the color of the Heir Apparent, and blue symbolizes the Universe.

431. **KEDAH—NATIONAL FLAG.**—The present flag of Kedah was adopted in 1912. Red is the color of the State, yellow the Sultan's color, and green the color of the President of the State Council. The crescent moon denotes Islam.

432. **TRENGGANU—NATIONAL FLAG.**—The National Flag of Trengganu, with its white and black, was adopted in 1925. It is said that white is the Sultan's color and black the color of the people.

433. **BRUNEI—NATIONAL FLAG.**—The Sultan of Brunei, who occupies the northwest coast of Borneo, flies this striking flag. Yellow is the color of the Sultan, white that of the Chief Minister of State, the Duli Pengiran Bendahara, and the black represents the Second Minister, the Duli Pengiran Pemancha.

FLAGS OF MANY NATIONS

434. **AFGHANISTAN.**—The device on the National Flag of Afghanistan is an oriental open mosque showing a pulpit and mihrab (prayer niche) and a flag on its staff attached to each side of the plinth of the mosque. This flag has only recently superseded a solid black one with a device in white. The colors are said to signify progress, sacrifice, and prosperity.

435. **ALBANIA—MERCHANT.**—The Merchant Flag of Albania is formed of three equal horizontal bars, upper and lower deep red, and the other black.

436. **ALBANIA—NATIONAL.**—The National Flag of Albania carries the black double-headed eagle of Skanderbeg, the great 15th-century patriot of the country. The old Albanian tradition is that the Albanians are descendants of an eagle.

437. **ANDORRA.**—The flag of the vest-pocket Republic of Andorra carries a conventionalized crown on its yellow stripe.

438. **ARGENTINA—ENSIGN.**—The National Ensign and National Flag of Argentina carries a golden sun in its central stripe. The Merchant Flag lacks the golden sun.

439. **AUSTRIA.**—The Austrian flag is made up of three bars, two red and one white. These colors are supposed to have originated with the Babenberg dynasty. It is related that Leopold of Babenberg, a famous Crusader of the 12th century, found when returning from a battle that his white cloak was red with blood except for the part protected by his belt, and thereupon decided to adopt its colors for his own.

440. **BELGIUM.**—The colors of the Belgian flag are taken from the arms of Brabant, the yellow from the lion, the red from his tongue, and the black from the shield.

441. **CONGO FREE STATE (BELGIAN CONGO).**—Although the Congo Free State has long since

become part and parcel of the Belgian Congo, the Belgian Government still permits it to fly its flag except on official occasions.

442. **BOLIVIA—ENSIGN.**—The Ensign of Bolivia carries the arms of the country. The first Bolivian flag was adopted at Sucre in 1825.

443. **BRAZIL.**—The flag of Brazil covers all purposes, whether National, Ensign, or Merchant. The letters on the device are *Ordem E Progresso*. Translated, this means "Order and Progress." The 21 white stars on the blue sphere represent the States of Brazil, the largest one representing the Federal District of Rio de Janeiro. The green symbolizes the fields and forests of Brazil; the yellow its wealth in precious minerals; and the blue the azure of the country's sky.

444. **BULGARIA—ENSIGN.**—The Ensign of Bulgaria shows a yellow crowned lion rampant on a square red canton. The colors of the flag are white, green, and red.

445. **CHILE.**—Chile has but one flag. It serves as National, Military, and Merchant Flag. It was designed by Don José Ignacio Zenteno and adopted in 1817. The white is said to symbolize the snow of the Andes, the blue the color of the sky, and the red the blood shed by Chilean patriots in their War of Independence.

446. **CHINA—ENSIGN AND NATIONAL.**—The flag has a red field, blue canton, and a white sun. It was officially adopted in December, 1928.

447. **CHINA—MERCHANT.**—The Merchant Flag of China is the same as the Ensign and National Flag with the addition of four wavy yellow stripes vandyked across the field of the flag.

448. **COLOMBIA—MERCHANT.**—The National Flag of Colombia is unadorned with any device. The Merchant Flag carries in its center an oval enclosed in red upon which is imposed a white star. The Ensign of Colombia carries the coat of arms of the country.

449. **COSTA RICA—ENSIGN.**—The three volcanoes on the coat of arms are Turrialba, Irazú, and Poas. It is supposed to show two oceans, the Atlantic and the Pacific; the stars represent the five original provinces; the two ships indicate the mercantile interest of the State. The Merchant and National Flags are the same as the Ensign without the imposition of the coat of arms.

450. **CUBA.**—Cuba's lone star flag serves alike as Ensign, National, and Merchant. It is reputed to have been created by the Cuban patriots, Narciso López and his comrade, Miguel Tuerbe Tolón.

451. **CZECHOSLOVAKIA.**—The Czechoslovakian flag was established by law March 30, 1920. The red and white colors are those of the Kingdom of Bohemia and the blue that of Moravia.

452. DANZIG—MERCHANT.—The device on the flag of Danzig is supposed to have been taken from two sources. The crosses trace back to the Teutonic Knights and the golden crown to the one granted to Danzig by Casimir the Jagiellonian, King of Poland.

453. DENMARK — ENSIGN. — The "Dannebrog," the flag of Denmark, is reputed to be the oldest in use in the world. According to tradition, it fell from heaven during the Battle of Lindanissa (now Tallinn) on June 15, 1219, when Valdemar II of Denmark defeated the Estonians.

454. ICELAND.—Iceland secured the right to have a distinctive flag of her own by a Danish Royal Decree of November 22, 1913. The design recommended was approved June 19, 1915. When Iceland became an independent State in 1918, she continued to use that flag.

455. DOMINICAN REPUBLIC—ENSIGN.—The flag of the Dominican Republic was hoisted by the founders in 1844. The red cantons symbolize the blood and the fire through which they marched to liberty. The white cross is symbolic of the sacrifice which the population would make before losing its freedom.

456. ECUADOR—ENSIGN AND NATIONAL.—The plain tricolor of Ecuador is the Merchant Flag. The Ensign and National Flag carries the coat of arms. It was not until 1829 that Ecuador and Colombia separated; so their earlier flag history is the same.

457. ESTONIA—ENSIGN.—The colors of Estonia, blue, black, and white, were first adopted by Estonian students on the foundation of the first Estonian Students' Association, September 17, 1881. The difference between the Ensign on the one hand and the National and Merchant Flags on the other lies in the fact that the Ensign is swallow-tailed with a tongue, whereas the National and Merchant Flags are rectangular; also the Ensign carries on a yellow shield three blue lions.

458. EGYPT—ROYAL STANDARD AFLOAT.—The Kingdom has two standards, one for sea, the other for land usage. In the center are the Royal Arms on a pavilion which is ensigned with the Royal Crown. There are also crowns in the several corners of the standard. The colors encircling the arms are those of the Order of Mohammed Ali.

459. EGYPT—MERCHANT.—When Egypt became free from Turkey, she abandoned the latter's flag and substituted one with a green field. The National Flag does not have the anchor, and the Ensign uses two crossed anchors.

460. ETHIOPIA.—The flag of Ethiopia, hitherto known as Abyssinia, has been used in its present form since about 1894, although Abyssinia is one of the oldest States in the world. The Ethiopians say that the green indicates the fertility of the land, the yellow their

zeal for their country, and the red the blood they would shed in its defense.

461. FRANCE.—The Tricolor of France traces its origin back to Clovis. After the Battle of Tolbiac (Zülpich), 496 A. D., Clovis adopted the blue cope of St. Martin as his banner. From about the 11th century until the Battle of Agincourt, 1415 A. D., the oriflamme or red flag of St. Denis became the banner of the French. The banner of the Bourbons was white. The Tricolor was first used in 1789 and reached its present form in 1830.

462. SYRIA (FRENCH MANDATE).—This flag was first officially hoisted in Damascus (Damas) on June 11, 1932, but it had previously been flown in Aleppo (Alep), January 1, 1932. The late King Feisal, when becoming King of Syria in 1920, unfurled a Hashimite banner of which the present flag is a modification. The green represents the Omayyad caliphates, the white stands for the Abbasside dynasty, and the black proclaims the early Islamic era. The three vilayets of Damascus, Aleppo, and Deir ez Zor are supposed to be represented by the three stars.

463. TUNISIA (FRENCH PROTECTORATE).—From the beginning of the fourth century before Christ, certain Tunisian ports used the globe within the arms of a crescent. A story goes that on the night Constantinople fell a star appeared in the crescent of the moon, and this became a sign of the conqueror.

464. MOROCCO—MERCHANT (FRENCH).—This red flag carries a green Solomon's seal. The Arabs gave the name of Solomon's seal to the starlike figure engraved on the bottom of their drinking cups. In another form it is the pentacle or Druid's foot which is supposed to possess the power of banishing demons.

465. ANNAM (FRENCH PROTECTORATE).—This orange flag carries the French Tricolor in its canton.

466. CAMBODIA (FRENCH PROTECTORATE).—The flag of Cambodia with its triple-towered oriental temple is one of the striking flags of the East.

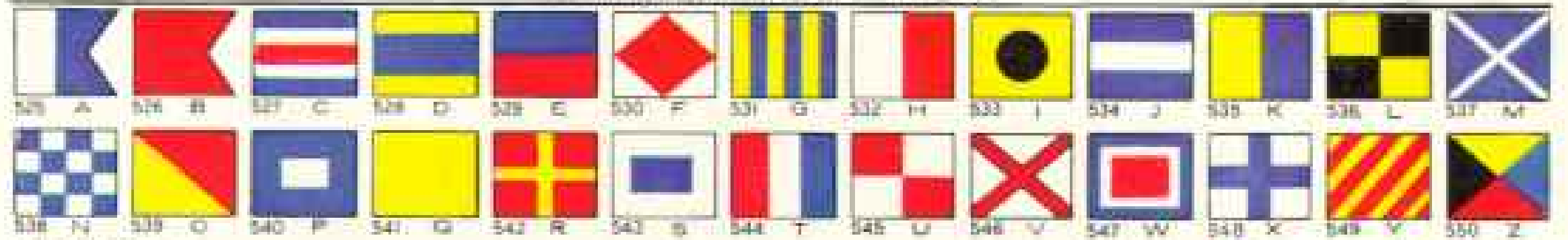
467. LEBANON (FRENCH MANDATE).—The flag of Lebanon is the French Tricolor with a conventionalized representation of a cedar of Lebanon on the white stripe. The Tricolor indicates the control of France, and the cedar speaks for Lebanon.

468. JEBEL ED DRUZ (FRENCH MANDATE).—With its five equal horizontal bars, its French Tricolor in the canton, and its white vertical bar next to the flagstaff, the flag of Jebel ed Druz is one of the most colorful banners of the East.

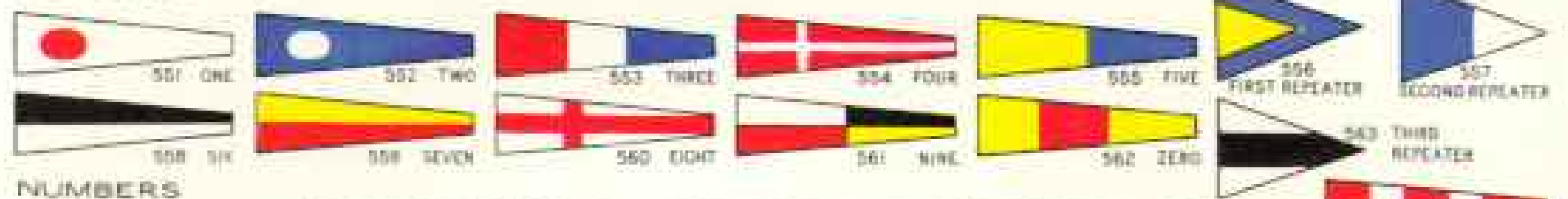
469. LATAKIA (FRENCH MANDATE).—The people of Latakia are divided into two main branches, the Shamsiyehs and the Amriyehs. The Shamsiyehs venerate the sun and the Amriyehs the moon. The former, being the more



