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THE NATIONAL GEOGRAPHIC MAGAZINE



# TURBULENT SPAIN

By Ruth Q. McBride

CIVIL war in Spain signalizes again the startling changes which have swept that ancient land in recent years.

In the swift rush of daily news, more is said of military leaders and their campaigns, of statesmen and changing governments, than of the deep social and economic transformations behind the news, or the character of this land and its people.

Long before King Alfonso fled, these changes were of course under way, and because of them his monarchy failed.

Since 1922, when I first went to Spain to live, these transitions have gathered momentum, until today this once romantic land of duennas, monasteries, bullfights, and leisurely pastoral life has written a new and dramatic chapter in its long history.

Where centuries-old country lanes and mountain trails used to wind, fine new concrete roads now streak over the hills. To a large degree, men have exchanged their saddle mules for flivvers, and the high-wheeled, clumsy oxcart yields to the whizzing motor truck.

From the Bay of Biscay down to the blue Mediterranean, traditional peasant costumes are being discarded and men are dressing in plain blue overalls. Black-eyed señoritas today lay away the time-honored mantilla, get their hair bobbed, and hunt city jobs as typists, telephone girls, and shop clerks, as do their sisters in many lands.

New thinking as well as new machines change the way of Spanish life. Bullfighting still goes on, but now the intrepid toreadors belong to a labor union! You may still find guitars and fandangos, for Spaniards are ever a music-loving people, and possibly you may find here and there a lovesick couple mooning at each other through an old iron-barred window. More and more, however, the radio supersedes the guitar and the girl has come out from behind the historic grillwork and gone to the movies with her sweetheart—or to the street barricades to fight with him! (Page 413.)

One fact to grasp, in understanding the social muddle here, is that Spain is divided into 50 provinces; and not so many years ago it was commonly said that it also had 50 different national dances and costumes, together with almost as many dialects. Here is an incident full of light:

With some Catalan friends I was going through one of Barcelona's big textile mills —whose 60,000 looms turn Dixie cotton into cloth for all Spain—when some one suggested a further trip next day.

"But I can't go," said a Barcelona companion. "Tomorrow I must go abroad to Madrid!"

Such strong ties with home locality, rather than any intense national adherence, are typical of Spanish provincialism.

## MAÑANA LAND QUICKENS ITS PACE

Comparatively sudden advent of new high-speed roads, faster vehicles, speeches and news broadcast by air, and the breakdown of church influence, all combine now to dissipate this old conservative provincial spirit. Thus has Spain been turned into a milling, restless land. For the first time country and town life are freely blended, and the peasant can hear the exciting talk

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WHITEWASHERS PAUSE TO CHAT ON A BARCELONA STREET

Even during a lunch-hour stroll, they carry the long brushes which enable them to whitewash a one-story house without using a ladder.

of city radicals and revolutionaries that yesteryear came only as a remote murmur.

Spain is now becoming so modernized that busses of every kind and color race along from village to village, from town to city. Till a few years ago, many country people never journeyed more than 20 miles from home in their lives. Now by cheap, or even free, rides in war times, they travel all over the country!

With the rise of the Republic came, of course, more liberty of speech and action; but, born of the 50 provinces and their 50 different ways of thinking, came also wide division of opinion and action.

Political parties of all shades sprang up in great variety and number. Certain factions held that progress should be attained gradually through education of the masses — masses as yet untrained in the art of government. This is obviously a slow process and one would suppose that in a romantic "land of mañana" a slow process would be acceptable.

But the mañana idea is another of those old Spanish customs so rapidly disappearing; many now demand a quicker approach, a faster progress.

## CHANGES MOST APPARENT IN THE CITIES

Thus a peek at Spain of today reveals a startling modernity of thought, civilization, and up-to-the-minute comforts and contrivances, superimposed upon the stubborn survival of many local ways and prejudices that bend or break but slowly.

Irresistibly, however, the cities put on a more modern dress and quicken their pace. Consider, hastily, some of the cities and towns figuring so lately in the news.

Take a look at Barcelona, the New York of Spain. It is the largest city in the country, the most important financial and industrial center, and by far the busiest seaport (map, pages 402-3).*

* See "Barcelona, Pride of the Catalans," by Harriet Chalmers Adams, in the NATIONAL GEOGRAPHIC MAGAZINE for March, 1929.

The sun shone in air crisp and exhilarating as we strolled down the Paseo de Gracia, Barcelona's most important thoroughfare and indeed one of the most interesting and modernistic streets in the world. Fine motorcars (no trucks allowed on this wide avenue) stop and go at modern American traffic signals.

At the foot of the Paseo is the very heart of Barcelona — the Plaza de Cataluña—a large open space filled with statues, fountains, flower beds, paved paths, and benches.

Always animated, human streams flow in and out of its subway entrances. The Plaza, too, is the center of fierce turmoil in every political upheaval. It is surrounded by large, ornate structures—banks, hotels, and a new telephone office building with copper-green tower, a Yankee skyscraper indeed in a Spanish metropolis!


Photograph by Talbot M. Brewer

FAMILIAR NAMES FLASH FROM A SPANISH NEWSSTAND

Blood-curdling covers advertise translations of American dime novels, which, like Hollywood's motion pictures, enjoy wide popularity in the land of Cervantes and Lope de Vega (page 405).

Flying at another corner is a welcome sight for American eyes—the Stars and Stripes—indicating the splendid offices of the United States Consulate General.

Big signs advertise American automobiles. Indeed, three-fourths of all cars in the Plaza are of familiar make. There is a large American bank a few doors up the street; in bookstores are displays of American fountain pens, and in the tobacco shops even chewing gum!

All these business houses use American adding machines and cash registers, and the offices hum with American typewriters. Many of the fine new apartment buildings are equipped with American doors and electric refrigerators. Here "foreign trade" is a pulsing thing far removed from the dry statistics of our commerce.

### A RAMBLE ON THE RAMBLA

"Rambla" really means a dry ravine, but in Barcelona the word is used to designate a wider street or boulevard. The original fascinating Rambla of Barcelona is like no other thoroughfare in the world! It is a

Photograph from Wide World

WAR MAKES AN ARMED CAMP OF BARCELONA'S "GREAT WHITE WAY"

Barricades sprawl across the Paralelo, night-life center noted for bright lights, popular theaters, and cabarets (page 403). People of Catalonia, of which Barcelona is the chief city, have their own language and customs, differing from those in other parts of Spain. In 1932 Catalonia was made an autonomous region within the Spanish State, and it remained loyal with the outbreak of the 1936 revolution.

Photograph from European

CIVIL GUARDS UNPACK THEIR TIDY KITS

The lid of the nearer trooper's trunk bears a photograph of his mother or sweetheart. On the wall hang cartridge belts, sabers, stirrups, and other equipment, including the oddly shaped, white-edged dress helmets. This national police force split during the revolution, some of its members joining the rebels.

Photograph by Montana from Black Star

ON A FIESTA HORSE BUILT FOR TWO

The señorita seems to be exchanging animated banter with someone in the crowd, as she rides through Sevilla perched behind her gaily costumed escort. Dressed for a festival, she wears a large Andalusian comb, earrings, and voluminous, brightly colored skirt.


STARTING IN SPANISH MOROCCO, CIVIL WAR ENGULFED SPAIN FROM GIBRALTAR TO FRANCE


Drawn by Herbert E. Eastwood and Ralph E. McAleer

MADRID, NEAR THE CENTER OF THE COUNTRY, IS BARRICADED BY MOUNTAIN RANGES

Photograph by Sucesmann from Fis

PALM TREES ADD A TROPICAL TOUCH TO ONE OF BARCELONA'S PLAZAS

Located in about the same latitude as Boston, Massachusetts, Spain's foremost seaport has a mild winter climate, with rarely any snow. "Unique in both beauty and situation," Cervantes' hero, Don Quixote, called Barcelona. A fountain surrounded by flower beds forms a symmetrical bull's-eye in this sunny plaza, lined with shady arcades and balconied apartments.

long, straight avenue with a wide promenade for pedestrians in the center and is lined with tall plane trees.

Busy stores flank the Rambla from end to end, interspersed with theaters, cinemas, an ancient church or two, and a large number of cafés. Under bright, wide awnings that canopy the sidewalks and shade the little tables, idlers sit and watch the lifeblood of the metropolis stream up and down its main artery — streaming at a much quicker tempo since recent shooting started!

Like the Paris boulevards, each section of the Rambla bears a different name. First come ornamental kiosks displaying an amazing variety of newspapers and magazines in every European language. Then comes the bird market. Arranged in cages of all sizes along the promenade is a bewildering show of yellow and brown canaries, gray parrots from western Africa, green ones from Brazil, tiny parakeets, all setting up a lively chatter.

The next section is the brightest of all—the Rambla de las Flores. Here open-air flower stalls, bossed by black-haired peasant women, offer flowers of every color and shade. Love of flowers is one point at least upon which all divergent political parties can agree!

Following the flower stalls come more kiosks where one may procure ice cream or soft drinks. Buildings begin to look older now—the New World gives way to the Old—and finally we come out into the wide water front, with its ornate customshouse, the tall statue to Columbus, and the palm-lined Paseo de Colón. To the right, in the shadow of the huge, somber stone barracks, is a long double line of second-hand bookstalls. Here I once found an English book of travel describing a voyage around South America, profusely illustrated, printed in 1707, a first edition, for two pesetas—about 25 cents at that time.

We asked the fat old proprietor of one of the stalls if he happened to have anything in English. He climbed upon a chair and pulled down an armful of books. Shaking off a cloud of dust, he went through the mass. Then he smiled and handed us two five-cent Buffalo Bill thrillers with colored paper covers so popular in youthful circles at home years ago. Buffalo Bill and Nick Carter's heroic adventures printed in Spanish are, incidentally, quite popular today and are on display (page 399).

At the next stall I bought an ancient parchment-covered book in Spanish, published in 1755, full of quaint woodcuts and describing in detail a number of sleight-of-hand tricks. I found many of them to be precisely the same tricks with cards and coins that our magicians entertain us with today.

Sloping up on the right of the harbor is the high hill of Montjuich, with a sinister old fort upon its crest. In turbulent days of riots and strikes, executions of ringleaders take place here.

Formerly the slope opposite the harbor tapered off into swamps and dumping grounds; today it is one of the most beautiful parts of Barcelona, transformed in a few years into lovely tree-lined terraces, ornamental buildings, fairylike cascades—the site of the international exposition of 1929.

Leading away from the exposition grounds is a wide street known as the "Paralelo," rather shoddy in daylight, but at night a blaze of electric signs announcing music halls, cafes, and night clubs—a gay street. Raquel Meller and other stars danced here before fame came to them—admission, two pesetas (page 400).

### "THE MAN OF THE ROPE" IS NOT A HANGMAN

Not only here but in the ramblas one comes across that unique Catalan type, the *mozo de cuerda*, which, literally translated, means "the man of the rope." He is a public porter, long known by his red woolen "stocking cap," and over his shoulder he always carries a coil of rope. For a small fee he will run any errand or shoulder any article—from fish or flowers to a coffin.

Leading from the Rambla, tall houses flank narrow streets where the sidewalks are hardly wide enough for a fat man to walk in comfort. Tiny shops occupy the lower floor; one sells cheap dishes, another candles only. Then there are small, dark lace shops and a store handling bars of mottled green "castile" soap, made from the residue of olive oil.

Barcelona has well over a million people. Although it has grown rapidly in recent years, that growth has been gracefully and becomingly accomplished.

Guttural Catalan is heard on every side, but in shops and in offices they will speak Spanish if you insist.

Flags of all nations fly from steamers

Photograph by E. Kelen from European

EVERYTHING FROM A LOVE LETTER TO AN S O S CALL FOR MONEY IS WRITTEN TO ORDER BY BARCELONA'S PUBLIC SCRIBES

In these booths uneducated folk may dictate their correspondence for a small fee. Spain's percentage of illiteracy has been greatly reduced in the last ten years.

docked here. We watched one shoving off for Buenos Aires. Next to her was a new Spanish ship, the *Magallanes*, just in from New York, its interior decoration in typical Spanish style—carved oak, artistic iron lamps, dark furniture, red tapestries and drapes, and bright Valencian tiles around the floors and lower walls.

There were freighters from England, Italy, Norway, Germany; an oil boat carried the Soviet flag. Two larger cargo steamers flew the Stars and Stripes—one unloading cotton from Galveston, and the other from New York with a whole cargo of crated automobiles.

It was here, only a few weeks ago, that the American steamer *Exeter*, amid much danger and excitement, succeeded in evacuating some 160 Americans and other foreigners from the revolution-swept city.

Out of Barcelona runs a fine motor highway toward Madrid. It winds among green hills thickly studded with little villages and truck gardens. Red-headed milestones appear along the roadside, marking the new motor arteries with the letters "C. N. de F. E." (Caminos Nacionales de Firmes Especiales) and the number of kilometers to Madrid—628, to be exact (390 miles)—merely a good day's run, if one is in a hurry.

Along the banks of the Llobregat, peasants work in flat bean fields, each plot separated from the other by hedges of blue-green prickly aloes. There is always an olive tree or two standing near them and a stone water tank in which the women wash clothes and hang them along the aloe hedge to dry.

Rocky Montserrat juts straight out of the rolling plain like a huge battleship, an isolated mountain bulk, one peak of which rises to a height of more than 4,000 feet.*

Coming to Igualada, we ran slowly down its main street, through this sepia-hued town built along the banks of the River Noya. Like most Catalan towns it is given over to industry. Here is located a large tannery, with hundreds of hides and skins hung to dry—like an unusually large and dirty weekly wash.

* See "Montserrat, Spain's Mountain Shrine," by E. John Long, in the NATIONAL GEOGRAPHIC MAGAZINE for January, 1933.

Photograph by Cehulta from European

"ALL PRESENT, SIR!" REPORTS THE LITTLE CORPORAL

These orphans of Civil Guards wear colorful old-fashioned uniforms with helmets like those of their fathers' organization (page 401). Seven boys from the orphanage at Valdemoro, near Madrid, are chosen each year to march with the grown-up Civil Guards at reviews and state functions.

Small American automobiles darted about, painted in bright colors and marked Barcelona, Manresa, Villafranca, Cervera. How quickly this new means of travel has developed all over the Peninsula!

### ALWAYS ROOM FOR ONE MORE ON A SPANISH BUS

Most of the little busses we passed on the road were overflowing with humanity, who hung on like flies.

To the south of the highway is Verdú, where, in April of each year, is held a famous mule fair. Catalan mules are world-renowned for size and strength; numbers have been shipped to our Midwest States despite Missouri's claim to prominence in this product. During the World War, Allied purchasing agents took whole train-loads to France for military work, and early graves.

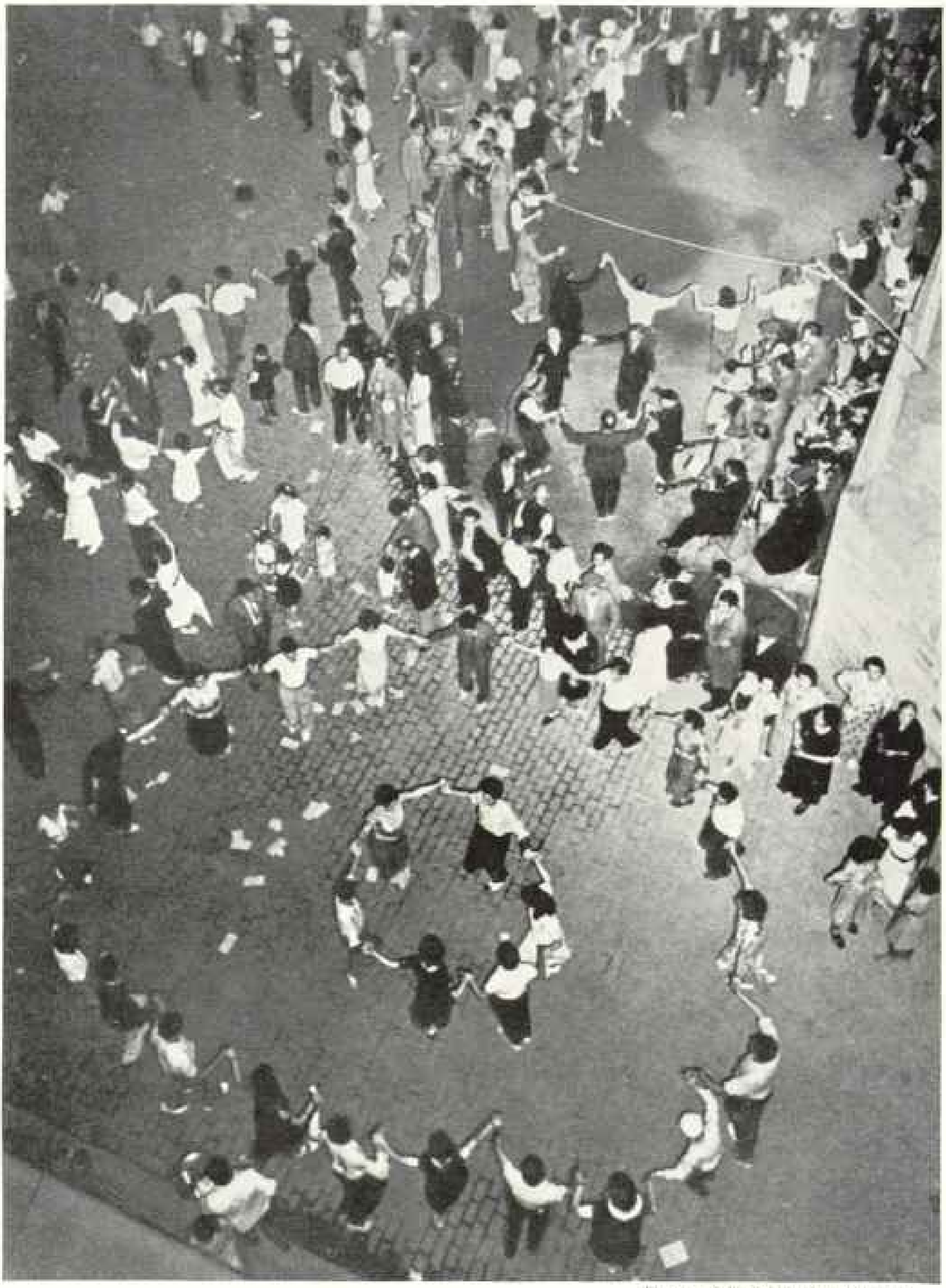
More and more the land became bleak and forbidding as we approached Aragon. Tiny villages along the way seemed drab, brown, and dull. In the distance Lérida came into view, its houses and church towers built upon the steep slope above the river. Along the crest stand its heavy defense ramparts, behind which are the red-brown walls and the tall octagonal tower of the Antigua (meaning "Old") Cathedral.

Lérida has always been a place of military importance; there is strategic value in its situation at the point where the vast plain of Aragon begins. The tall tower of the Old Cathedral may be seen for miles and is like a lighthouse on this high, isolated hill. Here in this ancient town, over a concrete motor road, the sound of tramping troops was recently heard, with modern bombing planes roaring overhead.

Near the Plaza we bought small Canary bananas for picnic lunch.

Beyond Lérida we started into a region already assuming the bleak character of the Aragonese steppes. The road map showed our route cutting across spaces almost entirely blank—mile upon mile with no towns or villages. A stone marked the beginning of the Province of Huesca.

We crossed a long bridge high over the muddy Río Cinca and had in front of us nearly seventy miles of "treeless deserts, colored like volcano ash, gray torrents dashing



Photograph by Cubiña from European

MIDNIGHT STREET DANCES ARE AN OLD SPANISH CUSTOM

Streetcars, busses, and taxis stop running in this Barcelona thoroughfare on July 20, as grown-ups and children join in the *sardana*, a favorite Catalan dance. Merrymakers clasp hands and skip in circles to the tune of a band stationed between two of the large rings. Even on ordinary nights, foreigners in Spanish cities, to their surprise, find youngsters playing in the streets at midnight.

over stony, trackless wastes, green oases in the depths of valleys, parched villages hardly distinguishable in color from the ground on which they stand." Such is the barren plateau of Aragon, in contrast with luxuriant Catalonia.

Along the road is wasteland with drab hills like sand dunes in the distance, not a house or a human being for miles.

The name "Aragon" is known to everyone, but to most of us it is only a name.

Other parts of Spain have a mixture of foreign bloods—Roman, Visigothic, or Moorish. Here we have the Aragonese, a people of relatively pure Iberian blood. Their forefathers, with the Catalans and Valencians, fought far afield and once conquered Naples and Sicily, striking terror along the Mediterranean.

### HARDHEADED ARAGON AND NAVARRE

Aragonese independence and stubbornness have not diminished with the centuries. The Aragonese pride themselves upon these traits, and claim that there is only one province in Spain where the men are more hardheaded—near-by Navarre. They tell this tale:

Some Aragon peasants once met in a village inn. One claimed he was the most hardheaded of all. The partition dividing the rooms was made of brick laid end on end, forming a thin type of wall called a *tabique*, and he said he could drive a long nail straight through the partition, using his head as a hammer.

At once he became a hero. Excitement rose and bets were laid. A long nail was placed against the wall and the Aragonese started to butt it with his head. Onlookers were amazed to see the nail sink into the wall with each blow.

Suddenly, when only about half an inch of nail was left, its progress stopped. In vain the Aragonese butted harder. He banged ferociously, but the nail wouldn't budge. Exasperated, facing defeat and ridicule, he shouted, "The nail must be through the wall! Go in the other room and see."

His friends opened the door and gasped. There, tilted back in a chair fast asleep, with his head against the identical spot on the wall where the nail should have appeared, sat a farmer of Navarre!

Crossing into the Province of Zaragoza we came to Bujaraloz, a gray place in the desert. The sun was shining, but a cold, chill wind blew clouds of dust down the streets.

A sign nailed to a telephone pole said "Gasolina" and we stopped before a tightly closed shed. Not a soul was in sight. We got down and knocked, and some one shouted, "Who is it?" We yelled back that we wanted gasoline.

With much creaking of rusty bolts, the door swung open and two girls appeared. Between them they pushed out a red-painted gasoline tank on wheels and began to pump gas into our car. Buxom and strong, these girls looked as if they had seen much work in fields. Peeping through the doorway we could see a dirty and uninviting patio littered with straw and manure.

"It is cold today," I remarked.

"It is often cold here," one of the sisters replied in a dry, deep voice.

"What a disagreeable wind," I added, trying to coax some expression into the stolid face.

"It is often windy here," she said laconically.

I gave up.

Near Zaragoza we snapped a picture of three old women, bent and wrinkled and dressed in the usual plain black. An old man with them was a subject for an artist. On him modernity had made no change. He was in the typical costume of Aragon—short black breeches tied below the knee and adorned with many buttons, black stockings and white *alpargatas*, the strings of which were lapped several times in a tidy spiral around the ankles. His short jacket was of well-worn black velvet, also with many buttons, and on his head a narrow black silk handkerchief was tied so as to leave the top of his gray head exposed. These costumes are fast disappearing (412).

The toothless old fellow was jolly and quite willing to pose, but not so the women who, chattering loudly, tried to get away. The old man finally persuaded one of them to stand with him. She pointed to the camera and said, "Where are you going to take us? To Germany?"

### ZARAGOZA, SCENE OF BITTER FIGHTING

Spires of Zaragoza came into sight, far on the horizon. Sunset turned western skies into soft shades of mauve and pink. Streetcars, tiny yellow ones, raced along the roadside. We crossed the long Bridge of Stone over the wide, brown Ebro, a bridge of seven arches. Built before Columbus


Photograph by Acme

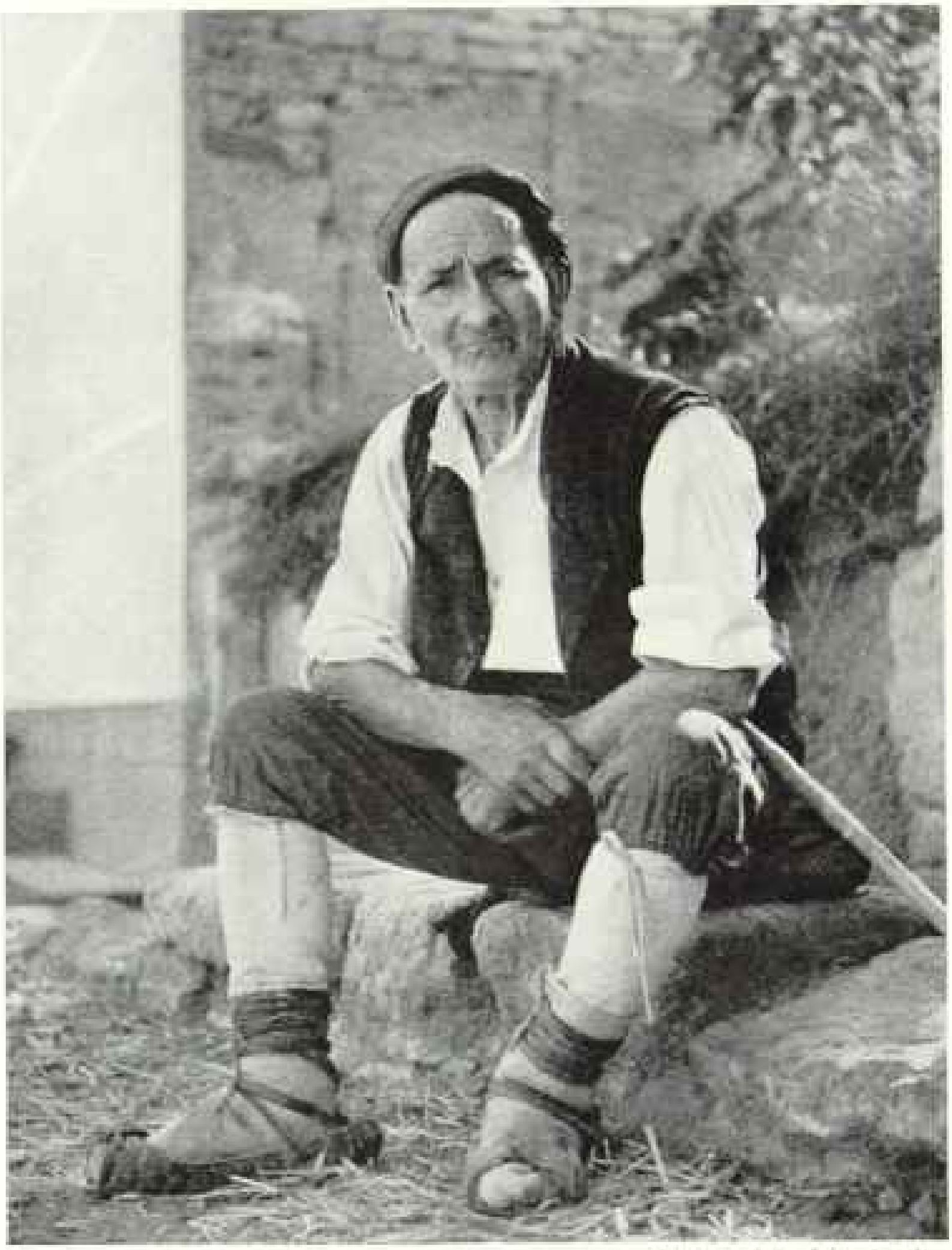
"ON TO GUADARRAMA!" SHOUT VOLUNTEERS, AS CITIZENS OF MADRID GIVE THEM THE LOYALIST SALUTE WITH CLENCHED FISTS

Their overladen bus lurching through the Puerta del Sol in the heart of the city, this contingent is bound for the Sierra de Guadarrama, northwest of the Capital, where Government forces held a vital mountain pass against attacking rebels. In happier days Madrid's central plaza was filled with animated crowds of shoppers, sight-seers, and café habitués. The Ministry of the Interior occupies the building at the left.



REBEL SYMPATHIZERS AT BURGOS GIVE THE FASCIST SALUTE TO GENERAL CABANELLAS

The bearded President of the insurgent Committee of National Defense (page 424) leans on the balcony railing in front of the second window from the right.



