

VOLUME LXVIII

NUMBER THREE

THE NATIONAL GEOGRAPHIC MAGAZINE

SEPTEMBER, 1935

SIXTEEN PAGES OF ILLUSTRATIONS IN FULL COLOR

With the Italians in Eritrea

With 34 Illustrations and Map HARALD P. LECHENBERG

Traveling in the Highlands of Ethiopia

With 37 Illustrations LEO B. ROBERTS

Hunting Castles in Italy

With 27 Illustrations MELVILLE CHATER

Colorful Patinas of Northern Italy

13 Natural Color Photographs

Diamond Delaware, Colonial Still

With 25 Illustrations and Map LEO A. BORAH

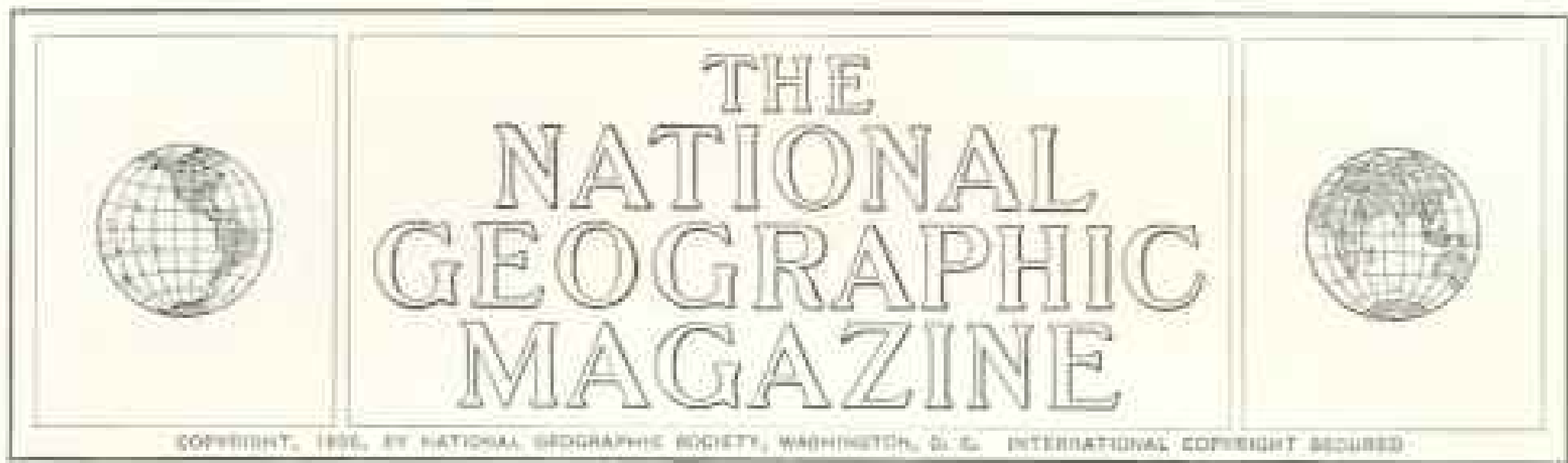
Delaware, First in Statehood

15 Natural Color Photographs B. ANTHONY STEWART

PUBLISHED BY THE
NATIONAL GEOGRAPHIC SOCIETY
HUBBARD MEMORIAL HALL
WASHINGTON, D.C.

\$3.50 A YEAR

50¢ THE COPY



WITH THE ITALIANS IN ERITREA

Torrid Colony Between the Red Sea and Ethiopia, 2,600 Miles by Sea from Rome, Is Mobilization Place of Fascist Troops and Planes

BY HARALD P. LECHENBERG

With Illustrations from Photographs by the Author

FEW spots on earth are so barren, so inhospitable as Assab, in Eritrea, on the west coast of the Red Sea. With only a few palm trees, some low houses, and a well set between the glaring Red Sea and a waterless waste beyond, it seems a hopeless place for white men to choose as home.

Yet here the Italian colony of Eritrea began its blistering existence. Neither treasures nor sheer adventure, however, had anything to do with its beginning. What is now Eritrea began in 1870, when the Italian Rubattino Steamship Company needed a coaling station in the Red Sea and bought the Bay of Assab and its miserable oasis from a petty local ruler, the Sultan of Raheita.

Until then Assab was only a small harbor for the sambuks, or Arab sailing craft, trading on the Red Sea. Even today it is little more.

INLAND RISE ETHIOPIA HIGHLANDS

Assab proved itself of slight use as a coaling depot; yet by its purchase the Rubattino Company was launched into the business of buying land. By 1879 a small Italian military force had landed in Assab and hoisted the Italian flag in this corner of the world. Today, that red, white, and green banner flies over a strip of Red Sea

coast which is 670 miles long. Inland from Assab across the desert, rise the cool highlands of Ethiopia (Abyssinia).*

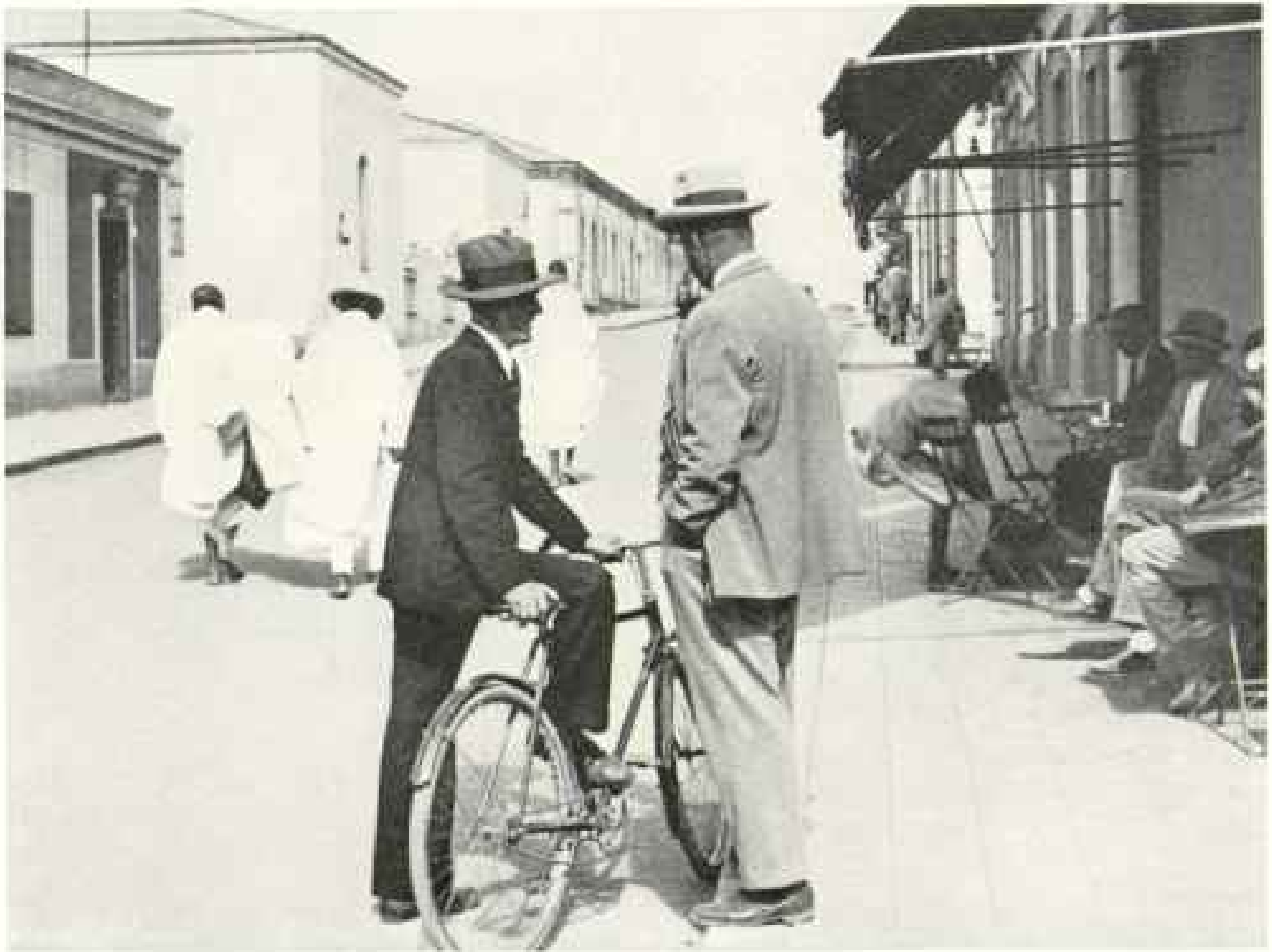
Torrid, barren, and fever-stricken is the coast that stretches northwest from Assab, but as you approach the port of Massaua the topography begins to change. Behind Massaua the green highlands rise in steep embankments, forming a sort of gateway to the interior of Africa.

It was when Italy occupied Massaua in 1885 that Eritrea took definite shape; now the area ruled by Italy stretches inland in some places 220 miles or more to the frontiers of Ethiopia and the Anglo-Egyptian Sudan.

In brief, within 20 years after the Rubattino Company bought Assab as a coaling station which was never developed, her colony here had come to cover nearly 46,000 square miles of Africa. On January 1, 1890, this new colony was christened Eritrea by the Italian Government, in remembrance of the "Mare Erythraeum," as the old Romans called the waters of this part of the world.

Tracing the story of Eritrea's origin and growth I had just journeyed from Assab

* See The Society's new map of Africa, a supplement to the NATIONAL GEOGRAPHIC MAGAZINE, June, 1935.



OF UNEXPECTED EUROPEAN ASPECT IS MAIN STREET IN ASMARA.

To the right sit guests at a sidewalk café. Substantial houses face a smooth, paved street in this capital city of Eritrea. Natives in white robes, like those of Bible times, walk in the middle of the thoroughfare, ignoring sidewalks, true to oriental custom.

to Massaua. Until that moment I had never really known what heat was. Even a day-long crocodile hunt in India, with the thermometer at 117 degrees, Fahrenheit, was cooler than a walk through Massaua, where in summer the thermometer often hits 120 in the shade. The short stroll from the small post-steamer landing, over the shadeless pier of the new harbor grounds to the Hotel Savoia, proved a feat of physical endurance.

"Yes, we have veritable hell here in summer," said the tired hotel manager. "Even in winter Massaua is no pleasure resort; but then you can at least endure it."

ONE OF THE WORLD'S HOTTEST CITIES

Yet Massaua, one of the hottest cities in the world, with its environs, is the home of 15,000 natives and a few hundred Europeans. The white men, mostly Italians, work during the day in their offices under big fans, with glasses of cool water on their desks. In a damp and steamy air they toil

with a mean temperature for July of 94 degrees Fahrenheit, 20 degrees hotter than the average for the hottest month in New York.

Service in the government and administration; routine work for shipping companies and banks; trade in products of the land; the importation of goods—all these go their routine way, uninterrupted by the murderous climate.

Only by constant work can the white man stand the climate and forget the heat. No idle man could endure it here. Except for a few nurses in the hospital, no white women live in Massaua in summer. Then, the families of white employees go to the high plain of Hamasien, the real center of Eritrea (see map, pages 270-271).

I, too, soon found I could not remain idle in a sticky, hot hotel room. I felt better as soon as I began to talk with people about Eritrea, and to explore Massaua and the country about it.

I found Italian settlers without enthusiasm as to sight-seeing around Massaua.



THIS ITALIAN CAPTAIN COMMANDS A NATIVE INFANTRY COMPANY IN ERITREA



WITH FEVERISH HASTE ERITREANS MIX CEMENT AS ITALIANS RUSH WAR PLANS

In the background rises the skeleton steel frame of some new structure, astonishing in this empty part of Africa. Hangars and airports are being built rapidly, for the use of military airplanes arriving from Italy.



IN HONOR OF IL DUCE, MUSSOLINI STREET IS BEING PAVED AND WIDENED

After centuries of existence as a poor, obscure village, Asmara is now being rebuilt, enlarged, and made into an up-to-date city. Travelers arriving in this town over the new railroad from Massaua find its cool climate a pleasant respite from the steaming hot atmosphere at sea level. A modern hotel, shops, and glittering official life make it the busy center of Italian rule in Eritrea. A tall bell tower rises above the capital's largest church in the background.



WHAT MAY BE AFRICA'S LARGEST AIRPORT IS NOW BEING LEVELED IN ERITREA

Set more than 7,000 feet above the sea, and only some 40 miles from the Red Sea coast, this station on the Hamasien plateau is an important strategic point. The signboard indicates the new field is named for the late Col. Umberto Maddalena, who, with Air Marshal Balbo, led Italy's air armada across the Atlantic to Brazil in 1931.

There is indeed little scenic beauty. The town stands partly on the mainland and partly on small islands formed from coral reefs. Commercially, it is active and well ruled by efficient police and administrators. The natives live in small stone houses of uniform style, and there are a few dozen one-storied houses for the Italian firms and government officials. Between scattered houses lie a few gardens of scanty growth. A bridge binds the island part of the town to the mainland.

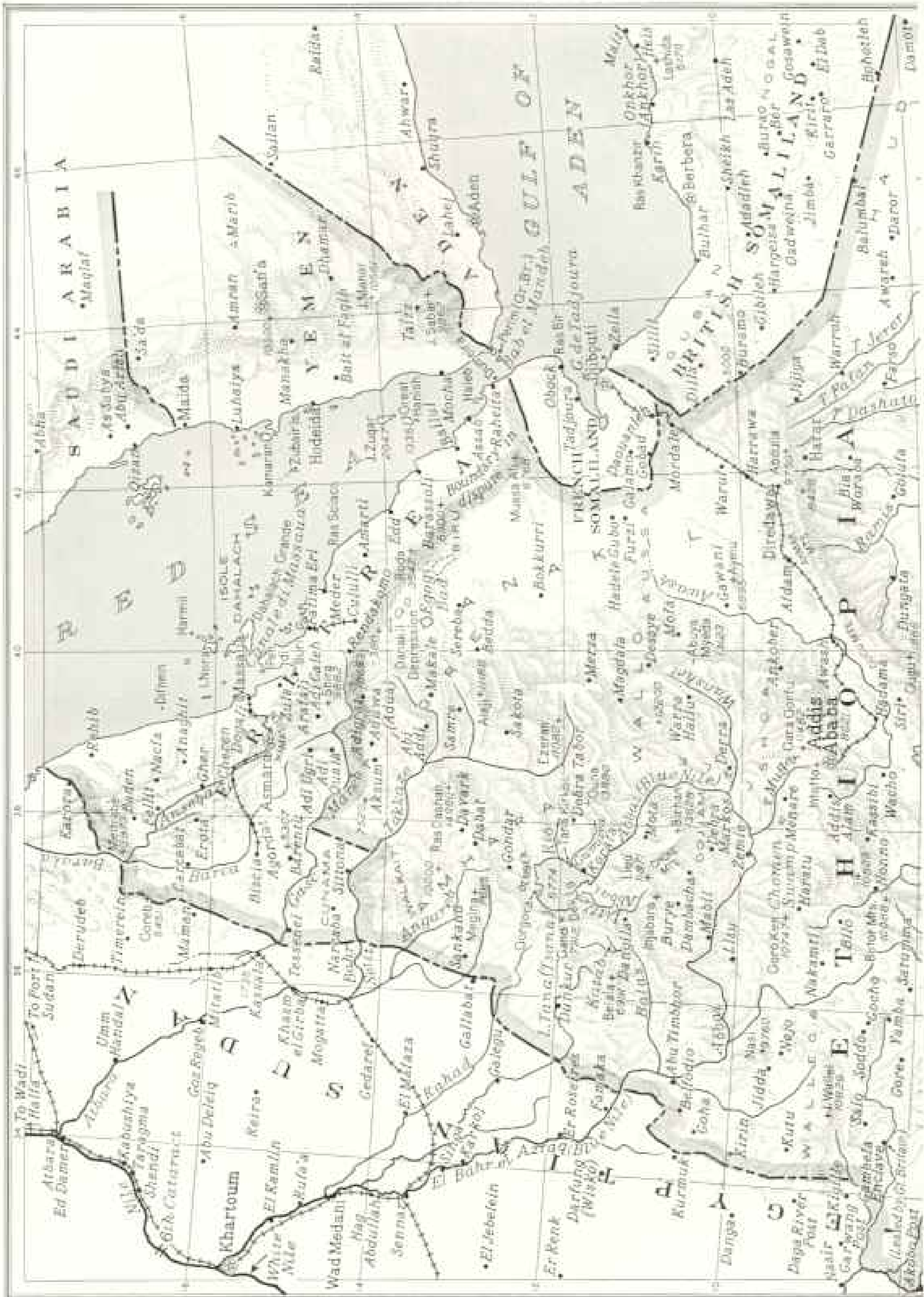
WHERE ITALIAN TROOPS DISEMBARK

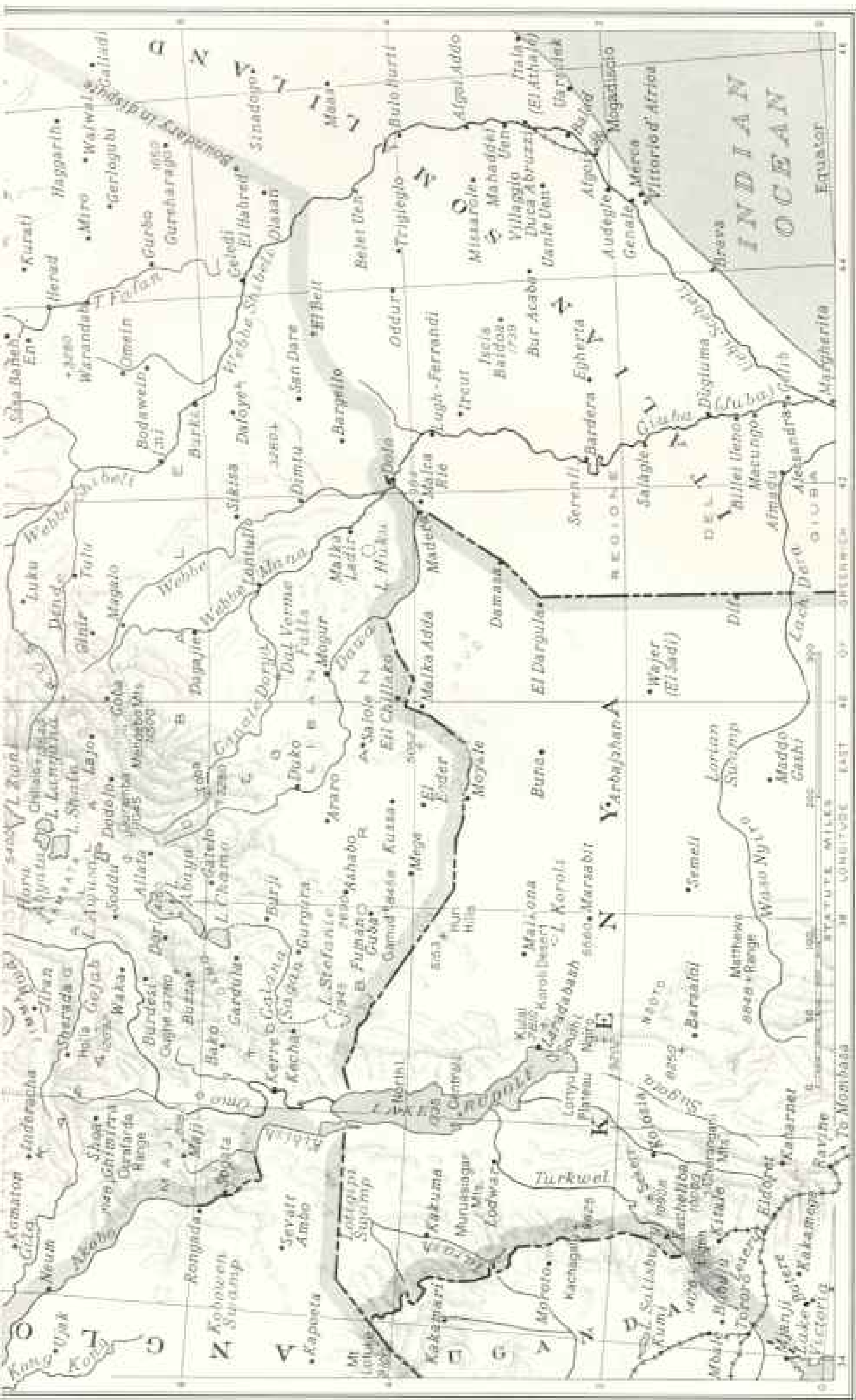
The harbor of Massaua is the only place in Eritrea where large ships can tie up at docks to discharge their passengers and cargo. For this reason it is here that the landing of Italian troops and war materials has been taking place.

The native population is a colorful mixture. Here you see some pure Ethiopian Hamites; also, always near the coast, many Semitic Arabs who invaded the land partly as conquerors, partly as traders, or as members of that uncertain class between the two. Where there are Arabs in the East there is usually the Negro, too—from many parts of Africa. Arabs have been slave traders for centuries, especially along these coasts. In this district the sea route seems to have been the simplest; one finds here more Somali Negroes than Sudanese.

Recently a new element has come—the Indian traders, common now in nearly all places on the east coast of Africa. It is they who, in the main, bring cheap Japanese wares into the retail trade of the country.

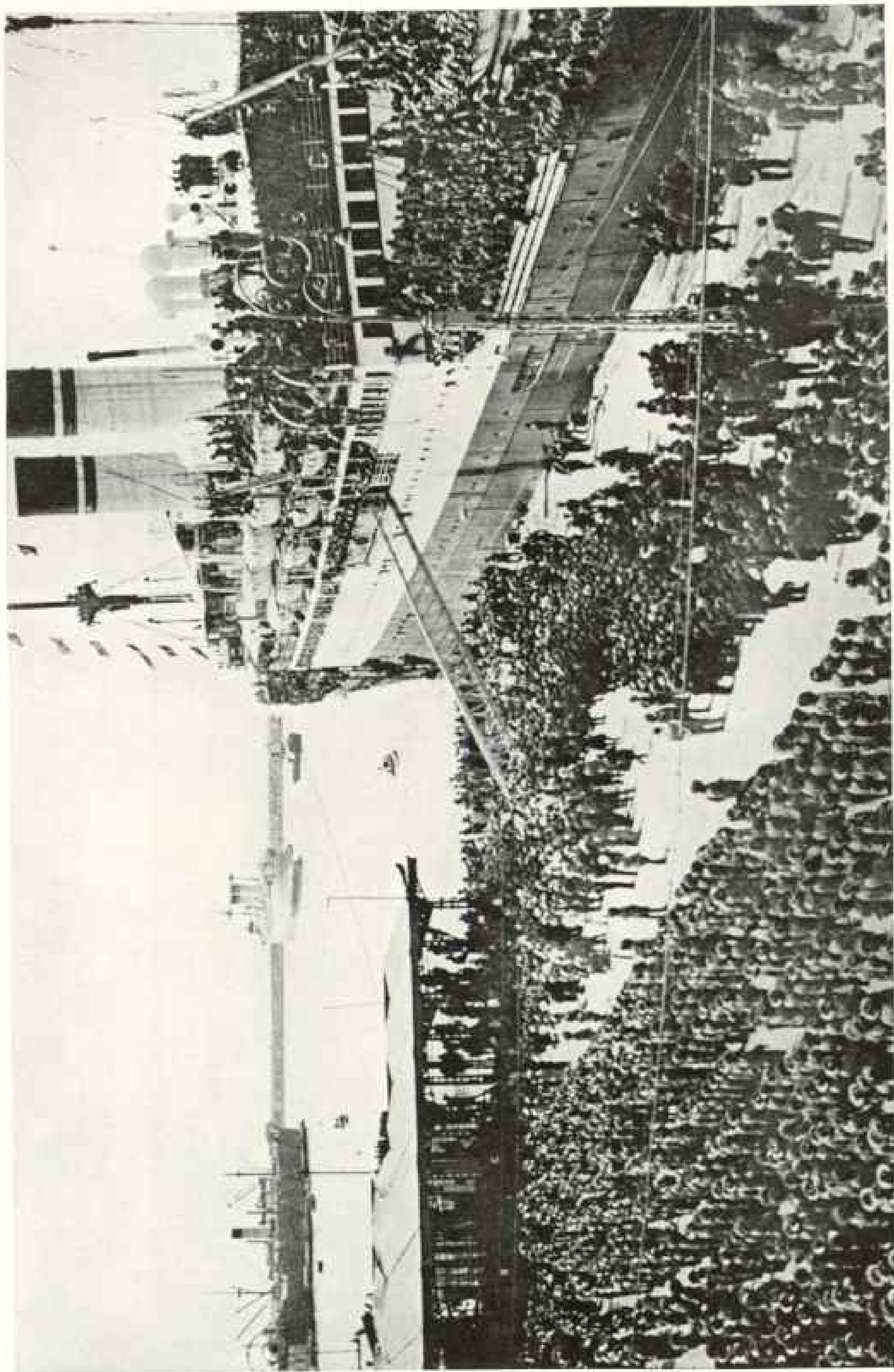
Arabs, on the other hand, carry most of the Red Sea local traffic in their sambuks,





INDEPENDENT ETHIOPIA, ANCIENT CHRISTIAN NATION, IS RINGED BY COLONIES OF ITALY, FRANCE, AND GREAT BRITAIN

Addis Ababa, the capital city, standing 8,000 feet above the coast level, is connected with the French port of Djibouti, on the Gulf of Aden, by rail, because the country has no outlet to the sea. Italians for months have been landing troops at Massaua, in Eritrea, and at Mogadiscio, in Italian Somaliland. A railroad rapidly being extended connects Massaua with Bisca.



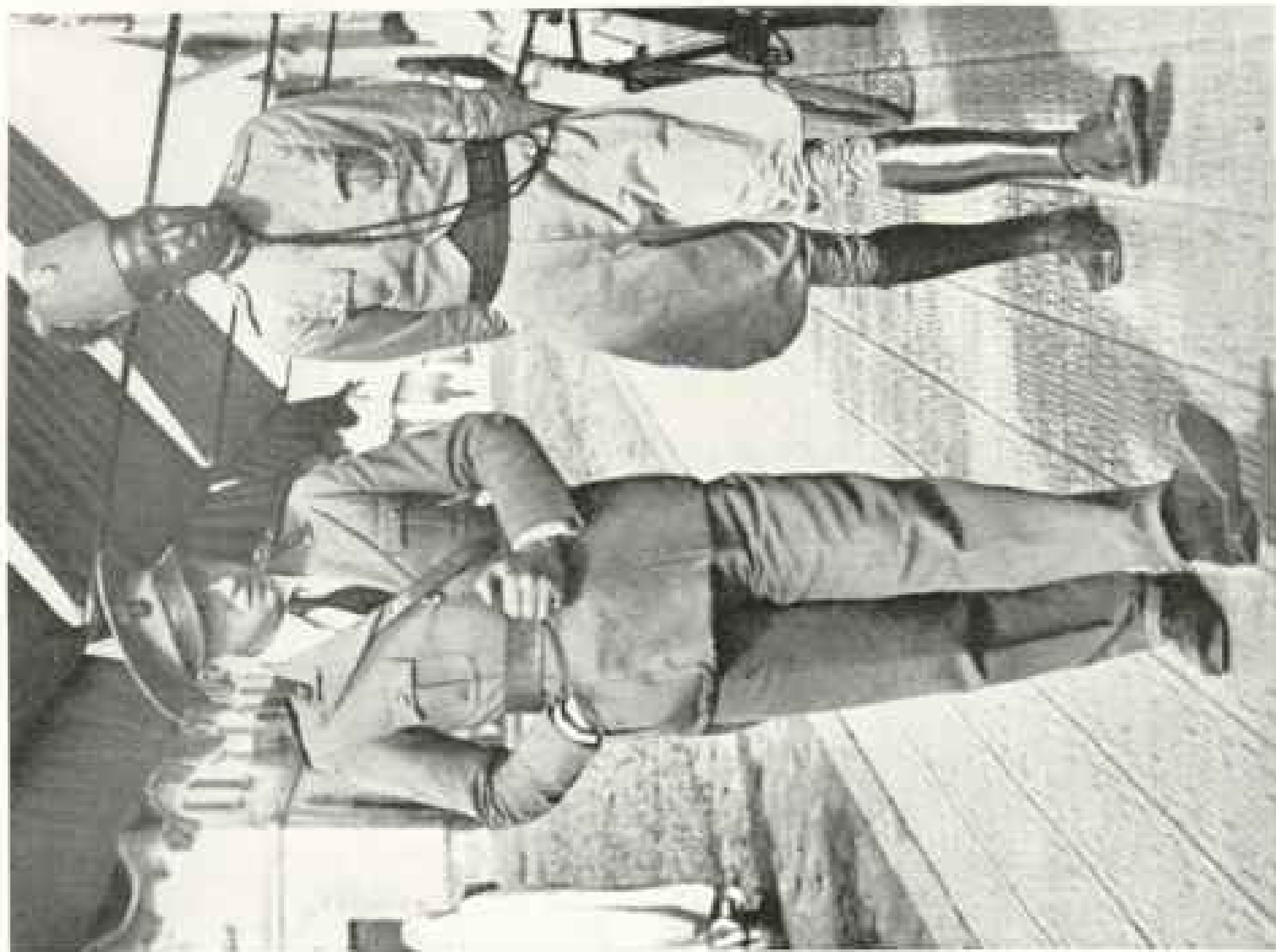
WAR TALK BETWEEN ROME AND ADDIS ABABA STARTS THOUSANDS OF ITALIAN SOLDIERS FOR MOBILIZATION CAMPS IN AFRICA

Embarking at Naples, a regiment of infantry sails for Eritrea. For many months Mussolini has been sending men and munitions to Italy's colonies in northeast Africa. From the homeland many stevedores, artisans, and other workers have also been sent, to build roads, airports, and structures for military use.



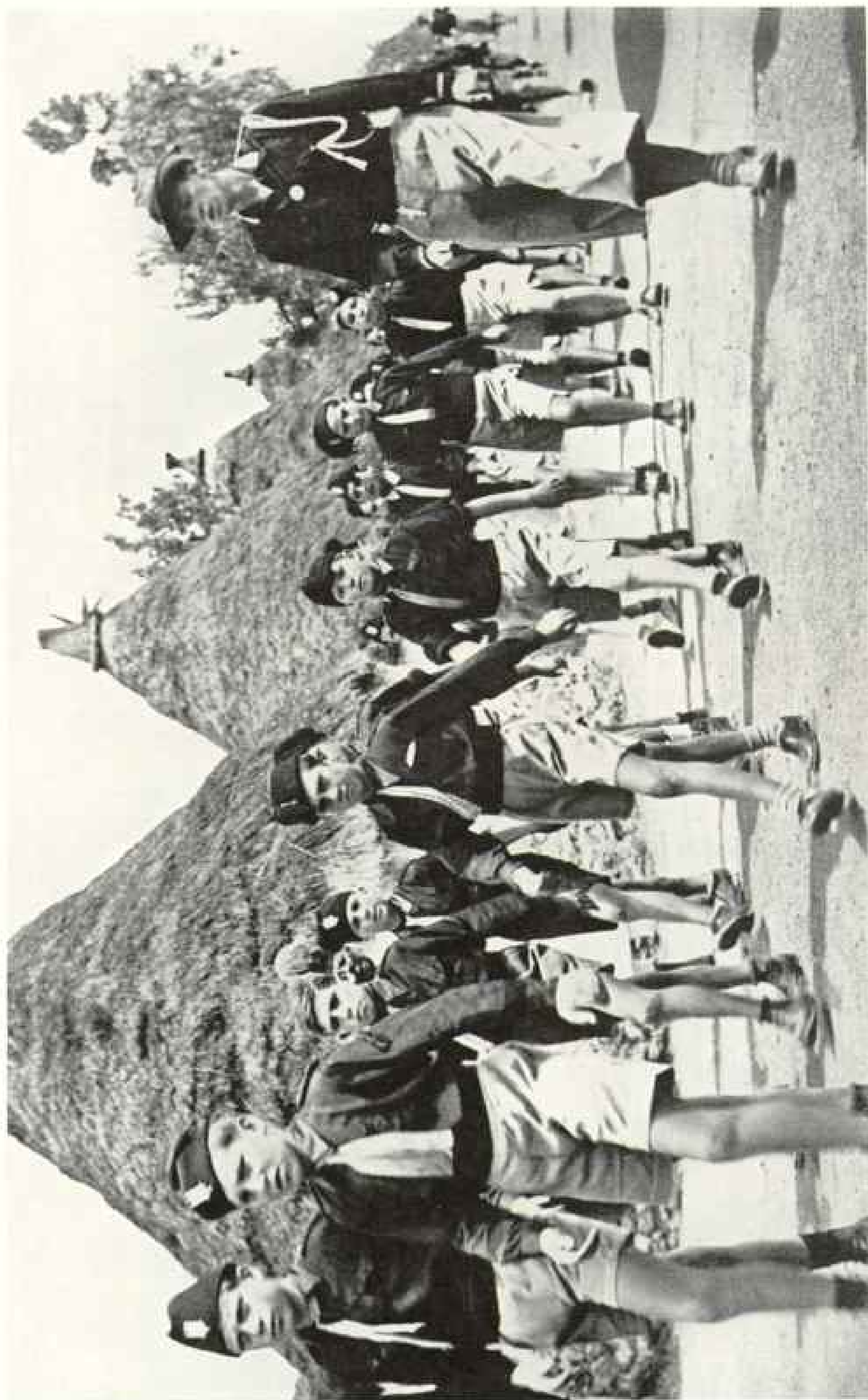
THE LAW BRINGS EQUALITY FOR ALL, SAYS THE SIGN ABOVE THE JUDGE'S HEAD

Over the motto, in this stifling Eritrean courtroom, is a picture of Italy's King, and to the left a native policeman stands at attention. While Italian codes are officially recognized in meting justice, white rulers wisely listen to the suggestions of elderly tribesmen.



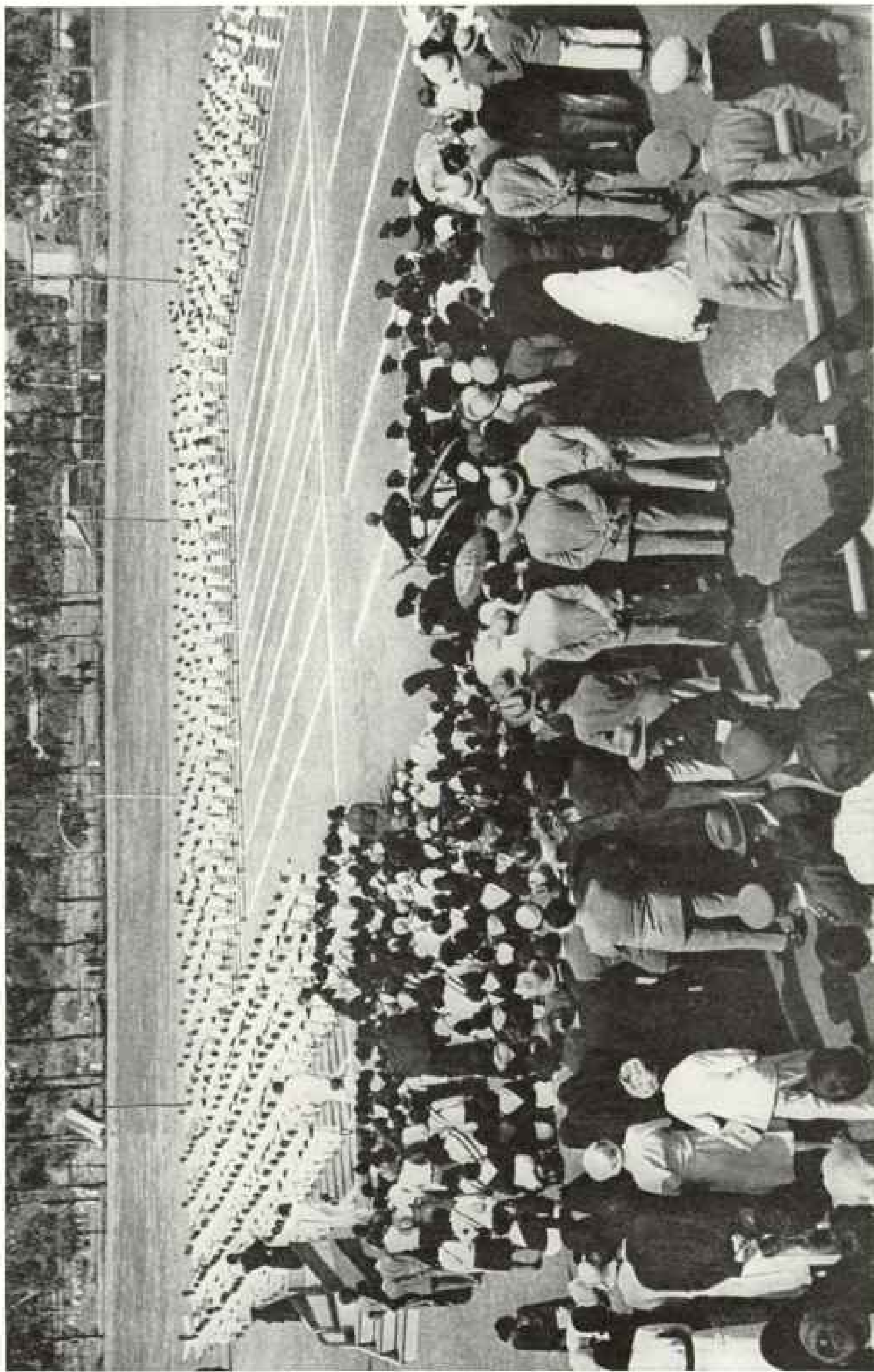
AN ITALIAN OFFICER AND A NATIVE POLICEMAN MAKE THEIR ROUNDS SIDE BY SIDE

Outsiders, visiting Eritrea for the first time, at once notice the friendly relations between officials and the natives, notwithstanding differences in color and rank. In the native infantry Christians as well as Moslems wear the fez, because it is part of the military uniform.



BALILLA BOYS, RECRUITED AMONG ITALIAN RESIDENTS OF ERITREA, MARCH THROUGH A NATIVE VILLAGE OF THATCHED ROOFS

"While no native boys happen to appear in this particular picture," says the author, "at no time during my Eritrean travels did I see any color line drawn. Sons of Europeans mingle and play freely with native boys." In steaming hot Massaua, on the Red Sea, there is not so much activity, but cooler highlands about Asmara afford ideal parade grounds. Circular native huts of stone, with conical thatched roofs and quiet center chimneys, are common.



LIKE THE ATHLETIC CLUBS OF EUROPE, THIRDS OF ERITREAN BOYS PERFORM CALISTHENICS TO BAND MUSIC

These youths of Asmaran primary schools drill daily under the guidance of their Italian teacher, who stands in a pulpit decorated with the Italian colors at the left. Between the spectators in the foreground and the instructor is a group of convent girls, accompanied by nuns. There are schools for both Italians and natives, but the men and women teachers are mostly from the mother country.



ERITREAN BOYS TAKE THE OATH AND SWEAR TO BECOME LOYAL BALILLAS

This Fascisti youth organization is enrolling many native children of the Colony as well as the sons of Italian residents. The boys play games, ride horses, learn to shoot, and are given some military and religious training. There are several groups of Balillas, divided according to age and sex.

or baby clippers, whose form has changed but little with passing centuries.

The Dahalach Islands, facing Massaua, are the center of Arab pearl fisheries and mother-of-pearl dealers.

An Arab specialty is fishing, particularly for sharks. The sun-dried meat is transported to Zanzibar and Dar es Salaam, where it is regarded with especial favor.

WHITE "DUNES" ARE HUGE SALT PILES

Behind the smooth surface of Massaua's harbor entrance stretches a broad lagoon, from which glaring sun draws a trembling vapor. Back of the lagoon rise the jagged outlines of what I at first took to be white sand dunes, quivering in the heat like a mirage, ghostly in their detached existence. Everywhere the heat rests like a curse on all living creatures.

Yet, since man cannot escape this heat, he has put it to work. Here are the largest salt works I have seen on my travels around the Red Sea (see pages 278, 279, 280, 281, 283). What I thought were white sand dunes were really huge piles of white salt!

As I neared these heaps I could discern hundreds of people moving about among them. These men scurried like big black ants on white snow, fairly running as they carried heavy loads of salt—unmindful of the steaming heat which makes even mere breathing a task for whites.

In wide, flat basins connected by canals with the Red Sea, salt water evaporates perhaps more quickly than anywhere else in the world. In the salt pans of Massaua, I was told, the African sun evaporates in a single day almost 2,000,000 gallons of water. To this terrific heat Massaua owes an important part of its income—from the export of salt.

From the evaporating pans native workers scrape the salt into cone-shaped piles. Thereby the last vestige of moisture is drained and the space is made immediately ready for the next water supply. The sun is an investment here and must not be allowed to shine unused. With pails and shovels, a troupe of half-naked natives throw themselves into the work. In a few seconds the pail is filled with coarse salt



NATIVES AND ITALIANS FREQUENT THE "HOUSE OF THE FASCES" AT ASMARA

Under the words "Casa del Fascio" is the name, Arnaldo Mussolini, the late brother of Il Duce. Every Eritrean city has such a house, headquarters of the political groups which are widespread and powerful here as in Italy. These houses serve as clubs and social centers for residents and visitors as well as for official functions. In Roman days, the symbol of authority was the fasces, a bundle of reeds with an ax-blade protruding. When Mussolini founded the Fascists in 1919, he adopted the fasces, representing unity, as the name for his party and as its emblem. Fastened to the central arch, above, is one of these badges, outlined with electric light bulbs.



FACING HIS PORTERS, BATON IN HAND, THE FOREMAN SHOWS WHERE TO DUMP THE LOADS

This line of men, each with his basket of salt, moves in steady procession, like buckets on a pump chain. Underfoot a wooden ladder is sunk in the salt pile, for without a toe hold on its rungs the men could not mount the salt heap. In this manner hundreds of tons are moved daily from the piles scraped up in the pans to the larger heaps shown on page 281.

crystals; the carrier swings the burden to his shoulder and runs hurriedly away to the high dam which surrounds the salt lagoons. In an endless chain, like the buckets on a big dredge, they go, one carrier behind another, making a machine out of human bodies.

You see the piles of salt grow higher minute by minute, quickly becoming a pyramid about 15 feet high—a new addition in the row of many hundred similar salt pyramids. Here they stand, the property and investment of the Italian "Società per le Saline Eritrie," and await the buyer. He comes, unexpectedly enough, from Japan!

Much of Japan's raw-salt needs are met by Eritrea. To get this African salt, Japan sends specially-built freight steamers to the Red Sea.

The arrival in the harbor of a Japanese salt steamer sets the black human chain of salt carriers to running in reverse. Again, with no help other than pails and shovels, the salt mountains are torn down and loaded into small wagons which stand ready to transport this white freight to the dock.

I don't know how it is possible that living beings, day after day, can work with bare feet in salt lye, how it is possible in the intense heat that, with swollen, torn and blistering legs, they are still able to keep up the racing tempo of their work. But I do know that the production of salt represents one of the most important items in Eritrea's export budget.

In summer, Massaua Italians speak of Asmara as paradise. Noticing the happy look in the eyes of those who had been there



WORKERS SCRAPE UP SALT AFTER SEAWATER HAS EVAPORATED IN THE HOT SUN

Because of the intense heat along the Eritrean coast, brine led into pans from the sea quickly dries up and leaves a deposit of crystallized salt. Beneath this there is always a thin layer of water which disappears as soon as the salt is piled in heaps to await export to Japan (see illustrations, pages 280, 281, 283). The thirsty man at the left drinks from a tin cup fresh water hauled out to the works in barrels.

for week-ends, I decided that I, too, should see the colony's capital city.

The air route from Massaua to Asmara is barely 40 miles. The railroad and the highway are almost twice as long; they wind up to where Asmara stands nearly 8,000 feet higher than Massaua.

One morning at seven, I climbed into the four-coach train which makes the one and only daily run to Asmara.

At first our road lay over fairly even country, dotted with a few palms and low sycamores. Panic-stricken by the noise of our locomotive, a lonely, long-legged ostrich fled across the fields.

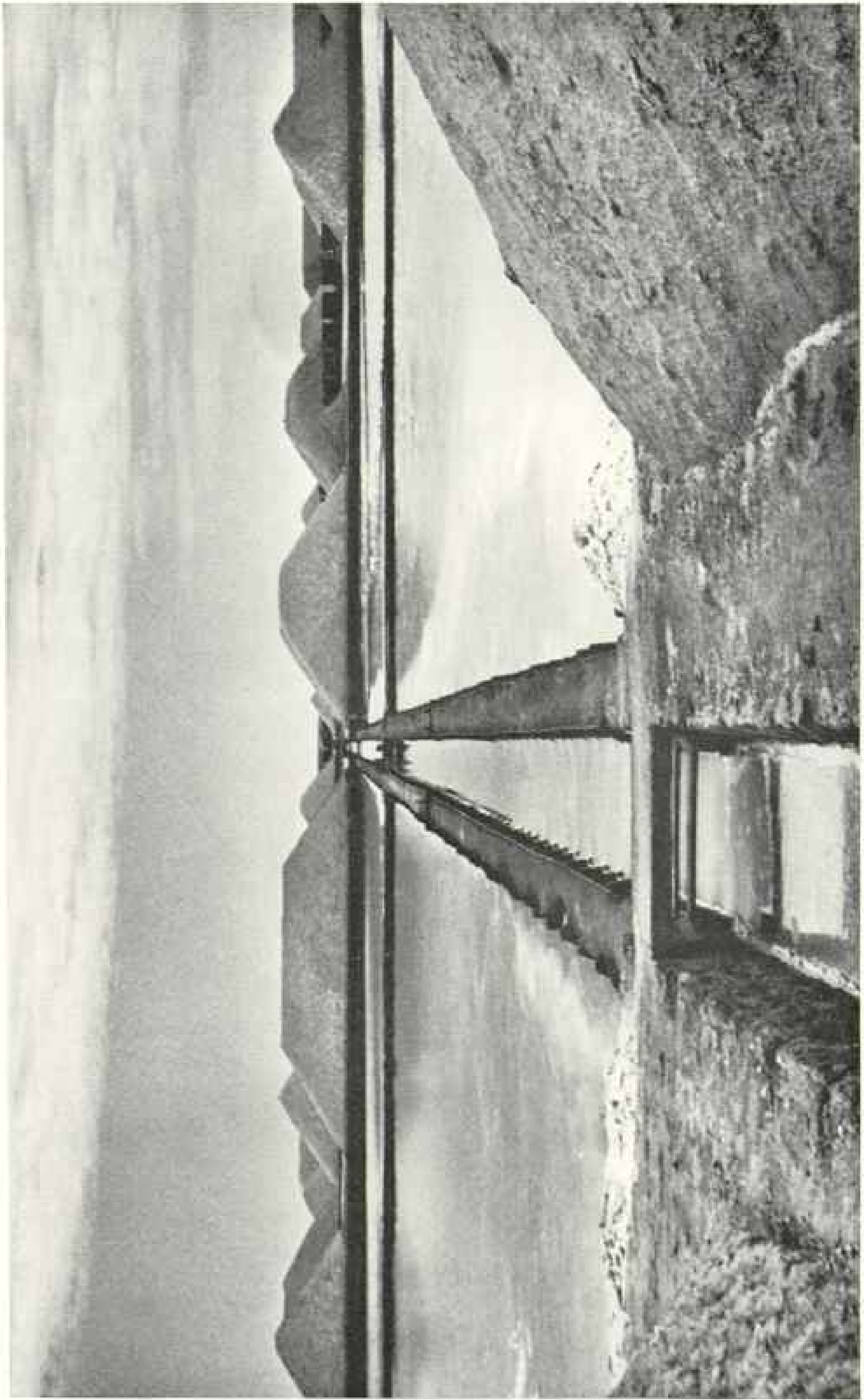
After a while we stopped at a primitive station, surrounded by a few houses and gardens. Arabs and Ethiopians of mixed blood were gathered about—from curiosity,

or to sell fruit. A white monument in the background showed that we were in Dogali, where, in 1887, the Italian troops suffered a disastrous defeat in battle with the Ethiopians.

Slowly now the track began to climb; and the temperature sank. Mountain slopes became greener, and one could see fruit-bearing cactus, and a little later also the first euphorbia, typical plant of the Ethiopian highland.

THEIR BELLS ARE MADE OF STONE

Over this easy route men now travel at high speed. Four hundred years ago, a certain group moved over it slowly, painfully, in one of the strangest undertakings in the history of colonization. Here in the summer of 1541 Dom Christovão da Gama, "a



BLISTERING SUNSHINE SPEEDS UP SEAWATER EVAPORATION IN THE STEAMING MASSAUA SALT WORKS

Salt water, seen entering by canal at the picture's lower edge, flows into evaporating "pans," or basins, formed by dikes. When the ponds are full, flood gates are closed and evaporation proceeds. Heaps of new-made salt rise in the background. Only a small section of Massaua's vast salt works is comprised in this picture.



UP LADDERS AGAINST GROWING SALT PILES PORTERS CLIMB TO
DUMP HEAVY BASKETS

The Somali has just reached the ladder's top rung, and is about to tip his burden. Beyond him an Ethiopian worker goes down, his basket emptied. A cloth pad protects the man's naked shoulders.



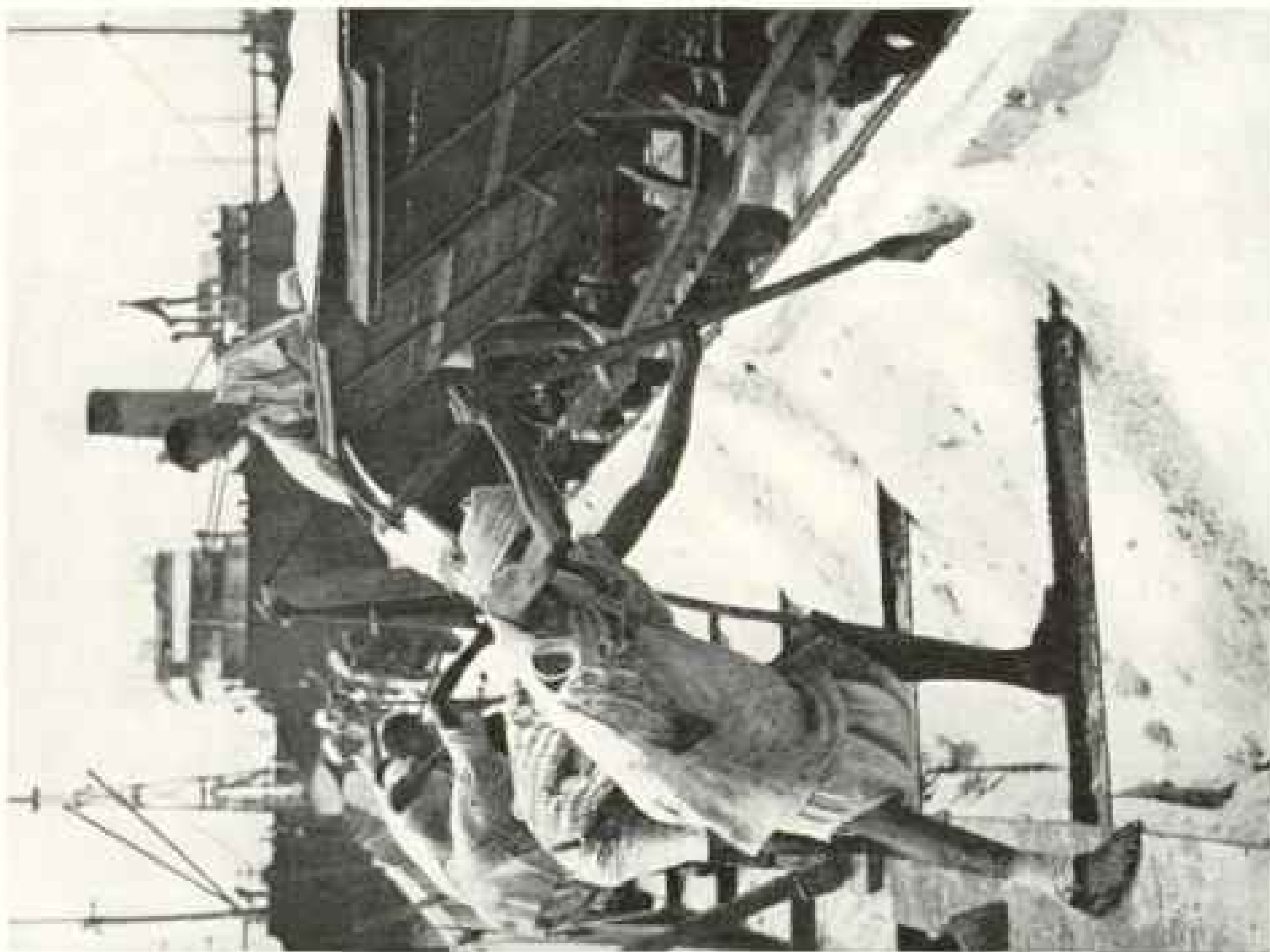
NOT HEAT, NOR SORE FEET, NOR HEAVY LOAD CAN CHASE AWAY
THAT AFRICAN SMILE

Here the human chain works in reverse; it tears down the big piles of salt built up back of the drying pans, and loads them into little dump cars on the railway that hauls salt to the Massaua docks.



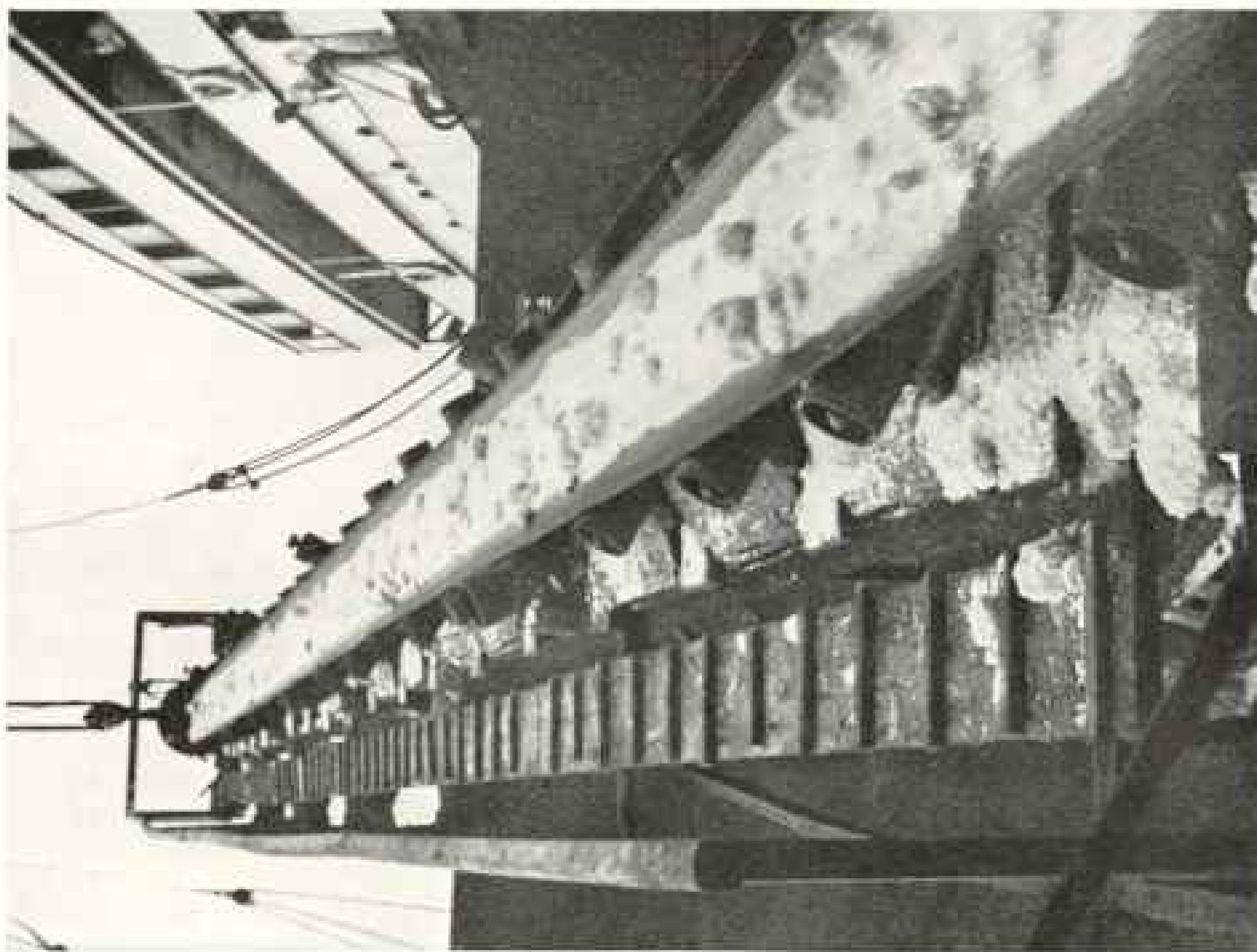
SMALL "DRY WASHES" THAT BECOME SWOLLEN STREAMS AFTER HEAVY RAINS CUT THE OPEN, ROLLING HIGHLANDS OF ERITREA

Weaver birds have built nests in the stunted acacia tree, whose branches were lopped off by natives for firewood. So securely do the birds lash their nests to the branches that even severe storms seldom dislodge them. Weavers of a related species gather in flocks of a hundred or more pairs and build huge community homes. To make such an "apartment house," resembling the thatched roof of a native hut, the birds interlace or "weave" almost a half ton of grass among the limbs of a tree.



DUMP CARS DELIVER THE SALT AT THE MASSAUA DOCKS

Men with shovels drag it into a trench on the dock floor. A conveyor belt carries it to the Japanese ship seen in the background. This is Eritrea's last act in making and shipping salt, a valuable export.



ON AN ENDLESS BELT SALT RIDES UP A SHIP'S SIDE

Beside the conveyor is a cheated gangway, for men who supervise the loading. It takes two or three days to fill a vessel, which may carry eight to ten thousand tons of salt. In Japan the cargo will be refined and consumed.



THE CROSS IS HIS SYMBOL OF AUTHORITY

Dignity is added to the attire of this priest of the Coptic church by the white turban. In his left hand is a fly switch. Now lay natives in Eritrea usually wear European felt hats, or go bareheaded.

strong hero, whose heart seemed to be made of iron and steel," together with 400 of his Portuguese warriors, marched under incredible hardships from Massaua to the high plateau. Neither adventure nor chance to loot drew them; their urge was to save Christianity in the world's oldest Christian kingdom.

At that time a powerful Moslem general, Mohammed Grañ, "the Left-handed," had decided to make Abyssinia a Moslem land. He had wiped out the Christian Ethiopian Emperor's army, slaughtered the Christian population, and burned the churches. It was to check Mohammed Grañ and to aid the Christian Emperor that young Christovão da Gama, the fourth son of Vasco da

Gama and brother of the governor of India at that time, came to Asmara. Though da Gama was captured and put to death and most of his faithful followers fell in battle, through their sacrifice a rare old culture was saved to the world.

Among Portuguese survivors was Miguel de Castanhoso, who wrote the story of this campaign. It shows these warriors from Portugal considered the Ethiopians as equal fellow believers. A few things appeared strange to Castanhoso. He writes, for instance, "but their bells are made of stone!"