AMERICAN YACHT FLAGS

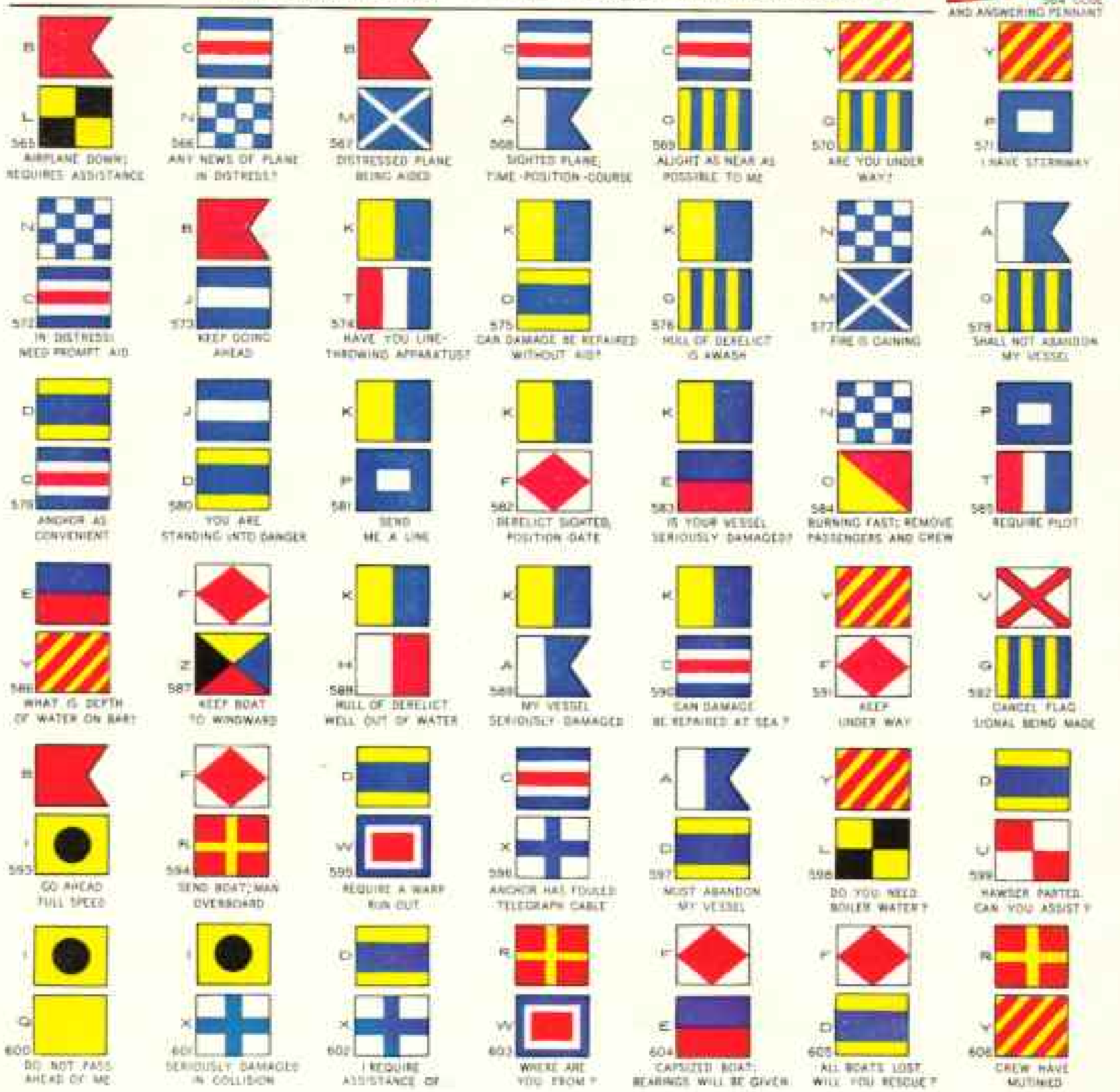


ALPHABET

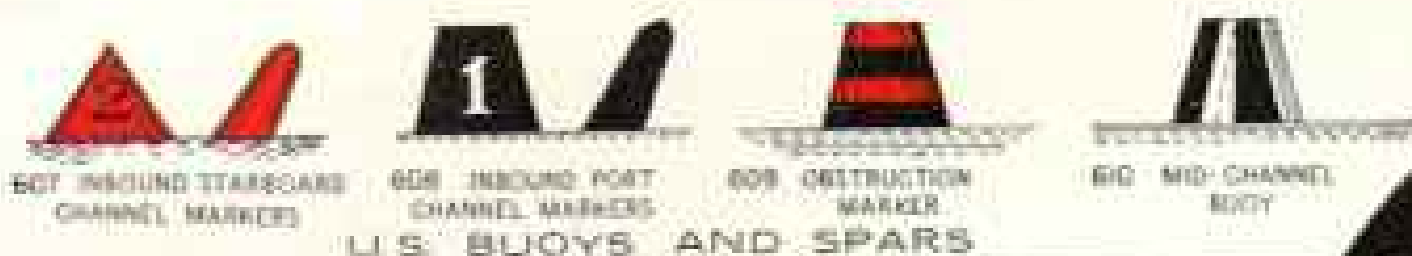


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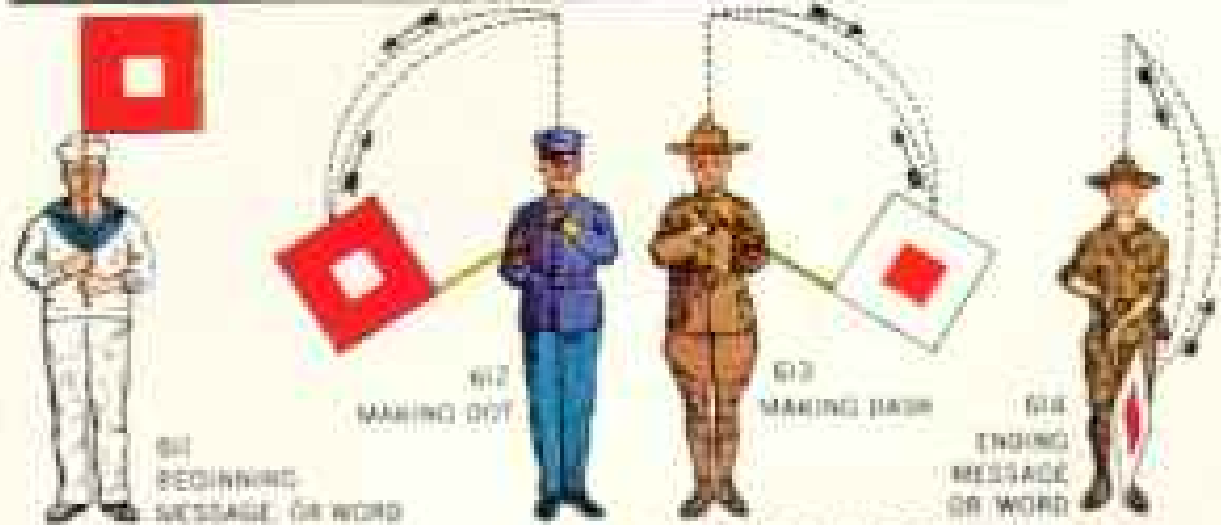
INTERNATIONAL CODE FLAGS AND PENNANTS



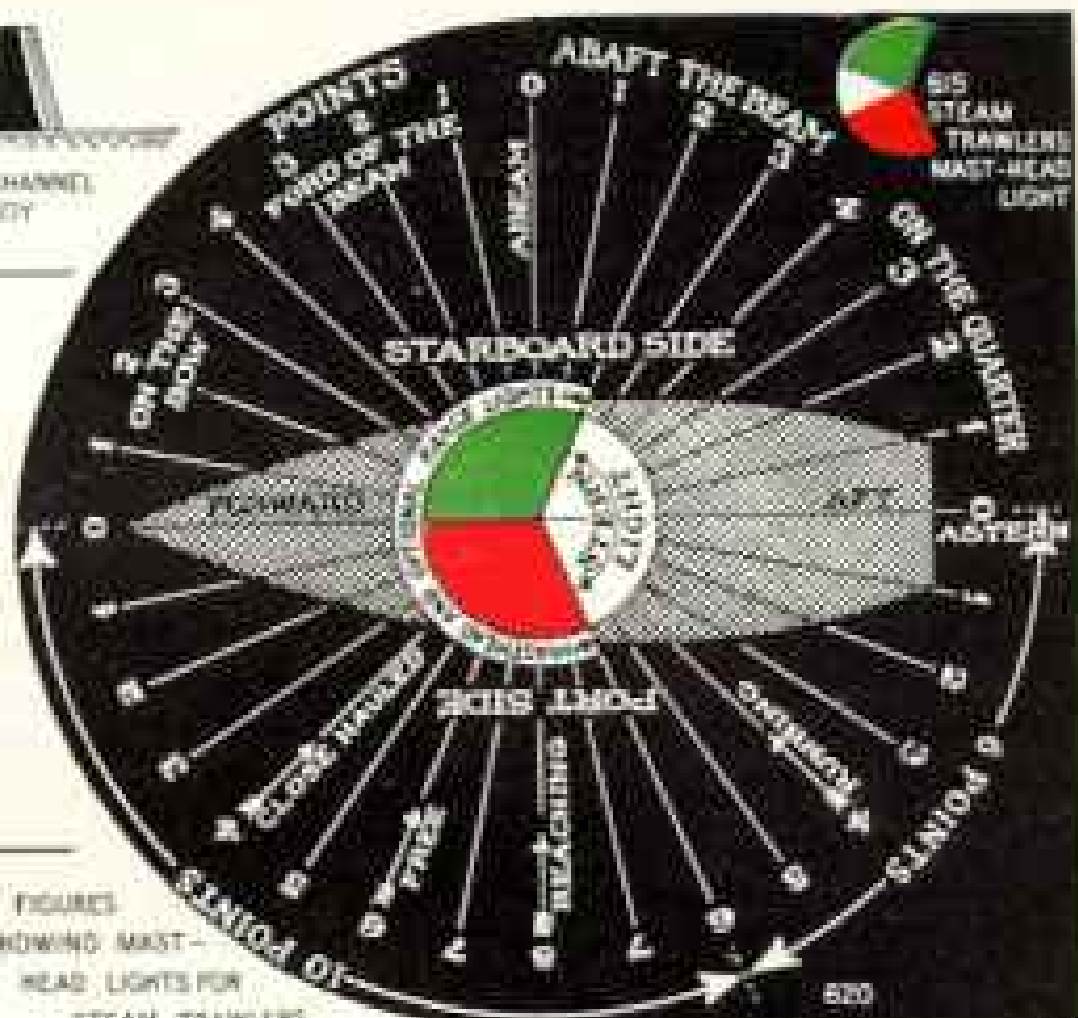
INTERNATIONAL FLAG SIGNALS



U.S. BUOYS AND SPARS



WIGWAG FLAGS IN USE



FIGURES SHOWING MAST-HEAD LIGHTS FOR STEAM TRAWLERS AND ANGLES COVERED BY RUNNING AND OTHER LIGHTS OF STEAM VESSELS



DAY AND NIGHT PILOT SIGNALS



DAY AND NIGHT DISTRESS SIGNALS



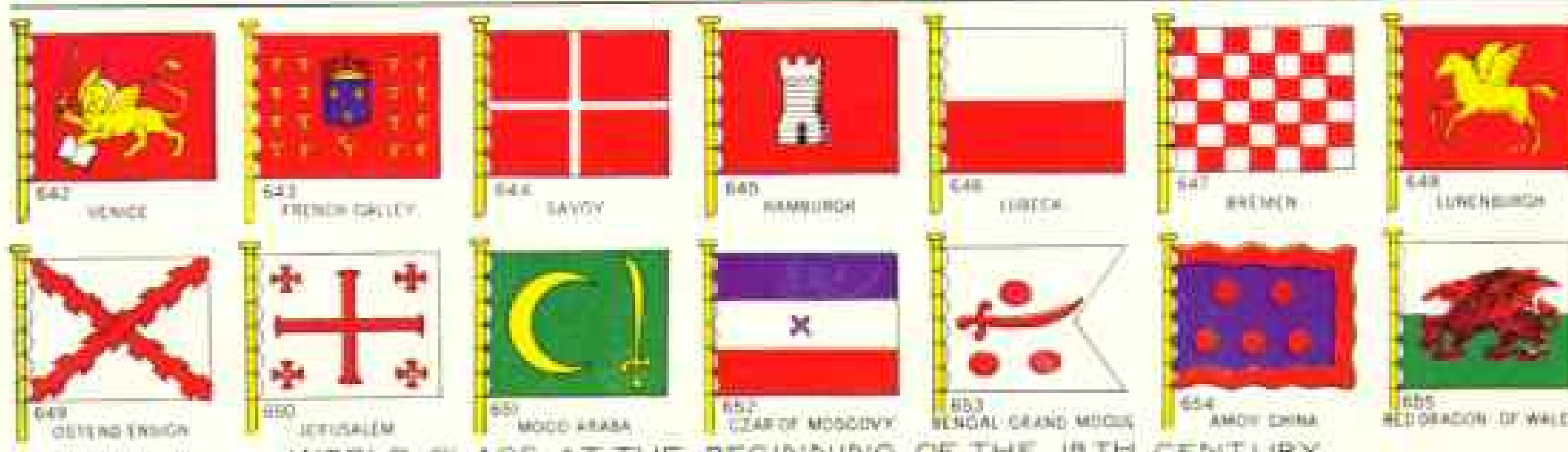
LIFE-SAVING SIGNALS



STORM WARNINGS



WEATHER FORECAST FLAGS



WORLD FLAGS AT THE BEGINNING OF THE 18TH CENTURY

important of the two, have their symbol in the center of the National Flag.

470. FINLAND—ENSIGN.—The Merchant Flag differs from the Ensign in being rectangular, without the shield. The National Flag is rectangular, with the shield upon the intersection of the cross. Finland became an independent nation in 1917 and runs her government somewhat similarly to that of the United States.

471. GREECE.—The first Greek flag put into use in 1822 consisted of a white cross on a red field. There have been many changes since then, but there has always been a cross on the flag.

472. GUATEMALA—ENSIGN AND NATIONAL.—The Merchant Flag differs from the Ensign and National Flag only in the omission of the coat of arms with its green quetzal, bayoneted rifles, and crossed swords surmounted by a scroll.

473. GERMANY—MERCHANT.—Under decree of December 20, 1933, the German Government ordered that what is known as the black-white-red flag shall be flown at the stern on the flagstaff. The Swastika (474) must also be flown simultaneously at the jack staff, or if this is impossible, it is to be displayed at another suitable place corresponding to its dignity as a symbol of sovereignty.

474. GERMANY—SWASTIKA.—On March 12, 1933, Chancellor Hitler ordered that the black-white-red colors were to be hoisted together with the Hooked Cross (Swastika) throughout Germany, saying that "these Flags unite the glorious past of the German Reich with the vigor and rebirth of the German race. Let them fly together as a symbol of the power of the State and the internal unity of all national sections of the German people!"

475. GERMANY—NAVAL ENSIGN AND JACK.—When Chancellor Hitler issued his famous decree requiring the Swastika to be flown along with the black-white-red colors, he specifically exempted military buildings from that requirement, stating that they should fly their Reich War Flag only.

476. HAITI—ENSIGN.—It is said that when Jean Jacques Dessalines was marching on Port-au-Prince in 1803 he saw a French Tricolor in the native ranks. In order further to inflame the ardor of his legions of devoted slaves and freedmen, he took the Tricolor and tore out the white, saying that henceforth the Haitian flag should be bicolored, signifying the union of the blacks and the mulattoes in the cause of Haitian liberty. The arms of the country carried on the Ensign were put there by President Alexandre Sabès Pétion, who served from 1807 to 1818.

477. HONDURAS—ENSIGN.—The Ensign of Honduras carries the coat of arms of the country. The National and Merchant Flags are alike, with the five 5-pointed stars taking the

place of the coat of arms of the Ensign. These five stars are placed on the flag of Honduras as a memorial to the ill-fated Central American Union from which Honduras seceded in 1839. The present flag was adopted in 1866.

478. HUNGARY—NATIONAL AND MERCHANT.—The flag of Hungary takes its colors from the Hungarian coat of arms. This coat of arms had its beginning in 1202. Its four white bands were supposed to symbolize the country's chief rivers, the Danube, the Theiss, the Drava, and the Sava.