Photograph by Jalon Angel

RUGGED AND INDEPENDENT ARE THE MEN OF ARAGON

Amusing tales are told of their hardheadedness (page 409). Prosaic blue overalls are fast taking the place of the typical countryman's dress, with short jacket and breeches, rope-soled sandals, and silk kerchief wrapped round the head, leaving the crown exposed.

discovered the New World, it meets with ease the demands of modern traffic.

Beyond rose the roofs, the spires and domes of La Seo, Zaragoza's Gothic cathedral, shaded in pinkish amber of late afternoon.

We asked a policeman to direct us to a restaurant. He pointed to a little passageway just opposite, where there were two restaurants; but with a shrug of shoulders, he said that they were "nada más que regular"; in other words, only so-so.

Up a flight of narrow stairs we found ourselves in the tiny dining room of "La Viña P." A bald-headed waiter assured us that he himself would see to it that we were served "como un rayo," like a ray of lightning; this lightning proved to be of the slow-motion sort.

The city boasts ornate apartment houses with iron-studded doors and huge brass knockers, and over on the plain appeared the buildings of the former military school. In the awful revolution Zaragoza saw much fighting and bloodshed, and trembled under aerial bombardment.

Southward, flat barren Aragon gives way to hills and mountains. Beyond the Rio Jalón, where ancient water wheels are still used for irrigation, the car climbs many hundred feet in a few miles. The mountains take on the color of dull-red bricks, and the mud houses of the little towns are so near the same color that one runs into the main street almost before one knows it. The Jalón is so wild that engineers had to build eight bridges and seven tunnels to lay rails over the short distance between Paracuellos and Calatayud.

### WHERE PEASANTS LIVE IN CAVES

Steep sides of hills are perforated with rows of caves, one above the other—whole streets of them. These caves are the homes of peasants. Each has its door and some even boast a window or two.


Photograph from Wide World

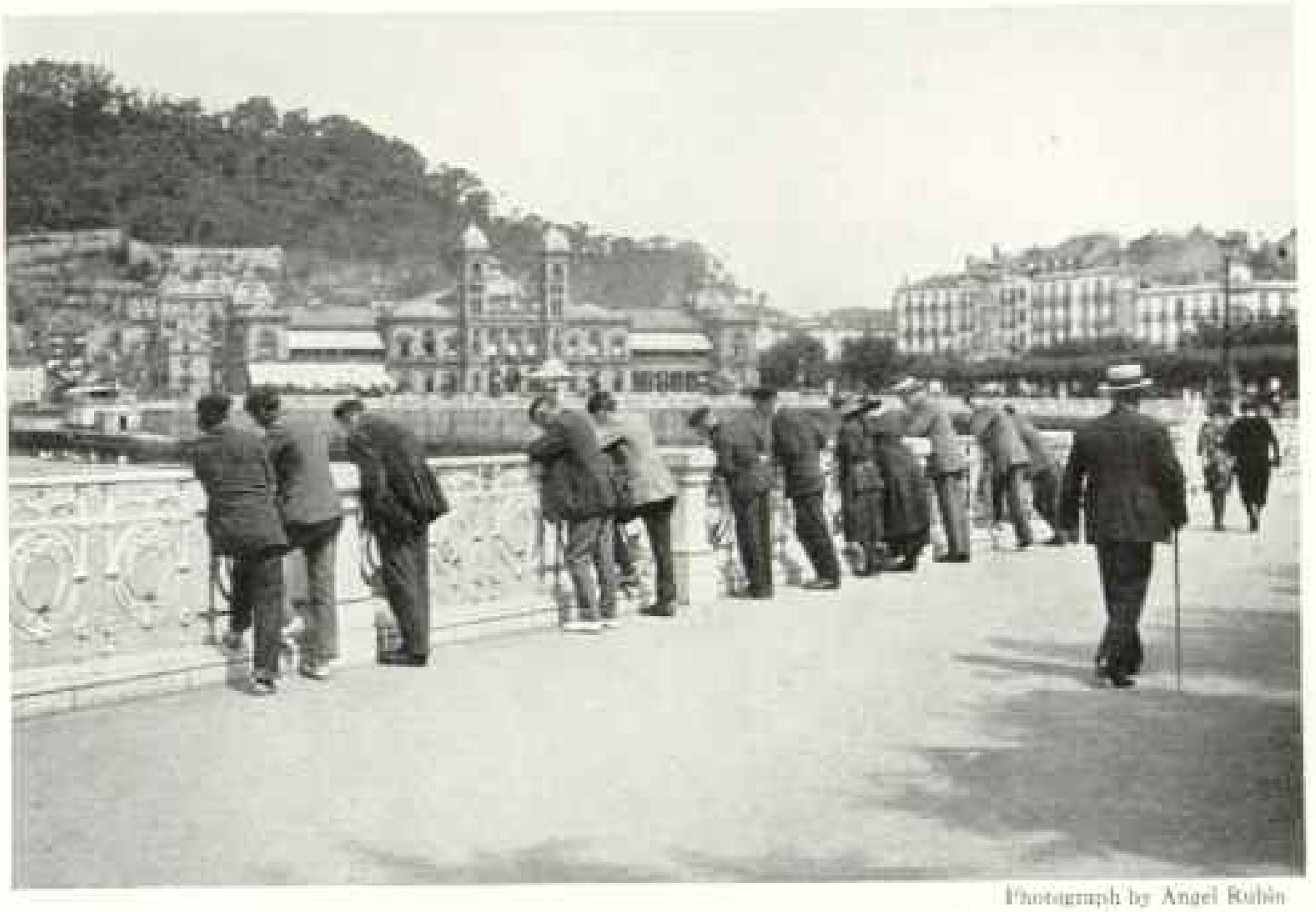
A LOYALIST TRUCK DISTRIBUTES ARMS TO CIVILIAN VOLUNTEERS IN MADRID

To prevent the vehicle from being fired on as it moves through the streets, the letters "CNT" are painted on the windshield and top to show that it belongs to the National Confederation of Labor, a powerful organization supporting the Government.

© International News Photos

WOMEN, TOO, SHOULDER ARMS AND MARCH CONFIDENTLY TO BATTLE

With male volunteers and a soldier of the Regular Army, right, they hurry out of Madrid to help stem the rebel advance on the Capital. Many women and girls have been reported killed and wounded in action.



Photograph by Angel Rolón

BASQUE TOWNSFOLK IDLY GAZE AT BATHERS AT SAN SEBASTIÁN, SPAIN'S PREMIER SUMMER RESORT

Some of the bitterest fighting of the civil war has occurred in this gay vacation place near the French frontier. Insurrectionists attacked the city to obtain a seaport on the Bay of Biscay. Below this promenade is the bathing beach. Monte Urgull rises behind the turreted Casino, formerly used for gambling (page 425).

At tiny Algora there had been a wedding, and peasant couples were dancing in the street: arms in air, snapping fingers, advancing and retiring with swiftly moving feet—an Aragonese *jota*. I hope this graceful dance may survive the modern trend, but even country children learn the latest American steps—at the movies!

Guadalajara stands on the Río Henares. How many of these towns got their names from the Moors! They named this place the "Valley of Stones," which in Moorish is Wad-al-Hajara.

Straight runs the road from Guadalajara to Alcalá de Henares, paralleled by the railway on one side and the Río Henares on the other, through a green valley. As a seat of learning, this little city once vied with Salamanca; then its colleges had upwards of 12,000 students. Cervantes was born here. So was poor Catherine of Aragon, later packed off to England to become the first of Henry VIII's string of wives.

Said the New York Times, July 29, 1936: "The historic cathedral in Alcalá de Henares was destroyed in battle when large quantities of arms and ammunition stored within the edifice, where rebels took refuge, exploded."

Southwest of the town, farms are more prosperous looking and traffic thickens, hinting at approach to the Republic's Capital.*

## MADRID IN PEACE AND WAR

Broad Calle de Alcalá runs straight into Madrid, passing the green gardens of the Retiro. On the Paseo del Prado is the large and simple red-brick museum of that name. If you ever get to Madrid, go straight to the Prado, pay your admission, check your umbrella, and enjoy this famous picture gallery of the Spanish kings. What the Louvre is to Paris the Prado is to Madrid. It contains more than 2,000 pictures, by Velásquez, Murillo, El Greco, Goya, and by painters of the Italian, Flemish, French, and other schools (opposite page).

* See "Madrid Out-of-Doors," by Harriet Chalmers Adams, in the NATIONAL GEOGRAPHIC MAGAZINE for August, 1931, and "A Palette from Spain," by W. Langdon Kihn, March, 1936.

Photograph by Cubalta from European

MUSEUM-GOERS WATCH AN ARTIST COPY VELÁSQUEZ' "THE SURRENDER OF BREDA"

This masterpiece in Madrid's Museo del Prado shows the Spanish conqueror Spinola, backed by the bristling lances of his soldiers, receiving the keys of Breda from the Dutch in 1625. A court jester, right, is portrayed by Velásquez in the rich costume of a prince.

Madrid is not an old city. It is new. We Americans might qualify that adjective and say comparatively new. Moors built a fort here in the 10th century. In 1300 the place was growing slowly and by 1600 was a booming town of 3,000 inhabitants. This, however, is more or less modern history, compared with the deep, dark ages from which certain other large Spanish cities date their beginnings.

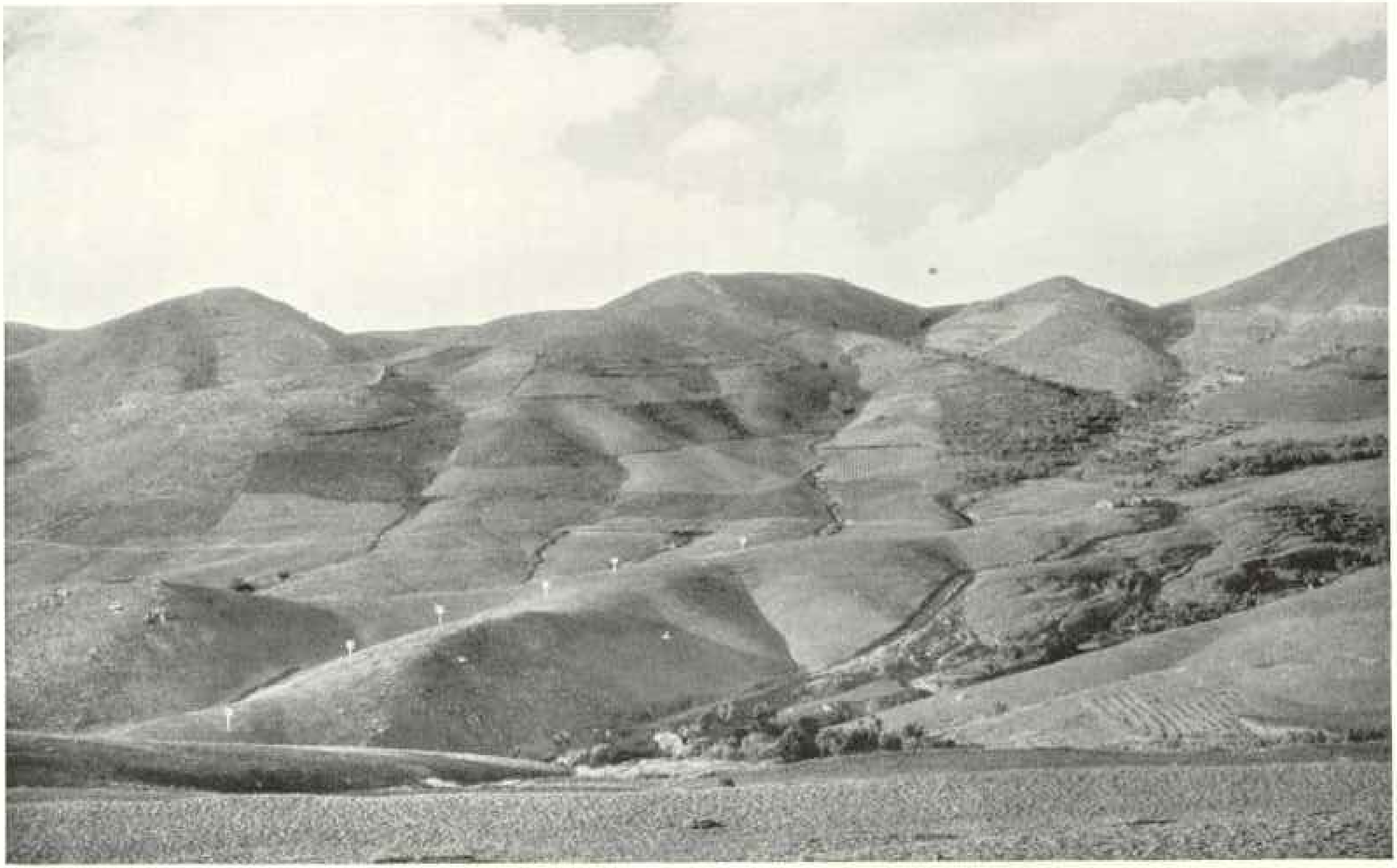
Madrid is almost the geographic center of the Republic, reached on all main railroads and public highways from all other cities and ports. Taxicabs are as thick as in Paris, and just as small and uncomfortable. A wide street, the Gran Via, has been sliced through what was formerly a crowded area, and is today the principal shopping center. Some new buildings rank here as skyscrapers, 13 and more stories high; their basic idea came from their American counterparts, but their shells are covered in the more ornate Spanish manner.

The top end of the Gran Via is becoming a Times Square, with its crowds, bright lights, moving signs, and din of motor horns. Traffic is worse here than at the corner of Pennsylvania Avenue and 14th Street in Washington. Picture palaces blaze with electric lights and show American films.

The Puerta del Sol, the very heart of Madrid, is an oval-shaped plaza into which debouch six of the principal streets. Surrounded by cafés and advertising signs, it is full of hurrying crowds, streetcars, and taxicabs. Colorful announcements of bullfights vie with advertisements of soccer games.

This spot was a scene of wildest disorder in the civil war, with thousands of troops and armed civilians, even women and girls, shouting "Viva la República!" All motorcars were requisitioned, communications cut, and troops rushed out the north road to defend the Capital and block the three lofty passes of the Sierra de Guadarrama.

In the Calle de Cisne stands the American Embassy. Here, during the upheaval, Eric C. Wendelin, young third secretary of the Embassy, added his name to that long list of heroes of our Foreign Service by gathering all Americans, numbering some 190, under the protection of the Stars and Stripes, turning the grand ballroom into a



DESOLATE MOUNTAIN PASSES SUCH AS THIS OFFER LITTLE COVER FOR CONTENDING ARMIES

Characteristic of bleak, sun-baked Aragon (page 407) are these hills a few miles east of Calatayud, on the main road from Barcelona and Zaragoza to the Capital. A telegraph line cuts diagonally across the pasture land toward a peach or algarroba orchard near buildings clustered on a knoll. Aragon was once the domain of Ferdinand, husband of Columbus's benefactor Isabella.

Photograph by Flandrin

SHOT AND SHELL HAVE RUINED MANY OF MÁLAGA'S FINEST BUILDINGS

A few days after a group of Americans were evacuated here by the U.S.S. *Quincy*, a clash between rebels and loyalists caused havoc in this Mediterranean port's main business district, left, shown here as it looked before the war. Atop the hill to the left of the bull ring, upper center, is the Gibralfaro, 13th-century Moorish citadel built on the site of a Phoenician fortress. A wide avenue skirts the harbor, where ships load wine, olive oil, canary seed, and other products of Andalusia (p. 427).

Photograph by Branson De Cou from Galloway

HER LOCOMOTIVE IS A CARRIER OF NUTS AND CANDY

Hailed by a youngster in Vigo, the smiling engineer pulls up at the curb and sells some of the wares kept in drawers in the "cab."

dormitory for women and children, procuring food for a long siege, filling all receptacles with water when the city supply became threatened, and, lastly, arranging for the evacuation of his nationals by rail to the seaports of Valencia and Alicante.

Indeed, during the uprising our Foreign Service in the whole Peninsula performed smoothly and reliably. During the first several days of turmoil, almost the sole authentic news of what was happening came in flashes by roundabout telephone calls which these men found ways of getting through to the State Department at Washington. At one time the dispatches were telephoned from Spain to Buenos Aires and relayed from there to Washington.

During this first hectic period, British, French, and German newspapers were getting a large part of their information through our Department of State. Early news of the seriousness of the revolution enabled our Government to dispatch the *Oklahoma* and the *Cayuga* to the Biscayan coast, the *Quincy* to the Mediterranean, and the merchant ship *Exeter* to Barcelona, evacuating and undoubtedly saving the lives of many American nationals caught in the vortex of the rebellion.

Infantry, artillery, and cavalry surged past the big Palace and Ritz Hotels, past the imposing Department of Posts and Telegraphs, through Madrid's Park Avenue, the swanky Paseo de Recoletos. They moved into the long Calle de Bravo Murillo, which is only four or five blocks from the Castellana, but separated from it by a world; for Bravo Murillo is paved in rough stone blocks; normally it is full of carts that rattle, streetcars that clatter, and tradespeople who shout and get in the way.

On one side of the street is a long procession of sidewalk vegetable and fruit stalls, covered with little awnings. Business is brisk, and cooks and servant girls haggle over pennies.

Just outside the city the red-topped stone says 233 kilometers (144.7 miles) to Burgos, and we followed a road that winds up and down with many curves, but with asphalt as smooth as the Lincoln Highway. Fields of grain on either side were being plowed, two hulking oxen pulling an antique plow with a wooden share, moving at the rate of two miles an hour. Tractors may soon supplant this Roman method.

### BLEAK MOUNTAINS GUARD THE CAPITAL

Now we began to climb in earnest into the heart of the bleak Sierra de Guadarrama, cold, forbidding, its peaks often covered with snow and hidden in clouds, seven to eight thousand feet above the sea. On the other side of the road we looked down into a rough valley dotted here and there with splashes of pale green in the misty light, and made them out to be fields of grain.

We still climbed, but in none of the softness and sunshine usually associated with Spain. No more orange and olive groves. This is drab and gloomy. The mountainside is steep, rocky, and barren.

Large, queer-shaped bowlders are strewn over the level spaces, and on some we noticed advertisements for an enterprising dentist of Madrid.

Photograph by Cobiella from European

"BOTTOMS UP!" IS THE RULE WHEN BASQUE FISHERMEN PASS THE BOTTLE

A fine stream of sparkling cider trickles from the slender spout into the waiting mouth, so that the flask makes the rounds untouched by lips. Wives are left at home when the men come after work and cook a meal to their own taste in this clubhouse at San Sebastián. Beneath the portrait of the club's founder hangs the carved picture of a boat which won a rowing trophy.

No forests are seen, and practically no trees. Farmers work hard to coax scanty crops from such arid land and, strangely, they regard all birds as enemies. Trees shelter birds; hence, down with the trees.

Either we went higher or the clouds came lower, because suddenly we were among them. Cold and damp, it was like a thick fog; no fun on a mountain road. Sprawled across the road we saw, just in time to avoid collision, a large upturned motor truck. An axle had broken, upset

the car, and spilled a pile of vegetables. We edged over to the side and crawled by.

"Do you want anything?" we called to men who stood about the wreck.

"Nothing," they said, and we went on.

Still climbing, we reached La Cabrera, with its neat, new stone houses. Madrid families spend the summer in this cool altitude. The clouds began to rise and the near-by mountains loomed up on our left, but we had covered the highest part of the way, and, with many twists and turns, started gradually downward.

Thus we came to Buitrago, a rare discovery. Here, amidst the austere Guadarramas was a little town so odd as to take one's breath. Built on two hills, it was surrounded by the old city walls, brown with age but in many places still well preserved. A ruined castle, an old church tower, little cobbled streets that climbed and others that dropped, deep gorges with galloping water made an enchanting picture.

Near town we passed a house on fire. A young woman was standing by a few poor pieces of rescued furniture and a straw mattress. She smiled and waved her hand as we went by.

As we approached tiny Robregordo, built on a steep slope up from the roadside, the sun was doing its best to dispel the mist. The road here has straightened considerably, but still climbs and descends.

I doubt if Buitrago and Robregordo had ever before appeared in American news. But last July correspondents flashed from these hamlets in the Somosierra Pass that rebel forces still held on, and that here would be a main point of assault for loyalists. Tired forces after eleven days of fighting rested from their efforts. "There was minor machine gun and artillery fire today, which had no important result, and some ineffectual bombing of loyal artillery by rebel airplanes."

### FARMERS STILL USE WOODEN PLOWS

All the way from Madrid to Aranda, the road passes through no villages of more than thirty or forty houses. But on every side these Spanish farmers see improvements under way; every industry in the country, except farming, keeps pace with modern practice.

As for the average small farmer, he still plows with a wooden plow invented by Romans, drawn by two large oxen moving at a snail's pace, and on hillsides he builds big stone walls to hold up a few square feet of tillable earth. If the land is tilted at too steep an angle for the oxen, the farmer calls in a dozen of his neighbors; they form a line and spade up the earth by hand.

A bridge crosses the Duero, which changes its name and nationality, becoming the Douro when it enters far-away Portugal and flows into the Atlantic at Porto. The muddy town of Aranda is no metropolis. But its Hotel Ibarra, with plain board floors and whitewashed walls, is good shelter. Two young girls, not too tidy, made up in smiles and willingness for other defects. They brought us coffee. We were now only 80 kilometers (about fifty miles) from Burgos, and soon saw the graceful towers of its famous Cathedral.

### BURGOS, THE REVOLUTIONARY CAPITAL

We entered the city through the Arco de Santa Maria. Imagine a structure in brown sandstone about five stories high, with semicircular columns flanking the two sides, four battlemented round towers on top, and a graceful arch leading through the gateway.

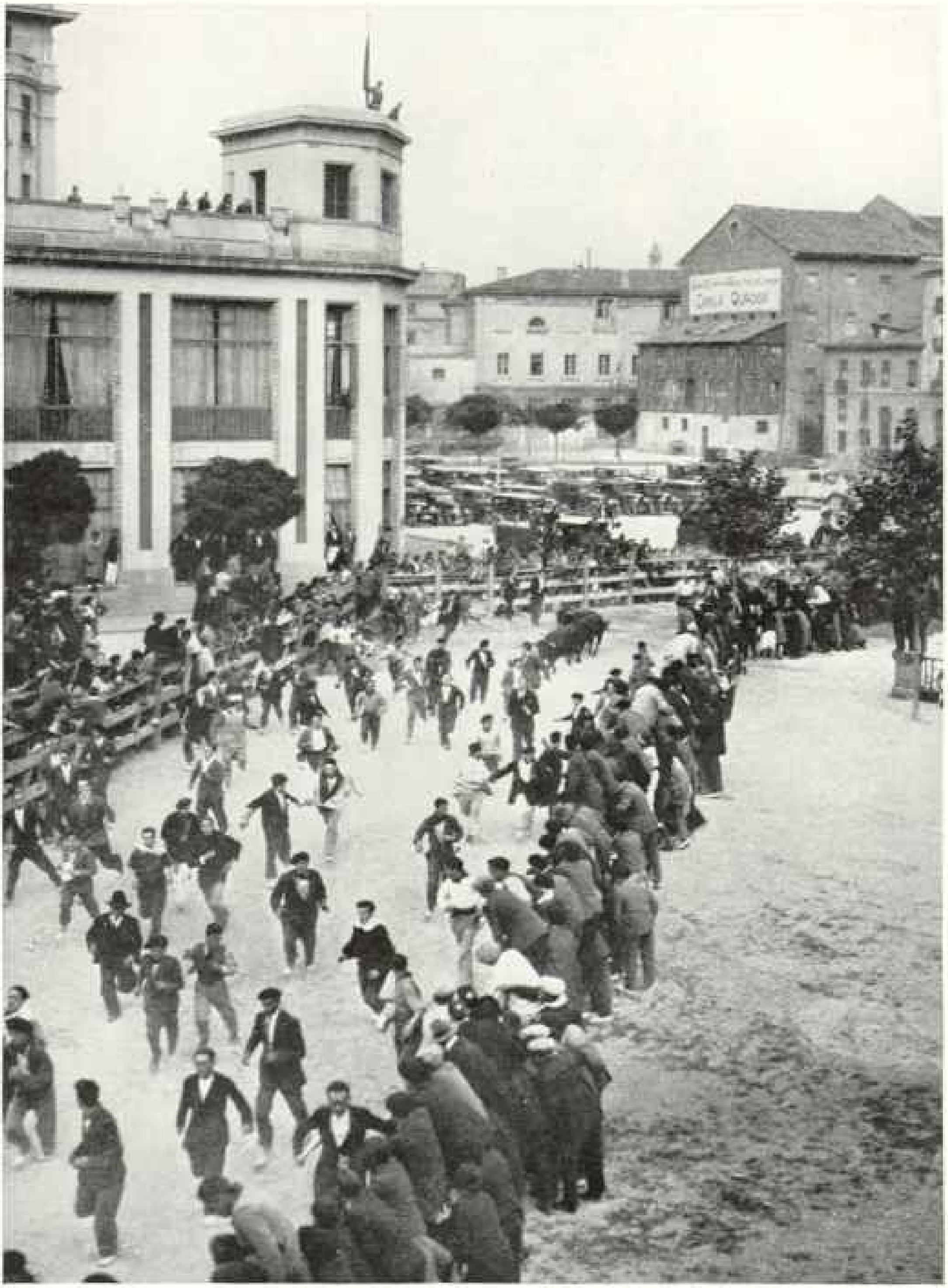
We were in Burgos not more than 15 minutes before we were quite in agreement with its contention that its inhabitants speak the purest and finest of all Spanish. Every syllable and letter is pronounced in musically modulated voice, and the people speak distinctly. Burgos is to Spain what Hannover is to Germany.

Peasant women clatter across the thoroughfare in wooden shoes, but at the corner you can buy the New York Herald-Tribune, European edition.

The Cathedral is so shut in by buildings that one must go around in front and climb a cobbled ramp to get a good look at it. Critics say it is one of the most beautiful of all Gothic structures. It was founded in 1221, and nowhere is there architecture more graceful than its two main towers, lacy, windowed, so that light shines through.

Little girls, rosy-cheeked like English children and resembling very little their olive-skinned sisters of Andalusia, play hide-and-seek around the Cathedral, heads and shoulders wrapped in red woolen shawls.