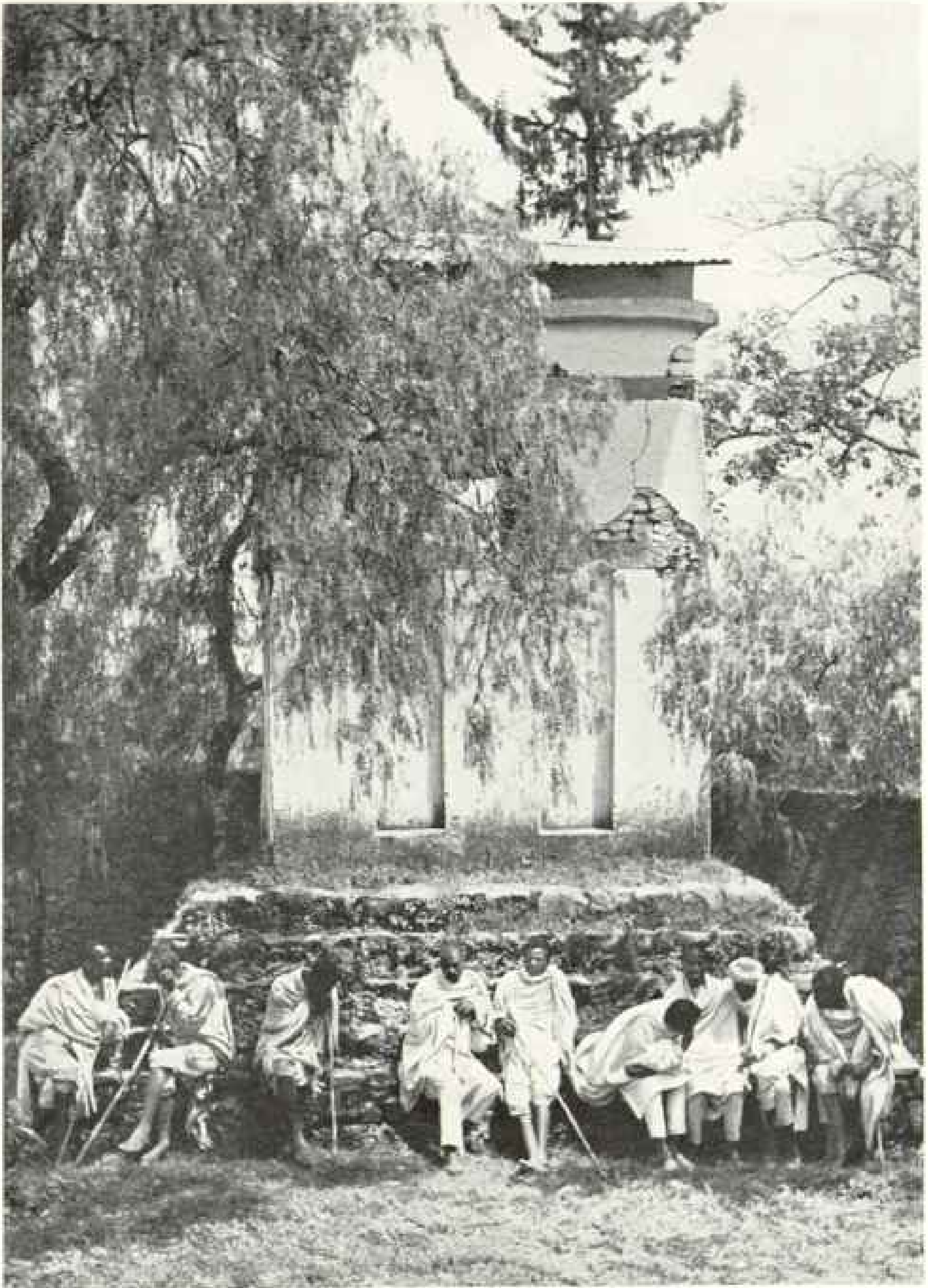
Bells in the first Coptic Church I saw near Asmara were made of stone. Freely suspended, when struck at divine service, they gave a most bell-like tone (page 287).

ITALY IN AFRICA

"I am in Africa, in Asmara, only about 15 degrees north of the Equator," I must keep telling myself—not in some small city in

southern Italy. Yet here are Italian streets, Italian buildings, Italian people. That sun-burnt Italian standing, self-satisfied, before the door of his green grocery in shirtsleeves, gray velvet trousers, and black felt hat is the same man I have seen a hundred times standing in front of similar green groceries in southern Italy. That small coffee shop there on the corner is exactly like one I know in Naples. Only the dark figures of the natives, in their white draperies, dignified and equally privileged, are reminders that I am in the "Black Continent."

This is not a mere copy of Italy; I don't mean that. It is Italy itself, in Africa. With this impression comes a purely physical feeling of happiness. The air is clear



VILLAGERS STOP BY A BELL TOWER TO PRAY AND MEDITATE

Ethiopian churches are usually circular, surrounded by a wall (sometimes double), with two gates, one opposite the other. Many of them date from ancient times and practically all stand in groves of trees where dwell the priests apart from the church. Inside this compound at Adi Quala, in Eritrea, but not joined to the church proper, is a bell tower. Peasants often kneel about it to pray, the church being used only by priests, officials, and upper-class natives. Sometimes caravans are hampered by the observance of fasts because the porters become weak from lack of food.



ERITREA TALKS WITH ROME BY WIRELESS

On the high plains of Hamasien, not far from Asmara, Italians have built this radio station. With it they talk to their homeland, and with their ships at sea, now bringing troops and supplies to northeast Africa. Some natives have been trained as telegraphers and wireless operators.

and thin; one can breathe properly again, and the heavy, wet heat of Massaua has changed to a comfortable sun warmth. Here are real bathrooms in a real hotel, actually provided with cool water! What that means can only be appreciated by one who for months on end, while traveling in the tropics, has had to manage with water at a temperature of more than 90 degrees.

The new Asmara has about 22,000 inhabitants. Of its 3,000 Europeans, most are Italians. Here is the seat of government, with, normally, a civil governor who rules over the 617,000 natives and 4,600 white residents of the colony.

Eritrea, in the main, is composed of three different parts. First of all, there is the long coast line of the Red Sea, with its over-tropical climate and its scanty vegetation. The people here are largely Arabs, who, when not occupied with the Red Sea and its produce, engage in small-scale cattle breeding.

The bulk of Eritrea is that high plateau which stretches southward into Ethiopian country. This plateau, with its average elevation of nearly 7,000 feet, has a cool climate with ample rain in summer. The people here are Hamitic, partly with a slight Semitic or Negroïd touch. Their speech is Tigráí, or Tigre, and their religion Coptic Christian. The same is true of those who live beyond the southern frontier in adjoining Ethiopia.

While this high basaltic plateau falls off steeply to the Red Sea, the other side—the west—slopes more gradually to the border of the Sudan plain. These rolling inclines make up the third section of Eritrea.

Climate and crops change, too, as one descends from the plateau toward the Sudan. Vegetables and fruits grow in the cool highlands; in the lower and warmer regions, coffee, sisal, and tobacco; cotton is an increasing crop. Hides and skins are exported. Near Asmara, on a small scale, gold is recovered by crushing quartz and running it over mercury tables.

Toward the west, people grow darker; at the Sudan border, they are almost entirely Moslem Negroes. In the Cunama district of southwest Eritrea, a most inaccessible region, pagan Negro tribes may still be

found. As in many other parts of Africa, the Moslem faith spreads as rapidly as does Christianity.

A NEW COLONIAL SYSTEM

From the very first, Italy's problem was to build up this many-sided territory into a unified colony. The Italians originated, therefore, a system of their own.

On the first day of my stay in Asmara, I walked into a small shop to buy some cigarettes. Behind the counter stood the owner—an Italian—wrapping up a package of goods for a black customer (p. 295).

"Many thanks and come back again soon," he said.

The black man lifted his hat and took leave with a polite "Arrivederci, signore."

I was astonished. In no other *black* colony, in my experience, have I seen white shopkeepers, unembarrassed, selling wares for a few cents to native customers. Such a thing would be unthinkable in India, for instance. There you would hardly expect to see Englishmen wrapping up packages for a Hindu.

In the street I watched an Italian farmer riding in a two-wheeled buggy. It seemed so out of place in Africa! To learn about Italian farmers and their experience here, I went to the Agriculture Department. The chief received me with true Italian courtesy, and agreed to conduct me through the farming regions next day.

After we had ridden around for several hours by motor car, I still had not seen anything very different from that in numerous other colonies, except some large model plantations of which rich owners—and the



THE BELLS HE RINGS ARE MADE OF STONE

While these rocks, when struck, tinkle like a bell, they resemble anvils in shape. Suspended on a pole between two trees near the church door, they are pounded to call the faithful to worship (see page 284). On the ground lie pieces of stone, chipped from the "bells" or "clappers."

gentlemen from the Agriculture Department—were equally proud. I tried to explain that I would much rather see small and less showy farms.

"But all the small farmers work just as they do in Italy!" said my host.

"In that case," I replied, "that's just what I want to see."

A CALABRIAN FARMER CARRIES ON IN ERITREA

Soon we stopped in front of a small stone house of three rooms and kitchen. To greet us came a venerable Calabrian farmer, a little confused by official callers.

In the shade of a pergola, the old man,



STONE HOUSES WITH CORRUGATED TIN ROOFS HAVE REPLACED NATIVE "TUKULS," OR HUTS, IN ASMARA

Lights, water, paved streets, fruit markets, all are found here in the bustling town. This type of structure, permitting Europeans and natives to dwell in the same area, aids Eritreans to learn Italian speech and customs, and promotes colonial development.



THIS BOY MIXES PAINTS FOR HIS ARTIST FATHER, WHOSE PUPIL HE IS

In his right hand the youngster holds an egg, which he will break against the mixing paddle in his left. Eritrean painters use eggs instead of oil as a binding material and as "pure egg color" for yellow backgrounds.



DOLL-LIKE FACES REPRESENT THE APOSTLES IN THIS ETHIOPIAN "LAST SUPPER"

"Hundreds of such examples of Byzantine painting," says the author, "decorate inner rooms of round-shaped Coptic churches in Eritrea." Some are centuries old; others were painted within the last few years.



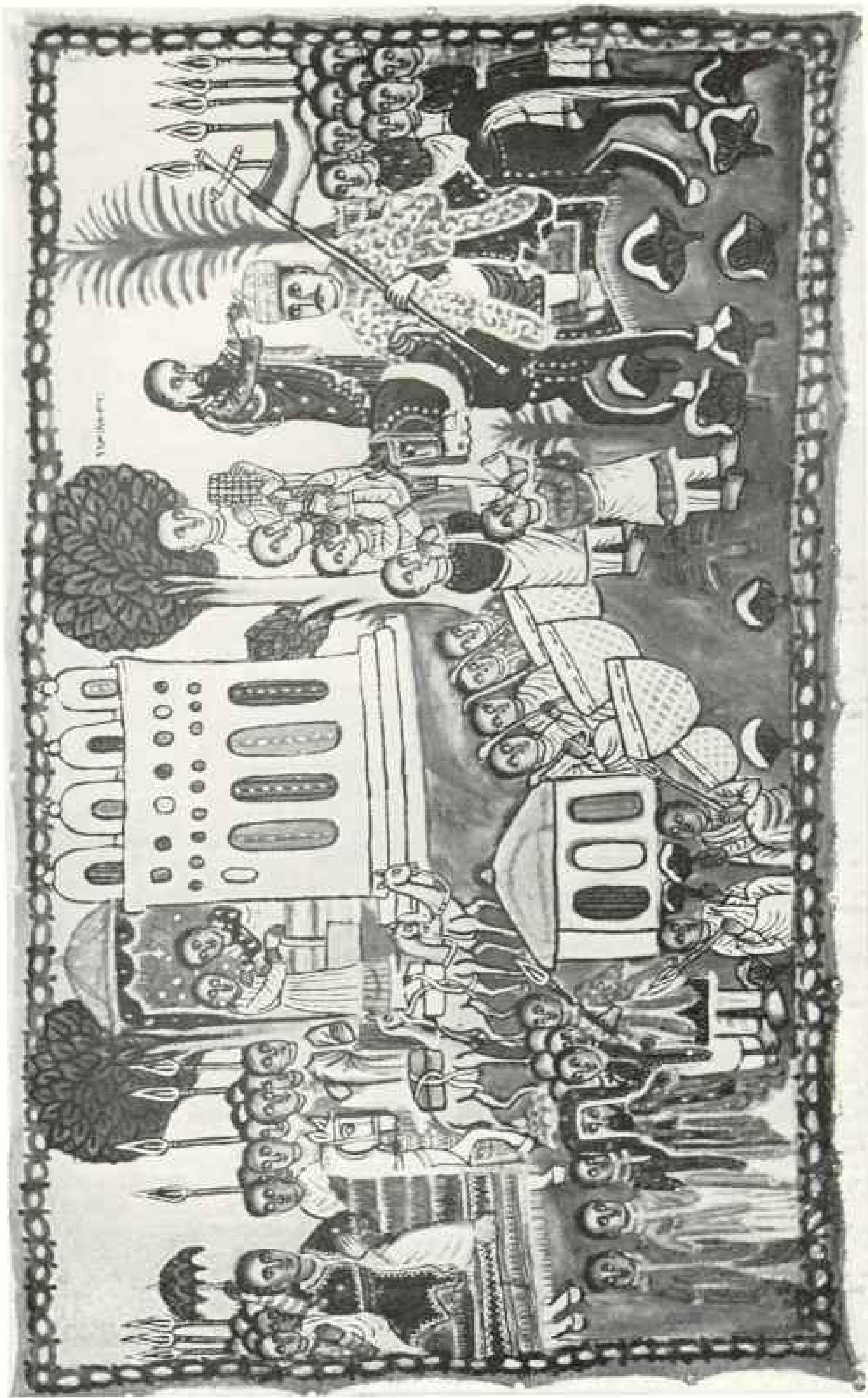
OUTLINED IS A HORSE, SKETCHED BY AN ETHIOPIAN IN ERITREA

But there will be a saint somewhere in the picture, before he is finished, for holy figures and historical themes are his specialties. On the canvas tacked to the mud wall of his living room, he first sketches with charcoal, then paints with homemade tempera colors.



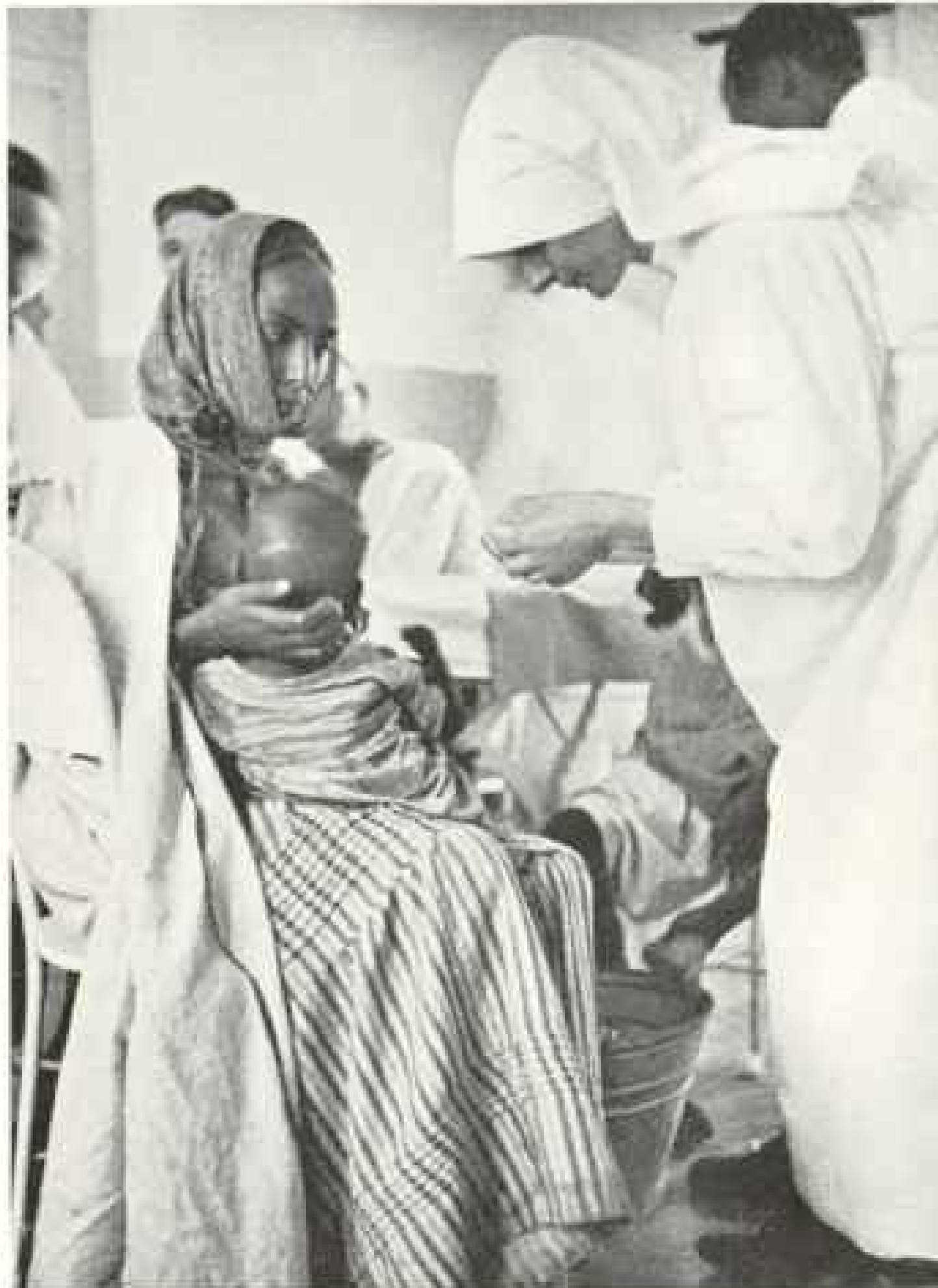
ONE ERITREAN ARTIST EMPLOYS HIS RELATIVES AS BIBLICAL MODELS

With staff raised the father is about to pose as one of the prophets in a scene being painted by his son. The artist's sister-in-law, nephew, and wife all pose for him. The old man long painted for a living, but now has retired in his son's favor.



THIS PAINTING PROCLAIMS AN ETHIOPIAN LEGEND THAT THE RULING FAMILY IS DESCENDED FROM SOLOMON AND THE QUEEN OF SHEBA

Love of color and a fondness for graphic grouping of many figures in one picture are characteristic of Ethiopian painters. Here, with a background of gold, is portrayed a coronation, observed by beggars, a drum corps, warriors, and priests. From the left, under an umbrella, approaches the Queen, along with a pack train bearing gifts. The structure in the background represents the Palace of Solomon.



AN ERITREAN WOMAN ENTRUSTS HER SICK BABY TO AN ITALIAN NURSE

An average of 700 natives a day comes to the surgical section of the Asmara hospital for major and minor operations. Many native girls are being trained as nurses.

while peeling cactus fruits, gave us the story of his life in Africa. He had sold his farm in Italy; then, with his family, a little money, and much will to work, he had come to Africa. The government had first lent him a piece of raw land; when he had demonstrated his ability to work it, it was deeded to him.

Proudly he guided us over his property. He showed the reservoirs which he and his son, single-handed, had excavated. A home-made water wheel, driven by a mule, drew out water to irrigate his fields. All the fruit trees he had planted himself. Now he has two native helpers—but his wife still keeps house and cooks. Every morn-

ing he drives his buggy to Asmara and sells his fruit.

"It doesn't amount to much," he said, "but here we don't need much."

On the way home I asked my companion if the government intended to continue to support the immigration of Italian farmers.

"We should like to, but we have hardly any more free land to give. You must not forget that the land is also cultivated by natives, from whom we naturally cannot take it away."

On Main Street, which divides the business and residential districts, is a magnificent building bearing the inscription "Casa del Fascio" (page 277). Houses with similar inscriptions are found in all large Eritrean localities. These houses are the headquarters of leaders, and meeting places for local Fascist groups.

The Fascist movement plays no less a part here than it does in Italy. First of all,

it is a bond holding the white population together; it establishes among civilians a militaristic group, a sort of national guard in this colony.

Until the outbreak of Italian-Ethiopian hostilities there were no white soldiers in Eritrea. All troops doing regular duty here were made up of native soldiers called *askari*, under the command of Italian officers. The Eritrean regiments give the appearance of being excellent fighters.

In early youth, from six to eight years, the sons of the white citizens of Eritrea are taken into the *Balilla*, the Fascist youth movement, there to be prepared for later military service in Italy (pp. 274, 276).

Here in Africa, on Saturdays and Sundays, one can see "Black-Shirts," varying in years, marching in formation into the country to hold military exercises. A strange sight!

Nor do black boys remain undrilled. Many native youngsters have already been taken into the *Balilla*. Besides this, in all large schools where, after the first year, instruction in all grades is in Italian, the fundamentals of military discipline are taught. This is naturally only meant for such large settlements as Asmara, Cheren, Agordat, Adi Ugri, Massaua, and their immediate surroundings.

In all things the Administration tries to give the natives utmost freedom. There is, for instance, hardly any police supervision in out-of-the-way places. And it is true that native tribes, for ages accustomed to settling their private affairs among themselves, are still permitted to do so without government help. The Italian District Governor, the so-called "Commisario," does not concern himself with any offenses under the jurisdiction of a native tribe, except such as are brought especially to his attention.

Even the Italian official, although independent in decision, in most cases will seek the advice of the oldest member of the tribe before giving his verdict. This system seems to work well.

All civilian occurrences, disputes, divorces, etc., are adjusted by native judges in their own law courts, according to unwritten laws handed down through ages. These native law courts, theatrical and



AN ITALIAN FARMER PICKS APPLES ON HIS NEW RANCH IN ERITREA

His property here in the highlands is small—just a patch, like his plot back home. First the Government let him use the land on probation. When it saw he knew his business, and would work, the small farm was deeded to him. Now, with a few native helpers, he cultivates it and sells his surplus in the towns.

amazing as they are, give an excellent cross-section of Eritrea's social life.

Close contact explains the rapid diffusion of the Italian language among the natives. The Italian craftsman, a bricklayer, for instance, who works on a structure, brings to his native helpers not only a foreign language but also the art and science of his craft.

BYZANTIUM IN AFRICA

That part of old Ethiopia known now as Eritrea came only recently into close unity with Europe. Long ago it was almost akin to



A WELL-PAVED ROAD, SWEEPING OVER THE PLATEAU, LEADS TO ETHIOPIA'S FRONTIER.

The treeless, barren aspect of much of Eritrea is shown on this empty stretch where a lonely, bareheaded peasant wearily punches the rump of his plodding pack donkey. The sign says, "Military Road. Trespassing Forbidden."

the Occident. That was more than 1,500 years ago when Christianity, with its Greek-Byzantine culture, flowed over desert roads into the land. Then these roads were closed by Mohammedan might as Islam's shadow fell over Arabia and many lands south of the Mediterranean Sea. Eritrea, cut off from the world through the foes of its religion, remained isolated from other cultures for more than 1,000 years. So it forgot Europe, as Europeans had forgotten it.

I was not thinking about these facts when, for the first time, I stepped into one of the churches in Eritrea. Already, the isolated bell tower, which stands within the walled enclosure, reminded me somehow or other of the structure of the basilicas.

"Only a coincidence," I thought at first, and stepped into the interior of the church. There I stood and stared somewhat confusedly upon a much more surprising thing.

The four wooden walls, which surround the real sanctuary, were completely plastered with sacred pictures, not cheap oil prints, but real paintings. They looked

exactly like the characteristic icons which 1,600 years ago were painted in Byzantium or, during the Middle Ages, in Russia—very primitive, but occasionally strong and peculiar in style and color.

I have since visited many more churches in different parts of Eritrea and everywhere have found similar pictures.

As many of these pictures looked quite new, I could not suppress my natural curiosity about the painters. Such a one I soon found at work in his studio—a four cornered room-and-kitchen house with a tin roof. Structures of this type, as a result of the Italian influx, have recently appeared in the larger settlements and their environs. Thus, gradually they will displace the traditional *tukuls*—the round, straw-covered huts of the country (page 288).

The artist, who had sought to escape his surroundings by donning half-priestly clothes, proudly showed me his latest works. There were madonnas, St. George and the dragon—pardon—here it is a snake (the painter had seen giant snakes but never dragons) and many Coptic saints, most of whom I did not even know by name.



WHITE PROPRIETORS IN AN ITALIAN STORE SELL CIGARETTES TO NATIVE CUSTOMERS

In most other tropical colonies administered by white races, caste distinctions would forbid this. But to Eritrea have come many Italians, intending to remain, and willing to follow small trades. These two salesmen of Asmara, brothers, handle cigarettes, postcards, and stationery.

"How did you learn to paint?"

"My father taught me."

"And your father?"

"His father taught him—and besides, it really isn't at all difficult since one can see paintings of saints in all our churches."

Here in Eritrea, without abrupt transition, remnants of one of the world's oldest continuous cultures unite with that brought in by the Italian conquerors.

THE ROAD TO ETHIOPIA

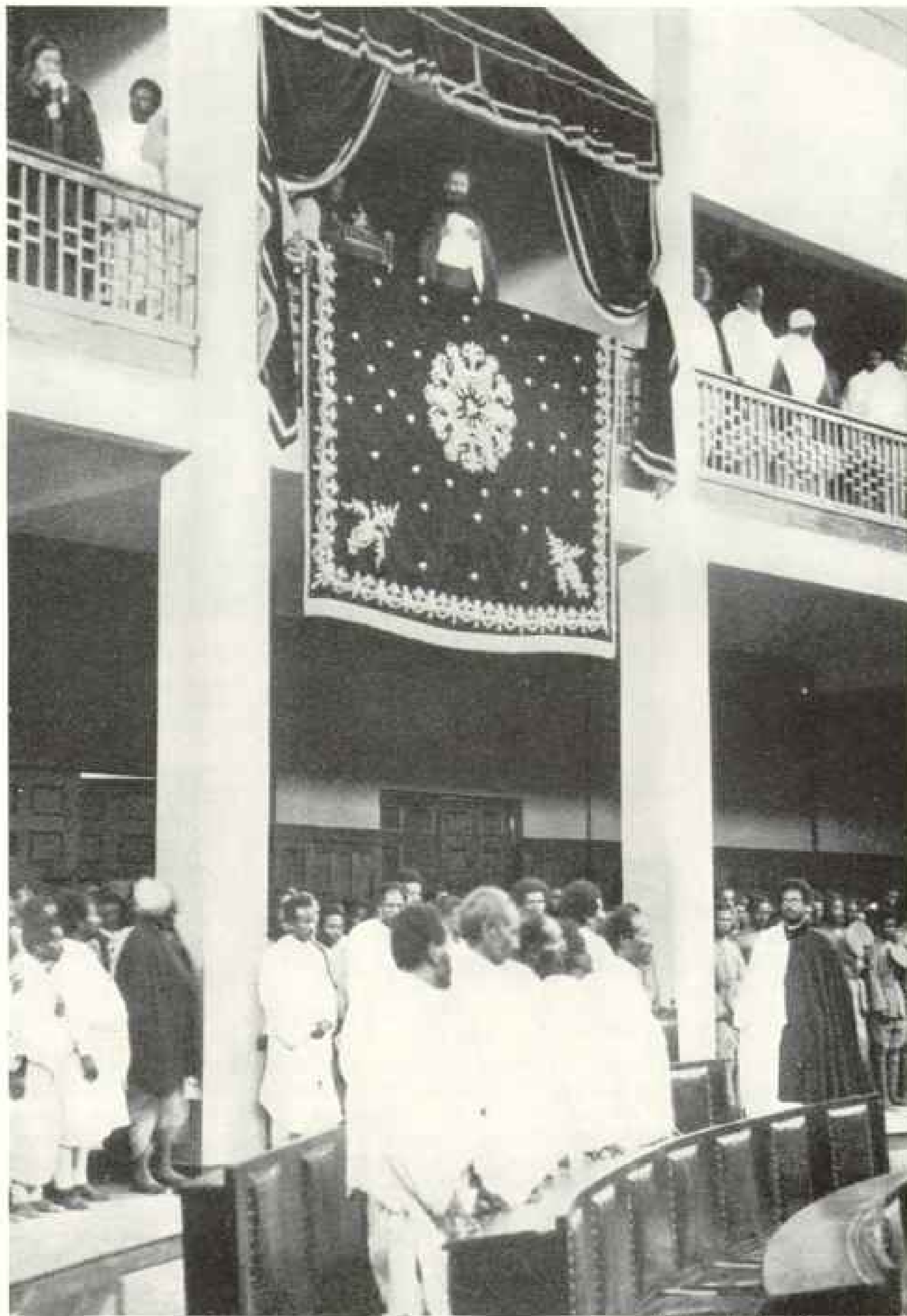
In many ways Eritrea seems still linked with Ethiopia. No natural boundaries cut the young colony off from the old Menelik Empire. High up on the plateau, on both sides of the border, the same language is spoken by people who share the same religion, the same customs, and the same tradition.

The markets of Adi Ugri, Adi Caieb, and Asmara are full of goods which have come over from the adjoining Ethiopian province. From there the nearest road to the sea leads over thousands-of-years-old caravan trails through the territory of Eritrea. In both countries the exportation of the

same wares—hides and skins—stands first in importance. The Ethiopian silver standard Maria Theresa dollar circulates now as well as the Italian lire.

On the way to the border I met many Ethiopian caravans which, in peaceful commercial intercourse, bring their wares to Eritrea. How much longer? Today war clouds hang heavily over this quiet, peaceful country. On the edge of the road which I follow, men work in feverish haste. Italian engineers and native helpers are building a large airport to shelter and service the deadly air army of Mussolini. Here a newly built road branches off the path. A tablet says that this is a military road, trespassing on which is strongly prohibited.

From the frontier I can look now into Ethiopia. Behind that mountain lies blood-drenched Aduwa's (Adua) battlefield. There in 1896 wild warriors of the "King of Kings" cut to pieces a smaller Italian army of 14,000. To their death they marched over this very highway. Once before it was a grim path of destiny; it may be again!



Photograph by Acme Newspictures

EMPEROR HAILE SELASSIE READS A PROCLAMATION FROM THE BALCONY OF
HIS PARLIAMENT BUILDING

Grouped about are members of the assembly in the modern capital building at Addis Ababa, where they gathered to hear the King of Kings of Ethiopia, Conquering Lion of the Tribe of Judah, announce plans for defending his realm against possible conflict with Italy. Benches below are filled with white-clad chieftains and army officers. In the balcony to the Emperor's right appears a high dignitary of the church.

TRAVELING IN THE HIGHLANDS OF ETHIOPIA

BY LEO B. ROBERTS

ETHIOPIA, Abyssinia to many, is a non-Negro empire in northeastern Africa whose population has been variously estimated at from five and a half to twelve millions. I believe about seven million is more nearly correct, although no census has been taken. Officially, Ethiopia is a Christian country; but within the confines of the empire there are also Moslems and pagans.

In ancient times the term "Ethiopia" designated, more or less loosely, northeastern Africa and the country south of Egypt. It was probably the Biblical land of Cush, mentioned many times in the Old Testament.*

Concerning that able woman who once ruled this land—known to us as the Queen of Sheba—priests in widely separated parts of the country told me stories amazingly consistent.

"Solomon," they said, "was a doctor, a healer, a learned man who had the power to cure, a *hakim*."

"And the Queen suffered from a short, distorted right foot. Her journey to Jerus Alem was made to see whether Hakim Solomon could help her, and naturally she carried presents to him. The child that was born to them was Menelik I. Solomon educated the lad in Jerus Alem until he was 19 years old, when the boy returned to Ethiopia with a large group of Jews, taking with him the true Ark of the Covenant."

THE ARK OF THE COVENANT

Many people believe that this Ark is now in some church along the northern boundary of the present-day Empire of Ethiopia, near Aduwa (Adua) or Aksum. But if it is here, so well guarded by the priests is this Ark that no student from the western world has been able to confirm or deny the legend!

The present ruler, Haile Selassie the First, King of Kings of Ethiopia, Conquering Lion of the Tribe of Judah, claims direct

descent from the dynasty of Menelik the First.

Amharic, of Semitic origin, is the state language of the country. Other tongues are spoken in various sections, including Arabic, Galla, Gurage, and Gumz. A foreigner traveling here needs a versatile interpreter.

Parables, still freely in use, give a fine flavor to conversation. A priest, sorry he could not converse directly with me, said to my interpreter, "Tell him the eye and ear are a part of the head and necessary each to the other; yet the eye cannot see the ear, but simply knows it is in its right place, doing its duty. So it is with the two of us."

RINGED BY ITALIANS, FRENCH, BRITISH

This empire has no seaport. Italian Eritrea, French and British Somaliland occupy the western coast of the Red Sea and the Gulf of Aden. To the east and south are Italian Somaliland and Kenya, while to the west and north are the vast lowlands of the Anglo-Egyptian Sudan. In size Ethiopia comprises about 424,000 square miles, or is nearly nine times as large as New York State (see map, pages 270, 271).

West of Eritrea and French Somaliland there is an Ethiopian desert belt 100 miles wide; its lava formations resemble Arizona *malpais* country at its worst. Dry season sun strikes here with terrific force; water holes are far apart. Until very recently this desert, the Danakil country, was entirely unexplored. In 1928, however, an Englishman, Mr. L. M. Nesbitt, with two Italian companions, Pastori and Rosina, successfully traversed the area from south to north, a journey demanding great courage and steadfastness of purpose. In 1930 I paralleled the route taken by Mr. Nesbitt for some 70 miles and know of the many difficulties which he so successfully surmounted.

In 1933-34 the southern part of this desert was explored by another Englishman, Mr. Wilfred Thesiger. He solved the mystery of the course of the River Awash, which disappears in the desert lowlands.

In north and central Ethiopia are five Christian provinces: Tigre, Amhara, Gojjam, Wallo, and Shoa; to the southwest is Kafa, the home of coffee which took its name therefrom; farther south and east are smaller provinces conquered by Emperor

* See in the NATIONAL GEOGRAPHIC MAGAZINE "Life's Tenor in Ethiopia," by James Loder Park, June, 1935; "Modern Ethiopia," by Addison E. Southard, and "Coronation Days in Addis Ababa," by W. Robert Moore, June, 1931; "Nature and Man in Ethiopia," by Wilfred H. Orgood, August, 1928; "A Caravan Journey Through Abyssinia," by Harry V. Harlan, June, 1925.



Photograph by W. Robert Moore

GALLA TRIBESWOMEN ESCORT A CARAVAN LOAD OF WATER JARS INTO ADDIS ABABA

An indispensable article of household furniture in every Ethiopian home is the *gamba*, or baked clay water jar. Daily, the women fill the vessels at the nearest spring or water hole and cover the tops with green leaves; then carry them home on their backs, held by a strap around the forehead, in the Bible-time manner.

Menelik II. Demarcation between these southern provinces varies; present-day maps are none too reliable.

West of the desert occurs one of the world's most striking topographical features—an escarpment rising a mile or more above the arid lowlands. This massive barrier has isolated Ethiopian mountain dwellers from the outside world for centuries.

Approaching this escarpment from the east, it seems that on top of it there must be a vast tableland (see pages 313, 319). But a traverse of the escarpment, as well as 2,500 miles of travel on the interior uplands, makes it difficult to believe that the word "plateau" properly describes this area.

The escarpment's summit is narrow, rough, and broken, with many isolated peaks; sources of the many water courses which flow to the west and into the Blue Nile (*Abbai*) are often within only a few yards of it.

I take the following from my notes, written at the end of a day of hard climbing on the eastern escarpment near Magdala, scene of the victory of the English expedition sent

out under Sir Robert Napier, 1867-68, to free European prisoners:

"This is rough country. Tonight I have an unobstructed view in every direction of a succession of deeply eroded stream courses, wooded valleys, tablelands, and the smaller, flat-topped mesas known to the Ethiopians as *ambas*. There are many of these gray outliers of rim rock; sheer cliffs join steep-sided valleys deeply indented with minor drainage. Side ravines are close together; terrain more difficult to traverse than canyon country of the United States, differences of elevation being greater. General tone is brown and gray; no timber. Cold winds make this barren land seem all the more dreary and desolate."

These highlands extend west from the eastern escarpment some 200 miles, to an equally steep slope on the west. Much of the area between the western escarpment and the Sudan border is unmapped, but it is known that this lowland is densely forested and the soil is the black, greasy, gumbo type. In the east and west lowlands, heat is terrific; on the highlands, which vary



Photograph by E. A. Salisbury © Ewing Galloway

WARRIORS GATHER FOR A FEAST GIVEN BY AN ETHIOPIAN "GREAT"

Any public official is called a Great. He commonly keeps in close touch with his dependents by giving away food. When a man has rendered any service to a Great, he may take his stand before the latter's house, hold a rock on his shoulder, and cry, "*Abet*." Then the Great may notice him, and see that he is "gratified."

from 8,000 to nearly 15,000 feet above the Red Sea, it is generally cold.

Two distinct seasons exist—a heavy rainy season lasting from June until the end of September and a dry season for the remaining eight months. In certain years, gentle rains occur in the month of May and these are called the Little Rains.

Hailstorms are a menace; often the stones are so large that they cripple mules in a caravan. They usually occur in December and January. Early months of the dry season are called "false spring" by natives. I saw the ground covered a foot deep with hailstones that did not melt for two days.

In January and February, every prospect pleases; bright-colored birds are seen on hillsides. It is warm enough during the day to be comfortable while walking on the trail, but at night the temperature drops sharply; ice forms in water buckets. Temperatures change quickly. I recorded three instances where the thermometer dropped 26 degrees in less than half an hour.

The remainder of the dry season is temperate; an interesting sight is what natives

term "wind devils"; these wind whirls raise the red dust and sand to great heights.

TRAVEL POSSIBLE ONLY IN DRY SEASON

It is literally true that it is possible to travel in Ethiopia only in the dry season. In arranging for a trip it is well to strive for the happy medium between too much luxury and too much poverty of equipment. Yet, with proper equipment and a sense of humor, one can go about in Ethiopia by mule caravan with considerable comfort.

Not many horses are found in the uplands; mules are used. When the terrain is dry mules can surmount almost any obstacle. In rain, however, mud blocks the traveler. When it is wet going the mules tire, or get mired, and there is nothing to do except, as the guides say, "Leave it to God."

To explore inner Ethiopia, there are two methods: *Negadis*, or professional caravan leaders, at Addis Ababa will agree to transport a man and his goods from place to place for a stated sum, or you can buy equipment and mules direct and hire loadmen to make the trip.



Photograph by N. V. Blakeslee and E. W. Goff
 EMPEROR HAILE SELASSIE PRESENTED THIS GOLDEN CROSS TO
 THE EPISCOPAL BISHOP OF WASHINGTON

Upon the Emperor's coronation in 1930 a prayer for him was said in the Washington Cathedral. When he learned of this, he asked the American Minister at Addis Ababa to send the cross, together with the Four Gospels in Amharic, to Bishop James E. Freeman, through the Department of State (see page 327).

The first system has not proved successful. Once on the trail, the negadis find curious excuses for not continuing the journey, in the face of which the traveler is helpless.

Organizing my own caravan, I found, was simple enough, as there is a good mule market at Addis Ababa. By staying away from it, with an air of indifference, and letting some one else gradually assemble the desired number of mules, you can buy them without too great an increase in the normal price.

In the capital, too, you can hire all the loadmen and porters your caravan may

need. These men thoroughly enjoy a trip in the highlands; but do not like to journey in the lowlands. They are essentially mountaineers and avoid the low, fever-ridden country. All are great talkers. Each man, when hired, appears with two guarantors who sign, with their thumb prints, a certificate attesting the honesty and dependability of their friend.

All the men I hired claimed to have been on caravan trips; but many, I'm sure, had never been far from the lanes of Addis Ababa. Some few were hard workers and became good loadmen; before the end of the trip they at least understood the difference between the front and back end of a McClellan saddle.

As I had many pack animals, I was prevailed upon to take one man called a *hakim*, or doctor, who had a high reputation with the loadmen because of his ability to cure sick mules. All went well for a couple of months. There was no sickness among the mules and the only ones I lost

were those killed by hyenas. At night, as many as ten of these wild beasts would rush the picket lines. They would come silently, and be upon the mules before the guards, who were usually asleep, could give an alarm, and often succeeded in savagely wounding the tethered animals so that we had to shoot them.

Later, when several mules fell sick, the *hakim* said: "It is sure that a certain hawk flew between the sun and the back of this animal, so that the shadow fell upon it. Since that has occurred, there is nothing to do but to leave it to God." I told him

the word doctor meant "a learned man"; he was pleased, even though the mules died.

Government passes are necessary to travel; it also helps to carry letters from government officials, called "Greats" (page 299).

Time means nothing here. The "ishī nabga" ("yes, soon") of Ethiopia is even more common than the "mañana" of Mexico. You can also expect delay at many so-called "customs barriers," where even a permit, properly sealed, is not recognized by local guardians. There is no central taxation system, and on one trip of 18 miles I was halted five times by customs men whose commands that I stop and wait until their chief had given me his permission to pass on were loud and violent. Often the demands that I halt were made merely because the natives wanted a chance to visit with us, to hear the latest rumors, or exchange presents!

To pay one's way through inner Ethiopia is not easy. It is the universal custom that food must be given to a traveler who comes well recommended; likewise, the traveler is expected to return a present of equal or greater value. Presents of cattle, sheep, bread, and beer are usually sent daily to camp by the local chiefs, and it is also expected that these are to be turned over for the use of the Ethiopians of the caravan.

SAFETY PINS ARE FLEA EXTERMINATORS

It is difficult to carry on a long trip a variety of presents that are entirely adequate, but thalers, hunting knives, scissors, field glasses, nests of silver cups, rock



Photograph by Walter Mittelholzer

HIS MAJESTY, EMPEROR HAILE SELASSIE, IN PARADE UNIFORM MOUNTS HIS SNOW-WHITE CHARGER

When the author left for the interior, the Emperor graciously gave him official travel permits stamped with the royal seal. Without these the journey would have been impossible. "Dinner at the palace," says the author, "is always enjoyable, the Emperor being much interested in the American people and their customs."

candy, soap, and safety pins are usually appreciated. The safety pins, especially, are much sought after; they are used as instruments to pick out the sacs of eggs of a small flea known as the jigger from under the toenails. On a long trip the men usually team up in pairs and each one helps the other remove his jiggers. The operation apparently is not very painful to the Ethiopians, for they do not wear shoes and their feet are hard and calloused.

In giving and receiving presents many chiefs are practical in the extreme. At one village the local Great asked me for a



Photograph by Alfred M. Bailey

ATO ASHAGARI WAS THE VETERAN ETHIOPIAN LEADER OF
THE AUTHOR'S CARAVAN

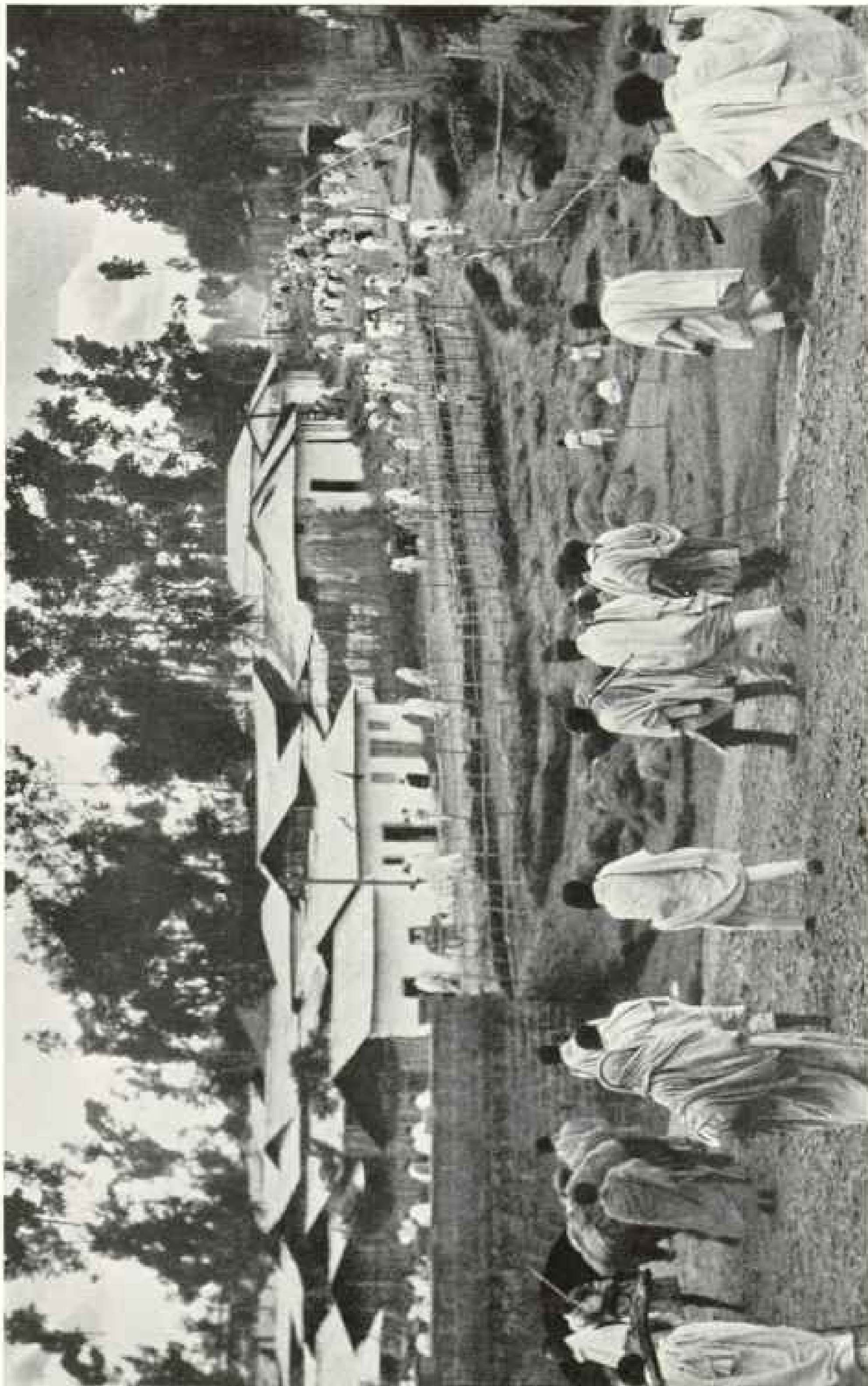
In his left hand are his helmet and a fly-swatter. He blew a bugle to give orders to porters, muleteers, and loadmen. Ashagari is about 55, speaks Galla, Amharic, and a little English. He enjoyed life on the march, and was useful as a judge in disputes, or in any tight place calling for leadership.



© Alex Stocker

THIRD-CLASS PASSENGERS ON ETHIOPIA'S ONLY RAILROAD
REACH OUT FOR THEIR LUNCH

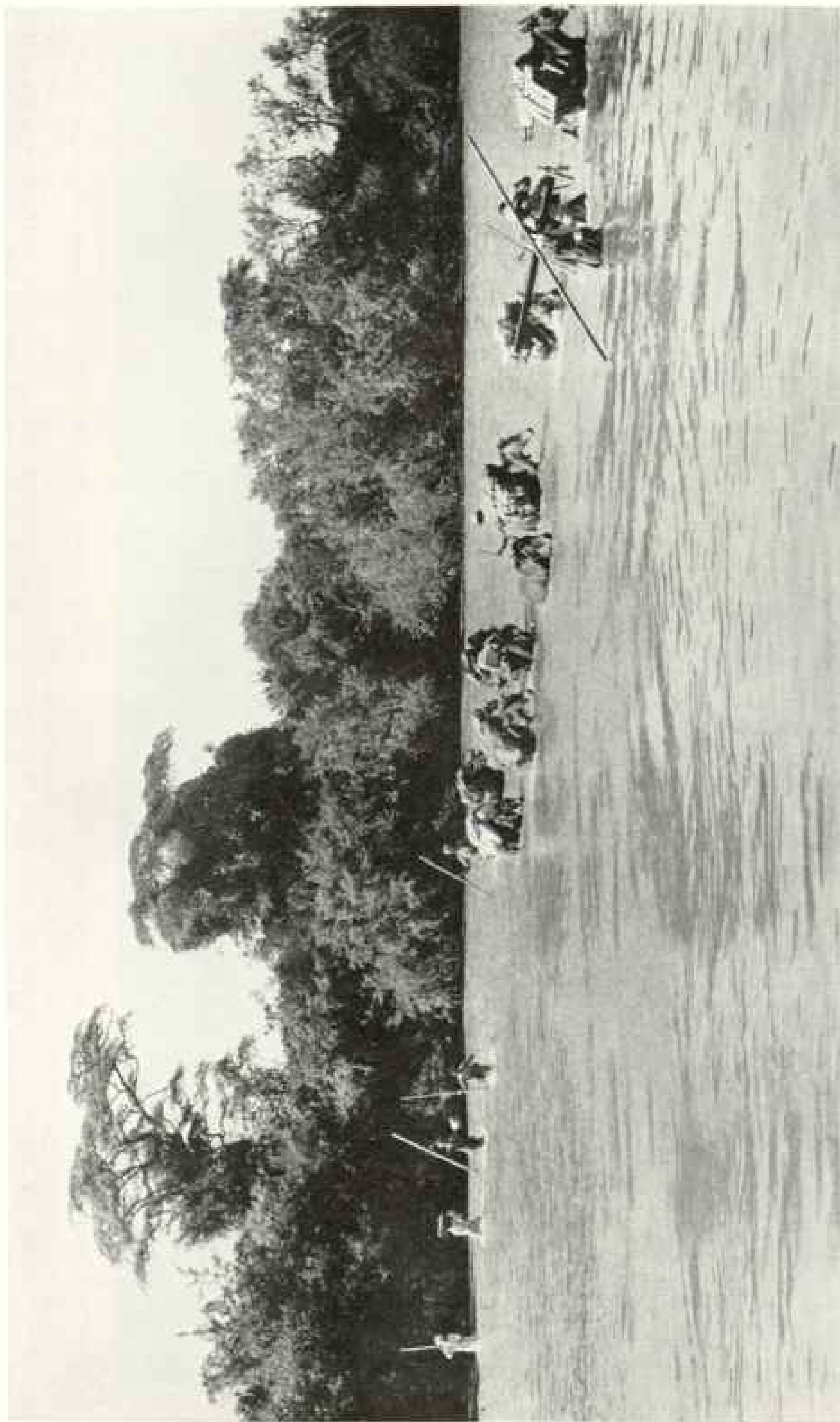
From Djibouti, capital of French Somaliland, a narrow-gauge line runs southwest some 500 miles to Addis Ababa. The train leaves the coast at dawn, passengers spending two nights at stopovers, and reaches the capital on the third day. As there are no diners, food is purchased along the way.



Photograph by W. Herbert Moore

ADDIS ABABA WAS SAVED AS THE CAPITAL WHEN EMPEROR MENELIK II IMPORTED EUCALYPTUS TREES FROM AUSTRALIA YEARS AGO

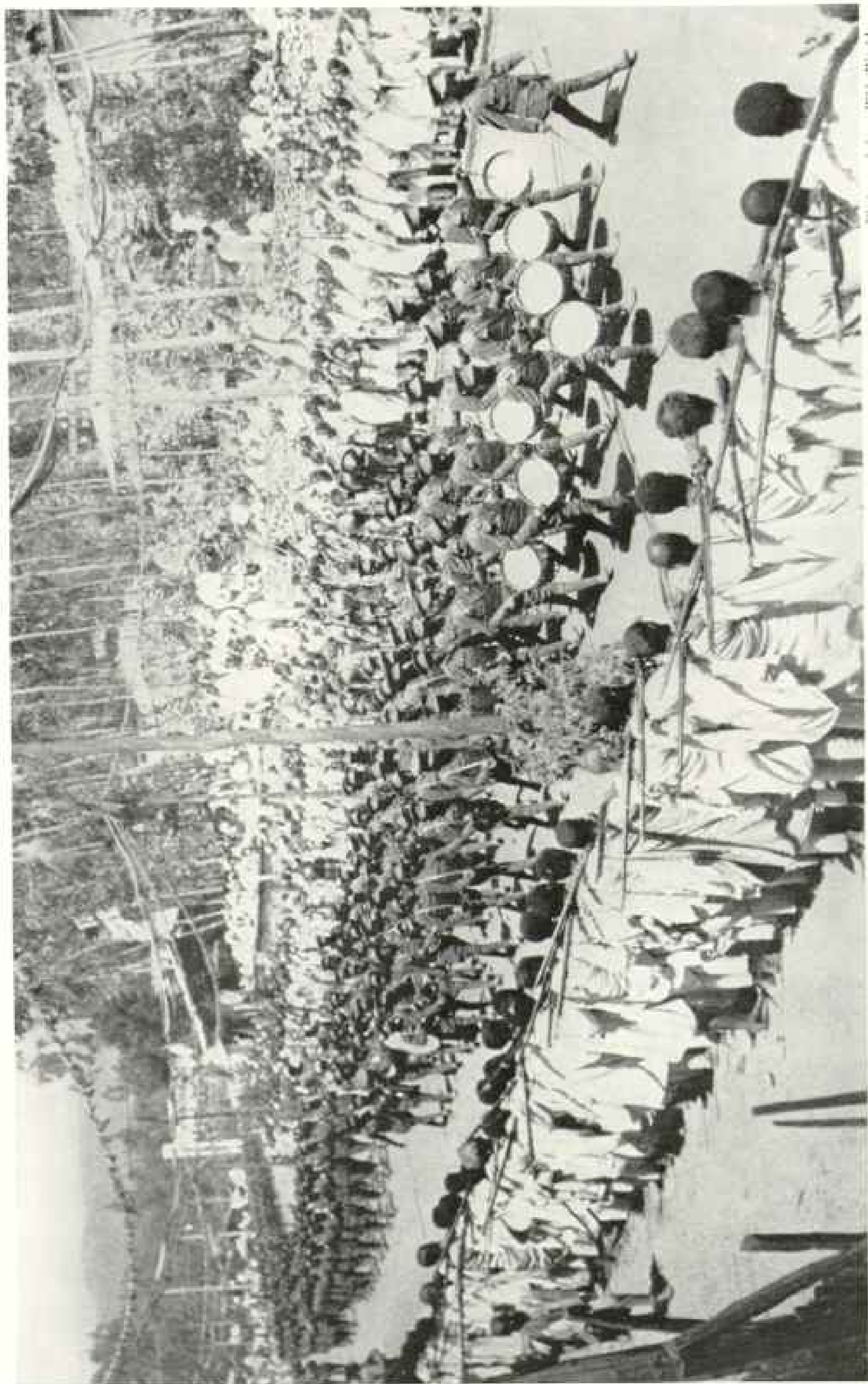
When the original juniper and acacia forest, source of fuel, surrounding the city had been depleted, it was suggested that the capital be moved to a new wooded site. The Emperor forestalled this removal by taking the suggestion of his foreign advisers and introducing the fast-growing eucalyptus, or blue gum. Soon the new trees flourished and his subjects were furnished with a plentiful supply of firewood and shade for their mud-walled, tin-roofed homes. Now when trees are felled they must be replaced with seedlings.



Photograph from Leo B. Roberts

THE CARAVAN CROSSES A SHALLOW FORD IN THE LITTLE ABBAY RIVER NEAR DANGILA

Bedding, tents, and food—mostly canned goods—are in the packs. Coffee, chickens, beef, mutton, honey, and breadstuffs were obtained locally. Pork is not eaten by highland natives. Food cans, when emptied, were used for barter, natives prying them as drinking cups.



Photograph from Wide World

MILITARY CONTRASTS PARADE IN ADDIS ABABA—WHITE CHAMMAS AND KHAKI UNIFORMS

Trained by foreign officers, these troops of the Emperor march through the streets of the capital to the cadence of a modern drum corps, while tribal warriors with ancient rifles and rhinoceros-hide shields look on. But all have one thing in common—bare feet!



Photograph by Wilfred H. Osgood

SPEARMEN POSING AS CUSTOMS OFFICIALS HOLD UP A CARAVAN'S PROGRESS

On main travel routes in north Ethiopia customs inspectors examine travel permits. If the Emperor's seal is recognized, well and good, but often local agents know only the seal of their own chiefs—which means delay. This occurs so often that a proverb exists: "A dog knows his master, but not his master's master."



Photograph from Leo H. Roberts

ON LAKE TANA NATIVES USE AN ODD BOAT CALLED A "TANKWA"

This clumsy-looking craft is made from bundles of papyrus bound together with vines and streamlined into boat shape. The natives do not use oars but make swift progress by paddling and poling with a stick. These boats become waterlogged and worthless after a week's use.

further present, expressing a desire for a bottle of perfume. "I am sorry," I told him, "but I have none with me. However, if you would like me to do so I will send some to you at a later date." My suggestion brought the characteristic response, "A later time, of course, is better than never; further, there is no time like the present; moreover, I do not care to get my reward in Paradise, but want it now."

Daily attempts by loadmen to delay progress of the caravan are part of the game. These men show rare genius in making excuses as to why delay and rest are better than progress and work. To argue about it is fatal, for no one can equal an experienced Ethiopian caravan man in an argument regarding travel and water and grass. The thing to do is to go ahead and not be too surprised to find that the boys really meant nothing by their refusal to proceed; they had tried it and it didn't work.

There are no roads in this country. Smaller streams must be forded. Often this is good fun. Some of the porters usually fall in the water, and this makes hilarious talk for the whole outfit for many days. Since there is little for Ethiopians to talk about, the smallest incident becomes a matter of seemingly great importance and furnishes an opportunity for loud discussions.

At large streams, where mules must swim, travel is difficult. To cross the Blue Nile, it is usually wise to go when the moon is full so that you can have its light when you break camp and start the descent at 2 o'clock in the morning.

The early start is necessary because there are no camping places or water from one rim to the other, therefore the distance must be made in one day.

CARAVANS MUST EMPLOY PROFESSIONAL SWIMMERS

When the local chief is convinced that the party wishes to cross the river, he blows his horn and assembles professional swimmers, because few of the caravan men can swim. First you take off the mules' packs. These, with the men who cannot swim, are then ferried to the other bank in hide boats, called *jendies*, pushed by the swimmers, who return to their job of getting the stubborn mules to the other side.

By getting one mule to lead, the hope is that others will follow; too often this expectation is blasted. One stubborn mule can upset the whole well-laid plan. It is dan-

gerous business for the swimmers, caught in a welter of thrashing, panic-stricken animals.

Many swimmers are killed at the fords every year, but those I was able to get to help me were good men, did their job well, and not one was severely hurt. Once across the swift water, the climb up the steep, narrow trails on the other side must be made with tired men and animals. In some places the trail is little more than a series of steps, where progress is slow and difficult. On such struggles I had no time to enjoy the beauty of the rugged scenery!

Safely back on the upland trails, life is simple. Association with a people who never worry is a novel experience; no telephone calls, no newspapers here. Once in a while a mail runner brings news.

RUNNERS CARRY MAIL IN CLEFT STICKS

Delivery of letters by runners is a well-established custom. The "runners" are usually hardy men, who do not "run"; they know the short cuts and foot trails, and how to pass through the territory of local chiefs; much of their time is spent in villages and churches along the way where they are welcome for the stories they tell of happenings in the capital. Because of this, they bring the mail safely.

I was told that no runner has been robbed of his mail in the history of the country! He may fall upon evil days in some village, but the letters, which he carries in a cleft stick, are not touched.

Highland Ethiopians are essentially an agricultural people. Their existence is based on the experience of their ancestors. Cultivating a piece of ground which will yield enough for the family and the tax collector, they then let it lie fallow for four or five years. The ground is hardly scratched by the plowing. Plows are straight sticks of wood, drawn by two bulls.

Children often plow and seem to enjoy it. They shout, threaten, and crack their whips. It is amusing to see how little attention the bulls pay to their efforts. However, with much laughter and little exertion a field is eventually plowed, ready for seed grain, which is broadcast over it.

Teff, one of the dwarf varieties of millet, is the principal crop. Some maize is cultivated, as well as barley and chick peas. Pepper is grown extensively and used daily on meat and bread. Cattle are large, and thousands of sheep graze on the hills.