479. ITALY—ENSIGN.—The arms on the Ensign and Merchant Flag of Italy are those of Savoy. The Ensign also carries a Royal Crown. The Italian flag first received recognition in 1796 when it was used by the Italian Legion under Napoleon. He adopted it as the National Flag when he made Italy a kingdom in 1805. After Napoleon's downfall in 1815, the flag was discontinued until 1848.

480. ITALY—MERCHANT.—This is the flag flown by the new greyhounds of the sea—including the *Rex*—of the Italian Line. It is said that green was the favorite color of Napoleon, who incorporated it in the flag that has since become Italian.

481. IRAQ.—The two stars of the Iraq flag signify the two races of Iraq—Arabian and Kurd. The red trapezium shows the heraldic color of the Hashimites, to which King Ghazi belongs.

482. JAPAN—EMPEROR'S STANDARD.—The device on the Emperor's Standard is a conventionalized golden chrysanthemum of 16 rays. During the Civil War of 1868 the Imperial Army fought under the chrysanthemum flag, and it is out of this flag that the Imperial Standard evolved.

483. JAPAN—ENSIGN.—The Ensign has a ball in the inner two thirds of the flag, putting the full 16 rays to the edges of the flag—five to the bottom, five to the top, and three to each of the two sides. The device of the sun is supposed to be the image of the Imperial Ancestor. For this reason, the National Flag is an object of reverence and worship.

484. JAPAN—MERCHANT.—As the Land of the Rising Sun, Japanese merchant ships carry a plain red ball on a white field.

485. CHOSŌN (JAPAN).—The circular device on the ChosŌn (Korean) flag is known as the *yo-kwa*. This symbol is supposed to represent any two complementary objects of Nature, such as male and female, or water and earth. The Japanese flag has latterly taken the place of the old flag of Korea in ChosŌn.

486. LATVIA.—In the 13th century an old German writer described the flag of the Letts who came to the aid of the Knights of the Castle of Cesis as being a red flag with a white stripe on it. Although for centuries under foreign rule, the Letts have at last come again under a flag of their own.

487. **LIBERIA**.—The Liberian flag was first hoisted August 24, 1847. The three colors signify the three divisions of the country when the flag was established. Its 11 stripes represent the 11 men who signed the Liberian Declaration of Independence. Its single star speaks of the unique character of the country.

488. **LIECHTENSTEIN**.—The flag of Liechtenstein is formed of two equal horizontal halves of royal red over blue. The country over which it flies is one of the smallest principalities in the world.

489. **LITHUANIA — ENSIGN**.—The double cross on the shield of the Lithuanian Ensign is said to be a symbol of endurance. It was first used in the 12th century.

490. **LUXEMBOURG**.—The colors of the flag of Luxembourg are taken from the coat of arms of the ancient Duchy of Luxembourg.

491. **MANCHUTIKUO**.—The flag of Manchutikuo (Manchukuo) is yellow, containing a canton with horizontal stripes of red, blue, white, and black. As the youngest in the galaxy of the world's banners, it has excited interest to the ends of the earth. Yellow is the color of the imperial house of the Emperor whose ancestors ruled all China. It is said that the yellow stands for Manchutikuo, the red for enthusiasm, the blue for youth, the white for impartiality, and the black for fortitude. Another interpretation of the flag of the new Empire says that the colors stand for the chief races in Manchutikuo—Manchu, Mongolian, Korean, Russian, and Chinese.

492. **MEXICO — ENSIGN**.—The Ensign of Mexico is a tricolor of green, white, and red, with the arms of the country imposed upon the white section. The arms originated with the legend that the Aztecs could not settle until they found an eagle with a green serpent in its beak, standing on a cactus plant situated on an island in a lake.

493. **MONACO — NATIONAL**.—Monaco gets the colors of its flag from those on the arms of the family of Grimaldi, Princes of Monaco. The shield of those arms is covered with red and white lozenges.

494. **NETHERLANDS**.—The first flag of the Netherlands bore the colors of William of Orange, orange, white, and blue. In 1599 they were ordered to be three equal horizontal stripes. About the middle of the 17th century the orange appears to have been superseded by red, though it still shows up in the old flag of the Orange Free State. The present flag was adopted by Royal Decree in 1807.

495. **NICARAGUA**.—The flag of Nicaragua is made up of three horizontal stripes, the middle one white and the others blue. The arms of the country, which bear five conical peaks surmounted by a liberty pole and cap, are imposed upon the white stripe.

496. **NORWAY — MERCHANT**.—With its blue,

white-bordered cross on a field of red, the Merchant Flag of Norway no longer bears the union mark that until 1898 signified Norway's union with Sweden.

497. **PANAMA**.—Panama became a separate republic in 1903. Its flag was designed by Señor Manuel Amador, Jr., and was made by his mother. The original was hoisted over the Revolutionary Junta's general headquarters at the Central Hotel in Panamá, November 3, 1903, and a duplicate over the municipal palace by the Alcalde. The flag was formally adopted on December 20, 1903.

498. **PAPAL STATE (VATICAN CITY)**.—Two equal vertical stripes of yellow and white, charged with the insignia of the Papacy on the white stripe, a triple crown, or tiara, over two crossed keys, one of gold and one of silver, tied with a red cord and two tassels, constitute the flag of the Papal State.

499. **PARAGUAY**.—The flag of Paraguay shows a device on the obverse side consisting of a yellow 5-pointed star within two green branches, the left one bearing red berries. They are tied together with red, white, and blue ribbons. The device on the reverse side is a black-maned yellow lion in a sitting position, supporting a liberty pole and cap.

500. **PERSIA — ENSIGN AND MERCHANT**.—Persia's flag is a tricolor of apple green, white, and pink. The figure is a standing lion holding a sword in its right forepaw. Beyond the lion is the rising sun.

501. **PERU — ENSIGN AND NATIONAL**.—From the days of the Incas, Peru has had many flags. The one they hoist at present with the coat of arms of the country upon it was adopted by a special law in 1825, which was promulgated by Bolivar, sometimes referred to as "the George Washington of South America."

502. **POLAND — MERCHANT**.—The Merchant flag of Poland is the National Flag of white over red with a white eagle displayed on a red field. Although Poland is a republic, it is interesting to note that the eagle still remains crowned.

503. **PORTUGAL**.—Although Portugal is a republic, it still retains as the emblem of its flag the seven castles and five shields of the arms of the monarchy. The five blue shields commemorate the great victory of Alphonso I in 1139 over the five Moorish princes in the Battle of Ourique.

504. **ROMANIA — ENSIGN AND NATIONAL**.—The blue, yellow, and red tricolor of Romania, with the Royal Arms in the yellow section, is the National Flag and Ensign. The Merchant Flag is merely the tricolor without any device imposed upon it. The Royal Arms include a blue shield bearing a yellow crowned eagle displayed grasping a scepter and sword with its talons. The new spelling of Romania is a tribute to the Roman ancestry of the Vlachs.

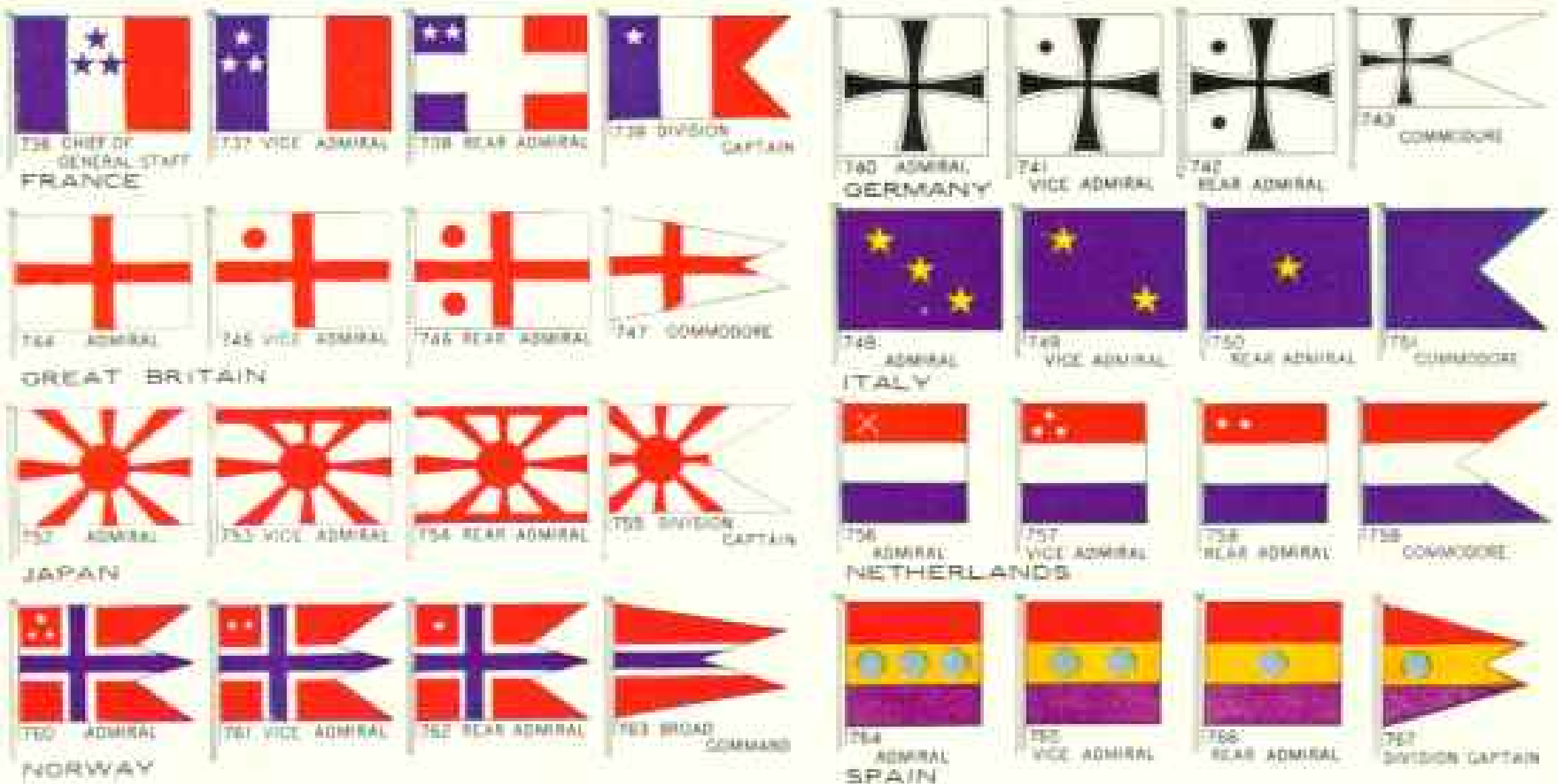
505. **SALVADOR — ENSIGN AND NATIONAL**.—



FUNNELS AND FLAGS OF UNITED STATES AND WORLD STEAMSHIP COMPANIES



FUNNELS AND FLAGS OF UNITED STATES AND WORLD STEAMSHIP COMPANIES



FLAGS OF RANK IN WORLD'S MAJOR NAVIES

This flag is reputed to have been the flag of the old Central American Union, which broke up in 1839. The five mountains on the coat of arms of Salvador are retained in remembrance of the old Union with its five States.

506. **SAN MARINO.**—The colors on the flag of this small Republic on the Adriatic are white and blue. The arms consist of a blue shield upon which stand three green hills, each surmounted by a white tower with an ostrich feather floating from its battlements. This shield is supported by a wreath of oak and laurel and bears a crown.

507. **SIAM.**—**ENSIGN.**—Siam gets the white elephant which figures on so many of its flags from the legend that before *Zacca*, the founder of the Nation, was born, his mother dreamed that she had brought forth a white elephant. Siamese wise men declare that after 80,000 changes, *Zacca* finally ended his experience as a white elephant, and thence was received into the company of the gods.

508. **SPAIN** — **ENSIGN AND NATIONAL.** — When the monarchy was overthrown in 1931, the new Republic retained the old red and yellow, but added purple. The arms of the Republic, which are reproduced on the Ensign and National Flag, but are omitted from the Merchant Flag, contain a yellow triple-towered castle on a red field for Castile; a red lion rampant on a white field for León; four vertical red stripes on a yellow ground for Aragón; yellow chains on a red ground for Navarre; and a pomegranate on a white ground for Granada.

509. **SWEDEN.**—**ENSIGN.**—The Swedish flag, a yellow cross on a pale-blue field, has been flown since Gustavus Vasa became the King of Sweden in 1523. The National Flag is rectangular, as is also the Merchant Flag, while the Ensign has swallow tails and a tongue.

510. **SWITZERLAND.**—The white cross on a red field, which constitutes the National Flag of Switzerland, dates from the Crusades. After an enumeration of the Swiss forces leaving Bern to march against the coalition of nobles in 1339, they were said to have been "distinguished by the sign of the Holy Cross, a white cross on a red shield, for the reason that the freeing of the Nation was for them a cause as sacred as the deliverance of the Holy Places!"

511. **TIBET.**—With its towering mountain of snow, before which stand two lions fighting for a flaming gem, the flag of Tibet is one of the most distinctive of the East.

512. **TURKEY.**—A legend states that when Philip of Macedon besieged Byzantium in 339 B. C. and endeavored to undermine the walls after all other forms of attack had failed, the light of a crescent moon revealed the presence of his warriors to the Byzantines. The crescent on the Turkish flag is a memorial to that revelation.

513. **U. S. S. R.**—**ENSIGN.**—The Ensign of the Soviet Union is red, with the white sun having eight narrow rays. Upon the sun is imposed a red star having in its center the crossed sickle and hammer which are the emblem of the working man's Republic.

514. **U. S. S. R.**—**NATIONAL AND MERCHANT.** The National and Merchant Flag of the Soviet Union has the crossed sickle and hammer emblem of the State in the canton, with a 5-pointed yellow-outlined star above them.

515. **URUGUAY.**—One flag serves Uruguay alike for its Merchant Marine, its Navy, and as its National Emblem. Where ours has 13 stripes of red and white, Uruguay's flag has nine of white and azure. Where our flag has a canton of blue, Uruguay's possesses one of white. The stars of ours become a sun in the Uruguayan banner.