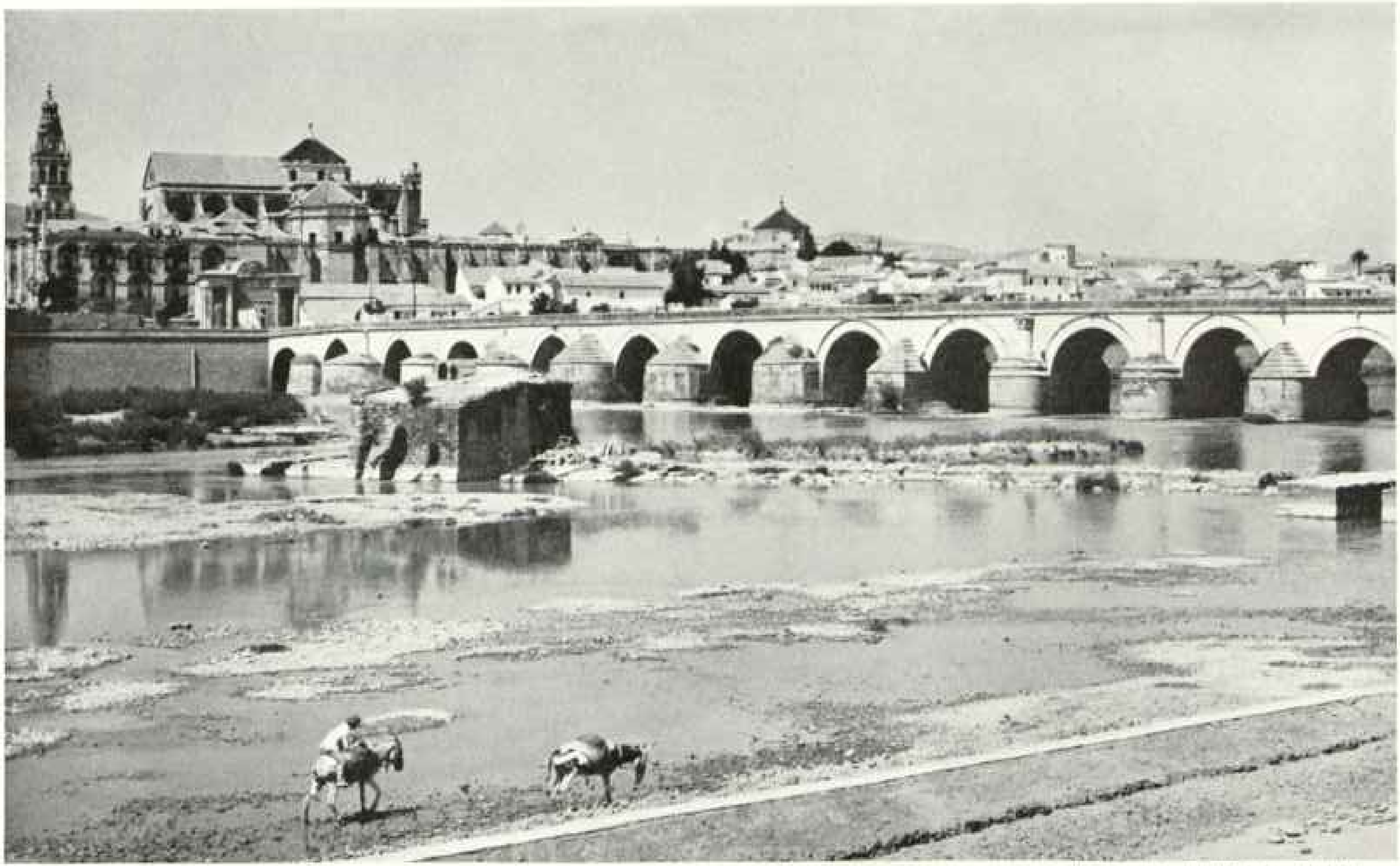
From the bridge we could see the old ruined fortress on a hill overlooking the city. Here in 1812 Wellington besieged the French troops. Today the ancient city becomes again the center of desperate strife.



Photograph by Talbot M. Brewer

BULLS AT THEIR HEELS, BOYS SPRINT FOR THEIR LIVES AS ONLOOKERS CHEER

At six in the morning on the feast day of San Fermin, bulls for the afternoon's fight are turned loose to run from their corral to Pamplona's ring. Two or three hundred youths jump into the runway and race at top speed before the excited animals, which not infrequently overtake runners and gore them, sometimes fatally. Spectators' cars are parked beside the large building.



Photograph by Fritz Henle from Black Star

USING ROMAN FOUNDATIONS, MOORISH CONQUERORS BUILT CÓRDOBA'S 16-ARCHED BRIDGE OVER THE GUADALQUIVIR

Rebuilt several times, the structure now carries automobiles and trucks, which in Spain are mostly of American manufacture. The bridge leads directly to the huge Cathedral, a former Moorish mosque begun more than 1,100 years ago with the object of attracting Mohammedan pilgrims to Córdoba instead of Mecca. During the civil war the Spanish Government expressed the hope that such historic monuments would be spared (page 427).




A COLUMN OF REBEL MILITIAMEN GETS A BIG SEND-OFF AS IT LEAVES BURGOS TO REINFORCE PICKET LINES

Making this city their headquarters in northern Spain, insurgents marched southward on Madrid, while their comrades in Sevilla attacked the Capital from the other side (map, pages 402-3).

Revolutionists chose it as the seat of their new government. By radio they flashed this message to the Foreign Offices of great powers:

"Burgos, July 29, 1936, midnight.

"Committee of National Defense to the Minister of Foreign Affairs:

"I have the honor to inform Your Excellency's Government of the formation and assumption of power of the new government of the Spanish State under title of Committee of National Defense, constituted on the 23rd instant at its provisional seat, Burgos, with myself as President, and with the following members: Miguel Cabanellas, General of Division; Andrés Saliquet, General of Division; Miguel Ponte, Brigadier General; Emilio Mola, Brigadier General; Fidel Dávila, Brigadier General; Federico Montaner, Colonel; and Fernando Moreno, Colonel. Our Government hopes and desires to maintain with that of Your Excellency the same cordial and friendly relations which have always united our two countries.

"The President of the Committee of National Defense, Miguel Cabanellas."

Burgos to San Sebastián is a four- or five-hour drive over a bleak and stony plateau. High limestone mountains loom up ahead and you come to Pancorbo, where of modern things only automobiles and telephones have arrived.

### HOME OF AN ANCIENT, STURDY RACE

When you cross the border into the Province of Álava, it is like entering a new country. For Álava, with Vizcaya and Guipúzcoa, is one of the Basque Provinces —the smallest in Spain but looming large because of their rich iron mines, modern industry, and independent characteristics. Basqueland really comprises not only these three provinces but also part of Navarre and the adjacent region of southwestern France.

Basques are mountain folk and are usually regarded as the oldest race in Europe, the unmixed descendants of the original inhabitants of the Iberian Peninsula.*

The remarkable fact is that we still find about 500,000 Basques in northern Spain and nearly 200,000 in southern France; more than a million have emigrated to North and South America.

* See "Land of the Basques," by Harry A. McBride, NATIONAL GEOGRAPHIC MAGAZINE, January, 1922.

They are good farmers, fine seamen and fishermen, strong physically and morally. A French author describes the Basques as "the best-looking, healthiest, most alert, and happiest folk that it is possible to find in Europe."

Vitoria, capital of Álava, has some 43,000 people. Its Calle de Castilla leads into the fine wide streets of the new town, lined with trees and attractive buildings, most of them fronted with the ever-present miradors. How strange to see on such modern thoroughfares solid-wheeled bullock carts moving slowly behind pairs of oxen, among the more speedy traffic of motorcars!

In a clean little cafe full of marble-topped tables, men were sitting in groups of four, drinking coffee with anisette and playing dominoes. Dominoes in Spain takes on all the fine points of contract bridge at home and is quite as popular.

Outside the city, roads branch off to the north toward Bilbao—the largest Basque city and the Pittsburgh of Spain. It lies under a pall of smoke from iron mines, steel mills, and huge shipbuilding yards.

How un-Spanish and wholly Basque are names of near-by villages—Olazagutia, Iturmendi, Icazteguieta, and the mountain peak of Irumugarrieta, 4,682 feet high! Tall chimneys of industry begin to appear, and a huge cement factory spreads its gray dust along the roadside.

Soon comes the Province of Guipúzcoa. The road, which has been climbing gently, now behaves in a thoroughly mountainous manner. There are ups and downs, hairpin curves, and narrow turns around deep precipices and, for miles, forests of beautiful pines, green and refreshing after the cold, bare mountains of Castile.

### A TASTE OF SPANISH PRIDE

A Basque woman living in a pretty farmhouse one day cleaned all her many copper pots and kettles and stood them outside in a row in the sun. This is usual in Spain, as the women say the sunshine makes the copper shine more brightly.

A foreign woman, traveling through, said to her companion, "What a shame! Look at that display. Even these peasants are waiting to catch the tourist. It's so grasping."

Walking up to the woman, she inquired, "How much are you asking for that copper jug in the middle?"

Photograph by Angel Rubio

FISHWIVES OF BILBAO SELL BONITO FRESH FROM THE SEA

The delicious fish advertised on the sign is a favorite along the coast of the Bay of Biscay. This woman's business may not be as brisk as it looks, however, for most of the bystanders have gathered to watch the photographer. Civil war is an old story to Bilbao; the city was besieged three times during uprisings in the 19th century.

The peasant woman was enraged. One arm akimbo, and the other making violent gestures to emphasize her speech, black eyes flashing, she said, "Listen to me, señora. You may not mean to be insulting. But every one of those copper things has been in my family since before the Carlist wars. My old grandmother cleaned them just as I do today. Sell them? Would you sell me the picture of your mother off the wall of your parlor? You may go gargle your throat, señora!"

The pride of the Spaniard! The lowliest laborer in the fields is innately a gentleman; he treats you as one, expecting like treatment in return.

Along the road are quince trees. Grown all over Spain, quinces are boiled and the juice extracted for quince jelly, a popular delicacy, while the remaining pulp is pressed into molds of various sizes and sold in the whole country as *carne de membrillo* (quince meat). Spread upon bread, it takes the place of jam and is as popular in Spain as orange marmalade is in England.

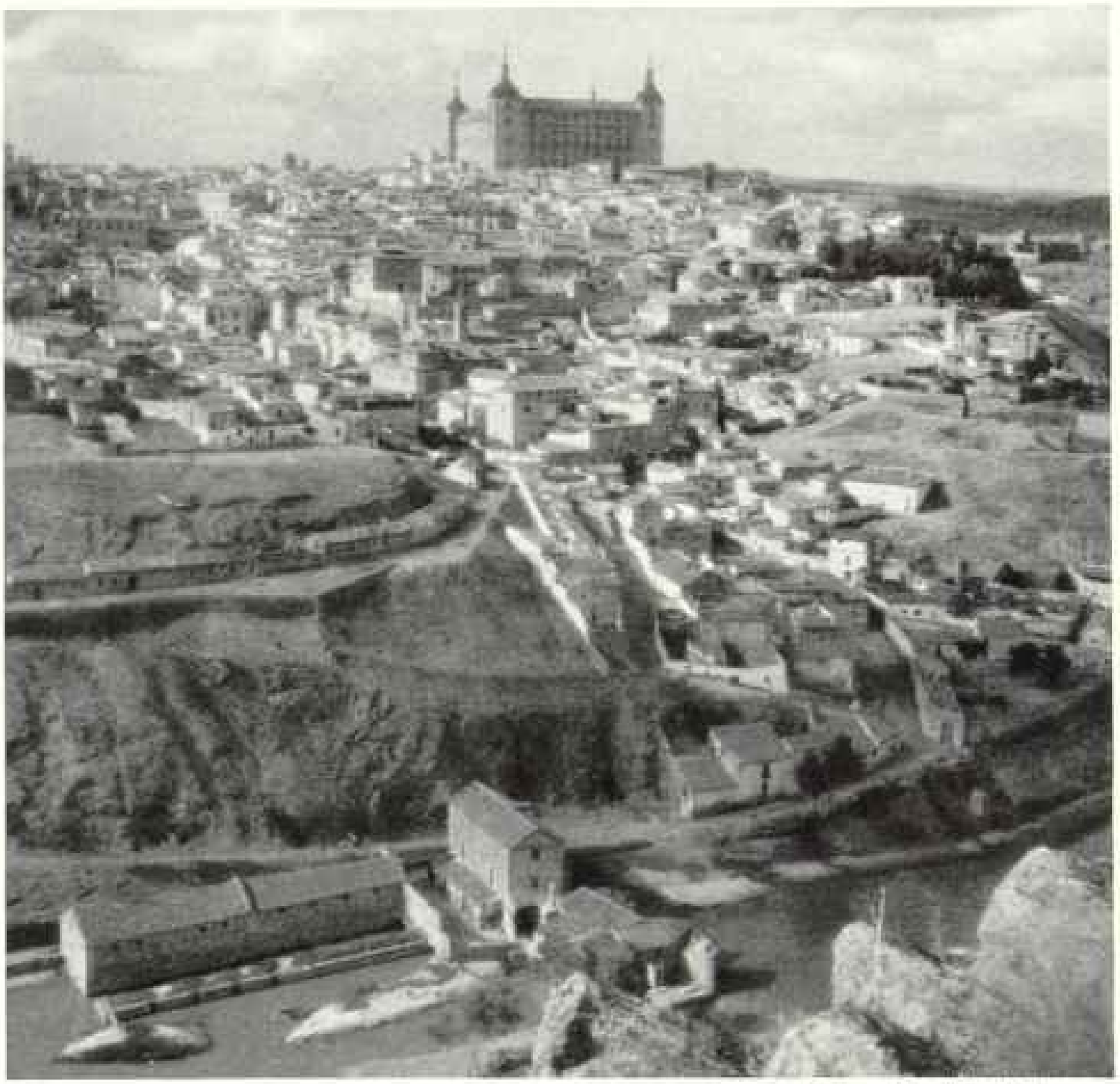
Entering Tolosa, one notices on the right, between road and river, a long, four-storied building overtopped by tall chimneys. This is one of the largest paper mills in Spain. Sidewalks are crowded with girls and women coming from work in the mills.

Another busy but tiny town is Éibar, on the border of Vizcaya. It is so small that it appears on maps in the most diminutive type. Yet it is known all over Spain for its fine revolvers and pistols. Today they even make typewriters and office appliances, as well as a sort of Toledo jewelry—gold and brass inlaid in steel.

Soon now we saw the Atlantic. Dark mist lay over the Bay of Biscay and huge breakers beat against rock-bound coast, sending up splashes of spray.

### GAY SAN SEBASTIÁN A BATTLEGROUND

Traffic thickened on the road as we neared San Sebastián, capital of Guipúzcoa. In summer months this is the gayest of Spanish resorts. Broad sands of the famous Concha are filled with Spain's noblest and wealthiest in bathing suits. A crescent of



Photograph by Talbot M. Brewer

IN TOLEDO'S TOWERING ALCÁZAR, BESIEGED REBELS DEFIED THE GOVERNMENT

Cadets of the military academy in the historic fortress-palace barricaded themselves here with hundreds of other insurgents at the outbreak of the civil war. Loyalists installed a loud-speaker near by to announce Government victories and to demand the rebels' surrender. Standing on the highest ground in Spain's former capital, the Alcázar was built mostly by Charles V, grandson of Ferdinand and Isabella. The Tagus River, foreground and upper right, flows moatlike around three sides of the city.

sumptuous hotels forms a proper background for this gay picture (page 414).

But last July this picture was not gay. San Sebastián was one of the most hotly contested battlegrounds of the revolution. Lost and retaken several times by the combatants, its streets ran with blood.

In one of its fashionable hotels, the Continental, were the summer offices of our Embassy. For five days our officers were isolated here with no word from the outside world. They could not even reach Ambassador Bowers at his summer place at near-by Fuenterrabía. They had no means of defense. Leftist soldiers, merely peasants armed with rifles, many of them women, swept past the doors—killing.

In place of the pretty white yachts which usually dotted the bay were grim war vessels—American, British, French, and German. At last our ship, the *Cayuga*, was able to evacuate our Ambassador and his diplomatic staff. It later became a floating Embassy and carried the Ambassador all along the northern coast, taking off hundreds of Americans and other foreigners. To the little French resort of St. Jean-de-Luz the *Cayuga* and the *Oklahoma*, as well

as British and French ships, brought refugees of a dozen nationalities.

War spread rapidly along this north coast. Bilbao, then the whole Galician section, became affected. In Vigo our Consul, looking out of his office window in the new, modernistic bank building in the center of the city, saw 18 persons killed in the street on the first day of fighting.

### WAR CLOUDS IN SUNNY ANDALUSIA

Far in the south, sunshiny Andalusia thundered with cannon's roar. Peasant-folk, gay and cheerful, who should have been gathering their almonds, drying their raisins, and picking their olives, quit work and went to war.

In this region city laborers have long discarded any distinctive garb and have turned to blue overalls. Many farmers, however, still stick to wide-brimmed, high-crowned Córdoban hats and the brown corduroy trousers held up by red or blue sashes. Country produce still trickles into Málaga on donkey back, but every year sees more small trucks on the road, more motorbusses plying between the towns.

In all the south, Málaga has felt the quickening pulse of modernity more than any other city. It has torn down old buildings, straightened and widened streets, acquired tea dances and elaborate cinemas. It has built hundreds of beautiful villas in flowered gardens; but, alas, many will have to be rebuilt after the conflict, and this year Málaga's almonds and raisins may be missing on American and English markets.

Clean streets, trim traffic officers, first-class hotels await the visitors. Málaga wages an active campaign to attract tourists and already many foreigners are seen on its streets in the winter months (p. 417).

Yet contrasts survive. Parallel with new streets lie narrow crooked ones of centuries ago. Fishermen still pull in their nets and swing through town calling out the amazing varieties of their catch. Mixed with motor trucks, big two-wheeled *carros de bolsa* come in loaded with produce of mountain towns. Some are drawn by five or six mules, all hitched single file.

Saw-toothed sierras surround the city, giving it a beautiful blue and purple background against the sky. Along the very crest of one of them there is a tiny straight line—the road to Granada. It rises from sea level to a height of 3,000 feet in a 45-minute drive. Wide motor roads wind along the coast, east to Almería and west to Gibraltar, through scenic beauties unsurpassed in Europe.

To Córdoba the highway becomes a lane through thousands of olive trees. When harvest has begun, you meet groups of men, women, and children on their way to pick olives. The women put on heavy, padded trousers to protect their knees. It is backbreaking work, kneeling all day in soft, wet earth, gathering olives into small baskets, while the men knock them off the trees with long poles.

Córdoba nestles on the banks of the Guadalquivir, with a beautiful bridge of 16 arches built by the Moors (page 422).

Here are taxi stands, with rows of bright, new American cars, and films fresh from Hollywood. The main plazas have been enlarged, asphalted, transformed, surrounded by attractive, ornate new buildings, ambitiously following the lead of Madrid. But in the narrow streets of the old town one stops and exclaims before each iron-grilled doorway that leads to a cool, flowery patio where a little fountain plays.

Here is the Mezquita, greatest religious edifice built by the Arabs in Spain, a veritable forest of columns, with some 850 still standing.

On an evening last July, the Madrid-Sevilla express stopped as usual at Córdoba's station. After an hour's wait, passengers grew restless, made inquiries of worried trainmen; they saw darkness come, heard shots, cries, the rattle of machine guns, through a long night.

Morning brought news that the city was in rebel hands. The passengers found refuge in local hotels, saw troops enter in long lines of trucks; militia hurriedly formed and drilled; all the blue denim available was bought up for uniforms. Reports came that near-by villages were in flames, with hundreds killed.

To one who has lived years under Andalusia's calm, cobalt skies, the civil war seems an absurd impossibility; yet here it is. Córdoba's mosque, Sevilla's Giralda, and the lovely gardens of Algeciras have seen death and destruction. San Roque, perched upon a rocky cliff just inland from Gibraltar; or the long main street of tiny, obscure Estepona—little did I ever expect to see their names loom so large in American newspapers.

How much more this war may change Spain nobody knows.

Photograph by Alfred T. Palmer

COMING ASHORE BY THE AERIAL ROUTE AT SAN JOSÉ

Everyone grabs the center pole, like boys choosing sides with a baseball bat, and a crane quickly lifts the circular railed platform from the bobbing tender to the pier shed. It is a thrilling experience on days when the sea is rough. Such devices are necessary on the Pacific coast of Central America, where there are few good harbors and large ships must anchor offshore. In the background is the water front of San José, with several blue volcano cones rising dimly beyond.

# GUATEMALA INTERLUDE

## In the Land of the Quetzal a Modern Capital Contrasts With Primitive Indian Villages and the "Pompeii of America"

By E. John Long

Author of "Oxford, Mother of Anglo-Saxon Learning," "Montserrat, Spain's Mountain Shrine," etc., in the National Geographic Magazine

"STAND BY! You're going over the side!" shouted an efficient young deck officer from the rail of the "Santa" liner, as it rose and fell with the measured breathing of the sea a mile off San José, Pacific gateway to Guatemala.

Six of us, seated in the "cradle," which resembles the open cars on a Ferris wheel, felt a slight jerk as the rising boom tightened the heavy supporting ropes. The next moment we were swinging in mid-air.

Presently there came a lull. The cradle poised well beyond the rail. A whistle blew sharply, and we were lowered to the flat top deck of a bobbing tender alongside. In a few minutes we cast off, a tug swinging the tender around and heading it for a long steel pier jutting out from the shore.

Ahead we could see a line of foam where big combers dashed up the steep, palm-fringed beach. Crowded together along the shore were a few weather-beaten buildings roofed with corrugated iron. Blue and hazy in the distance rose the cloud-tipped cones of several volcanoes and the dim, mysterious mass of the Guatemalan highlands.

With a resounding bump the tender was swung alongside the rusty iron piles of the pier, a stout cable holding it just out of reach of the surf. Here the process of getting ashore was the reverse of leaving the ship, except that a circular railed platform, with a center pole to hold to, lifted groups of eight or ten passengers at a time.

### THROUGH GUATEMALA'S BACK DOOR

San José is a sleepy little tropical port. Between steamers this "back door" to Guatemala drowses in the shade of tall breadfruit trees and coconut palms, and carries on a desultory commerce with the Indians of the coastal lagoons.

Its dingy water front, ragged porters and fishermen, stifling heat, and main street preëmpted by railroad tracks give no promise of the color and activity of Guatemala's gay, modern capital, high up in the cool central plateau; nor of the pristine beauty of its smoking volcanoes and deep-blue lakes; nor of the primitive charm of highland Indian villages whose markets rival oriental bazaars for color, wares, and brilliant native costumes (Color Plate VII).

Nondescript iron-roofed warehouses scarcely suggest the grandeur that was Antigua, the old Spanish capital and the "Pompeii of America." Steam whistles and the raucous cries of parrots are hardly a prelude to the haunting melodies of the marimba, which one hears everywhere in the rugged highlands.

### QUETZAL IS BOTH COIN AND BIRD

When we bought our tickets for Guatemala City at the San José railroad station, we learned that the country's currency is on a par with that of the United States. The unit of exchange is the *quetzal*, named for the national bird of freedom (Color Plate VI), and it is worth exactly one dollar. One reason for this happy financial condition is that Guatemala enjoys a favorable balance of trade, exports exceeding imports by more than $2,500,000 in 1935.

The first part of the 73-mile journey to Guatemala City follows a gently rising plain, whose black volcanic soil is planted thickly in bananas, sugar cane, cotton, cacao, and fruit trees. Guatemala City is nearly a mile above sea level, in the cool and healthful *tierra templada*, or temperate zone, and the train must gain most of this altitude in the last fifty miles (map, p. 432).

Not far beyond Palin the line creeps through a narrow valley between two towering peaks and comes out on the edge of mountain-rimmed Lake Amatitlán. For several miles we wound along the shore, passing groups of Indian women washing clothes in hot springs at the water's edge. It is a convenient laundry, for clothes may be boiled in the springs and rinsed in the cold, fresh water of the lake without taking a step!

Photograph by Henry Clay Gipson

A HUMAN ANT SHOULDERS A LOAD AS TALL AS HIMSELF

This pottery merchant, leaving the market place at Santo Tomás Chichicastenango, easily carries his huge burden over rough mountain trails a mile or two above sea level. He hoisted the pack to his back with the help of bystanders and may go seven or eight miles before stopping to rest. On top is tied the straw mat on which he sleeps beside the road.

The train approached Guatemala City through verdant suburbs which gave way to warehouses and railroad yards, indicating the commercial activity of this busy Latin American capital.

### "WINTER" BEGINS IN MAY

From the terminal, taxis whisked us over smoothly paved streets to our hotel, a grandiose structure with a glass-covered patio, mahogany floors and furniture, and very high ceilings.

I commented to the clerk, a courteous Norwegian, that the air seemed a trifle chilly.

"Yes, the winter is just beginning," he replied.

Winter? In the Tropics? And in May?

He explained that "winter" in Guatemala is the rainy season, May to October, a period of clouds, dampness, and dismal rains, although, he hastened to add, "part of every day is fair and sunny." In "summer," November to April, there is little or no rain, the sun shines throughout the day, and the people are healthier and happier.

We were awakened the next morning by the clamor of church bells, the rumble of heavy oxcarts, and the musical chimes on carriages bearing worshipers to early Mass.

Guatemala City, the most populous place in all Central America, is compactly built.

Stand on the roof of one of its modern buildings and you see a clean and pleasant community, most of whose white, blue, pink, and buff-colored houses and shops are one or two stories high. Only a few concrete business buildings and stone church towers rise above the prevailing flat, red-tiled roofs.

### CAPITAL FOUNDED IN 1776

Founded the year the United States declared its independence, Guatemala City is a comparative youngster among the communities of Latin America. Several times

it has been damaged by earthquakes, and in 1917 almost the entire city was destroyed. It has lost its Old World air, although it still has many Moorish-type homes with iron-grilled windows and patios aglow with flowers.

With a population of 120,000, including about 6,000 foreigners, Guatemala City is today a thriving metropolis of well-paved streets, department stores, luxury shops, cafés, country clubs, busy factories, garages, and modern hotels. Its motion picture theaters, showing mostly American "talkies" with Spanish subtitles, advertise with big electric signs overhanging the streets in Broadway style (page 433).

At the Capital's covered central market, the largest in the country, the array of foodstuffs, textiles, utensils, furniture, and other commodities is endless. Its long aisles, and the streets adjoining the market building and cathedral, are always jammed with a noisy, restless throng of merchants and buyers.

Photograph by Kurt Severin

AROUND HER NECK SHE WEARS OLD SPANISH PIECES OF EIGHT

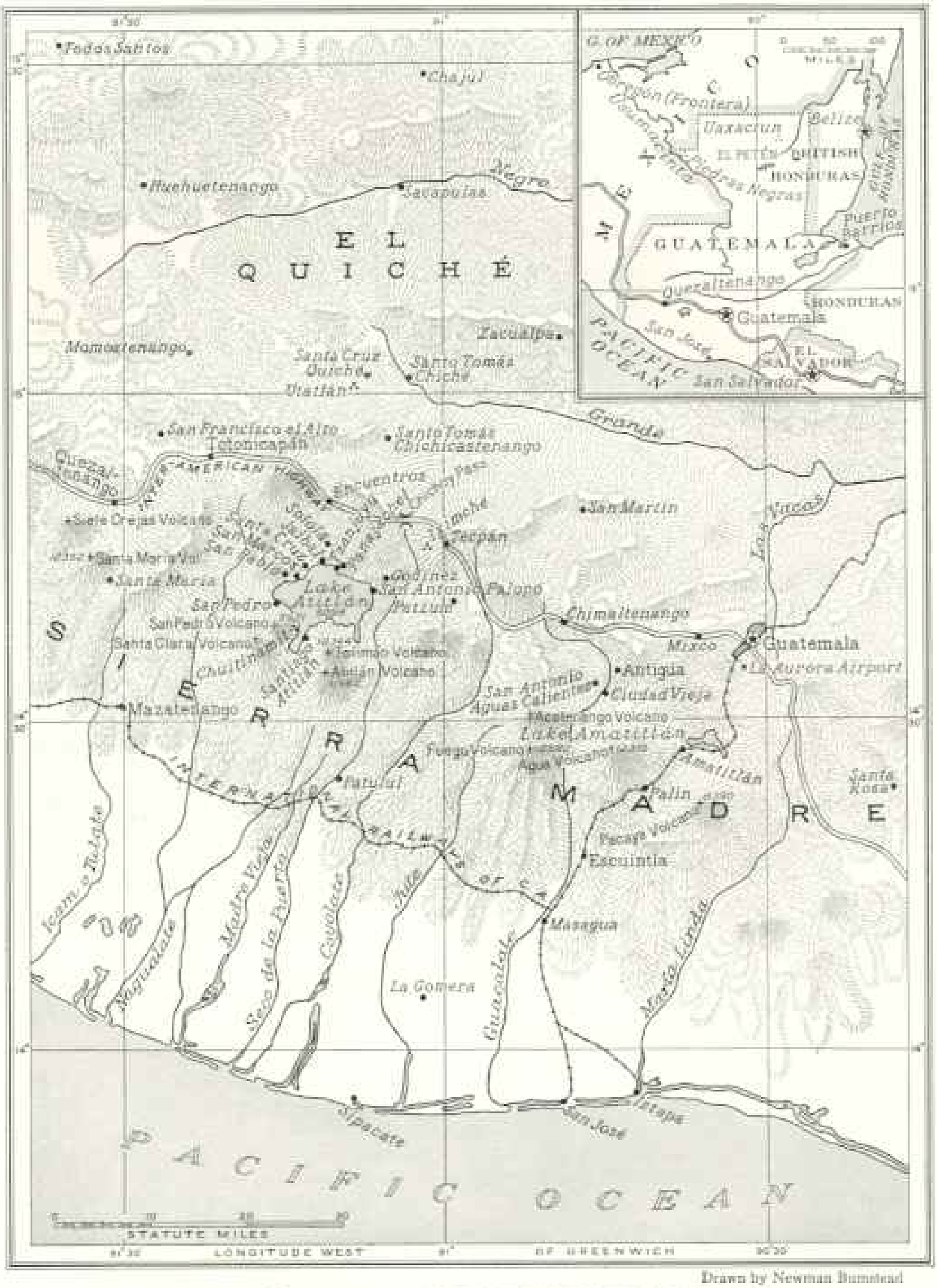
The heavy silver coins are in great demand as ornaments among the highland Indians of Central America. This woman of Totonicapán has the money strung in a necklace with colored beads, but the figured blouse is probably more valuable than her heirloom "treasury." The cloth on the head serves as napkin, tablecloth, market basket, and pad in carrying loads.