Photograph from Lee B. Roberts

YOU CAN LEAD A MULE TO WATER, BUT YOU CAN'T ALWAYS MAKE HIM SWIM.

Here is the Blue Nile as it flows out of Lake Tana, high on the Ethiopian plateau. This balky animal, as did the others, chose to turn around and scramble back up the bank rather than tackle the swift current.

Good beer, known as *talla*, is brewed from barley and the leaves of the *geshu* plant, which resemble hops. Hydromel, the ancient Anglo-Saxon mead, is a more potent drink, made from honey.

Village life is placid. The people are content with few possessions. Men spend much of the day in the fields and yet have plenty of time for gossip. Women are modest; they work steadily, yet not too hard. Flour they make from teff, baking thin loaves of bread called *indgeria*; they weave cloth of good quality into the distinctive native robe called a *chamma*. The most typical sight at any village is the procession of women and girls, carrying water in large earthen jars on their backs. Children are welcome and usually happy; they learn by listening to their elders, and their intelligence is often underrated by strangers.

No newspapers are known, but all news is broadcast at the markets, each village having its weekly market day. Certain markets are known for special goods; to Ankober many people come to buy the black woolen cape, or burnoose, and to Dembea they go for pepper. On market

day at Dessye as many as 5,000 people engage in trading and gossiping.

Bargains are usually long drawn out affairs and the people pride themselves on being good traders. As a general rule, I found that a reasonable purchase could be made; but I hope, merely as a matter of personal pride, to return to the market at Debra Markos some day and meet the man who sold me one of the best looking yet most worthless mules I ever bought!

MONEY IS ON A SALT STANDARD

In the vicinity of Addis Ababa, coins and the paper money issued by the Bank of Ethiopia are used as mediums of exchange. In the interior, however, salt bars, which have a trade value of about half a Maria Theresa thaler, are a more desirable currency than silver coins. The salt is made into bars at Red Sea points, then transported by caravan to the interior where it is traded for pepper, which brings a good price in Eritrea and French Somaliland.

Deviating from the general rules of drainage, there are many crater lakes in the extinct volcanoes of the highlands. In like



Photograph from Leo B. Roberts

BLUE NILE CURRENTS WERE SO SWIFT THAT MULES HAD TO CROSS WITHOUT THEIR PACKS.

Professional swimmers, risking kicks and bites, guided the frightened mules, some with ears flat back. Loads were taken off and ferried across in hide boats, in which also rode such caravan men as could not swim. This ford is 200 miles south of Lake Tana.

manner, it is strange to find a large lake at an elevation of nearly 6,000 feet above the Red Sea on the high land close to the edge of the western escarpment. Known as Lake Tana (Tsana),* it is roughly circular, some 45 miles long by 40 miles wide. The Little Abbaï is the principal tributary.

A spring, which is its source, was discovered by Father Pedro Paez in 1618. From this spring the Little Abbaï flows north some 60 miles into Lake Tana, only to run out of it again to the south, as the Abbaï, or Blue Nile. For many miles it flows in a deep canyon, over cataracts and waterfalls, and takes an immense curve, first to the south, then to the west, forming a natural barrier in the very heart of the empire. After a river distance of some 1,100 miles, it enters the White Nile at Khartoum.

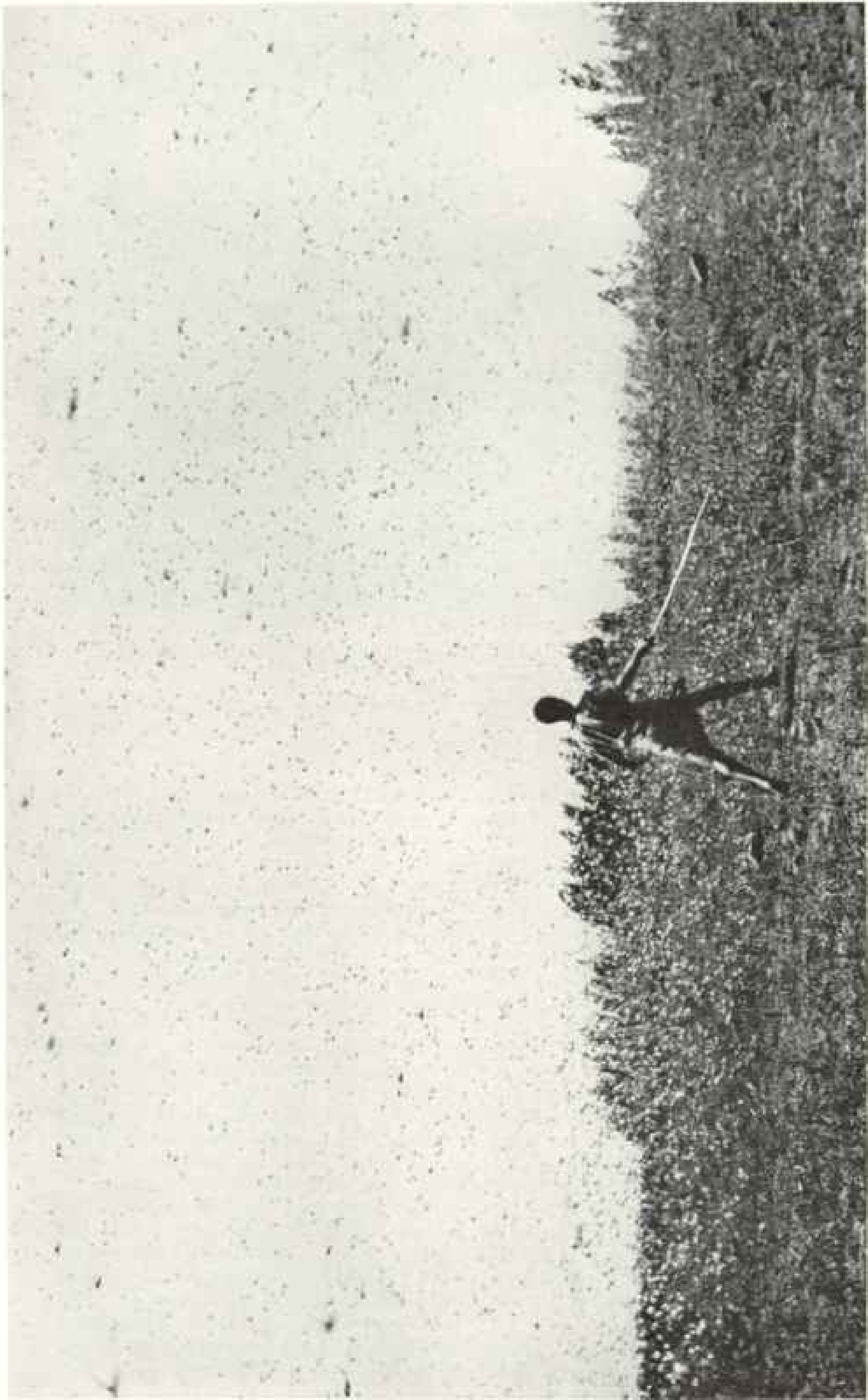
Lake Tana is situated in the midst of volcanic formations of recent geologic age. After considerable speculation about its

* Tana is the spelling adopted by the Royal Geographical Society. Some authorities prefer Tsana to conform to the Amharic pronunciation.

origin by the first European explorers, it is now generally believed to occupy the lava-obstructed valley of an ancient Blue Nile River. The old river valley was probably a deep one; a flow of lava entered it, causing a natural dam at what is now the southern end of the lake. The fractures in this lava, its scoriated appearance, and vast surface extent, mark a terrific natural upheaval of long ago.

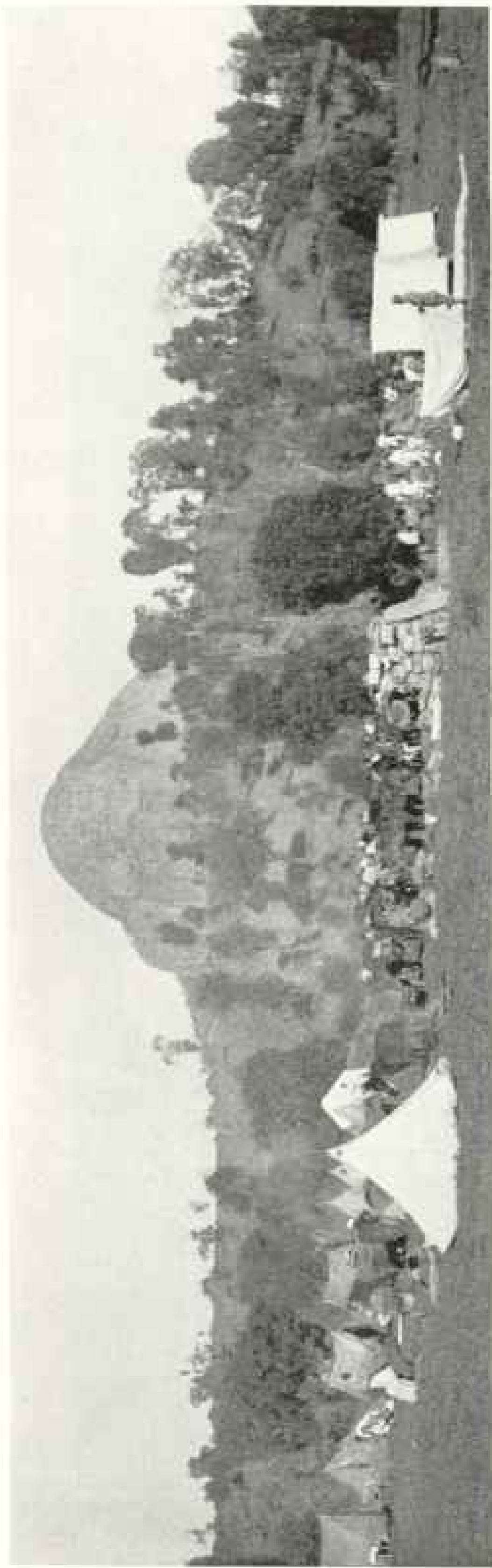
There is a combination of low shore area near the lake, with long, gray ranges of volcanic mountains encircling it; these rise abruptly from the plains. Some of the intrusions and volcanic plugs, especially on the eastern watershed, are extraordinary, rising several thousand feet sheer from their bases, unscalable, grim, and bare.

More green than blue, the water of this lake is beautifully clear. At sunrise the crimson glow is reflected by the water; when the moon is full, ripples on the lake catch the light and make a pleasing picture. It acts as a mirror when flocks of low-flying, snowy-white egrets cross it to their nesting places in the papyrus swamps.



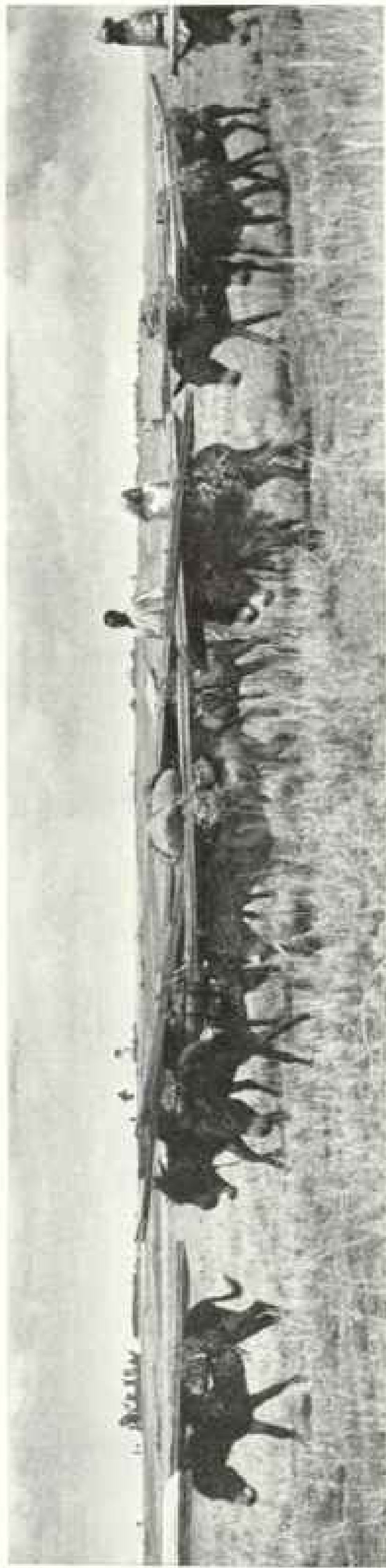
© International News

LOCUSTS THREATEN A MILLET CROP AS THE DESPAIRING FARMER, SHOUTING AND WAVING A STICK, SEEKS TO FRIGHTEN THEM AWAY. In the northern highlands, the greatest aids in combating these clouds of pests are the flocks of his and egrets which follow and feed upon them. Here the government spends much money fighting locust plagues.



CAMP IS PITCHED AMID LUSH MEADOWS BELOW A SUGAR-LOAF PEAK IN THE CHOKE MOUNTAINS

Such volcanic intrusions as Injabura Cone, in the background, towering 1,200 feet above the plateau, occur in many parts of Gojjam. Two barefoot servants of the local governor climbed this dome, says one report; others believe it has never been conquered.



Photographs from Leo B. Roberts

THESE MULES, LIKE TIGHT-ROPE WALKERS WITH BALANCING POLES, CARRY LONG, TEETERING PIECES OF LUMBER TO ADDIS ABABA

Since horses and camels are not adapted to hard work in the Ethiopian highlands, all kinds of tasks fall to the patient mule.



Photograph from Leo H. Roberts

ALONG THE ROCKY SHORES OF LAKE TANA FLOCKS OF EGRETS AND IBIS GATHER

Taken in the morning, this picture shows the usual early calm of the waters, sure to be disturbed by rough waves when the afternoon breeze comes up. Along the lake's edge in lava-flow depressions, where papyrus grows luxuriantly, many birds find bountiful feeding grounds.



Photograph by Addison E. Southard

ESCORTED BY SERVANTS, AN ETHIOPIAN LADY RIDES INTO ADDIS ABABA

Her mule is the second in line, and she wears a man's hat. Women of the class who support servants never appear in public unattended.



Photograph by Harry V. Harlan

THE DOLD AND FROWNING BULK OF ETHIOPIA'S MASSIVE EASTERN ESCARPMENT

This steep and rocky wall, 5,000 to 7,000 feet above the Red Sea, has effectually blockaded upland regions against invaders (see illustration, page 319). Deep canyons and sheer cliffs indent its face to form a natural barrier.

During the dry season, its behavior can be predicted with certainty. In the early morning it is calm and serene; near noon a breeze blows from the lake to the shore, gently at first, gradually increasing until in the early afternoon whitecaps appear, and by evening the waves have assumed a real importance, dashing against the rocky shores. As night comes on all grows quiet again, ready to begin the cycle once more.

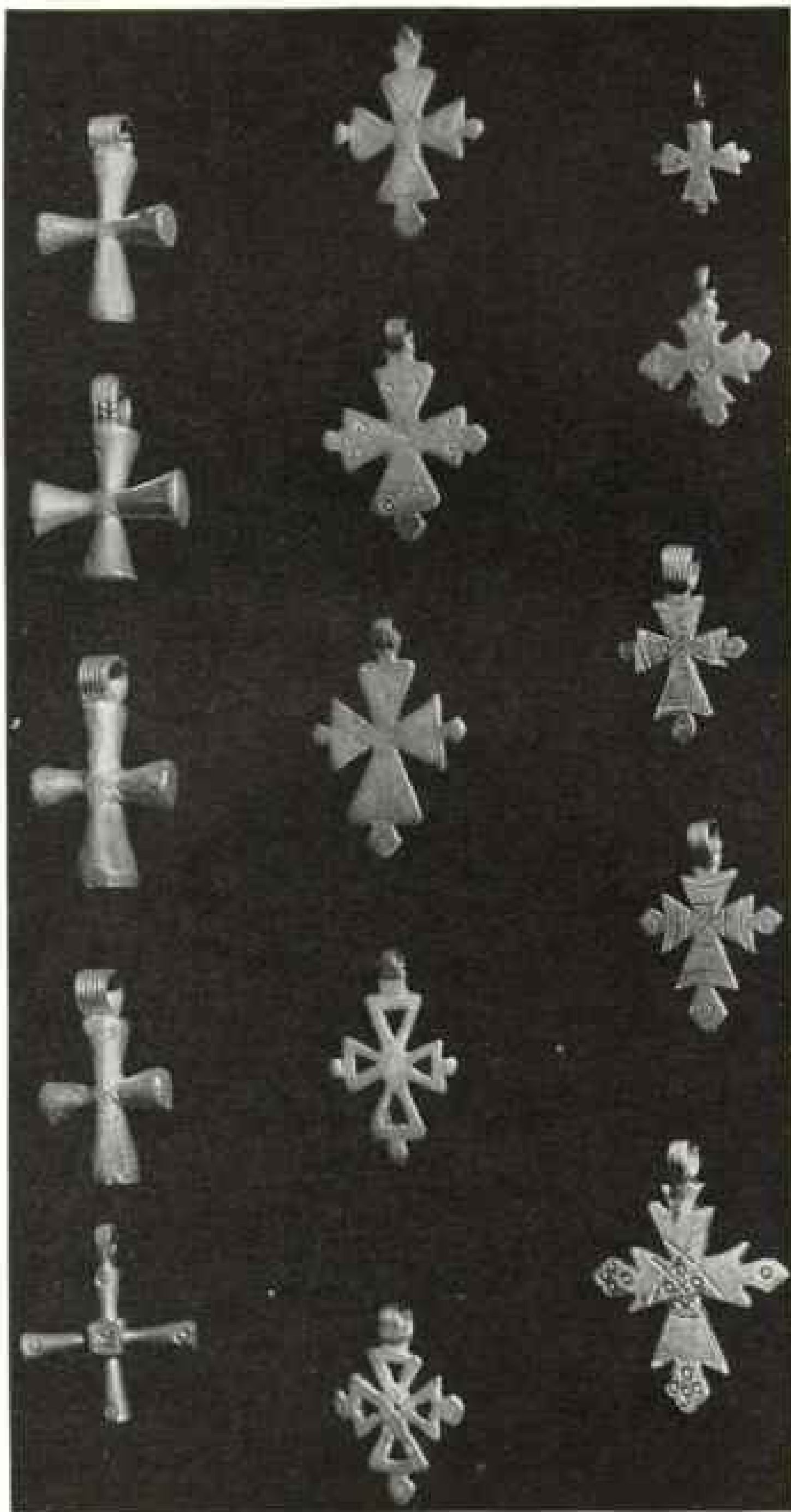
Fish abound in both the Abbai and the lake; there is one fine type called *net-chassa*, a sort of whitefish that grows in length to three feet and weighs up to some 15 pounds. Another, which closely resembles the channel cat at home, is excellent food and attains a length of more than two feet. Natives take it with casting nets in the shallows or with an ingenious fish trap made from roots and vines.

Birds find good hunting grounds at the

lava reefs along the shores and at the cataracts near the outlet of the lake. As the natives make no effort to hunt the birds, they are not easily frightened, and any bird lover would find this area of surpassing interest. In the papyrus swamps and the marshes there are birds that nest all year round, while migrants also find the lake a pleasant stopping place.

Hornbills and plover, several types of mourning doves, cranes and herons, egrets and ibis—these prosper and are abundant. On the reefs, pelicans, cormorants, rock pigeons, storks, and snakebirds are plentiful and seem well fed. Brilliant kingfishers, some with very blue crests, may be seen; they are alert, vigorous.

One of the most interesting birds on the lake is the African darter, or snakebird. When seen in the water it is entirely submerged except for its long, snakelike head



Photograph by George Van Anda

TWO TYPES OF CROSSES WORN BY ETHIOPIANS TODAY

Still used by inhabitants of Shoa and known as the *lumot*, the five in the column to the left represent those in use before the Christian era. Priests in Shoa believe the *lumot* was brought to Ethiopia by Menelik I, son of the Queen of Sheba and King Solomon. The other ten are similar to personal crosses worn by Ethiopians from the fourth to the fifteenth centuries. The Ark of the Covenant is represented by the bud, or knob, at the end of the cross arms (see text, page 297).

and neck. When it comes out on the reefs, its one concern in life seems to be to dry itself; it pays great attention to drying its wings carefully, and as soon as this is accomplished it plunges into the water again.

Hundreds of beautiful golden-crowned cranes nest near the outlet of the Gumara River, which enters Lake Tana from the east. At this point I observed, also, many thousands of ducks and geese.

I particularly noticed one bird, the sput-winged goose. It roosts in trees, and has on the bend of the wings stout spurs which it uses as weapons.

The brown hawk of the highlands is a bold and fearless bird. While eating lunch one day I was about to take some bread when one of these hawks swooped down, knocked off my hat, and took the food out of my hand. He then hovered overhead and ate my lunch while he was flying, easily bringing the food clutched in his talons within reach of his beak.

THE LAND OF LIONS

Southern Ethiopia is reported to have lions. Many types of antelopes are to be found in the high Arusi country and ibex in the mountains of northern Tigre, but in Shoa and Gojjam one can travel for hundreds of miles and see no game whatever. There are a few small

gazelles; and hyenas laugh in the night, but hide themselves well during the day. Baboons and little monkeys are plentiful and respond quickly to decent treatment. In the lagoonlike reaches of the Blue Nile, as well as in the lake proper, there are herds of hippopotami. I saw as many as fifteen at one time enjoying the water.

Forests along the Sudan frontier shelter elephants, lions, and leopards. While in this region, I was once being entertained by a local governor who said to me, "Would you like to shoot an elephant?"

I had in mind to continue my journey so that I could ford the Blue Nile before the start of the Little Rains and replied, "I do not care to kill one."

"Oh! I thoroughly understand how you feel," he said. "You are afraid of the elephant; but I have hunters here who are not afraid. I will have them kill one and I will give you the tusks and the hide. When you get back to your country you can tell your friends that you shot it."

In spite of his ingenious suggestion I continued my trip—without the tusks.

Tree life abounds on the greater part of the mountain areas. To the stranger the fig trees, cedars, palms, and euphorbias rank in interest with papyrus. In the brush nearly every tree, vine, bush, and plant has thorns; some have grown their thorns with extraordinary ingenuity. By facing the points upward and downward, backward and forward, each plant seems to have developed a cussedness as effective as exasperating.

Papyrus makes us think of Egypt and olden times, of Pharaoh's daughter and Moses. Here the growths of papyrus are heavy, the plants often attaining a height of 25 feet and covering many acres.

COURT IS HELD UNDER FIG TREES

Flat-topped acacia, familiar in African scenery, does not grow so well on highlands as in lower altitudes. Small palms are beautiful, at a distance; and the many-branched euphorbia, which often grows to a height of 30 feet, assumes realistic candelabra forms. Fig trees, with a spread well over 200 feet, are common.

Native courts are often held under such large fig trees. Gondar, after all, is not far from Jerusalem, and many present-day laws are based on ancient Jewish customs. There is no lawyer class, and every man considers himself quite able and willing to



Photograph by George Van Auda

A CENTURY AND A HALF OF CROSSES

The first example (upper left) is the ancient design known as the cross pattée. A study of this group shows a complete evolution from the pattée design to a purely Latin type (lower right). These examples were probably produced when the Portuguese were in Ethiopia—between 1490 and 1630 (see text, page 325).



MANY BATTLES WERE FOUGHT AND SIEGES LAID ABOUT THIS OLD CASTLE

Portuguese architects and workmen built the stronghold about the year 1600, when Gondar was Ethiopia's capital. The workers fashioned their own tools. Priests now point out to visiting explorers the coronation room, the banquet halls, dungeons, the caverns where lions were kept, and the guard turrets.



Photographs by Harry V. Hurden

BUILT ABOUT 1660 AND NEVER REPAIRED, THIS BRIDGE NEAR GONDAR IS STILL USED

When the author's caravan crossed it, his men halted to say a prayer for the Emperor Fasilidas, who built this and six other similar structures (see text, page 377). During the floods this bridge is wholly submerged. Its construction was supervised by Portuguese engineers.

plead his own case, with the result that odd trials are held.

At first I was concerned at trials over the loud shouting and passionate oratory, the waving of arms and snapping of fingers under the very nose of the judge. It seemed that blood must be shed at any moment. However, when I found that all they were disputing about was whether Gabbre Michael had seen a cooking pan belonging to Gabbre Miriam, I realized that it was a sort of popular sport.

The law, of course, has a more serious side when the offense is grave. At one time I left the main caravan and went alone on a side trip. On my return after a couple of weeks I found that 12 mules had been stolen. The guardians had gone to sleep, and offered many other excuses. I went to see the local ruler and we discussed the matter; my chief loadman suggested an *afarsata*.

This was the first time I had heard of this type of judicial procedure, and as I thought it might be helpful to follow his lead I told the chief that I hoped he would favor me by conducting one. He appeared rather upset about the matter and no *afarsata* was held; however, the suggestion was enough, for the mules were returned that evening!

A few weeks later I had a chance to see just how the *afarsata* works. In this kind of trial, everybody in town where the trouble occurred is shut up within a fence of thorny bushes. No one may go out, even to milk a cow. Once inside this thorny *bomba*, the villagers, all of whom are suspect, wail and moan. They then



Photograph by George Van Auda

FROM THE MARIA THERESA SILVER THALER (LEFT) THIS CROSS WAS MADE IN 1934

All Ethiopian Christians wear such personal crosses (see pages 314-15). The coin shown, one of the silver dollars used for trade in the Red Sea area, is imported as needed from Vienna. It is a copy of the old Austrian issue. It is legal tender in Ethiopia when the clasp on the shoulder of the Empress shows on one side, or the date 1780 appears on the other.

select eight to ten agents called "birds" who take an oath, the substance of which is, "What I saw and heard, I will not hide."

There is then a weary waiting period, sometimes lasting a month, during which the agents quietly circulate in the crowds and see and listen; and there is little to eat or drink. Finally a "bird" tells the judge the name of the thief. If he is within the enclosure he is taken off to jail. If he has already made his escape, the whole village is fined. Such is the Ethiopian legal process called *afarsata*.

Conciliation is a lawful method of settling disputes. I have had to take part in many conciliations among Ethiopians. The only case where I saw men refuse to become reconciled at the suggestion of the judge was one in which one of my porters had



Photograph by E. A. Salisbury © Ewing Galloway

BEFORE THEIR MUD-WALLED HOUSE THIS ETHIOPIAN GROUP NEAR THE SUDAN
BORDER ENJOYS AN EVENING SMOKE

Their hookah, or family pipe, is passed from mouth to mouth. Highland Ethiopians do not smoke, because their Emperor Menelik II prohibited it. No tobacco is grown on the plateau, and that sold in Addis Ababa is bought only by foreigners.



Photograph from Leo B. Roberts

CHRISTIAN CHURCHES IN ETHIOPIA ARE ALWAYS SURROUNDED BY A GROVE OF TREES
The grass roof extends far enough from the mud walls to protect them from the torrential rains.
The church is the most important factor in the life of the people.

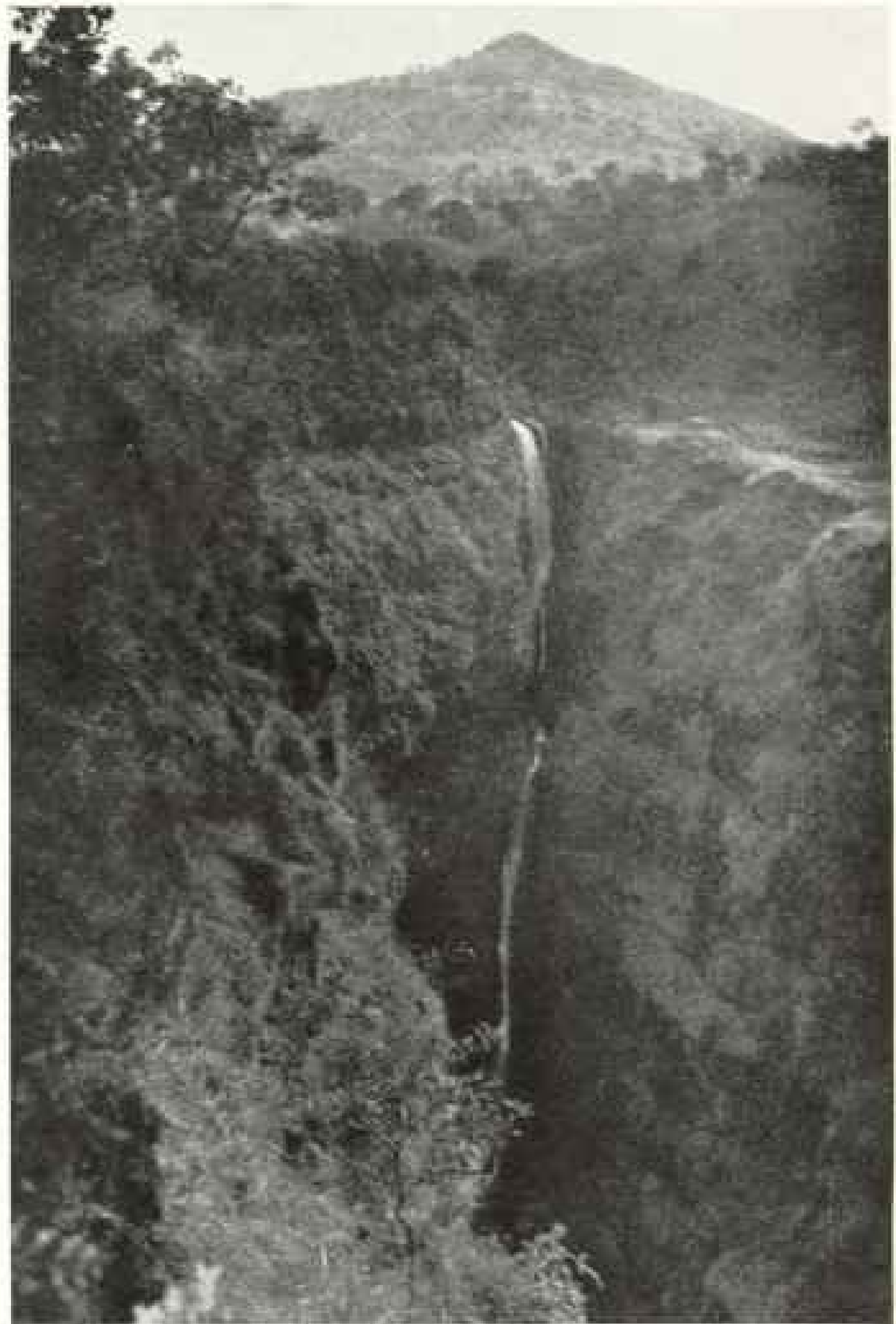
suffered a fractured skull in a fight with a loadman. He was not willing to accept the suggestion that he "be of good will with this sorrowful man who did strike you." On his refusal, the judge said he was well within his rights to refuse, and proceeded to make a second suggestion, much more serious in character, "that all the matter be left to God." This proposal satisfied the plaintiff, and the wrongdoer was plainly much disturbed!

In small affairs, two men, disputing one with the other, may stop any casual passer-by and have him judge the case. Usually they select an older person, for "with age comes wisdom."

These people recognize and willingly accept a feudal system. An obligation for service is acknowledged by dependents. On the part of the Greats the responsibility for protection and food is likewise accepted. The chief man (*Shum*) in a village reports to a higher official who may be a *Fituari* (agent), or a soldier called *Kenzasmach* (leader of the right wing), *Grazmach* (leader of the left wing), or *Dedjasmach*, leader of the center, who in turn reports to the *Ras* (King) commanding the province by order of the Emperor. The leaders in Ethiopia lead in a very personal sense, whether as soldiers, chiefs, or priests.

A governor, who was a real leader of his people, suggested that I stay with him and help him lay out a city.

"I cannot do this," I told him, "for I must go on. Further, you are the governor; and, moreover, what you tell your



Photograph from Leo B. Roberts

KATAB RIVER TUMBLES 400 FEET DOWN ETHIOPIA'S
"BACK FENCE"

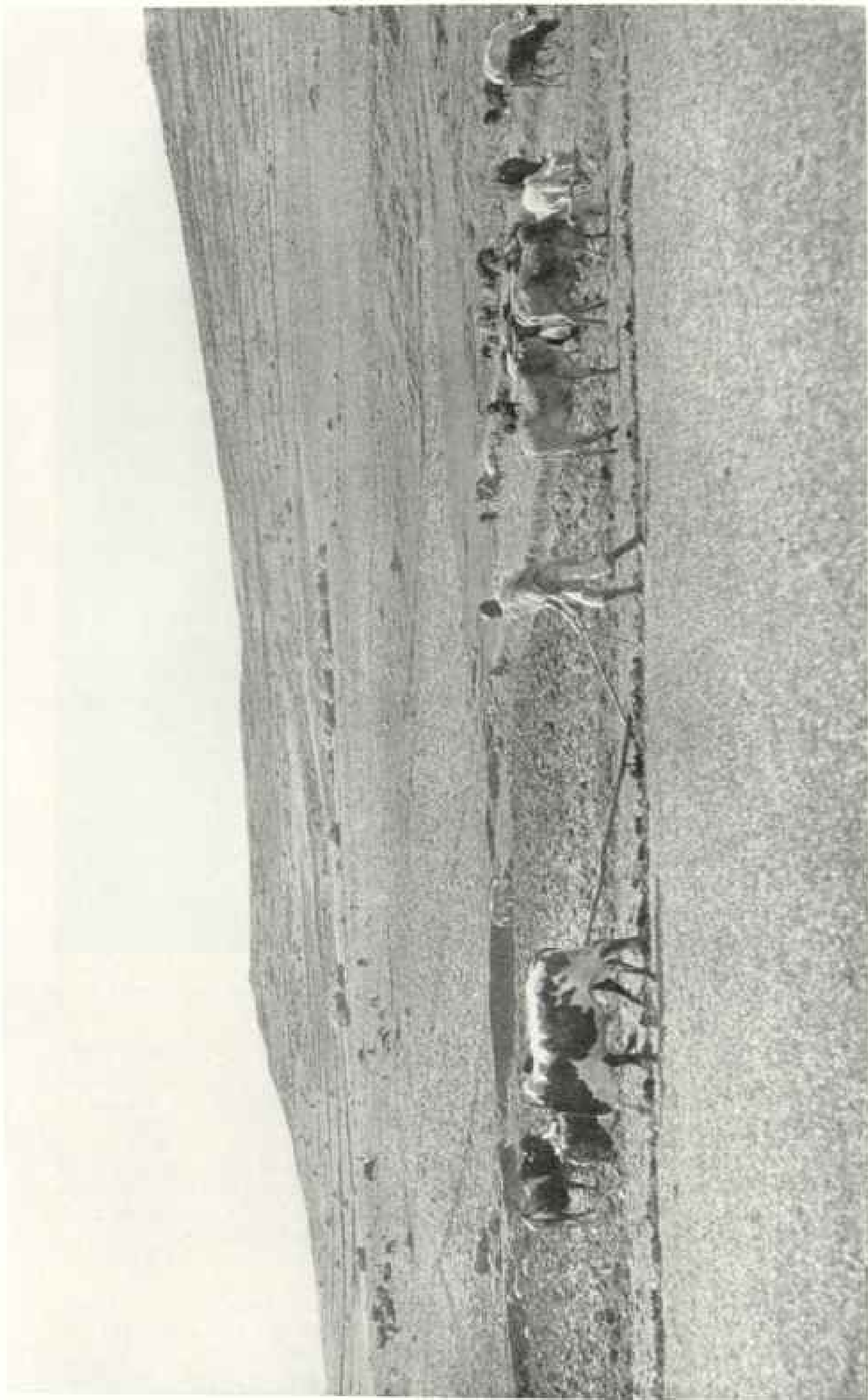
The historic Empire of Haile Selassie owes its independence primarily to its isolation on a high plateau surrounded by steep cliffs. The author explored this little-known western escarpment not far from the Anglo-Egyptian Sudan frontier. He found it as precipitous and of about the same height as the massive eastern barrier (see text, page 298).

people to do they will do." He called one of his servants and told him to bring a box of matches. With this in his hand he said, "Do you know what this is?"

"Yes," I replied. "It is a box of matches."

"Taking a match from the box, he then asked, "Have you ever seen a match burst into flames of itself?"

"No," I answered. "It must be struck upon the box."



Photograph by Harry V. Harlan

AN ETHIOPIAN WITH OXEN AND WOODEN PLOW TILLS A MILLET FIELD 10,000 FEET ABOVE THE SEA.

To broadcast the seed of the dwarf variety of millet, called tef, which is the chief crop of the Ethiopian plateau, soil is plowed in this ancient way. Other cattle loiter about, while in the background is seen a group of thatched farm huts and haystacks.



Photograph by Leo B. Roberts

TENTS WERE PITCHED IN A SQUARE TO PROTECT THE MULES FROM HYENAS, IN THIS LONELY HIGHLAND VALLEY

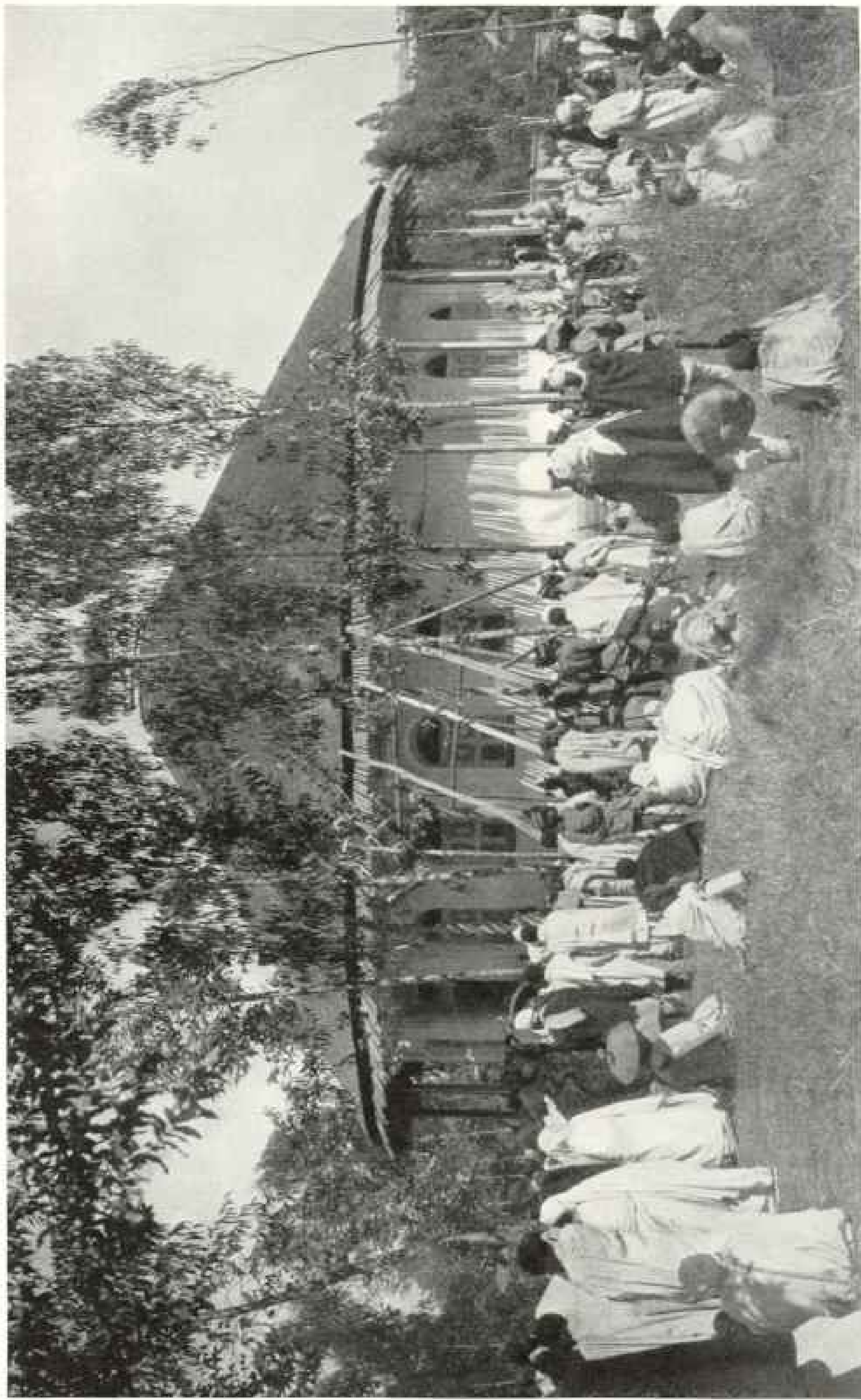
At night the animals were tied to a picket line within the enclosure, safe from prowling beasts. Pasture on such level fields is good.



Photograph from Will F. Taylor

THE BIBLICAL ADMONITION "THOU SHALT NOT MUZZLE THE OX THAT TREADETH OUT THE CORN" IS OBSERVED IN ETHIOPIA

Chaff is freed from the millet by tossing it in the air, the wind blowing the light waste away.



Photograph by Alfred M. Bailey

A CONGREGATION GATHERS ABOUT ONE OF THE CIRCULAR CHRISTIAN CHURCHES OF ETHIOPIA

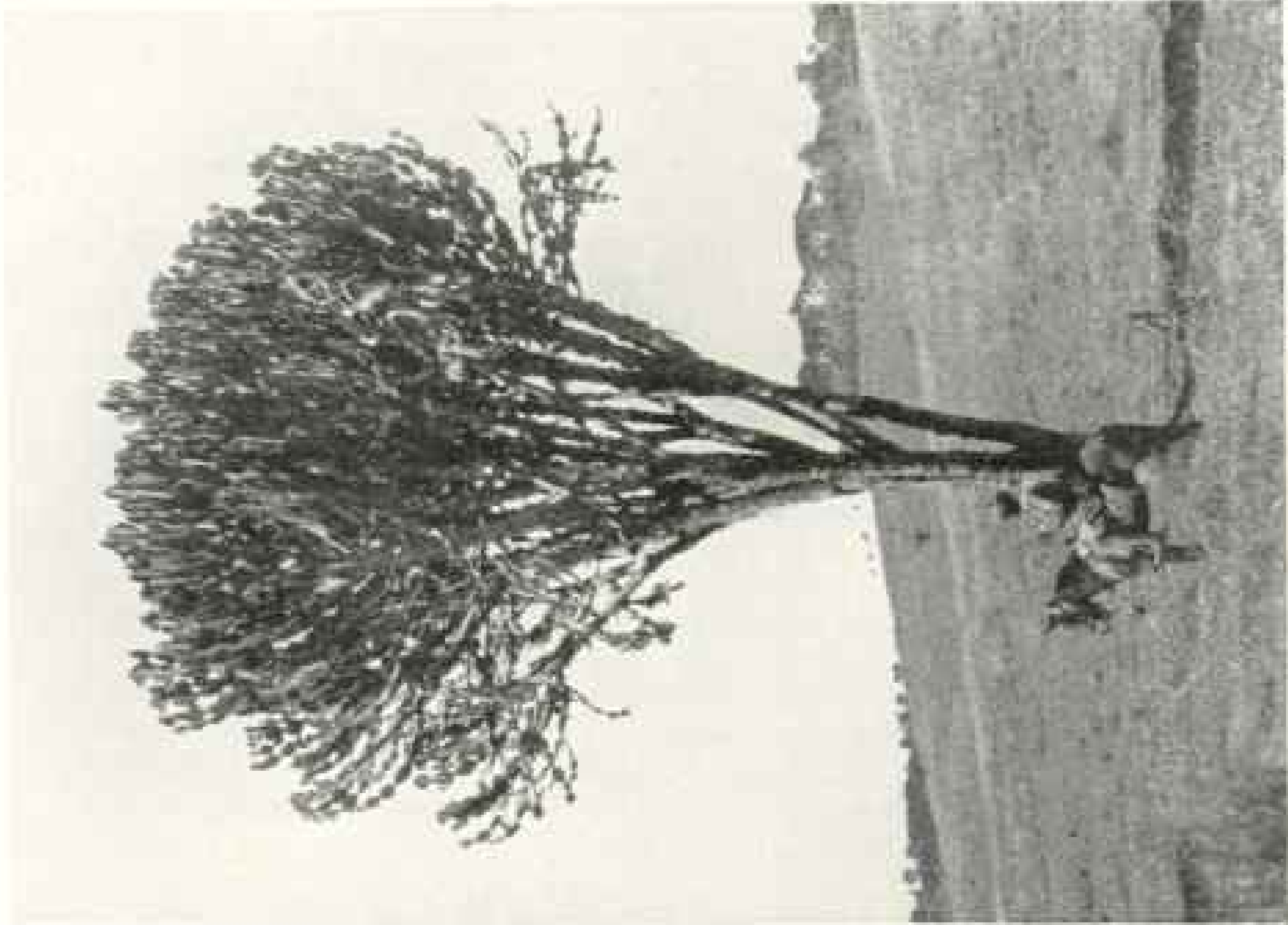
Besides satisfying spiritual needs, church meetings afford the newspaperless people a chance to exchange news, rumors, and gossip. Priests, deacons, and members have each a definite place that they occupy during the church services, which often last for many hours.



Photograph by W. Robert Moore

JUST A LITTLE MONKEY BUSINESS!

Ethiopians usually do not take kindly to making pets of monkeys or baboons, plentiful in a wild state, but seldom seen in the villages. Along the summit of the high escarpments hundreds of baboons move in mass migrations.



Photograph by Wilfred H. Chaput

GIANT EUPHORBIAS DOT THE ETHIOPIAN LANDSCAPE

When cut or bruised these plants exude a milky juice which the people believe causes blindness if it touches the eyes. They are often planted close together in circles, as corrals. In the highlands some of them grow to a height of 30 feet.

"That is exactly what I am showing you," said the governor. "Between us, if you will stay, we can accomplish much; singly, we can accomplish nothing."

A CHURCH ON EVERY HILL

By far the most important factor in the life of the people of Ethiopia's highland country is their church.

There is a church on almost every hill, and on every sightly piece of land. It has been estimated that at the present time there are between fifteen and eighteen thousand recognized churches in the Empire.

Churches are built in groves of trees and are circular, with successive round enclosures where all ranks (the people, the deacons, and the priests) have definite stations. Location of doors is prescribed by custom; there being no windows, the interiors are gloomy. Entrance for the priests is on the east, for the men on the north; doors for women open to the south.

I noticed that at the south door of most of the churches there was a drawing or painting of the "Emperor of the Devils," known to us as Satan. "Why is this?" I asked; and they said, "A man looking at the picture of the Devil at the south door will think of women and he will be gloomy, as he wonders about the work of the Devil."

At many of the monasteries, nothing female is allowed within the confines of the church property, not even a hen.

All old churches contain pictures on the inner walls showing saints and early Christian martyrs; there are also a few pictures for the altar, painted on wood; these are often crudely done, but record the sincerity of the artists. St. George fights a dragon; St. Stephen is stoned; Shadrach, Meshach, and Abednego walk through a fiery furnace; nothing is left to the imagination in the graphic story of the unhappy experiences of the martyrs, or what is going to happen to sinners when they get to hell.

There is dignity and sincerity among the priests. I made friends with many. They were gratified, yet astonished, when they found that a stranger also might know something of early Christian history.

It is pleasant, when camp is near a church, to hear, very early in the morning, the sound of chanting and the notes of the stone bells, sweet and clear. These bells are slabs of rock, from three to five feet long, rectangular in shape, the ends about six inches

square. When struck by a smaller stone the sound may be heard for a long distance.

Priests may marry once, engage in business, administer church-owned land, lend money, and act as judges in disputes. They daily hold services of prayer and chanting, and their fasts are long and severe.

Time means nothing to the layman in Ethiopia, and even less to the priests. What they seem most anxious about is that no changes may occur in their mode of life. One evening, after we had coffee together, an old priest said, "By the Grace of God, I am well. How are you for your health? Do you think changes will come to us? I tell you that a country loses much that has been gained when changes are made swiftly. What can anyone offer us that we do not have? To make changes in the customs of our people may cause many ills and we are not impatient of going slowly towards a good end."

EVOLUTION IN THE DESIGN OF CROSSES

Intimately related to the life of the Christian Ethiopians, such personal crosses as the one this priest gave me are without doubt the most important and distinctive objects I found in the country. They are of native manufacture and original design.

I was at first only casually interested in the crosses worn by my caravan men, who seemed quite willing to let me have them in exchange for Maria Theresa thalers. Later, however, after eight months by caravan in the northern provinces, I found I had a collection of value.

As different sections of the country were visited, and the number of crosses grew, it became evident to me that most of them, because of similarity of design and decoration, could be placed in rather definite groups. From these groups it is possible to tell something of the history of the church and the Portuguese influence on that history.

Two years before Christopher Columbus landed at San Salvador the first of a series of Portuguese missions arrived in Ethiopia, Pedro de Covilham commanded. He found there, to his surprise, a distinct civilization and a militant Christian church. He was received by a Christian king who had "a silver cross in his hand," and at the court ceremonies it is recorded that in the retinue of priests "a page carried a flat silver cross in his hand, with figures pierced in it with a graving tool."



Photograph from Will F. Taylor

HAND "FLOUR MILLS" ARE OFFERED FOR SALE IN ADDIS ABABA

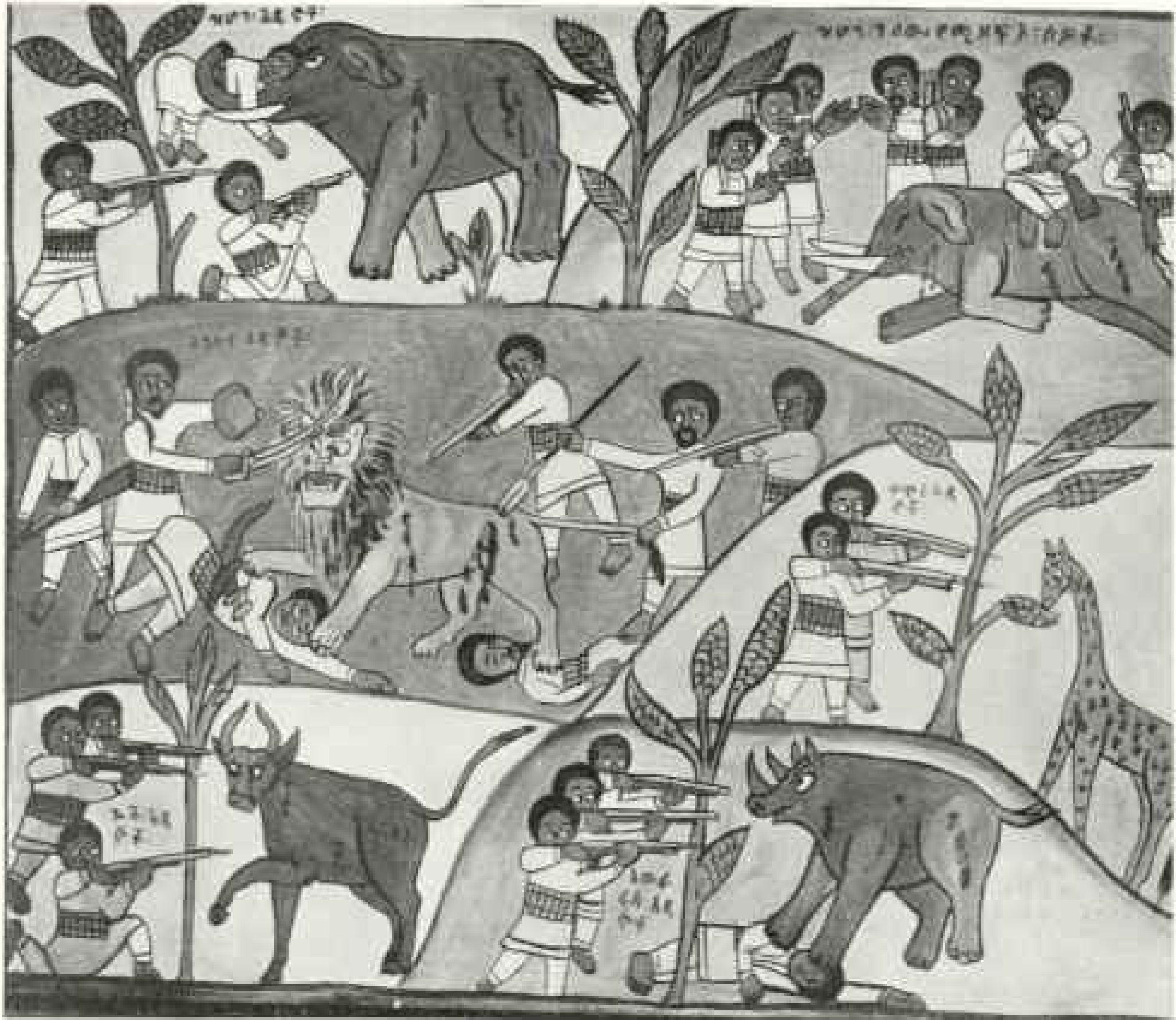
Such primitive mills, wherein grain is laid on one flat-topped stone and then rubbed with another, are used in many parts of the world. One is found in practically every Ethiopian home, where millet is mostly used for bread. It is baked into thin loaves called *injera*.

Various Portuguese expeditions arrived between 1490 and 1630, and exerted a tremendous influence on church affairs. Covilham's mission was mainly for exploration and trade, but the expeditions that followed had a religious object as well; they were in response to appeals from Kings of Ethiopia for aid against Moslems. Jesuit priests came with the soldiers on these expeditions. Men of vigor and zeal, they sought to establish the Roman Catholic faith as the State religion.

In 1626 the Emperor of Ethiopia, Su-

senyos, officially recognized the Roman Church and issued orders that the people must accept its doctrines. But the people refused. Strife ensued; thousands were killed in pitched battles, Susenyos was forced to abdicate, and his successor, Emperor Fasilidas, in 1632, revoked the orders of his father and restored to the people the faith of their ancestors.

These events took place in the high mountainous country of northern Ethiopia. I visited the area where de Lima fought bravely; where Dom Christovão da Gama,



© Alex Stücker

THIS HUNTING SCENE WAS PAINTED BY A NOTED LIVING ETHIOPIAN ARTIST

In the upper left an elephant crushes a man in his trunk, python fashion, while two hunters fire on the beast, seeking to save their companion. At the upper right the elephant lies dead with gory wounds. Other sections of the "strip" show exciting encounters. One hunter is seen pulling the tail of a wounded lion. This King of Beasts is a symbol of government to Ethiopians, as the Eagle is to Americans. The artist is Balachjo Imar.

a son of the great navigator, upheld the honor of his house and met a miserable death at the hands of Mohammed Grañ, the "Left-handed," the commander of the Moslem forces (see text, page 284); where Castanhoso finally defeated the Moslems and their Turkish allies. Because of that defeat the Christian religion was established quite definitely in this part of Africa.

The Ethiopian people had been converted to Christianity about the middle of the fourth century. Before that time most of the inhabitants believed in the doctrines of the Hebrew religion, and many of the ceremonies of that religion were combined with those of the early Christian church.

All Christians in Ethiopia, both men and women, wear a small cross of silver, iron

or brass, suspended from a cord around the neck; this cord, called a *matab*, which is to hold the cross, is worn from infancy, being placed around the baby's neck as part of the ceremony of baptism.

In grouping Ethiopian crosses, I found, in the first category, five examples of the primitive type known as the *lumot* (p. 314).

Legend says that the *lumot* was brought to Ethiopia by Menelik I, son of Makeda, Queen of Sheba, and Solomon. If that legend is true, it must have been a symbol in the temple of Solomon, for the young man received his education there.

A LAKE OF ISLAND CHURCHES

I was also told that when Frumentius journeyed through Ethiopia in the fourth

century to convert the people to new Christian doctrines, he visited an island in Lake Tana, where he left his iron cross. When I came to the island of Tana Kirkes, in Lake Tana, I was shown what was said to be this cross. It is clearly held in high veneration by the people, and has been placed by the priests of this island above a small stone altar which rests on three pillars. On the top of this altar are three circular depressions, or bowls, which they said were used as altars for Hebrew sacrifice long before the time of Frumentius.

There are many small islands in Lake Tana, and churches have been built on all those large enough to hold one. Some island churches show the stamp of Portuguese builders. Many are now in ruins.

THE INFLUENCE OF THE CRUSADES

The Cross of Frumentius probably inspired the silversmiths of Ethiopia to develop new designs. It was at this time that the rites and symbols of the new beliefs were being combined with those of the old Hebraic religion. The crosses used during this period form a second group (see illustrations, pages 314 and 315).

The influence of the Crusades was still strong in the Mediterranean areas where de Lima recruited his force for the venture in Ethiopia. Crosses worn by the Portuguese soldiers must have been a delight to their Christian allies in Ethiopia and the ornamentation increased with the development of the ability of the workers in silver.

The third group is a series showing a definite order of progression from the cross pattée to the Latin type. These were evidently produced about the time the Portuguese influenced religious matters.

An example of the use in present-day personal crosses of a well-known heraldic design is shown at the beginning of the group shown on page 315. It was obtained near the high, wind-swept area near Gondar, where the mountaineers hold fast to ancient traditions. An old woman gave it to me and said she had worn it for a long time. It is a perfect example of the cross pattée, which was the sign adopted by the Knights Hospitallers in the Crusades.

When my caravan was crossing the Rib River, near Debra Tabor, I saw proof that these people still remember their Emperor Fasilidas, who restored their old religion.

We crossed the Rib River on an arched

masonry bridge which Emperor Fasilidas erected about 1660 (see page 316). I noticed that as each one of the men in my caravan reached the bridge, he stopped for a moment and made a speech. This was rather unusual and I learned from the interpreter that all were saying a prayer, "May God have mercy on the soul of Emperor Fasilidas."

The *tabot* is the name given to the representation of the Ark of the Covenant which was a part of the furniture of the altar of the early Christian churches, and still remains on the altar of present-day churches of Ethiopia (see page 297).

Not all of the Portuguese were expelled from Ethiopia in 1632. The anger of the people seemed to be directed against the priests alone. Portuguese builders remained to aid in the erection of churches and palaces at Gorgora peninsula, and Gondar, which are now magnificent ruins (see page 316). These men no doubt had knowledge of heraldic cross designs which interested the Ethiopian workers in silver.

In Ethiopian baptismal rites and the blessing of the waters at the great festival of the Epiphany, the Cross plays an important part. At the greatest feast of the year, which is called the Mascal, or the Feast of the Finding of the Cross, it is the custom for the priests to bless with their crosses the pile of twigs and wands which are to be lighted at nightfall, while the rulers, governors, the chiefs and the people circle about it, singing and chanting.

AN ETHIOPIAN CROSS IN WASHINGTON CATHEDRAL

Still another cross, much larger and more highly ornamented, is used only in the ceremonial processions of the Church. Crosses of this kind have been sent to the United States and to England. The one in England was installed near the High Altar in Westminster Abbey at the time of the coronation of King Edward VII, while that in the United States is in the Cathedral of St. Peter and St. Paul at Washington, D. C.

The staff of an Ethiopian priest is really of use to him in his travels along the trails, it being fully six feet long. As priests must stand during church ceremonies that last for hours, the staff is used to advantage by them as a support.

To obtain a modern cross (see page 317), I went to the market place of the village of



Photograph by Alfred M. Bailey

COMING THROUGH THE RYE—IN ETHIOPIA

But it's really millet, not rye. The young Rachels who balance the water jars on their heads belong to the Galla tribe.

Korata, where the workman in silver enjoys a good reputation for skill. From a silver thaler he carved it, and as I watched him I could not but be impressed with the way such silversmiths work without instruments of precision or good tools of any sort.

Much that the priests told me about crosses was legendary. Yet the close agreement of the stories I heard in widely separated parts of the country leads me to a belief that there is considerable truth in their tales.