516. **VENEZUELA.**—**ENSIGN.**—The Venezuela flag is a tricolor of yellow, blue, and red, with the arms of the country in the corner next to the top of the staff. Many arrangements have been developed for the seven stars on the middle section. The latest one is a half-moon effect. The seven white stars denote the seven provinces of Caracas, Cumaná, Barinas, Margarita, Barcelona, Mérida, and Trujillo, which formed the Venezuelan Confederation of 1811.

517. **YUGOSLAVIA.**—The Ensign of Yugoslavia, with its double-headed eagle, dates from 1918. On the breast of the eagle are the arms of Serbia, Croatia, and Slavonia. The National and Merchant Flags are the same as the Ensign, except that the arms are omitted.

YACHT AND INTERNATIONAL CODE FLAGS, MARINE SIGNALS, ETC.

518. **YACHT ENSIGN.**—In 1848, Congress, enacting a law governing the licensing of yachts, provided that all those so licensed should wear a flag of the form, size, and colors prescribed by the Secretary of the Navy. The Government reserved the right of its architects to copy such yachts.

519-524. **YACHT FLAGS.**—These flags when flown on a yacht proclaim that the owner is at dinner, that he has guests on board, that the crew is eating, that an ambulance is needed, etc.

525-550. **INTERNATIONAL ALPHABET FLAGS.**—These are the flags used to spell out messages.

551-564. **CODE PENNANTS FOR NUMBERS, ETC.**—These pennants are used in making numbers and repetitions of numbers, and in denoting that code is to be used or answered.

565-606.—In these combinations of code letters, each tells its own story. When R and Y are shown together, they proclaim that the crew have mutinied; I X advises of serious damage sustained in a collision, etc. Ships using the International Code carry code books which tell at a glance the meaning of each combination of letters.



Official Photograph, U. S. Army Air Corps

WING TO WING, THE 17TH PURSUIT SQUADRON ROARS ACROSS THE SKY

Those gallant knights who man our Army and Navy air fleets pick appropriate and sometimes humorous mottoes and designs for their unofficial squadron insignia. Arctic snow owls diving for prey grace the fuselages of these Army Air Corps ships. Other squadrons sport such emblems as "high hats," Crazy Cats, and bombs-riding torpedoes.

607-610. U. S. BUOYS AND SPARS.—These buoys and spars indicate the boundaries of channels and obstructions in them. The red buoys and spars always define the channel on the starboard side of a ship headed into a port. They wear the even numbers, and the black ones, marking the opposite side of the channel, wear the odd numbers. "Red right, returning," is an alliteration which helps the new sailor avoid confusion in these matters.

611-614. USING WIGWAG FLAGS.—Here we have a sailor, a marine, a soldier, and a Boy Scout demonstrating how wigwag messages are sent. The sailor (611) has his flag ready to begin a message or a word. The marine (612) is showing how dots are made. The soldier (613) is in the act of making a dash, and the Boy Scout (614) is saying that he has finished a word or ended a message.

615. MASTHEAD LIGHT REQUIRED ON STEAM TRAWLERS.—The international rules of the road require that the lights shown here shall be carried at the masthead of every steam trawler and that they shall cover the range indicated.

616-619. DAY AND NIGHT PILOT SIGNALS.—The Jack at the fore, the International Code letters P T, or the code letter G are day signals, while minute flashes or a blue light showing every 15 minutes call a pilot at night.

620. This chart shows the areas covered by running and other lights on shipboard at night.

621-623. DISTRESS SIGNALS.—An inverted ensign or the letters N C tell of a ship's distress by day, while gunfire at intervals of one minute, flames, rockets, or bombs proclaim distress by night.

624. LIFE-SAVING BOAT.—Full many a tragedy on rock-bound coasts and sand-barred shores has been averted by the timely launching of the surfboats of sturdy and heroic life savers.

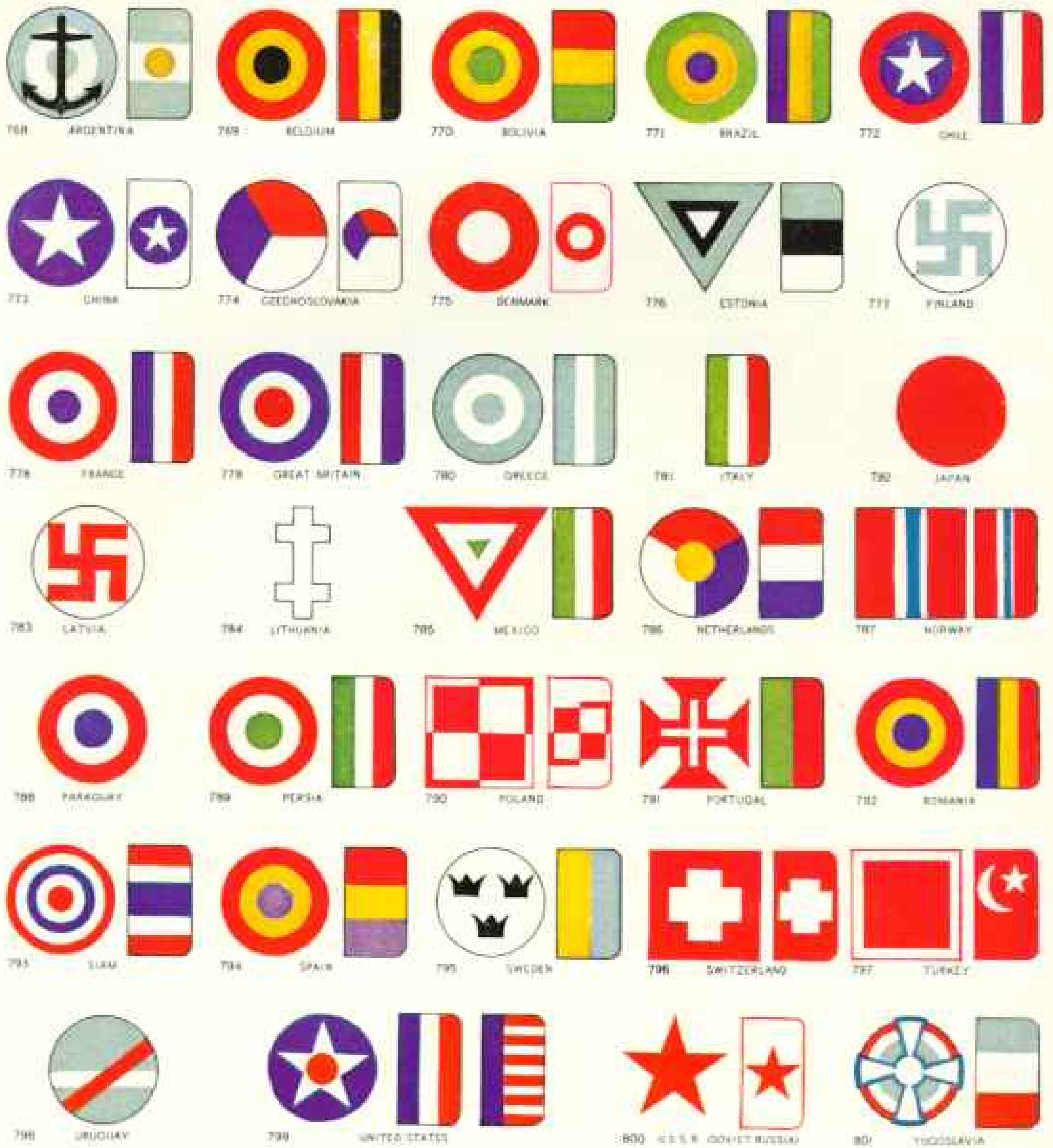
625-629. LIFE-SAVING SIGNALS.—This group of signals is used by our Coast Guard in directing rescues by day and night.

630-636. STORM WARNINGS.—These flags and combinations are used to advise the mariner what the weather may have in store for him.

637-641.—These are the old weather-forecast flags, now practically out of use because of the rise of radio, though once they were familiar to everybody.

WORLD FLAGS AT THE BEGINNING OF THE 18TH CENTURY

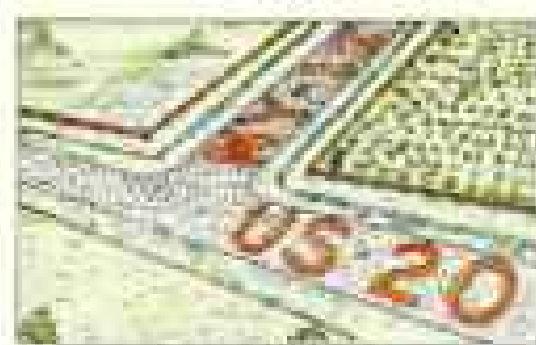
642. VENICE.—The winged lion of St. Mark was placed on this flag in honor of the patron saint of Venice. It was St. Mark who, while



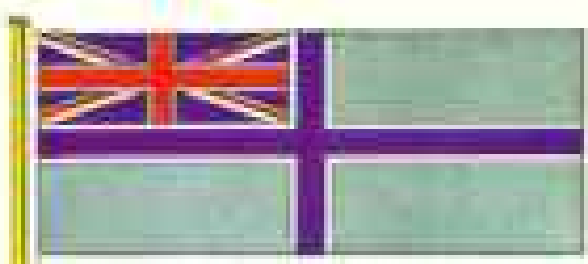
802 BRITISH AIR FORCE FLAG



803 U.S.S.R. AIR FORCE FLAG



804 HIGHWAY AIR MARKINGS



805 BRITISH CIVIL AIR ENSIGN



806 GERMAN CIVILIAN PLANE MARKINGS



807 U.S. INTERMEDIATE LANDING FIELD



808 TYPICAL AIRWAY BEACON

stranded on the then uninhabited Rialto, saw in a vision the future greatness of Venice.

643. FRENCH GALLEY.—The fleur-de-lis always has been a favorite device with the French. Early flags show a varied number of them, but flags designed after the accession of Charles VI in 1380 usually contain just three.

644. SAVOY.—The flag of the House of Savoy has played an important rôle in European history. In 1315 it was presented by the Knights of Rhodes to Amadeus the Great when he forced Mohammed II, Emperor of the Turks, to raise his siege before the city of Rhodes.

645. HAMBURG. 646. LÜBECK. 647. BREMEN. 648. LUNENBURGH.—These four flags belonged to cities which took an active part in the Hanseatic League, the famous federation of North German towns which controlled the commerce of northern Europe during the Middle Ages. Lübeck was the chief city of the League. The colors of these flags, red and white, still survive in the modern flag of Germany.

649. OSTEND ENSIGN.—Ostend was the last stronghold of the Dutch in the South Netherlands against the Spaniards.

650. JERUSALEM.—At the beginning of the 18th century, the flag of Jerusalem showed very little change from the picture of it given by a Franciscan monk in 1350.

651. MOCO, ARABA.—The flag of Moco, Araba (Mocha, Arabia) was of great importance two centuries ago, for at that time Mocha was one of the greatest coffee ports in the world.

652. CZAR OF MOSCOVY.—Tradition says that the Czar of Moscovy (or Muscovy), Peter the Great, adopted the design of the Netherlands Flag, merely reversing the colors. The Russians were not flattered by this, for it made them appear "Dutchmen in distress" (the sign of distress being an inverted flag). Peter added the blue cross to distinguish his flag from the Dutch distress signal.

653. BENGAL GRAND MOGUL.—The group of Bengal villages which grew into the city of Calcutta was under this flag at the time that the East India Company purchased them from the great-grandson of Shah Jahan (builder of the Taj Mahal).

654. AMOY, CHINA.—One of the peculiar characteristics of many Chinese banners is the broad, deeply notched border, differing in color from the field of the flag.

655. RED DRAGON OF WALES.—Uther Pendragon, father of King Arthur, had a vision of a dragon in the sky. When the prophecies of the seers, who interpreted this as meaning that he would ascend the throne, were borne out, Uther carried a gold dragon with him into battle. Under the reign of Edward VII it was incorporated into the armorial bearings of the Prince of Wales.

STEAMSHIP FUNNELS AND FLAGS

656-735.—From the early days of ocean-borne commerce, shipping lines have flown their own house flags as the readiest possible means of quick identification of their craft. With the advent of steam, the funnels offered a new means of identification, and in these 20th-century times have come to possess a romantic lore of their own.

Could some of these funnels and flags speak, what stories of adventure they could tell—of storms they have ridden out; of billowy seas they have braved; of lives they have rescued; of passengers they have carried; and cargo they have handled.

Western prince and Eastern potentate; financial wizard and industrial magnate; tourist seeking the relaxations of the sea and the pleasures beyond; immigrant fleeing the hard lines of an overcrowded homeland and bound for other shores where the star of hope leads him—yes, in the lives of those who go down to the sea in ships these flags and funnels epitomize the romance of the world.

FLAGS OF RANK IN MAJOR NAVIES

736-767.—Officers above the rank of Captain in all navies have their own flags of command. In the French, Japanese, Norwegian, and Spanish Navies, the grade of Commodore does not exist. Ranking Captains are given command of divisions of the fleet and in that command fly the flag that corresponds to those flown by Commodores in other navies. In our own Navy the rank of Commodore has been abolished, except for a few officers who have been retired. As soon as they pass, the Commodore's flag will cease to exist.

INTERNATIONAL AIRCRAFT MARKINGS

Many nations have adopted military and naval aircraft markings. In most cases these markings follow the colors of the flag of the country represented by the plane. In a few cases, as in Great Britain and Soviet Russia, special Air Force flags have also been designed. In some cases, such as Germany and Bulgaria, no military or naval planes may be owned or built; so their planes are limited to civilian markings.

768. Argentina uses an anchor on the Army circle to indicate that a plane is in the naval service. The military service omits the anchor.

769. Belgium is fast replacing its old and obsolescent planes with new British and American craft of latest design.

770. Bolivia has a fleet of American planes which it uses both for war and transportation.

771. Brazil is developing her ground facilities with funds raised through a special stamp required to be placed on all letters mailed through the Postal System.

772. Chile has 9 commercial and 7 military airports and 11 landing fields.

773. China's helplessness before the Japanese attack on Shanghai has made her people air-minded. Large orders have been filled, including one for 50 pursuit planes capable of 200 miles per hour.

774. Czechoslovakia has a membership of 70,000 in its aeronautical organizations, out of a total population of 15,000,000.