### STRANGE SIGHTS AND SMELLS

And the odors, strange, spicy, and heavy! The fresh scents of vegetables and exotic flowers mingle with the greasy smell of cooking food, the aroma of roasted coffee, and the balmy fragrance of copal incense.

Those with weak stomachs may not like the appearance or odor of freshly slaughtered meat. Nor will they find appetizing the leached corn mash for tortillas; or armadillos roasted in their shells; or crude brown sugar pressed into dirty blocks and balls. But visitors are delighted with bright tropical fruits piled in artistic disarray, graceful baskets and glazed pottery, and gay textiles woven on primitive hand looms (Color Plate IV).

Guatemalans are proud, and justly so, of the fine coffee grown in their highlands




Drawn by Newman Bumstead

GUATEMALA'S HIGHLANDS ARE POCKMARKED WITH VOLCANOES

Rising abruptly from the narrow coastal plain along the Pacific is a rugged, mountainous region that ranges from 3,000 to 14,000 feet above sea level. In this temperate zone of fanglike peaks and deep-blue lakes lives more than half of the country's 2,285,000 population. Guatemala, a little larger than the State of Ohio, is the most populous of the Central American republics and ranks second only to Nicaragua in area.

Photograph by Alfred T. Palmer

MOUNTAINS, RIVERS, AND SEAS—IN MINIATURE

On this relief map, near the Temple of Minerva in the Capital, the topography of the entire Republic of Guatemala is reproduced in concrete. Flowing water tumbles down miniature stream courses into large basins representing the Pacific and the Gulf of Honduras. Towns, railroads, and highways also are indicated. From observation platforms, crowds view this attraction, which covers about a third of an acre. The mountains are really not so steep as this, as the vertical scale has been exaggerated five to one.

(page 446). Placards in English and Spanish remind the visitor at every turn that "Guatemala Grows the Best Coffee in the World."

On the days when tourist trains arrive in Guatemala City, the Department of Agriculture holds open house. Small packages of freshly roasted coffee, wrapped in glazed paper, are presented to each visitor. They are appropriate souvenirs of a nation which is the sixth most important coffee grower in the world, being exceeded only by Brazil, Colombia, the Netherlands Indies, Venezuela, and El Salvador.

The second most important export is the banana, grown in the coastal plains bordering the Gulf of Honduras and the Pacific.*

One of the busiest spots to-day in this busiest of Central American capitals is La Aurora Airport. Here the trunk line of the Pan American Airways from Brownsville, Texas, to Panama connects with a half-dozen local air services to distant parts of the Republic.

Fascinating as is Guatemala City, however, it is but a prelude to that native Guatemala which is older in race, culture, and traditions. High in the Sierra Madre west and north of the Capital, pure-blooded Indians still dress as did their ancestors, worship their old gods as well as the new, and live their lives almost unaffected by modern civilization.

Until a few years ago, when the Government launched an extensive road-building program, travel in the highlands of Guatemala was slow and arduous. Now one may motor from the Capital westward to the Mexican border and east to El Salvador (map, opposite page).

Early one morning in May we set out from Guatemala City in one of the newest streamlined American motorcars. At the edge of the city we paused while our chauffeur muttered a few words to a detail of soldiers. He and the soldiers compared watches, after which we drove on.

* See "Guatemala, Land of Volcanoes and Progress," by Thomas F. Lee, in the NATIONAL GEOGRAPHIC MAGAZINE for November, 1926.

ROUGH PLAY HAS TAKEN TOLL OF A PROUD TURKEY'S TAIL FEATHERS

"I was the turkey of the feast" is a common Guatemalan expression when a person is the object of a practical joke. The boy playing in the market place with a strutting old gobbler entertains Chichicastenango visitors by doing the *jon*, a dance popular throughout the Nation.

Photographs by Luis Marden

TIME OUT FOR LUNCH ON A BUSY DAY

An Indian family's current assets may be represented in this sow and two small pigs at the livestock market in Santo Tomás Chiché. If they are sold, the money may mean new clothing for everyone, or more furniture, or a christening for a baby.

Photograph from Fitzpatrick Pictures, Inc.

SIXTH AVENUE IS THE BROADWAY OF GUATEMALA CITY

With its busy shops, stores, hotels, banks, and theaters, this newly repaved thoroughfare is the focus of business and social life in the Capital. It is gayest in the late afternoon and early evening. Motion picture theaters advertise the latest Hollywood features with huge electric signs overhanging the streets. The "talkies" are in English, but Spanish subtitles are flashed on the screen.

I turned to Don Alfredo Clark, our host in the highland country, and questioned him about the delay.

"We have no traffic police in the mountains," he explained, "but we have a speed limit. Our time was checked here, and it will be telephoned to another control point down the road. If we get there too quickly, we'll get a ticket."

As our car sped along the floor of the valley, we passed a steady stream of Indians and vehicles bound for the markets of Guatemala City. Stolid, earnest-faced men trotted by at a half run, their heads held rigid by a tumpline across the forehead that supported the heavy loads on their backs. For miles they had been jogging along at this peculiar, forward-falling gait. In *cacastes*, or wooden frames, they carried goods of all kinds—earthen jars, furniture, bags of grain, or fresh vegetables (page 430).

Their women hurried along beside or behind them, arms swinging freely, their burdens on their heads. Sometimes it was a basket of live chickens, a fat roll of clothing, woven fabrics, or a bundle of firewood. Almost always a baby bobbed up and down in a shawl slung across the mother's back.

Suddenly Don Alfredo exclaimed: "Say, there's a group of Indians from Todos Santos, away back in the hills. They must want to see the President, because they never come here to trade."

When I asked how he knew they were from Todos Santos, he pointed to their peculiar costumes (Color Plate I).

### "UNCLE SAM BOYS"

"We call them 'Uncle Sam boys,' (although they have never heard of Uncle Sam) because they have red and white striped trousers. Each tribe, and almost every village, in the highlands has a distinctive costume. Designs have not changed in hundreds of years. To those who know the different costumes, the Indians of the highlands might be carrying signs around their necks reading, 'I am from Sololá,' or 'I am from Chichicastenango,' et cetera."

It is regrettable, however, that many of these costumes are disappearing. Native garb has been replaced by blue denim and cheap imported cotton goods throughout

most of El Salvador, and these materials are now penetrating Guatemala. Under the harsh treatment of the Indian's daily toil, such fabrics are quickly reduced to tatters.

At the old Indian village of Mixco we climbed out of the valley and soon reached the crest of a long, broken range of mountains, fringed by the upward-sweeping cones of several volcanoes. Guatemala has been called a "Land of Volcanoes," and with reason, when one considers that it possesses nearly a score of large craters, of which at least a half-dozen are active (page 448).

### VOLCANO-GIRT LAKE ATITLÁN

Steeper and steeper grew the grade as we left the hillside village of Godinez. Just before we reached the summit of the climb, the mountain dropped away to the left with breath-taking suddenness, and there, far below, lay the deep-blue waters of Atitlán, one of the world's most beautiful lakes (Color Plate II).

Like some of the Swiss lakes, Atitlán is folded among steep, rocky shores, but instead of snow-capped Alps in the background there are huge volcanoes—four towering brown and purple cones with fleecy white cloud turbans on their heads. Nowhere is the mountain rampart broken, for Lake Atitlán apparently has an underground outlet.

Directly below, in a cove along the shore, a yellowish patch indicated the village of San Antonio Palopó (St. Anthony Where Mats Are Made). Local guides will tell you that there are twelve Indian villages around the lake, each named for one of the Twelve Apostles. Map nukers, less romantic, have found that there are many more than twelve towns and that only four of them bear names of Apostles.

The steep, narrow road descending the inner rim of Atitlán is a marvel of highway engineering, twisting and winding down to the rocky bed of a mountain torrent that enters the lake near the quaint village of Panajachel. But we continued on to Tzanjuyú, where a small inn has been built on a headland jutting out into the lake.

Before the vine-draped veranda of the inn a magnificent vista of sparkling water and volcano cones is spread—when the weather is clear. The afternoon we arrived a heavy tropical downpour like a silver curtain shut out the view. We were wondering how to pass the time when a fellow guest, a Guatemalan on vacation with his wife and family, asked if we would like something to read.

We gratefully replied that we would, and he returned a minute later with the latest issue of the NATIONAL GEOGRAPHIC MAGAZINE! When I explained that I was a member of the editorial staff, obtaining material for an article about his country, he added that he had heard Dr. Grosvenor, the President of the National Geographic Society, speak the previous evening. A short-wave broadcast, via Pittsburgh, Pennsylvania, had brought him The Society's program honoring Admiral Byrd and his gallant Antarctic companions in Washington, D. C.

Thus, far back in the rugged mountains of Central America, I learned about the most recent activities of The Society from one of its 371 members in Guatemala. On two other occasions, at Chichicastenango and at San Francisco el Alto, I met resident members of The Society, and in each instance my researches were made easier by their kindly cooperation.

Although Lake Atitlán is only 11 miles long and a little more than 6 miles wide at its widest point, three Maya tribal groups live around its shores. Near Tzanjuyú dwell the Cakchiquels, allies of the Conquistadores; directly across the lake the natives are the once warlike Tzutuhiles; while the Indians of San Marcos and San Pablo belong to the Quiché tribe.

Viewed from the water, Santiago Atitlán, chief city of the Tzutuhiles, with its straw-thatched stone huts rising in tiers from a bowlder-strewn shore, resembles a South Sea village. The town faces a blue bay between the graceful peaks of San Pedro and Tolimán Volcanoes.

### WOMEN WEAR "HALOS"

Going ashore, we were met by women and children shyly offering textiles and pottery for sale. Others, carrying water jars on their heads, passed in endless procession up and down the rough stone lanes. In Santiago Atitlán the women wind a narrow, varicolored woolen ribbon around their hair like a halo (Plate VII).

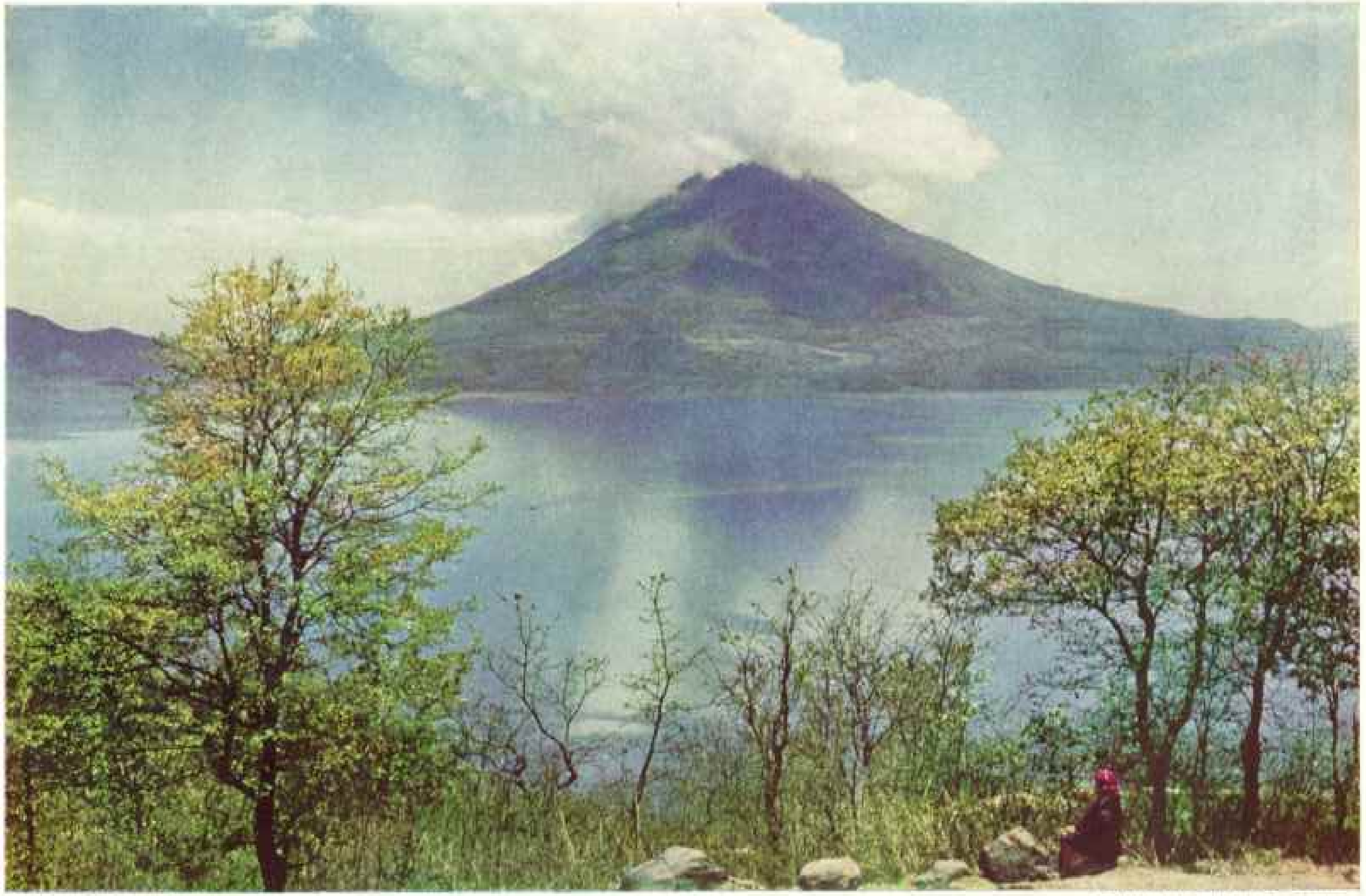
On the return voyage in a motor launch to Tzanjuyú, a Guatemalan friend pointed out a V-shaped valley debouching into the lake.

"That is Jaibal, pronounced in Spanish like your American word 'highball,'" he explained. "But the only highball that

 Finlay Photographs by Luis Marden

NORTH AMERICAN VISITORS CALL THEM "UNCLE SAM BOYS"

Red, white, and blue costumes of the Todos Santos Indians suggest the cartoon character. Resemblance, however, is only accidental. The natives live in an isolated little village far back in the western highlands, and probably never have heard of "Uncle Sam." The four men (above) came into Guatemala City to see President Jorge Ubico; those below are selling potatoes at San Francisco el Alto.





Finlay Photograph by Luis Marden

SLUMBERING VOLCANOES, THEIR HEADS PILLOWED IN CLOUDS, GUARD DEEP-BLUE LAKE ATITLÁN

Nearly a mile above sea level, the largest body of water in the Guatemalan highlands here is overshadowed by Mounts Tolimán and Atitlán.



HOMAGE TO A VILLAGE ELDER

Guatemalan Indians, like the Chinese, venerate age and family traditions. Here a policeman of Sololá kisses the hand of an old friend. Strangers can always spot a Sololá Indian by his red-striped sleeves and checkered knee-skirt, which the policeman wears but the other man carries folded.

Finlay Photographs by Luis Marden

FESTIVE GEAR FOR THE FIESTA

The strings look like garlic, but they are made of colored corn husks stuffed with pellets of sugar. The women are buying them near Lake Amatitlán for the "Fiesta de la Cruz." On holidays, buildings are festooned with paper, fireworks are set off, and often masked dances are staged.

EVERY VILLAGE HAS ITS "PILA," OR OUTDOOR LAUNDRY

Not all are as elaborate as this stone fountain in Antigua. In the tub clothes are soaped and pounded. Rinsing follows in the main pool. Heated water is sometimes piped from hot springs. Everywhere *pilas* are gathering places for gossiping women.

 Finlay Photographs by Luis Marden

GUATEMALAN FABRICS ARE HAND-WOVEN FROM ANCIENT PATTERNS

Women of San Antonio Aguas Calientes, meaning "St. Anthony of the Hot Waters," weave on the looms brilliant designs for new blouses. The finished material is smooth and resembles tapestry.

SWINGING CENSERS, INDIANS PAUSE FOR A PRAYER

Kneeling before the church portal, humble worshipers of Santo Tomás Chichicastenango display striking and bizarre costumes. An adaptation of 16th-century Spanish garb, the clothes are embroidered with sunbursts and other symbols.

 Finlay Photographs by Luis Marden

THE WEIRD CANDLE CEREMONY IN THE CHURCH OF SANTO TOMÁS

The head of the family (left) prays and gesticulates while he drops rose petals, corn, and small coins among the flickering tapers. Indians kneel for hours on the cold stone floor of the church.

© National Geographic Society

DON PEDRO DE ALVARADO, BRAVE AND RUTHLESS

After the conquest of Mexico, Cortez sent his bold lieutenant to search for gold in Guatemalan cities. A painting in the City Hall, Guatemala City.

Finlay Photographs by Luis Marden

THE QUETZAL IS THE SYMBOL OF GUATEMALAN FREEDOM

Its striking tail plumes were worn by Maya chiefs. Today it appears on the coat of arms, coins, and stamps of Guatemala. This museum specimen is perched on a coffee tree branch.



Finlay Photograph by Luis Marden

PEACEFUL BARTERING NOW PREVAILS IN THE HOME OF GUATEMALA'S MOST WARLIKE TRIBE

Tzutuhiles proved so troublesome and hostile to Alvarado that he led a special expedition against them. Today Santiago Atitlán, their ancient capital, is noted for its comely Indian women, who wear "halos" made of tightly wound bands often 20 feet long.

 Finlay Photograph by Luis Marden

ONE OF THE ATTRACTIONS OF ANTIGUA IS THE CHURCH OF LA MERCED

Much of this former capital of Spanish Central America was destroyed by the disastrous earthquake of 1773. Shortly afterward, the seat of government was moved to Guatemala City. Founded in 1542, Antigua had, in the days of its viceregal glory, scores of splendid government buildings, churches, huge estates, fountains, and plazas. It bore the resplendent name, "The Very Noble and Very Loyal City of Saint James of the Gentlemen of Guatemala."

comes from there is coffee. Some of our best coffee is grown in that little ravine."

Nearly a thousand feet above Lake Atitlán, the Indian village of Santa Cruz clings precariously to the side of a mountain. From the lake its tiny cluster of creamy houses, huddled around a low, white church, looks for all the world like an egg salad on a generous portion of lettuce.

It was the situation of the village that first excited our interest. No one could tell us much about the place, except that its inhabitants were weavers and fruit-growers who toiled up a narrow trail to sell their wares at Sololá, chief city of the lake region.

The captain of the San Pedro boat agreed to drop us on the rocky shore below the village and call for us on the return trip. As his launch put-putted around a projecting headland, we climbed a steep, dusty trail that zigzagged up from thorny cattle corrals and lemon groves to the overhanging houses of the town.

### THE FIESTA OF SANTA CRUZ

As we drew near, not a person was to be seen, in contrast to the venders and curious children who heralded our arrival in Santiago Atitlán, San Pedro, and the other lake villages. Then, as we walked around the corner of a building near the sun-baked plaza, we came to a sudden halt.

Ranged on each side of a glistening mahogany marimba were eight costumed and plumed Indians, peering at us through the eyeholes of as many bland and emotionless masks. Some carried sabers; others held decorated gourd rattles. All wore ill-fitting shoes and white stockings. Long feathers waved above spangled hats and velvet uniforms bedecked with gold braid, bits of mirror, and bright silk ribbons. We had stumbled upon a village fiesta (page 453).

Outsiders are rare in this out of the way place, and our presence caused an awkward pause; so we continued our walk.

At the head of the village we sat down on a stone threshing floor. But presently all thought of rest was banished. From somewhere below came the deep, lugubrious tones of a marimba. The music rose and fell in regular cadence, repeating over and over again a refrain that seemed to have no beginning and no end. In the cities there is something harplike and gay about marimba music, but out here, in this primitive volcano land, there seemed an undertone of drums, of the barbaric beating of tom-toms.

We went nearer, down a winding gully. The music grew louder. There was a slow, shuffling noise, too, as if feet were moving in regular rhythm, and the sharp rattling of stone-filled gourds.

A bend in the ditch revealed the sun-baked village plaza, a hundred yards below. There, before the marimba, the eight costumed Indians were gliding and prancing back and forth, now slowly, now quickly, in time with the music. There was something in the sight suggestive of an old Spanish-Mexican dance depicting the Moors and the Christians. Yet the steps were mincing, with a studied awkwardness and dragging gait that was as puzzling as it was fascinating.

A haunting spectacle it was—the eerie music, the movements, the brilliant costumes, and the little village hidden in the mountains. History's pages were turned back four hundred years.

The next day we left Lake Atitlán. The rough mountain road, which seemed a continuation of the steep roof of our hotel, twisted into rocky defiles and wound out to the brink of dizzy headlands (page 447).

### GRADES OF MORE THAN 30 PER CENT

Rain, falling in torrents, added new thrills to the ride across the plateau from Sololá (Plate III) to Encuentros, where we crossed the highroad from Guatemala City to Quezaltenango. As we continued north toward Santo Tomás Chichicastenango, our chief objective in the highland country, the grades steadily became steeper.

Just before we left Guatemala City, a small bubble gauge had been attached to a door of the car to measure the grades. Unfortunately, however, it measured up to *only* 30 per cent! On several of the hairpin turns between Encuentros and Chichicastenango the bubble went to the top and stuck. But our powerful car, with its aviation-type tires slightly underinflated, never faltered. One may appreciate how steep are these Guatemalan roads by comparing them with the highway up Pikes Peak in Colorado, where the maximum grade is a little over 10 per cent.

Late in the afternoon we topped a pine-covered knoll and there below us lay Chichicastenango, a picture village of low white houses and wine-red tile roofs. All around it drop terrifying canyons, but the

Photograph by Luis Marden

YOUR MORNING CUP OF COFFEE BEGINS AS A SMALL WHITE FLOWER

The pale, delicate blossoms of the coffee plant give off a faint perfume, but they last little more than a day. This tree was photographed at the *finca*, or plantation, of the President of Guatemala, General Jorge Ubico, south of Guatemala City.

town itself is securely seated on a shelf overlooking the open Quiché plains.

Our road found a shoulder between two of the deep ravines and presently we were bumping along a narrow, cobbled street between whitewashed adobe houses. At each turn sandaled Indians and heavily laden burros scampered out of the way. Shy Indian faces peeped from the doorways. The tooting of the car's horn occasionally brought a friendly "Adiós" from a passing shopkeeper, for Don Alfredo is known and liked in this highland town.

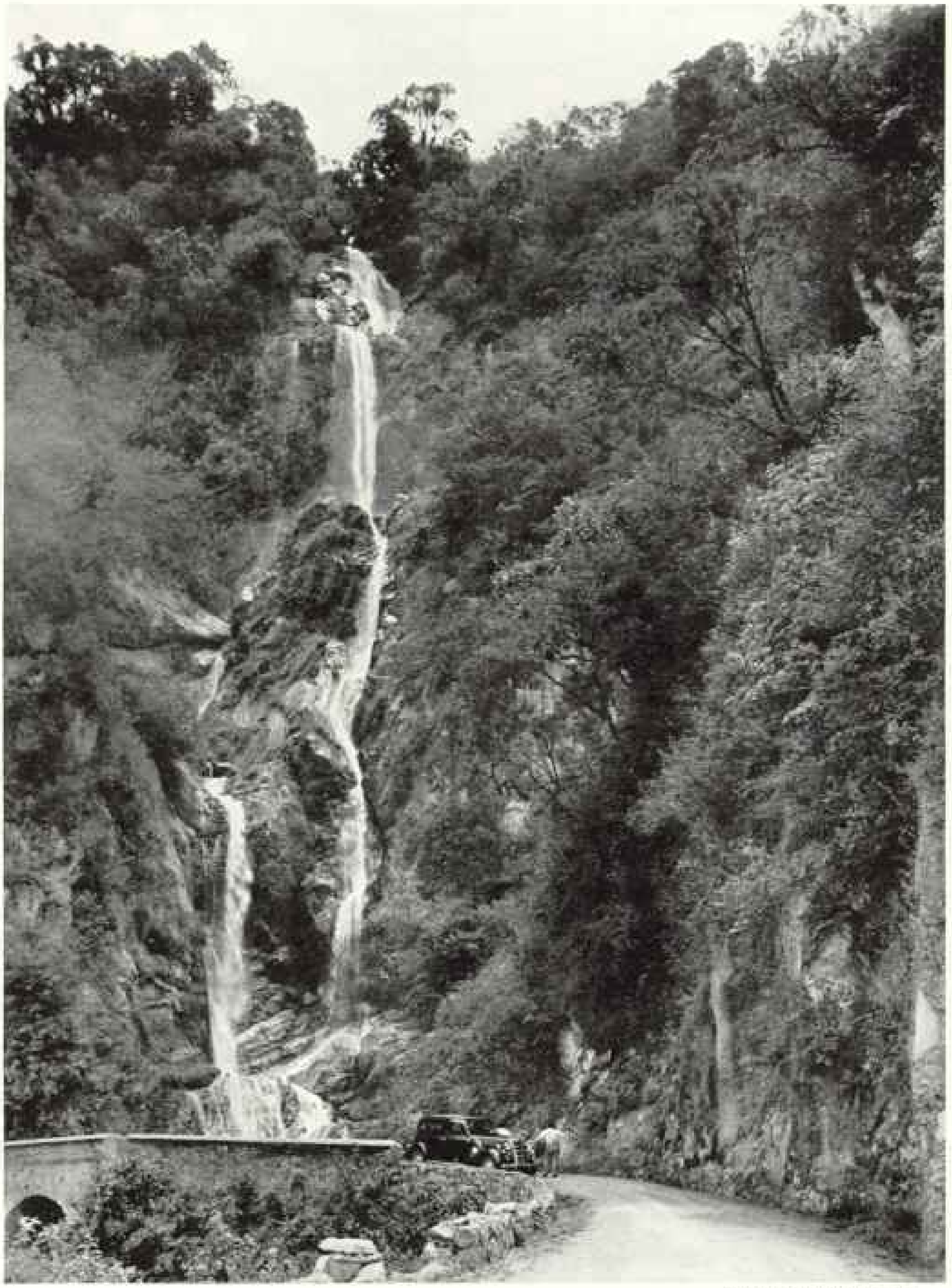
Down a side street we drove, and turned into the courtyard of an inn, which, with its Spanish colonial furniture, stone fireplaces, crystal chandeliers, and carved woodwork, was a different world from the Indian village outside.

The walls of the patio were painted with queer inscriptions copied from the ruins of Uaxactun, a Maya city far to the north in the Department of El Petén (page 432). In the library of the inn, before a blazing fire, were the latest magazines and a collection of rare books describing the region.

That night we walked under a starless sky through silent, deserted streets. As the village offers nothing in the way of evening entertainment, we were surprised to hear a marimba playing "The Continental," a popular dance tune in the United States at the time.

The music seemed to come from a side street. Walking in the direction of the sound, we came to a small house. A dark passageway led to a tile-paved room, dimly lighted by flickering candles. Along one side were two marimbas, one large and played by four men, the other smaller, played by two. Beside the larger marimba stood the maestro, an elderly man with a huge bass viol. He explained that the boys were practicing for a village fiesta.