At feats of memory these priests excel. Near ancient Gorgora, where the name of Fasilidas is still revered, I was asked to meet a priest who was too old to leave his bed. When I entered his house, I asked after his health and received the usual reply, "By the Grace of God I am well. How are you for your health?"

After a conversation, consisting largely of a difficult explanation on my part of some of the customs of the people of the United States, my interpreter suggested that the priest give me the names of the Kings of Ethiopia who succeeded Emperor Fasilidas. I wrote down these names, together with the

time which each reigned. Months later I found that this list of some 36 items, resembling the "begatting" chapters of Genesis and the Book of Kings, agreed exactly with official records in Addis Ababa.

While we consider the value of events of history in the light of the changes they effect in our civilization, most of these Ethiopians are interested in past events largely that they may hold fast to the habits and ways of thinking of their ancestors. Probably most important to them of all their heritage is their religious faith. As the symbol of this faith, the crosses they wore came more and more to typify to me the tenacity with which the Christian people of Ethiopia cling to tradition.

Year after year men search for evidences that complete the dim picture of the past. To most of those who have the privilege of travel along the rough trails of unmapped areas, the rapid rate of change from ancient to modern ways is painfully apparent.

In Ethiopia, however, the old customs still endure, and evidences continue to be available of the determination of this remarkable people to hold fast to the habits and beliefs of their ancestors.

HUNTING CASTLES IN ITALY

BY MELVILLE CHATER

AUTHOR OF "RICHIELLA, THE FISHER COLONY," "ACROSS THE MIDE IN A CANOE," "MICHIGAN, MISTRESS OF THE LAKES," ETC., IN THE NATIONAL GEOGRAPHIC MAGAZINE

"CASTLES in Spain!" The old, romantic phrase had occurred in my chat with a Roman archeologist. He smiled and commented, "Why is it always 'in Spain?' Why not 'in Italy?'" And he went on to speak of the many little-known castles that dot Italy's northern provinces.

As a result, we started out from Rome one day to realize our castles in upper Italy. Yet castle-realizing is somewhat of an art. You must recapture the glow of dead centuries before those ghostly ramparts that haunt lakeside or hilltop become comprehensible and the tapestrylike vision of their heyday unrolls before you.

Upper Italy bristles with castles and castle ruins. It is as if some medieval Cadmus had sowed its soil with dragons' teeth that produced, instead of armed warriors, a crop of military strongholds. Certainly the dragons' teeth of dissension were sown when, at Rome on Christmas Day A. D. 800, Leo III crowned Charlemagne as the successor of the Cæsars and sovereign of the Holy Roman Empire.

In the resultant conflict between the popes and the German emperors, the Ghibellines (imperialists) created a defense against the Guelphs (papalists) by consolidating the Crown's innumerable countships into powerful duchies, and this predicated the construction of those formidable castles which soon fortified upper Italy from the Western Alps to the Adriatic.

Our approach was through Emilia. Its 8,537 square miles contain many a picturesque castle, but none whose history better memorializes the 13th-14th century despots, their splendors and their egomaniacal excesses, than those of Ferrara and Rimini.

Viewed externally, Ferrara's fortress—indestructible throughout five centuries—arouses one's speculations upon how man, as defensive strategist, achieved the medieval stronghold's gloomy grandeur. First, there was primitive man's protection, the thorn hedge; then came the earthen bank, reinforced with tree trunks. This in turn was superseded by walls of sun-dried brick. Next, someone conceived of a circular, moated mound, topped by a timber palisade,

and from this the stone tower and its ramifications were evolved.

Well versed in castle-building by the 12th century, Europe achieved a revolution in that science when the Crusaders returned from studying the mighty fortresses of the Byzantine Empire. And finally, in Gargantuan contrast to primitive man and his thorn hedge, Italy's castles reached their zenith under the directing genius of Leonardo da Vinci, Michelangelo, and Machiavelli.

GLAMOROUS DUNGEON NOW A TYPISTS' STRONGHOLD!

We entered Ferrara's gloomy stronghold, quite prepared for an atmosphere of ghosts and gore. But, alas, modern adaptation had transformed the once hoary chambers into municipal offices where letterheads had replaced beheadings and the clack of typewriters had usurped the clank of chains. We asked to be shown the dungeon where the faithless Parisina had been confined before the duke, her husband, beheaded her; and the officials murmured explanations to the effect that unfortunately it was cluttered with correspondence files!

We wondered what the shades of the mighty D'Estes would think of such a metamorphosis. For three centuries, following upon the bloody expulsions and counter-expulsions between them and their civic rivals, the D'Estes' triumphant banner floated over Ferrara, which gained a European preeminence in commerce and the fostering of the arts.

BOLOGNA'S SKYSCRAPER FORTRESSES

Hard by Ferrara's brilliant court lay Bologna, with its 180 skyscraping fortresses which caused medieval travelers to liken it to a city in a forest. These so-called "towers of the nobles" were indicative of how the Guelph-Ghibelline feud divided many an Italian town into opposing camps (p. 354).

Yet Bologna's forest of fortresses contrasted singularly with the peaceful culture of its great university where Roman law was being resuscitated and human anatomy was being taught for the first time along modern lines. Among the University's several women professors was the beautiful Novella



Photograph by Burton Holmes from Galloway

PERUGIA, OLDER THAN ROME, WAS BUILT FOR WARFARE AND DEFENSE

Its people were bellicose, even in sport. A favorite game was "the battle of the stones," in which the participants, swathed in leather padded with deer's hair, hurled rocks at each other! Here the Baglioni family rose to power and lost it again (see text, page 336). The Tiber River winds through a valley almost a thousand feet below the city.

d'Andrea, who modestly hid herself behind hangings while giving the male students a course of what were literally curtain lectures.

From Bologna our mountain-skirting route was the Via Emilia, the military road built by ancient Rome to protect her Apennine provinces. Where that range's spurs strike downward toward the Adriatic rise the towers of Rimini, once the stronghold of the Malatesta. Here their hunchback overlord, Giovanni, murdered the hapless lovers, Paolo and Francesca. But this domestic drama was mere child's play compared with the wholesale villainies of Rimini's later overlord, Sigismondo—that

tigerish, scholarly despot of Jekyll-and-Hyde make-up—to whom Rimini owed its renown during the Renaissance (p. 365).

Sigismondo "Jekyll," the lifelong adorer and poet-eulogist of the beautiful Isotta, ended by wedding her, but not before Sigismondo "Hyde" had married and murdered two successive wives. "Hyde" was excommunicated for five kinds of crime against church and man. And it was "Jekyll" who knelt remorsefully in Rimini's cathedral—his own splendid creation—as a penitent before the Pope's legate.

Finally, "Hyde" closed a life of bestial excesses by making a Jekyll-like ending. For Sigismondo's last act was to endow



© Donald McLeish

A FAMILY OF THE VAL D'AOSTA JOGS HAPPILY HOME FROM MARKET

A rope muzzle protects the donkey's nose from flies. Under the cart the wishbone support and a small wheel prevent tipping down when the team is unharnessed.

his home town with the bones of a famous Greek philosopher, being moved therein, says the pious inscription, "by the great love with which he burns for all learned men."

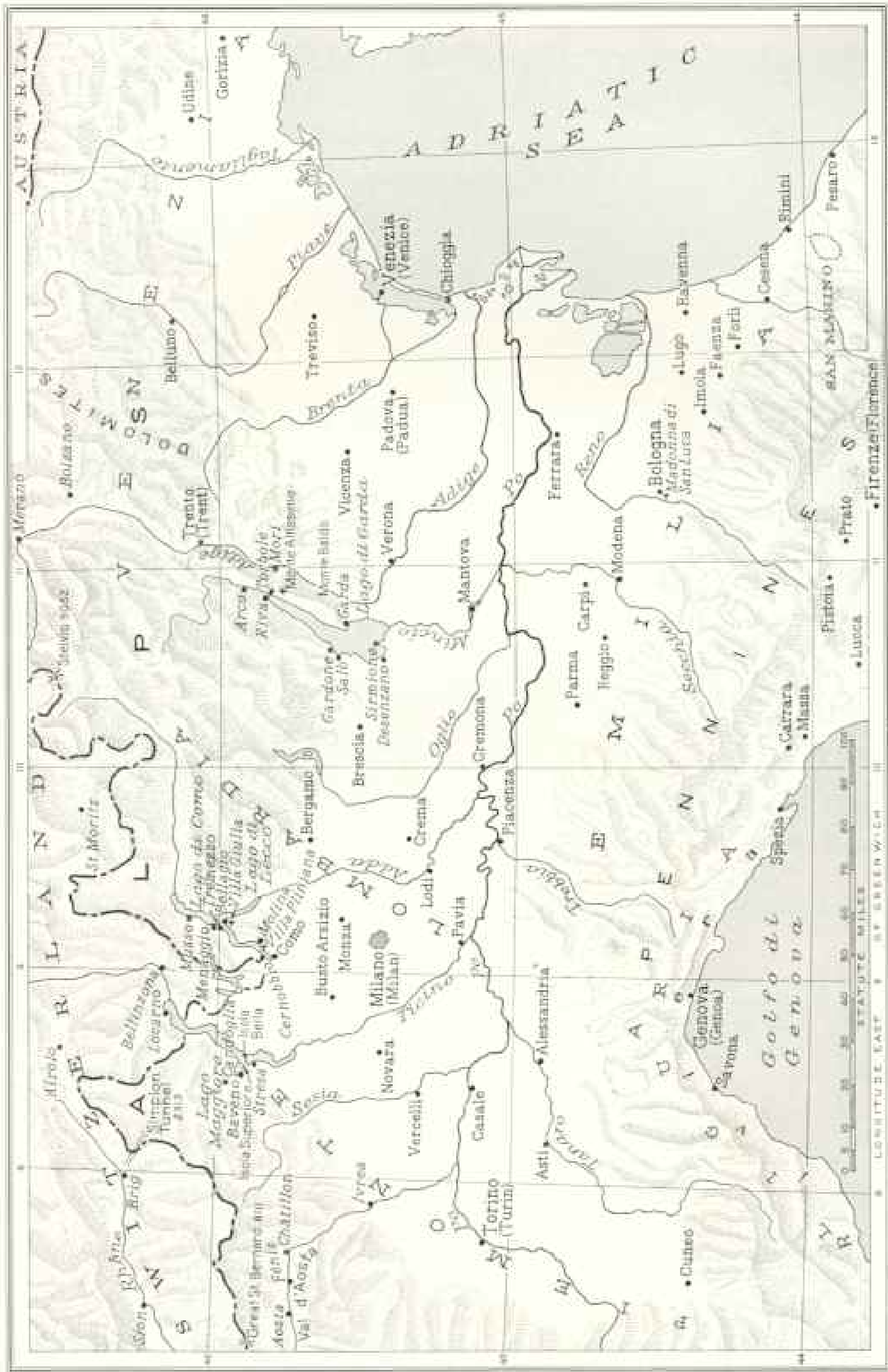
MEMORIES OF DANTE'S EXILE

From Rimini the castle trail led us to unforgettable Verona. At its grim, foursquare stronghold, its castellated, river-spanning bridge, one could dream away hours while catching ghostly echoes of those turbulent days when Dante paced there in sorrowful exile, when fleet passion and death overtook Romeo and Juliet, and "civil strife made civil hands unclean."

Here the Scaligers realized royally their

significant crest of a ladder (*scala*) in their climb to magnificence and power (see text, page 345). But victorious Venice (Venezia) ended their despotism and planted the Lion of St. Mark where it still towers over Verona's most picturesque of medieval market places (see Color Plates II and VIII).

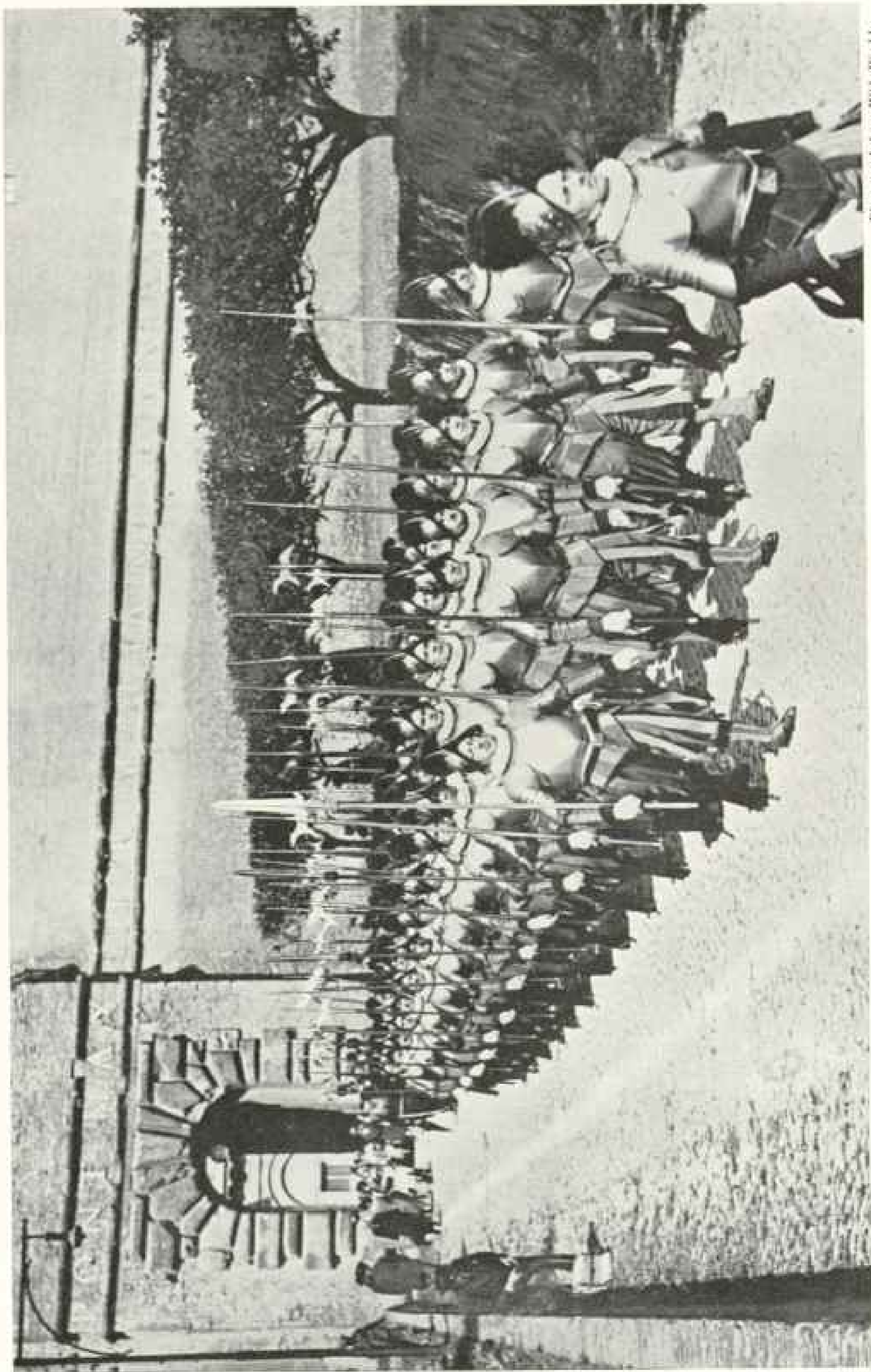
To the overlord his castle, to the people their market place! To magnificences at one end of the social scale add a picture of market-place environs: cobbled alleys twelve feet wide, crammed with squat hovels upon whose rush-strewn floors glimmered what light could pierce windowpanes of oiled sheepskin. Externally, filth spewed from tanneries and slaughterhouses choked the gutterless streets.



Drawn by Newman Bunstead

THE COURSE OF EUROPEAN HISTORY HAS OFTEN BEEN DETERMINED IN THE BASIN OF THE PO

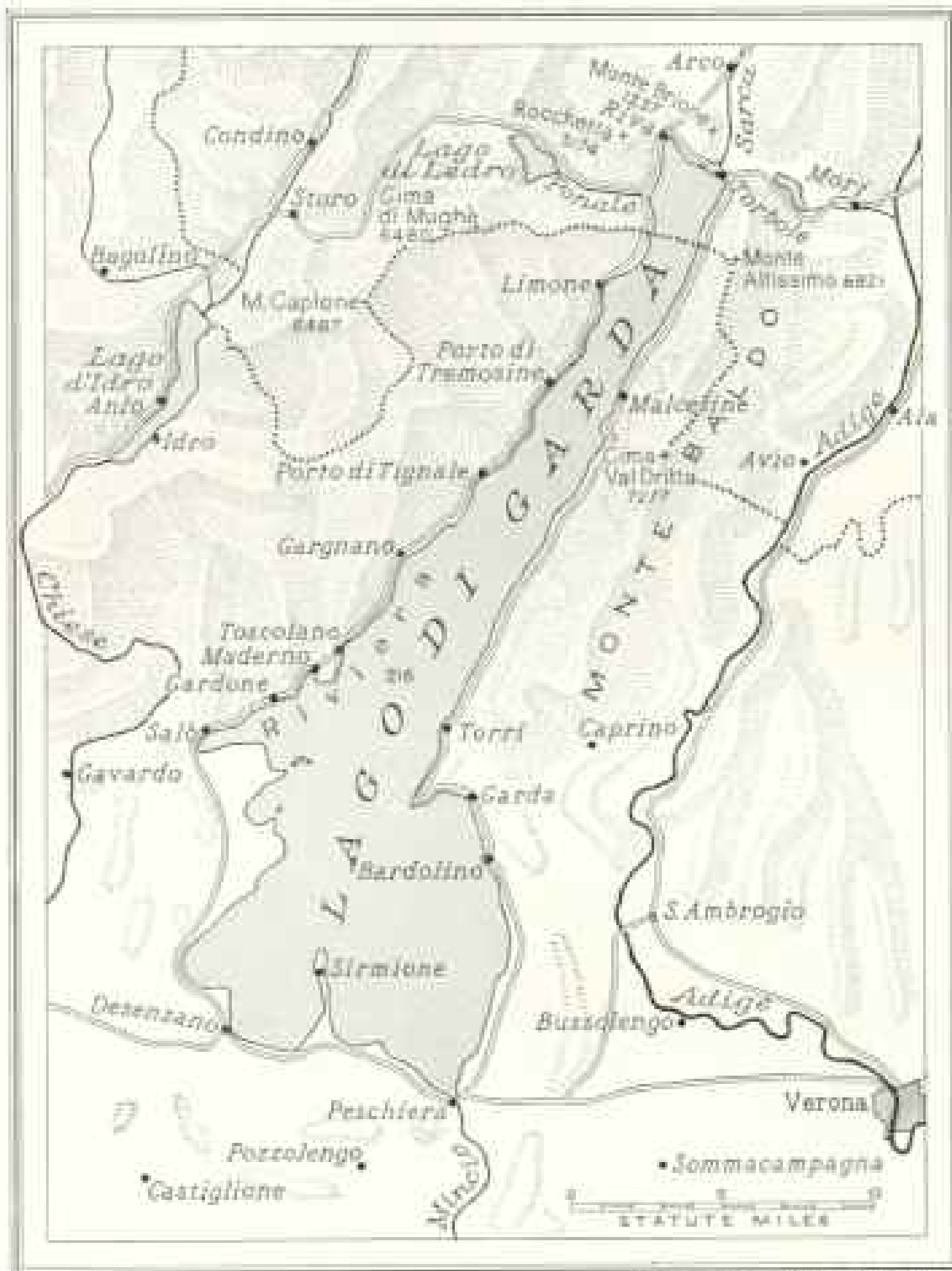
Invading hordes have repeatedly swept over this fertile land of northern Italy. Here Caesar, Hannibal, Charlemagne, and Napoleon marched with their armies. The flat plain and encroaching mountains bristle with crumbling towers and battlements that stand in mute testimony to the days when duke fought duke, and City States contended fiercely for dominance.



Photograph from Wide World

SWISS GUARDS, THEIR 16TH-CENTURY ARMOR CLANKING, MARCH TO A CEREMONIAL REVIEW

The Vatican in Rome is guarded by this troop who wear their iron armor and plumed helmets only on special occasions. Recruits must be natives of Switzerland, Catholic, unmarried, less than 25 years old, at least five feet eight inches tall, and free from all bodily disfigurements. Numbering exactly 100 men, including six officers, they guard the Pope, entrances to the Apostolic palaces, and the doors of the papal apartments. Their stringent training includes drills, gymnastics, and football.



Drawn by Newman Bumstead

WAR GRIPPED THE "HANDLE" OF GARDA IN 1915

Upon the declaration of war on May 23 of that year, the Austro-Italian frontier, indicated by the dotted line, was the scene of intense fighting in the mountains when Italians on Altissimo bombarded the enemy on Brione (see pages 348 and 352). The knob, or southern end, of the giant's club that is the Lake of Garda spreads into two wide gulfs divided by Sirmione.

Obviously the medieval slight of "taking the wall" sprang from the pedestrians' natural objection to being shouldered into the sewerage. Small wonder that when nobility came to town, holding its noses, flowers were scattered along the main approach.

ETIQUETTE MANUAL IN RHYME

If the masses' life was rough, the classes' manners were likewise. Picture some sumptuous castle banquet and its bejeweled guests who were wont to depend upon a rhyming set of table manners. This popular publication contained social "dout's" of

every kind, from dunking your bread in your neighbor's wineglass to noisily licking your spoon or mentioning flies in the food.

The big, blue-skied market place constituted for the slum-dwelling citizenry their true meeting place and home. There in kaleidoscopic variety strolled merchants, ballad-mongers, preaching friars and mountebanks, each in his peculiar dress. There, in furred robe and conical cap, stalked the town's official astrologer, psychic forecaster of conditions "settled fair" for peace, or of war's hovering storms. There heralds, resembling jacks on playing cards, announced the despot's latest proclamation, and the traveling mystery show erected its three-tiered scaffold.

Who knows if such a market-place exhibition, with Paradise displayed on the top tier, with Hell's horrors revealed on the bottom tier, and with

some Biblical drama sandwiched in between, may not have suggested to Dante the germ of his Divine Comedy?

We passed into Lombardy's smiling countryside. Its agricultural wealth, consisting of fruit and silk culture in the lowlands, and cereal crops in the plains, formerly rendered this fertile region an apple of discord out of which neighboring states took successive bites. Accordingly, one finds, scattered throughout its 9,190 square miles, some of the most powerful castles in upper Italy.

That of Milan (Milano), colossal in proportions, must have been a super-fortress in its day. It owes much of its present

form to Gian Galeazzo, arch-despot of the Visconti dynasty, and a builder of the Milan Cathedral. The cathedral holds 40,000 people and, estimating moderately, the castle might have housed some 10,000 troops. Such was this magnificent despot's passion for the gigantesque that he even contemplated draining the Venetian lagoons.

A "RACKETEER'S" PLOT, AND FUNERAL

Milan, when under its later despots, the Sforzas, produced one of the most picturesque pirates that ever stole a castle and appropriated a lake. Young Gian Giacomo Medici, "Il Medeghino," being exiled to Como for a murder, conceived a fancy for the lake and its castle, and determined to possess them. Accordingly, he undertook to assassinate Duke Sforza's bitterest enemy, with the governorship of Castle Musso as a reward.

But the piecrust quality of ducal promises was revealed when, upon returning to Como, Gian opened the duke's letter and found that it contained, instead of a warrant for the governorship, an order for his execution.

Gian substituted for this death sentence a forged commission whereby he gained possession of Castle Musso. He fortified it impregably, built two fleets, and constituted himself the big boss of the Lake of Como. For sixteen years this "pirate, king, brigand, liar, rebel, assassin, hero"—as one historian characterizes him—remained a thorn in the side of emperors, popes, and princes.

Finally he liquidated his holdings for a marquise and 10,000 gold *scudi* and re-



Photograph by Melville Bell Grosvenor

SCHOOL BOYS AT BELLAGIO HAVE A FRIENDLY SMILE FOR STRANGERS

More than three and a half million boys and girls in Italy are enrolled in the ranks of the Balilla, a government-fostered organization suggesting the Boy Scouts. Youngsters are encouraged in athletics, given military training, and taught patriotism.

tired from public life. In the end he was accorded what an American localism terms "a bang-up funeral," being interred with all pomp in Milan Cathedral (see illustration, page 350).

Yet, as between piratical and ducal ethics, the times offered little to choose. For citizens groaning under their overlord's taxes, import duties and profiteering wars, the only come-back was assassination. Your well-guarded despot was at least vulnerable during religious services. On one such propitious occasion an entire ruling house was massacred at high mass, upon the chanted signal, "*and is incarnate!*"

Oddly enough, many a despotism was the by-product of medieval man's gropings for civic liberty. Various Italian towns had evolved to the point of a representative government selected from the nobles, the knights, and the people. But family factions and political rivalries were such that many a town, thus torn, sought relief by appointing a chief magistrate from some other part of the country. Yet it is easier to lift a man into the saddle than it is to unhorse him, and the unhappy town too often found its dream of peace end in the nightmare of an unscrupulous despotism.

A MASSACRE AT A WEDDING

The latter fate was Perugia's (see page 330). While nominally enjoying a papal constitution, this Umbrian town was actually the usurped fief and fortress of the terrible Baglioni brood. The Cathedral was their barracks; the cathedral square was the battlefield where they extinguished rival Perugian families. Then, having attained the dictatorship, the bloody Baglioni turned upon themselves in fratricidal vendettas that ultimately spelled their doom.

Certain malcontent Baglioni, by directing the marital jealousy of Grifonetto against Gianpaolo—two other scions of the reigning house—instigated the former to massacre the entire line and assume the dictatorship. On the appointed night, during a period of wedding festivities, fifteen bravoos broke into each victim's house, and the Baglioni were murdered in their beds. But Gianpaolo had fled, and subsequently he reentered Perugia with his guards, who hacked Grifonetto to pieces and hung a hundred traitors' heads around the square.

The slaughterhouse of a city was draped with mourning, the Cathedral was washed with wine. But thereafter a Sophoclean blood curse seemed to settle on the Baglioni until the ferocious brood was extinct.

On our way to the lakes we paused for a glimpse of Brescia. Atop its steep hill, rising over moated battlements, stands one of those grim watchtowers which were the "eyes" of the medieval castle. It commands the vast sweep of Lombardy's plain, across which Brescia's vigilant sentry could espy the dust clouds which betokened the onward galloping band of inimical or succoring *condottieri*. These free-lance companies, which sided with Guelph or Ghibelline town alike, according to the jingle of the almighty ducat, came into being through the despots'

lack of effective cavalry. The *condottieri* and their dashing exploits rival the glowing pages of a Dumas romance.

They come jingling into sight—two bands of them, let us say—with pikes aloft and pennants flying. They halt at a safe distance apart. Their respective captains hold truce while their men eat and drink. As one band gallops off, the captain of the other says to his lieutenant, "Their Commander swears they are Guelph supporters, like ourselves. How say you?"

"A blind, my captain!" laughs the other. "They *were* Guelph supporters last year, belike, and are still masquerading as such. But some of his men have neglected to change their feathers from the Ghibelline side of their casques to the Guelph side. Others have forgotten to replace the Ghibelline white rose with the Guelph red rose. Why, half a dozen of them cut their fruit crosswise, Ghibelline fashion, instead of up and down, in our Guelph style. My head on it, they're for attacking Siena!"

Next moment the Guelph troop is galloping over the shortest cut to the threatened town. There the captain interviews the local overlord, names the price of his services, meets and defeats the Ghibelline troop, then claims his reward.

The hazardous reward might be anything from a dictatorship to death. It is told of one Italian town that, when a certain *capitano* and his troop had delivered it from neighboring aggressors and had camped therein awhile, the citizens found themselves in the difficult position of rewarding him sufficiently to rid the town of his presence. The timid urged that a dictatorship was his due, but one wise city father arose in council and said: "I consider that far short of his deserts. No! Let us kill him and thereafter worship him as our patron saint." And, accordingly, the thing was done.

A SEMITROPICAL GARDEN OF THE ALPS

Desenzano, at the foot of the Lake of Garda, was our gateway to two of the most picturesque castles that ever faced snow-clad peaks from across deep-blue waters, whose shores gleam with oranges and lemons against a background of olive orchards, cedar groves, and scented bay trees. In this semitropical garden of the Alps, with its curiously mild air, one feels like those happy Hyperboreans who lived forever sheltered behind the north wind.

COLORFUL PATINAS OF NORTHERN ITALY



© National Geographic Society

Autochrome Lumière by Hans Hildenbrand

ASTRONOMERS SCAN THE SKIES FROM MADONNA DI SAN LUCA'S GREEN DOME

This 200-year-old pilgrimage church, crowning a foothill of the Apennines, is approached by a colonnade more than two miles long. From its favored site it overlooks learned Bologna, whose university scholars played important roles in the Italian Renaissance. Both Dante and Petrarch were schooled in the city. The church was named for a painting brought from Constantinople (Istanbul) in the 12th century.



A TREASURY OF ANCIENT ARCHITECTURE RISES AT ST. MARK'S DOOR

An entrance to the green-domed Basilica faces the Doges' Palace, whose many arches approach the high-posted Lion of St. Mark (right). Across the square rises the column to St. Theodore, first patron of Venice. The Old Library, with its statue-topped facade, leads to the red-brick Campanile.



© National Geographic Society

Autochromes Lumière by Hans Hildebrand

AN EMERALD SET IN TURQUOISE IS ISOLA BELLA IN LAKE MAGGIORE

Here near Stresa, Britain and France recently joined Italy at round-table discussions of European peace. Napoleon and Josephine enjoyed the seclusion of the island's gardens, laid out in 1650 by Count Vitaliano Borromeo. Isola Superiore seems to float on blue water in the left distance (see Plate III).

COLORFUL PATINAS OF NORTHERN ITALY



THESE PILLARS AND FRESCOES ARE SOMETIMES REFLECTED IN BRACKISH PUDDLES

Water occasionally seeps into the cathedral of Sant' Apollinare in Classe, which stands in a desolate marshland near Ravenna on the site of an ancient temple to Apollo. Time-mellowed portraits of archbishops look down from its walls. The altar in the center dates from the year 549.



© National Geographic Society

Autochromes Lumière by Hans Hildenbrand

ISOLA DEI PESCATORI MERITS ITS NAME "ISLAND OF FISHERMEN"

The three veterans mending their nets fulfill the destiny of nearly all children born on this Lake Maggiore island, better known as Isola Superiore. Modern motor launches are rapidly displacing these colorful craft, whose square orange sails harmonize pleasantly with blue skies and water.



© National Geographic Society Autochrome Lumière by Opera Nazionale Dopolarvoto
ON THE WAY TO CHRISTENING, BABY RIDES ON AHEAD

Brightly arrayed mothers of Vercelli, in Piedmont Department, carry their infants to the church in a cradle. Two famous Italian painters, Sodoma and Ferrari, lived and worked in the old town.



Autochrome Lumière by Hans Hüblbrand
NATURE SEEMS TO HAVE PROVIDED THEIR BLEND

Deonzano housewives with back-breaking toil launder their clothes on the edge of Lake of Garda. Professor Auguste Piccard landed his stratosphere balloon near here in 1932, after establishing an altitude record.



© National Geographic Society

AN ALPINE COUPLE INTERPRET A NATIVE DANCE

Italian and Austrian shells destroyed much of the village of Gorizia during the World War. Italy captured, lost, recaptured, and added it to the Kingdom after intense fighting.



Autonomous Larmiere by Opera Nazionale Dopolavoro

VIVACIOUS VILLAGERS CHOOSE VIVID COLORS

Their town of Merano, high in the upper Adige River region of the Alps, is a health resort, having a fine sunlit climate. Though it is now part of Italy, many natives are of Germanic descent.



ROMAN ENGINEERS FIRST BUILT THIS STONE BRIDGE

Their skill is still represented in the two arches nearest the distant bank of the Adige, where it flows, often torrentially, past Verona. Barracks now top San Pietro Hill, beyond, where Theodoric, an invading Goth, built a sumptuous castle early in the sixth century.



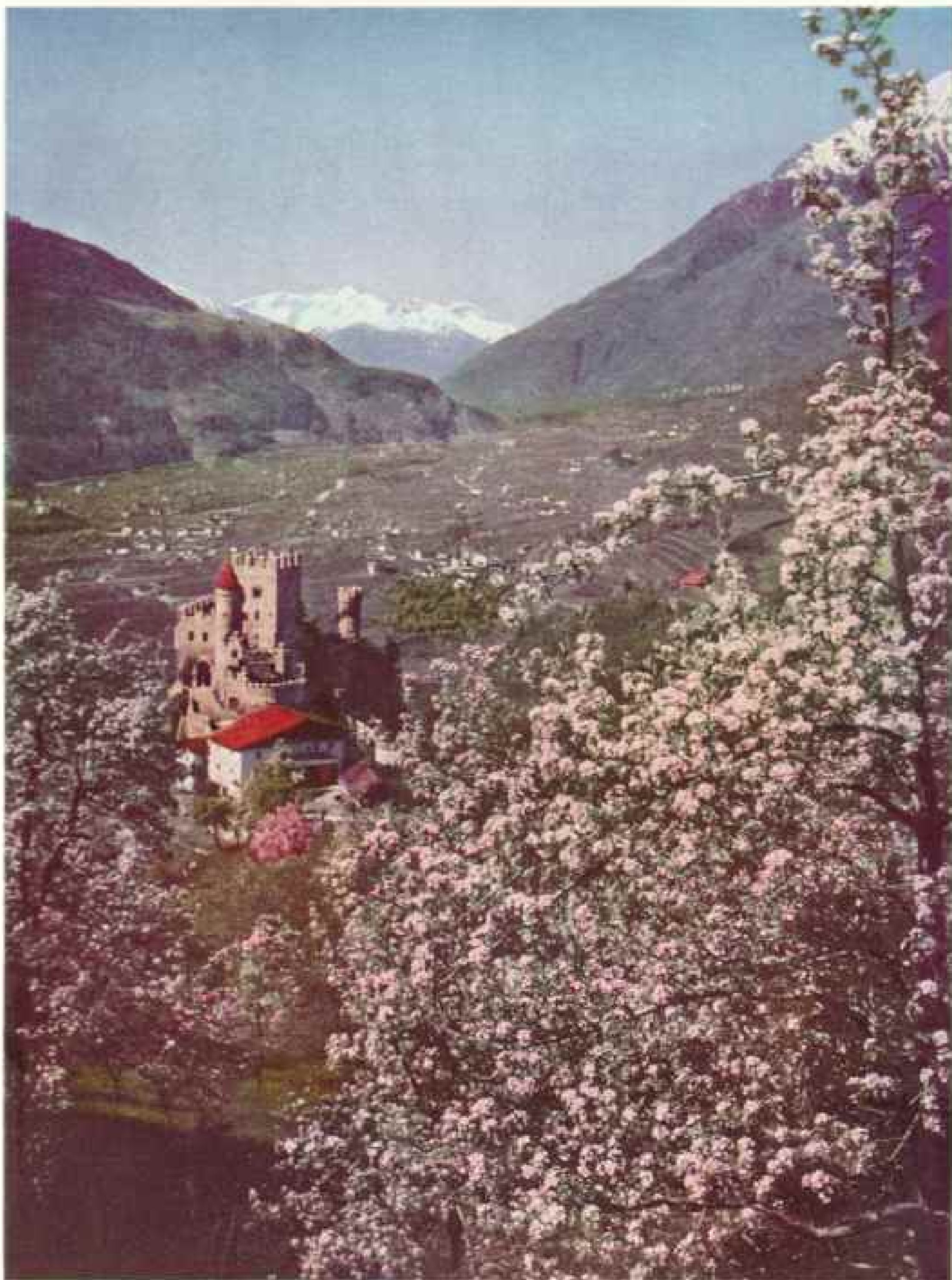
© National Geographic Society

Autochromes Lumière by Hans Hildenbrand

ST. ANTHONY'S IN PADUA COMBINES GOTHIC AND BYZANTINE ARCHITECTURE

Completed in the 14th century, the massive church is the pride of the ancient university town despite the discordant architectural note of domes united with arches. In front stands Donatello's equestrian statue of Gattamelata, noted general of the old Republic of Venice.

COLORFUL PATINAS OF NORTHERN ITALY



© National Geographic Society

Autochrome Lumière by Hans Hildenbrand

MERANO IS LIKE A SMALL BOY'S DREAM OF FAIRYLAND

Framed in flowering fruit trees and the snow-capped Dolomites, Castle Brunnenburg was once part of the outworks of Castle Tyrol, whose masters gave their name to the surrounding country. Terraced gardens climb the hillsides beyond the blossoms. Here in the northern outposts of the Kingdom of Italy, Latin and Germanic influences are intermingled (see Plate V).



© National Geographic Society

MERCHANTS OF VENICE SPARED NO DUCATS ON THEIR MANY-SPIRED BASILICA OF ST. MARK

Illustration Plate by E. Girardjean

Napoleon so admired its Corinthian-brass horses that he carried them off to Paris, where they remained until after Waterloo. Just beyond the church is the Ducal Palace, its pillars made stubby when the level of the square was raised with the hope of lifting it above flood waters. The winged Lion of St. Mark is much in evidence on buildings and flagpoles around the Piazzetta, repopulated by hungry pigeons (see Plate 11).

Cactus, camphor trees, palms, hibiscus, oleander—the sight of these, cradled within the Alps' encircling foothills, startles one like some paradox of Nature.

Shelter and warmth—the mountains' screen, the lake's unusually high temperature—explain the anomaly. Once only, two centuries ago, has the Lake of Garda been known to freeze. Divers' descents reveal that its warmth increases at its lower depths. Hot springs are scattered through its area of 143 square miles, and at Sirmione you may enjoy a warm sulphur bath in water piped from one of these springs, the Boiola, that bubbles up from the lake.

As the little steamer steers eastward from Desenzano, you sight a low peninsula which stretches far into the lake; you set foot ashore and find yourself in a tiny fishing village. It has only a few cobbled streets and a simple inn whose lake-skirting terraces are arched by an overhanging profusion of flowers.

Dominating every approach, and with its fortified bridge bestriding the lake's inlet, towers the castellated specter of a Scaliger stronghold. Lake-washed on two sides, and with lake-connecting moats to complete its isolation, the castle of Sirmione is unforgettable in its lone austerity.

Few visitors pass. The netmakers ply their tasks along the sunny banks of the moat, which has become the local fishing fleet's haven. Sirmione's school children play at bowls with the smallest size of the Scaligers' stone cannon balls. The once-terrifying Titan of feudalism has become as those prehistoric monsters whose skeletons are biological milestones, even as castles are milestones in man's social evolution.

SPIRITS OF DESPOTS AND POETS

The Scaligers, with a watchful eye on Venice, erected this stronghold to secure the approach to Verona. Its walls, says tradition, once sheltered Dante. Not far distant stood the villa of Catullus, whose verse celebrates "Sirmio" as a cross between an island and a peninsula. Napoleon once made the castle his headquarters and entrenched his troops under its walls.

Yes, Sirmione's despots, poets, and conquerors have come and gone, and they and this remote, lake-washed pile are all ghosts together.

There is needed but one of the regional wind-storms that sometimes churn the lake

into whitecaps to realize in romantic Sirmione the vision of—

"Magic casements opening on the foam
Of perilous seas, in faery lands forlorn."

Farther up the lake's eastern shore is the ancient village of Garda. Its age may be inferred from a local legend which assures you that the adjacent waters cover the remains of a Roman city. Indeed, old fishermen aver that you can glimpse its submerged temples if your eyesight—or perhaps it is your imagination—is sufficiently strong.

On a more substantial basis rest Garda's lonely, rock-girt donjon tower and its associated story. It is an episode of 10th-century times, long before "Convey the captive maiden to my castle!" had become a mere literary expression, or "Non ti scordar di me!" was sung by Verdi's tower-immured lover.

It seems that Adelaide, daughter of the Duke of Burgundy, very properly declined to wed the son of Berengarius, prince of Ivrea, who had procured her husband's murder. Berengarius therefore sequestered the lady in Garda's lakeside tower, from which she was freed by a friar, who carried the news to Otto the Great of Germany. Otto moved on Berengarius, defeated him, and liberated the lady. Poetic justice was felicitously fulfilled when Otto fell in love with Adelaide and caused her to be crowned with him as joint sovereign of the Holy Roman Empire.

Still farther up the lake we skirted the lovely Gardone Riviera, with its crowded bathing beaches and its curving promenades where rows of big umbrellas sheltered holiday-makers from the warm October sun. Then the western shore shot up into flat-faced cliffs—the background of terraced lemon groves—while from the opposite bank, rising over a vast expanse of olive trees, jutted a rocky headland whose profile culminated in the lofty outline of Castle Malcesine.

FRESH VEGETABLES—BUT NO GHOST!

The Scaligers' heraldic "ladder" (see text, page 331) must have resembled the modern extension ladder of fire companies, to have carried the Veronese despots up Malcesine's sheer rock frontage, which they captured and castellated. Indeed, this eagle's nest of a stronghold is eloquent of how the Italian word, "*rocca*" (rock), assumed the secondary meaning of castle.



Photograph by S. Putzina

RIVA, AT THE HEAD OF GARDA, IS NOW A POPULAR SUMMER RESORT

At the beginning of the World War this town of tree-shaded parks and tinted homes, then in Austrian territory, was bombarded by Italian guns from Monte Altissimo (see illustration, page 352). Today summer visitors bask in the sun on Olivi Beach and yachts race in the deep, blue water. Tunnellike pipes descend the hillside in the background, carrying water which is the "white coal" for the region's power plant. A spectacular mountain highway, the Ponale Road (see page 353), here begins its long climb up a sloping niche carved from the cliff (left background).

Rocca Malcesine is one of the most remote and fascinating of upper Italy's castles. Its caretaker, who lives in one of a clump of huts that are buttressed into the lower walls, conducted us by hairpin curves to the stronghold's bastions and showed us how splendidly his cabbages thrived behind their shelter. He even offered to sublet us a room in the donjon tower. When we stipulated that the rental price must include a ghost, he shook his head, crossed himself, then said hopefully, "But I could supply you with fresh vegetables."

We dreamed that sunny morning away, castle-perched over a region so remote that Bluebeard's wife's sister Ann might have watched it long before seeing "anybody coming." Far below us, seen across the castle's swallowtailed battlements, lay blue Garda. Less lovable than austere, it is a mountain-crowned king among lakes, with

its fishing smacks' golden sails bejeweling its breast. Looking inland across Malcesine's rooftops, we glimpsed the tiny town's embankment, along which its wood-carrying fleet was aligned.

"A *festa* today, signore," commented the castle warden, pointing toward the thronged church square. Inquiries revealed that it was the feast day of Malcesine's pair of patron saints, who preside over the welfare of vessels on the treacherous Lake of Garda.

Presently, skirting the castle's base and issuing on the little quay, came a procession of priests, fishermen, sailors with their wives and children. Bearing church banners and lighted candles, they passed under the anchored smacks' bowsprits. And now there appeared the festal emblem itself—a standard bearing a miniature fish boat, flanked by the patron saints' effigies. Between them



Photograph by Melville Chater

FISHER FAMILIES MARCH IN A PROCESSION AT "THE BLESSING OF THE BOWSPRITS"

Each year boats that find refuge in Malcesine harbor near its ancient castle are blessed by the village priests. Salmon trout of Garda, once reserved for the banquet tables of emperors and doges, now delight guests of near-by hotels. The lake supports most of the people who dwell on its shores. Perch, eels, and trout are shipped long distances to market, some being sent far beyond Italy's borders.

and the moored crafts' figureheads passed—so we were told—mystic salutations.

Now Christian saint has blessed pagan mermaid and trident-bearing Neptune. All is well as the pageant winds churchward once more. And as dusk falls, the surrounding mountain sides glow forth into a fairy-land of little lights. It is the Lake of Garda's lantern feast in honor of this blessing of the bowsprits.

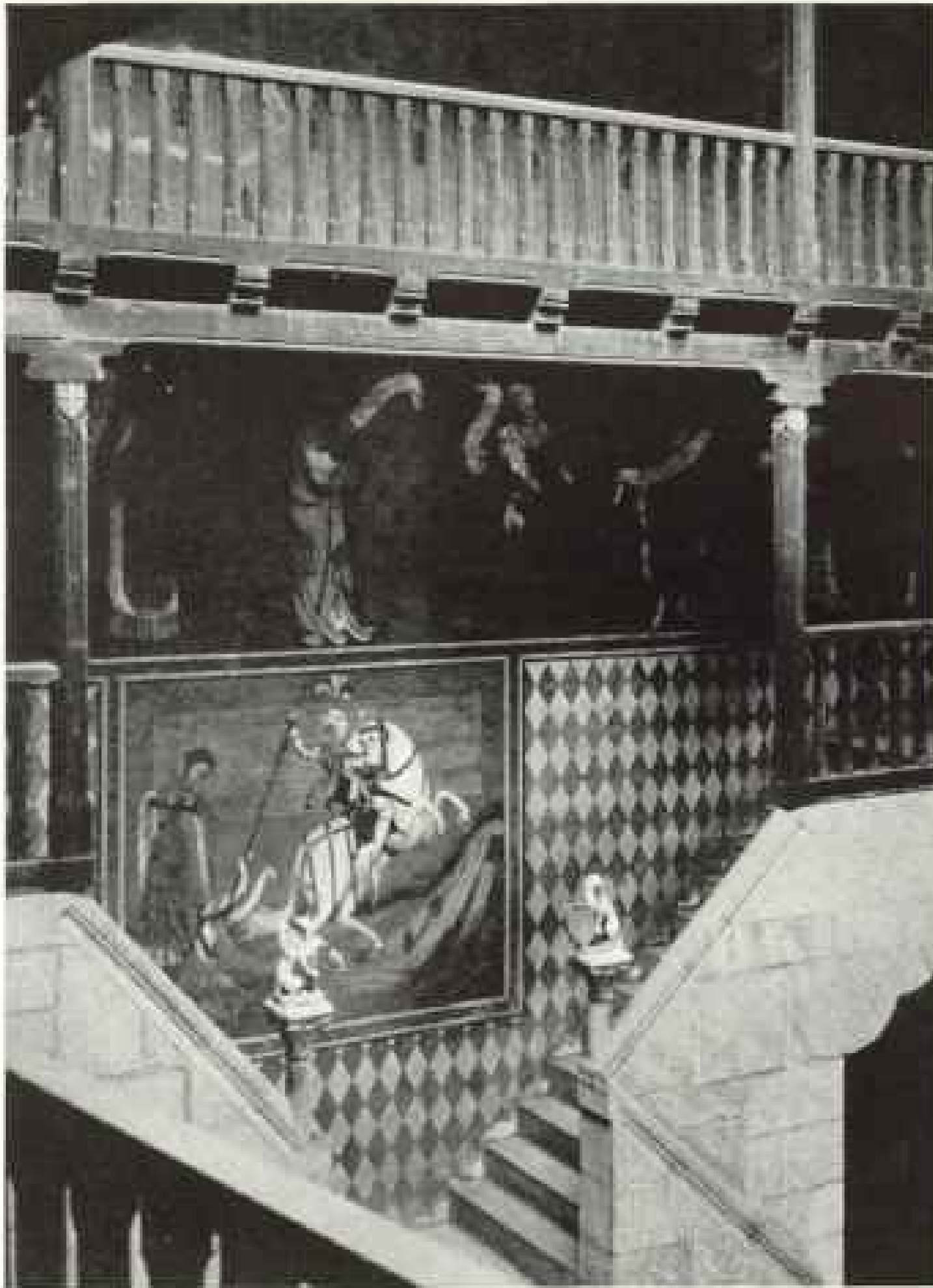
WHEN OXEN TOWED A FLEET ACROSS
THE MOUNTAINS

One wonders if this same pair of saints presided over the safety of the Venetian fleet when it rested high among the Lake of Garda's surrounding mountain peaks in 1438. The spectacle of galleys issuing over the Alpine foothills was beheld by the discomfited lake fleet of the Viscontis (see illustration, page 352). Those Milanese despots, being then at war with Venice, had

seized the commanding positions on the Lake of Garda.

Then, one day, there appeared before the distracted Venetian senate a simple Greek sailor, Niccolo Sorbolo, with a plan for transporting war galleys from the Adige across the Alpine passes and down to the Lake of Garda. Instead of incarcerating him as a madman, the desperate senators acquiesced. By utilizing 2,000 oxen and a host of laborers, a unit of the Venetian fleet was actually hoisted up across 15 miles of Alpine wilderness through a pass, almost 1,000 feet high, between Mori and Torbole. The galleys were then lowered by capstans into Torbole's little harbor (see map, page 334).

This amazing feat had been performed without mishap in fifteen days. A grateful Venice voted Messer Niccolo an annual pension of 500 ducats "for his faithful services in conducting galleys across the mountains, to such glory of our State."



Photograph by Burton Holmes from Galloway

A RICHLY FRESCOED COURTYARD ADORNS THE MODEL CASTLE

Bright scenes depict classic gardens with graceful figures holding festooned scrolls. Features of many Val d'Aosta fortresses are incorporated in this museum at Turin (see illustration, opposite page).

Maybe reports of the achievement spread eastward. Certainly, a few years later, Mohammed II transported 68 Turkish galleys five miles overland to the upper part of the Golden Horn to besiege Constantinople (Istanbul).

AMAZING FEATS OF MODERN ENGINEERS

Ever since Machiavelli wrote treatises on fortification, the Italians have been bold engineers. Any Allied correspondent admitted to the Stelvio Pass-Lake of Garda sector, three months after Italy's entrance into the World War, witnessed at that lake's northern, formerly Austrian, end, engineering feats eclipsing belief. From some Italian gunboat's deck one saw a great

furrow which, serpentine through the valley and up the mountains, was lost to view at 6,500 feet altitude. All along that serpentine way you discerned gray splotches, signifying the presence of Italian troops.

From lake side to mountain peak all was one vast military fortification, reminding you of some lacustrine Gibraltar. Ramifications of trench and of gun position—guns hoisted up 6,000 feet, trenches cut from the living rock—carried on from meadow to mountain torrent, from gentle hilltop to snow-clad peak. And, in fact, many an Austrian position was stormed and seized beyond the snow line.

Our last stop on the Lake of Garda gave us glimpses of the lemon gardens along its Riviera and of Salò's related industry, the production of lemon liqueur. Terraced on the flanks of otherwise bare cliffs, these luxuriantly bearing gardens are an amazement. One

can but fall back on the local explanation—the radiated warmth from sun-bathed cliffs and from the lake's hot springs. As late as October, the crop was still being peddled on lake steamers, whose passengers devoured the fragrant Riviera lemon as unceremoniously as if it were a half tart orange.

Salò was once the scene of tragic events that inspired John Webster's play, "The White Devil," a high light in Elizabethan drama for its delineation of Vittoria Accoramboni as a veritable female Fury. Having conspired in the double murder of her husband and of the Duke of Bracciano's wife, in order to become his duchess, Vittoria was triumphantly installed in the ducal palace at Salò. But there Bracciano

died, and from thence the "white devil" fled, only to meet her death at the hands of the murdered woman's brother.

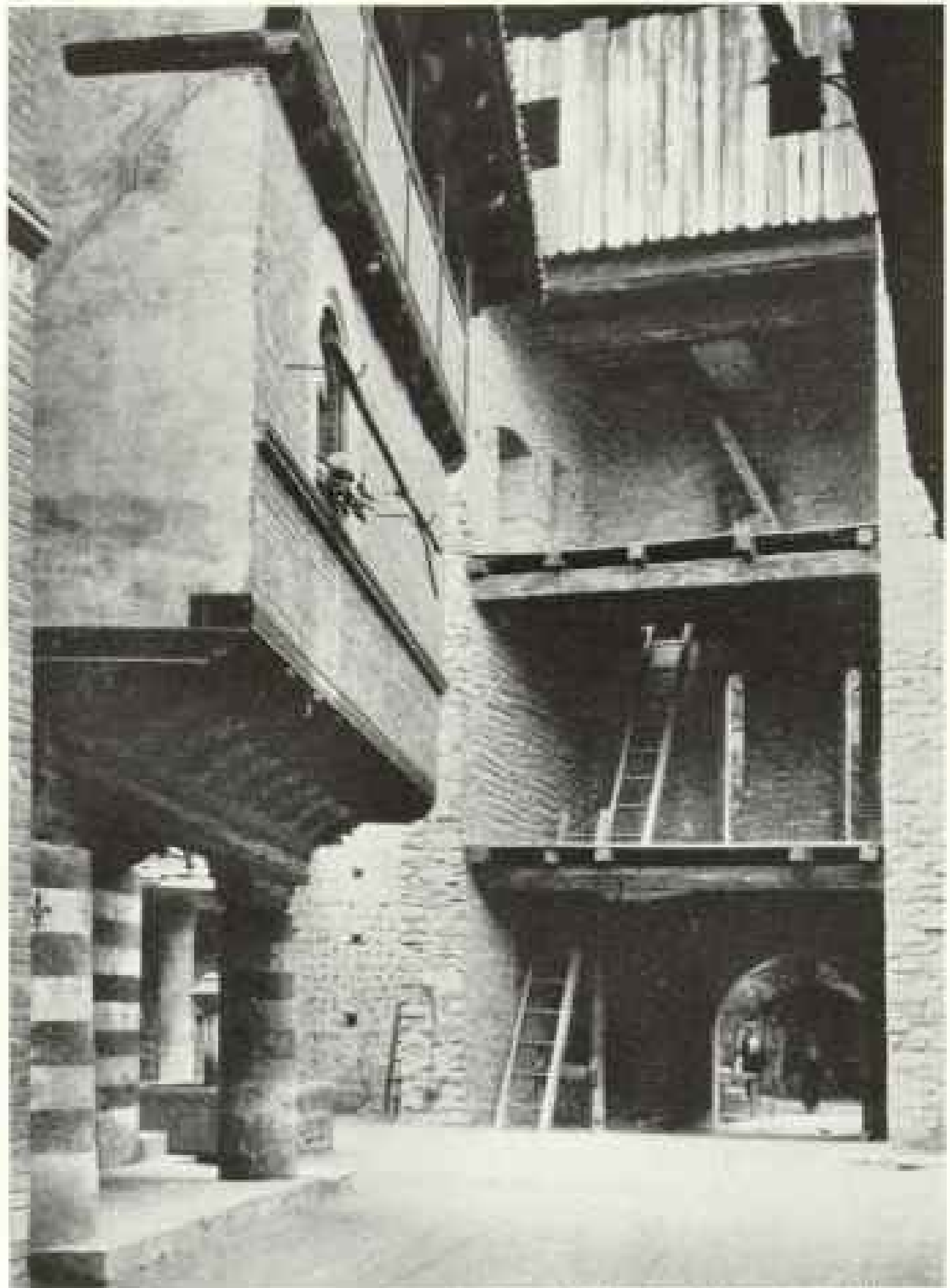
CASTLES OF THE PIEDMONT

Reluctantly we left the Lake of Garda for the castles farther afield in the Piedmont. That region, what with its cereal-yielding lowlands, with its upper stretches devoted to vineyards and silk culture, and its still higher region of forest and pasture, is the largest of North Italy's departments.

At big and bustling Turin (Torino), which is as rich in manufacture as it is poor in medieval buildings, we were surprised to learn of the existence of a 15th-century "Castello Medioevale." Indeed, our informant described it as unique among European castles. So off we started.

As we neared the broad Po, modern Turin was forgotten in those towering, crenelated walls that dominated the river bank. Then came our first taste of the "unique." A massive drawbridge was lowered to admit us into the quaintness of a veritable *borgo*, or dependent feudal village. It consisted of curious arched ways and of low-doored dwellings, through whose leaded panes we glimpsed men at smithing, leatherwork, or bookbinding—products such as a self-contained castle and its medieval lord might demand.

We ascended the steep ramp, a portcullis was lowered by unseen hands, and we entered the castle itself. From its central courtyard, with a staircase leading to successive interior balconies, radiated the vari-



Photograph by Burton Holmes from Galloway

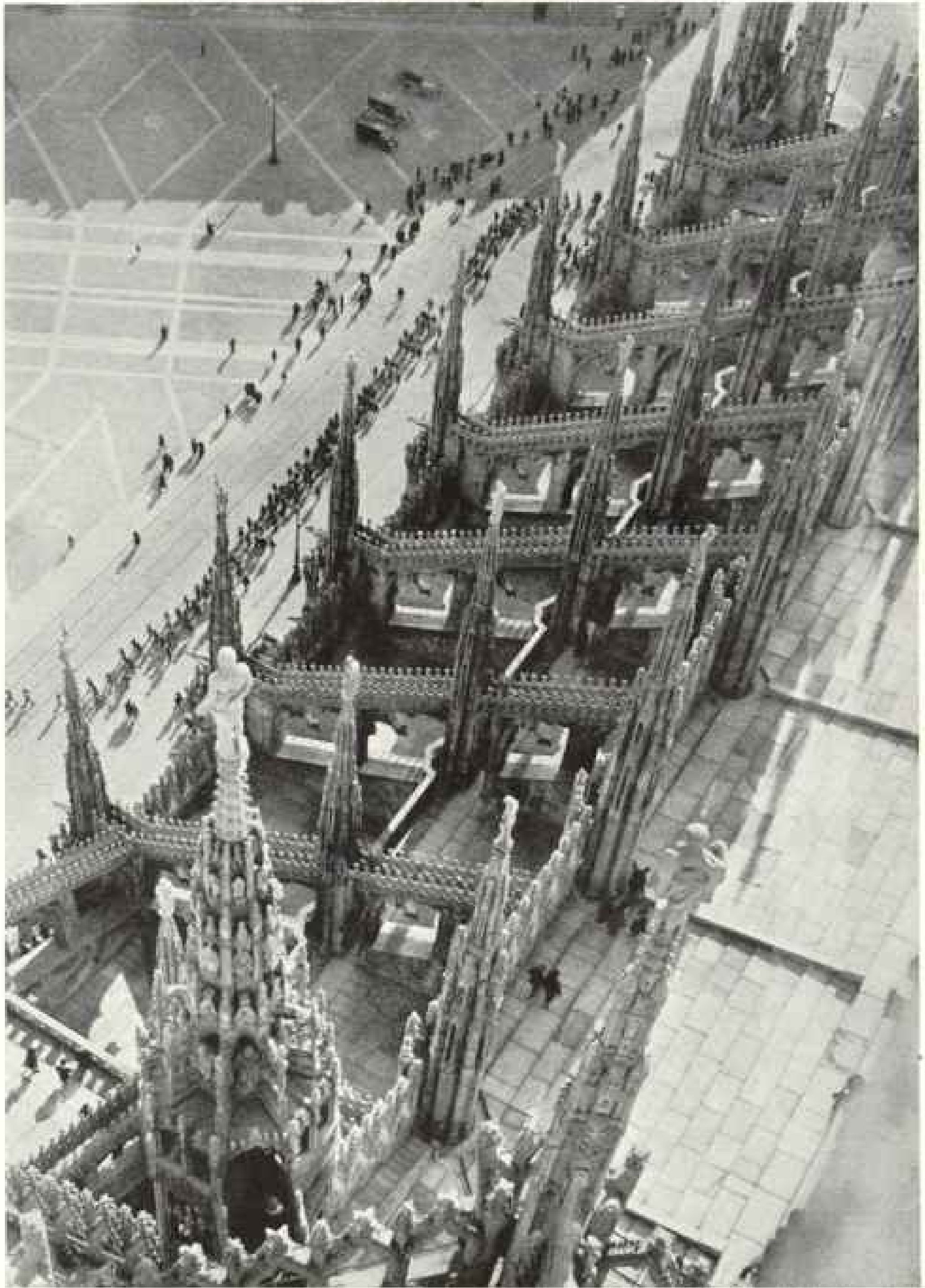
THIS "MEDIEVAL CASTLE" AT TURIN WAS BUILT IN 1884!