775. Denmark has about 90 military and naval airplanes. The rudder insignia varies between the planes of the two services.

776. The Estonian Air Service has a fleet of 30 British-built planes.

777. Finland's air fleet consists of about 100 land and sea planes.

778. France in 1933 had a total of 164 air squadrons, made up of 1,850 active planes. Air France, the consolidated commercial air interests, has schedules that call for 5,538,000 plane miles of flying annually.

779. Great Britain has more than 2,000 planes. Her aim is to develop a fighting plane with a speed of 300 miles an hour when loaded with full military equipment.

780. Greece distinguishes between her military and naval planes by the use of sky-blue markings for the former and dark-blue ones for the latter.

781. The Royal Italian Air Force has more than 2,000 combat planes. The new airport at Milan, 7,800 by 5,800 feet, will be the largest in Europe.

782. Japan is developing its own aircraft industry and plans to build all its own equipment. Individuals and organizations have presented the Government with more than 100 planes.

783. Latvia has a fleet of about 60 planes in its military forces.

784. Lithuania wears its white double cross on about 75 military planes.

785. Mexico has established its own military factory and in 1933 produced 31 planes powered with American engines.

786. In addition to having an excellent fleet of military planes, the Netherlands has the longest air route in the world, connecting the Netherlands with Netherland India—some 9,000 miles.

787. Norway's air defenses possess about 40 naval aircraft, 75 military planes, and 40 training and other planes.

788. Paraguay's war in the Gran Chaco has resulted in the development of a new military air service.

789. Persia in 1933 bought from British manufacturers 30 fighting planes and 10 training planes. She also bought 40 engines and metal propellers in the United States.

790. Poland has an air fleet of 1,000 modern planes and a military air force manned by 9,000 officers and men and 1,300 pilots.

791. Portugal's air force consists of 90 military and 24 naval planes.

792. Rumania has about 150 military planes in active service.

793. Siam has turned over to the Siamese Aerial Transport Service those activities developed by the military air force since 1922. The Government is developing its own factory for supplying its military needs.

794. Spain is planning the development of a Spanish air armada and has established a general aeronautical school.

795. The Royal Air Force of Sweden had 200 planes in 1933.

796. Switzerland's air strength lies in its commercial fleet. The Swissair Company operates what is admittedly the fastest commercial air service in Europe.

797. The Turkish Government has established a national airplane factory at Kayseri and has started the building of its own aircraft under the supervision of Curtiss-Wright personnel.

798. Uruguay found itself lacking in funds to carry forward the work on a naval and commercial airport at Montevideo in 1933.

799. Numerically, the United States ranks fourth in air strength. In its Army and Navy air services it had, in 1933, approximately 1,700 combat planes universally admitted to be second to none, ship for ship.

800. Soviet Russia has approximately 2,200 combat planes, but of these 1,200 are of such obsolescent types in construction and performance that most of them are disregarded in any estimate of the relative air strength of the leading nations.

801. Yugoslavia has about 700 military airplanes and a like number of pilots.

802 and 805. The British Royal Air Force flag and the British Civil Air Ensign tell how deep is the interest of the British Empire in aviation.

803. Soviet Russia's Air Force flag is a modification of the National Ensign, with the figure of an airship imposed thereon.

804. This drawing shows how National and State highways are marked in America.

806. Germany, not being allowed military planes, places the Swastika and red stripes on the two sides of the rudders of her planes.

807. This drawing illustrates the type of intermediate landing fields in use all over the United States.

808. This typical airway beacon, with its tower lights, route designations, and beacon numbers, shows how the pilot is guided along the air lanes as he flies.

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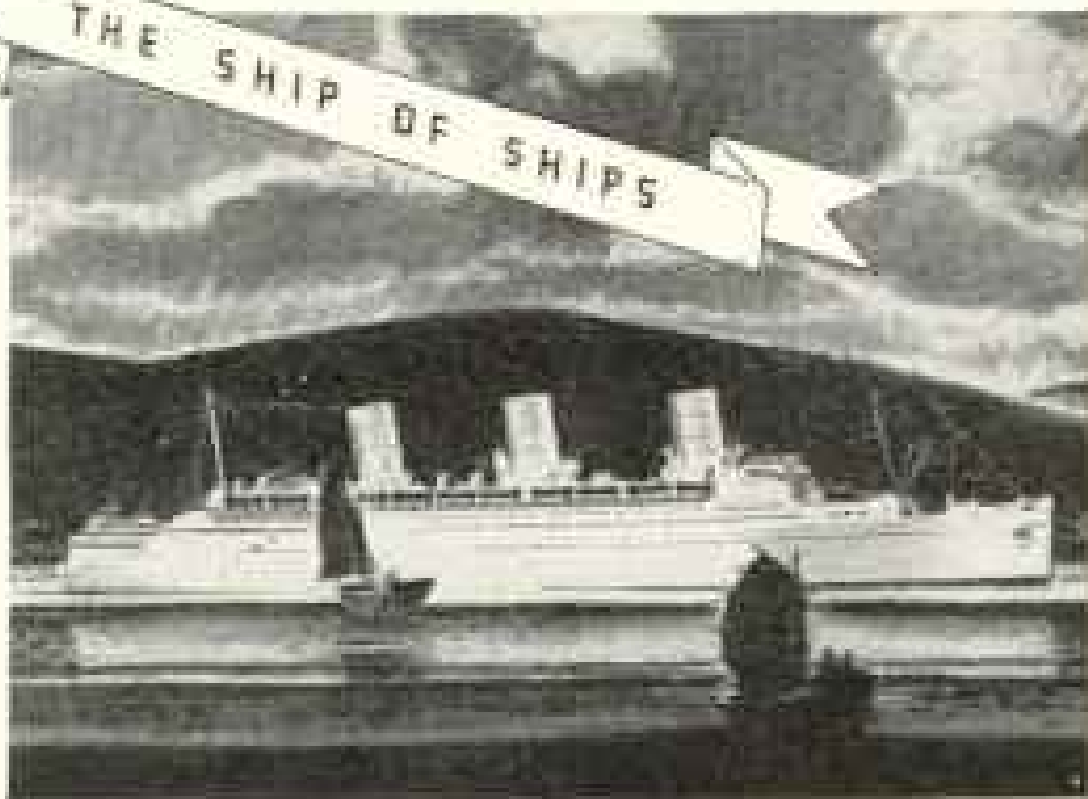
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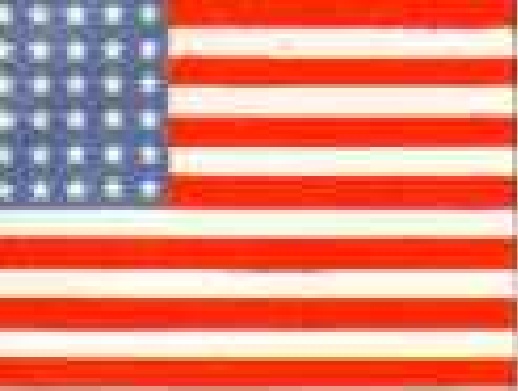
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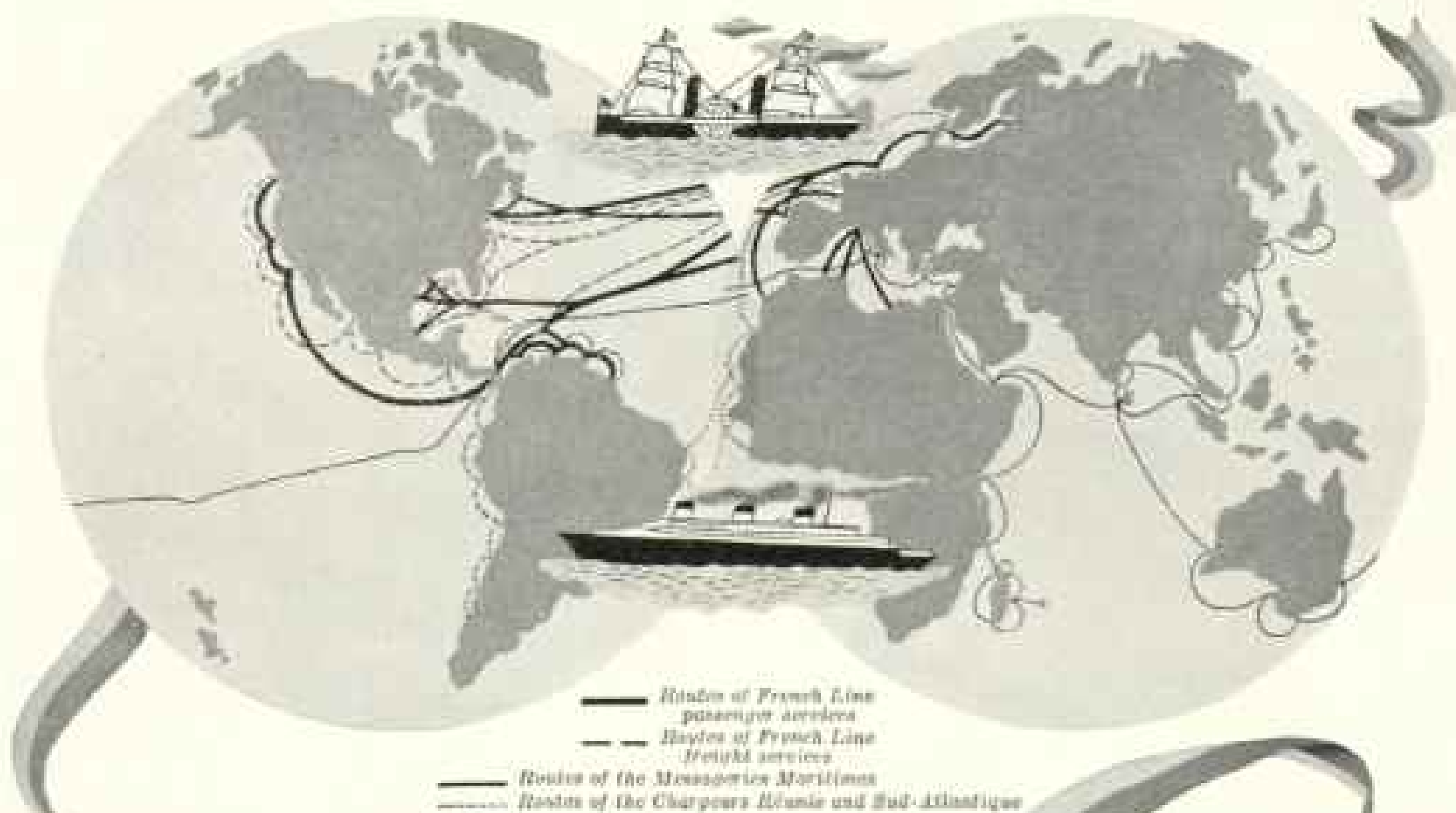
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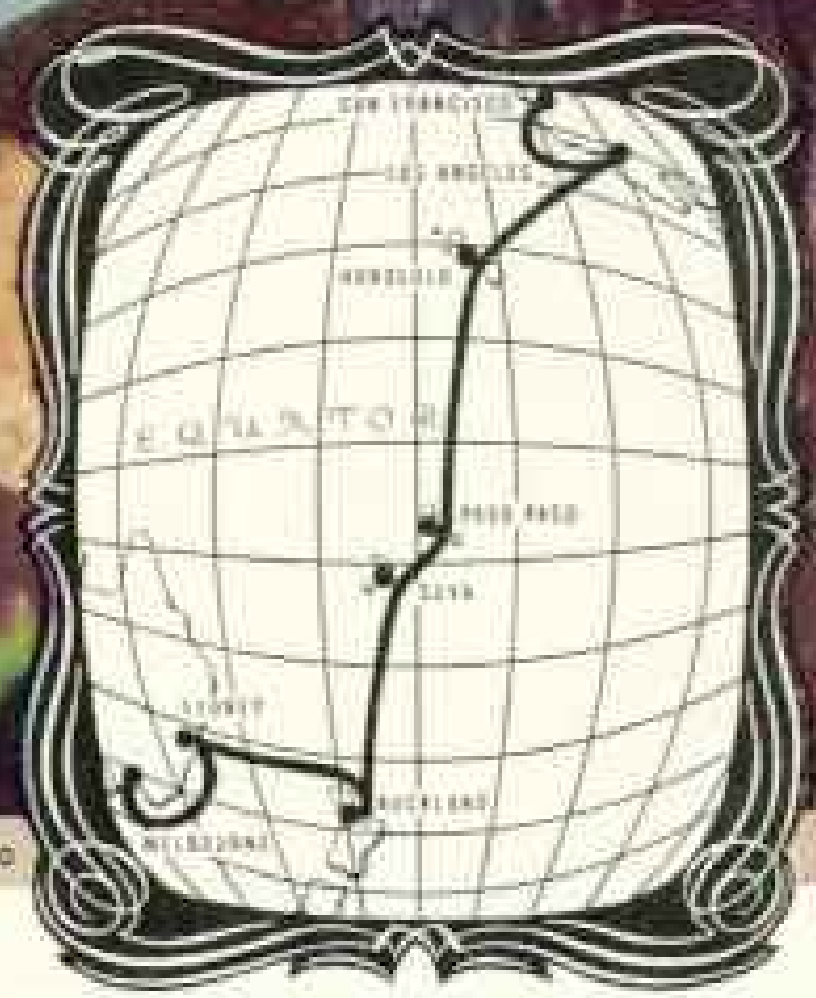
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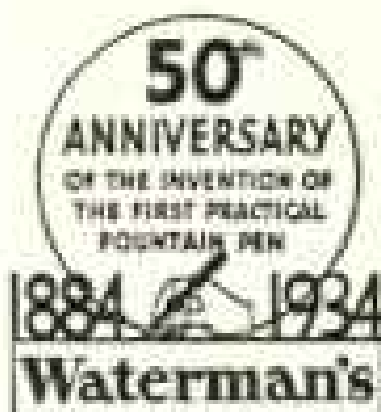