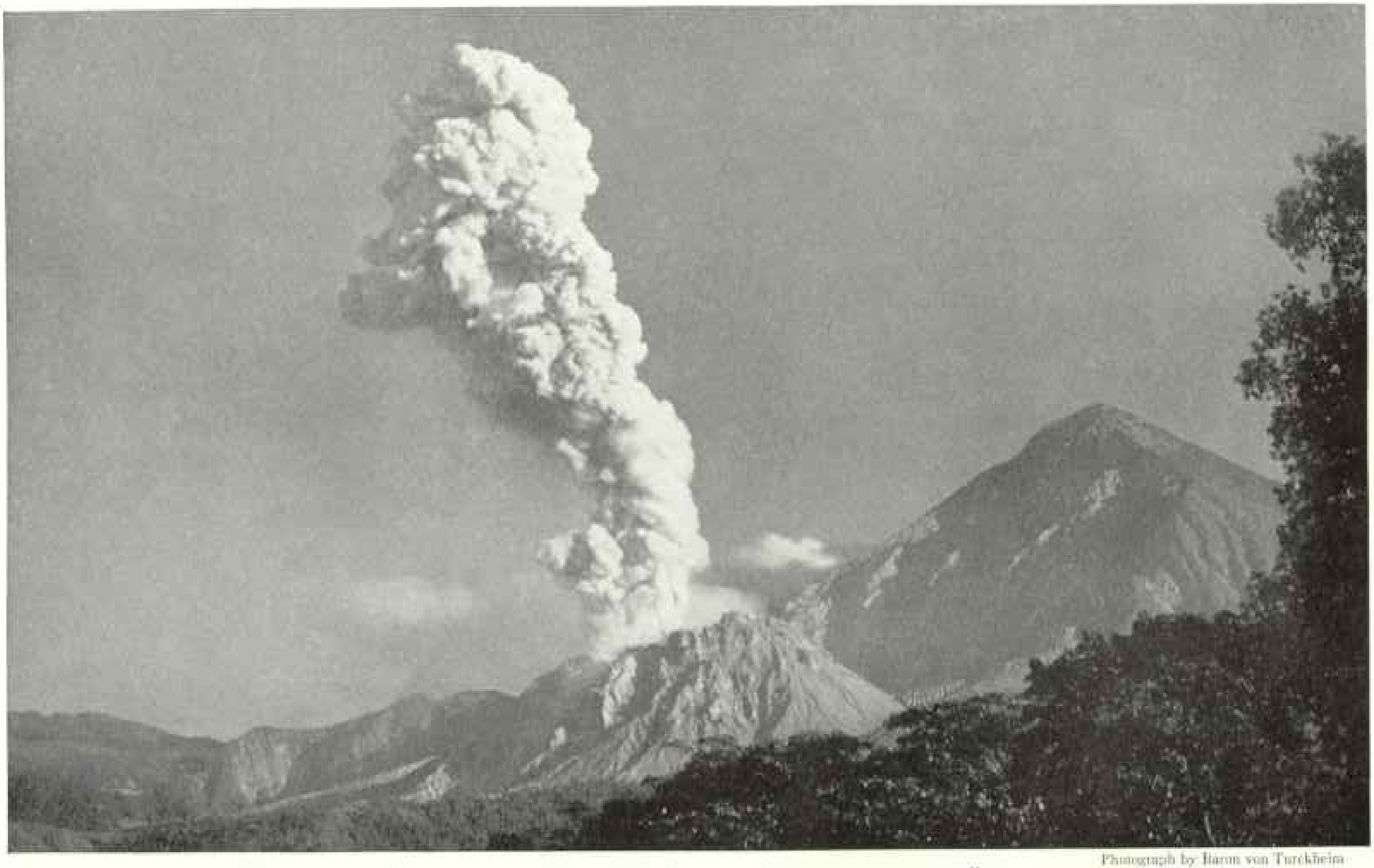
Cane chairs were brought and we listened entranced to several native compositions, deep, rhythmic, with much repetition of motif, and generally in a minor key.



Photograph by Luis Marden

A MOUNTAIN STREAM TAKES A TUMBLE OF SEVERAL HUNDRED FEET

One of the spectacular sights along the highway that twists down the mountainside from Sololá to Panajachel is this silvery ribbon streaking downward through the forest. Only part of it appears here; below the highway it continues its plunge. There are many such cascades in the Lake Atitlán region, where streams fed by tropical downpours leap over steep escarpments.



Photograph by Baron von Turkheim

"A PILLAR OF CLOUD BY DAY; A PILLAR OF FIRE BY NIGHT"

Santa Maria is one of Guatemala's most active and dangerous volcanoes. In 1902 it blew out its side in a tremendous eruption that took hundreds of lives and destroyed a half million dollars' worth of coffee and grain plantations. Again in 1950 it spread terror and death. Santa Maria's cone, like those of other Guatemalan volcanoes, is built up of ash. Much of the damage results from outpouring of sulphurous vapors and ashes rather than from extensive overflows of lava.

Photograph by E. John Long

"CRICKET BAT" PADDLES PUSH A HEAVY DUGOUT THROUGH GLASSY WATERS

Indians of some of the more primitive villages around Lake Atitlán are skilled navigators of these unwieldy craft with crudely carved prows and raised sideboards. Alvarado, the Spanish conqueror, mustered hundreds of such *cayucos* when he and his allies, the Cakchiquels, crossed the lake to subdue the warlike Tzutuhiles (page 436). Storm clouds gather over the serrated cone of San Pedro Volcano in the background.

Photograph by Luis Marden

YOUNG GUATEMALA GOES FOR A RIDE

In La Aurora Park, the Capital's playground, sons and daughters of Guatemalan families are led around walks shaded by palms, banana plants, and other tropical vegetation. An Indian nurse in native costume walks beside the youngster in the goat cart.

"How did you learn 'The Continental'?" I asked.

"We heard it on a phonograph record at the inn," the maestro replied. The Guatemalan has a keen ear for music and can reproduce difficult compositions after hearing them a few times.

### A MARKET LIKE A STAGE SETTING

The next morning we were up early to see the teeming Indian market in the plaza. But we were not up early enough to get there before the Indians, who all night had been slipping noiselessly into town.

Chichicastenango's plaza is the scene of the largest and the most elaborately costumed Indian market in Central America. On Thursdays and Sundays it draws as many as 5,000 traders and farmers from an area of several hundred square miles.

Mingling here on market days are Indians from scores of villages, each dressed in a different manner. To the stranger it is dreamlike and unreal. One has the feeling that this is the opening scene of a new opera; that presently a trumpet will blow, an orchestra will begin to play, and all these earnest people will drop their bargaining to burst forth in full-throated song!

Back of the gay trappings and the romancing of visitors, however, the workaday life of a simple but industrious people moves on. In long rows the women squat on the hard earth, their wares piled before them. Some are protected from the tropical sun by square cotton awnings, but most of them sit in the open. Many plait straw for sombreros as they wait for buyers. Hand scales measure out yellow and blue corn, native copal incense, soap, peppers, dried shrimps, beans, and herbs.

### ARISTOCRATS AMONG INDIANS

It is difficult for an outsider to understand the status of the Indian in a town like Chichicastenango. Unlike the half-naked aborigines of the jungle lowlands, or the itinerant tradesmen and servants of the

Photograph by E. John Long

"RAINY SEASON BRIDGES" KEEP PEDESTRIANS' FEET DRY

When torrential downpours begin in May, these folding footbridges are erected across many of the side streets in Guatemala City. On a corner of the building in the background is a small shrine, containing a vase filled with freshly cut flowers.

cities, the Indians of the highlands of Guatemala have maintained a proud, semi-independence as farmers, weavers, and pottery makers.

Conquered but never assimilated, they are aristocrats among the native peoples of Central America, and they are sufficiently well organized to make mass petitions to the central government when local conditions demand it. They have had much less contact with other races than Indians elsewhere have had, and are not badly scourged with alcohol. Consequently, they have retained their self-respect and are neither subservient nor cringing.

To students of the early races of Central America, Chichicastenango has another interest. In its convent was found a book, the *Popol Vuh*, written by a Christianized native shortly after the Conquest.

This rare document, describing Quiché history and mythology, the deeds of the hero gods of the Maya, and the Maya version of the Creation, survived the relentless campaign of destruction waged by the early Spaniards against all native writings or monuments only because it was hidden for many years.

As a record of the traditions and of the philosophical and religious beliefs of an ancient race, the *Popol Vuh* has been compared in some respects to the Japanese *Vihongi* and the Brahmanic *Rig-Veda*. Although it has been translated into Spanish and French, no one has published an English version of this remarkable book.

Roman Catholic, the little white stone church of Santo Tomás at Chichicastenango is also a Quiché shrine. The Indian's religion, as it is practiced here, may be considered an interesting example of the passage from half-forgotten pagan idolatry toward orthodox Christianity. To the stranger, Sunday worship at Santo Tomás is a compelling spectacle; because there can be no denying the fervor and deep sincerity of the Indian's faith, whether it follows accepted forms or not (Color Plate V).

Photograph by E. John Long

BLANKETS CARPET THE STREETS ON A MARKET DAY

To San Francisco el Alto are brought many of the best woolens of Momostenango and Huehuetenango, centers of the weaving industry of western Guatemala. Merchants spread their wares on the rough flagstones to dry and await the inspection of buyers. Selected wool from both black and white sheep is used in the preparation of the finest blankets made in the Republic.

Before I came to Chichicastenango, I saw photographs of stone idols half-hidden in little clearings in the pine forests. There, I was told, Indians still carry out the rites of their pagan ancestors. But I was a little skeptical of reports that such idols were reverenced today. The photographs did not show anyone around them, although, it was explained, this was because of Indian shyness or hostility.

One of the most famous of the ancient altars stands on a mountain top within a mile or two of Chichicastenango. With an Indian lad as a guide, I set out for the shrine along a well-beaten path that zigzagged up the steep mountainside through a forest of evergreens.

Pine needles muffled our footsteps, and, in the dead silence of late afternoon in May, I presently heard a chanting monotone, sometimes slow, sometimes fast and excited. The accent and words were strange, lilting—the language of the Indian. The pungent odor of copal incense filled the air.

In a few minutes we came to a clearing on the top of the mountain. There, directly ahead of us, knelt four Indians, facing a stubby, time-chipped and smoke-blackened stone image of a man with arms folded across his chest.

Between the four and the idol, an older man knelt on one knee, sprinkling flower petals around several rows of burning candles. It was he who was chanting, gazing all the time at the lighted tapers. Occasionally he leaned on a small stick, but most of the time he made short, forceful gestures with his hands, much as did those praying within the church at Chichicastenango.

There was no intimation that the group was hostile. On the other hand, I sensed a strange uneasiness.

Later, when I described the costume worn by these Indians, I learned why the

Photograph by E. John Long

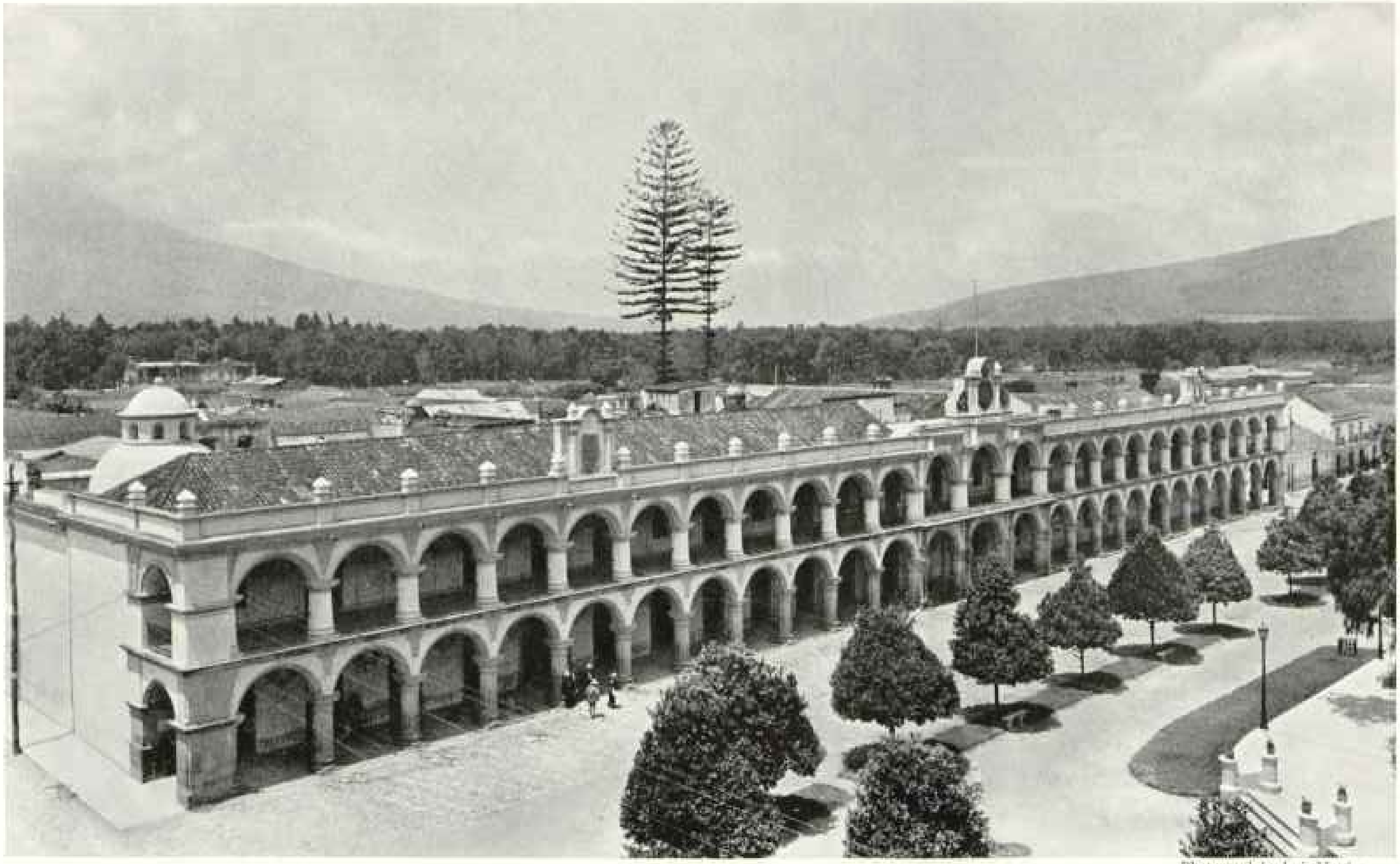
SULLEN RAISING OF MASKS GREETS THE WHITE VISITORS

When the author chanced upon a village fiesta at Santa Cruz, the costumed Indians suddenly stopped their strange dance (page 445). The bespangled leader (second figure to right of the marimba) wore a sword, but he directed the proceedings with a bulging umbrella.

Photograph by Luis Marden

MASK DECORATORS PLY AN ANCIENT TRADE

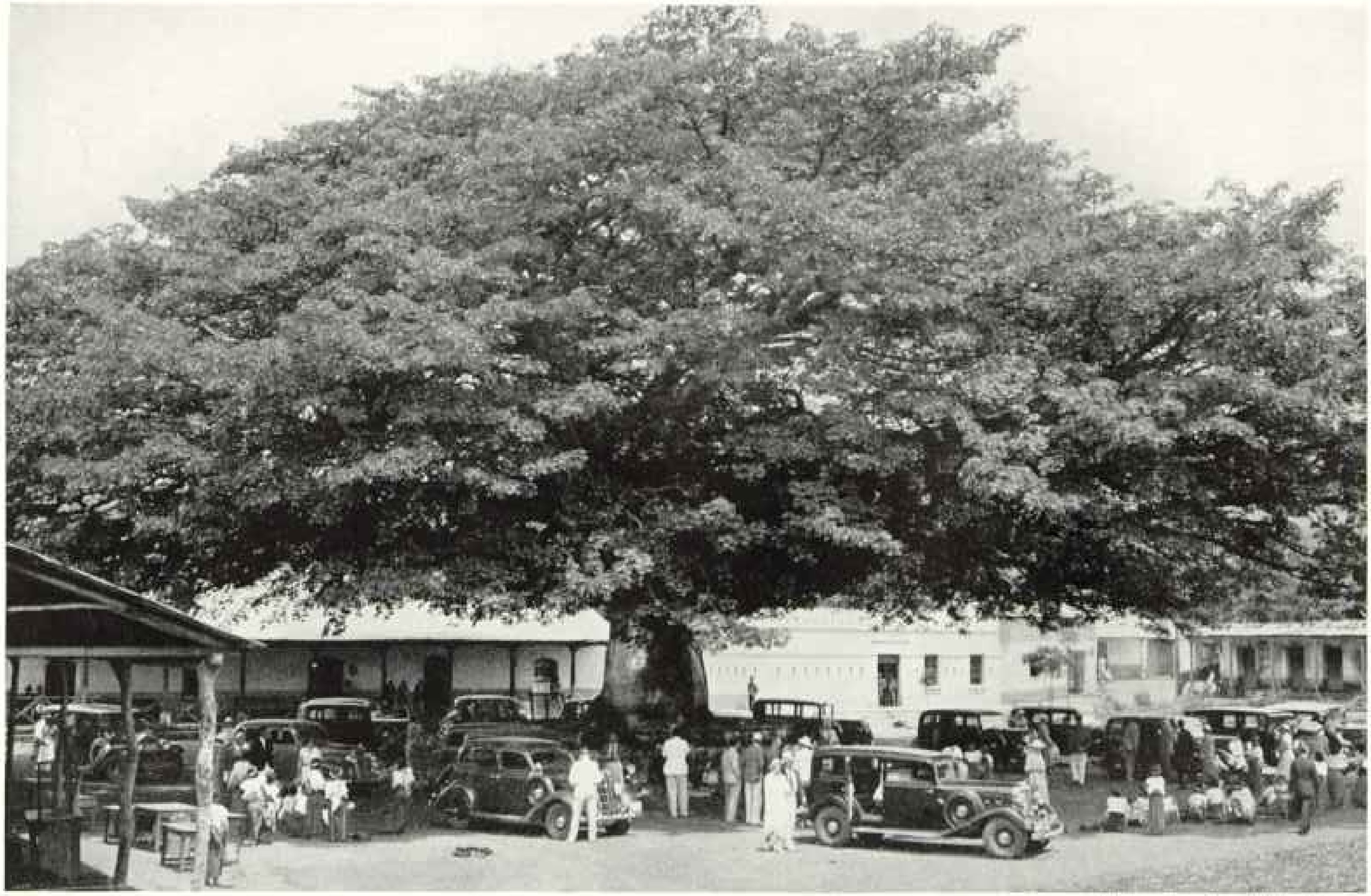
In highland villages Indians make and rent masks and costumes for ceremonial dances. Here an artisan of Santo Tomás Chichicastenango retouches a mask representing a Conquistador.



Photograph by Luis Marden

MAJESTIC STILL IS THE PALACE OF THE CAPTAINS GENERAL AT ANTIGUA

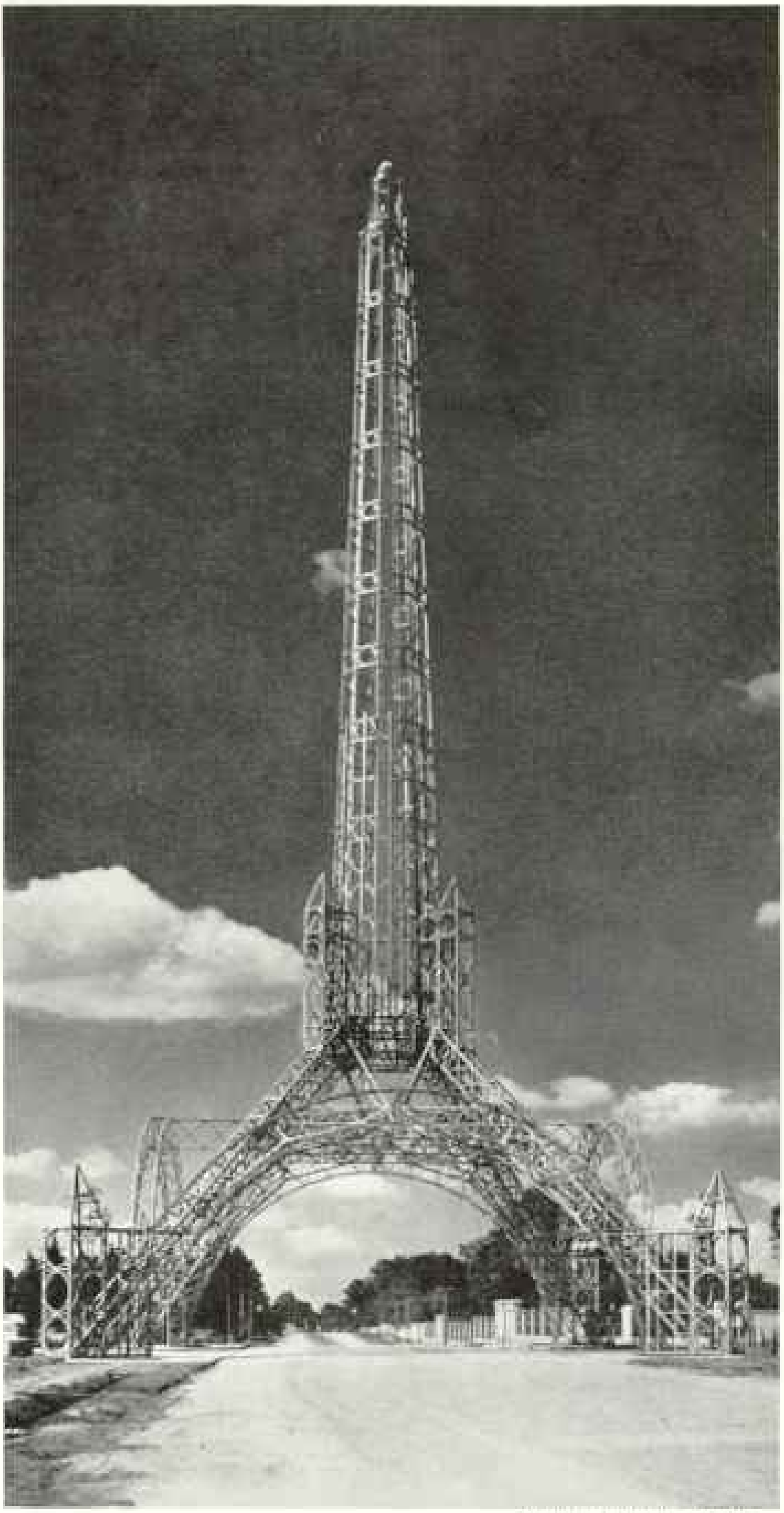
The royal coat of arms of the ancient city, carved during the reign of Charles III of Spain, surmounts this imposing Spanish Renaissance building, one of the finest colonial structures in the Americas. Within its cool halls and audience chambers once centered governmental activities for a vast domain stretching from southern Mexico to Panama (page 458). From its upper balcony officials and their guests watched pageants and bullfights in the Plaza de Armas (right).



Photograph by George W. Hutchison

A FLEET OF MOTORCARS FINDS SHADE UNDER THE SPREADING CEIBA TREE AT PALIN

One of Guatemala's busiest and most colorful Indian markets is held every Wednesday and Friday beneath this giant natural canopy, which has a spread of more than 180 feet. During the annual fiestas in July and October one may see masked dances and comic mock bullfights in this little plaza.



Photograph by Luis Marden

GUATEMALAN PROGRESS POINTS A FINGER SKYWARD

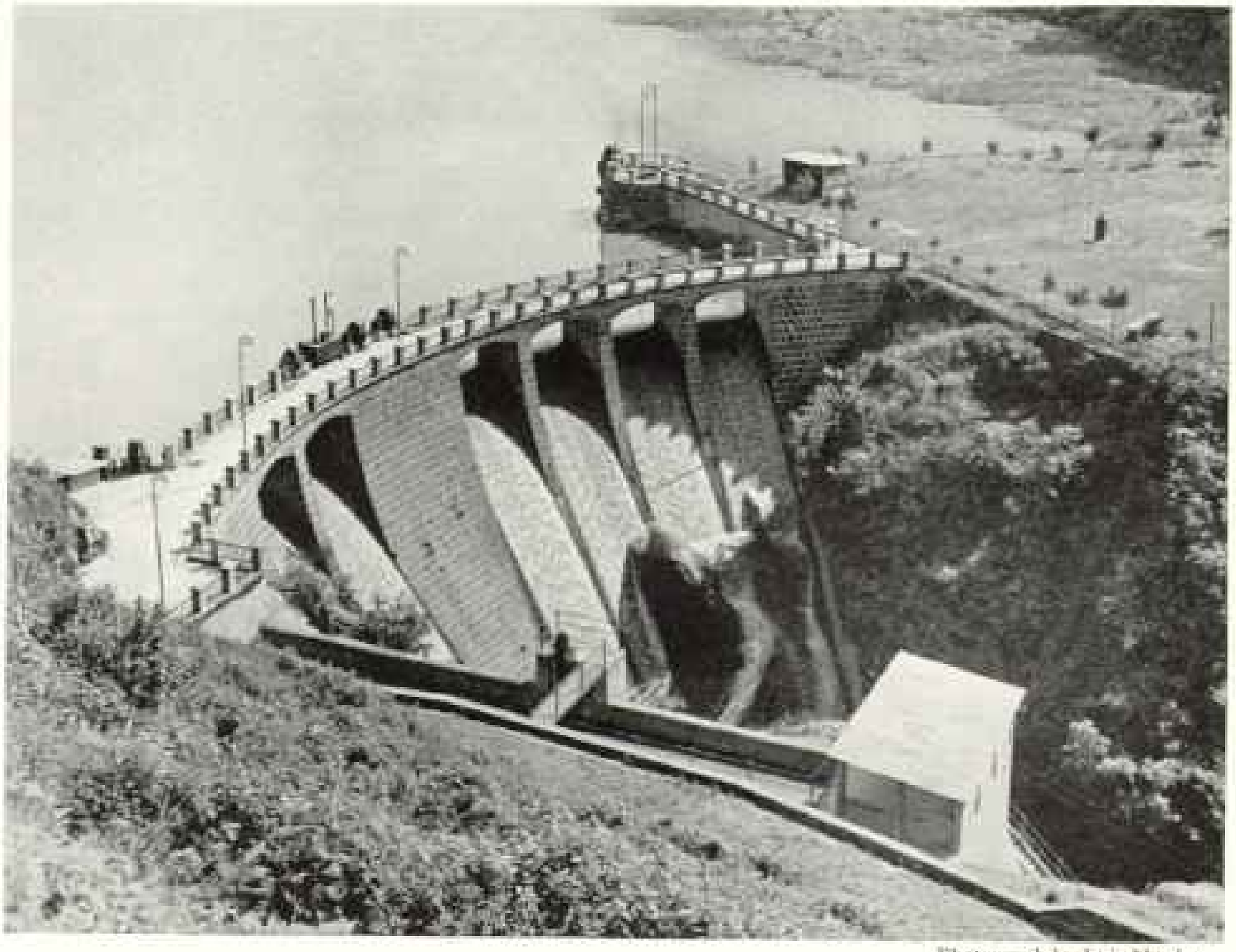
Built in 1935 to honor former President Justo Rufino Barrios, this aviation beacon spans the highway entering Guatemala City from La Aurora Park and the municipal airport (page 433). Barrios became President in 1873 and during his long rule built railroads, telegraph lines, bridges, and highways. His ambition was to establish a single state in Central America.

group had been so restless. They were Sololás, traditional enemies of the Indians of the region. Chichicastenango Indians use an effigy of a Sololá Indian for Judas during their Easter fiesta, and the figure is blown up during the celebration.