But it perfectly epitomizes a fortress of the Middle Ages (see text, page 351). The early Italian fortress was rectangular, an offshoot of the Roman camp. Later hollow "shell towers" were developed in northern Italy, of which this gate is a model (see illustration, page 355). Defenders swarmed on platforms or stages supported by heavy beams and hurled missiles at the enemy through apertures in the walls. The top story was often, as here, enclosed in a "tunnel vault."

ous apartments of the ducal family and its retainers. We would have "craved an audience" in proper style, but nobody was in sight, so we continued to roam at will.

On the ground floor we entered a long, torch-lit dormitory, with outstretched rows of straw pallets. Alongside these lay the men-at-arms' pikes and muskets, as if in readiness for the sentry's cry of "Ho, capitano, man the walls!"

Next came the big, paved kitchen, with its enormous stewpots, turnspits, and ladles, its rotund wine casks, its gigantic fireplace,



Photograph by Richard M. Vanderburgh

THE LACY PINNACLES OF MILAN CATHEDRAL DWARF A PARADE OF ALPINI FAR BELOW

Resolute visitors who climb to its roof to admire the statues and delicate architecture always marvel at the large slabs of marble of which its roof is made (see illustration, page 357). The building was begun five and a half centuries ago by a Duke of Milan who had traveled widely and admired the northern Gothic style, foreign to Italy. Napoleon, after his Italian conquests, caused the façade to be completed, and here crowned himself with the Imperial Iron Crown of Lombardy. As the little Corsican set the diadem upon his own brow, he said, "God gave it me, woe to him who touches it."

suggestive of whole sheep and prime porkers at roast. All that was needed was a master cook and his scullions astir, with bawled exclamations of "Bustle, you rogues, or I'll spit the laziest with a skewer!"

WHEN THE DUCAL SALTCELLAR DREW THE SOCIAL LINE

A service window for the passing of viands revealed the dining hall. Its long tables, laid as for a feast, extended in parallel lines to a crosswise-placed head table which bore a magnificent golden galleon. Doubtless in olden days this dominating object—which was in fact the ducal saltcellar—had evoked many such remarks as "Yon scurvy knave who sits below the salt," or, "Matteo, didst note the duke seat me above the salt tonight?"

Save for the lack of humans, it was as if we had stumbled into the Sleeping Palace. As we passed upstairs and through the ducal apartments, we half expected to feel some challenging sentry's pike against our ribs. There was the tapestried sleeping chamber, with enormous, canopied bed and curious chests for ladies' gear. There was the abutting cubicle, austere with its pallet, praying-niche and the crucifix, which revealed that this was the family priest's cell. And last, and most striking, came the long audience hall, with its twin thrones and richly frescoed walls.

We reissued from the castle, so thoroughly imbued with the spell of bygone centuries that, when we discovered a modern inn adjoining, we could hardly refrain from addressing its proprietor as "Ho, knave!" and bidding him, "by'r Lady," produce a brace of larded capon and a beaker of Asti.

There we learned that we owed our morning's experience to the planners of the national exposition which was held in Turin in 1884. In fact, the "Castello Medioevale" is of that date. Its entire contents are 15th-century originals, save for the frescoes, and these are copies of 15th-century work. Justly have castle and its surrounding "village" been preserved as a masterpiece in period reproduction.

AN ALPINE SUNRISE

From Turin we ascended the Val d'Aosta by rail. But never should such romantic, snow-capped gorges be skimmed through in a train. And so, at Aosta, we hired a pony cart for the return trip down the pass.

Late October in that little Alp-surrounded town means that the early riser will shiver,

and stamp, and consume much hot coffee before the sunrise pours its crimson flood down the snows, and his conveyance stands at the inn door. Even then, as you descend into the pass, chilly grayness re-envelops you. You behold successive daybreaks over the upper snows, and you decide that an Alpine sunrise has things in common with a repeating alarm clock.

But at last the mighty pass is flooded—and with such light! Sharply it picks out the pygmylike figures of woodcutters on the gorge's blue flanks, or the distant, pinnacled profile of a donjon tower, or the mere mountainside dot that is a dry-land sledge. A vibrant air, clean as Alpine snows, wafts down the valley, bringing from afar the pastoral symphony of multitudinous cattle bells.

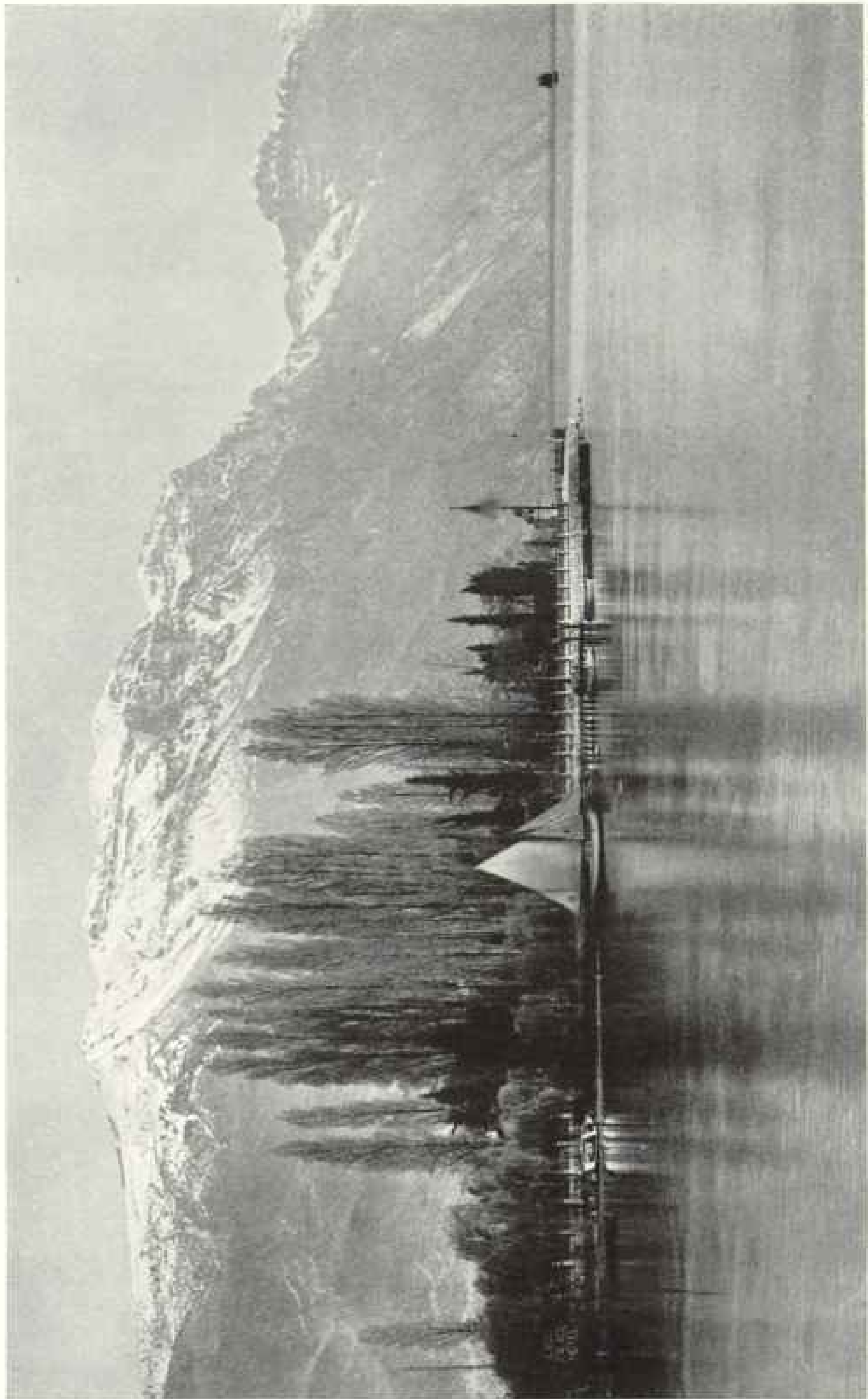
We soon lost count of the many castles and castle ruins that line the pass between Aosta and Ivrea. For the first 20 miles, indeed, one donjon tower had no sooner sunk behind some crag than another had loomed up ahead. Even as the Romans jealously guarded this important Alpine approach in their day, so the 15th-century Counts of Challant guarded it in theirs.

Our final castle peered into sight around a curve in the valley, bringing us the surprise and charm as of a personal discovery. Fénis is no grim, inaccessibly perched fortress, but a friendly little castle, nestling in the valley under a snowy peak and atop a green knoll which rises amid the idyllic peace of apple orchards and grazing cattle.

Warfare has spared its perfect profiles, and, indeed, bloodshed seems a stranger to this diminutive, hillock-set plaisance whose sunny terrace invokes visions of lords at their hawking and ladies at their tambour frames.

Untenanted, smilingly hospitable, and intimate in its beauty, Fénis seemed our goal—the realization of our "castles in Italy."

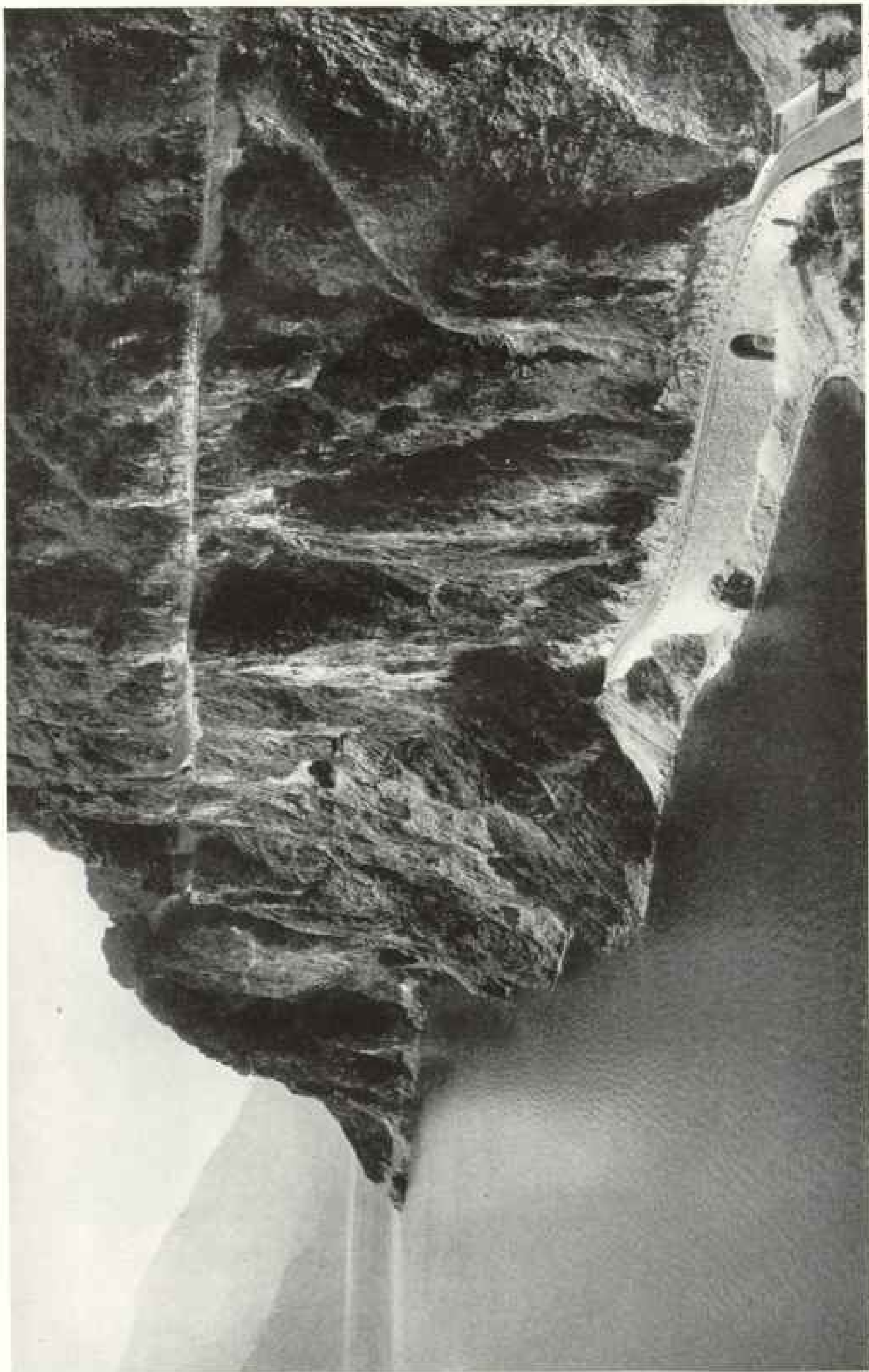
For how many generations Fénis, like some forgotten miniature, has lain neglected in its valley nook, nobody knows or cares. At least, the peasants who linger there from I know not what remote, feudal instinct, could tell us little of its history, yet their ancestors' rustic hearts and darts were carved on the selfsame courtyard wall that displayed a frescoed representation of the countship's family tree. And—regrettably—the planking of the noble chambers had been stripped to the beams to furnish firewood for the descendants of the castle's ancient retainers.



Photograph by Kitchin

ITALIAN ALPINE WON A DESPERATE CLIMBING RACE WHEN THEIR GUNS, HAULED TO THE TOP OF MONTE BALDO, BEGAN BARKING

Within an hour after the declaration of war in 1915 their artillery on the summit of Altissimo, one of the highest peaks of the range, swept the Austrians' fortifications on Monte Beione (see illustration, page 363, and map, page 234). In the 15th century these mountains figured in naval annals when vessels of a Venetian fleet were hauled overland by oxen from Mori, on the Adige River, and launched at Torbole (see text, page 347). After this exploit, the Venetians were forced to avoid battle because their armies, the Milanese, were waiting for them with a superior fleet.



Photograph by S. Pozzani

TWO FAMOUS ROADS SCAR THE ROCCHETTA'S SOLID FACE AS THEY DIZZILY CLIMB AND TWIST ABOVE THE LAKE GP GARDA

The Ponale Road, etched against the cliff, ascends the lake's steep western front before it turns inland in a series of breath-taking loops to the Lake of Ledro and Storo. It passes through the rocky gorge which rang with the din and tumult of battle during the early days of the World War, and lay close to the old Austro-Italian frontier. The lower highway, broad and smooth, disappearing into the tunnel, leads to Limone and Salò.



Photograph by Donald McLeish

BEFORE EARTHQUAKE AND MAN DESTROYED THEM, 180 SUCH TOWERS SOARED
ABOVE BOLOGNA

Noble families erected these fortresses, the size depending upon the resources and ambitions of the members. The towers were built in a confined area, so they were crowded close together. Because owners hurled stones and weapons at passers-by, stiff laws were passed providing for the destruction of the towers when they were used for warlike purposes in time of peace. The squat Garisenda, 163 feet high, leans 10 feet from the perpendicular. It was begun by two crusaders but never completed because it began to tilt alarmingly, due to an earthquake or subsoil sinking. Even the taller Asinelli, reaching 320 feet above the city's arcaded streets, is four feet out of plumb.



Photograph by Branson de Cou from Galloway

A DESPOT OF VERONA HID AWAY IN THIS CASTLE AFTER KILLING HIS OWN BROTHER

After the deed Can Grande II, meaning "Great Dog," shut himself away from the perils of rebellion in Castel Vecchio only to be slain by the hand of another brother, Cansignorio (see illustration, page 358). Visitors cross the Adige River by this broad Gothic span, with forked crenellations, to reach the fortress with a "shell tower" (see illustration, page 349).

We wondered if Fénis, with its air of being a pleasure retreat, wasn't a chronological link between the medieval period and the Renaissance—between the former's stern fortresses and the latter's lovely villa gardens. For Italy's 16th-century villas are the sequel to her 13-14th-century castles, in that the despots' descendants forsook the gloom of their ancestral strongholds to hold court in the sunlit stateliness of formal gardens.

A "GEOGRAPHY OF THE MEDIEVAL CONSCIENCE"

Or was that evolution merely a throwback to the antique? Classic Italy was rich in villas and gardens. Modern estimates put ancient Rome's proportion of park space to its total area at one-eighth, whereas London's proportion is about one thirty-ninth. Many a wealthy Roman owned anywhere from three to six villas, and Lucullus was so well provided in this

respect that he boasted of changing his abode seasonally, with the birds.

This rediscovery of the antique, and the consequent infusing of the arts and letters with the spirit of classic times, expressed one side of the Renaissance, just as Italy's awakening spirit of exploration, her urban drift, and the upspringing of her foreign commerce, expressed another. Moreover, man's strict preoccupation with his own conscience was slowly evolving toward a social consciousness.

Dante's awesome epic of Heaven and Hell is nothing less than a geography of the medieval conscience. And in Boccaccio's gay party, fleeing from plague-stricken Florence (Firenze) for a story-telling tourney in an arbored, flower-spangled garden, we sense the dawning Renaissance.

In an age which was so dead to learning that monks ripped pages out of priceless manuscripts and sold them to the superstitious as amulets, Boccaccio and Petrarch



Photograph by Humbert

ONLY GENUINE MACARONI WILL HANG ON POLES TO SUN-DRY—SAY ITALIANS

They make the paste from a hard, semitranslucent wheat that grows in southern Europe. That made from other varieties containing less gluten, they claim, will not bear its own weight and therefore must be dried flat. Dough of well-kneaded semolina or coarsely ground grain and boiling water is forced under pressure through small openings in a cylinder. Large holes make macaroni, smaller ones spaghetti or vermicelli.

emerged as cultural pioneers. But they did more than revive dead tongues: their pages glow with the rediscovery of earth's beauties. This rediscovery spread like sunrise; a war-weary people turned to Nature for solace, and even the closes of grim castles began to display herb beds and flowers.

Impetus was added by such great houses as the D'Estes and the Medici, who enlisted the genius of Michelangelo and Raphael to develop the art of garden designing. By mid-16th century all northern Italy was reflecting this back-to-nature movement in its multiplying villa gardens. Castle walls were yielding to cypress walks, and fortifications were giving way to flowers.

It was on Genoa's (Genova) busy water front that we found one of the oldest of North Italy's villas—that which Andrea, of the renowned Doria family, built in 1529. Four centuries of Genoa's turbulent glories had preceded him, and for half that

time she had been the world's chief maritime power. Andrea was Genoa's greatest sea captain at a time when medievalism's twilight was paling into the dawn of the Renaissance.

As to his name and fame, the villa garden's centrally placed statue leaves no doubt. Andrea Doria— orphan boy, then papal guard, *condottiere*, then high admiral—spent most of his long life at sea, and he blithely celebrated this fact by laying out his garden around a nude statue of himself as Neptune. Certainly this "admiral of the navies of the Pope, the emperor and the king of France"—so runs the inscription on his house wall—wasn't bothered by an inferiority complex.

A FIGHTING ADMIRAL AT 87 YEARS

Andrea had 20,000 sailors and slaves to man his gorgeous galleys or to look after his little home comforts. He was addicted to



Photograph by V. Onslow

STONECUTTERS OF RAVENO STILL FASHION MARBLE AS THEIR FORBEARS DID FOR
MILAN CATHEDRAL

Near here, close by the shores of Lake Maggiore, are the famous Candòglia quarries which were presented to the Cathedral Chapter by the Duke of Milan in 1386 and from which was hewn much of the building material for the Gothic temple (see page 350).

giving banquets and pitching successive services of gold-and-silver plate into the sea after each course. During a briny lifetime he never side-stepped any sea fight on the horizon. At 84 years of age he thought nothing of leading a brush against Barbary pirates, and at 87 he got on his sea legs for the last time and fought the French in Corsica.

Today, as one studies the statue of "Neptune" Doria, with his back turned on a scene of modern shipping and his trident uplifted commandingly over Genoa, it seems quite in character that, of the many great villas which once dotted the harbor, old "hard-boiled" Admiral Doria's should have outlasted them all.

About the time that Andrea was planning his villa, the back-to-nature movement struck Padua (Padova), and its citizens thereupon created, about 1545, one of the earliest-known of public botanical gardens. From that movement even the accepted

ideas of the Garden of Eden suffered revision, and in old prints we behold Adam installed among clipped hedges, square parterres, fantastically lopped trees, and marble fountains—a typical Renaissance villa garden.

Transforming castle closes into plaisances, and, next, creating a special type of mansion that harmonized with its formally designed surroundings, led to the subservience of the villa and to augmenting its garden. Terraces, fountains, grottoes, and statuary were carefully arranged to contrast with the exterior vista of mountains or of waterscape.

But why Maggiore—i. e., "the greater"—one naturally asks, when the Lake of Garda is almost double in area? The opinion has been hazarded that the early Italian writers, in describing Lake Maggiore as a possible water link with the Mediterranean, meant "maggiore" as "greater" in the sense of commercial importance.



Photograph by Donald McLeish

THE SCALIGERS, MEDIEVAL TYRANTS OF VERONA, REST IN THESE ORNATE TOMBS

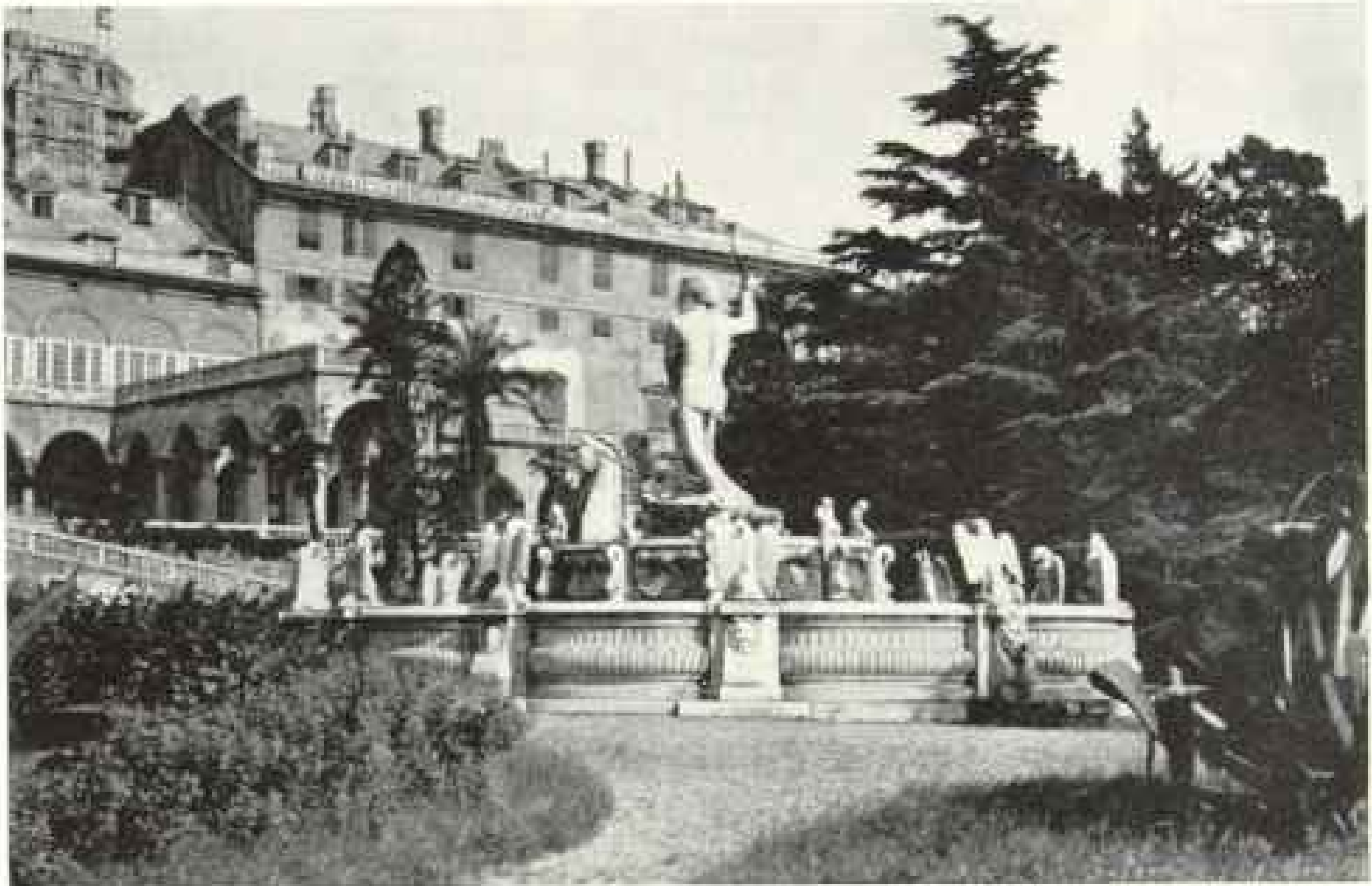
Mastino II, who murdered his kinsman, Bishop Bartolommeo, lies in the marble sarcophagus in the second story of the nearer monument. The assassin's equestrian figure on top has the visor drawn, Veronese say, because he never wished his face to be seen again after the deed. The hexagonal tomb in the background is to his son, Cansignorio, who murdered his elder brother with his own dagger to obtain the throne, and years later killed a younger one to insure succession for his illegitimate sons (see illustration, page 355). A trellis of delicate wrought iron, fastened flexibly like chain mail, surrounds this churchyard of Santa Maria Antica. The ladder (scala) crest of the family occurs frequently in the design of the monuments and railing. La Scala, the opera house in Milan, was named for a daughter of Mastino II.



Photograph by Wehll

A DRAWBRIDGE SPANS THE WIDE MOAT THAT MAKES SIRMIONE AN ISLAND

Lake of Garda fishing boats find a safe harbor here beneath the castle's grim battlements. Legend says that Dante was a guest of the Scaliger family, who built the stronghold. In Roman times Sirmione was a halting place for imperial couriers. The poet Catullus had a villa here where he entertained Julius Caesar. The "Bolola," or hot sulphur springs, near the town are piped to a thermal spa.



Photograph by Melville Chater

THE PALACE OF GENOA'S GREAT SEA FIGHTER OVERLOOKS A BUSY HARBOR

The statue in the garden of Palazzo Doria memorializes Andrea Doria, who led Genoese fleets against Turks and Barbary pirates. Upon his return from a voyage, he found the French had captured his home city, and therefore joined the Navy of King Francis I. Later, changing his allegiance, he expelled the invaders from Genoa (see text, page 356).

It was at the command of that eminent ecclesiastical reformer, Count Borromeo, that a barren rock in Lake Maggiore became transformed into an enchanted islet. Its ten terraces, planted with such south-land trees as the lemon, magnolia, and cork, and set with marble statues agleam among its dark cypresses, rise in succession above a vista of deep-blue waters which stretch away to the bases of snow-crowned peaks. Consisting of a rather commonplace villa set in an exotic paradise, Isola Bella illustrates the Renaissance villa planner's tendency to glorify Nature at the expense of architecture (see Color Plate II).

To travel no more than 86 miles due east, in mid-October, from snow-clad Aosta to the balmy Lake of Como, is a climatic experience quite equaling the trip from New York to Florida at Christmas time.

Somewhere that tropical touch which haunts mid-Italy must confront Alpine splendors, and in Como's lake you sense an indescribable mingling of the two. Glimpsed from the town's high-lying environs, its mountain-hemmed sheet of blue comes upon one as an amazement, a timeless charm, a subtle reminiscence. "Enclosed in Alpine hills . . ." I sought for but could not place the quotation.

Where clustered peasant women scrubbed and pounded their linen to a festal whiteness, and sharp-beaked craft nosed up the slanting shore, we took the little lake boat that steams you by transverse ways from Como town to Bellagio.

Next us sat two Americans, an elderly, rural-looking pair. She, when not drinking in the superb scene, was reading from what I supposed to be a guidebook. He of the gray beard and wrinkled brow would gaze dreamily across the waters for a moment, then shut his eyes in what I took to be some sentimental retrospect. And for me that azure lake, barred with distant hills like two meeting breasts, evoked some tang of recollection that I strove to define. "Enframed by Alpine hills . . ." But no, that wasn't the quotation at all.

A CRADLE OF "ROMEO AND JULIET"

We stopped at Cernobbio to visit Villa d'Este, whose shaven terrace and background of prim hedgerows were once the setting for Cinthio's and Tasso's plays—and perhaps for the first dramatic version of "Romeo and Juliet"—four centuries be-

fore we moderns rediscovered the "outdoor theater."

Indeed, garden theaters were one of the most charming features of the Renaissance. No high nuptials were complete without garden dramatics. When juvenile Lucrezia Borgia (with already three marriages, two annulments, and one murdered spouse to her score) was made Duchess of Ferrara, the attendant performance included a ballet wherein a maiden—as tough a morsel as the Borgia flapper herself—was regurgitated from a dragon's jaws.

Villa d'Este was once the palace of Tolomeo Gallo, local fisher boy who grew up to become a cardinal.

Cato affirms that the lake's Roman name of Larius was derived from the Etruscan "*lar*," signifying "highest in rank." Since Como has but 55 square miles, thus standing third in area after Garda and Maggiore, "rank" must have referred to pictorial excellence. Certainly its enchanting scene of sloping headlands and symmetrical skylines offered a perfect background for Renaissance landscape gardens.

Of our elderly American couple, we espied the lady strolling about the Villa d'Este's gardens, still perusing her guidebook. But we did not encounter her partner until, returning to the boat, we found him still seated in the same spot as before, still with that dreamy look in his eyes, which now and then closed on the bewitching scene.

AN ALBUM OF GARDENS

The boat put off. Again we yielded to the spell of those charming lake shores, now dotted with white villages, now sentinelled by somber cypress groves. Como is strikingly theatrical, in that each turn reveals delightful contrasts—here some stately villa, there some cluster of peasants' gaily painted huts, yonder some eclipsing panorama which doubtless afforded many a scene painter with the subject for a backdrop. Such is the perfect balance of some of Como's vistas that it almost seems as if Nature had defeated herself in making a supremely beautiful accident suggest a calculated work of art.

That morning we visited half a dozen of Como's villa gardens, to find therein as many distinctive, carefully devised effects. Villa Carlotta is a grandiose botanical garden, with flora from wide-spread lands. Villa Giulia's formal alleys and hedges, with



THE WAY OF THE TITANS BORES THROUGH SOLID ROCK ALONG GARDA'S EDGE

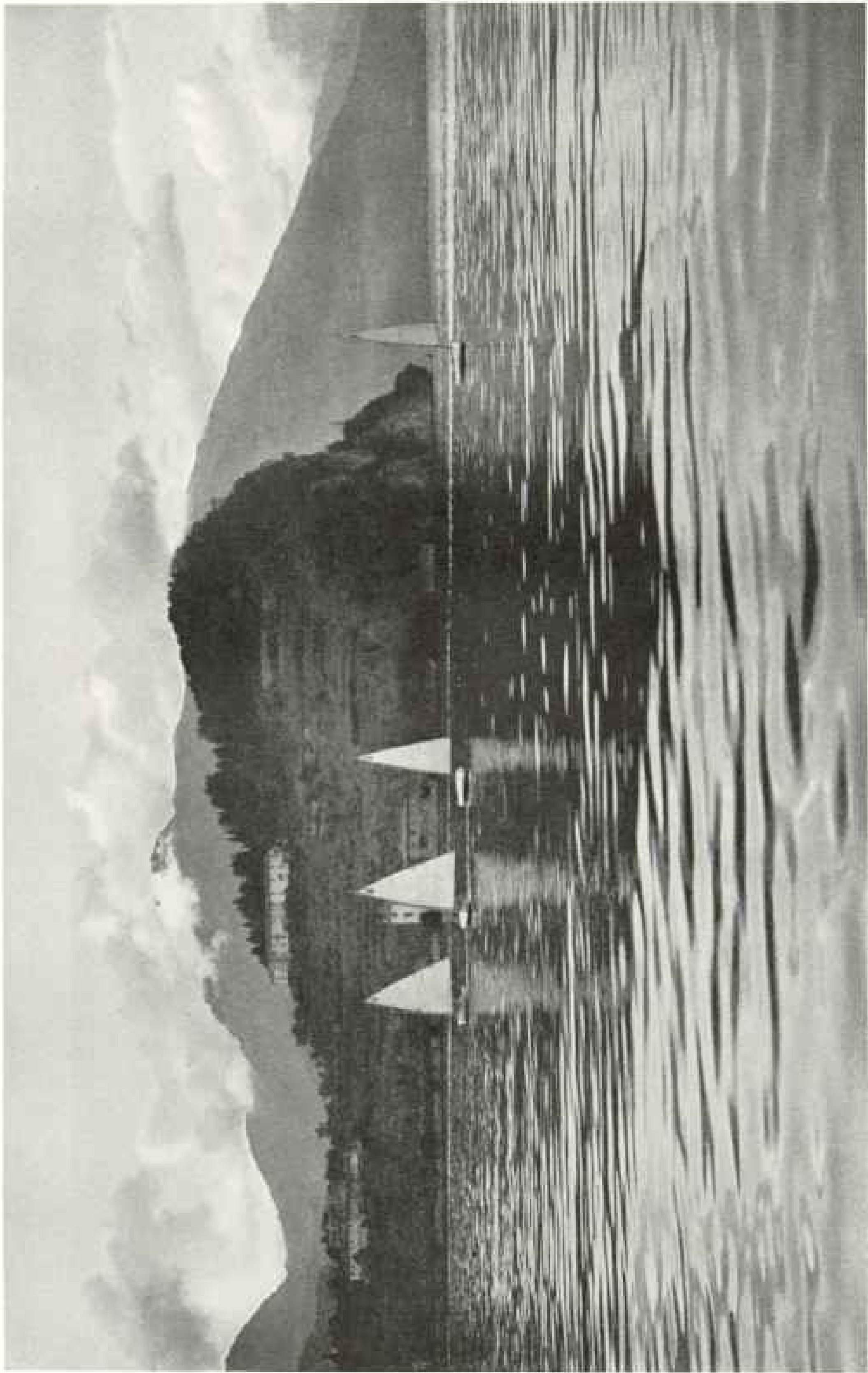
Motorists, emerging from dark tunnels that require headlights, catch blinding glimpses of blue lake and tall mountains through these apertures. This recently completed boulevard connects Riva with Porto di Tremosine, on the western shore.



Photographs by S. Fazzini

IN COLD SPELLS LEMON TREES LIVE IN GLASS HOUSES ON THE STEEP SHORES OF GARDA

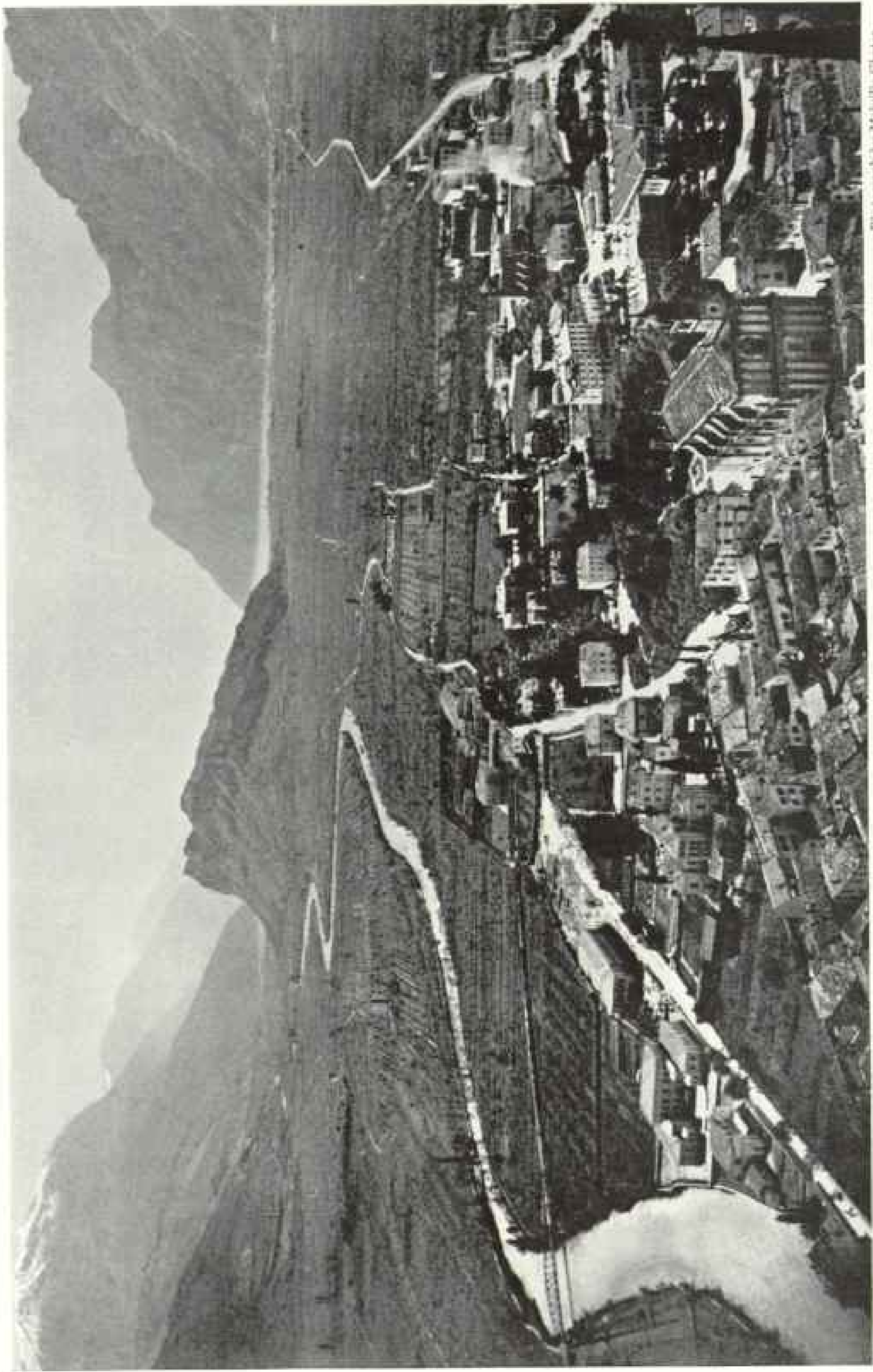
White pillars support glazed or lattice-work roofs and screens to protect the terraced groves from frost at Porto di Tignale. Women and children stand along the magnificent highway bordering the lake and sell to motorists bunches of fragrant lemons when in season.



Photograph by Melville Bell Grosvenor

RACING DINGHIES NOW DRIFT ON COMO'S VIVID WATERS WHERE PIRATE GALLEYS ONCE HELD SWAY

From his stronghold, Castle Musso, on the far bank to the right, "Il Medeghino," temperate brigand and courteous murderer, harried the lakes with his fleets (see text, page 335). His vessels may have lurked in the tiny, secluded harbors formed by natural clefts in the sheer cliffs of this point. Poised on the cedar-clad hillside, Villa Serbelloni dominates the entrance to this Lecco arm of the lake. Far above the water a dizzy path circles the promontory, on the far side of which lies Bellagio.



Photograph by Melville Charter

SARCA RIVER WENDS ITS WAY THROUGH A FERTILE VALLEY TO THE HEAD OF THE LAKE OF GARDA

Here flourish mulberry trees, leaves of which are food for the little white worms that gave rise to the silk industry of Lombardy. The town of Arco, in the foreground, clusters beneath a ruined castle perched upon a precipitous rock. Thrusting itself from the valley floor beyond is Monte Brione, honeycombed with caverns and strongly fortified (page 352). The northern end of the lake, dimly seen in the distance, is hemmed in with mountains, Monte Baldo Range on the left and the Rocchetta opposite.



Photograph by Melville Bell Grosvenor

ON SUNDAYS AND HOLIDAYS THE WATERS OF COMO ARE CHURNED BY MANY
WHITE STEAMERS

Fascist groups, accompanied by their brass bands, often charter the boats, sending songs and cheers echoing across the lake for miles. Guests of the hotels that line Bellagio's water front eat their meals under the rose arbors by the lakeside, and those who have seats near the railing throw bits of bread to ravenous fish. Japanese lanterns and strings of colored lights brighten the scene at night.

their lake-revealing gaps, have the symmetry of a stage setting.

Perhaps the most memorable villa, because its beauties seem less calculated, is the Pliniana. From across Molina's bay we came to the foot of well-worn water steps, up which we climbed into a scene of romantic seclusion. Cupped at the foot of cypress-clad cliffs, and looking out across deep-blue waters toward a perfect symmetry of profiled mountain slopes, Villa Pliniana and its mellow garden are replete with an antique loveliness which pervades the lingerer like a drug. We strolled past the formal row of great wall jars, dripping with vines, and gained the villa's lake-commanding balcony. Its columns frame Como in an unforgettable lake view which Shelley declared to be "the most lovely that eye ever beheld."

The villa is named for Pliny the Younger, who quaintly christened his two Larian villas "Tragedy" and "Comedy," because the former was elevated like classic tragedy's high-heeled shoe, while the latter was low-set, like classic comedy's slipper.

PLINY'S SPRING STILL EBBS AND FLOWS

The Pliniana's garden still contains the intermittent spring, of which Pliny wrote, "Three times daily it increases and decreases with regular rise and fall. Place a ring on a dry spot. The water reaches and at length covers it . . . then it slowly retires, leaving the object dry."

For centuries after Pliny, its uprisings and withdrawals continued—centuries which saw Italy's castles, saw Italy's villas rise, then fall into abandonment, while the ebb of feudalism gave place to the flood



Photograph by Donald McLeish

A ROMAN COLONY ERECTED THIS LASTING TRIBUTE TO ITS EMPEROR

Rimini dedicated its triumphal arch to Emperor Augustus in 27 B. C. in gratitude for the restoration of the ancient road, Via Flaminia, which terminated at this frontier city of Rome. Recently it was rebuilt by the government. Men of the Dark Ages turned the arch into a stronghold crowned with brick battlements. Such Roman gateways and theaters and aqueducts, which outlived the civilization that erected them, were often adopted by barbarian invaders for military purposes. This city is associated with the notorious family of Malatesta or Wickedheads. The most versatile member of the house, Sigismondo, began his astounding career at the age of 13, when he led the defenders of his castle against an assault (page 330). Here was the scene of the tragic love of Paolo and Francesca, ending in their murder, sung in the first part of the "Divine Comedy" by the Italian poet Dante. Rimini is a seaport surrounded on three sides by water—two rivers and the Adriatic Sea—and rises from a fertile plain at the foot of the Apennines. It is now a fashionable bathing resort, the stormy days of its past all but forgotten.



Photograph by S. Pozzani

FISHING CRAFT SCUD TO TORBOLE WHEN SUDDEN STORMS STIR UP GARDA

of civic liberty. And indeed the Pliniana's spring is no mean symbol of the tidelike exhaustions and renewals of man's social evolution.

Our eyes were steeped with beauty, our thoughts—at least mine—were heavy with haunting retrospect. Something-or-other “by Alpine hills shut out . . .” “What was that quotation?”

Just then I noticed the elderly American woman. She was leaning alone over the lake-facing balcony, almost at my elbow, and she was still reading—but it wasn't a guidebook at all. From over her shoulder I read my forgotten quotation:

“A deep vale
Shut out by Alpine hills from the rude world
Near a clear lake . . . glassing the softest skies
As cloudless save for rare and roseate shadows
As I would have thy life!”

And then, over that famous “Lake of Como speech” which thrilled our play-going grandparents in their youth, that little old lady began drying her eyes.

Later, aboard the lake steamer, I overheard a snatch of talk between her and the husband who, even for Como's beauties, had stirred not once from his deck chair. He was saying gently, but very firmly: “Yes, Ma, I know we always looked to spend our golden anniversary on the Lake of Como, and I did speak that Lake of Como piece to you the night we got engaged. But we've been a whole mortal year, now, on this around-the-world trip, and I'm wore out. No, I ain't going to stir to see one more furren sight. Now, cheer up! We can see the Lake of Como together, when we get back home, in the movies.”

DIAMOND DELAWARE, COLONIAL STILL

Tradition Rules the "Three Lower Counties" Over Which William Penn and Lord Baltimore Went to Law

BY LEO A. BORAH

AUTHOR OF "WASHINGTON, THE EVERGREEN STATE," "A PATRIOTIC PILGRIMAGE TO EASTERN NATIONAL PARKS," ETC.,
IN THE NATIONAL GEOGRAPHIC MAGAZINE

DISTILLED from colonial tradition and ripened for three centuries, the charm of Delaware is like the golden nectar that has preserved for posterity the fragrance of many a Delaware peach. It grows mellow and more potent with age.

Its effect is gradual, stealing almost imperceptibly upon the senses, yet altogether enthralling once it asserts its power. Unfortunate indeed is the traveler who, as too many do, dashes the length of the State in four hours on the main highway without pausing to savor its graciousness. Such a traveler may not even see a native Delawarean; for 82 per cent of the trucks, 66 per cent of all the motor vehicles on the highways are from outside the State.

ONE MUST TARRY TO KNOW DELAWARE

Perhaps the Delawareans are a little to blame for not making themselves and their treasures better known to outsiders. They are a delightful people, genuinely hospitable, but not effusive.

Houses exquisite with the patina of age are to be seen everywhere, but few of them are "restored," set apart as shrines, and labeled. They are homes that have passed from father to son for generations, growing old gracefully, receiving necessary, not disfiguring, repairs, and keeping silence concerning the famous persons they have sheltered, the stirring events of their past. True, the Delaware Historic Markers Commission has placed tablets here and there, but these are unobtrusive. To appreciate the real glamour of the State, one must bide a while and—forgive the pun—absorb "Delawareness" from the people.

Delaware is not obvious in its bid for attention. Measured by population and area combined, it is the smallest of States, having more square miles but fewer citizens than Rhode Island, and more people but far less territory than Nevada. It is only 110 miles long, and its width varies from nine to 35 miles, but its citizens

are forward-looking and its industries far-reaching.

A wit in Congress once referred to it as a "sandspit on Delaware Bay, with three counties at low tide and two at high." William Penn bought it from the Duke of York for 10 shillings, and Lord Baltimore disputed the ownership, claiming it under a prior grant from the King of England. Because of an ill-fated Dutch settlement in 1631 near the present site of Lewes, Baltimore lost the case; for his grant of *hactenus inculta* specifically excluded land previously occupied by white men.

From its very beginning Delaware has been a subject of controversy. The families of Penn and Baltimore went to law over possession of "the three lower counties on the Delaware," and their claims occupied the attention of the courts for years. Penn landed at New Castle on October 27, 1682, and received from the citizens of that thriving village a bowl of water, a piece of turf, and a twig as earnest of his undisputed possession of the land, water, and forests within an arc described on a radius of 12 miles from the New Castle Court House. Thus was established the northern boundary of Delaware. Later Penn was awarded the southern part of what is now the State.

THE 200-YEAR BOUNDARY DISPUTE

Unfortunately, the surveyors who described the arc did not designate the exact length of the segment. The result of their oversight was more than two centuries of litigation over boundaries.

After the United States came into being, New Jersey and Delaware began to squabble over certain water and fishing rights on Delaware River and Bay. Delaware claimed possession of the river and bay to low water on the Jersey side, and New Jersey insisted the boundary should be fixed at midstream.

Courts were in a quandary, shifting the boundary first to one side and then to the other. Both States sent commissioners to



Photograph by B. Anthony Stewart

THE NEW LEGISLATIVE BUILDING RETAINS COLONIAL FEATURES

When the old State House at Dover was no longer large enough for all purposes, this and other buildings of a capitol group were erected in a style in keeping with the first structure.

England to obtain evidence. It was not until February 5, 1934, that a final decision was handed down. The Supreme Court of the United States then determined that Delaware is entitled to all land and water within the 12-mile circle, and that below the circle the boundary shall be considered the middle of the ship channel. The two States were ordered to share equally in the costs of the litigation.

FIRST TO RATIFY THE CONSTITUTION

On its face that decision appears a mere compromise to settle a technical point; actually it has given rise to a remarkable situation. New Jersey capital for years has been building long wharves out into deep water within the 12-mile circle. Now comes the Supreme Court with a decision that these wharves are in Delaware! New Jersey cannot tax property in Delaware; New Jersey cannot arrest persons in Delaware without extradition papers. Yet these wharves now in Delaware belong to citizens of New Jersey. The problem has become so difficult that the two States have appointed commissioners to study it and formulate a solution.

Despite its diminutive area and scant population, Delaware has its grand moments. With only one member of the United States House of Representatives to accompany its two Senators to Washington, it takes precedence over its larger sisters in the parade of States; for it was the first (December 7, 1787) to ratify the Constitution. Its depreciators are reminded, too, that Thomas Jefferson held it precious enough to dub it "the diamond"—a name that has clung to it to this day. Wilmington has historical authority for its slogan, "The First City of the First State."

Let it not be supposed, however, that the little Commonwealth is content to rest on accomplishments of long ago. Though it treasures colonial customs, even to the retention of the whipping post for wife beaters, highwaymen, and other mean offenders, and though for more than a century it was somnolent and backward, it now constantly seeks improvement. Its very smallness renders it admirable for political, economic, and sociological experiment. If a theory seems worthy of consideration, Delaware can give it quick trial and immediate adoption or rejection.



Photograph by B. Anthony Stewart.

NEAR THE SITE OF THIS FERRY SLIP WILLIAM PENN LANDED

Even today the bustle of traffic does not disturb the quiet of this unspoiled colonial town. City authorities still occupy the Court House, near which the Quaker proprietor "received possession of the town of New Castle, 28th of October, 1682" (see text, page 367, and illustration, page 398).

Two summers ago several serious traffic accidents occurred within a week because overweary drivers of freight vehicles fell asleep on duty. The Secretary of State forthwith published an order requiring every driver of such vehicle to rest for at least two hours after each eight of driving and to limit his time on the road to 16 hours in any 24. The day after publication of the order motorists everywhere in the State were wondering at long lines of laden trucks drawn up alongside the highways.

Unique in the Nation, the State has never levied a property tax. Its principal revenue for the general fund is from fees for corporation charters, most of which are granted to organizations doing their major business outside its boundaries. To supplement this income, there is only a system of business, inheritance, and estate taxes and licenses, which in the fiscal year ended June 30, 1932, netted less than \$765,000.

Recent reduction of bonded indebtedness has been noteworthy, largely because of the efforts of Governor C. Douglass Buck. In 1929 the State owed, exclusive of sinking funds, nearly \$10,000,000, or \$41.32

per capita. By 1933 the per capita debt had been cut to \$8.18 and the net total to less than \$2,000,000.

DELAWARE PAYS AS IT GOES

Little Delaware, with a population of 238,380, ranks fourteenth among the States in payment of taxes to the Federal Government. There is not a house within its boundaries more than four miles from a paved highway, and it has a statewide system of fine modern schools; yet for public improvements that have cost \$50,000,000 it has paid practically out of what is counted upon as current income in State financing.

There is something strong and sturdy about Delaware that finds expression in its attitude toward its problems. When former President Hoover sent a message to Governor Buck asking for an expression on the question of relief, the Delaware Governor replied:

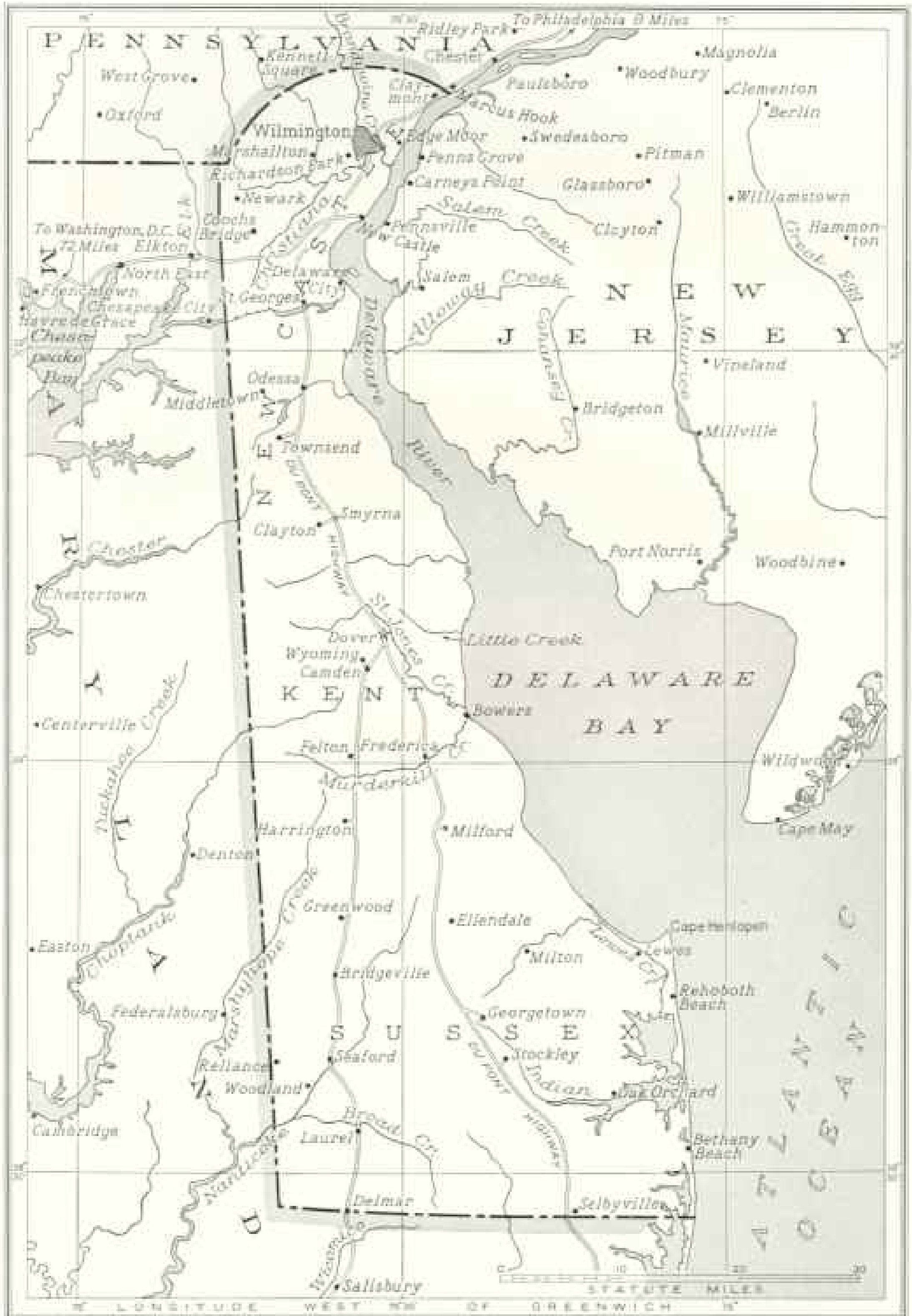
"I am in accord with your plans as made known to aid unemployment, and you may expect Delaware to cooperate in every way. Furthermore, the citizens of Delaware can be counted upon to provide financial help



Photograph by D. Anthony Stewart

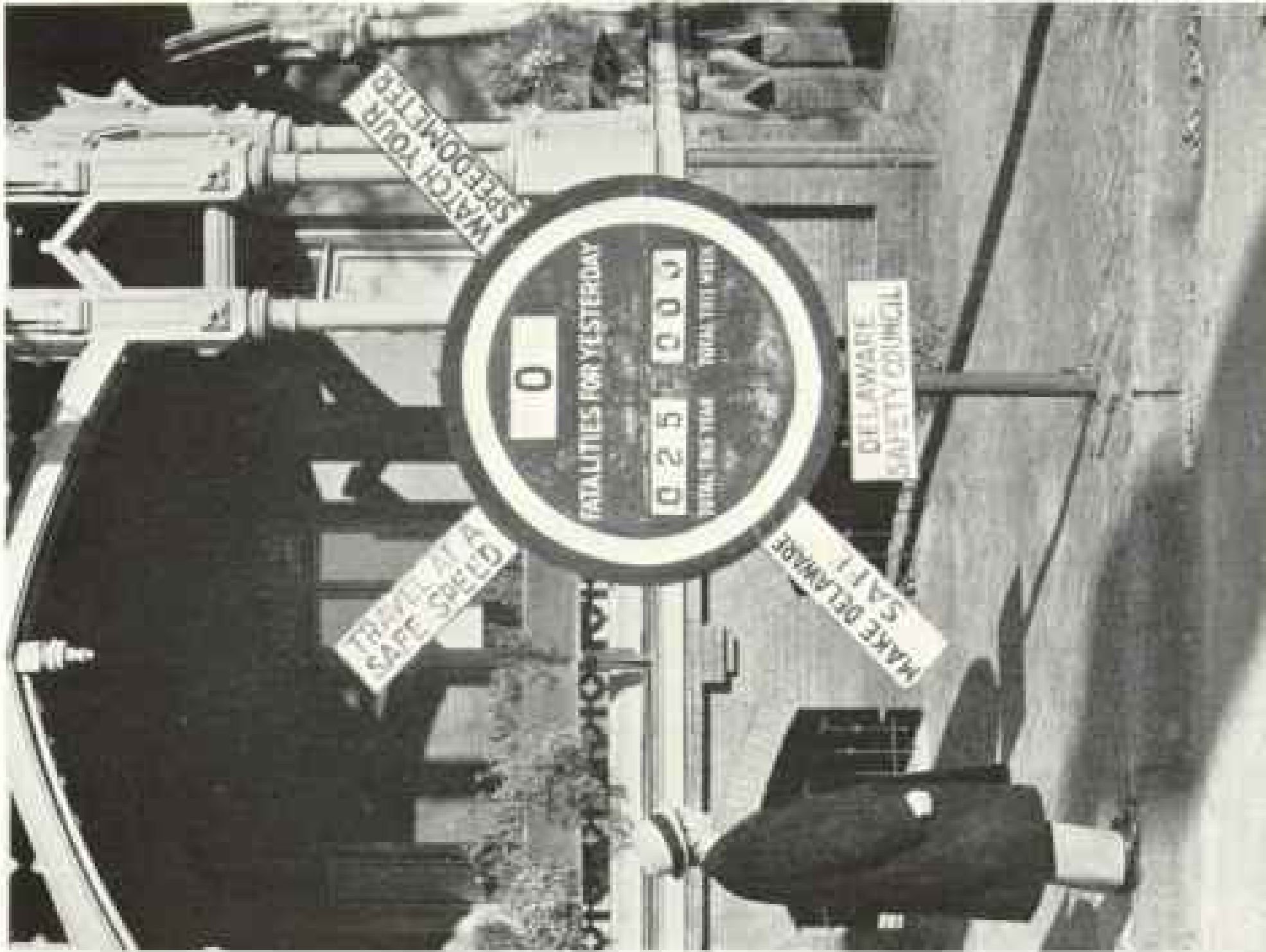
FARMERS' VEGETABLE AND FRUIT TRUCKS MAKE KING STREET ONE LONG OUTDOOR STORE

Every Wednesday and Saturday Wilmington has a market day, when growers bring their produce to town for sale. The twice-a-week market began more than a century ago, when the Friends at one end of town and the "downtowners" at the other, each demanded exclusive right to vend their wares. The result of the argument was the establishment of two separate days for the disputants.