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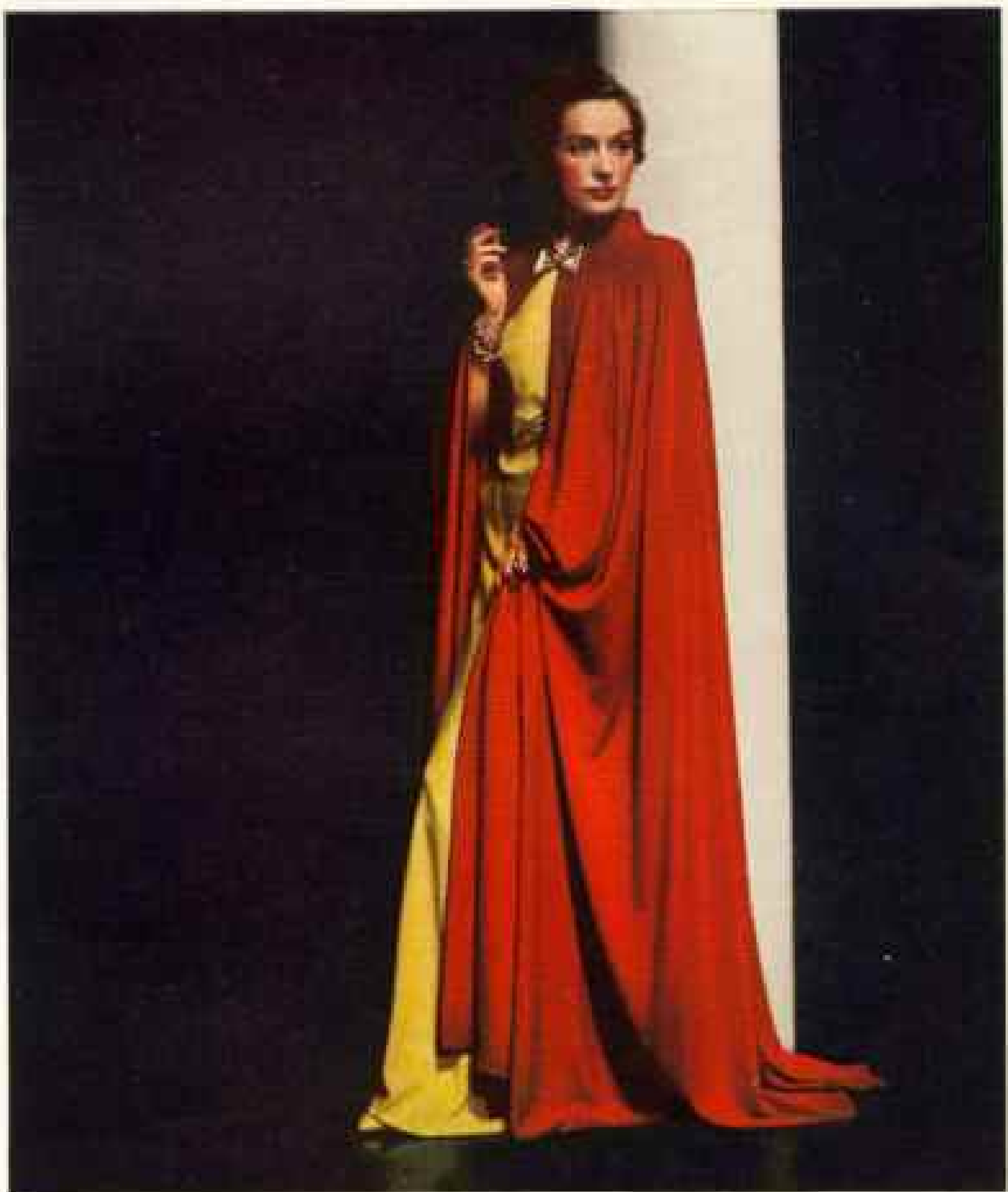
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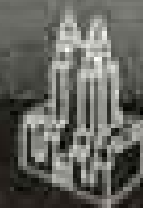
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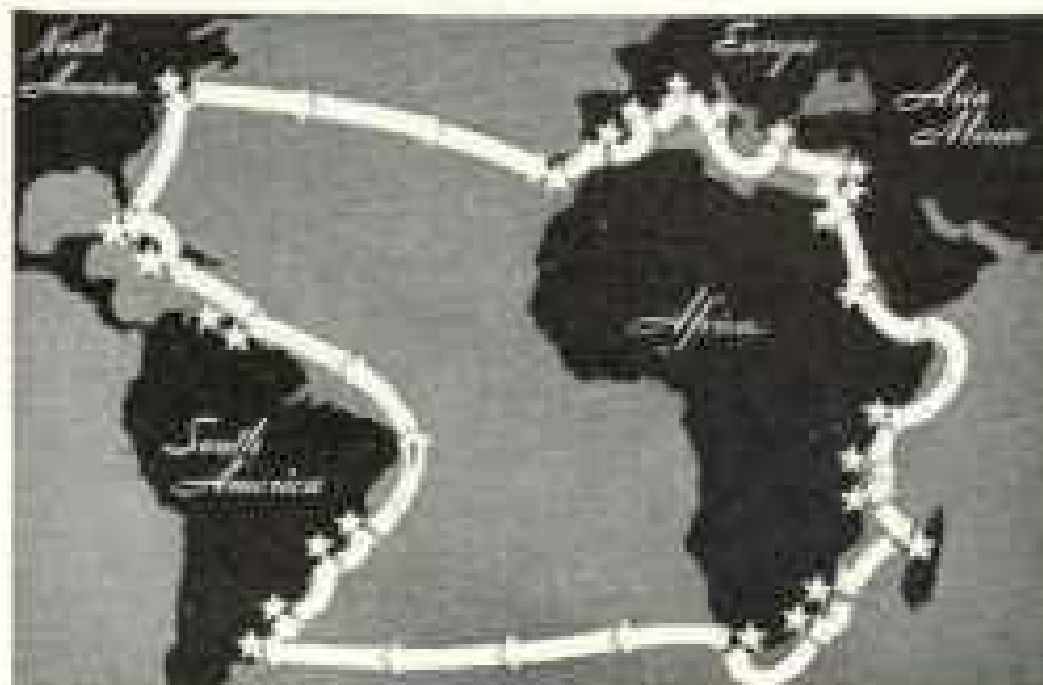
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DESPITE seeming contradiction, those are the facts. Better protection of children against diseases which are often followed by heart trouble means that fewer young hearts are being exposed to injury. Better treatment of hearts temporarily damaged by the "poisons" of acute infections often prevents such damage from becoming permanent. Better control of venereal and other diseases that damage hearts has been another important factor in reducing the deathrate from heart disease at all ages up to 45 years.

* * * * *

You can help to prevent heart disease in your home by having your children immunized against diphtheria, by protecting them, so far as possible, against other heart damaging diseases, such as sore throats, repeated colds, acute rheumatic fever, scarlet fever, measles and typhoid fever.

Should they have any of these diseases, see that your doctor's orders are strictly obeyed, so that injured hearts may not result. Especially follow his instructions as to how long the child is to be kept in bed. Rest is an important part of the treatment for "poisoned" hearts during and following any acute infection.

Annual health examinations offer a further opportunity to control heart disease. In

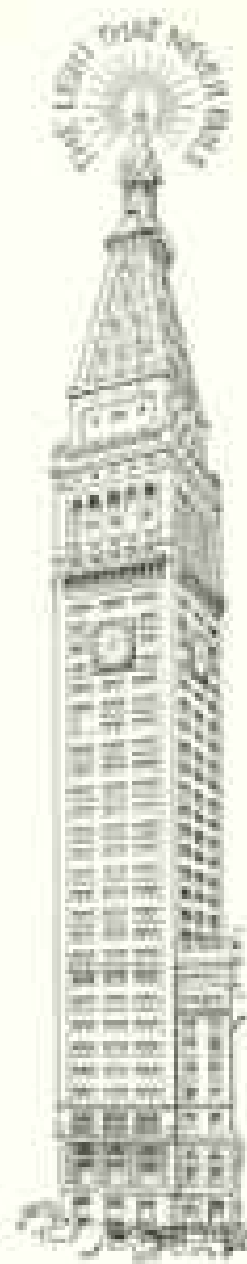
middle-aged people heart disease frequently results from chronic or focal infections in teeth, tonsils, sinuses or in other parts of the body.

When advisable, your doctor may employ the fluoroscope and electrocardiograph to determine the condition of your heart. He can see whether or not it is showing the effects of wear and tear long before it actually breaks down. If necessary, your doctor will advise changes in habits of work and rest, food and drink, or the correction of impairments.

Far from being cause for alarm, the mounting deathrate from heart disease at the older ages is encouraging evidence that needless deaths in childhood, youth and middle age are being prevented. Many of the deaths of older people ascribed to heart disease are really due to heart failure—just the natural, peaceful ending of a long life.

* * * * *

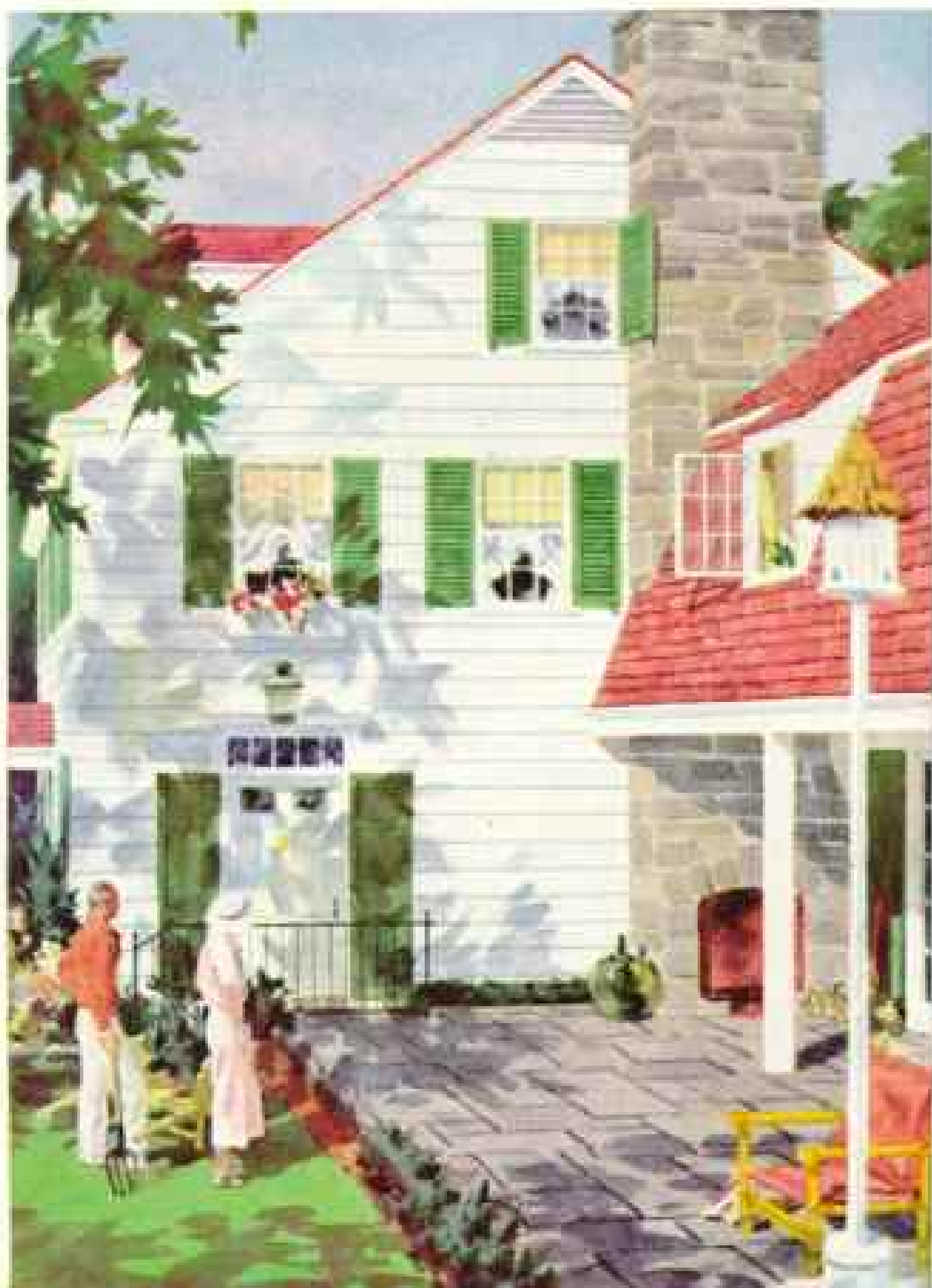
More than half the readers of this page, who are about 35 years old, will pass the age of 70; and one out of five will outlive fourscore years. Many a man is adding years to his life and is enjoying what is literally a new lease of life by taking care of his heart and by making intelligent changes in his living habits.



Send for Metropolitan's free booklet "Give Your Heart a Chance." Address Booklet Dept. 034-N.

METROPOLITAN LIFE INSURANCE COMPANY
FREDERICK H. ECKER, PRESIDENT ONE MADISON AVE., NEW YORK, N. Y.

© 1934 M. L. I. CO.



WHEN YOU LOOK
AT A HOUSE...

*What you
really see
is Paint*

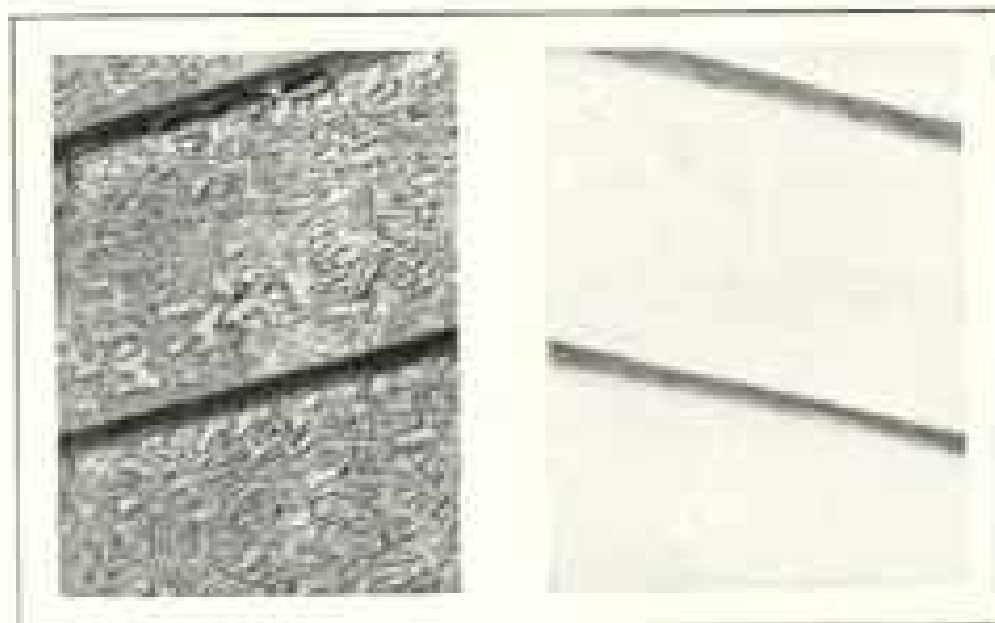
And you'll enjoy looking
at it a long time if it is
painted with weather-
resisting Dutch Boy...
instead of short-lived
"cheap" paint.