The evening before we left Chichicastenango I walked again in the plaza at twilight. The Indian traders had gone, and it seemed strangely lonely. The smooth white walls of the little church of Santo Tomás held the last faint rays of the setting sun; the incense fire at the foot of the church steps was only a smoldering ember.

Presently an old man walked up to the church and planted a piece of wood in a crevice of the steps. Taking a brand from the dying fire, he touched it to the stick and—whoosh! bang! a skyrocket ascended and exploded over the center of the plaza. He was announcing, in the time-honored way, that a *cofradía*, or Indian council, would be held the next day.

The rest of the world seemed far away, and my thoughts drifted back to the glamorous days of the Quiché empire, when their glittering cities rose from the hilltops and their nobility marched out in



Photograph by Luis Marden

"WHITE COAL" NOW LIGHTS GUATEMALA'S SECOND LARGEST CITY

The Santa Maria dam, near Quezaltenango, was so sturdily constructed by Indian laborers that it has outlived the electric railway for which it was originally built. The railroad was abandoned a few months after completion when heavy rains washed out a large section of track (page 438). Visitors in this region are often amazed to find electric light bulbs burning brightly in mud-walled jungle huts.

savage splendor to collect tribute from vassal tribes.

Then suddenly I heard the expression "Foul ball!" in English behind me. Turning around, I saw a group of Indian boys at play. One held a club in his hand and another was throwing something that looked like—yes, it was a baseball! I wasn't so far from the world I knew, after all.

North of Chichicastenango new highways have opened up a vast, little-known country. It is but an hour's run now to Santa Cruz Quiché, the modern town nearest to the ruins of Utatlán.

Utatlán was the capital of the fighting Quichés. Before the Spanish Conquest, it must have been a magnificent city of stone, timber, and mortar, resplendent with carved monuments. The flat-topped mesa on which it stood was bordered on two sides by deep gorges; but to the north and east fertile farms fell away along rich plains, protected by several outlying watchtowers.

The only approaches to the walled city itself were a narrow causeway that could be easily defended and a steep, narrow path along the cliffs.

## TRAP SET FOR ALVARADO

At Gumarcah (the true Quiché name for the town) Pedro de Alvarado, leader of the Spanish expedition that conquered Guatemala, had his narrowest escape (Plate VI).

Alvarado entered Guatemala overland from Mexico in 1524. At Quezaltenango he defeated 30,000 Guatemalan Indians with 120 horsemen, 200 infantry, four pieces of artillery, and a host of Mexican allies.*

Realizing the hopelessness of fighting against men who rode great beasts and

* See "To Bogotá and Back by Air," by Charles A. Lindbergh, NATIONAL GEOGRAPHIC MAGAZINE, May, 1928.

commanded the gods of "lightning and thunder," the Quichés resorted to strategy. Feigning friendship, they offered Gumarcah to Alvarado as headquarters. It was their design then to wreck the causeway, set fire to the houses, and destroy the Castilians and their fearful horses.

But a timely warning saved Alvarado. Pretending that his men had to lead the horses out to graze, he quickly retired from the city. With the assistance of the Cakchiquels, jealous rivals of the Quichés, he later returned, vanquished the defenders, and razed their beautiful capital.

From Santa Cruz Quiché to Totonicapán the highway is another succession of ups and downs. Part of the route follows an old Spanish trail. Still in use are ancient, humpbacked stone bridges, more suited to horsemen or oxcarts than streamlined motorcars. Once or twice we scraped the crankcase with an excruciating noise when it failed to clear the sharp crest of a bridge.

### WASHOUTS CONQUER A RAILWAY

Near Quezaltenango, the second largest city in Guatemala and commercial center for the western part of the Republic, the highway crossed a railroad right of way choked with weeds—sad reminder of an ill-fated electric line, built a short time ago at a cost of many millions of dollars to link Quezaltenango with the International Railways of Central America. It was abandoned a few months after completion when heavy rains washed out a large section of track.

On the return trip to Guatemala City we retraced our route to Encuentros, where we picked up the main highway to the capital. This road clings to the summit of the Sierra Madre, and at Chichoy Pass is about 9,000 feet above sea level.

In the car with us was a Chichicastenango Indian youth, who wanted to see the capital of his country. It was his first automobile ride, and for a long time he was silent. We thought he was frightened, until we noticed a greenish pallor under his bronze skin and great drops of perspiration on his brow.

Don Alfredo guessed the difficulty, and an emergency stop was made. The lad was carsick, but his spartan Indian nature would have forced him to sit in painful silence had his predicament not been noticed. Yet this youngster could pack 100 pounds on his back and dogtrot thirty miles or more a day over these steep grades.

It was night when we finally reached the rim of the mountain overlooking Guatemala City. The rain had stopped. Like a bowlful of fireflies, the lights of the Capital glittered in the dark valley far below.

Don Alfredo shook the Indian lad, whose car sickness had left him in a coma, pointing out the glorious spectacle he had come so far to see. But he smiled wanly and went back to sleep. No need to worry about transporting him back to Chichicastenango when he had tired of life in the big city; it was a safe wager he would walk!

### FLOWER OF COLONIAL CIVILIZATION

Circumstances forced us to postpone our visit to Antigua, the finest of the colonial capitals, until the end of our Guatemalan visit. Antigua, as one of the flowers of Spanish civilization in the New World—comparable to Lima, old Panama, Santo Domingo, and ancient Mexico—is truly the scenic, architectural, historical, and romantic climax of a Guatemalan interlude.

As the highway leveled out into a deep valley, where Antigua is swung like an oriole's nest between Agua Volcano, on one hand, and a steep, forested mountain range on the other, coffee plantations closed in on each side. It was the beginning of blossom time, and the shady groves were aglow with delicate, snow-white flowers (page 440).

A stone cross, dating from 1618, marked our entrance into the old capital. Antigua was the third seat of government under the Spaniards. After the first capital, at Tecpán, became untenable, a second capital was built a short distance southwest of Antigua in 1527. But a violent gale and heavy rains, followed by a landslide of rocks, mud, and water from the steep slopes of Agua Volcano destroyed it overnight. Today a tiny village called Ciudad Vieja marks the site of this tragic second venture.

Antigua dates from 1542, when it received its coat of arms as "The Very Noble and Very Loyal City of Saint James of the Gentlemen of Guatemala."

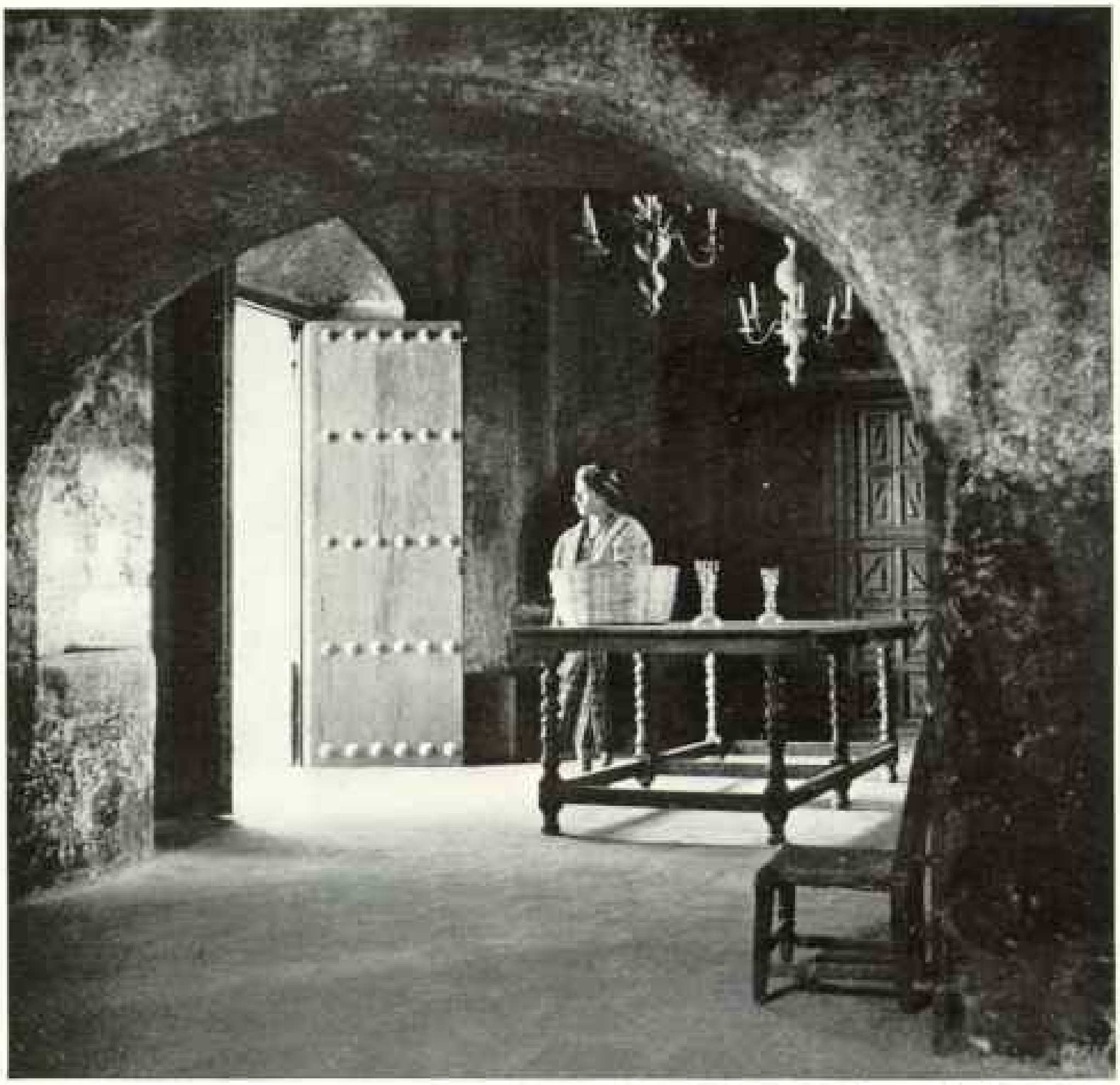
For more than two centuries the city flourished, in spite of occasional temblors, whose sullen warnings went unheeded. Architects, artists, and craftsmen vied with one another to give it magnificent public buildings, plazas, and half a hundred glorious churches (Color Plate VIII).

Lovely Spanish señoritas in laces, Spanish grandees in velvets, Spanish priests in embroidered vestments, and swashbuckling Conquistadores, at their sides the keen

Photograph by Luis Marden

DEEPLY CARVED COLUMNS FLANK THE EXQUISITE FAÇADE OF LA MERCED

Perhaps because this fine church was newer and sturdier than most buildings in the old capital, Antigua, it was easier to repair after the great earthquake of 1773. The adjoining monastery of the Mercedarians, now largely in ruins, possessed one of the most magnificent fountains in the Americas (Color Plate VIII).



Photograph by Kurt Severin

SCENE OF MANY A VICEREGAL FEAST IN "THE POMPEII OF AMERICA"

Iron-studded wooden doors creak on rusty hinges as they swing open to reveal the smoke-grimed kitchen of one of Antigua's magnificent colonial homes. This ancient mansion was restored by the late Dorothy Hughes Popenoe, wife of Dr. Wilson Popenoe, distinguished American botanical explorer.

Toledo blades that were carving out an empire for Spain in the New World—all played their parts on Antigua's stage when New York was but a rude village and Chicago still undreamed of.

Then came the earthquakes, twelve of them, and the outpouring of dreadful night from the throats of volcanoes. The populace, rich and poor, grandee and Indian alike, ran crying into the streets as heavy tile roofs and stout beams quivered and collapsed. Ashes and cinders buried gardens and plantations, choked fountains and streams. In 1775 the King of Spain ordered the removal of the capital to its present site in the valley of Las Vacas River.

Much that was glamorous in this "Pompeii of America" is today but overgrown ruin. Enough remains, however, to recall the quondam beauty of the capital that was. Between broken palaces and crumbling churches a new, but smaller, city has been built, and in the ruined cloister of the Convento de las Capuchinas, Indians gather again to sell their fruit and handicraft.

Roaming its cobbled streets today, one feels that many, many months could be spent in Antigua, and that every day would disclose some new tale or memento linked with the ancient splendor, and tragedy, and intrigue, and romance of this "Very Noble and Very Loyal City," which once ruled a glamorous empire reaching from southern Mexico to the Isthmus of Panama.

# GAME BIRDS OF PRAIRIE, FOREST, AND TUNDRA*

By Alexander Wetmore

*Assistant Secretary, Smithsonian Institution*

THOUGH dawn was approaching, the blackness of night still lay over the wooded mountains of eastern Tennessee. With a mountaineer companion, I came quietly along a little path where near-by trees and bowlders were mere shadows against the sky, to the shelter of a windfall beside an opening in the forest.

We seemed so isolated from familiar things that my hand, resting on the rough bark of our sheltering log, brought a reassuring touch of reality in a world hidden in dim obscurity. The air was cold with the damp, penetrating chill of early spring.

A gray light that came slowly among the trees strengthened gradually until the wooded slopes about were dimly visible. Color touched the edge of distant clouds.

At that moment we heard low calls and then a rapid gobbling that made me quicken with tense excitement. Wild turkeys, traced to their roosting trees the night before, were coming to the ground.

My friend, skilled in woodland lore, with his turkey call began low notes in answer. As the birds continued, his imitations became louder and more varied, their invitation more urgent. The tone was deceptive even to me close beside him, and I listened with admiration for his skill.

Daylight now came quickly, so that my eyes no longer strained at shadows. Robins called and scolded from trees below, a Carolina wren sang, and in the distance I heard the loud drumming of a great pileated woodpecker. The turkey calls continued.

Soon dark shapes came walking quietly over the open ground before us. A little group of hen turkeys was approaching, pecking at the ground, and stopping constantly to look about with vigilant eye. The intermittent gobbling of the cock was louder, and in another instant he appeared.

### PRIDE BEFORE A FALL

With spread tail, head drawn back, feathers erect, wings drooped, and body swollen, he strutted proudly before the seemingly indifferent hens. Light shone from the bronzed feathers of his back and breast. The bare, wattled skin of his head was red and purple, and his tail was tipped with brown. Truly he was a magnificent creature (Color Plate I and page 468).

So intent had I become on the great birds that I had forgotten my hunter companion entirely, and the roar of his gun startled me almost as much as it did the turkeys. The hens disappeared instantly, running and flying among the trees, but the splendid gobbler lay prostrate where he had fallen at the shot.

In another moment I was admiring his rich colors and examining with interest the five-inch "beard" of hairlike plumes pendent from his heavy breast. His legs were armed with sharp-pointed spurs, and a fleshy wattle dangled from his forehead.

A half hour later, as we started home with the twenty-pound bird, we saw hen turkeys crossing a distant field while other gobblers called belligerently from the valley below.

In those days of abundant game it was considered entirely proper to hunt the turkey in early spring. In fact, this was the only time when the wily gobblers were to be found except by chance. Wisely planned game laws now restrict this sport to other seasons.

### MOST IMPORTANT GROUP OF BIRDS

The great group of fowl-like birds (the Order Galliformes), to which the turkey and its relatives belong, is widely distributed through all the continents of the world and is the most important order of birds so far as man is concerned.

More than eight hundred kinds are known, ranging in size from the tiny oriental quail, no larger than a sparrow, to huge turkeys and long-tailed pheasants. Four of the seven families of the order are found native in North America, and members of a fifth, indigenous in the Old World, have been introduced in our continent.

The turkey (Family Meleagrididae) is the principal contribution of the New World to the domesticated birds kept by man. Captive turkeys were found among the Indians in abundance on the discovery of

* This is the fifteenth article, with paintings by Maj. Allan Brooks, in the notable Geographic series describing the bird families of the United States and Canada.

Mexico and were brought to Spain in 1519. From there they spread rapidly through Europe. Although at first a luxury, before the close of the century turkeys were a regular article of table fare among the better class.

### PUEBLOS RAISED TURKEYS FOR FEATHERS, NOT FOOD

The Pueblo Indians of the Southwest kept turkeys in numbers long before the coming of the white man. At Pueblo Bonito, explored by a series of expeditions of the National Geographic Society, and at most of the other large pueblos that have been excavated, rooms were assigned to turkeys, as is indicated by the abundance of their bones.

These captive birds were kept not for use as food but for their feathers, which were used in ceremonial offerings to Indian deities. To the Pueblo Indians the turkey was a sacred bird and was seldom eaten.

The ordinary domestic turkey of the farmyard still shows its Mexican ancestry in the white or buffy-white tips on tail and rump feathers. This is a characteristic of the Mexican bird, these markings being brown in the race native to the eastern United States.

The only other living species of this family is the handsome ocellated turkey, of excellent flesh for the table, found from Yucatán to British Honduras and northern Guatemala. Seemingly this bird, of beautifully iridescent plumage, does not thrive in captivity, and is not known to have been domesticated except in a casual way.

### A BIRD CALL HEARD A MILE AWAY

The low, mud-walled ranch house at Kilometer 80, west of Puerto Pinasco in northern Paraguay, is pleasantly located on the shore of a lagoon. The land about is level, with grass-grown prairies interspersed with groves of low trees.

After long hours afield during the morning, I sat each afternoon under the split palm roof of a broad porch, caring for specimens and writing. The heat at times was intense, tempered somewhat by warm winds that blew from the north.

At intervals from the forest there came a raucous, three-noted call that was given rapidly for several seconds. Immediately this was repeated from a distance, and often two or three of these voices called back and forth at intervals for an hour.

In walking along narrow forest trails, amid a dense ground growth of spiny plants, I sometimes caught sight of long-tailed birds, pheasantlike in form, that rested in trees or, rarely, fed on the ground. To them I traced the harsh calls that carried to the house, sometimes from a distance of a mile.

These were chachalacas (Family Cracidae), of a group that is common in the American Tropics. One kind comes north across the Rio Grande (Plate I and p. 468).

The species of this family differ from other fowl-like birds of our fauna in living almost constantly in trees. They are marked by having the hind toe on the same level as those in front, to assist in perching, instead of elevated to a higher level as in the grouse, quail, and the domestic fowl that live mainly on the ground. In addition to the chachalacas, the family includes the curassows, which are as large as turkeys, and the guans.

### ONE OF A HUNDRED KINDS OF GROUSE

Above the village of Painscastle in southern Wales the hills rise in rolling, heath-grown moors that lie open to the summer sun. These elevated slopes are the home of the red grouse, famed as game, and the only distinct species of bird confined in its range entirely to the British Isles.

One warm July evening, in company with a friendly gamekeeper, I walked out through bracken and heather, eagerly anticipating my first sight of so renowned a bird. At one side was the traditional "keeper's larder"—a long pole, supported on two uprights, from which were suspended numerous carrion crows, a magpie or two, a kestrel, and a stoat. All had been killed by the keeper as "vermin" in his zeal to protect the game ranging the broad acres under his charge.

We passed several places where butts had been built of sod. In these, gunners stood in the shooting season to fire at the grouse driven by beaters.

Red grouse feathers were scattered about in abundance, but the day had been hot and birds lay close. I recognized the calling of male grouse from distant coverts at the first note, as the call is similar to that of the willow ptarmigan, but not until the keeper returned to the house for a dog did we find a bird.

As the dog, with waving tail, ranged through the bracken, a fine male grouse burst out suddenly with a startling roar

Photograph by Hamilton M. Laing

FRANKLIN'S GROUSE, OF WESTERN MOUNTAIN FORESTS, SHOWS NOT THE SLIGHTEST FEAR

There are many tales of killing them with sticks or stones, or of shooting several from a flock, one by one, without alarming the others. They may even dodge missiles thrown at them, merely shifting position a bit without troubling to fly (page 483 and Color Plate VIII). This one posed for its picture in southern British Columbia.

Photograph by Arthur A. Allen

A POMPOUS WOODLAND DON JUAN DRUMS ON HIS FAVORITE LOG

By following the thunderous, far-carrying roar of his whirring wings, advancing when it is heard and halting when it stops, one may sometimes see a ruffed grouse in the act of drumming (Color Plate VI and page 479).

Photograph by Hamilton M. Laing

A TWO-DAY-OLD CALIFORNIA QUAIL MAKES LESS THAN HALF A HANDFUL

But its feet and legs are well developed, for these—together with its natural camouflage—are its only means of escaping danger. Chicks of this species have been known to run from the nest with pieces of the egg from which they were hatched still clinging to their backs. California quail raise large families (Color Plate V and page 478).

of wings. As it sailed swiftly away, I had a fine view of its handsome red-brown markings and heard its cackling call. It was followed immediately by others.

The grouse (Family Tetraonidae) are birds of the North, none of the hundred or more forms being found in the Tropics. In the Old World the black cock, the capercaillie, and the hazel grouse are representative of this well-known group, which includes also the ptarmigan and various grouse of North America (Color Plates VI-XIII).

In the mountains of northern Spain I found poachers hunting the capercaillie at night during the pairing season. Under the light of the moon the males call sonorously. They are said to close their eyes when calling, and by moving only when the note is heard it is possible to approach these shy birds near enough to shoot. At other times it is extremely difficult to see them.

Photograph from National Association of Audubon Societies

THE LAST SURVIVOR OF INNUMERABLE HORDES

This passenger pigeon, photographed in the zoological gardens in Cincinnati, lived in captivity for years after its myriad wild companions had vanished forever from the earth. When it died at 1 p. m., on September 1, 1914, one of the world's most remarkable birds became extinct (page 495 and Color Plate XV).

### SOME PHEASANTS HAVE FEATHERS FIVE FEET LONG

The great group that includes the pheasants (Family Phasianidae) has more than 550 races distributed widely through the world. The domestic fowl, in this family, is without doubt the most valuable bird commercially that exists. Some of its relatives among the pheasants are strange and beautiful almost beyond the imagination of one who has not seen them.

The largest individual feathers in the entire group of birds are found in members of this family. The decorative upper tail coverts of the peacocks, spread as a huge fan in display, are good examples, but even these are dwarfed by the tail feathers of Reinhardt's pheasant of Indo-China, which measure more than five feet in length and between five and six inches in breadth. The

bird is an inhabitant of jungles, where it is seldom or never seen except when caught in snares.

It seems truly marvelous that such huge feathers, with their beautiful colorings, can be shed and renewed annually by birds with relatively small bodies.

Among the true pheasants, the common pheasant and its varieties are the most widely known. Originally the abundant common pheasant is supposed to have come from the ancient lands of Phasis, on the southeastern shore of the Black Sea; hence its name. It was well known to the Greeks and Romans, and may have been introduced into England during Roman occupation.

The pheasant is now one of the most important game birds of the world, as it is widely distributed in Europe and has been established in many localities in the United States. Hundreds of thousands are reared annually in captivity and then released to be hunted, and equally large numbers breed in a state of freedom.

In England pheasants are driven by groups of beaters past hunters stationed at strategic points. In America they are hunted with dogs, as are other upland game birds.

The rearing of pheasants for pleasure as well as for sale is now widespread and extends to many species. In recent years the great eared pheasants of western China, formerly known to few persons, have become common in captivity. Large aviaries often contain twenty or thirty species of pheasants of remarkable variety and beauty of plumage.

The story of the quails that fed the Israelites in danger of starvation in the barren wilds of Sinai is well known to readers of the Bible. These were the small Old World quail that migrate south in winter to Africa and then return north into Europe in spring. In passage they are caught in nets by the thousands and shipped to European markets. So many have been taken that it has been necessary to regulate the practice by law.

### JUNGLE PIGEONS IN WHITE CAPS

Before the cooling sweep of the trade wind, my little boat traveled easily across the head of Samaná Bay in the Dominican Republic. Terns and pelicans fished in the water, and flocks of screeching parrots passed over the green hills back of the shore.

Entering the mouth of the Yuna River, which drains the great valley called the Vega Real, I was soon in a heavily wooded swamp where the shade was a grateful relief from the intense rays of a tropical sun.

A huge sedge, eight or ten feet high with spreading head, grew along the river bank. On either side stretched the dense green jungle with trees hung with vines and parasitic plants.

As I walked cautiously over the muddy forest floor, dozens of birds flew out overhead with loudly clapping wings and darted away over the trees. These were white-crowned pigeons, found here in greater abundance than in any other place I have been. Their guttural cooing came constantly to my ears, but in spite of their abundance I found it difficult to see them among the dense and heavy leaves.

From the balcony of the little hotel in Sánchez, all through the afternoon, as I wrote or cared for specimens, single birds and flocks of these pigeons crossed from the swamps to the wooded hills. At a distance they appeared entirely black until, as they turned, the light caught the white crown cap that gives them their name (Plate XIV).

### BOTH PARENTS GIVE "PIGEON'S MILK"

The group of pigeons and doves (Family Columbidae) has more than eight hundred forms distributed through all the great continents and spread widely in the islands of tropical seas. The best-known member of the family is the common pigeon, native originally in the Old World. This species was domesticated many centuries ago and has been carried by the white race throughout the world.*

Although raised extensively on a commercial basis, the pigeon, or dove, often ranges in a state of semi-freedom about barns and outbuildings. In every large city, flocks of them have reverted to a wild state, and live and nest about the ledges and towers of buildings, as they do about the rocky cliffs of their native habitat in Europe.

As one peculiarity, young pigeons, when first hatched, are fed on a substance called "pigeon's milk," which comes from the crop of both male and female birds. This is an easily digestible, creamy fluid formed by a fatty degeneration of the walls of the crop.

* See "Man's Feathered Friends of Longest Standing," by Elisha Hanson, NATIONAL GEOGRAPHIC MAGAZINE, January, 1926.

Photograph by Arthur A. Allen

WITH ROUGH TRACKS AND HOLES IN NEW-FALLEN SNOW, MOTHER NATURE OFFERS A WINTER RIDDLE

The observer trained to read her subtle handwriting would know that here a ruffed grouse plunged under the white, protective blanket to pass a cozy night. This is sometimes dangerous, as frozen sleet during the night may form a solid sheet and imprison the birds until they starve.

The most beautiful species of the group are the fruit pigeons of Polynesia and the Malay countries.* In almost innumerable variety these display pleasing and unusual combinations of yellow, green, orange, and red, in varying shades and patterns. The orange dove (*Chrysoena victor*) of Fiji is deep, brilliant orange with an olive-green head. The handsome bleeding heart pigeon of the Philippines is named from a sanguinary spot of red spreading over the feathers of the breast.

Among living members of the group the largest are the great goura pigeons of New Guinea, the size of a domestic fowl. The crown has a filamentous crest which once was used so extensively for hat ornaments that the stately birds were in danger of extermination. The importation of these feathers into the United States and many other countries is now prohibited by law through the efforts of those interested in conservation.

* See "Romance of Science in Polynesia," by Robert Cushman Murphy, NATIONAL GEOGRAPHIC MAGAZINE, October, 1925.

THE DODO, EXTINCT SINCE 1681, WAS RELATED TO THE PIGEON

Larger than the gouras was the curious dodo that once lived on the island of Mauritius, a bird of the pigeon order but in another group (Family Raphidae). The dodo was the size of a large goose, and had a heavy, hooked bill. Being unable to fly, it was soon exterminated by the sailors who invaded its haunts, so that the last living one was recorded in 1681.

## Turkey

(*Meleagris gallopavo*)

The wild turkey, as the largest American game bird of its group, has enjoyed a renown that has come to few species of birds (Color Plate I and page 461).

At the time of the discovery of the New World, turkeys were abundant through much of the vast area between eastern Mexico and New England. Because of their numbers and their excellent meat, they were a regular source of food to the Indians and became at once of importance to the early colonists.

As they were tame, they were killed with little difficulty and were a fair mark for the Indian with his bow. At this time the birds were said to range in large bands.

The introduction of guns made an immediate impression on their abundance. In 1672 in Massachusetts, turkeys were reported in lessened numbers, but as late as 1717 they are said to have sold in Northampton at a shilling fourpence each. In 1788 the price had increased to threepence a pound and about 1820 it became tenpence and more.

The turkey in a wild state ranges in extensive woodlands, where it is so shy that one may enter its haunts frequently without once seeing a bird. In large areas of their former range, both in New England and elsewhere, turkeys have now been completely exterminated. Where they persist they are carefully protected as game birds, and where there is sufficient wild land to afford them cover they may still exist in numbers.