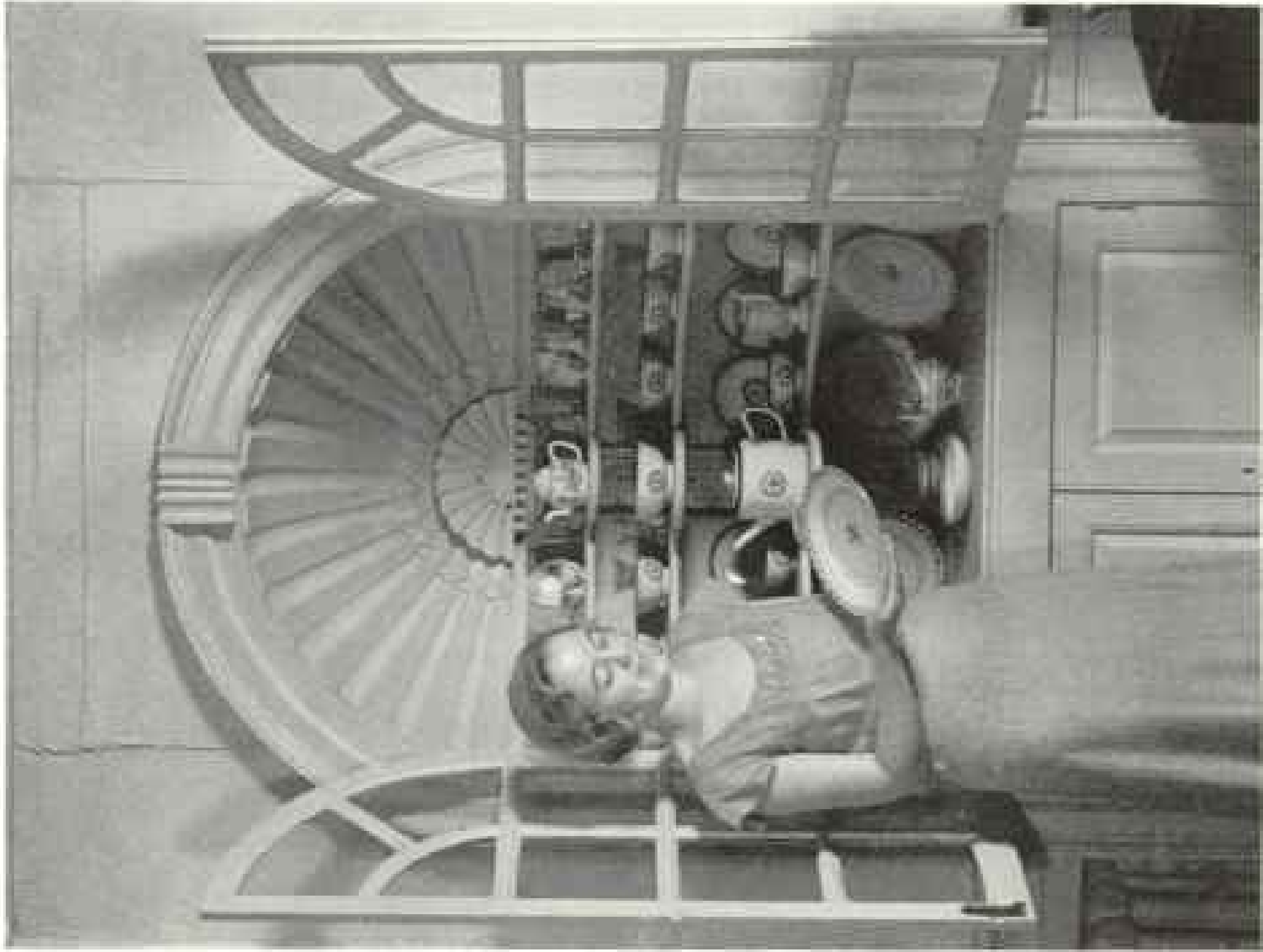
Drawn by Arthur J. Haze

DELAWARE, WITH ITS THREE COUNTIES SHAPED LIKE A WOODEN SHOE, BORDERS THE "CLYDE OF AMERICA"



DELAWARE GUARDS AGAINST MOTOR ACCIDENTS

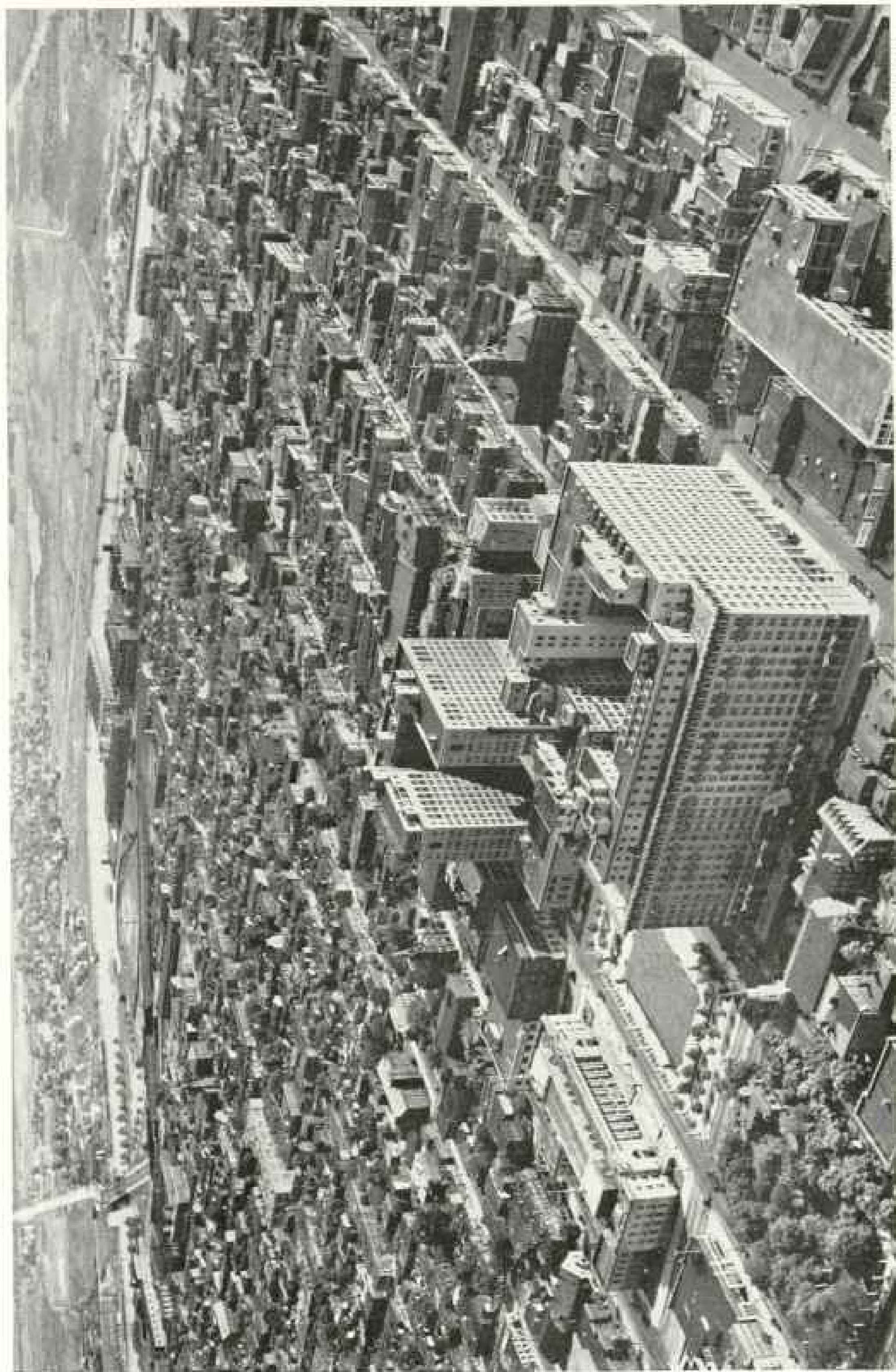
This bulletin, which is seen here in Dover, is moved from time to time to different parts of the State to present graphic warning against carelessness. The Commonwealth has done much to help make its highways safe (see text, page 369).



Photographs by H. Anthony Stewart

MAD ANTHONY WAYNE GAVE THIS TEA SET TO HIS FIANCEE

A romantic story is that of Mary Vining, lovely Delaware belle, who was engaged to be married to the doughty Revolutionary hero. He went west to fight the Indians and died in the field. The betrayed girl remained single, living here at Dover in the old Rutigely house.



Photograph by Wint Aerial Surveys

THE HOTEL DU PONT DOMINATES THE HEART OF WILMINGTON

Driving up from the railway station, one sees an industrial town; but when the Civic Center is reached, the largest city in Delaware takes on metropolitan airs. In the background is the Christina River, with the Marine Terminal, which now makes Wilmington a seaport.



Photograph by Roydon L. Hammond

STRAIGHT THROUGH THE ELLENDALE SWAMP SWEEPS THE DU PONT HIGHWAY

For 11 miles there are no annoying curves to slow motor traffic here, but 55 years ago this marshland was well-nigh impenetrable. Red-shirted shingle cutters braved perils of copper-head snakes and malaria to dig from the mire the huge cypress logs from which they fashioned the shakes, or rough shingles, of which many houses in southern Delaware are built (see text, page 396).

as is required to care for those in need in this State during the coming winter."

Governor Buck spoke simply for his fellow Delawareans. It is their pride that they take care of their own.

When I arrived in Wilmington one hot August night and took a taxi from the railway station to the Hotel Du Pont, I was, it must be confessed, a bit dubious about finding "story material." The narrow streets and the hotel lobby were deserted. The night clerk who assigned me a room said he came from Maryland. I went to bed without seeing a Delawarean.

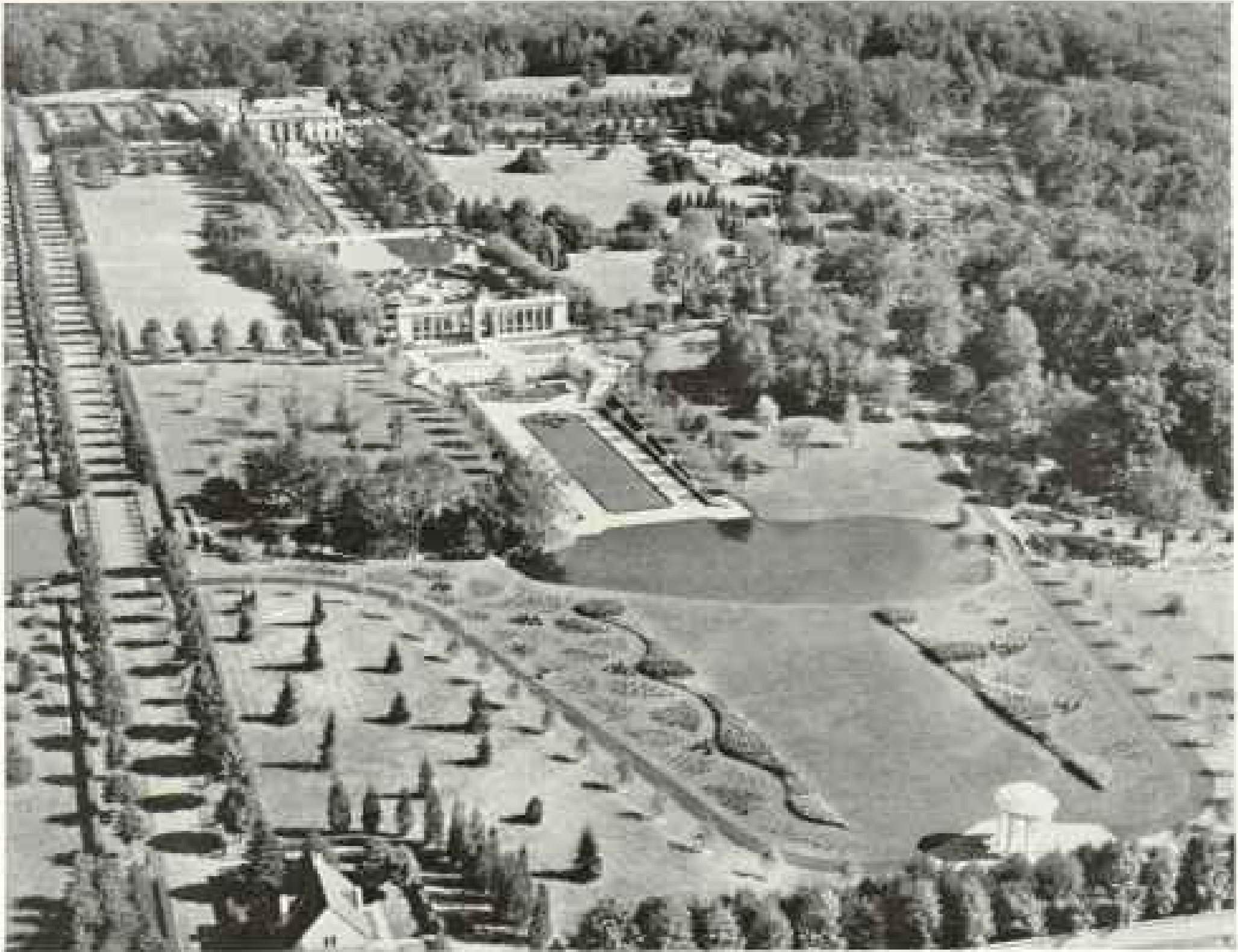
THE PYLE STUDIO, DELAWARE ART FOUNT

Next morning I called on the affable and energetic secretary of the Chamber of Commerce. He could tell me much about Delaware, for he knew virtually everybody in the State; but he proved to be a Louisianan by birth. When we had luncheon with a

number of Wilmington business men gathered around a big table at the hotel, I discovered that none of them was a native of the State. I began to think Delaware a State of exiles.

I had been in Wilmington for nearly 24 hours before I got an inkling of what is really Delaware. My friend Gerry opened doors for me everywhere, and showed me the important industries of the city, but he sensed that I was looking for something more intimate than factories and statistics. That night he took me to call on the artist, Stanley M. Arthurs, in the Howard Pyle studio, and from the moment we entered that shrine of the illustrator's art, I felt acquainted with Delaware (page 390).

The studio is just as it was when Howard Pyle, a real Wilmingtonian, wrote and illustrated his "Merry Adventures of Robin Hood," his "Book of Pirates," and many other romantic books that have become



Photograph by Wood Aerial Surveys

FORMAL GARDENS MAKE AN EXQUISITE SETTING FOR ALFRED I. DU PONT'S HOME

"Nemours," as the owner calls his estate of French chateau style, is in the outskirts of Wilmington. Here he keeps a huge kennel, not for prize-winning dogs, but for homeless, stray mongrels he rescues from the city streets.

American young people's classics. Mr. Arthurs, painter of the magnificent historical pictures that adorn the walls of the old State House at Dover, was a favorite pupil of Mr. Pyle. Perhaps more than any others of Mr. Pyle's pupils he and his friend, N. C. Wyeth, who painted the murals in the library of the National Geographic Society Building in Washington, carry on the Pyle tradition.

Several kindred spirits dropped in for a chat with Mr. Arthurs. There were a young architect who in 1929 won the national award for a church of colonial design, a gray-haired editor who had fought for civic righteousness when Delaware was in the hands of vote buyers, a brilliant lawyer and wit who had served his apprenticeship under that grand old authority in international law, Judge George Gray. These men were real, not adopted, sons of Delaware.

In their pleasant drawl reminiscent of the South "before the War," they told of boyhood adventures on the dunes and the

little rivers of the State. They pictured for me the Wilmington of the "gay nineties." In all this I savored the graciousness of Delaware, feeling that I had known these men for years.

Wilmington is small enough to have a friendly and democratic society, large enough to escape the worst phases of provincialism. Men meeting on the street hail one another by their first names. If the Philadelphia visitor who said, "I now know that scrapple is an edible pork product, but I should like to learn what is a Biddle," had gone to Wilmington instead, she would never have been puzzled for a moment as to the meaning of Du Pont.

A FAMILY "DYNASTY"

The Du Ponts have the main offices of their far-flung businesses in Wilmington, but their factories are elsewhere. In Delaware there are only four Du Pont plants: three pigment and solvent companies, and the Medical Research Laboratory which

seeks to solve the problem of eliminating the dangers of toxins in industry. All these are in or near Wilmington.

Much has been written about the "Du Pont dictatorship" in Delaware. If it is a dictatorship, it seems to me a beneficent one. To T. Coleman Du Pont the State owes the beginning of its superb highway system. To his cousin, Pierre Samuel, it owes its splendid school-building program. The fine State University at Newark is largely indebted to the generosity of the same family. There is hardly a hospital or other public or semipublic institution in the State that has not benefited by the gifts of the Du Ponts.

In 1912 Delaware was the most backward State on the eastern seaboard in road building. Senator Du Pont said he would build a monument a hundred miles high and lay it on the ground. That was the famous Du Pont Highway, a strip of smooth concrete on a 200-foot right of way from Wilmington to Selbyville. The builder asked no aid; he was willing to pay the entire cost, some \$4,000,000, and turn the road over to the State (see illustration, page 374).

It might reasonably be supposed that the citizens of Delaware would welcome such a gift, for Kent and Sussex Counties were virtually shut off from the world save for the erratic service of a spur railroad to Delmar. But instead of hailing the Senator as a Moses to lead them out of the wilderness, those sturdy yeomen of Kent and Sussex balked. They fought him for every inch of the right of way.

"What," said they, "is Du Pont trying to do? Our dirt roads are all right for our ox teams and horses and wagons. If they want a right of way for a concrete speedway, let them build it in some other State."

Landowners refused to sell ground for the road; Sussex farmers got out injunctions; never had a road builder faced such opposition.

Despite all hindrances, Senator Du Pont built his highway. He organized a highway department on sound business principles, and his force carried on energetically for six years. In 1918 the legislature organized a State highway department, and Senator Du Pont turned over to it his entire organization, with the request that it finish the work and send him the bill. He took the wind completely out of the sails of those who had opposed him because of fear of high taxes.

That was the beginning of a road-building race in Delaware. The 103-mile monument is the spine of one of the finest systems of paved roads in America. Today this splendid highway is a dual road from Wilmington to Dover, the great commercial artery that carries truck traffic comparable in volume to the tremendous cargoes of shipping on the steamers that ply on Delaware Bay, the Clyde of America. Lateral roads have been paved in every part of the State.

RUGGEDNESS MARKS SUSSEX FARMERS

The amazing thing about it all is that one may drive along paved roads and see farmers' wives drawing water by means of well sweeps, see men hauling wood with ox teams. If the traveler is fortunate enough to be invited to breakfast at an old farmhouse, he will eat such homely fare as spoon bread or beaten biscuits. The yeomanry of Delaware, once aroused, adopts the new with enthusiasm, but it leaves traditional custom with reluctance.

A story doubtless apocryphal, yet told often in Delaware, dramatizes the stubborn individualism of the Sussex farmer. It is reported that in the middle '80's ordinances passed by the State legislature contained the significant clause, "These regulations shall be effective in New Castle and Kent Counties and in Sussex County so far as the citizens of said county are willing to abide by them."

Not to be outdone by his distinguished cousin, Pierre Samuel Du Pont set out a few years later to do something big for Delaware. He organized an elaborate school program. Because the State depended upon some 1,700 "little red schoolhouses" for the education of its children and the percentage of illiteracy was high, he felt that modern schools were a crying need.

His proposal met with no greater warmth than had his cousin's road offer. Those 1,700 country schools all had boards of directors with powers and prerogatives. The directors refused to yield their offices to any man.

In despair, Pierre Du Pont turned to the Negro problem. He built a number of Negro schools much finer than the white schools. There was no intention on his part to shame the whites into doing his bidding; he simply wished to build schools and, since the white folk would have none of his aid, he gave to the Negroes.

FIRST IN STATEHOOD, DELAWARE RETAINS ITS GRACIOUSNESS



ON THE ROOF OF BELMONT HALL ONE OF WASHINGTON'S SENTRIES WAS SHOT

Mortally wounded by a British sharpshooter, he crawled to a bedroom to give the alarm. The east and west wings of the gracious mansion near Smyrna were built in 1685 and the front was added by Thomas Collins, President of "The Delaware State" when the U. S. Constitution was ratified.



© National Geographic Society

Finlay Photographs by B. Anthony Stewart

DELAWAREANS HAVE WORSHIPPED AT OLD SWEDES SINCE 1698

Holy Trinity, in Wilmington, is one of the oldest churches in constant use in America. It was built by a congregation of Swedish Lutherans from Fort Christina, near by. An old record tells of the indignation of its first pastor toward a ship captain who "borrowed" the bell for his craft.



PEACHES NEAR BRIDGEVILLE RECALL ORCHARD GLORY

Delaware's chief agricultural pride was this luscious fruit until blights known as the "yellows" and San José scale ruined thousands of trees and necessitated abandonment of the crop in many localities. Science is now gradually restoring the peach-growing industry.



© National Geographic Society

Finlay Photographs by B. Anthony Stewart

MILLIONS OF YARDS OF BRIGHT FABRICS ARE FOLDED MONTHLY AT WILMINGTON

On the Brandywine, Joseph Bancroft and Sons Company operates one of the oldest and largest textile-finishing plants in the world. Near the outside end of each bolt to be exported to Europe is a gay lithograph. A peasant woman will make her dress with the picture as a breast ornament.

FIRST IN STATEHOOD, DELAWARE RETAINS ITS GRACIOUSNESS



LITTLE CREEK MAKES A PLEASANT HARBOR FOR AN OYSTER FLEET

Commercial fishermen reap wealth from the tidewaters, and many streams afford sport for the angler. Diamondback terrapin were once so plentiful and cheap that an ordinance was passed prohibiting lessees from feeding them to hired slaves more than three times each week.



© National Geographic Society

Finlay Photographs by B. Anthony Stewart

TINY DELAWARE RANKS SECOND IN THE UNION IN TOMATO PACKING

Pickers on a large farm near Bridgeville fill their baskets quickly. Situated near the New York, Philadelphia, Baltimore, and Washington markets, the State offers every inducement to the truck gardener. Sandy loam produces vegetables and fruit of especially fine flavor.



© National Geographic Society

Finlay Photograph by H. Anthony Stewart

FOX HUNTING NEAR NEWARK PROVES DELAWARE'S KINSHIP WITH THE OLD SOUTH

Many a farmer in New Castle County has found it more profitable to turn his level acres over to ardent sportsmen than to cultivate the land. Members of the Vic Mead Hunt Club may be seen flashing vivid color across the lush green meadows almost any crisp autumn morning. Such a natural color photograph of moving animals is a rare achievement.



© National Geographic Society

NEW CASTLE COLONIAL DAMES CARE FOR OLD AMSTEL HOUSE
 A young member of the Society wears a silk gown five generations in her family. George Washington was a guest in this 1730 home, now a museum. Many buildings of pre-Revolutionary days and the cobbled Strand on which William Penn landed in 1682 are preserved.



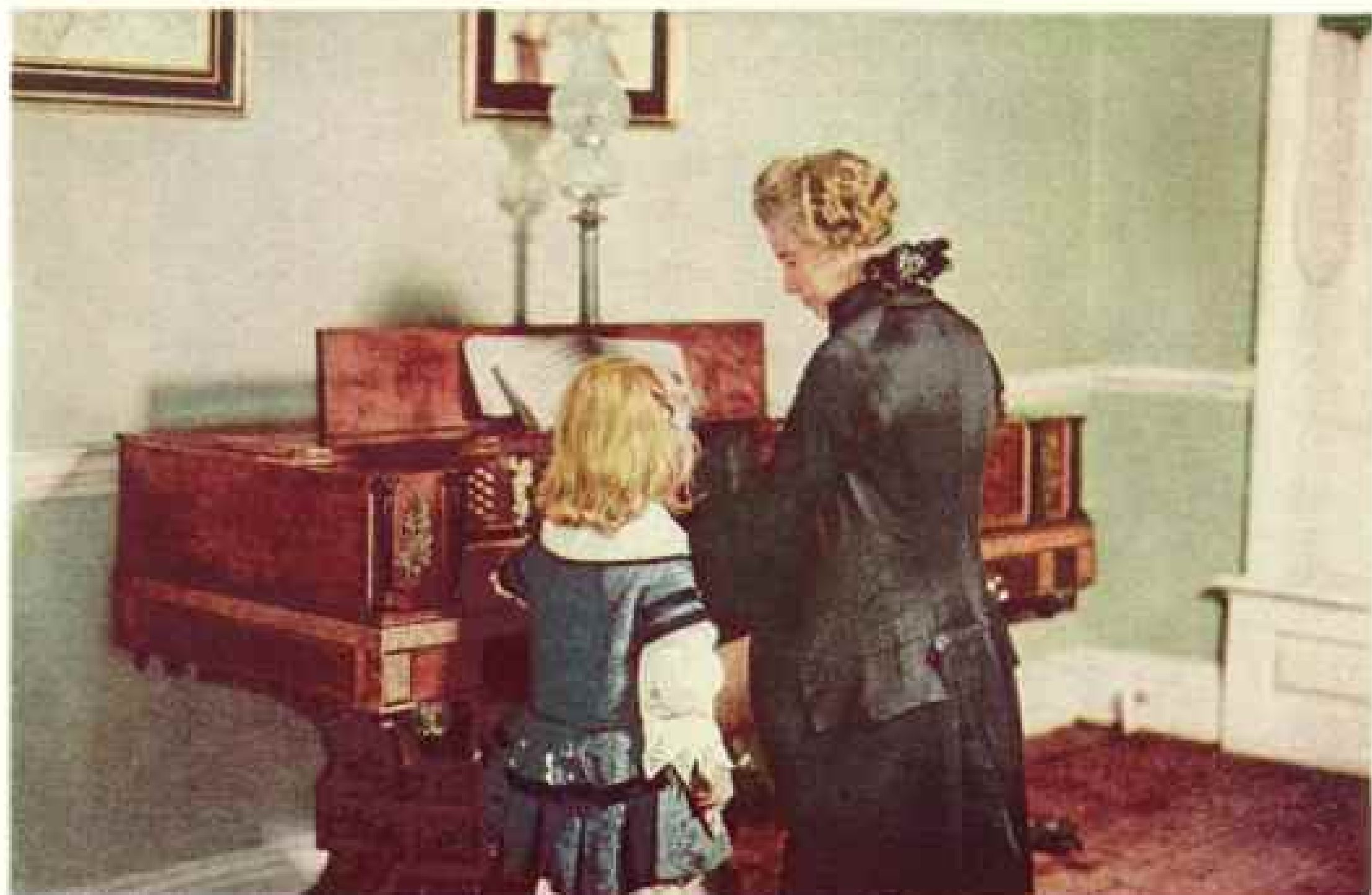
Hinley Photographs by H. Anthony Stewart

THE OLD STATE HOUSE LOOKS DOWN ON DOVER GREEN
 Though the Governor and Legislature have moved to the new capital, this building, constructed in 1787, partly of bricks from a 1722 courthouse, contains the original documents giving William Penn title to Delaware. The "Blee Hen a Chickens," Revolutionary troops, drilled here.



OX TEAMS DRAWING LOADS MAY STILL BE SEEN IN DELAWARE

This pair is kept at Henlopen Acres near the seaside resort, Rehoboth. Though no farmhouse in the State is more than four miles from a paved road, it is not unusual to see women drawing water by means of well sweeps and men hauling wood with yoked cattle.



© National Geographic Society

Family Photographs by B. Anthony Stewart

TWO MODERN MISSES STEP BACK INTO THE PAST

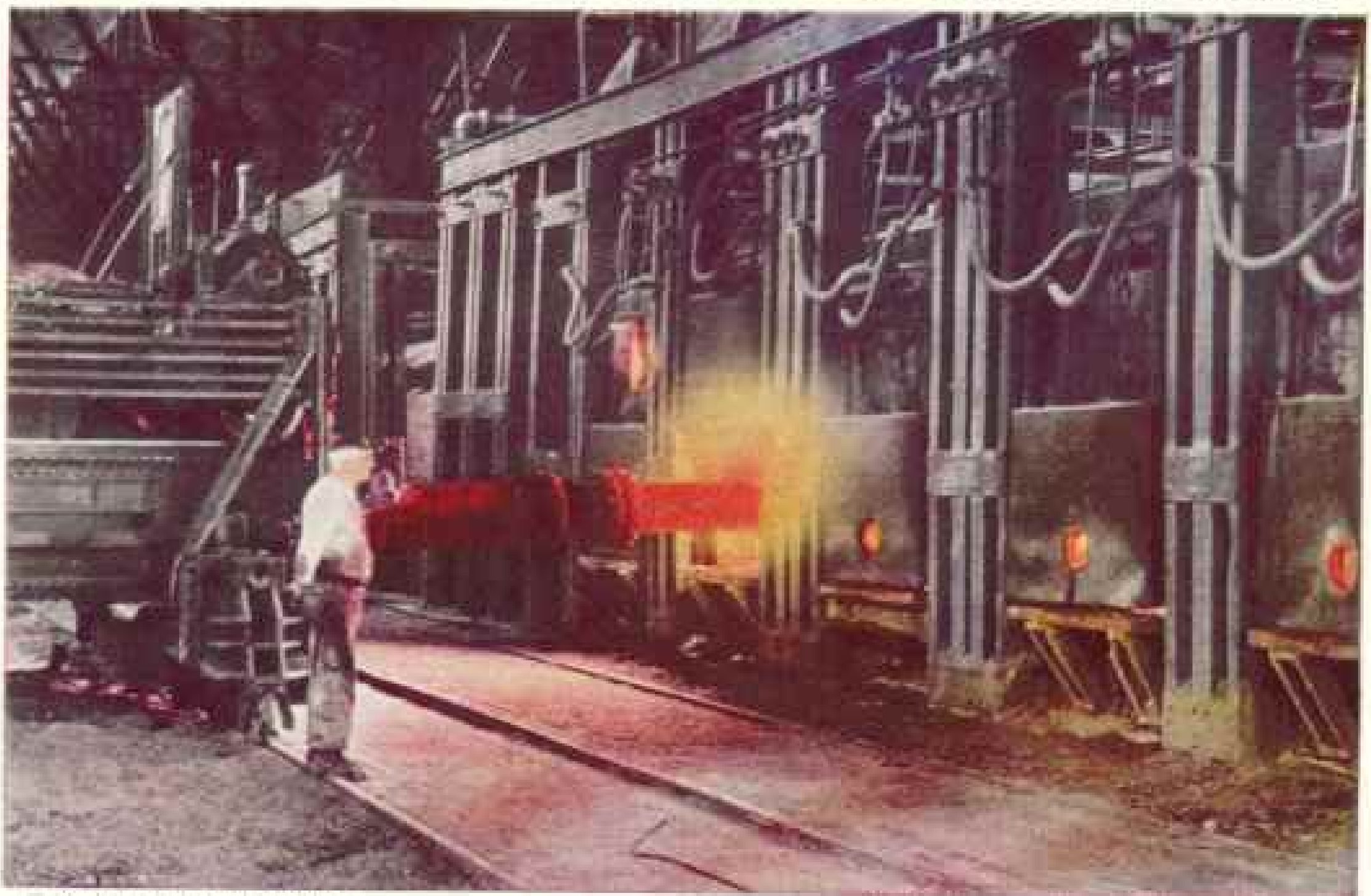
The girl seated at the old spinet, forerunner of the piano, in Amstel House, New Castle, wears her great-great-grandfather's wedding suit and the tot at her side is attired in a child's elaborate party dress of the same period (see Color Plate V).

FIRST IN STATEHOOD, DELAWARE RETAINS ITS GRACIOUSNESS



ENORMOUS FLAT-BED PRESSES PRINT COLORS ON FLOOR COVERINGS

Delaware Floor Products Company at Wilmington makes every month enough felt-base carpeting to pave a road from six to nine feet wide extending from Philadelphia to Washington, 142 miles. Each pattern on the continuous strip is a separate rug. They are cut apart and placed on racks for drying.



© National Geographic Society

Finlay Photographs by B. Anthony Stewart

A 100-TON BASIC STEEL FURNACE GLARES AS LIME IS ADDED

Though most of this industry is now centered in Pennsylvania, the WORTH Steel Company and several others still carry on. In Wilmington Pusey and Jones built the first iron-hulled sailing ship ever constructed in America.



EDGE MOOR SUPPLY DEPOT HELPS KEEP SHIPPING SAFE ON THE "AMERICAN CLYDE"
At this lighthouse station on Delaware River above Wilmington, buoys and other devices are repaired, and trouble vessels stand ready to meet emergencies.



© National Geographic Society

Finlay Photographs by R. Anthony Stewart

BATHERS SUN THEMSELVES ALONG SHORES WHERE PIRATES BURIED TREASURE

Sometimes, after storms, Spanish doubloons and pieces of eight are found in the sands along the coast. The State has many miles of ocean beach within three hours' drive of its remotest borders. Resorts in Rehoboth, Lewes, Bethany Beach, and elsewhere attract throngs.

Soon after the new schools for the Negroes were opened, the white taxpayers began to flock to the Du Pont standard. They subscribed their quotas, the donor gave his promised share, and today strategically located brick buildings with modern appointments replace the 1,700 little red schoolhouses.

PHILANTHROPY THAT BUILDS CHARACTER

Probably the munificence of the Du Ponts in Delaware has no parallel in State history. The family gives to every worthy public enterprise, but it insists that the people help themselves. Today Delaware feels such pride in its roads and its schools that there is no further need of private subsidy.

As has been said, most of the Du Pont factories are elsewhere than in Delaware; but Wilmington has many industries not owned or controlled by the Du Ponts. There are the fine textile finishing company of Joseph Bancroft and Sons, a huge business that has grown up with the city; the Pusey and Jones Company, that built the first iron sailing vessels in America and today makes printing presses; a number of concerns finishing morocco leather for bookbinding—the industries, big and small, are legion. Between 1924 and 1934, 110 new industries have come to Wilmington, and of these 61 are still operating. The reason for the influx of manufacturers lies in the favorable tax situation; Delaware levies no tax on the earnings of industry.

We visited many plants in Wilmington and when we went through a large morocco leather factory, I was fortunate to have a severe cold that disabled my sense of smell. I went complacently into the storeroom where were piled the huge heaps of raw goat hides from India. Afterward I traced some of these hides through the many processes till they came out as glazed kid to make shoes, gloves, smooth bindings for books, etc. (see illustration, page 397).

BUSINESSES OLDER THAN THE UNITED STATES

There is romance in Wilmington industry. To list some of the older businesses is to recapitulate much of the stirring early history of America. J. E. Rhoads and Sons, founded by John Rhoads in 1702, is the oldest concern in America continuously carrying the family name. The oldest transportation company in continuous existence

in America is George W. Bush and Sons Company, established by Samuel Bush in 1774.

Others that began when this country was in swaddling clothes are: the Charles Warner Company, 1794; E. I. Du Pont de Nemours and Company, 1802; Joseph Bancroft and Sons Company, 1831; Lobdell Car Wheel Company, 1836; Bethlehem Shipbuilding Corporation, Ltd., 1836; Pyle Leather Company, 1846; Pusey and Jones Company, 1848; Consolidated Machine Tool Company of America, 1854; American Car and Foundry Company, 1859; Speakman Company, 1869.

The manufacture of vulcanized fiber began in Wilmington in 1875. Invented in 1872 and patented in 1873, the process attracted slight attention at first. Today the industry is one of the most important in the world. There are several factories in Wilmington; and Newark, the seat of the State University, has the large modern plant of Norris Wright.

Mr. Wright, like many of his fellow Delawareans, avoided "shop talk" about the business that has been in his family for decades. Instead he pointed out to me points of interest in Newark. These Delawareans have a natural graciousness that makes the newcomer forget that he is a stranger.

SHIPS FROM THE SEVEN SEAS COME TO WILMINGTON

For 279 years Wilmington rested on the shore of Delaware River and watched the ships of the seven seas pass by to Chester and Philadelphia. There was something of a whaling industry at the mouth of the Christiana in the early days, and wooden ships sailed into the port to carry away the freight brought in by the Conestoga wagons of the early 1800's; but Wilmington lost its seagoing ships when wooden vessels gave way to steel steamers.

In 1917 action was begun to build a modern harbor for the city. Construction was started in 1921, and the terminal was opened for business in 1923. During the first year, only 17,000 tons of freight went through the terminal. Now, the cargoes handled each month exceed that figure.

Raw material from distant lands is delivered at the Wilmington Marine Terminal in full cargo lots for industries located in or near the city. Quebracho logs and extracts from the Argentine are imported in large quantities. Cork from the Mediter-



LOCOMOTIVES AND PASSENGER CARS, BOUND FOR CHINA, ARE STACKED ON DECK LIKE LUMBER

One of the important industries of Wilmington is car building, and ships from the seven seas put in at the Marine Terminal to take on cargoes of equipment for railways in far lands.

ranean; barytes ore from Germany; lumber from the Pacific Northwest; wood pulp from the Baltic—all of these are handled in large quantities.

Interesting as are its industries, Wilmington offers its greatest appeal through the things of the spirit. I have visited the city many times, and each time I go to see Old Swedes Church, one of the most exquisite edifices of its sort in America. Built by Swedish Lutherans in 1698, it has been in virtually constant use as a place of worship for 237 years. Since 1802 it has been Holy Trinity, an Episcopal church. To one who likes to delve into the past, the weather-beaten stones in its churchyard tell a poignant tale of the beginning of American history (see Color Plate I and page 390).

Not far from Old Swedes are the rocks where the Swedes under Peter Minuit landed in 1638. Stanley M. Arthurs (see

illustration, page 390) has painted a faithful picture of this historic event.

One might pass a delightful vacation wandering about the older part of Wilmington. It is a joy to be invited to one of the colonial homes for an evening and to revel in contemplation of priceless furniture that would tempt any collector. Delawareans cherish these old treasures; they tell amusing or touching stories about many of them.

From Wilmington I rode over one afternoon to Newark with an elderly gentleman. We drove through lovely Brandywine Park, rife with memories of a bitter campaign of the Revolution. On the way we passed a spot toward which my companion pointed with a shudder.

"They say," he told me, "that snow never lies on that spot. It was the scene of a horrible crime and a burning at the stake."

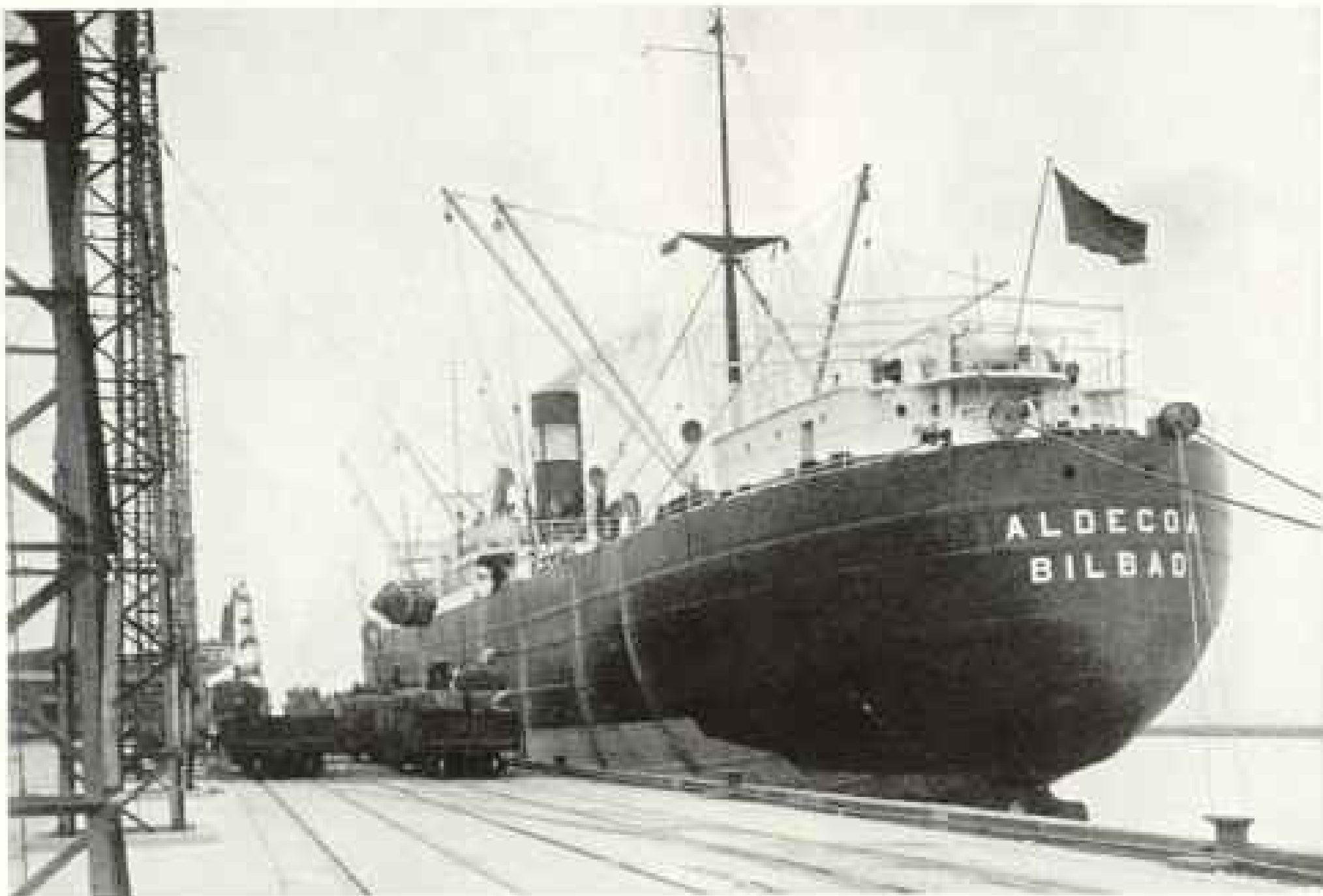
I, too, shuddered when I heard the tale.



Photograph by B. Anthony Stewart

VISITORS TO HENLOPEN ACRES CAST PENNIES INTO THE WISHING WELL

At this old house, near Rehoboth, time has turned back to colonial days. There is an ox team to haul wood (see Color Plate VI), and one gets a drink by using the sweep.



Photograph by Roydon L. Hammond

CORK FROM THE NORTH COAST OF AFRICA COMES TO WILMINGTON

On the day of arrival of this Spanish ship, another vessel anchored with quebracho, the "axbreaker" wood from South America. Thus, one of the lightest cargoes and one of the heaviest were handled side by side. The former is used in insulation and floor-covering manufacture, and the other chiefly as a source of tannic acid for tanning leather.



Photograph by Roydon L. Hammond

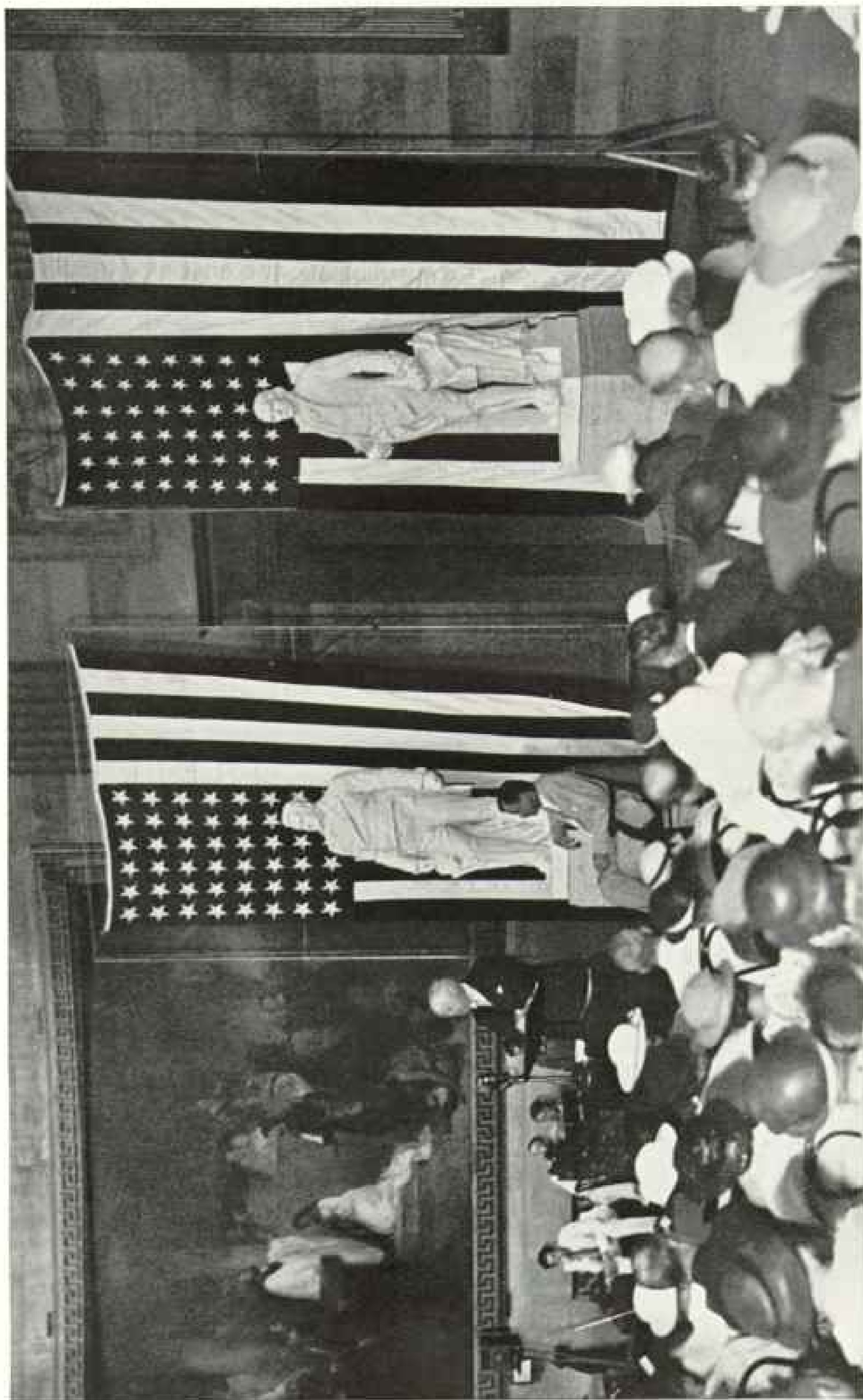
EACH LOADED TRUCK MUST HAVE A WEIGHT TICKET BEFORE LEAVING THE STATE.

A record is kept of the character and amount of each item shipped over the highways. This scene at Dover is typical, for Delaware exerts care to prevent damage to its roads from overloading, where freight traffic reaches huge proportions.



Photograph by E. Anthony Stewart

STANLEY M. ARTHURS' "DELAWARE TROOPS UNDER COL. HASLET LEAVING DOVER GREEN JULY 1776" ADORNES THE OLD STATE HOUSE (P. 390)



© Underwood and Underwood.

DELAWARE BRINGS TWO FAMOUS SONS TO STATUARY HALL, THE NATION'S VALHALLA

On June 26, 1914, statues of Caesar Rodney, the State's Paul Revere (see text, page 396), and John M. Clayton, former U. S. Senator and Secretary of State, negotiator of the Clayton-Bulwer Treaty with Great Britain, were unveiled in the United States Capitol at Washington. Professor George H. Rydén, State archivist, is speaking before the Rodney statue, and Governor C. Douglas Buck is seated at his side.



THE SWEDES AT WILMINGTON BUILT FOR THE AGES

Laid of field stones by members of the original congregation, Old Swedes (see Color Plate I, and text, page 386), has been in constant use as a place of worship since 1698. There are gravestones in the yard bearing the names of some of the earliest white settlers in America.



Photographs by B. Anthony Stewart

STANLEY M. ARTHURS CARRIES ON THE HOWARD PYLE TRADITION

In the Pyle Studio at Wilmington, Delaware's noted historical artist completes a picture of Washington at Valley Forge (see illustration, page 388). The studio is exactly as the author of "The Merry Adventures of Robin Hood" and other young people's classics left it. Around its walls are many of the ship models that the master illustrator used for his "Book of Pirates."

There is mystery and tragedy as well as graciousness here in Delaware.

NEWARK HAS THE STATE UNIVERSITY

At Newark, an ideal college town, the magnificent State University occupies a beautiful campus. It serves the State in many ways, particularly in efforts to improve agriculture. In establishment of a foreign study plan, it has been outstanding among the universities of this country.

The Delaware Foreign Study Plan was inaugurated in 1923-24, when a group of eight college juniors was permitted to pass a year in study at the University of Nancy and the University of Paris, under the supervision of a member of the University of Delaware faculty. The generous support extended by the Service Citizens of Delaware, and subsequently by Pierre S. Du Pont, enabled the University of Delaware to extend the advantages of the plan to other colleges and universities without any cost to the State of Delaware or to the university budget.

A DINNER FOR THE GODS

Further developments of this plan came with the provision for a junior college year in Germany, made possible by subsidies of H. Fletcher Brown and H. F. Du Pont, of Wilmington, and J. Pilling Wright, of Newark. The first group consisted of 21 students from 14 colleges and universities.

In the last ten years more than 500 students from nearly 100 different colleges have studied under the direction of the university's departments in Paris and Munich.



Photograph by B. Anthony Stewart

IN VENERABLE NEW CASTLE YOUNG ARTISTS FIND INSPIRATION

Students from the Wilmington Academy set up their easels everywhere in the quaint city of Penn's landing (see Color Plates V and VI). This young lady, whose pet kitten rubs against her ankles, has chosen a point of vantage in front of a famous Dutch colonial house on one of the oldest streets.

We went out from Newark to Coochs Bridge, scene of the battle of the Revolution fought in Delaware. This was a skirmish preliminary to the Battle of the Brandywine. A tablet erected by a Delaware patriotic society declares that here the American flag was first unfurled in battle—a counterclaim to that of New York State. The question is a moot point which I leave to research students.

Before going to southern Delaware, I passed some time in New Castle, to me one of the most charming old towns in the United States.

One sits in a dining room in the Old



OLD DRAWYERS CRADLED PRESBYTERIANISM IN THE UNITED STATES

This lovely church, near Odessa, was not erected until 1773, but services were conducted on the site much earlier. In the churchyard are buried many of the founders of Delaware. The original name of the church was Appoquinimy.



Photographs by B. Anthony Stewart

THIS WHEEL GROUND POWDER FOR THE WAR OF 1812

On the Brandywine Creek, near Wilmington, are the ruins of the Du Pont mills that produced the first large quantities of gunpowder made in America. The buildings, some of which still stand, are roofless, for they were covered originally with flimsy boards, which lessened the danger from explosions.

Court House, built in 1731 and furnished simply in colonial style. The two adjoining wings of the building were standing when William Penn landed on the New Castle Strand in 1682. Paintings by star pupils of the Wilmington art school adorn the walls. The setting is perfect.

The chicken comes in with fresh Delaware vegetables and a pan or two of hot rolls that make one reckless of calories. A salad and ice cream and home-made angel food cake finish the meal. It is perhaps vulgar to descend to the gustatory, but I wish all my readers could go to New Castle for at least one chicken dinner.

The center of the famous 12-mile circle is at the end of the Court House (page 398); the cobbled Strand, with grass peeping through its interstices, is near by. Stewart, THE GEOGRAPHIC's staff photographer, took some color pictures in the old Amstel House, now a museum (see Color Plates V and VI), and in the exquisite colonial Laird home. Near the Court House is a monument built of sleeper stones from the New Castle and Frenchtown Railroad, first railroad in Delaware (1831) and one of the first in America.

New Castle has so many fine old mansions that one could devote weeks to examining them. The town is entirely unspoiled and "unrestored." It has all the glamour of the days of Washington.

WHEN PENN RECEIVED TITLE TO THE LAND, WATER, AND FOREST

On October 27 each year New Castle citizens reenact the ceremony by which Penn received title to the land, water, and forest. The day is called "Old Home Visitation Day." There are authentic costumes for the heralds, for the person representing Penn, and for the citizens.

Not far from New Castle the Bellanca Aircraft Corporation has its factories and aviation field. We were particularly interested in the planes used by the Shippee-Johnson expedition to Peru undergoing repairs in the shops at the time.

One leaves northern Delaware reluctantly, but finds consolation downstate. If ever I should have time to retire to an idyllic spot, I should acquire a house in New Castle, or Dover, or Lewes. These are the very ideal of the small town, which to me is the soul of American civilization. I should not be partial; peace and contentment dwell in almost every village and hamlet in Delaware.

There is St. Georges, its streets today as they were laid out in 1730. The Commodore Macdonough School, commemorating Delaware's hero of the War of 1812, is a fine example of the schools that resulted from Pierre Du Pont's program (see text, page 376).

Delaware City, with its old canal and its Newbold's Landing, planned in 1826, deserves attention. It is the seasonal center of shad and sturgeon fishing and reed and railbird hunting.

Odessa, so named because of its importance as a grain-shipping center, has important canneries and an agricultural experiment station; but its chief charm to me lies in Old Drawyers Church, established in 1708 and built in 1773, a cradle of Presbyterianism in America (see illustration, page 392).

Middletown has a tavern that has been standing since 1761. The town is an important shipping point for canned goods and asparagus. Another pleasant town is Townsend, with a history dating from 1708. In Clayton, St. Joseph's Industrial School cares for Negro boys.

Every town and village has its charm, but the hurried visitor is likely to spin along too fast to appreciate details. At Smyrna we paused to visit Belmont Hall (see Color Plate I), an absolutely unaltered colonial mansion that has been in the possession of one family since 1685.

The owner of the mansion, Mr. Cummins Speakman, had driven out from Wilmington to welcome me to his ancestral home.

He told me stories of the old house handed down through generations and showed me the pane of glass in the living room on which his great-great-grandmother had written her name with a diamond ring. Before the fireplace in the old kitchen a young matron of the family molded bullets for the American soldiers of 1812 while her husband was dying of fever on an English prison ship.

In 1777 a sentry of Washington's army was mortally wounded by a British sharpshooter as he stood watch on the roof balcony. Stains of the blood he shed as he crept downstairs to give the alarm were pointed out on the steps until 1915, when fire damaged that part of the building.

Belmont Hall has never been altered, never restored. Its door hinges bear the hallmark of English manufacturers of the



Photograph by Roydon L. Hammond

BARRATT'S CHAPEL IS ONE OF THE EARLIEST SEATS OF AMERICAN METHODISM

Near Frederica is this plain old church, with its severely straight bench pews. It has been in use for services for more than a century and a half.

17th century. It was the home of Thomas Collins, President of "The Delaware State" when the United States Constitution was ratified. Legend has it that the lawmakers of the Commonwealth met in its rooms when the presence of British troops drove them out of Dover.

From Smyrna the highway leads through gracious pastoral scenes to Dover, the State capital. Howard Pyle wrote in 1879 about the peach canneries of Dover; canneries are still there. The chief interest, however, is in the old homes.

DOVER DAY MEANS OPEN HOUSE IN OLD MANSIONS

It was my privilege to be entertained at the old Ridgely House (1728), which faces Dover Green. My courteous hostess showed me the tea set given to the Dover belle, Mary Vining, by Mad Anthony Wayne. She told me much of the history of the house and its furnishings, its lovely old garden, the famous persons it has sheltered. It is her pride that this home has been kept unspoiled since the day her ancestors built it (see illustration, page 372).

Ridgely House is only one of a score of

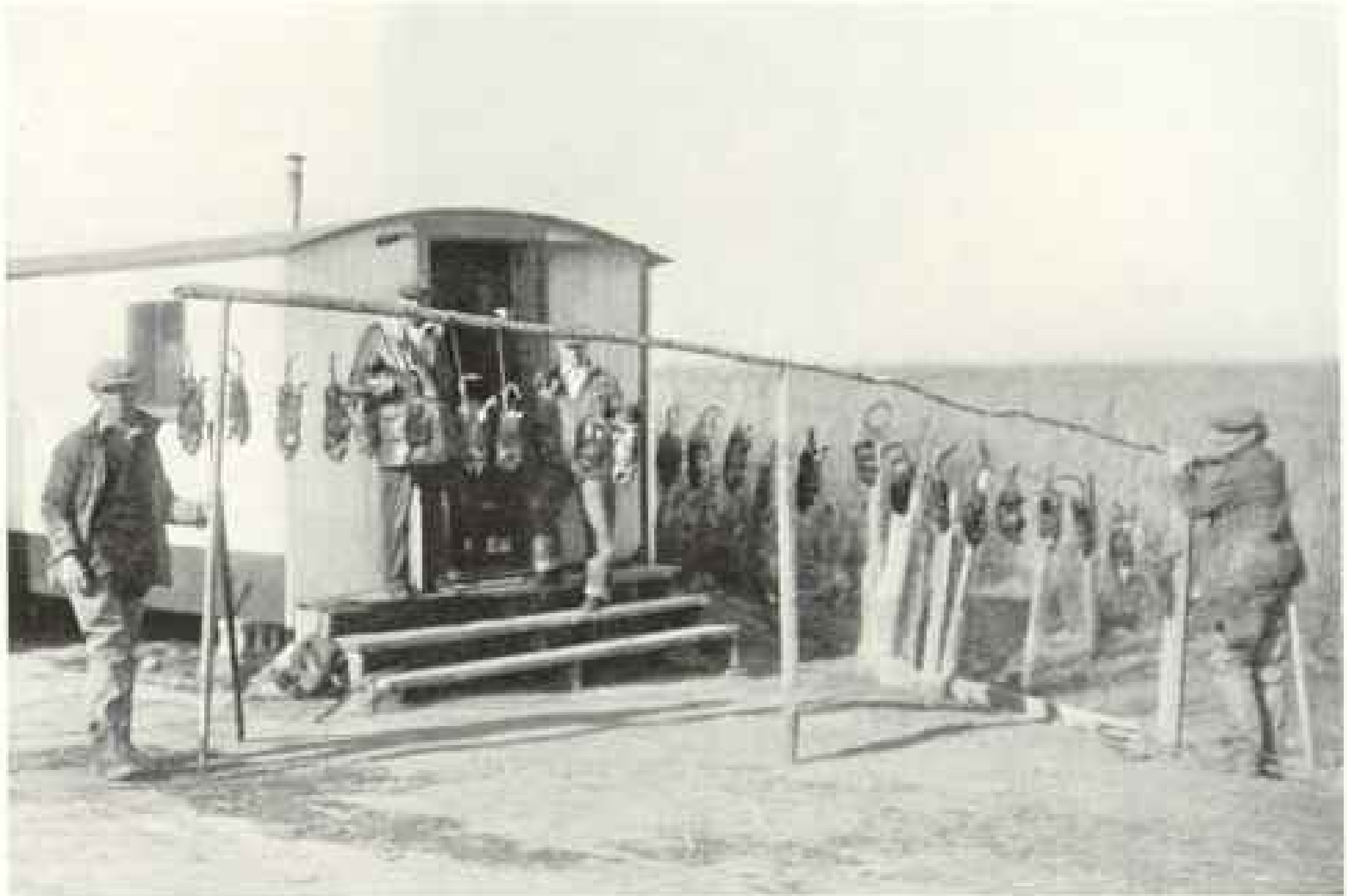
exquisite colonial homes in Dover. On May 11, "Dover Day," the town holds open house to visitors, and treasures of the early days are on display.

The "Blue Hen's Chickens," as Delaware Revolutionary troops were called, rallied on Dover Green before marching off to join Washington (see illustration, page 388).

I went into the old State House and passed a delightful hour looking at the four documents by which William Penn acquired clear title to Delaware (see text, page 367), at numerous letters written by Penn, and at other interesting relics.

In a Dover cemetery is buried Cæsar Rodney, Delaware hero—almost a patron saint. It was he who rode from Lewes to Philadelphia to cast the deciding vote that brought Delaware into the group signing the Declaration of Independence and made the Declaration the unanimous will of the Thirteen Colonies. To Delawareans his ride seems more important than that of Paul Revere (page 389).

The story goes that a Tory woman Rodney was courting withheld important dispatches from her guest and that it was only at the last moment through the loyalty of



Photograph by Roydon L. Hammond

MUSKRAT TRAPPING IS A REAL INDUSTRY NEAR WOODLAND

Fur for milady's coat comes from the salt marshes in the southern part of the State. In the mosquito-control campaign (see text, page 398), engineers have had to use ingenuity to avoid draining the swamps where these valuable animals abound.

a maid servant that the messages came into the hero's hands. Rodney was ill at the time, but he rose to the occasion and rode to Philadelphia in time to cast Delaware's vote for independence.

Traditions of the old Delaware families, the Rodneys, the Bayards, the Saulsburys, the Ridgelys, the Claytons, the McKeanes, and many others are still rife in Dover. The town is steeped in colonial atmosphere.