THE man who buys "cheap" paint must *repaint* before he can *repaint*. See the actual "close-up" photos at right.

The "cheap" job was put on a year and a half ago. Now it must be burned off before it can be repainted. What a difference with the Dutch Boy job! Painted three years ago, it's still good. Dutch Boy does not crack and scale. Instead it resists the weather...wears down stubbornly by gradual chalking, which leaves an ideal surface for new paint.

When you paint, consult a Dutch Boy painter. He mixes Dutch Boy to meet the requirements of your job and tints his paint to the exact color you specify. No one knows paint like a painter.

Start your plans for painting today...send for "The House We Live In". Ad-
dress nearest branch, Dept. 144.



"CHEAP" PAINT
after 1½ years

First cost, \$100. Paint "all done" right now. Cost to burn and scrape off, \$75. Total, \$200 or \$100 per year. A new priming coat is also needed...still more cost.

DUTCH BOY
after 3 years

Located, like the "cheap" paint job, in Ohio, and exposed to same conditions. Cost, \$120 or \$37 per year. And still good. No burning off and no new priming coat will be needed.



**DUTCH BOY
WHITE-LEAD**

Good Paint's Other Name



NATIONAL LEAD COMPANY

111 Broadway, New York; 116 Oak St., Buffalo; 900 W. 10th St., Chicago; 659 Franklin Ave., Cincinnati; 329 West Superior Ave., Cleveland; 722 Chestnut Street, St. Louis; 2240 74th St., San Francisco; National-Boston Lead Co., 899 Albany St., Boston; National Lead & Oil Co. of Pa., 316 4th Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Bldg., Philadelphia.



Stick at exercise and you'll keep a slim figure. And *the pause that refreshes* with ice-cold Coca-Cola will cheer you along.... Its life and sparkle will awaken energy and make the going easier. It's the drink that keeps you feeling fit for what's ahead.



© 1934 THE Coca-Cola COMPANY

The pause that keeps you going - keeping a slim figure



Drink
Coca-Cola
Delicious and Refreshing

5¢

- You can be sure it is pure and wholesome. Coca-Cola is a pure drink of natural products, with no artificial flavor or coloring. Complying with pure food laws all over the world.



THE PAUSE THAT REFRESHES



Asparagus Soup....a ☆☆☆☆ soup....everywhere!

HERE is the "top" in a soup! All star in ingredients . . . universal in taste appeal . . . ideal for lunch, dinner or supper . . . for the youngsters or the smartest dinner party.

As you well know, there is asparagus—and asparagus! Well, this soup is made from the tender, succulent kind . . . the finest grown . . . the kind you search so hard for . . . and so seldom can get. Then—golden creamery table butter! And a garnish of tempting asparagus tips! No wonder it's so delicious. No wonder we're so proud of it.

Let your taste decide whether to serve it as Asparagus Soup (by adding water) or Cream of Asparagus (by adding milk) . . . and you'll thank us for the introduction.

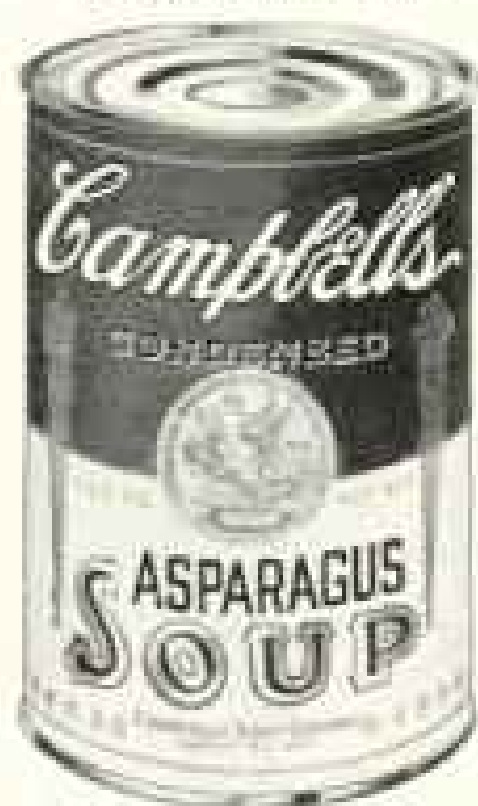
Double rich! Double strength!

Campbell's Soups bring you condensed, concentrated goodness. So when you add an equal quantity of water in your kitchen, you obtain twice the quantity of soup at no extra cost.

21 kinds to choose from . . .

Asparagus
Beef
Beef
Bouillon
Celery
Chicken
Chicken-Gumbo
Clam Chowder
Consommé
Julienne
Mock Turtle
Mulligatawny
Mushroom (Cream of)
Mutton
Noodle with chicken
Ox Tail
Pea
Pepper Pot
Pintanier
Tomato
Vegetable
Vegetable-Beef

LOOK FOR THE
RED-AND-WHITE LABEL



Campbell's Asparagus Soup

WHY GAMBLE ON TIRES THAT DON'T GIVE REAL BLOW-OUT PROTECTION



GEE, DAD, THAT WAS AN AWFUL BLOW-OUT. LOOK AT THE CAR.

HEAT CAUSES BLOW-OUTS
The Life-Saver Golden Ply Resists Heat
PREVENTS THESE BLOW-OUTS



Here's more than just a "PAPER" guarantee

"Paper" guarantees may put new tires on your car, but they won't save your life if your tire blows out going 40, 50 or 60 miles an hour. Play safe. Get the new Goodrich Silvertown—the only passenger car tire in the world that guarantees you Golden Ply blow-out protection, plus a full 12 months (business use, 6 months) guarantee against all road hazards except punctures, fire, theft or abuse from running flat.

Play safe—Get a set of Goodrich Silvertowns, the only tire that gives you Golden Ply protection

LUCK is usually all against you when—BANG! you have a blow-out. It's just one of those things you can't do much about *when* it happens. But you can do plenty about it *beforehand*.

How people are killed

Today, unless you are protected, the danger from blow-outs is greater than ever. Due to higher speeds and smaller wheels, the heat generated *inside* the tire is terrific. Rubber and fabric begin to separate. A tiny blister forms and grows—bigger—BIGGER until BANG! A blow-out.

To protect you from blow-outs, every new Goodrich Safety Silvertown Tire has the Life-Saver Golden Ply. This remarkable invention resists intense heat. Rubber and fabric don't separate. Thus, blisters don't form inside the tire. The great unseen cause of blow-outs is prevented before it starts. Get a set of Goodrich Silvertowns *before* it's your turn for a blow-out.

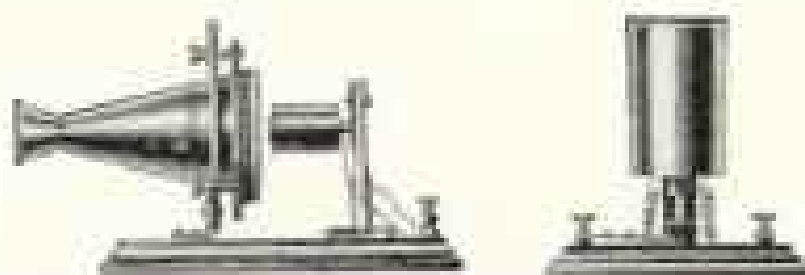


FREE! Handsome emblem with red crystal reflector to protect

you if your tail light goes out. Go to your Goodrich Dealer, join Silvertown Safety League, and receive one FREE. Or send 10¢ (to cover packing and mailing) to Dept. 410, The B. F. Goodrich Rubber Co., Akron, Ohio.



The **NEW** Goodrich *Safety* Silvertown
Copyright, 1934, The B. F. Goodrich Rubber Co. WITH LIFE-SAVER GOLDEN PLY



Telephone Transmitter and Receiver used at the Philadelphia Centennial

From one telephone to thirteen million



Fifty-eight years ago a telephone was demonstrated at the Philadelphia Centennial. Today, there are more than thirteen million Bell telephones in the United States. Three-quarters of a million people own the Bell System. They and their families would make a city larger than Philadelphia.

It took long years of pioneering, forward-looking planning and honest management to build the Bell System as it is today, a national institution fulfilling a national need.

It is a big system, for it serves a big country. It has grown in size and usefulness because it has been built upon the solid foundation of service to the public. Its constant purpose has been to give you the best possible telephone service, and the most, at the lowest cost consistent with financial safety.

The test of trying times has shown the soundness of its structure and the rightness of its one policy, one system and universal service.

Bell Telephone System





EVERYBODY LOVES...

EVERY day twelve million people enjoy Kellogg's Corn Flakes. Think of the millions of quarts of milk — the countless tons of fruit, sugar and honey they use as an accompaniment to their bowlfuls of crisp, golden flakes!

Think of the millions of round, red cheeks, bright eyes and sturdy bodies that Kellogg's help to build!

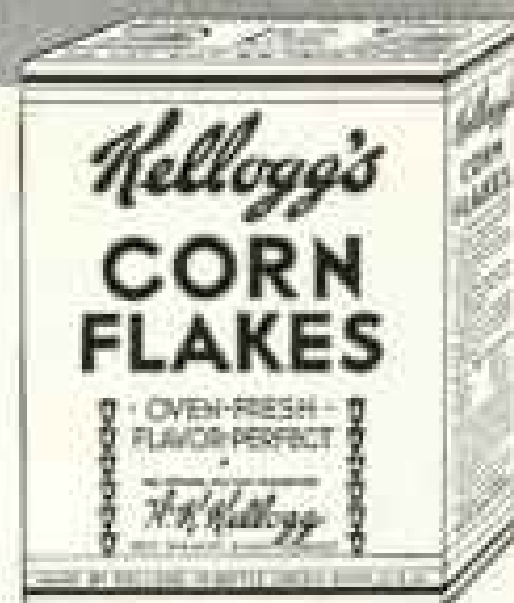
Kellogg's Corn Flakes have a crispness and flavor that simply cannot be imitated. Pour on milk or cream. Add berries or sliced peaches. What a breakfast! What a cooling lunch! What a supper for little

folks or a bed-time snack for grown-ups!

Nourishing, rich in energy, easy to digest.

Order a red-and-green package today. For sale by grocers everywhere, in restaurants, hotels and on dining-cars. Kellogg's Corn Flakes save time and money. No cooking, or trouble to prepare. And many servings cost but a few cents.

Always oven-fresh because of the *heat-sealed* WAXTITE inside bag — an exclusive Kellogg feature. Made by Kellogg in Battle Creek.



Kellogg's FOR COOLNESS

"Movies of our day at the ranch cost us less than the grub."



Makes movies for 10¢ a "shot"

In the movie studios of Hollywood, a shot is one continuous scene of a picture story. The Eight makes 20 to 30 such scenes—each as long as those in the average news reel—on a roll of film costing \$2.25, finished, ready to show.

ONE of the smallest items in your vacation budget can bring the most lasting enjoyment . . .

Make movies with Ciné-Kodak Eight, Eastman's new-principle movie camera. Costs only \$34.50, and gives you *finished* movies, ready to show on the screen, for less than 10¢ a "shot." The Eight is sturdy, beautifully made—in every way a full-fledged movie camera. Using it is as easy as taking snapshots. See it at your dealer's—he'll run off sample movies for you, too.

Don't let this vacation season pass without a movie record. Eastman Kodak Company, Rochester, New York . . . *If it isn't an Eastman, it isn't a Kodak.*



Ciné-Kodak EIGHT

THEM DAYS IS GONE FOREVER

BY POSEN

Bravura



NO JUNGLE BEASTS CAN FRIGHTEN ME--I FACE THEM WITH A GRIN-- BUT SHAVING HAD ME UP A TREE TIL **INGRAM'S** SAVED MY SKIN!



Animato



MY SHAVES WERE HOT WITH OTHER CREAMS--I'D ALMOST WRECK MY CHIN

THEM DAYS IS GONE FOREVER!



SOME SHAVES ARE AS FULL OF TERROR AS AN AFRICAN JUNGLE, BUT NOT **COOL SHAVES** WITH **INGRAM'S**! FOR **INGRAM'S SHAVING CREAM** NOT ONLY TAMES YOUR WHISKERS, BUT **COOLS** YOUR SKIN--TONES IT--AND SOOTHES AWAY ALL RAZOR-RAWNESS. TRY **INGRAM'S** FOR YOUR NEXT SHAVE! YOUR DRUGGIST HAS IT BOTH IN TUBES AND JARS.