Hundreds are killed each year in Pennsylvania during a short hunting season, and the birds are equally common in many areas in the South. A few remain in Virginia within a few miles of the city of Washington, though their presence is made known mainly through their tracks and the birds are seldom seen.

In spring the adult gobbler struts and gobbles in display before the hens (page 461). At this season a heavy pad of fat develops over the breast in the male, serving to sustain the bird, which is so occupied in display that he neglects to feed.

The wild turkey is polygamous. The nest, made by the female, is a hollow scratched in the ground, under cover of a log, dense brush, or other shelter. It is lined with grass or a few leaves, and contains from 8 to 15 cream-colored eggs spotted with reddish brown and lilac. The female covers the eggs carefully with leaves and grass when she goes off to feed, to protect them from crows and other marauders.

When the young turkeys hatch after four weeks of incubation, they are tender and delicate, and in wet seasons many are lost. They range with the mother through the summer and fall. The adult gobblers flock together, mainly apart from their families, during this period. When the young can fly, all roost in trees, often varying the sleeping place from night to night.

During the day the birds range on foot, feeding on acorns, berries, and in the warmer seasons on insects. Although they range mainly in the woods, they may enter open fields. Unless suddenly disturbed, they seldom fly except to reach their roost.

Ordinarily, grown turkeys range from 12 to 16 or 20 pounds in weight, while occasionally old gobblers weigh 30 or even 40 pounds. The male turkey has a spur on the side of the tarsus, or lower leg, above the toes, and is marked in addition by a pendent tuft of hairlike feathers called the "beard" in the center of the breast.

In adult birds this becomes five to ten inches long, so that it trails on the ground as the birds bend forward in feeding. Occasionally old hen turkeys develop beards.

Four varieties of the wild turkey are recognized, ranging from Pennsylvania and Colorado to Florida and Mexico.

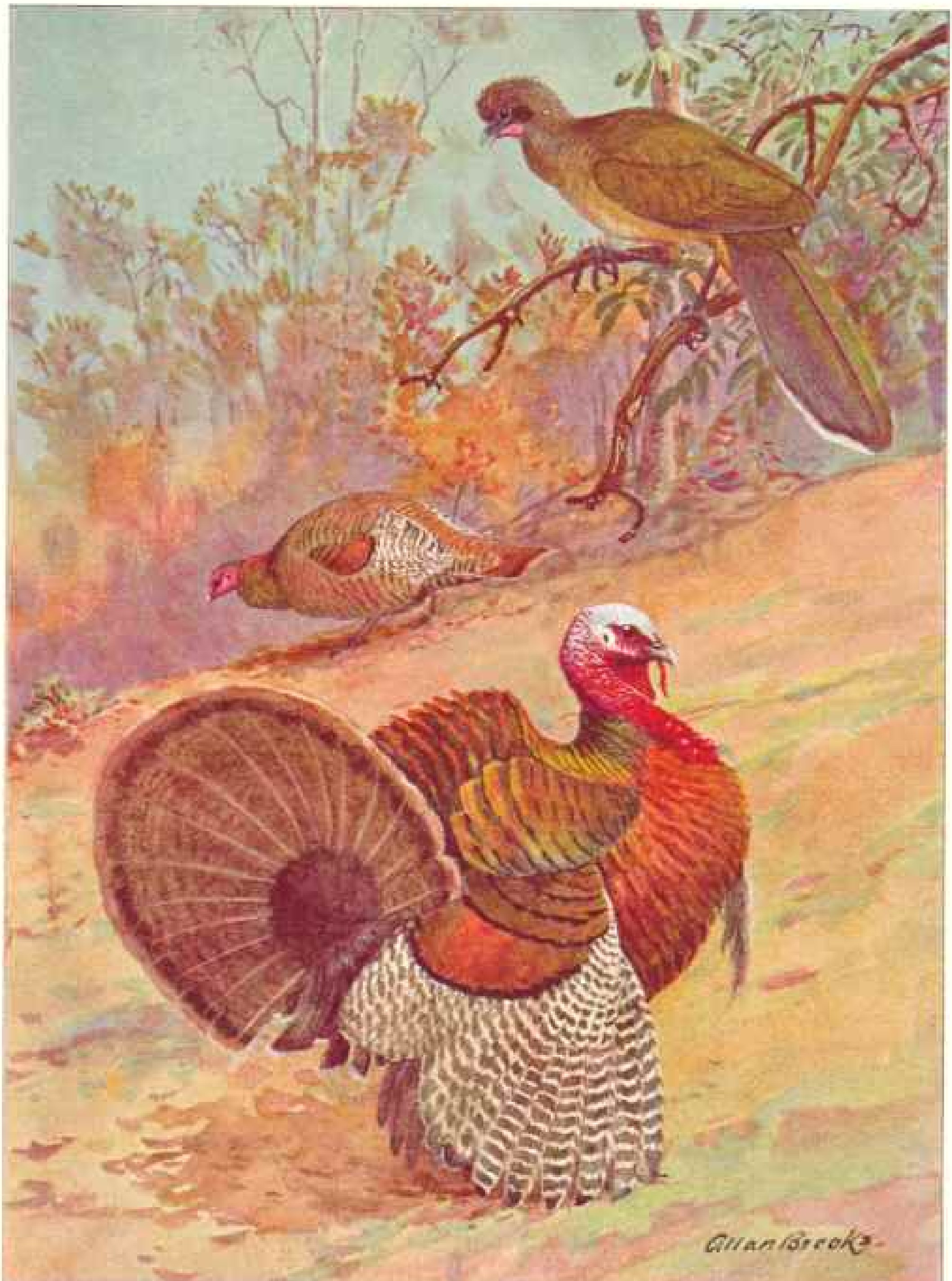
## Chachalaca

(*Ortalis vetula vetula*)

Chachalacas live largely in the treetops, coming to the ground occasionally to feed, but retreating instantly to the branches at any alarm. Except to rise to such cover or to escape from isolated trees, they seldom fly far, preferring to run along the larger limbs. They are adepts at hiding and often disappear in seemingly scanty tree growth in a most astonishing manner (Color Plate I and page 462).

A nest of sticks and moss is made in a tree, often on the end of a broken stub. Usually three eggs are laid, though four or five are found rarely. These are buffy white, with an extremely hard shell that is finely corrugated and rough to the touch.

Eggs of the chachalaca are often hatched under hens and the chicks are easily tamed. In fact they often become a nuisance, as






THE WILD TURKEY, BARNYARD BRED, HAS BECOME THANKSGIVING'S SYMBOL.

In all his bronzed and brilliant glory, a big WILD TURKEY gobbler struts and scrapes the ground for the edification of one of his wives in the background, who seems wholly unimpressed. From this one hundred percent American bird the common domesticated turkey of holiday tables has descended. Once friendly and seemingly stupid, the wild turkey has been "educated" by hunters until it is now among the most suspicious and unapproachable of all game birds. In the tree is the elusive CHACHALACA of southern Texas and northeastern Mexico, which lurks in woods and dense chaparral. Through a U-shaped loop in its windpipe the male produces a resonant, far-carrying call.

they fly and climb everywhere and are continually in mischief.

The chachalaca is found in mesquites and chaparral in the lower Rio Grande Valley in Texas, ranging south to Veracruz. Related races and species extend through tropical America to Argentina.

## Ring-necked Pheasant

(*Phasianus colchicus torquatus*)

From where I rested in the pleasant warmth of the morning sun at the edge of a vineyard in western New York State, the land led down steeply to the blue waters of Canandaigua Lake. Beyond the lake a mosaic pattern made by cultivated fields, pastures, and woodlands was displayed in broad panorama on the rising slopes of the opposite hills. Robins and field sparrows were singing, and barn swallows circled overhead.

Suddenly I heard a curious crowing note, followed by a quick beating of wings. As this was repeated I turned cautiously to see a gorgeous male pheasant posing at the edge of a thicket, with the red wattles about his eyes resplendent in the sun (Color Plate II).

As I watched he crowed again, and then, taking alarm, disappeared behind the bushes.

This is an alien species, now well established and thriving in many parts of our country. In Europe pheasants have been kept in captivity for hundreds of years. The Greeks at the time of Alexander the Great reared them for food, and this propagation was continued in the days of the Roman Empire. Henry VIII employed a pheasant breeder in 1502, and the birds are now bred extensively in many countries.

The true pheasant (*Phasianus colchicus colchicus*) has no white ring about the neck. The Chinese, or ring-necked, pheasant (*Phasianus c. torquatus*) and the Mongolian pheasant (*Phasianus c. mongolicus*) have the neck ring well developed. These three have been much mixed in breeding, and in addition have been crossed at times with the dark, greenish-colored Japanese pheasant (*Phasianus versicolor*), so that the ordinary wild stock is of hybrid blood.

Pheasants were taken to America as early as about 1790, when one-time Governor Wentworth of New Hampshire is said to have imported several pairs from England. These and other early stocks soon died out, however, and successful establishment of the birds came nearly a century later.

In 1880 Judge O. N. Denny, United States Consul General at Shanghai, shipped Chinese pheasants to Oregon, where they were liberated near the mouth of the Willamette River. The following year he sent another shipment, which was freed in the Willamette Valley in Linn County.

The birds established themselves at once, and increased so rapidly that when their hunting was permitted in 1892 fifty thousand birds are said to have been killed the first day.

Pheasants have been widely distributed in the United States by game commissions of the various States and are now established over large areas.

The long tail, coupled with the size, distinguishes both sexes of the pheasant from any of our native birds. Pheasants feed regularly in cultivated fields and meadows, but at any alarm run to safety. It is astonishing to see so large a bird disappear completely in apparently scanty cover.

To the American hunter the pheasant is often a disappointment, as it moves before the dogs and is often flushed with difficulty when it has sufficient shelter.

The cock pheasant crows mainly during the spring and early summer, though heard occasionally in fall. The birds are often, but perhaps not always, polygamous, and incubation normally is the duty of the female.

The nest is a slight hollow scratched in the ground under cover of vegetation. The eggs ordinarily are olive brown, though occasionally sets are found that are pale blue. They usually number from 8 to 13 and hatch in from 23 to 25 days. Captive females often lay continuously for considerable periods.

At present the pheasant is established throughout much of the northern half of the United States, and in British Columbia and Ontario. It is resident, and if food is available it can withstand severe cold in winter.

## European Partridge

(*Perdix perdix perdix*)

This species, known often as the Hungarian partridge, has been introduced widely into the United States and Canada, and in various localities has now estab-

lished itself definitely as a game bird, particularly in the prairie regions of the Dominion (Color Plate II).

In Alberta, where the original stock was only 800 birds, conditions proved so excellent that a season for shooting partridges was opened five years after their introduction. Now they are common in Alberta, Saskatchewan, and parts of Manitoba.

In favorable regions they fairly swarm; W. B. Mershon reports more than a thousand seen in one October day. Sportsmen journey annually from England to hunt them, so abundant have they become.

With this success in mind, game commissions to date have released more than a quarter of a million of these partridges in various parts of the United States. They are now well established in Oregon, Washington, and Idaho, and are common in Wisconsin and Ohio. In other areas the experiment as yet is not wholly successful, but it is probable that the range will be considerably extended.

In the Old World the European partridge frequents cultivated lands, often where cover is scant. In America it has prospered most in sections devoted to fields of wheat and corn, interspersed with hay meadows and occasional areas of waste land.

In such haunts go afield some bright day in October, when the air is sharp with cold. In a weed-grown field, without the slightest warning, there is a sudden explosion of birds as twenty dark-gray forms rise together with roaring wings, and with tremendous speed dart away to new cover. The effect of a first meeting of this kind is more startling than any other I have experienced.

In spring these partridges separate in pairs. The nest is a little hollow in the ground, sometimes under shelter of bushes, but commonly in open meadows where it is sheltered by green vegetation. The 9 to 20 olive-brown eggs are placed on a slight lining of leaves and grass. Occasional sets are whitish or blue in color.

European partridges remain in coveys except during the pairing season, feeding and sleeping on the ground. Their tremendous speed on the wing and their secretiveness make them excellent game birds, and they are capable of thriving under conditions unfavorable to the native grouse of the prairie regions.

In its native home this partridge ranges over the greater part of Europe, including the British Isles.

## Bobwhite

(*Colinus virginianus*)

As our two bird dogs ranged a weedy field in the rolling hills of southern Pennsylvania, they suddenly froze into motionless pose, with head forward and one front foot slightly raised.

We advanced carefully, with muscles tense, until, with a roar of wings, a covey of quail burst out in bunch formation, spreading instantly as they headed toward distant coverts (Color Plate III).

With ready gun I fired at a bird slightly to one side, and as it dropped I watched the others sailing with set wings over the crest of a little hill two hundred yards away. Others had fallen to the guns of my companions, and in a moment the birds, retrieved by our eager dogs, were in our hands.

My own bird I examined carefully to determine that the covey was one of the native quail and not of the Mexican variety that had been introduced in large numbers into this country. To examine the status of these introduced birds was my mission on this particular expedition.

The bobwhite, ordinarily called "quail" in the Northern States and "partridge" in the South, is without doubt the best known of our upland game birds. It has wide range over the eastern half of the United States and in this area is a familiar inhabitant of fields and meadows, often living adjacent to farmyards.

During a large part of the year bobwhites range in coveys that often include members of several families. During the day these bands travel on foot through open fields or in the adjacent woodlands, walking quietly when somewhat protected by cover, or running rapidly, with neck erect and crest feathers slightly raised, as they cross little openings.

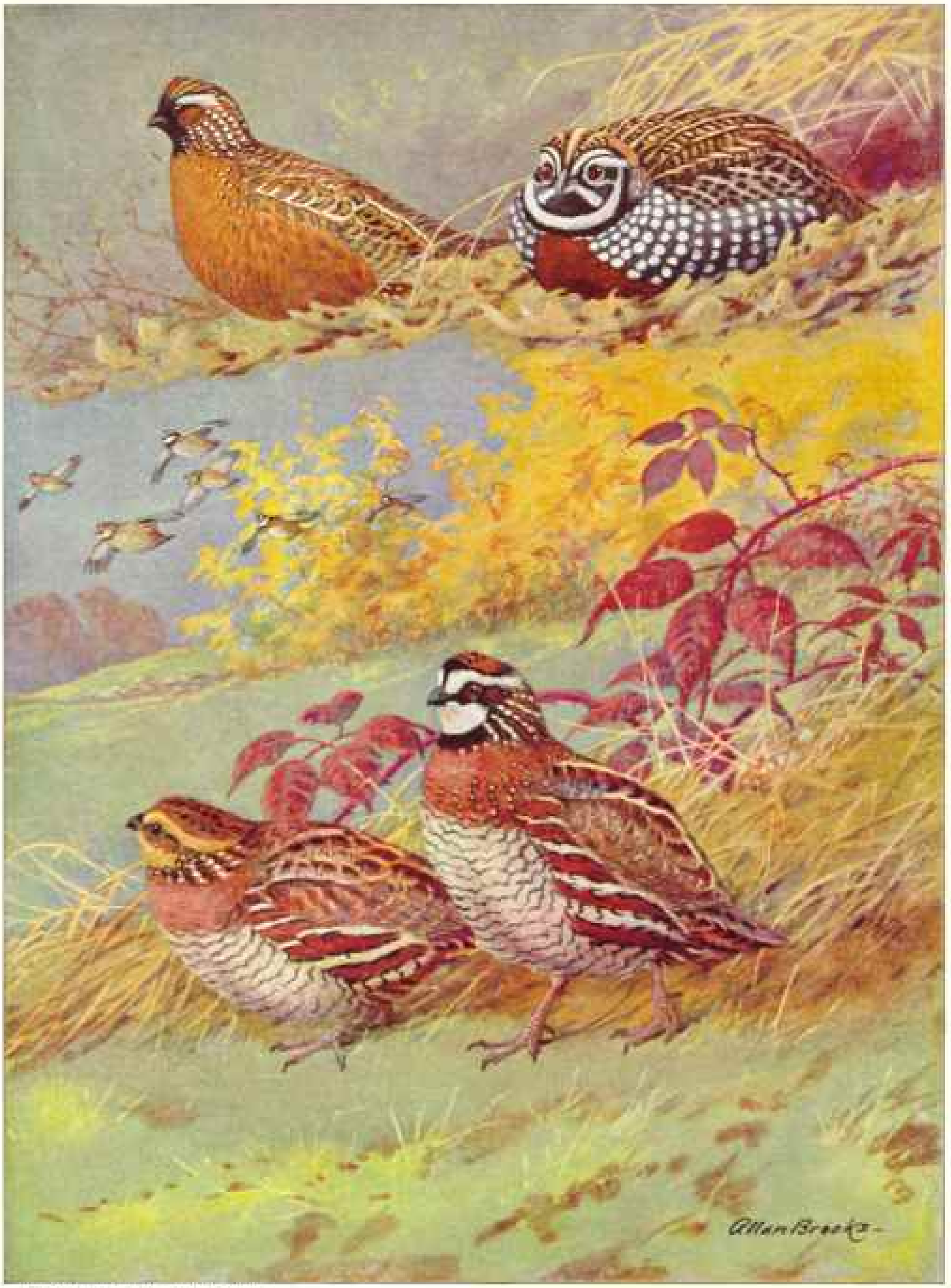
Flush them and they dart away to distant cover, from which, if there is no further alarm, in a few minutes they begin their "scatter" call, and under this guidance gradually reassemble. Whistle a good imitation of this call and a bird or two may come in nervous alarm almost to your feet.

Toward evening the covey enters some thick cover, often in a weedy field, where the birds spend the night. To sleep they arrange themselves in a compact circle, with heads out and tails toward the center, resting closely against one another for




ORIENTAL BLOOD PREDOMINATES IN A BRILLIANT WHITE-COLLARED IMMIGRANT

The showy RING-NECKED PHEASANT on the dead branch is of hybrid stock. Brought to America, these long-tailed birds are reared for game, for aviaries, and for fancy food markets. Ideal pheasant country has groves with underbrush and high grass, reed-sheltered pools, open fields and pastures. The modest female in the foreground contrasts sharply with the gaudy male (above). A dark, chestnut-brown horseshoe on the breast identifies the EUROPEAN PARTRIDGE (left, with his mate). This whirring flyer has been introduced in large numbers in the United States.






FARMERS WELCOME CHEERFUL BOBWHITE, EATER OF INSECTS AND WEED SEEDS

Northerners name him "quail" and southerners "partridge," but the BOBWHITE (right foreground with his mate) christens himself by his unmistakable call. This familiar inhabitant of eastern meadows is a shrewd game bird and a joy to the epicure. The odd-looking MEARNS'S QUAIL (upper right) is alert and wary throughout most of its range in the American Southwest and northern Mexico. The MASKED BOBWHITE (upper left), unable to cope with advancing agriculture, is now found only in northern Mexico, though it formerly frequented southern Arizona as well.

warmth. If alarmed by some enemy, all can thus fly straight out without danger of collision.

In the North these coveys are sometimes covered with drifted snow and so sleep in warm protection. On occasion this is their undoing, as, if sleet forms a heavy crust over the snow, the birds are imprisoned.

In spring, when leaves appear, the coveys separate and each male bird selects an area in which he hopes to have a nest. Here, mounted on a stone, a clod of earth, or a fence post, for hours on end he whistles clearly *ah-bob-white* or simply *bob-white*, a pleasant call that carries far over fields and pastures.

This is a love song and at the same time a challenge. Let a rival male intrude and there is immediate battle. Sometimes this is merely a game of bluff and a chase, but on occasion the fight is bloody and may result in death to one of the combatants.

When a mate finally appears, the male puffs out his feathers, extends his wings, and turns from side to side to display his head markings. According to H. L. Stoddard, who has studied the bobwhite more intensively than any other naturalist, from two weeks to a month may elapse after birds are paired before there is a nest.

Contrary to popular belief, Stoddard has found that soon after males are mated most of them cease to whistle. The calls that continue so persistently through the summer are mainly the notes of surplus males that have no mates.

The nest is a slight cavity, excavated sometimes, perhaps usually, by the male alone. The hole is dug with beak and claws under shelter of vegetation and is lined with leaves, grass, and weed stems. The eggs are white and may number from 7 to 28 in a set. Incubation, in which the male may share, requires about 23 days. Nesting occurs from April to October, the usual period extending from May to August.

The eastern bobwhite (*Colinus v. virginianus*) is found from South Dakota and southwestern Maine to Texas and the Gulf coast, being more abundant in the southern half of the range. The Florida bobwhite (*Colinus v. floridanus*), smaller and much darker, occupies peninsular Florida. The Texas bobwhite (*Colinus v. texanus*), smaller and decidedly lighter colored, is found normally from southeastern New Mexico and southern Texas to Tamaulipas, but it has been introduced widely in many parts of the United States.

### Masked Bobwhite

(*Colinus ridgwayi*)

In this interesting quail the male has the markings of the head largely black, instead of white as in the common species, which it resembles in its call and general habits (Color Plate III).

Before extensive settlement came, the masked bobwhite was common in a limited area along the southern boundary of Arizona, where it inhabited valleys and mesas covered with extensive growths of grasses. When grazing cattle destroyed the cover in its haunts, it disappeared, and is now known only from northern Mexico.

### Mearns's Quail

(*Cyrtonyx montezumae mearnsi*)

Near Bar Foot Park, in the Chiricahua Mountains of southeastern Arizona, I heard at intervals the yelping calls of Mearns's quail, but the birds were shy and I found only their dust baths, in which lay a feather or two to identify the makers (Plate III).

In the Dragoon Mountains, on the opposite side of the valley, I was more successful, as one or two quail flushed almost beneath my feet and dashed away to be lost immediately from sight. Though now so wary, in early days they were frequently killed with stones. But the common name of "fool quail" for this bird today seems to me to be entirely misapplied.

At times this curious quail is more trustful, and may allow a view as it scratches for food or leads its young among the bushes. It is found ordinarily in little bands of two to ten individuals.

Its curious notes, uttered in descending scale and ending in a trill, are ventriloquial and offer little aid in locating the bird. It sometimes answers to a whistled imitation, and then may be more easily found.

The nest is a slight hollow in the ground, and the white eggs number from 10 to 12.

This quail is found in semi-arid mountains and hills from central Arizona and central Texas south to Coahuila and Sonora.

### Gambel's Quail

(*Lophortyx gambeli*)

The lower slopes of Bill Williams Mountain in northern Arizona are grown with piñons and cedars, with much rough ter-

rain cut by rock-strewn arroyos. Here I had my first view of Gambel's quail, which was common over the brush-grown flats and about the scattered water holes. My first one stood in the shade of a little bush, watching me alertly (Color Plate IV).

After admiring its erect pose and soft coloration through glasses, I walked toward it slowly, expecting it to fly in usual bobwhite fashion. Instead it suddenly walked back among the bushes. As I came nearer it ran swiftly away, easily outdistancing me, and was lost among the rocks. Only rarely did I see the birds in flight, when I found that they traveled with great rapidity.

Gambel's quail is the most important game bird in considerable areas of semi-arid country, particularly in Arizona, as it is common and widely distributed. Except when nesting, the birds are found in coveys, which, when food is abundant, may join with others to form bands of a hundred or more individuals.

The nesting season begins in April and continues through the summer, one family being reared. Males whistle from some commanding perch for hours on end, but, like the bobwhite, are believed to stop these calls soon after being mated.

The nest is a hollow scratched in the ground under suitable cover. This is lined with grass or other fragments of dry vegetation from near at hand. Rarely, they occupy nests of other birds in trees and bushes.

From 10 to 12 eggs constitute the usual set, though occasionally double that number are found. They vary from dull white to pale buff, spotted in varying degrees with brown and drab.

Seeds of various kinds form the principal food, those of the mesquite bean being especially favored. Grasshoppers, ants, and various other insects are eaten in small quantity, as are spiders. The birds also are fond of salt, and come regularly to peck at the supplies placed for domestic stock.

While Gambel's quail come constantly to water holes and drink copiously, the birds, like many other desert creatures, have the capacity to go for weeks without water. Their nests are often located where it is not possible for the birds to travel daily to water holes.

Gambel's quail (*Lophortyx g. gambeli*) ranges from the desert region of southeastern California and southwestern New Mexico to extreme western Texas and south into Sonora. A race called the Olathe quail (*Lophortyx g. sanus*), found in southwestern Colorado, is believed by some ornithologists to be native in that region and by others to have developed from Gambel's quail, introduced recently into that area by man.

## Scaled Quail

*(Callipepla squamata)*

Low hills grown with yucca and bunches of coarse grass border the bench lands along the Arkansas River where that stream emerges from the mountain foothills in Colorado. Irrigated lands lie below, but the rougher area above is invaded mainly by grazing animals.

As I crossed a dry wash between low hills, a curious barking call, uttered at regular intervals, arrested my attention. On climbing carefully up a steep slope, I saw a grayish quail with a light-tipped crest standing on the edge of a bank sixty yards away (Color Plate IV).

While I looked, the bird threw back his head and uttered the call that had started my search. For some time he continued, occasionally walking about nervously while keeping a sharp lookout all around. At the rattle of a pebble displaced by my foot he was instantly alert, and in another moment ran swiftly away in quick alarm.

Rock-strewn hills and open flats grown with cactus and various thorny shrubs are the chosen habitat of this pale-colored bird, whose plumage seems to match this desert background. Its haunts include lands more barren than those selected by any other American species in this group of game birds.

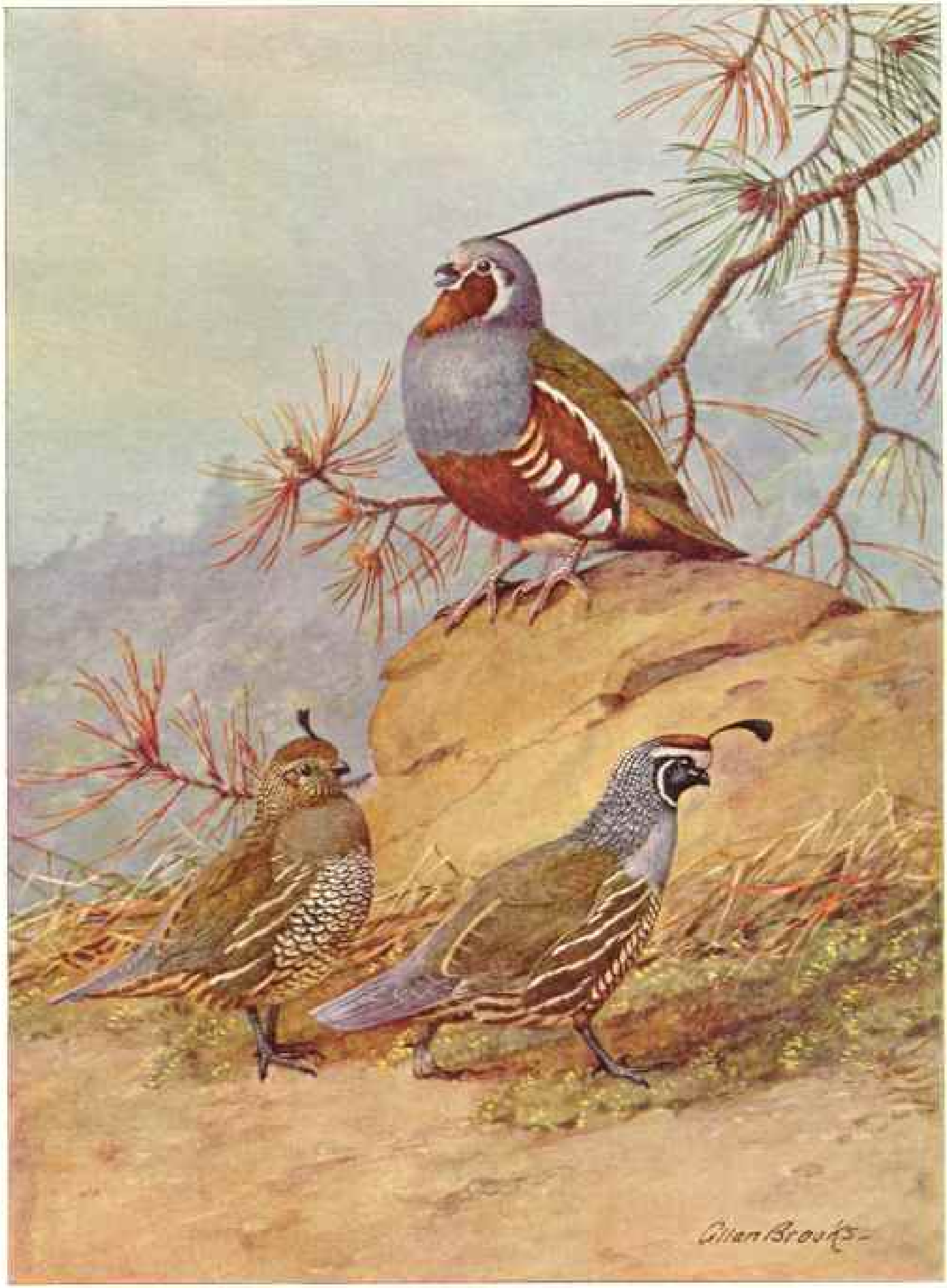
Amid the intense light of such harsh surroundings, the "cotton top" or "blue quail," as it is usually known, ranges in little flocks that at times gather in larger bands where food is abundant.