A noteworthy modern institution in Dover is the Elizabeth Murphey School for Orphans. The city also is the home of the Wesley Collegiate Institute and the Colored College.

Camden, Wyoming, Felton, Harrington, Greenwood, Bridgeville, and Seaford are charming agricultural towns set in lush fields. The home of Patty Cannon, notorious slave dealer, whose story is told in the novel, "The Entailed Hat," is at Reliance, near Seaford.

Laurel claims more than passing interest because of the Marvil Package Company, which supplies containers for much of the produce of the Delmarva peninsula. Partly in Maryland and partly in Dela-

ware, Delmar has two mayors and two councils.

It is possible to glimpse virtually all of Delaware in a day. The oystering at Bowers beach is interesting. Frederica, once a thriving shipping center that still maintains boat service to Philadelphia, is proud of Barratt's Chapel (1780), early seat of Methodism in the United States (see page 394).

WHERE THE BYRD EXPEDITION HAD DENTAL CARE

Milford offers much of historic interest, but its chief claim to fame is through the L. D. Caulk Company, manufacturers of dental materials and pharmaceutical preparations. To Caulk dentists Admiral Byrd and his entire expedition personnel went for dental examinations and treatments before embarking on their perilous Antarctic explorations.

In Milton there is a section separate from the rest of the town called "Sockum Town," the home of a group of people known as the "Moors." These people interested me, and I made some investigation into their his-



Photograph by B. Anthony Stewart

IF IT WERE ONLY REAL, WHAT A FEAST!

The Negro population of Wilmington is numerous and happy; and what wonder, with melons galore and ice cream from the rich dairy farms. This giant cone stands in front of a restaurant.

tory. They are found in several parts of Sussex and Kent Counties. At Milton they have their own cemetery where, as they put it, "people are buried natural," that is, in uncovered coffins placed in brick-lined graves hardly two feet deep.

Of the genealogy of these people Judge George P. Fisher said:

"About 150 years ago a cargo of slaves from the Congo River was landed at Lewes, and sold to purchasers at that place. Among them was a tall, fine-looking young man about five and twenty years. This man was called Requa, and was remarkable for his manly proportions and regular features, being more Caucasian than African. Requa was purchased by a young widow, having red

hair, blue eyes, and a fair complexion. She afterward married him. At that time the Nanticoke Indians were still quite numerous at and near Indian River. The offspring of Requa and his wife were not accepted in the white society. They would not associate with the Negroes, but they did intermarry with the Indians.

"These people are noted as peaceable, law-abiding citizens, and good farmers. They are known as Moors, but without any foundation."

At Lewes, Sussex County hospitality is in its flower.

The town, like its leading citizens, is leisurely and delightful. Cypress-shingled houses built before the Revolution remain in excellent repair. The shingles were hand-hewn from fallen logs "mined" from the Sussex County swamps.

In 1631, De Vries, a noted Dutch leader, planted here on the banks of the "Horne-

kill," near the present site of Lewes, a colony which was called *Zwaanendael* because of the number of swans in that vicinity. This was the first attempt to found a settlement within the present limits of the State of Delaware; but soon after its founders had built a fort, Indians destroyed the entire colony.

The English claimed this land, and took control of the territory in 1664.

In 1813 the town was bombarded by the English fleet. Not having any cannon balls to fit the guns on the town's fort, the colonists were obliged to pick up shot fired by the English and shoot them back. One doughty gunner, when other missiles were exhausted, took off his boots, chucked them



AS FAR AS THE CAMERA'S EYE CAN SEE ARE FANCY SHRUBS

The Diamond State Nursery at Milford is one of the largest in the industry, growing not only ornamental trees, but rose bushes of many varieties. The storm of August, 1933, flooded some of these fields (see text, page 398).



Photographs by W. Anthony Stewart

WILMINGTON GIRLS GLAZE GOATSKINS FROM INDIA

Since early days the kid-leather industry has been an important activity in the city. Hides are subjected to numerous processes before they come to these "ironing boards," where heavy glass rollers press them and give them the smooth finish admired in book bindings, kid shoes, gloves, and other products.



Photograph by B. Anthony Stewart

NEW CASTLE COURT HOUSE HAS WATCHED AMERICA GROW

The wing at the right was built in 1682. It was the center of the 12-mile circle that was drawn to bound William Penn's possessions in northern Delaware. Here the great leader of the Friends received the turf, twig, and bowl of water that acknowledged his right to land, forest, and water (see text, page 367).

into a cannon, and fired them at the foe—a really vicious kick.

Pilot's Town at Lewes has been for years the home of the famous Delaware River pilots. Old Henlopen Lighthouse, first built in 1725 and rebuilt in 1764, stood for more than 160 years near Lewes.

Lewes is particularly famous for its large menhaden fisheries and fertilizer plants, and much fame has come to it on account of its excellent Coast Guard Service.

Rehoboth Beach is the summer capital of Delaware (see Color Plate VIII). I was at Rehoboth during a gale that hurled waves from the open sea far above the boardwalk. After the storm, bathers picked up on the beach some old Spanish coins believed to be from chests of treasure buried by Captain Kidd, Edward Teach, and other piratical gentry who once lurked among the Delaware dunes.

A determined mosquito-control campaign has been under way for more than a year. With the help of two C. C. C. companies, the State Mosquito Control Commission has

drained 28,000 acres of salt tidal marsh and is making progress toward eliminating mosquito breeding on the more than 107,000 acres of such land in the State. The campaign was needed; I still shudder at memories of a plump woman in a bathing suit plucking a chicken in the midst of a fog of mosquitoes near a bathing beach.

Georgetown, Stockley, Oak Orchard, and Selbyville are all in a rich agricultural district. Georgetown is the county seat of Sussex; Stockley has won renown for its seed distributors; Oak Orchard, with shallow beaches and shady groves, is a popular picnic resort; and Selbyville is an important shipping point for strawberries.

The State is primarily agricultural. Its rich sandy loam is ideal for virtually all crops suited to a temperate climate. There are many States with more striking scenery, but nowhere have I seen a more peaceful landscape. The people have the easy-going hospitality of the old South. They love their little land, and with ample cause.

NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC ADMINISTRATION BUILDINGS

SIXTEENTH AND M STREETS NORTHWEST, WASHINGTON, D. C.

GILBERT GROSVENOR, President
JOHN JOY EDSON, Treasurer
HERBERT A. POOLE, Assistant Treasurer
FREDERICK V. COVILLE, Chairman Committee on Research

JOHN OLIVER LA GORCE, Vice-President
GEO. W. HUTCHISON, Secretary
THOMAS W. MCKNEW, Assistant Secretary

EXECUTIVE STAFF OF THE NATIONAL GEOGRAPHIC MAGAZINE

GILBERT GROSVENOR, EDITOR

JOHN OLIVER LA GORCE, Associate Editor

J. R. HILDEBRAND

Assistant Editor

MELVILLE BELL GROSVENOR

Assistant Editor

McFALL KERBEY

Chief of School Service

LEO A. BORAH

Editorial Staff

FREDERICK SIMPICH

Assistant Editor

WILLIAM JOSEPH SHOWALTER

Chief Research Division

ALBERT H. BUMSTEAD

Chief Cartographer

E. JOHN LONG

Editorial Staff

FRANKLIN L. FISHER

Chief Illustrations Division

MAYNARD OWEN WILLIAMS

Chief Foreign Editorial Staff

CHARLES MARTIN

Chief Photographic Laboratory

LEONARD C. ROY

Editorial Staff

BOARD OF TRUSTEES

JOHN JOY EDSON

Chairman of the Board, Wash-
ington Loan & Trust Company

WALTER S. GIFFORD

President American Telephone and
Telegraph Co.

DAVID FAIRCHILD

Special Agricultural Explorer, U. S.
Department of Agriculture

C. HART MERRIAM

Member National Academy of
Sciences

LYMAN J. BRIGGS

Director National Bureau of
Standards

GEORGE R. PUTNAM

Commissioner of Lighthouses,
Retired

THEODORE W. NOYES

Editor of The Evening Star

GEORGE W. HUTCHISON

Secretary National Geographic
Society

CHARLES EVANS HUGHES

Chief Justice of the United States

JOHN J. PERSHING

General of the Armies of the
United States

WILLIAM V. PRATT

Rear Admiral U. S. Navy, Retired

RAYMOND S. PATTON

Director U. S. Coast and Geodetic
Survey

ALEXANDER WETMORE

Assistant Secretary, Smithsonian
Institution

GILBERT GROSVENOR

Editor of National Geographic
Magazine

J. HOWARD GORE

Prof. Emeritus Mathematics, The
George Washington University

FREDERICK V. COVILLE

Botanist, U. S. Department of
Agriculture

CHARLES G. DAWES

Formerly Vice-President of the
United States

A. W. GREELY

Arctic Explorer, Major General
U. S. Army

GEORGE OTIS SMITH

Formerly Director U. S. Geological
Survey

C. H. TITTMANN

Formerly Superintendent U. S.
Coast and Geodetic Survey

JOHN OLIVER LA GORCE

Associate Editor National Geo-
graphic Magazine

ROBERT V. FLEMING

President Riggs National Bank

GEORGE SHIRAS, Jr.

Formerly Member U. S. Con-
gress, Faunal Naturalist and
Wild-Game Photographer

ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

TO carry out the purposes for which it was founded forty-seven years ago the National Geographic Society publishes this Magazine monthly. All receipts are invested in the Magazine itself or expended directly to promote geographic knowledge.

ARTICLES and photographs are desired. For material which the Magazine can use, generous remuneration is made. Contributions should be accompanied by addressed return envelope and postage.

IMMEDIATELY after the terrific eruption of the world's largest crater, Mt. Katmai, in Alaska, a National Geographic Society expedition was sent to make observations of this remarkable phenomenon. Four expeditions have followed and the extraordinary scientific data resulting given to the world. In this vicinity an eighth wonder of the world was discovered and explored—"The Valley of Ten Thousand Smokes," a vast area of steaming, spouting fissures. As a result of The Society's discoveries this area has been created a National Monument by proclamation of the President of the United States.

AT an expense of over \$50,000 The Society sent a notable series of expeditions into Peru to investigate the traces of the Inca race. Their discoveries form a large share of our knowledge of a civilization waning when Pizarro first set foot in Peru.

THE Society also had the honor of subscribing a substantial sum to the expedition of Admiral Peary, who discovered the North Pole, and contributed \$55,000 to Admiral Byrd's Antarctic Expedition.

NOT long ago The Society granted \$25,000, and in addition \$75,000 was given by individual members to the Government when the congressional appropriation for the purpose was insufficient, and the finest of the giant sequoia trees of California were thereby saved for the American people.

THE Society's notable expeditions to New Mexico have pushed back the historic horizons of the Southwestern United States to a period nearly eight centuries before Columbus crossed the Atlantic. By dating the ruins of the vast communal dwellings in that region The Society's researches have solved secrets that have puzzled historians for three hundred years. The Society is sponsoring an ornithological survey of Venezuela.

TO further the study of solar radiation in relation to long range weather forecastings, The Society has appropriated \$65,000 to enable the Smithsonian Institution to establish a station for six years on Mt. Brakkaros, in South West Africa.

A vintage advertisement for General Dual 8 tires. The top half of the ad features a colorful illustration of two women in rain gear. One woman, wearing a red hooded raincoat and a red hat with a pink flower, is smiling and looking towards the other woman. The second woman, wearing an orange raincoat and a matching hat, is also smiling and looking back. They are standing next to a car wheel with a distinctive checkered tread pattern. The background is a stylized, colorful scene with green and yellow tones, suggesting a rainy day. The text is arranged in a clean, classic layout, with a headline at the top left, a sub-headline at the top right, and two paragraphs of descriptive text in the middle right. The bottom of the ad features a large, bold title for the tire and a tagline below it.

Let the
smile of safety
replace the frown
of fear
-when it rains

The Biggest Advance in Skid Prevention in 25 Years

You can look at the winding, twisting design of General's new corkscrew grip tread and see it is entirely different from anything you have ever seen before. This unusual design provides non-skid in all directions—forward as well as sidewise and gives you the longest wearing non-skid ever built into a tire.

The dangers of skidding are too great to risk. Let the General Tire dealer, by actual demonstration, show you the amazing safety features of this tire.

The **GENERAL** Dual 8
THE "BLOWOUT-PROOF" TIRE



*A Breakfast
that's*

COOL AND CRISP

HERE'S a rule for hot weather comfort on which all authorities agree: "Don't overload your stomach with heavy meals. Eat foods that are light, crisp, refreshing."

On a hot summer morning your family will enjoy Kellogg's Corn Flakes more than ever. Crunchy-crisp and tempting, with cool milk or cream and sliced peaches.

Kellogg's supply needed energy and are easy to digest. Splendid for lunch or the children's supper. And ready to serve! They save you long hot hours in the kitchen. Even in sultry, muggy weather, Kellogg's Corn Flakes reach your table oven-crisp.



Why Kellogg's are always oven-fresh

They sell faster than any other ready-to-eat cereal—never stay long on the grocer's shelf. Exclusive methods of manufacture give them greater crispness. And *only* Kellogg's are protected by the *heat-sealed* WAXTITE inner bag.

In summer especially you want the extra quality and value Kellogg's Corn Flakes give. Matchless flavor and crispness. Many generous servings for a few cents. Quality guaranteed. Made by Kellogg in Battle Creek.

***Kellogg's* FOR COOLNESS**



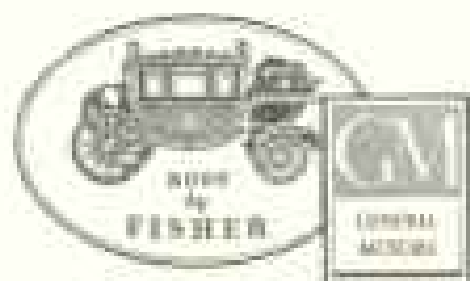
OF COURSE *"The car that has everything"* HAS THE SOLID STEEL *Turret Top*

The simplest test of beauty is your own eyes, and you need only to look at this strikingly handsome new Oldsmobile to see how the smart style of its Body by Fisher expresses the advanced and balanced excellence of the whole car



Fisher No Draft Ventilation — planned, perfected and patented by Fisher Body — is a vital and exclusive feature of this season's beautiful new General Motors cars

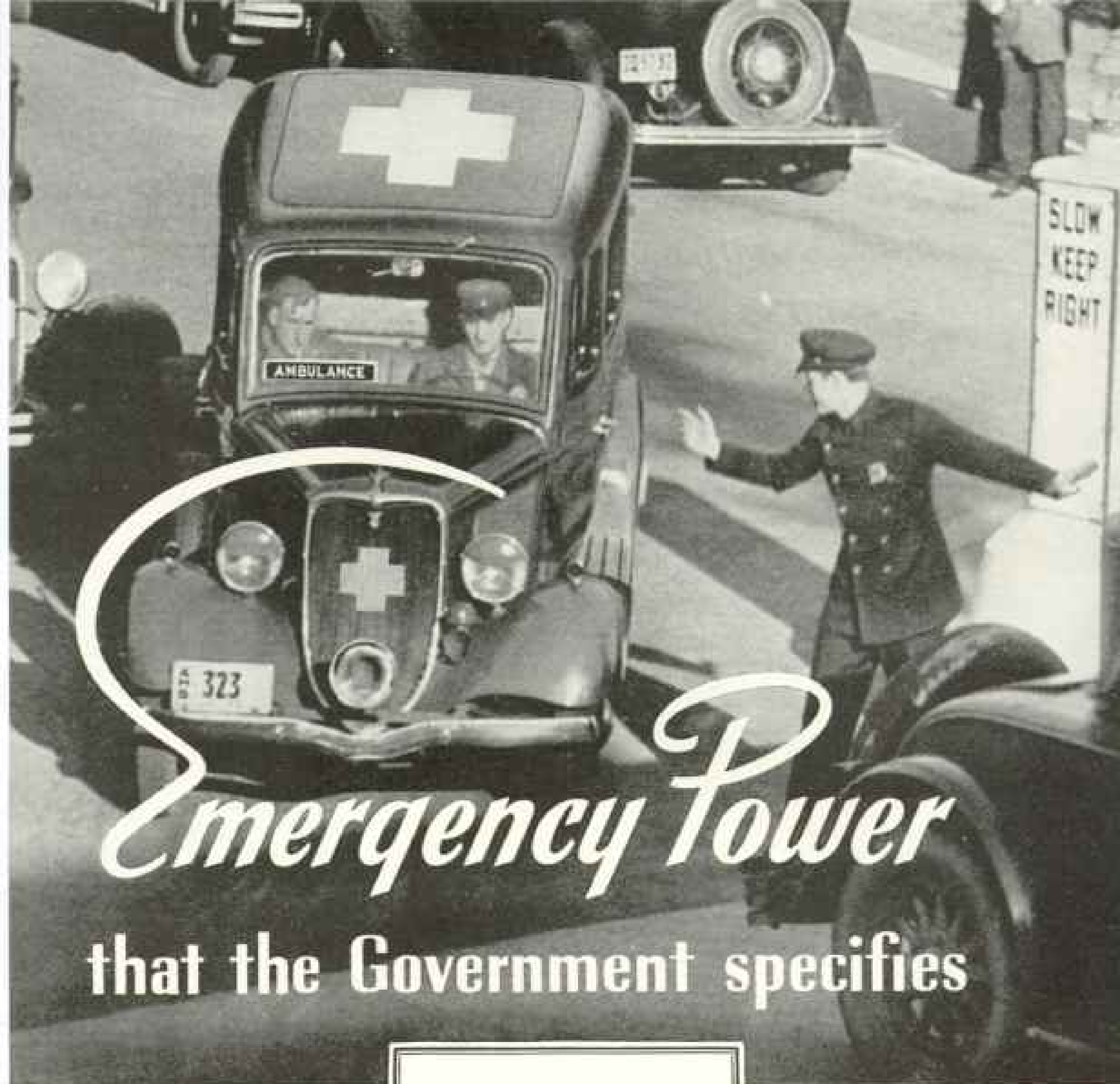
A motor car today is simply not complete without the crowning smartness and protective safety of the famous new solid steel "Turret Top" Body by Fisher. Scientifically insulated against sound, sun and zero, this newest Fisher contribution adds to comfort, just as it enhances the beauty of the whole car. Of course, you will find the new "Turret Top" on Oldsmobile, "the car that has everything"—as on Chevrolet (Master De Luxe series), Pontiac and La Salle. It is the hall mark of the modern automobile, and, like Body by Fisher, is offered only on General Motors cars.



Body by Fisher

BODY BY FISHER ON GENERAL MOTORS CARS ONLY: CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • LASSALLE • CADILLAC

★ Registered



Emergency Power that the Government specifies

*It's yours
at any TEXACO pump*

THERE'S a *difference* in the gasoline that fast-moving ambulances and fire-engines use . . . a difference so great that the Government has drawn up two sets of specifications to mark it off.

One set of these specifications is for ordinary gasoline . . . for ordinary use.

Other specifications . . . higher, more difficult to meet . . . are for gasoline that fast-moving *emergency* duty requires.

So here's your cue. If you want the greater acceleration and extra power reserve that emergency vehicles *must* have, then start using Texaco Fire-Chief now.

For Texaco Fire-Chief . . . the same gasoline that you get from any Texaco Fire-Chief pump . . . fully meets these higher Government requirements. And it's available in all 48 states . . . no matter where you live or drive.

TEXACO FIRE-CHIEF

Meets Federal Specification VV-M-571 for Emergency Vehicles



There's a Sour Note in
HOME SWEET HOME
soon after you use "Cheap" Paint!



THE "sour note" is your bitter disappointment at what happens to "cheap" paint... your irritation at having to paint again so soon... your dismay at the big repainting bill "cheap" paint runs up.

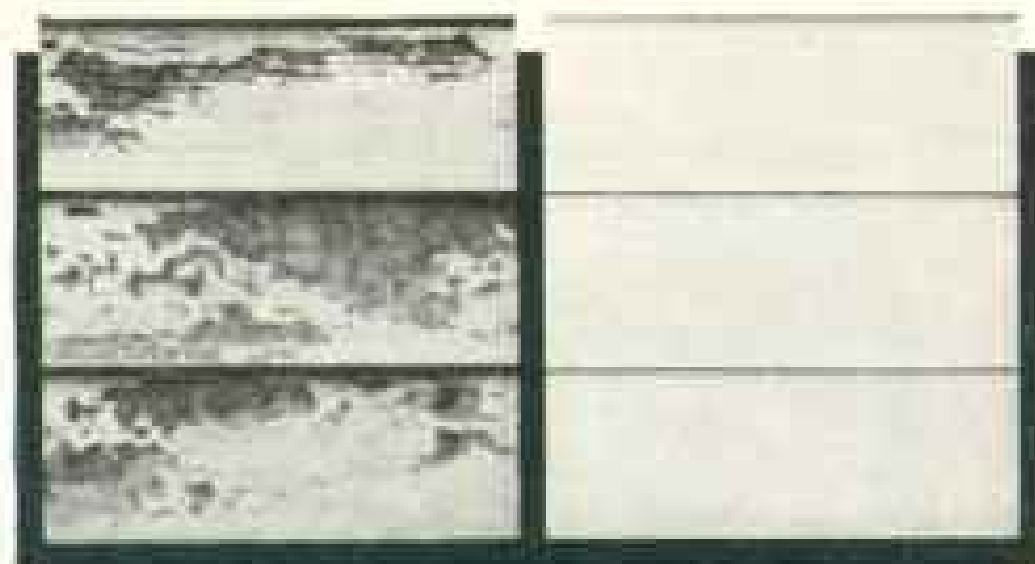
"Cheap" paint quickly cracks and scales, and must be burned and scraped off. That costs money. And after that, still more expense—an extra coat (a new priming coat) will be needed in repainting.

How different is the Dutch Boy picture! Dutch Boy does not crack and scale. It resists the weather—wears down stubbornly by gradual chalking which leaves a smooth, unbroken surface for new paint.

Because Dutch Boy lasts—because it gives you a dependable paint—the experienced painter uses this famous white-lead. He mixes it to meet the requirements of your job and tints it to the exact colors you specify. No one knows paint like a painter.

N. H. A. for funds . . . Dutch Boy for paint

A National Housing Act loan makes it needless to delay painting because of lack of ready cash. Monthly payments are surprisingly small. But, whether you use the Government plan or not, send for our free illustrated booklet, "The House We Live In." It tells how to modernize with paint, how to choose colors, what to look for when buying a painting job. In-



"CHEAP" PAINT

after 1 1/2 years

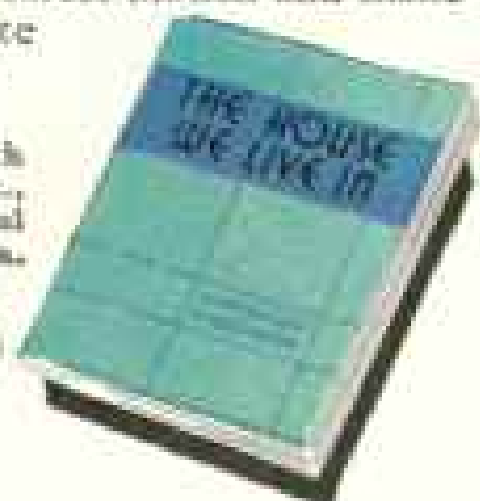
This paint is all through. First cost, \$100. Now add \$80 for burning and scraping, to take it off. That totals \$180 . . . or \$120 a year. Then add to the cost of a new priming coat.

DUTCH BOY

after 3 years

This paint is still good. Some type house as the "cheap" paint job and lasted to same city. Cost, \$100 . . . or \$33 a year. And no new priming coat will be needed at repaint time.

cluded are directions for arranging a painting loan. Write today, to Dept. 194, nearest branch and make sure there will be no sour note in your Home Sweet Home.



NATIONAL LEAD COMPANY, 111 Broadway, New York; 115 Oak St., Buffalo; 900 West 10th St., Chicago; 609 Freeman Ave., Cincinnati; 829 West Superior Ave., Cleveland; 722 Chestnut St., St. Louis; 2210 24th St., San Francisco; National-Boston Lead Co., 800 Albany St., Boston; National Lead & Oil Co. of Penna., 119 4th Ave., Pittsburgh; John T. Lewis & Bros. Co., Widener Bldg., Phila.



DUTCH BOY WHITE-LEAD

Good Paint's Other Name

Why

20,613 People
in one day **TOOK**

Virginia's Skyline Drive

Open only a short time, yet its fame has spread far and wide. For forty miles it follows the very crest of the Blue Ridge Mountains, a miracle of a highway, broad and safe. Far below, on one side, the Shenandoah Valley; on the other the Piedmont Plain. Breathtakingly beautiful. At the doorway of a third of the Nation's people, Skyline Drive provides ready access to Virginia's famous Caverns, Natural Bridge, Battlefield and Forest Parks, the seashore, Colonial Williamsburg and hundreds of places of fascinating historical interest.

FALL is Virginia's LOVELIEST SEASON

It's golfing season too. Virginia's world-famous seaside and mountain resorts beckon you to come. Write for Pictorial Map and Guide.

STATE COMMISSION
ON CONSERVATION & DEVELOPMENT
Room 835, 914 Capital Street
Richmond, Virginia



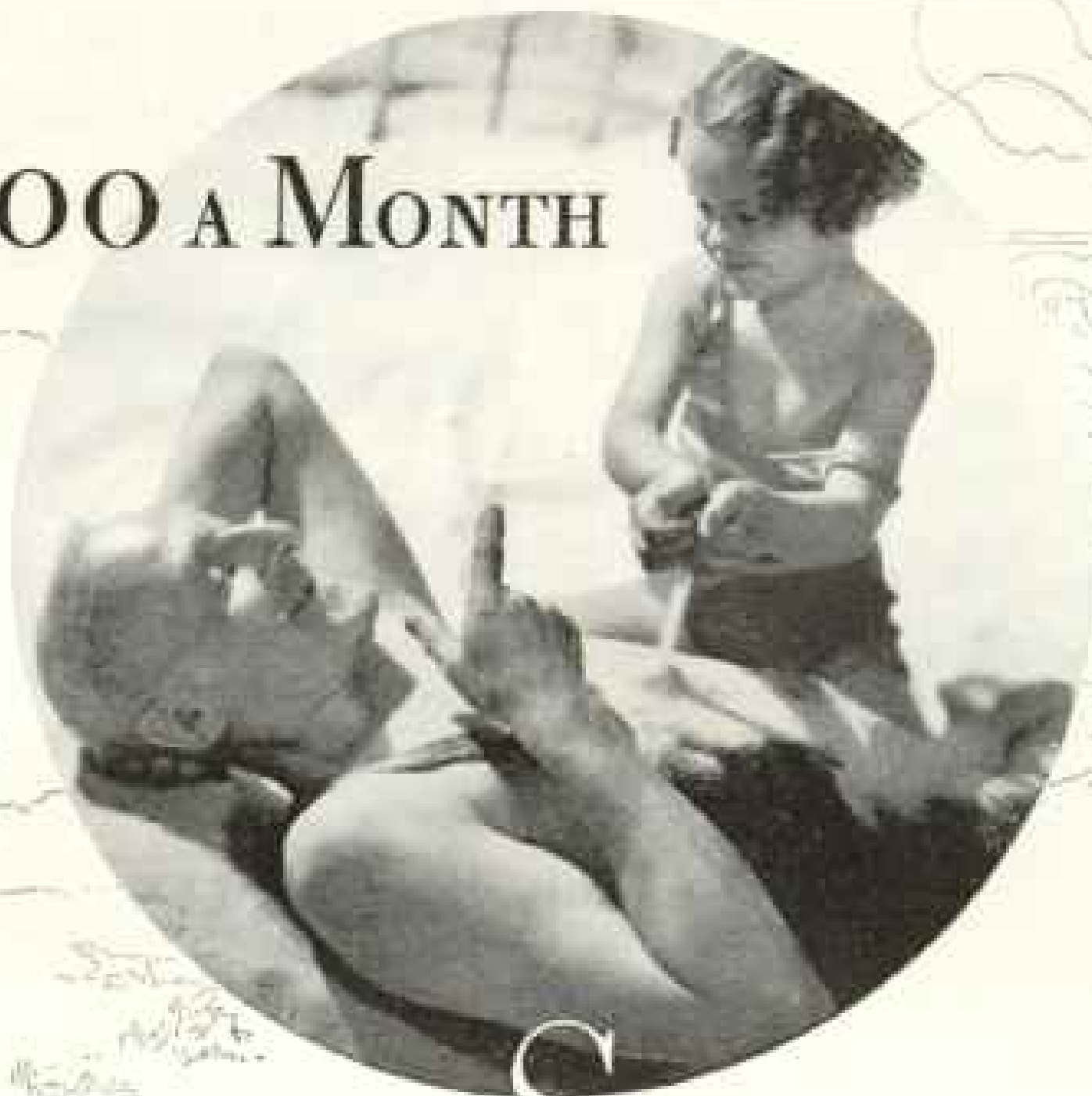
AUSTRALIA



Beneath stars of the Southern Cross, in the New World beyond the Equator, a proud young nation calls: "Welcome to Australia!" *** From Sydney's harbor to the Swan River at Perth, progress strikes a vivid note. From marine marvels of Barrier Reef to the playgrounds of Melbourne, Adelaide and Hobart sport sings a challenge. From Cape Howe to Darwin, ancient life presents strange contrasts to modern development. *** Chart on YOUR holiday-map this land of richest novelty! Australia is NOT far off... strewn along the ocean trail are fascinating isles... Hawaii, Tahiti, Samoa, Rarotonga, Fiji, and New Zealand. Low fares and favorable exchange contribute ease to your adventure.

Secure details from your Travel Agent, or
AUSTRALIAN NATIONAL TRAVEL ASS'N
*** (A non-profit community organization)
Suite 300, Hotel Clark, Los Angeles, Calif.

ON \$100 A MONTH



You can live in "The **SUN PARLOR** of the **NATION**"

● That's what a great editor called Georgia.

From the Blue Ridge Mountains, in the north of the state, to the "Golden Isles," off its southern coast, Georgia has scores of sunny, hospitable places where you can live comfortably on \$100 a month.

The enterprising city of Atlanta, high above sea level; Augusta and Macon are among them—and Brunswick, with its moonlight beach parties, oyster roasts and world-famous hunting and fishing.

Why not plan to give up work some day and enjoy such a life? When that time comes you may prefer some other wander spot—or your own home town—but by owning Northwestern Mutual Retirement Insurance you can count on an income of \$100 a month, or more, when you are 35, or older.

This is the time-tested way to insure financial security for your old

age—and in the meanwhile your life is also insured for the protection of your family.

The sooner you start such a plan the smaller your premium payments will be. And the company you insure with is also important. More than half of all new business placed with the Northwestern Mutual each year comes from its own policyholders—a convincing testimonial to the economy and efficiency of the

service being rendered them.

To help you plan for your own retirement years, the Northwestern Mutual has just published a 32-page booklet—"WONDER SPOTS OF AMERICA—Where You Can Enjoy Life on \$100 a Month." More than 25 attractive regions are described and illustrated. Write us for a copy of this interesting booklet today. There is, of course, no cost or obligation. Just use the coupon.



THE NORTHWESTERN MUTUAL
LIFE INSURANCE COMPANY
Milwaukee, Wisconsin

Without obligation, please send me your booklet "Wonder Spots of America."

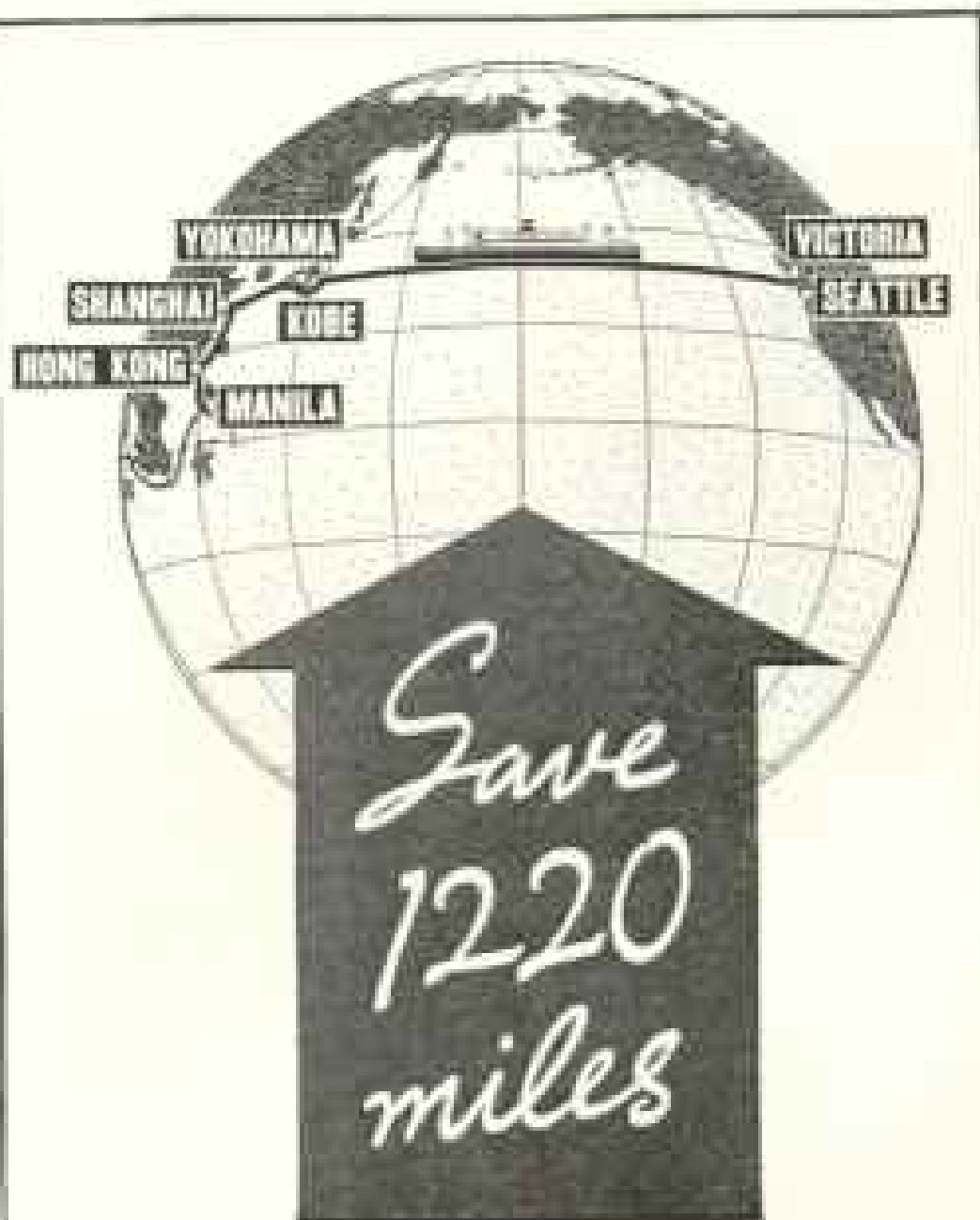
Name _____

Address _____

City _____



The assets of the Northwestern Mutual, as reported to state insurance departments, now total a billion dollars—a great estate administered for the mutual welfare and protection of more than 600,000 policyholders with over three and a half billions of insurance in force



This is the direct route that American Mail Liners sail to Japan, China and the Philippines. It saves 1220 miles each way and gives you more time in the Orient, where it counts.

THE PORT

American Mail Liners sail every other Saturday from Seattle, in the center of the vast Evergreen Playground. The Olympic Peninsula, Rainier National Park, Vancouver, B. C., Harrison Hot Springs, Puget Sound . . . all these can be part of your vacation, if you choose.

You sail at 11 a. m., cruise up the smooth waters of Puget Sound by daylight, stop at Victoria (a romantic, truly "English" city), then speed out the Straits of Juan de Fuca for a short, fast trip to Yokohama, Kobe, Shanghai, Hong Kong and Manila.

THE SHIPS

American Mail Liners are big, steady-riding ships, 535 feet long. Every stateroom is outside, with luxurious twin beds. Outdoor swimming pool. College orchestra. Glass-enclosed promenade decks. Delicious food.

Fares to the Orient are as low as \$285 First Class and \$160 Tourist from Seattle and Victoria, B. C. For full details, SEE YOUR TRAVEL AGENT, or write American Mail Line, 604 Fifth Ave., New York; 110 S. Dearborn St., Chicago; or 1500 Fourth Ave., Seattle. Offices in other principal cities.



Do new things in Photography



CONTAX



NEW principles of construction, plus its superb Zeiss lenses, make Contax a camera of unlimited possibilities. Takes pictures you would not even attempt before—Day or night shots . . . Fastest action at 1/1000th sec. . . Unposed candid photos, even in ordinary artificial light.

12 interchangeable Zeiss lenses for all types of photography. Only Contax has the super-lens *F/1.5 Zeiss Sonnar* lens. Unrivaled for night pictures. Automatic range-finder focusing assures critically sharp negatives (splendid enlargements). Easy daylight loading with 36-picture film spool. At leading dealers.

Write for booklet showing remarkable scope of Contax

Zeiss Ikon Cameras

Zeiss Binoculars, famed for their optical perfection, afford fullest enjoyment of football, travel, nature-study.

Write for Literature

CARL ZEISS, Inc., Dept. TC
485 Fifth Ave., New York
728 So. Hill St., Los Angeles



ZEISS BINOCULARS



Lundstrom

IT GROWS WITH YOUR LIBRARY

SECTIONAL BOOKCASE

Endorsed by Over 200,000 Users

\$3.75 per Section
with Glass Door
SOLD ON APPROVAL
DIRECT-TO-USER



USED in some of the finest homes and offices throughout the country. Furnished in different designs, materials and finishes, giving almost any desired effect. Sold direct from factory only, which assures you a permanent source of supply for additional sections in the future; and also saves you the middleman's profit.

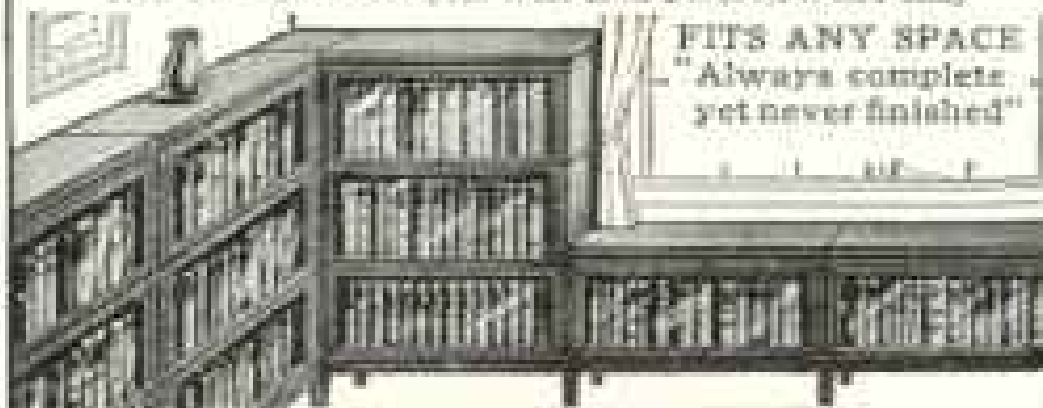
Price, complete as illustrated, \$11.75, in mahogany or walnut finish; in genuine mahogany or walnut, \$21.50.

Write for your FREE Copy of Our Illustrated Catalog No. N-25. It will interest you.

THE C. J. LUNDSTROM MFG. CO., LITTLE FALLS, N. Y.

Manufacturers of Sectional Bookcases since 1939

New York Showroom, 120 West 42nd St. (Tel. WVa. 7-8882)



FITS ANY SPACE
"Always complete
yet never finished"

THE IDEAL BOOKCASE FOR THE MODERN LIBRARY

People from all over the world send to Peru, Indiana, for this fine stationery.



The Big "450" Package

● There is only one reason why people from all over the world send to us for their writing paper: we deliver an *enormous* dollar's worth.

American Printed Stationery is the ideal household note paper—correct for all kinds of everyday notes and letters. Each sheet and envelope is printed with your name and address—the smart and logical way to have your stationery finished. It is made of high grade, pure white *rag content* bond paper.

300 NOTE SHEETS
150 ENVELOPES
*ALL PRINTED WITH YOUR
NAME AND ADDRESS*

\$1.00
Postpaid

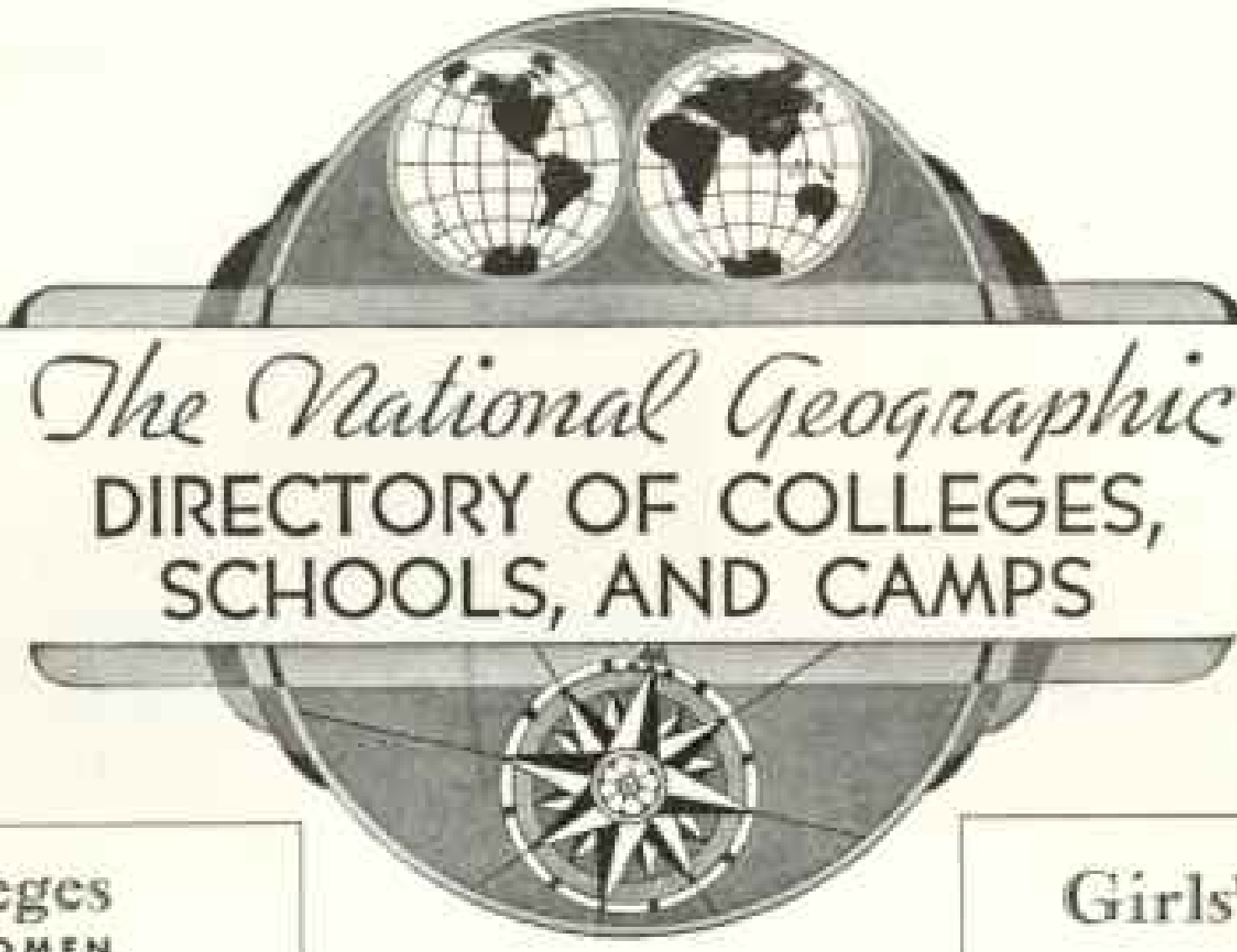
Try a box. Send \$1.00 (\$1.10 west of Denver, Colo., and outside U. S.). Your package will be mailed within three days of receipt of your order. *Satisfaction guaranteed, or your money promptly refunded.*

GOING AWAY TO SCHOOL?

For years American Printed Stationery has been a favorite among college men and women. If you're getting ready for school you better order your "450" package *now* while you think of it. There is no writing paper you can buy that is in better taste — no writing paper that will give you such great satisfaction at such little cost!

THE AMERICAN STATIONERY co.

300 PARK AVE. PERU INDIANA



The National Geographic DIRECTORY OF COLLEGES, SCHOOLS, AND CAMPS

Colleges FOR WOMEN

MARY BALDWIN COLLEGE

FOR WOMEN. Background of culture and scholarship. Accredited; endowed. A. B. degree. Music, Art, Dramatics, Secretarial. Educationally efficient, socially selective, spiritually sincere. Riding, sports. Catalog. **L. Wilson Jarman, Pres., Box J, Staunton, Va.**

MARYLAND COLLEGE FOR WOMEN

HAMILTON degree certificate. Education, Home Economics, Music, Kindergarten Training, Speech, Secretarial, Fine Arts. Pleasant social life. Sports. Riding. Near Baltimore. Write for Catalog. **Box N, Lutherville, Maryland.**

Girls' Schools

ARLINGTON HALL JUNIOR COLLEGE

and 4-year high school. Strong Academic work. Excellent music and other depts. Virginia hills 12 minutes from White House. Modern buildings. 100-acre wooded campus. All sports. **Carrie Sutherland, M.A., Pres., Ben. Franklin Sta., Box N, Washington, D. C.**

MISS BEARD'S SCHOOL

College Preparation. Music, Art, Dramatics, Home Economics. Varied Sports. **Lucie C. Beard, Headmistress, Box 90, Orange, New Jersey.**

CHEVY CHASE ACCREDITED Junior College and Senior High School.

Art, Interior Decoration, Music, Secretarial, Dramatics, Home Economics. Washington advantages. Sports. Catalogue: **Mrs. F. E. Farrington, Regent, Philip Mils Bull, Pres., Chevy Chase School, Box N, Washington, D. C.**

CHOATE SCHOOL A COUNTRY SCHOOL

for girls in a model town near Boston. College preparatory and general courses. Congenial home life. Basketball, hockey, riding, and tennis. Catalog on request. **Miss Augusta Choate, 1600 Beacon Street, Brookline, Massachusetts.**

THE DANA HALL SCHOOLS

TENACHE—For young girls from eight to fourteen years. **DANA HALL—College Preparatory and General Courses. PINE MANOR—Junior College, Music, Art, Home-making. Helen Temple Cooke, Head, Box L, Wellesley, Mass.**

THE ERSKINE SCHOOL

COLLEGE courses for graduates of preparatory schools. City advantages in the Arts, Dramatics, Social Service, and Secretarial Science. Address: **Miss Euphonia E. McClintock, Director, 125 Beacon Street, Boston, Mass.**

GARDNER SCHOOL

104 EAST 10TH STREET, New York. Resident and day school for girls. Accredited. Elementary, College Preparatory, Secretarial and Junior College courses. Music, Art, Dramatics, All Athletics. 7th Year. **Elizabeth M. Wauland, Principal.**

Girls' Schools

GEORGETOWN VISITATION CONVENT

HIGH SCHOOL and Junior College. Accredited by Middle States Association of Colleges and Secondary Schools. Member American Association of Junior Colleges. Gymnasium. 1940 Year. **The Head Mistress, 1500 35th St. N.W., Washington, D.C.**

GULF PARK COLLEGE BY THE SEA

Fully accredited 2-year Junior College for girls. Also 2-year college preparatory. Music, Art, Home Economics, Speech Arts, Secretaryship. Outdoor sports all year. Riding, Dancing. Salt water swimming. Catalog. **Richard G. Cox, President, Box N, Gulfport, Miss.**

THE KNOX SCHOOL

A COUNTRY school with high academic standing. Junior High. College preparatory. C. E. H. examinations. Two-year advanced diploma courses. Secretarial Science, Art, Music, Drama. Sports. **Mrs. E. Russell Houghton, Box N, Cooperstown, N. Y.**

LASELL JUNIOR COLLEGE

TEN miles from Boston. Two-year courses for High School graduates. Academic, Secretarial, Home Economics, Music, Art. College Preparatory. Separate Junior School. Catalogs. **Guy M. Winslow, Ph.D., 123 Woodland Road, Auburndale, Mass.**

LINDEN HALL JUNIOR COLLEGE and School

for Girls. Cultural and Vocational, Music, Home Economics, Secretarial, Fine and Commercial Art, Speech. Interesting Artifices. All sports. Preparatory and General Courses. Beautiful Campus. Riding, Swimming Pool. Moderate Tuition. **F. W. Stengel, D.D., Box 66, Litz, Pa.**

MARLBOROUGH JUNIOR and Senior High School.

College preparation. General and graduate courses. Home Economics, Music and Art, Dramatics, Outdoor sports, including riding, all year 'round. **Ada S. Bloke, Principal, 5029 N. West Third Street, Los Angeles, Calif.**

THE MARY LYON SCHOOL

COLLEGE preparatory, general courses. Alert faculty. Cultural events attended in Phila. Music, art, dramatics. Golf, swimming, riding. 2-year terminal Junior College courses. **Mr. and Mrs. H. M. Crist, Principals, Box 1525, Searcy, Pa.**

National Park Seminary

SUBURBAN IN Washington. Outstanding junior colleges and preparatory school for girls. Distinguished patronage. Unparalleled equipment. Terminal courses and preparation for advanced standing in universities. 22 buildings on wooded 116 acres. Sports. Catalog. **James E. Ament, A.M., Ph.D., LL.D., Box 995, Forest Glen, Md.**

Girls' Schools

OGONTZ THOMSON college preparatory,

general and elective courses. Junior College, with academic and vocational majors: secretarial, home-making, dramatics, music, and art. Royal Hall, separate Junior School. **Abby A. Sutherland, Ogontz School P. O., Pa.**

PENN HALL JR. COLLEGE FOR WOMEN

ACCREDITED 2-year College and 4-year High School. Music, Commercial Art, Drama, Home Ec., Int. Dev., Costume Design, Journalism, Secretarial, New Buildings, Riding, Social Life. Catalog: **F. S. Magill, A.M., LL.D., Box W, Chambersburg, Pa.**

WARD-BELMONT ACCREDITED Junior college and preparatory school with special courses in music, art, expression, home economics, physical training, secretaryship. Impressive buildings. Sports. Literature.

Henriette R. Bryon, Registrar, Ward-Belmont, Box 109, Nashville, Tenn.

WARRENTON COUNTRY NEAR Wash-

SCHOOL ington. College preparatory, cultural courses. French the language of the house. Teaches girls how to study, brings them nearer nature, inculcates ideas of order and economy. **Mrs. Lea M. Bouigny, Box N, Warrenton, Va.**

Webber College

Executive Training for Young Women

TWO-YEAR Course in Financial Principles, Business Management, and Secretarial Practice, leading to responsible positions, for preparatory or high school graduates. One-Year Course for girls with some previous college experience. Winter semester in Florida. All sports. Placement service for graduates.

For catalog write **Elizabeth A. Britt, Registrar 535 Beacon Street Boston, Mass.**

MARY C. WHEELER SCHOOL

A school modern in spirit, methods, equipment, rich in traditions. Envtiable college preparatory record. General course with varied choice of subjects. Class Music, Dancing, Dramatics, and Art an integral part of curriculum. Planned leisure for hobbies. Daily sports, 100-acre farm—riding, hunting, hockey. Separate residence and life adapted to younger girls. Catalogs.

Mary Helena Dey, M. A., Prin., Providence, R. I.

"Mention the Geographic—
It identifies you."



The National Geographic Directory of Colleges, Schools and Camps



Colleges FOR MEN

PENNSYLVANIA MILITARY COLLEGE STANDARD four-year courses. Business Administration, Chemistry, Civil and Industrial Engineering. All sports, including polo. Near Philadelphia. 113th year. **Frank R. Hyatt, LL.D., President, Chester, Pa.**

Boys' Schools

AUGUSTA MILITARY ACADEMY COLLEGE preparatory. Modern gym and pool. All sports, including riding. 400 acres. Graduates in 42 colleges. 80th year. Reasonable rates. For catalog address **Box 2-4, Col. T. J. Reller or Maj. C. S. Reller, Jr., Fort Belvoir, Va.**

CRANBROOK SCHOOL Distinguished endowed boys' school, grades 7-12. Graduates in 25 colleges. Unusual opportunities in arts, sciences, athletics, hobbies. Creative talent cultivated. For catalog write **Registrar, 2340 Lone Pine Road, Bloomfield Hills, Mich.**

CULVER EDUCATES the whole boy. Studies him understandingly. Discovers interests and aptitudes. Develops initiative and power. 68 graduates in 115 colleges. Moderate cost. Catalog: **Culver Military Academy on Lake Maxinkuckee, 911 Pershing Road, Culver, Indiana.**

FORK UNION HERBYA school. Small classes. Accredited. ROTC. Supervised study. Prepares for college or business. Junior school small boys. Boardmaster, Athletics, Swimming. Catalog: **Dr. J. J. Wickler, Fork Union Military Academy, Box 101, Fork Union, Va.**

FRESNAL RANCH SCHOOL COLLEGE preparation for 30 boys 11-15. Staff of experienced teachers. On 15,000-acre cattle ranch in a sheltered canyon in the Baboquiviri Mountains. All the interests of Western life. A horse for every boy. **Bryan F. Peters, Headmaster, Tucson, Arizona.**

HAVERFORD SCHOOL A COLLEGE preparatory school of proved worth and reputation. Nine miles west of Philadelphia in the beautiful Main Line District. Complete and modern equipment. Illustrated catalogue on application. **Haverford, Pennsylvania.**

IRVING SCHOOL FOR BOYS 25 miles from N. Y. Preparation for College Boards. Certificate privileges. Accredited N. Y. State Regents. Experienced faculty. Sports. Junior school. 50th year. Limited to 125. Catalog: **C. Walter Olson, Box 917, Tarrytown-on-Hudson, N. Y.**

MILFORD SCHOOL NATIONALLY recognized preparatory school. Individual needs analyzed and met. Emphasis on character-building. Companionship with stimulating instructors. All sports. Write for catalog: **L. W. Gregory, Headmaster, Milford, Conn.**

NEW YORK MILITARY ACADEMY A School of Distinction. College Preparatory and Junior schools. High scholastic standing, excellent discipline, supervised athletics, commercial courses. Catalog: **Brig. Gen. Milton F. Davis, D.S.M., Supt., Cornwall-on-Hudson, N. Y.**

OHIO MILITARY INSTITUTE 108th year. Certificate admit to College. Lower School for younger boys. High, beautiful location. Catalog: **Col. A. M. Henshaw, Box N, College Hill, Cincinnati, O.**

Boys' Schools

ROXBURY A COLLEGE Preparatory School for boys, grounded in tradition, progressive in outlook. Every student an individual, thoughtfully studied. Flexible Curriculum. Large Campus. Junior Department. **A. U. Sheriff, Headmaster, Cheshire, Conn.**

ST. JOHN'S MILITARY ACADEMY EXECUTIVE preparation for college. Faculty of "big specialists." Thorough scholastic and military training. 16 buildings on 150 acres. Gym. All sports, swimming, skating, riding, golf, rowing. Star room. Catalog: **1395 DeKoven Hall, Delafield, Wis.**

TILTON IDEAL location in foothills of White Mt. Excellent college preparatory course. Up-to-date buildings and equipment. 25-acre athletic field. All sports supervised. Endowed. Moderate cost. Junior School in separate cottage. Homeowner. Catalogue: **John F. Thompson, Dir. of Admissions, 43 School St., Tilton, N. H.**

WASSOOKEAG SCHOOL ACCREDITED preparatory school employing tutorial method. One teacher for every three boys. Flexible program adjusted to the interests and aims of the individual every time and cost of college preparation. **Lloyd Harvey Hatch, Headmaster, Dexter, Mich.**

Coeeducational

HALCYON FARMS SCHOOL CHILDREN 4-15. Progressive methods. Distinguished staff. Margaret Murrie Movement. Music, Art, Dramatics. High scholastic standards. 4 and 7 day boarding plan. 80-acre farm. 1 1/2 hrs. from N. Y. **Mr. and Mrs. Edw. N. Clark, Dirs., Genoa, N. Y.**

OAKWOOD CO-EDUCATIONAL, Friends' school. College preparatory and general academic courses. Teachers of Christian character and culture. 7 1/2 miles from New York. 10th year. Reasonable rates. Catalog: **Wm. J. Reagan, A.M., Principal, Box 103, Poughkeepsie, N. Y.**

OUT-OF-DOOR SCHOOL IN FLORIDA. Progressive resident and day school for boys and girls 7-15. Special attention to health. Swimming in Gulf. Full term in North Carolina mountains; riding. **Fannal N. Harrison, Dir. N. Y. Address: 32 W. 58th St., Wickersham 2-0288.**

New terms will open shortly in the institutions listed on these two pages. Inquiries directed to them will bring prompt, thorough replies and will include information to assist you in making a suitable choice.

Vocational

ALVIENE SCHOOL OF THE THEATRE GET YEAR. Graduates—Fred Astaire, Lee Tracy, Una Merkel, Peggy Hutton, Eda Jansson, etc. Stage, Screen, Radio, Stock Theatre training. Appearances, N. Y., Detroit, White Sea'y Land! For Catalog: **46 West 85th St., New York.**

AMERICAN ACADEMY OF DRAMATIC ARTS FOUNDED 1884 by Franklin H. Sargent. The foremost institution for Dramatic Training. FALL TERM OPENS OCTOBER 20th. Catalog from **Secretary, Room 271-1, Carnegie Hall, N. Y.**

Miss CONKLIN'S SECRETARIAL SCHOOL FOUNDED 1898. Secretarial and Executive training. Students from leading Colleges and Schools. Midtown Location. Enrollment for September 11th and October 1st. Request Booklet: **105 West 40th St., New York City**

KATHARINE GIBBS SCHOOL SECRETARIAL, Executive, Academic. One and Two year courses for Preparatory and High School graduates. Special course for college women. Catalog: **See'l Dean, 230 Park Ave., New York; 50 Marlboro St., Boston; 155 Angell St., Providence.**

GRAND CENTRAL SCHOOL OF ART Individual talent developed by successful modern artists. Drawing, Painting, Sculpture, Illustration, Advertising, Applied Arts, and Interior Decoration. Catalog: **7010 Grand Central Terminal, New York City.**

LEWIS HOTEL TRAINING SCHOOLS Close to Wash. well-paid hotel position. Placement Service free of extra charge. New day classes start Sept., Oct., Jan. Catalog Free. **Lewis Hotel Training Schools, Div. HLP-1138, Wash'n, D. C.**

NATIONAL SCHOOL OF FINE AND APPLIED ART Cotone, Commercial Art, Costumes, Interior Decoration, Dynamic Symmetry, Life. Professional and cultural training. **Felix Mahony, Dept. N, Conn. Ave. and M, Washington, D. C.**

NEW YORK SCHOOL OF INTERIOR DECORATION Practical training courses. Full term commences Oct. 2. Send for Catalog 17A. Home Study Course, Catalog 17C. **578 Madison Ave., New York.**

PACKARD SCHOOL 108th year. Registered by Regents. Complete Secretarial: General Business; Accounting; and Special Courses. Co-educational for high school graduates and college students. Placement service rendered. For catalog write **Assistant Principal, 253 Lexington Ave., New York City**

SARGENT COLLEGE OF PHYSICAL EDUCATION Of Boston University. 4-year degree course. Physical Therapy a major subject. High school required. 10th year. Catalog: **Ernst Hermann, Dean, 50 Everett St., Cambridge, Mass.**

UNIVERSAL PHOTOGRAPHERS LEARN Journalism Photography. Magazines, Newspapers, Advertisers are BUYING thousands of photos every week! Make good money—part-time, full-time—taking human interest pictures that sell. Learn while you learn how to take salable pictures! We teach you how by mail. Fascinating, easy! Our unexcelled Marketing Service helps you cash in quickly. Write now, no obligation, for FREE BOOK, "How to Make Money With Your Camera." **UNIVERSAL PHOTOGRAPHERS, Dept. 529, 10 W. 32nd Street, New York, N. Y.**



EAST OF SUEZ

is the realm of

P & O

Cunard White Star, largest fleet on the Atlantic, now becomes your gateway not only to Europe, but to all the East . . . through its connection with the famous P & O Lines. Cross to England, then sail on the new s.s. Strathnaver, s.s. Strathaird or other great P & O liner . . . to Egypt, Sudan, the Persian Gulf, India, Burma, Ceylon, Straits Settlements, China, Japan, Australia, New Zealand, East and South Africa, Mauritius. Thus you use throughout the Lines traditionally supreme since 1840!