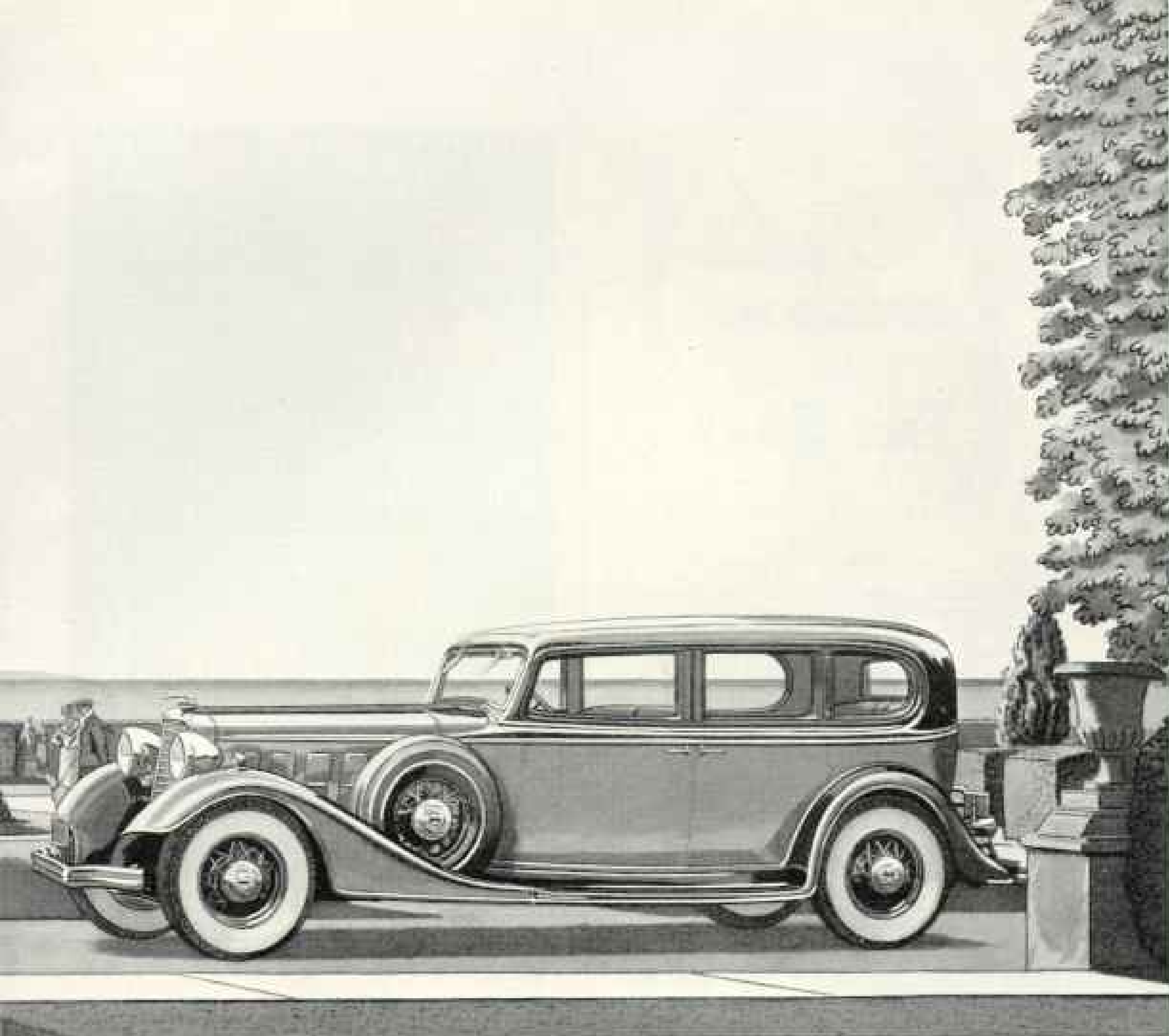
BRISTOL-MYERS CO.
110 Washington St., New York, N. Y.

Let me try 10 Ingram shaves, free.

Name _____

Street _____

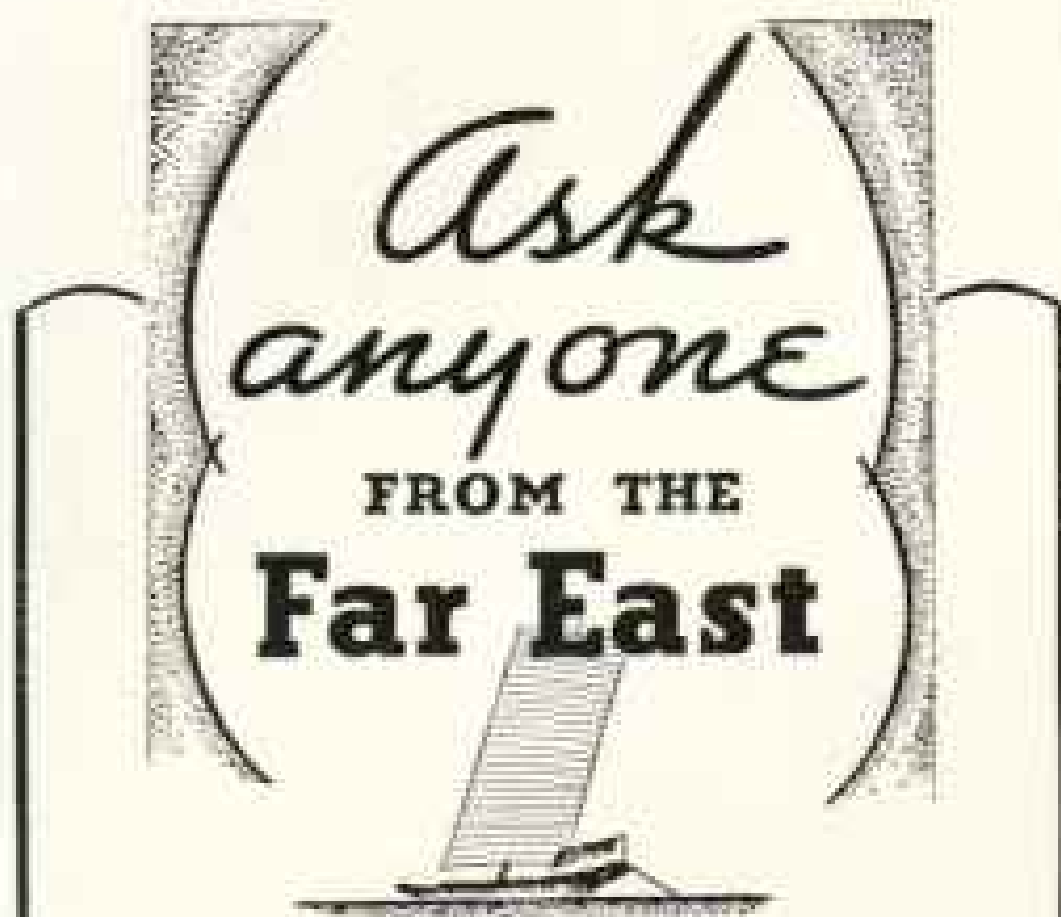
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The **LINCOLN**

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General Sherman, Oct. 16 . General Lee, Nov. 6

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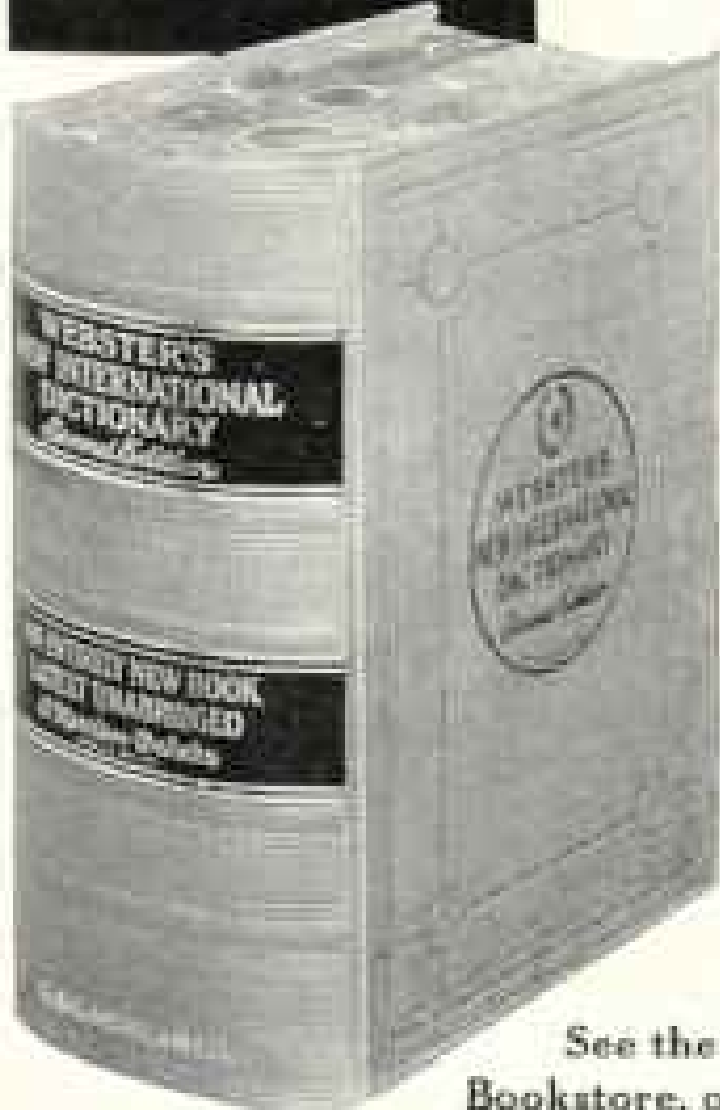
The scope and completeness of material in this book make it a source of information on every subject in the whole range of knowledge. It is the key to every science, every art, every branch of man's thought and activity. Never before has any book covered as many subjects.

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In order to hold as much ink as this sacless marvel, an ordinary rubber sac pen the same length would have to be as big around as a cane.

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So don't confuse this miracle writer with so-called vacuum fillers built on outworn principles. And remember this is the only pen that has all the shimmering Beauty of laminated Pearl and Jet — the only transparent style with visible ink supply that doesn't look transparent.

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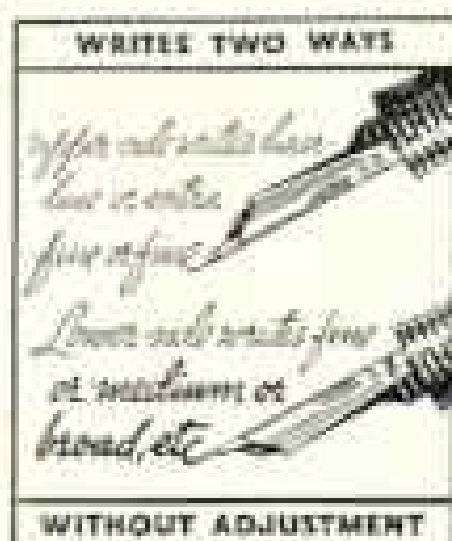
Parker

VACUMATIC

Over-Size, \$10;
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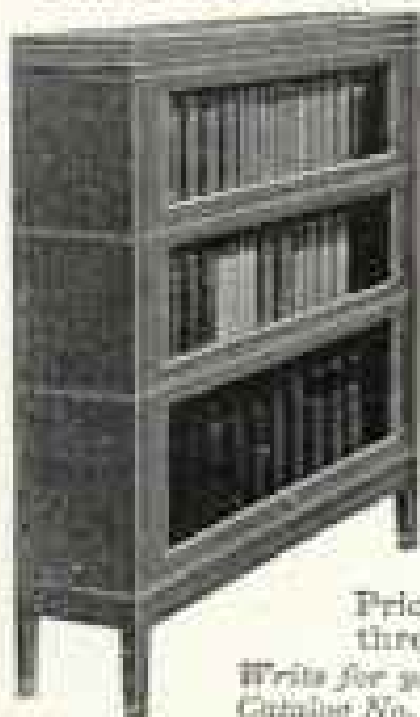
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rectory. Write or
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which it lists
which seem best
suited to your boy
or girl.

The School Directory appears in this
issue in the front advertising section,
page twelve.

NATIONAL GEOGRAPHIC MAGAZINE



John D. Buckstaff, Oshkosh, Wis. Holder of Smeat International Trophy, symbolic of the world's ice yachting championship, 1920 to 1934.



"Iron Fireman cut my heating bill 52%"

SAYS JOHN D. BUCKSTAFF



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Mr. Buckstaff's Iron Fireman automatic coal burner replaced another type of automatic heating and cut annual fuel bills \$214.57 or 52 per cent.

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Thousands of owners have had the same experience as Mr. Buckstaff when Iron Fireman replaced other types of automatic fuels, or hand-fired coal, in their homes.

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fuel bills when an Iron Fireman can give you better heating for less money? Your dealer will gladly make a survey of your boiler or furnace and give you the facts. Iron Fireman is made for homes and for heating or power boilers up to 300 h.p. Quickly installed. Easy terms of payment. Iron Fireman Mfg. Co., Portland, Oregon; Cleveland; Toronto. Dealers everywhere. See the Iron Fireman exhibit, Home Planning Hall, Century of Progress, Chicago.

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maintains the right balance. By preventing harmful knock, it keeps your motor running coolly and sweetly on the most sweltering days. That in turn protects your oil, keeps the temperature lower *inside* your car and avoids the repair bills that overheated motors so frequently cause. To get *full* value and enjoyment from your car this summer . . . Next time get Ethyl!



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THE HOTTER THE DAY THE MORE YOU NEED IT



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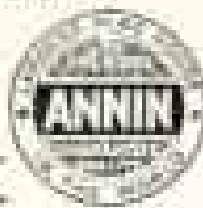
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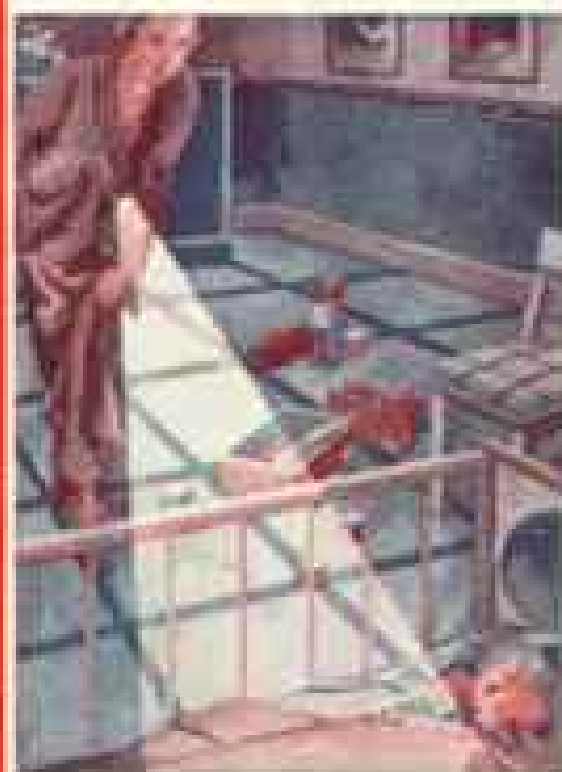
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