**PENINSULAR AND ORIENTAL
AND
BRITISH INDIA
STEAM NAVIGATION COMPANIES**

ROUND THE WORLD TOURS—Eastward, westward, anytime. Tickets good 2 years. Made-to-order itineraries as low as \$874 First Class, \$551 Cabin and Tourist Classes.

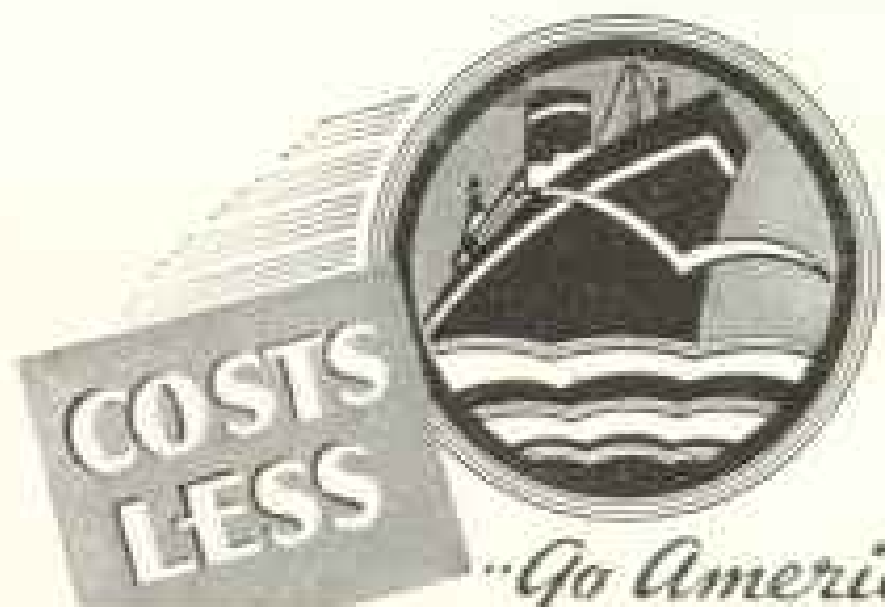
CRUISES FROM ENGLAND—varied itineraries to the Mediterranean and Northern Wonderlands in season.

Complete information from Your Local Agent or

CUNARD WHITE STAR

GENERAL AGENTS

25 Broadway New York 638 Fifth Ave.



Go American
One Class to EUROPE

The excellence of accommodations and service that the Baltimore Mail Line offers at exceedingly modest rates will astonish you. Staterooms all outside on upper decks. 60% have private baths. Spotless cleanliness. Fine food. No class restrictions—more room for rest and play. Complete ocean travel comfort costs less when you go American One Class.

Weekly Sailings to and from Europe

\$90 ONE WAY Based on low air **\$171** ROUND TRIP

Weekly to Newbury—to London or Havre alternate weeks except.
See Your travel agent, any U. S. Lines Office or write Baltimore, Md.

**BALTIMORE
MAIL LINE**



TOUR INDIA

15 STOPS - 28 DAYS

\$12 A DAY

Now you can see all of India in one month for only \$340 per person (party of three). Includes rail fares, personal servant, hotels, sightseeing, and incidentals. See Madras, Calcutta, Benares, Agra, Bombay . . . and 10 other stops of interest, including Ceylon. Information: India State Railways, 38 East 57th St., New York . . . or the better travel agents.



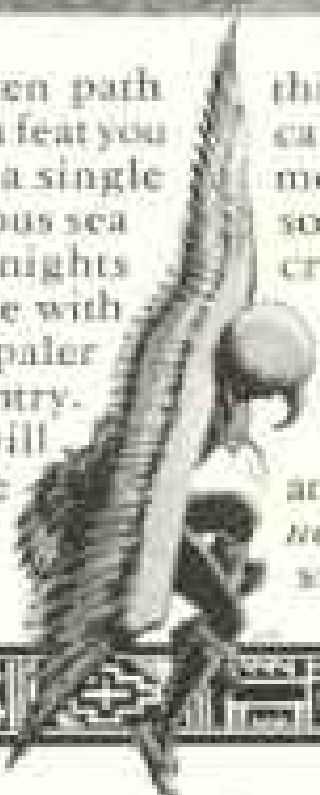
EVEN
travelers
who have
SEEN
everything
thrill anew
in NEW MEXICO



THIS Land of Enchantment has charm and attraction for the world traveler and the casual tourist alike. Broad highways sweep across magnificent distances, thread passes in great mountain ranges, climb to points ten thousand feet and more above the sea, and once off the beaten path you will find quaint villages which seem transported from old Spain, Indian pueblos where life is like another world, historic spots where the records of America were being written nearly a century before the Mayflower landed.



Get off the beaten path New Mexico—a feat you out sacrificing a single turn is a glorious sea with sunshine, nights landscape ablaze with woods and the paler in the high country. guest ranches will West welcome tion you will free booklet—



this year and explore can accomplish with-modern comfort. Au-son, long days brilliant crisply cool, and the the gold of cotton-metal of the aspens Modern hotels and give you a real Old and you'll have a vaca-nerer forget. Send for start planning now.

New Mexico State Tourist Bureau
 State Capitol, Santa Fe, New Mexico

Please send me your free booklet, "Two Weeks in New Mexico," and your new 1935 Official Road Map.

Name.....

Address.....

G-2

Get fireproof
wood paneling beauty
at wallboard prices



WOOD GRAINED
Sheetrock
THE FIREPROOF WALLBOARD

Now, the beauty of wood and the fireproofness of gypsum have been combined in a practical interior finish for walls and ceilings. Nailed in place by the carpenter.

Wood Grained Sheetrock is Sheetrock, the Fireproof Wallboard, with an accurate reproduction of wood paneling on one face. Full thickness. Does not warp or buckle. Yet costs little more than ordinary wallboard.

Made in Walnut and Knotty Pine finishes. Actual reproductions. Comes in wallboard sizes. Can be shellacked, then waxed or varnished if desired. Or may be left in the factory finish. Send today for free sample. But remember, *only* Wood Grained Sheetrock gives Wood Grained Sheetrock results. Made by United States Gypsum Company.



SEND COUPON
FOR FREE SAMPLE



UNITED STATES
GYPSUM COMPANY

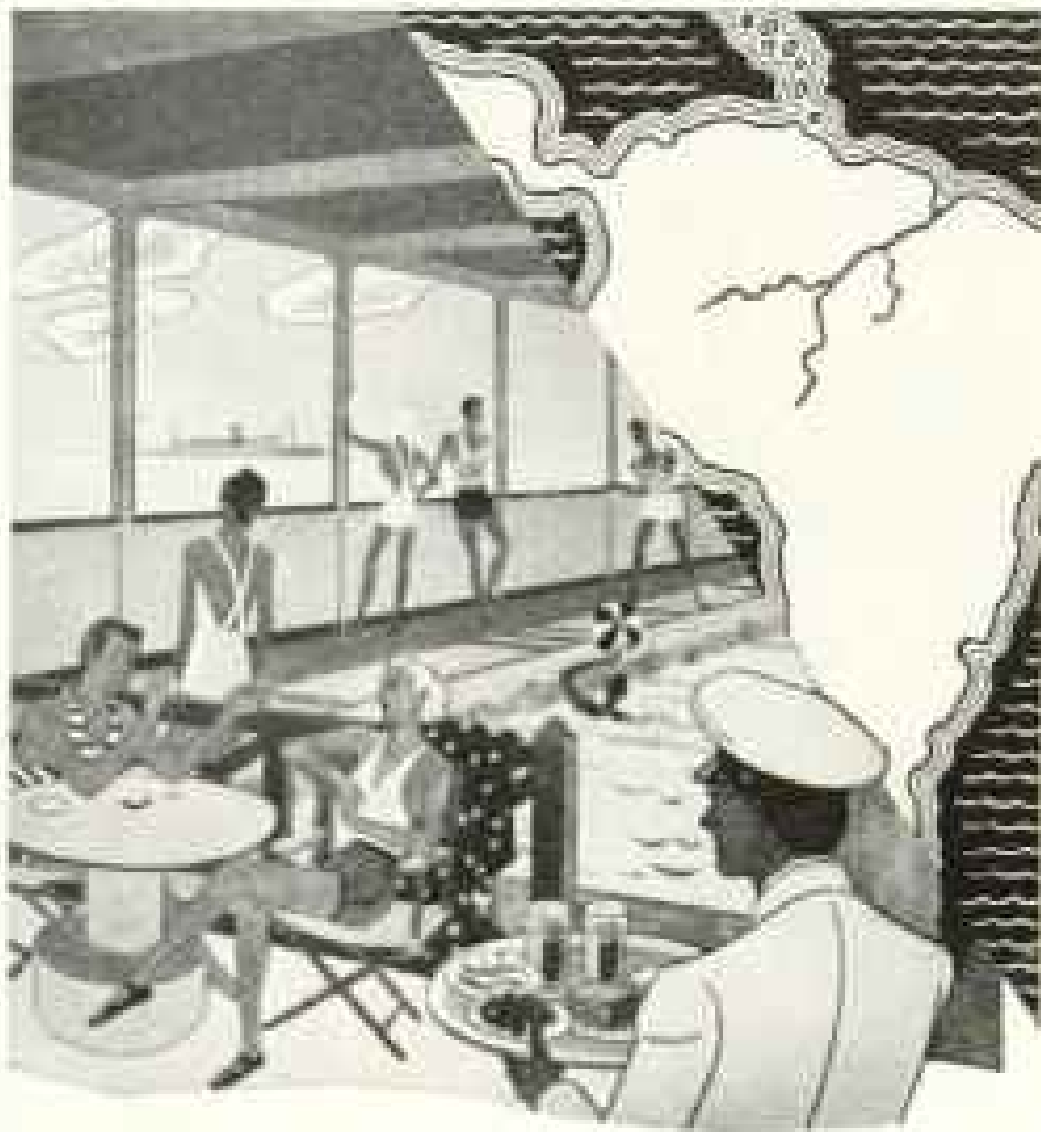
Dept. J—306 West Adams St., Chicago

Please send me a free sample of Wood Grained Sheetrock showing color and graining of wood.

Walnut..... Knotty Pine.....

Name.....

Address.....



When you'll really appreciate
FURNESS

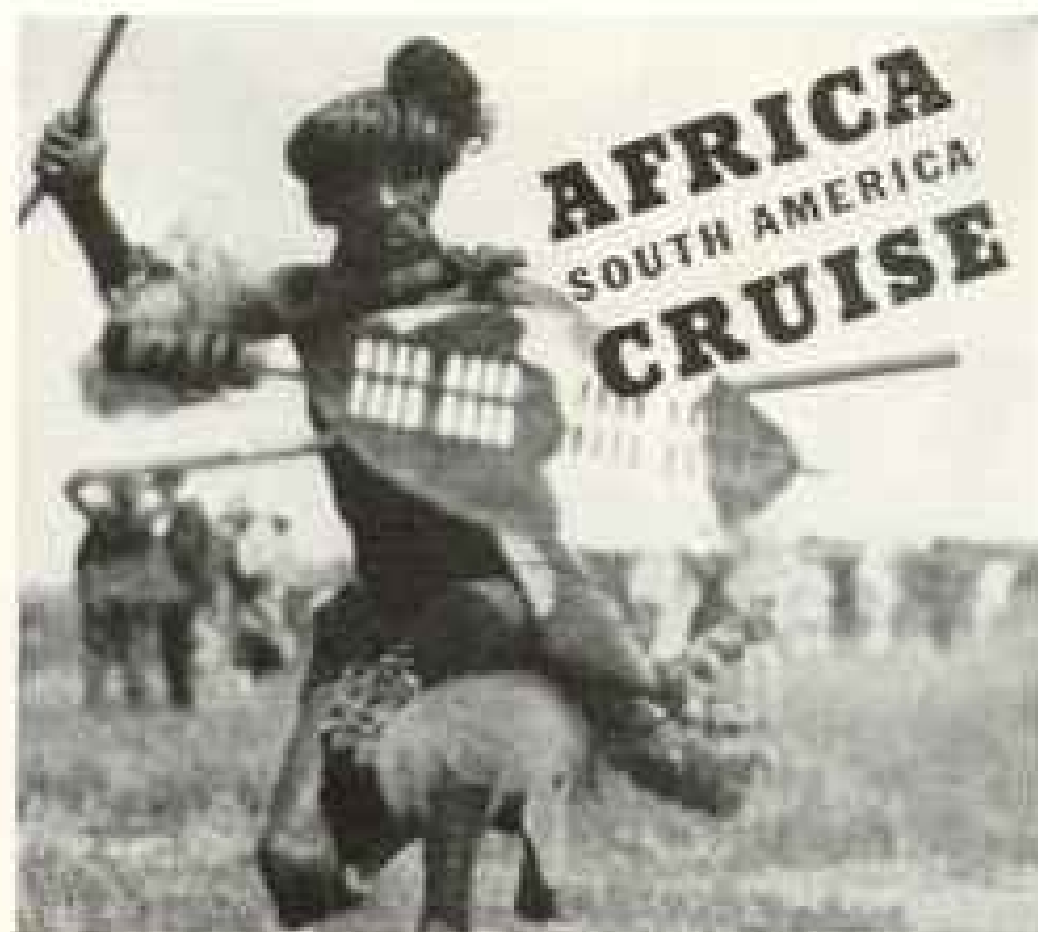
WHEN you're aboard a ship two weeks or more—then you really appreciate service, food, atmosphere! That's why on a long voyage you'll be glad you're traveling Furness. Every day you'll be glad to go down to meals, glad of the British way of running a ship, particularly glad that your cabin steward has had long English training.

to **SOUTH AMERICA**, via Furness Prince Line. 13 days to Rio! The four "Princes," brilliant motorships built recently, offer the fastest time by sea to Rio de Janeiro, Santos, Montevideo, and Buenos Aires. Nothing but first-class accommodations, with Furness traditions of service and seamanship. Sailings every fortnight from New York with call at Trinidad on return voyage. "Northern Prince," "Southern Prince," "Eastern Prince," "Western Prince."

to the **WEST INDIES**, via West Indies Line. Cruises of 22-25 days to 14 glamorous islands of the "Little West Indies" and Demerara, S. A. Real Furness luxury on famous cruise ships. Sailings fortnightly from New York. \$150.00 up.

Apply to your local TRAVEL AGENT

or nearest FURNESS office. New York, 41 Whitehall St. or 225 Fifth Ave. Also Boston, Chicago, Philadelphia, Detroit, Baltimore, Norfolk.



War Dance in Zululand

Just one of a thousand thrilling sights you'll see on this 95-day cruise to 23 ports of the Mediterranean, East and South Africa, South America, and the West Indies. From New York Jan. 25 on the *Empress of Australia*. \$1350 up (rooms with bath \$2350 up), including standard shore programme. See YOUR OWN TRAVEL AGENT OF

Canadian Pacific



TOP-SIZE TULIP BULBS
 DIRECT FROM GROWER



Grow **TULIPS** of
 SURPASSING BEAUTY

Plant Nelis Bulbs and your Tulips will be prize-winning beauties. That's because Nelis Bulbs are of top-size and exceptional virility. Domestically grown on our own farm they are perfectly adapted to American conditions. They need not be pampered—almost any soil will do. They will bloom earlier and stay in flower longer. This fall is the time to do your planting—and NOW is the time to order.

WRITE FOR FREE CATALOG
 OF OVER 300 VARIETIES
NELIS NURSERIES
 Box 941 - HOLLAND, MICH.
 TULIP HEADQUARTERS FOR THE NATION

LET ME SEND MY PERSONAL COLLECTION

From a field of the 200 best varieties I have selected the five outstanding show tulips that will carry off the honors in your garden next Spring. Cultivated to top-size under special care, they are the finest bulbs to be had—a selection of extraordinary beauty. Each bulb personally selected, carefully wrapped and labeled. Send \$2.50 for my Personal Collection (50 bulbs—10 each of 5 varieties), or \$1.00 for 20 bulbs (10 each of 2 types.) Supply is limited so please be prompt.

HARRY NELIS



Sniffles!



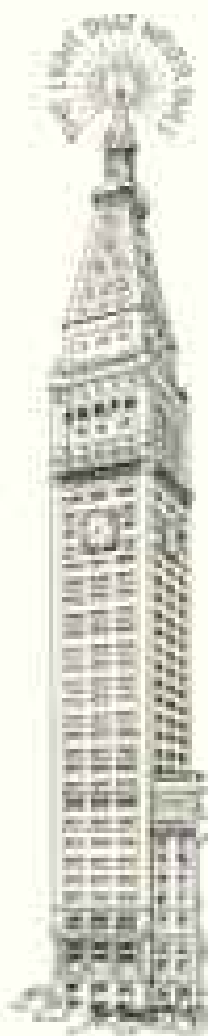
"I'm sorry, but Anne is in bed. She has the sniffles and I can't let her go to school or play with anybody until she is well again."

WISE mother. She knows that sniffles may be the forerunner of any one of several infectious diseases and she helps to protect other people's children while she protects her own.

A mild case of sniffles may seem so unimportant at first that little or no attention is paid to it, but it may be the warning symptom of a threatened attack of measles, whooping cough, scarlet fever, diphtheria or influenza. These diseases, combined, cause about one in every five deaths of children between the ages of one and nine.

The child who is "coming down" with one of these diseases is likely to spread the germs in class at school or to give them to other children at play.

An attack of measles may be a simple affair, soon over; but sometimes it causes serious complications—injured eyesight, deafness.



Whooping cough may so reduce resistance that the child is more susceptible to pneumonia or tuberculosis. Scarlet fever frequently affects the kidneys and ears. All of these diseases—including diphtheria—may affect the heart and leave it permanently weakened.

If your boy or girl seems well one day and develops a case of sniffles the next, the child should be kept at home under close observation and should not be permitted to play out-of-doors or with other children. If there is no improvement within twenty-four hours and the child is feverish, send for the doctor.

Any or all of the following booklets will be mailed free on request: "Measles," "Whooping Cough," "Scarlet Fever," "Diphtheria," "Colds, Influenza, Pneumonia." Address Booklet Department 935-N.

METROPOLITAN LIFE INSURANCE COMPANY
FREDERICK H. ECKER, PRESIDENT ONE MADISON AVE., NEW YORK, N. Y.

© 1928 M. L. I. CO.

"Mention the Geographic—It identifies you."



Travelers' Palm (Ravenea Madagascariensis)

THE TRAVELERS' TREE

IN MADAGASCAR there grows a native palm that has been a life-saver to many a stricken traveler.

The sheaths of its leaf-stalks catch the rain, and store up pure drinking water. Its seeds are edible. Its leaves may be used to thatch a hut. The Travelers' Tree is food, drink, shelter, all in one, to the wanderer in the wilderness.

Here in America we have a species of "Travelers' Tree," so to speak, which has served many a stricken traveler. It is the many-branched "tree" of The Travelers Insurance Companies . . . from which sustenance may be drawn in time of trouble.

If the traveler meets with an injury far from home and friends, he gets in touch with a nearby Travelers branch. And his accident insurance pays all hospital and doctor bills,

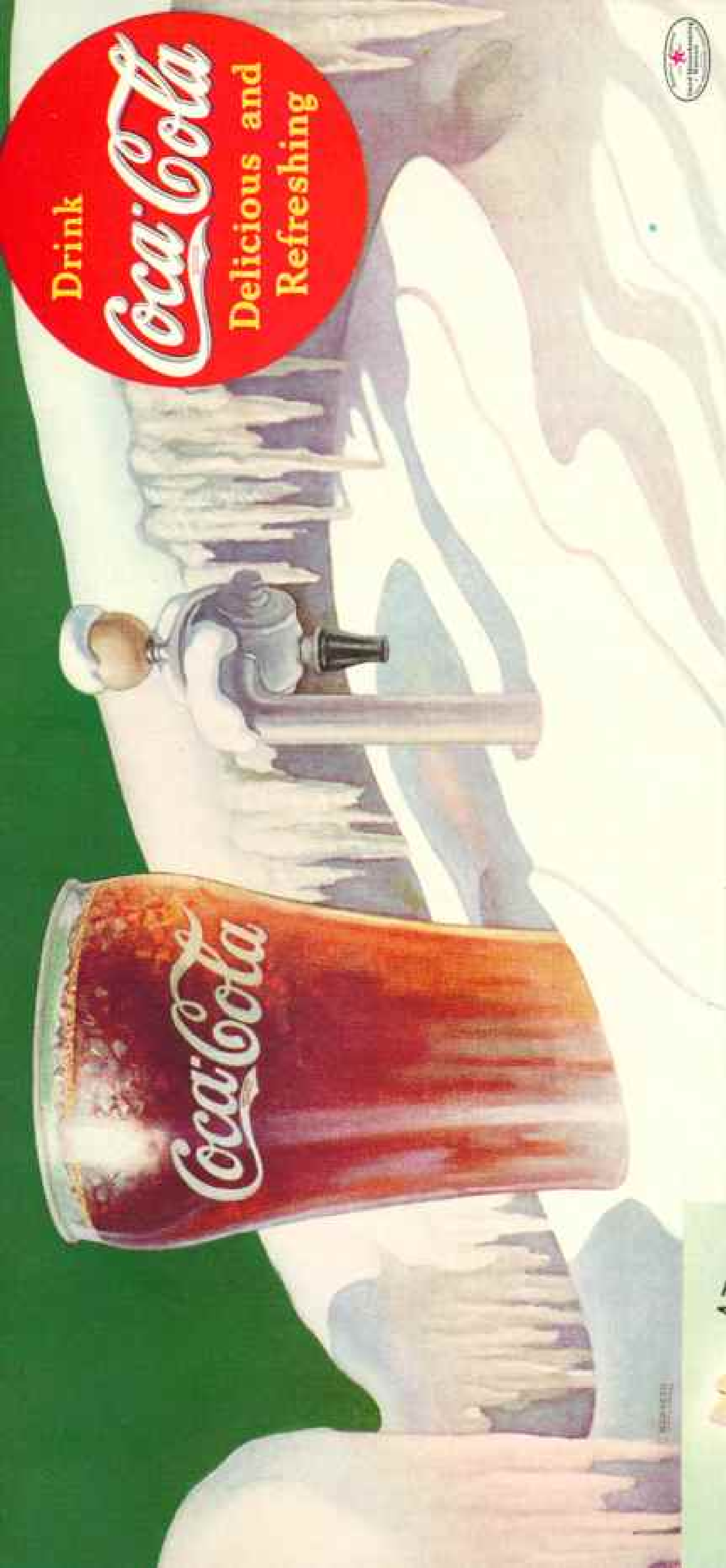
plus an income until he is up and around again.

If he travels by motor and becomes involved in an accident, all he need do is turn to The Travelers. His automobile insurance takes care of claims for which he is liable . . . saving him from annoying delays and disastrous financial burdens.

And no matter where a traveler may range in the United States or Canada, he is never out of reach of the "Travelers' Tree." For The Travelers Insurance Companies have claim service stations located throughout the land . . . ready to serve policyholders promptly whenever and wherever they need help.

Moral: Insure in The Travelers.

The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, Hartford, Connecticut.



Drink

Coca-Cola

Delicious and
Refreshing



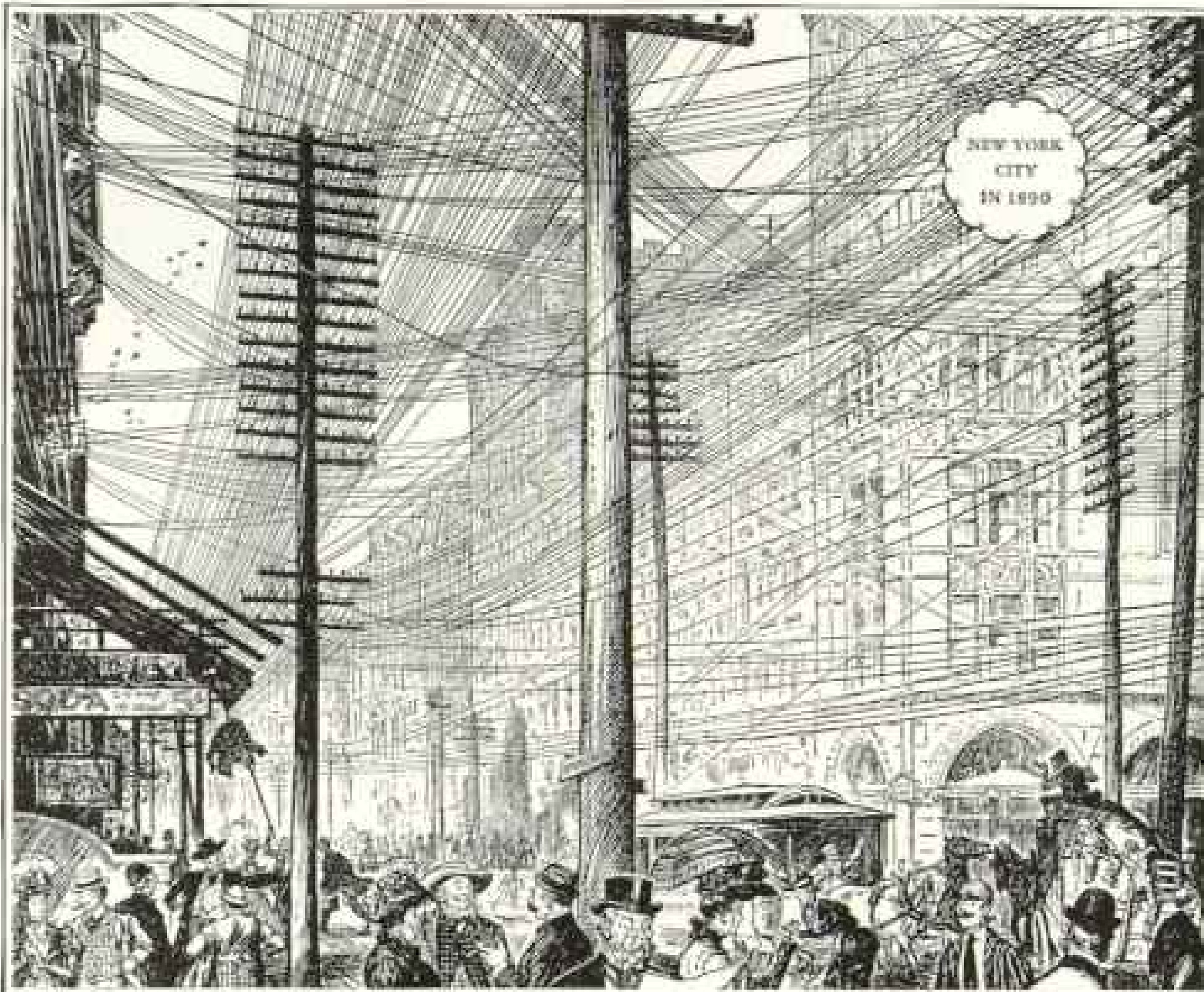
AT THE SODA FOUNTAIN



Ice-cold every day in the year

Here's the answer to Mark Twain's protest that nobody ever does anything about the weather. Right now...somebody, somewhere is pausing for a refreshing ice-cold Coca-Cola, and forgetting the heat. This happens to millions everywhere, every day. What it does for others, it will do for you.

Coca-Cola is a pure drink of wholesome, natural products, with no artificial flavor or coloring . . . complying with pure food laws all over the world.



Years of Progress

HAVE BROUGHT MANY IMPROVEMENTS IN TELEPHONE SERVICE

BACK in the early days of the telephone, practically all wires were carried overhead on poles or on house-tops. Some of the tallest poles carried as many as thirty cross-arms and three hundred wires.

If the old system were in use today the streets of our larger cities would scarcely have room enough for their canopy of wires. Traffic would be impeded, telephone service subjected to the whims of nature.

Better ways had to be found and the Bell System

found those ways. As many as 1800 pairs of wires are now carried in a cable no larger than a baseball bat. Ninety-four per cent of the Bell System's 80,000,000 miles of wire is in cable; sixty-five per cent of it is beneath the ground.

This has meant a series of conquests of space, and insured greater clarity and dependability for every telephone user. But it is only one of many kinds of im-

provements that have been made.

The present generation does not remember the old days of the telephone.

Service is now so efficient that you accept it as a matter of course. It seems as if it must always have been so. Yet it would be far different today if it were not for the Bell System plan of centralized research, manufacture and administration—with localized operation.



BELL TELEPHONE SYSTEM

Dad put me
on the
Honor Roll



with a
*Remington
Typewriter*

IT looked as though Ted might be a slow student. Home lessons kept him up late. Compositions were long, laborious tasks. School work seemed deadly dull. Then Ted's teacher suggested a Remington Portable.

Today Ted has a new idea about school. Themes are fun to write with your own typewriter. Typing does homework so fast you have lots more time to play. Grades begin to take care of themselves.

No miracle really. Scientific tests by leading educators show that the use of a typewriter *does* improve school marks as much as 14%! Gives children new interest and enthusiasm.

**ONLY \$4 DOWN BUYS A NEW
REMINGTON**

Greatest portable typewriter bargain ever offered—only \$4 down buys a brand new, latest model action-control Remington. Every essential feature of big machines—standard four-row keyboard, standard width carriage, margin release, back spacer, etc. Warning! Act now while this low price and special purchase plan hold good. If your dealer cannot supply you, mail coupon.



10 Day
Free
Trial
Offer

MAIL COUPON TODAY

Remington Rand Inc.,
Dept. 285-L, 205 E. 42d St., New York City.
Please tell me how I can buy a new Remington Portable for only \$4 down. Also enclose catalog.

Name _____

Address _____

City _____ State _____

Strengthen
your
understanding
of important
world events
with *The Society's* new, large,
accurate wall map of



AFRICA

FOCAL point of world interest through recent months, northeastern Africa is featured in text and picture in two articles in this issue of *The GEOGRAPHIC*.

You and your friends who keep abreast of events can best visualize and understand what's in the news by knowing the comparative geography of Italy, Ethiopia, Eritrea, and French, British, and Italian Somaliland. You can get this knowledge quickly and easily from *The Society's* new wall map of Africa, published in June.

Measuring 29" x 31 1/2", printed in ten colors, the map shows new political boundaries, railway and airplane routes, highways, and up-to-date physical data.

Paper, 90 cents; Linen, 75 cents
Index, 25 cents additional

Prices include postage in the United States and Possessions. Add 25 cents per item for mailing to other countries.

Department X

NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

THIS MAGAZINE IS FROM OUR PRESSES

JUDD & DETWEILER, INC.
Master Printers

ECRINGTON PLACE AND FLORIDA AVENUE
WASHINGTON, D. C.

Movies "worth a million" for less than a dime



● Where there's life there's action . . . the gay high spots . . . big events—that you don't want to forget. But don't trust to memory alone—the sure way to remember is with movies. And now it's so inexpensive to make your own priceless movie record. For Ciné-Kodak Eight makes a full-length scene for less than 10¢.*



Two things make movie economy

Low-cost film—an inexpensive camera—you need them *both* for real movie economy. Ciné-Kodak Eight's price fits even the most modest budget, but, still more important, it uses an entirely new type of film which gives you *four times as many movies per foot*. A twenty-five foot roll of Ciné-Kodak Eight Film runs just as long on the screen as 100 feet of any other home movie film.

The Eight fits in your pocket—is as easy to use

as a Brownie. Beautifully made, it costs only \$34.50.

Don't miss another day of home movie thrills. Check up on the Eight today . . . see the movies it makes, at your dealer's. EastmanKodakCompany, Rochester, N. Y.

* Ciné-Kodak Eight makes 20 to 30 movie scenes—each as long as the average scene in the new rolls—on a roll of film costing \$2.25, finished, ready to show.

Ciné-Kodak EIGHT

JUST OFF THE PRESS—READY SEPTEMBER FIRST

The National Geographic Society

ANNOUNCES

A BOOK OF INSECTS



© Lee Passmore
TRAPDOOR SPIDER

“OUR INSECT FRIENDS and FOES and SPIDERS”

THIS new volume contains fascinating stories of Bee, Ant, Beetle, Bug, Fly, Butterfly, Moth, and Spider life. It is a collection of articles and color pages on insects and spiders that have appeared in THE NATIONAL GEOGRAPHIC MAGAZINE during the past decade.

Sixty-four of the 262 pages are devoted to 79 full-color illustrations showing more than 500 insects and spiders and portraying their habits. These color

pages include reproductions of paintings of insects by Hashime Murayama, National Geographic Magazine Staff Artist, executed with the painstaking detail and accuracy for which his nature paintings are world-famous. In addition, there are 161 black-and-white reproductions of photographs and drawings all contributing vividness to the authoritative and entertaining text.

The nine chapter headings and authors are:

- I. Exploring the Wonders of the Insect World—William Joseph Showalter
- II. Insect Rivals of the Rainbow—William Joseph Showalter
- III. Man's Winged Ally, the Busy Honeybee—James I. Hambleton
- IV. Stalking Ants, Savage and Civilized—W. M. Mann
- V. Living Cakes of Honey—Jennie E. Harris
- VI. Strange Habits of Familiar Moths and Butterflies—William Joseph Showalter
- VII. Where Our Moths and Butterflies Roam—William Joseph Showalter
- VIII. Afield with the Spiders—Henry E. Ewing
- IX. California Trapdoor Spider Performs Engineering Marvels—Lee Passmore

Order copies of this newest of volumes in the National Geographic nature study series today—for yourself and for your friends who observe nature. It will bring lasting pleasure through the reading months to come.

262 pages, 240 illustrations. Available in TAN binding or in MULBERRY binding to match other volumes in your set of National Geographic Society nature books.

NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

National Geographic Society,
Department X
Washington, D. C.

“Our Insect Friends and Foes and Spiders”

PRICE **\$2.50**

COMPANION VOLUME TO

| | |
|---|---------|
| Book of Birds..... | \$2.00 |
| Book of Wild Flowers..... | 3.00 |
| Book of Fishes..... | 2.00 |
| Book of Dogs..... | 1.00 |
| Horses of the World..... | 1.50 |
| Cattle of the World..... | 1.50 |
| Wild Animals of North America..... | 2.00 |
| Full Set of 8 Books in MULBERRY Bindings..... | \$15.50 |

Enclosed find \$..... for

..... copies of “OUR INSECT FRIENDS and FOES and SPIDERS” in { tan / mulberry } binding @ \$2.50 each.

..... copies of.....
Books sent prepaid in United States and Possessions; elsewhere 25 cents extra per item.

NAME.....

ADDRESS.....

PRAYING MANTIS



TAR WON'T FLOW THROUGH A *Pinhole!*



SURE YOU NEED A TARFREE OIL . . . LOOK HERE!"

A crankcase full of oil—but a burnt-out bearing! Can that happen? Easily, if there's tar in the oil. Tar won't flow through a pinhole—and some of those oil ducts that feed your motor aren't a bit wider than that. If one gets clogged, look out!

Stay on the safe side with the oil that's Tarfree—the New Havoline. It's refined by the Furfural Solvent Process, which flushes out every trace of tarry, sludge-forming impurity. It's Waxfree too. A 100% paraffin-base oil that makes your car start quicker, run smoother, and last longer.

Pay a few cents more a quart for this great oil—and you'll be economizing! Ask for it at any Texaco Station, or of any good dealer or garage man. It's sold only in refinery-sealed cans.

INDIAN REFINING CO., INDIANAPOLIS
Affiliated with The Texas Company



YES, LOOK HERE! Through this tiny pinhole opening must flow oil that lubricates the cylinder walls. Don't forget—tar won't flow through a pinhole. Use only a Tarfree oil.



AND SEE THIS. Through the crankcase, bearings, and connecting rods, oil is circulated by a maze of tiny ducts and channels, shown in the diagram. Be sure your oil is tarfree!

**HAVOLINE
IS TARFREE**

"I Want to Take a Sea Trip"

CRUISES IN AMERICAN WATERS, SEPTEMBER 11 TO OCTOBER 10

This Sailing List is published by the Advertising Department of The National Geographic Magazine as an aid to readers contemplating a sea voyage. Routes as well as sailing dates are subject to change and can not be guaranteed. Before plans are concluded a travel agent should be consulted for latest authentic information. Consult the agent also for booklets and tickets. The National Geographic can NOT supply them.

* The star denotes a steamship line whose advertising appears in this issue of THE GEOGRAPHIC. † Leaves Boston. All others leave New York.

| Leave NEW YORK | DATE | STEAMSHIP LINE | ROUTE (See list below) | STOP | Leave NEW YORK | DATE | STEAMSHIP LINE | ROUTE (See list below) | STOP |
|-------------------|-------|-----------------------|---------------------------|------------------|-------------------|-------|-----------------------|---------------------------|-------------------|
| Sept. 11 | 21 | Red "D" | 1 | Cayman | Sept. 28 | 12-19 | Columbian | 12 | Columbia |
| 11 | 24 | Southern Pacific | 2 | Haiti | 28 | 19 | Dollar | 4 | President Pierce |
| Sept. 22 | 11-19 | Columbian | 12 | Haiti | 28 | 19 | New York & Cuba Mail | 11 | Shower |
| 22 | 18 | Dollar | 4 | President Wilson | 28 | 21 | New York & Porto Rico | 12 | Cairo |
| 22 | 22 | New York & Cuba Mail | 11 | Yucatan | 28 | 17 | United Fruit | 7 | Quintana |
| 22 | 27 | New York & Porto Rico | 12 | Yucatan | Sept. 29 | 29 | *Grace | 7 | Santa Lucia |
| 22 | 17 | United Fruit | 7 | Yucatan | 28 | 17 | *Grace | 7 | Santa Lucia |
| Sept. 23 | 17-28 | Royal Netherlands | 15 | Cuba | 28 | 41 | Munson | 19 | Santa Paula |
| Sept. 24 | 29 | *Grace | 7 | Santa Marta | 28 | 7 | New York & Cuba Mail | 4 | Pan America |
| 24 | 27 | *Grace | 7 | Santa Elena | 28 | 12 | Standard Fruit | 17 | Oriente |
| 24 | 7 | Hamburg-American | 24 | Holland | 28 | 19 | United Fruit | 8 | California |
| 24 | 41 | Munson | 19 | Southern Cross | Oct. 1 | 14 | Southern Pacific | 22 | Dixie |
| 24 | 7 | New York & Cuba Mail | 11 | Oriente | Oct. 1 | 11-18 | Columbian | 12 | Haiti |
| 24 | 23 | Standard Fruit | 7 | Albatross | 1 | 17 | Dollar | 2 | President Adams |
| 24 | 18 | United Fruit | 7 | Toluca | 1 | 23 | Furness West Indies | 14 | Dominion |
| Sept. 28 | 11-18 | Columbian | 12 | Panama | 1 | 21 | New York & Porto Rico | 12 | Washington |
| 28 | 17 | Dollar | 4 | President Taft | Oct. 2 | 17 | United Fruit | 7 | Peter |
| 28 | 25 | Furness West Indies | 14 | Norissa | Oct. 4 | 19 | *Grace | 7 | Santa Inez |
| 28 | 29 | New York & Cuba Mail | 11 | Orizaba | 4 | 17-28 | Royal Netherlands | 15 | Van Buren |
| 28 | 21 | New York & Porto Rico | 12 | Burmanian | Oct. 6 | 20 | Canadian National | 24 | Lady Rodney |
| 28 | 27 | United Fruit | 7 | Veragua | 6 | 41 | *Furness Prince | 18 | Western Prince |
| Sept. 29 | 29 | Canadian National | 24 | Lady Sumner | 6 | 12 | Munson | 19 | Munson |
| 29 | 31 | *Furness Prince | 14 | Eastern Prince | 6 | 5 | Panama Pacific | 5 | California |
| 29 | 39 | *Grace | 7 | Santa Barbara | 6 | 11 | Standard Fruit | 17 | Castilla |
| 29 | 13 | Holland America | 27 | Rotterdam | 6 | 18 | United Fruit | 8 | Toluca |
| 29 | 12 | Munson | 19 | Munson | Oct. 10 | 14-23 | Canadian National | 24 | Lady Hawkins |
| 29 | 7 | New York & Cuba Mail | 11 | Oriente | Oct. 8 | 7 | Swedish American | 7 | Kingsholm |
| 29 | 8 | Panama Pacific | 5 | Pennsylvania | Oct. 10 | 11-18 | Columbian | 12 | Panama |
| 29 | 12 | Standard Fruit | 7 | Castilla | 10 | 19 | Dollar | 4 | President Lincoln |
| 29 | 18 | United Fruit | 7 | Udon | 10 | 21 | New York & Porto Rico | 12 | Cairo |
| Sept. 28 | 14-20 | Canadian National | 24 | Lady Nelson | 10 | 17 | United Fruit | 7 | Veragua |

1926 SPECIAL WORLD CRUISES

| | | | | | | | |
|---------|-----|--------------------|--------------------|---------|----|-------------------|----------------------|
| Jan. 7 | 144 | *Comard White Star | Frederica | Jan. 21 | 88 | Raymond-Whitcomb | Hella Polaris |
| Jan. 9 | 128 | *Canadian Pacific | Empress of Britain | Jan. 25 | 88 | *Canadian Pacific | Empress of Australia |
| Jan. 11 | 178 | Hamburg-American | Resolute | | | | |

ROUTES

| | | |
|---|---|---|
| 1 Bermuda. | 11 St. Thomas, St. Cruz, St. Martin, St. Kitts, Antigua, Montserrat, Guadeloupe, Dominica, Martinique, St. Lucia, Barbados, Trinidad, Demerara. | 19 Kingston, Panama Canal, Buenaventura, Guayaquil, Salaverry, Callao, Valparaiso, Havana. |
| 2 Havana, Panama. | 12 Port au Prince, Curacao, Puerto Cabello, La Guaira, Guanta, Puerto Sucre, Pamputar, Carapana, Trinidad, Demerara, Paramaribo. | 20 Bermuda, Rio de Janeiro, Santos, Montevideo, Buenos Aires, Trinidad. |
| 3 Panama, Guayaquil, Callao, Valparaiso. | 13 Rio de Janeiro, Santos, Montevideo, Buenos Aires, Trinidad. | 21 Bermuda, St. Kitts, Nevis, Antigua, Montserrat, Dominica, St. Lucia, Barbados, St. Vincent, Grenada, Trinidad, Demerara. |
| 4 Havana. | 14 Santiago, Kingston, La Ceiba. | 22 New Orleans. |
| 5 Nassau, Miami, Havana. | 15 Cartagena, Puerto Colombia, Panama Canal, La Libertad, San Jose, Matanzas, Los Angeles, San Francisco. | 23 Port au Prince, Puerto Colombia, Panama, Kingston. |
| 6 San Juan, La Guaira, Puerto Cabello, Caracas. | | 24 Bermuda, Nassau, Kingston. |
| 7 Havana, Kingston, Cristobal, Port Limon. | | 25 St. Thomas, Curacao, La Guaira, Kingston. |
| 8 Kingston, Cristobal, Cartagena, Puerto Colombia, Santa Marta. | | |
| 9 Curacao, La Guaira, Panama, Nassau. | | |
| 10 Havana, Progreso, Vera Cruz, (Mexico City). | | |
| 11 San Juan and Santa Domingo. | | |
| 12 Haiti, Jamaica, Colombia, Panama. | | |

REGULAR SAILINGS FROM AMERICAN PORTS

(From New York unless otherwise indicated)

| | |
|------------------------------------|---|
| American Export Line | 12- to 15-day cruises to Mediterranean ports. |
| *American Mail Line | 45- and 60-day cruises from Seattle to Japan, China and the Philippines. |
| American Scenic Line | Weekly to Sweden, Poland, Russia, Denmark, Finland. |
| American South African Anchor Line | Monthly sailings to South Africa. |
| *Baltimore Mail Line | To Ireland and Scotland. |
| Arnold Bernstein Line | From Baltimore and Norfolk to England, France and Germany. |
| *Canadian Pacific | To England, France and Belgium. |
| | Round-the-world sailings. . . . From Montreal to England, Scotland, Ireland and France. . . . From Vancouver via Hawaii to Japan, China and the Philippines. . . . From Vancouver to Alaska. . . . From Vancouver via Hawaii and Fiji Islands to New Zealand and Australia. |
| Clyde-Mallory Line | To Charleston, Jacksonville, Miami and Galveston. |
| *Comard White Star Line | To England, Ireland and France. (Also sailings from Boston and Montreal to Great Britain.) |
| Dollar Line | Around the world. Also from San Francisco via Hawaii to Japan, China and the Philippines. |
| French Line | To England and France. |
| *Furness Bermuda Line | To Bermuda. |
| *Grace Line | From New York, San Francisco and Los Angeles to ports noted in routes 3, 13, 14. |
| Hamburg-American Line | To England, Ireland and Germany. |
| North German Lloyd | To England, France and Holland. |
| Holland America Line | New York and Boston to Gibraltar, French Riviera, Naples, Genoa and Trieste. |
| Italian Line | From San Francisco and Los Angeles to Hawaii, Samoa, Fiji, New Zealand and Australia. |
| Norfolk Line | From Seattle and Vancouver to Japan and China. |
| Nippon Yusen Kaisha | From San Francisco and Los Angeles via Hawaii to Japan and China. |
| Panama Pacific Line | Via Panama to San Diego, Los Angeles and San Francisco. |
| Red Star Line | To Southampton and Antwerp. |
| States Steamship Line | From Portland, Oregon, to China and the Philippines. |
| United States Line | To England, Ireland, France, Germany. |

CONSULT A TRAVEL AGENT

Enjoy Life in a *Silver Dome*
TRAVEL-HOME



Go Places! See Things!

Take a glorious vacation trip every week-end. Plan now for your winter time. Travel to your heart's content. It costs little with a Silver Dome. Complete living, eating, and sleeping accommodations. Choice of six models, \$535 up. Also business coaches. Send 10c for 20-page illustrated catalog.

DEALERS: Write for sales plan.

Wolfe Bodies, Inc., 444 York St., Detroit, Mich.



CHAMPION-INTERNATIONAL COMPANY

MANUFACTURERS OF

National Geographic Paper

and other high-grade coated paper

LAWRENCE, MASS.

HOTEL OWNERS

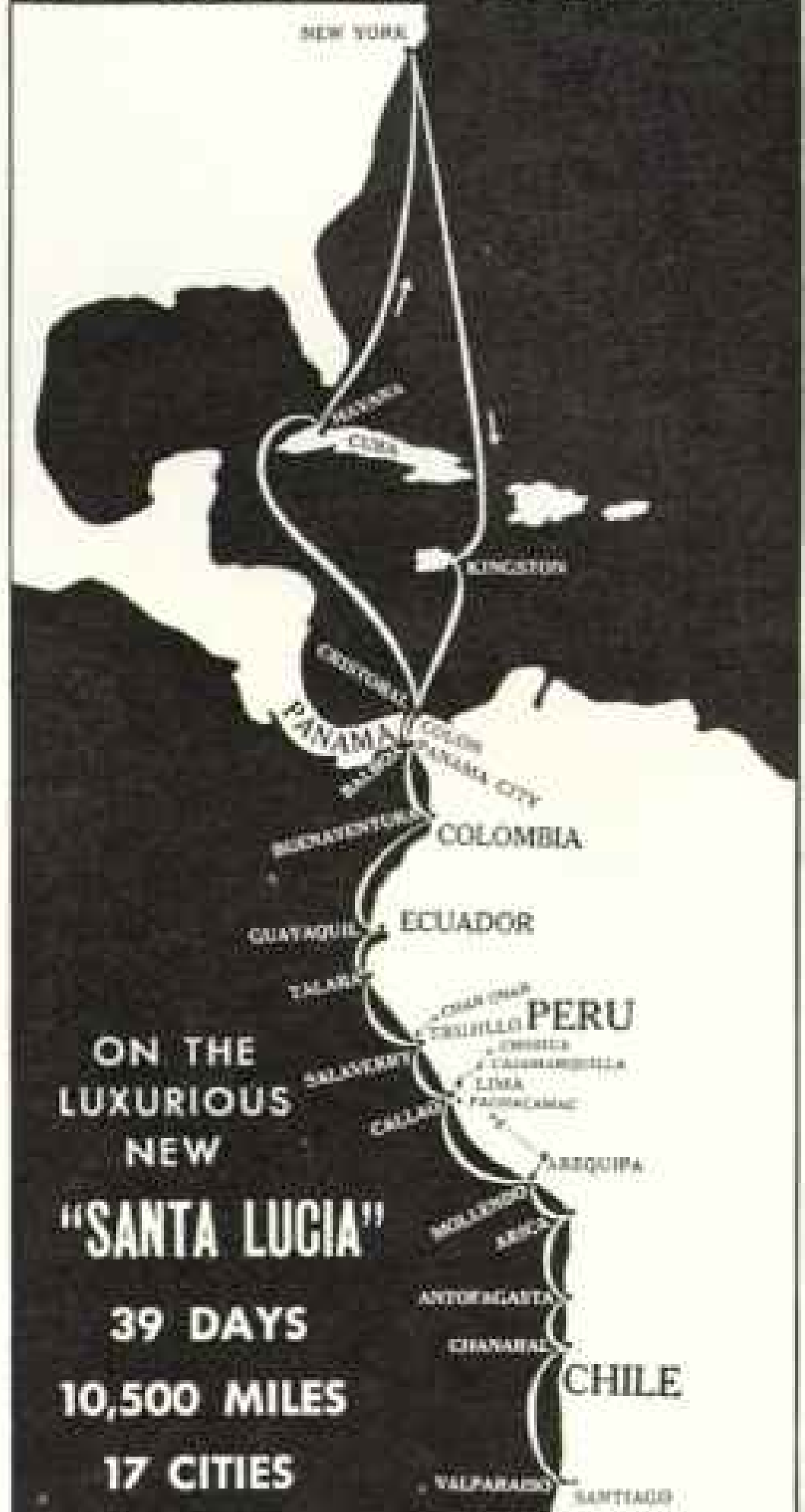
YOU can advertise to travel-minded GEOGRAPHIC families for as little as *three cents a thousand!*

The new Hotel Directory which will appear monthly in the NATIONAL GEOGRAPHIC MAGAZINE beginning with the October 1935 issue, makes this low rate possible.

Details on request to the Advertising Department

NATIONAL GEOGRAPHIC
MAGAZINE
WASHINGTON, D. C.

GRACE
ALL-EXPENSE CRUISES TO
PERU AND CHILE



ON THE
LUXURIOUS
NEW
"SANTA LUCIA"
39 DAYS
10,500 MILES
17 CITIES

Daylight thru Panama Canal; visits to the Pre-Inca ruins of Chan Chan; Lima, "City of the Kings," capital of proud Peru; Valparaiso and Santiago, Chile. From New York in the luxurious new "Santa Lucia" Sept. 28 or Nov. 9—all outside rooms with private baths; outdoor, built-in tiled swimming pool; dining room on promenade deck with roll back dome which opens to the sky; the club; Dorothy Gray Beauty Salon; Smart Shop. All-expense fares, including all necessary expenses both afloat and on shore, from **\$600***. Ask your travel agent or Grace Line, 10 Hanover Sq., New York; Boston; Washington, D. C.; Pittsburgh; Chicago; Los Angeles; San Francisco; Seattle.



★ This cruise may also be made in the "Santa Clara" sailing from New York Oct. 12 or Nov. 23. All-expense fares as low as \$525.



An Ethiopian (Abyssinian) Chieftain Turns Out With His Retinue to Salute a Visitor

AS A MEMBER of the National Geographic Society, you received The Society's important *new* map of Africa with the June issue of your NATIONAL GEOGRAPHIC MAGAZINE—which also contained authoritative articles on African countries. This number of THE GEOGRAPHIC also brings you timely, informative descriptions of Ethiopia and Italian Eritrea, which to-day are focal points of world interest.

These articles and map will be indispensable to you in understanding and following the tide of

affairs in Africa. They are notable examples of the way your Magazine portrays necessary geographic backgrounds of important world events.

Have you told your neighbors how valuable The Magazine is to you—and would be to them? Many would welcome an opportunity to become members of The Society and thus to receive THE GEOGRAPHIC'S authoritative source material. If you will nominate your friends on the form below, we shall gladly invite them to share the privileges of membership in this educational organization.

DETACH HERE—OR NOMINATE BY LETTER IF YOU PREFER NOT TO CUT YOUR MAGAZINE

NOMINATION FOR MEMBERSHIP

Secretary, National Geographic Society,
Sixteenth and M Streets N. W., Washington, D. C.

_____ 1935

I nominate for membership in the National Geographic Society:

(1) Name _____

Address _____

_____ (Occupation) _____

(2) Name _____

Address _____

_____ (Occupation) _____

(3) Name _____

Address _____

_____ (Occupation) _____

DUES
Annual membership in U. S., \$3.00; Canada, \$3.50; abroad, \$4.00; life membership, \$100. Please make remittances payable to the National Geographic Society. Please remit by check, draft, postal or express order.
The membership fee includes annual subscription to The National Geographic Magazine.

Strong as the Nation



UNITED MUTUAL
Safeguarded
LIFE INSURANCE

All invested assets in government and municipal bonds. Write for booklet "Pensions for Everyone" and financial statement based on 1935 cash values. United Mutual Life Insurance Co., Dept. 88, Indianapolis.

The New Merriam-Webster



The ONE Dictionary
NEW Enough to Meet
Present-Day Needs

Greatest of the famous Merriam-Webster series—completely revised and vastly enlarged. More than ever the Supreme Authority.

WEBSTER'S
NEW INTERNATIONAL
DICTIONARY *Second Edition*

60,000 Entries—122,000 more than any other dictionary; 12,000 terms illustrated; 2200 pages; new from cover to cover. Get The Best. At All Bookstores. Write for free information.

G. & C. MERRIAM CO.
557 Broadway Springfield, Mass.

TO ADVERTISERS

Submit copy now for Christmas gift advertising in the November and December issues of The GEOGRAPHIC. November issue closes September 10th. December issue closes October 10th. These one-inch space units reach Geographic readers at a cost of but 15 1/2 cents per thousand families. Rate card on request. The Advertising Department of The NATIONAL GEOGRAPHIC MAGAZINE, Washington, D. C.

Be Sure the Clothes You Take Away
are Marked with CASH'S NAMES

Wherever you go CASH'S WOVEN NAMES save laundry losses, positively identify you and your belongings. Easily attached with thread or Cash's NO-50 Cement. Order NOW from your dealer or us.

CASH'S 135 Chestnut St., So. Norwalk, Conn., or 6211 So. Gramercy Place, Los Angeles, Cal., or 35 Gray St., Belleville, Ont.

| | | | | | | |
|--------|-------|--------|-------|--------|--------|---------|
| CASH'S | 3 doz | \$1.50 | 6 doz | \$2.00 | NO-50 | 25¢ |
| NAMES | 9 | 2¢ | 12 | 3. | Cement | 1/2 lb. |



SOAR BEYOND THE HUMDRUM . . .

Share the thrill of far-off lands with club members all over the world. Greatest organization of its kind. Membership brings you big monthly magazine, world atlas, letters, booklets. Only \$1 a year (\$1.50 Foreign Membership, Internat'l Money Order). Send check or money order to 25 B'way, N.Y.

JOIN THE
CUNARD WHITE STAR
TRAVEL CLUB

"Us working women
demand the
Floating Shift"



Corona is the only portable
equipped with the Floating Shift

L. C. SMITH & CORONA TYPEWRITERS INC.
Desk 9, 101 Almond St., Syracuse, N. Y.
Please send free Corona booklet.

Name

Address

15 Minutes of Your Time

FIVE to send the coupon; ten to read the simple, clear, untechnical story of life insurance and what it can do for you in our booklet which answers important questions.

You'll find it well worth fifteen minutes of your time. May we send *your* copy?

John Hancock
LIFE INSURANCE COMPANY
OF BOSTON, MASSACHUSETTS

JOHN HANCOCK INQUIRY BUREAU
197 Clarendon Street, Boston, Mass.

Please send me your booklet about the many uses of life insurance.

Name

Street and No.

City

State

9-2-33

Offering a Mattress Conditioned by Air

-the
Spring-Air
Sleep-Cushion

COOL . . . for summer use,
yet warm as toast, for winter!
*The lovely Sleep-Cushion — comfort
beyond compare, Karr Construction*

AT BEST STORES, EVERYWHERE

Manufactured
under Karr License, by the Master Bedding Makers of America
Secretary's Office: Holland, Michigan — 41 factories — Coast to Coast

"If you'd Wake without a Care, do your Sleeping with Spring-Air"



Mr. and Mrs. Frank M. Dunbaugh, Jr., and their two sons, Frank Montgomery and Edwin Lane.

Residence of Frank M. Dunbaugh, Jr., Glen Cove, New York. Mr. Dunbaugh is Vice President of Woodward Publications, largest group of weekly newspapers in America.



What Iron Fireman did for Frank M. Dunbaugh, Jr.

. . . it can do for you

AN Iron Fireman automatic coal burner cut Mr. Dunbaugh's fuel bill \$93.50 a year, "but really," says Mr. Dunbaugh, "the pleasure of getting up in the mornings and eating breakfast in a nice warm dining room is worth more than the saving."

Isn't it time for you to enjoy the luxuries of self-regulating Iron Fireman automatic heating? Of all the different fuels and firing devices offered, Iron Fireman automatic coal firing excels because of its dependability, quietness, cleanliness, safety, and its amazing economy.

There is an Iron Fireman burner to fit your individual needs, including models which feed direct from the fuel bin to the heating plant. With modern financing methods, Iron Fireman's reasonable cost, and the cash fuel savings it brings, there is no need for you to go through another winter with any less desirable form of heating. For literature,

write to 3037 West 106th Street, Cleveland, Ohio. Iron Fireman Manufacturing Company, Portland, Oregon; Cleveland, Ohio; Toronto, Canada. Dealers everywhere.



IRON FIREMAN
AUTOMATIC *Self Regulating* COAL FIRING



The Rails are Singing



THE *Swan Song* OF NEEDLESS WEIGHT



F O R W A R D V I A F U N D A M E N T A L S

● It's what's missing from these beautiful new trains that is important — more so than shape, or articulation, or even motive power.

Needless weight is gone.

Alcoa Aluminum has given the railroads the natural answer to their most persistent operating problem: the twin requirement of higher speeds at lower costs per mile.

Individual preferences or needs for types of construction or motive power may vary. Much or little emphasis may be put upon streamlining. Reduction of weight is now recognized as the one essential.



Weight costs money to start moving. Weight is expensive to keep moving and to stop. Needless weight is economically absurd.

Every industry that uses or makes things that move is joining in the swan-song of needless weight. The same law of gravity that makes heavy trains uneconomic, also operates on moving bobbins and buckets and buses. Lightness in moving things is basic economy.

To acknowledge this principle is to move forward via fundamentals. Please allow us to help Alcoa Aluminum help you. ALUMINUM COMPANY OF AMERICA, 1899 Gulf Building, Pittsburgh, Pa.

ALCOA · ALUMINUM