Though swift when on the wing, they seldom resort to flight. Their speed on foot is most amazing, and a covey disappears through the bushes with a celerity that is often a surprise even to those who are familiar with them. Frequently they are the despair of sportsmen, particularly when they have been much hunted, as at any alarm they dash away with raised crests, running swiftly, sometimes in single file and sometimes scattering, with no pause or hesitation that might give opportunity for a shot.




THORNY SHRUBBERY PROTECTS DESERT QUAIL FROM ENEMIES

Dwellers among mesquite and cactus, these southwestern members of the family rarely take wing when flushed, but sprint to safety under spiny undergrowth. The plumed GAMBEL'S QUAIL, on the rock with his mate, lives in desert regions of the southwestern United States and northern Mexico. Across the foreground, seeking their dry fare of dusty weed seeds and scrawny insects, comes a pair of SCALED QUAIL, whose coveys range over both arid and irrigated lands from Arizona to Texas and from southern Colorado to the Valley of Mexico.






IN THE FAR WEST LIVES THE LARGEST OF AMERICAN QUAIL

Upland districts of the Pacific coast from Washington to central California are inhabited by the big, handsome MOUNTAIN QUAIL (on the rock), which wears a long plume and utters a clear, plaintive call. Flocks of these birds walk down the mountain trails into the valleys when winter chills the heights. A favorite game bird in the West is the CALIFORNIA QUAIL (foreground pair), which posts sentinels while the flock is feeding or dusting. A single nesting each year is the usual thing in the quail family, but broods are large.

Though ordinarily shy, they are sometimes found in the irrigated lands of ranches, and then, with quiet trust in their human hosts, may come about the very door.

The nest is the hollow usual among quail, scratched in the ground and lined with bits of such vegetation as is conveniently at hand. The 9 to 16 eggs vary from white to buff and are spotted with brown.

The chestnut-bellied scaled quail (*Callipepla s. castanogastris*) is found from southern Texas to Tamaulipas and Coahuila. The Arizona scaled quail (*Callipepla s. pallida*), with the abdomen buff instead of brown, ranges from central Arizona and western Oklahoma to Sonora and Chihuahua.

## Mountain Quail

(*Oreortyx picta*)

On the ground beside a spring in the Greenhorn Mountains of California, I saw brown feathers handsomely marked with white, indicating the presence of the mountain quail for which I searched (Plate V).

A moment later a low call came from one side, and I went out carefully through dense cedars until finally I saw a brown bird with gray breast standing beside a log. As he called he nodded his head, shaking the long, graceful plume that formed his crest.

Others, hidden in the brush, ran with a pattering sound over dry leaves. At an alarm all dashed across a little opening, with heads erect and crest feathers streaming in the wind, and when safe behind cover flew with whirring wings to a distant shelter.

This species, known sometimes as "plumed quail" or "mountain partridge," is one of the most handsome of its group, both in its color and in its decorative crest. Male and female are alike, except that the female usually has a shorter crest and slightly duller colors.

The nest is a hollow in the ground, lined with grass, leaves, pine needles, and other vegetation. Usually it is placed beneath the overhanging cover of logs, rocks, or bushes. The eggs are reddish buff without markings, and vary from 5 to 15 in number. Rarely there are more. In the lower part of their range the birds sometimes lay in the nests of the valley quail.

Family parties of mountain quail spend the summer quietly, being often found about little springs at the heads of gulches. In the higher mountains in September the birds become restless, and come down the slopes to spend the winter below the region of heavy snows. This migration is performed on foot. The birds follow ridges or at times come out on mountain roadways, walking and running in little companies.

This quail, in fact, usually trusts to its legs to escape its enemies, and grown birds seldom rise in flight until they can do so behind a screen of bushes. Hunting them, over the steep mountain slopes that they inhabit, is accompanied by much hard labor. With most sportsmen they are less in favor than the valley quail.

While these quail pick up some grasshoppers and other insects, the bulk of their food is composed of various seeds.

The coveys break up in spring and the birds begin their mating in late March or early April. Those that have come from higher altitudes to winter at lower levels usually return singly or in pairs, traveling upward as the snow disappears.

The mountain quail (*Oreortyx picta palmeri*) is found from southwestern Washington near the coast to Monterey County, California. It has been introduced on Vancouver Island.

Another race, called in books the "plumed quail," but known universally as the "mountain quail" (*Oreortyx p. picta*), somewhat darker in color, ranges from northwestern Oregon along the Sierra Nevada and inner Coast Ranges through California and to western Nevada. The paler colored San Pedro quail (*Oreortyx p. confinis*) occurs in the Juarez and San Pedro Martir Mountains of Baja California.

## California Quail

(*Lophortyx californica*)

To Californians this sturdy-bodied quail with jaunty crest is the most familiar upland game bird. During most of the year it ranges chaparral-covered slopes in the mountain foothills, or brush-grown draws and thickets in the lowlands, in flocks that vary in size according to the extent the birds are hunted (Color Plate V and p. 464).

Though these quail run swiftly, they ordinarily hide when alarmed, to burst out with disconcerting suddenness on loud whirring wings and to dart away so swiftly that they are safe from all but those adept in handling guns.

In the early years of settlement these quail were very abundant; flocks of hun-

dreds were not unusual. They still remain common, but, through cultivation and grazing in their haunts, coupled with much hunting, they are reduced in numbers, so that their bands now ordinarily include from ten to fifty individuals.

The birds are highly adaptable, and with increased settlement have established themselves in many places in suburban gardens and even in parks in some cities. The eastern bird lover, visiting in southern California, may be thrilled by seeing handsome male quail calling from roofs or chimneys in the residence section of Pasadena, or may encounter pairs or little bands in the shrubbery of Golden Gate Park in San Francisco.

This quail has proved adaptable to transport elsewhere, so that I have been delighted to hear its pleasant notes in the Salt Lake Valley in Utah, on the island of Oahu in Hawaii, and near Valparaiso in far-distant Chile. In the eastern United States, however, attempts to naturalize them thus far have failed.

The nest is a hollow, usually hidden beneath some cover. On a lining of grass and other soft materials there are placed from 6 to 28 eggs. When more are found the nest is used by two females. The eggs are white or cream color, spotted with brown, and, like other quails' eggs, are strongly pointed at the smaller end. They hatch after 21 to 23 days of incubation.

Though nests are found from spring to fall, only one brood is raised. The later broods are believed to be those of birds that have lost an earlier setting. It is quite well established that in exceptionally dry seasons these quail remain in bands through the summer, and that under such circumstances many do not nest at all.

The California quail is one of the most strictly vegetarian of our birds, as approximately 97 per cent of its food is made up of seeds and other vegetable matter. Its flesh is tender but firm and it is excellent eating.

The typical California quail (*Lophortyx c. californica*) is found from southwestern Oregon near the coast to Monterey County, California, and has been introduced in the State of Washington and on Vancouver Island. The valley quail (*Lophortyx c. vallicola*), which is lighter colored, ranges from Upper Klamath Lake, Oregon, through California to northwestern Baja California. The Catalina quail (*Lophortyx c. catalinensis*), like the last but larger, is confined to Catalina Island, and there are two additional races in Baja California.

## Ruffed Grouse

*(Bonasa umbellus)*

Admiring the view from the slopes of Spruce Knob, highest mountain in West Virginia, I suddenly sensed rather than heard a slow, throbbing sound, like the beat of a great heart. This was repeated, at first slowly, then with increasing speed, until it became a muffled roar of sound that ceased as abruptly as it had begun.

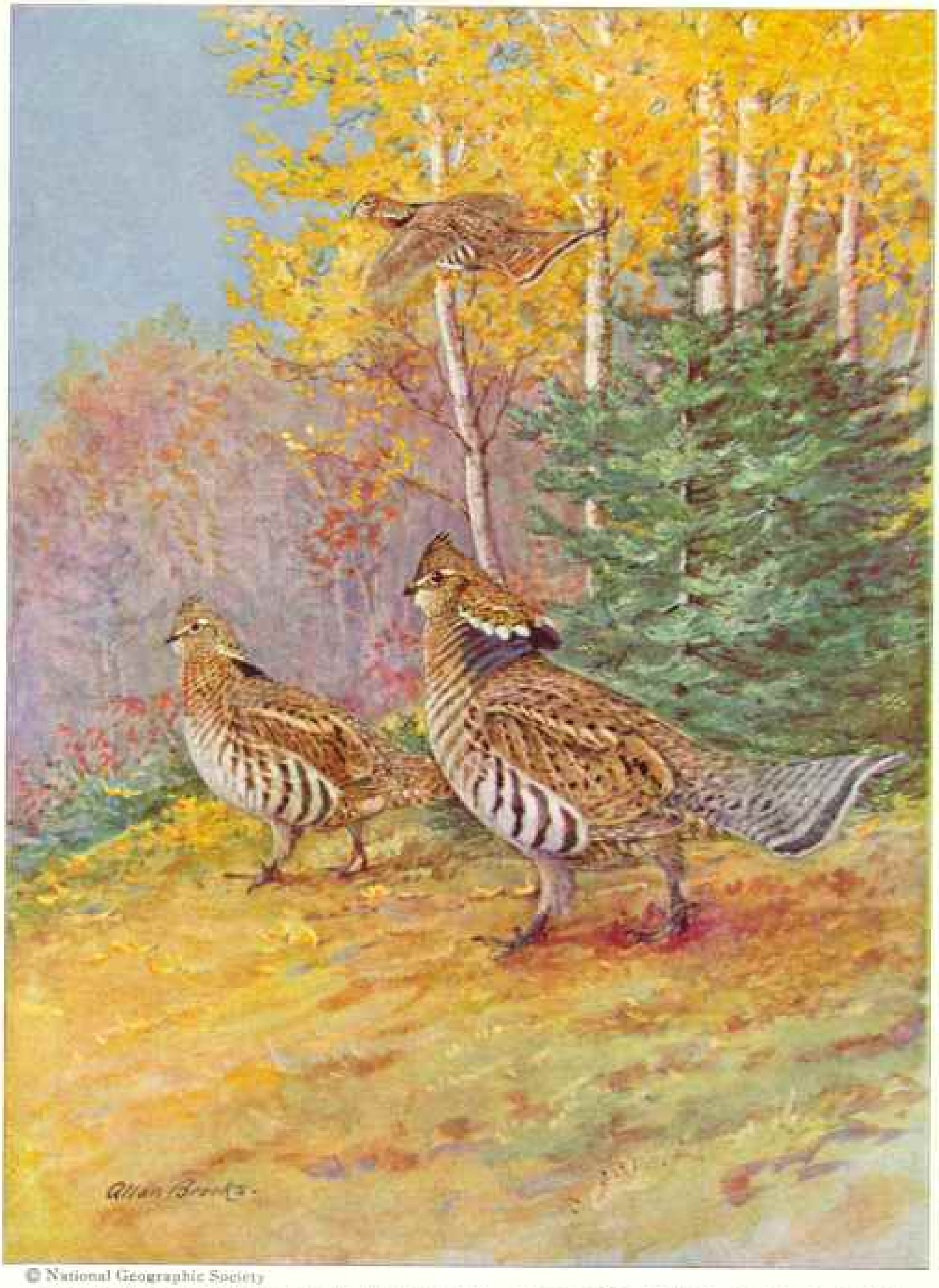
Immediately answer came in kind from farther away, and again from another side. Ruffed grouse, under the inspiration of the cool air of fall, were drumming, a thrilling sound that gave the proper accompaniment for the wild panorama before me (Plate VI).

In my mind I could see the drummer, as I had on other occasions, standing proudly on a prostrate log, with neck ruffs glistening in the sun. Suddenly he throws the body erect, with the tail at an angle, and begins the beats of his wings that produce the sound. The movement is so rapid as to defy the eye, until at the close the swiftly moving pinions show as a hazy blur about his body. The sound, a resonant drumming whose tones may carry far, is produced by the beat of the stiff wing feathers against the air (page 464).

The ruffed grouse in the North is often known as "partridge," while in the southern mountains many call it "pheasant." It is an inhabitant of extensive woodlands, where it ranges in little bands that crouch and hide at any disturbance. It is a bird dear to the heart of many a sportsman, and with its quick getaway under cover is one of the most difficult to kill of any of our game birds.

Walk through its haunts and the birds lie close until you have passed, when they rise with a resounding roar of wings that startles the novice into complete forgetfulness of his gun. The grouse dodge at once behind some tree or thicket and dart away, to set their wings finally and sail rapidly to safe coverts.

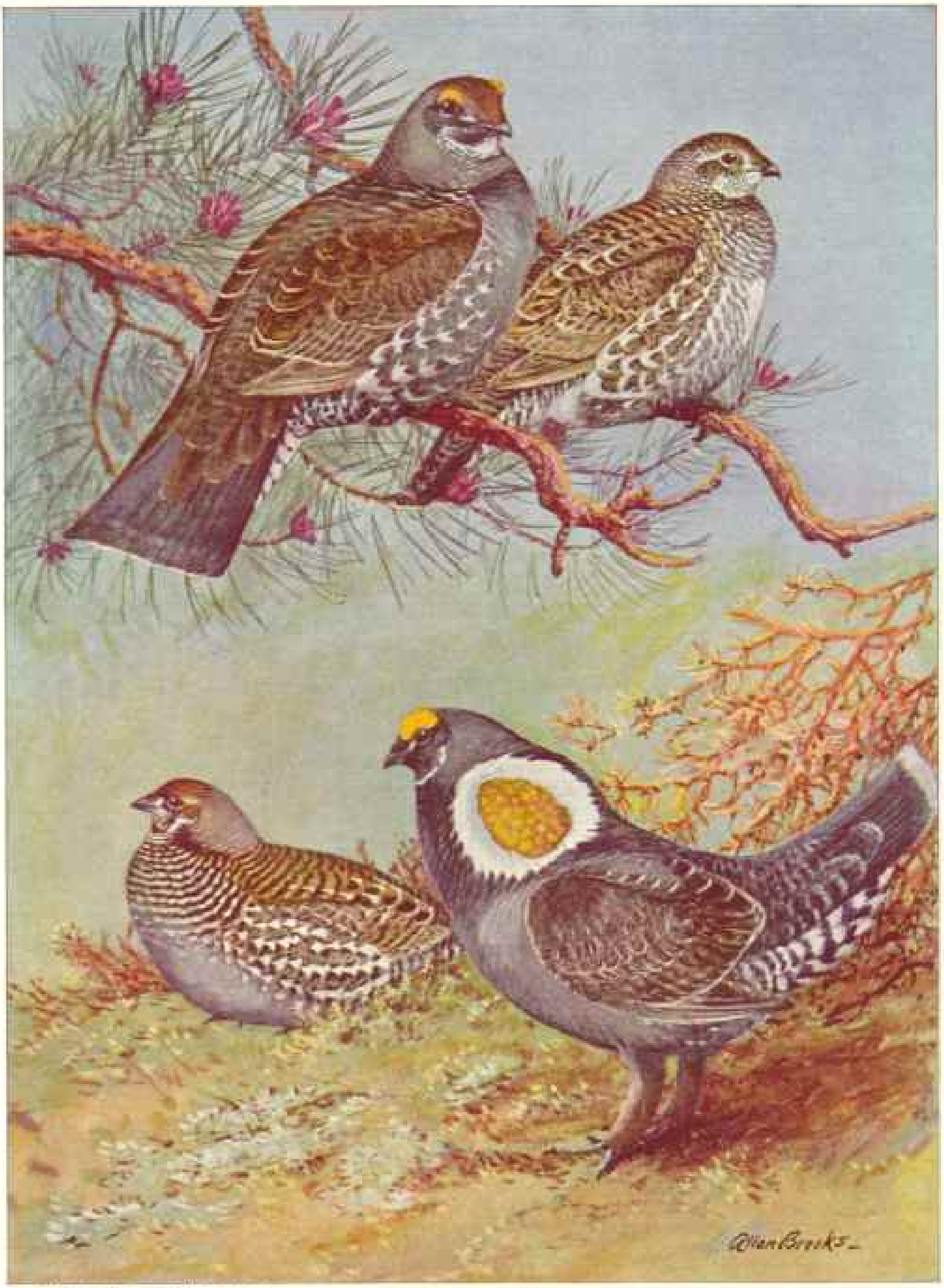
In spring drumming begins in earnest, and it is then that at times it is possible to approach and watch the drummer. Move forward cautiously when the drum is





DEEP WOODS RESOUND WITH THUNDEROUS DRUMMING OF THE RUFFED GROUSE

The male drums with his wings to summon his mates, to challenge other cock grouse to battle, and sometimes just to wear off excess energy. Ranging widely in Canada and the northern and eastern United States, this hardy bird thrives on nuts, grain, seeds, buds, fruit, and insects. During the unexplained "crazy season" in the fall, many RUFFED GROUSE kill themselves by flying into obstacles. As winter approaches, they grow "snowshoes," horny, comblike projections on the toes, which help support their weight in deep snow.






TO CHARM THEIR MATES, THESE WESTERN GROUSE STRUT IN PROUD DISPLAY

By blowing out the air from inflated skin sacs which push aside their neck feathers, they produce a deep, booming sound, audible at a great distance. The RICHARDSON'S GROUSE (male and female, above) inhabits coniferous forests of the Canadian Rockies, ranging south to Montana and Wyoming, where it clings to the edges of timber and open glades along streams. Pacific coast mountains are the habitat of the foliage-eating SOOTY GROUSE (foreground pair), also known as "fool hen" because in some areas it barely moves out of the hunter's path.

heard, and stop motionless the instant it ceases. With fortune you may see the bird before it takes alarm.

Nest making and incubation fall entirely to the female. The nest is a hollow made in the ground, usually near the foot of a tree. It is lined with dried leaves and contains from 7 to 16 eggs, rarely more. These are buff or brown, occasionally slightly spotted with reddish brown. When not alarmed the female covers the nest completely with leaves before leaving, at times laying some gently on her back and wings so that they settle over the eggs as she slips from under them. There is some evidence that this grouse is polygamous.

In late summer and fall these birds roost in trees, and they may continue to sleep in conifers in mild winter weather. Regularly, however, at that season they sleep on the ground beneath low protecting branches, sometimes burrowing under deep snow (page 467).

Periodically there is great reduction in number among ruffed grouse for reasons that are not clearly apparent. Increasing settlement has brought about their extermination in many areas, but where there are extended forests, and hunting is properly restricted, the birds still remain in fair numbers.

Six geographic varieties of the ruffed grouse, differing in size and color, are at present recognized in a range that extends through wooded areas from Labrador to Alaska, and south to Pennsylvania, Tennessee, Colorado, and northern California. In the mountains the birds go to northern Georgia, and formerly were found south into eastern Kansas.

## Dusky Grouse

(*Dendragapus obscurus*)

Travelers in the Rocky Mountain region may encounter little bands of large gray grouse in the bushes along streams or in more open sections under pines and spruces. These are dusky grouse, the "fool hens" of the ranchmen. The name is often merited, as in remote sections the birds are tame and fearless.

Flocks of nearly grown young may rest on logs within a few feet, or may fly into low trees where they remain quietly. When game birds were more abundant, it was often possible to shoot several from such a flock with a pistol or small rifle without causing alarm among the others.

In spring a low hooting call may attract attention to a male dusky grouse as he struts along the ground with drooping wings. On either side of the swollen neck an area of bare, dull-reddish skin, covering a distended air sac, is outlined by an oval ring of pure-white feathers.

The nest is a shallow basin beside a log or under the shelter of bushes, with a scanty lining of pine needles and other vegetation. The eggs vary from 7 to 10, occasionally more, and are buff, spotted with brown.

When the young are hatched, the female is highly solicitous for their welfare, and is often fearless in her anxiety for them. Later, the entire family often flies into trees, and it is not unusual to discover suddenly that a little group of them is eyeing you quietly from a few feet away. Their flight is accompanied by a roar of their stiff-feathered wings, and as they dart away the gray band at the end of the tail is often a prominent mark.

In Colorado and New Mexico these grouse are usually found in the mountains at 7,000 feet altitude and above. Farther north they range at lower elevations. In winter their tracks are often seen in snow when they themselves are not discovered.

The true dusky grouse (*Dendragapus o. obscurus*) is found from Utah, southern Idaho, and Colorado to New Mexico, Arizona, and central Nevada. The race called Richardson's grouse (*Dendragapus o. richardsoni*), figured in Color Plate VII, with the terminal gray tail band less distinct, frequents the mountains from central British Columbia and western Alberta to eastern Oregon and Wyoming. Fleming's grouse (*Dendragapus o. flemingi*), of darker color, ranges from northern British Columbia to southern Yukon and District of Mackenzie.

## Sooty Grouse

(*Dendragapus fuliginosus*)

This large grouse is an inhabitant of conifers, and though it nests on the ground and feeds there to some extent, a good part of the life of adult birds is passed in trees (Color Plate VII).

My first meeting with them was in northwestern Washington. As I traversed wet undergrowth, sodden from nearly constant rains, I heard resonant, hooting notes, repeated with varying accent.

After long listening, I traced these calls to a group of tall firs, where, after much watching, with aching neck, I made out the dark form of the bird. Secure in its remoteness, the grouse continued to call at intervals, paying little attention to my movements on the ground below.

The sac on either side of the neck in this species is yellow, and is larger than in the dusky grouse. The skin above it also is considerably thickened. The greatest difference comes in the call of the male, for that of the sooty grouse carries for long distances, while the notes of the dusky grouse have much less force and power.

To nest, this grouse descends to the ground and prepares a slight depression under the cover of a rock or log, or beneath bushes. This is lined scantily with grasses and leaves, and contains from 5 to 12 eggs, buff in color, spotted with reddish brown. As incubation continues, a few feathers from the bird are usually added to the nest lining.

Various kinds of berries are favorite food, together with leaves, soft stems, and seeds. In winter the birds feed extensively, if not entirely, on the needles of pines and firs, which give a strong flavor to their flesh and make it unpalatable to many persons.

These grouse are hunted with considerable difficulty, since, when in lofty trees, they remain motionless and cannot be seen.

Four varieties are recognized in the area from Alaska to the mountains of California.

## Spruce Grouse

(*Canachites canadensis*)

The spruce grouse is a bird of the far northern forests and can live only in undisturbed wilderness. With any development of natural resources by civilized man it becomes rare and ordinarily is soon exterminated. Because of its long isolation it has little fear so long as it is out of actual reach, and is often captured with the greatest of ease (Color Plate VIII).

Boys kill them with sticks and stones, or catch them in snares. Often a flock in a low tree will watch quietly while their members, one by one, are snared by a noose on the end of a long pole, never seeming to realize that they are in danger. This is another of the grouse that often bear the local name of "fool hen."

The male spruce grouse has a curious display, which, though given during most of the year, has its greatest expression in the mating season. The bird rests on a low branch at the border of a little opening. At intervals it flies across to another perch, pausing for an instant in the air to beat its wings rapidly, producing a drumming, rattling sound.

Sometimes a bird may rest on the ground in a little opening, jumping into the air at intervals to drum. Again, the male resorts to a leaning spruce up which he walks, frequently springing into the air to drum. Such drumming trees become well known, as the bark is worn and rubbed through constant use.

The nest is placed on the ground under bushes, or beneath the low-hanging branches of a spruce. As the birds sit close, their homes are discovered with considerable difficulty. Often the female will not rise until trodden upon. The eggs, which number from 10 to 16, are buff or cinnamon, boldly marked with varying shades of rich brown. They are among the handsomest in color and marking of the entire family.

The spruce grouse spends much time in trees and bushes, where it secures its principal food of leaves and buds. The birds are resident even in the Far North. In winter they live almost exclusively on spruce needles, so that their flesh acquires a strong, resinous flavor.

The four geographic races are distributed through northern forests from the Labrador Peninsula across to Mount McKinley and the Yukon region in Alaska. They range south to New England, northern Minnesota, and southeastern Alaska.

## Franklin's Grouse

(*Canachites franklini*)

This is the western counterpart of the spruce grouse, from which it differs principally in lacking the buff-colored tip on the tail. It is an inhabitant of mountain forests of conifers (Plate VIII and p. 463).

Like the eastern bird, Franklin's grouse has no fear at all of man. Aretas A. Saunders relates that once he climbed a small pine and seized one of these grouse by the foot, merely to see if this was possible. When released, the bird merely moved a few feet to a higher limb.

The nest and eggs, seen seldom by naturalists, resemble those of the spruce grouse.




LIVING IN LONELY FORESTS, THEY HAVE NOT YET LEARNED FEAR OF MAN

Full-grown SPRUCE GROUSE (lower pair) have been caught by hand, and hunters often kill them more easily with a stick than with a gun. This naïve vegetarian frequents the vast Canadian spruce forests and tamarack swamps from the eastern base of the Rockies to the Atlantic. The equally fearless and confiding FRANKLIN'S GROUSE (above), of the mountains of Alaska, western Canada, and northwestern United States, is almost a twin of the spruce grouse, but lacks the orange bar at the tip of the tail.




PRAIRIE CHICKENS ARE VAIN AND JEALOUS LOVERS

Struggling to preserve itself by keeping ahead of civilization, the PRAIRIE CHICKEN (female and male, below) may now be found, in greatly diminished numbers, from the southern Prairie Provinces of Canada to Colorado, Texas, and eastward to Indiana. The orange air sacs of the male, here pictured in mating display, are violently deflated to produce the resonant "boom-ah-boom" call with which he challenges all rivals. The LESSER PRAIRIE CHICKEN (above), which occupies the more southerly part of his cousin's range, is similar in plumage, but paler.

Franklin's grouse feed largely on needles of pines and firs, and in winter remain almost constantly in trees. They do not migrate, but during the colder season are difficult to find because of their arboreal habits.

Franklin's grouse ranges in the northwestern United States and southwestern Canada, from southeastern Alaska, British Columbia, and Alberta to central Idaho and northern Oregon.

## Prairie Chicken

(*Tympanuchus cupido*)

The coming of spring in the haunts of the prairie chicken is signalized by a resounding booming, whose insistent repetition is certain to arouse interest. Follow the sound and eventually you will find a number of gray-brown birds resting a short distance apart on the ground in open field or prairie (Color Plate IX).

Suddenly one begins a curious dance in which the rapidly moving feet make a little pattering sound on the ground. It then droops the wings, erects the tail, and throws the pointed feathers on the sides of the neck forward like little horns, while the body swells, and two yellow sacs like oranges are inflated on either side of the neck. The bird runs forward a few steps and then expels the air from the sacs to make a hollow, booming sound.

Immediately the challenge is answered by another male a short distance away, and the two approach with threatening mien to rush at one another. The combat is no sham battle, as feathers fall and the birds strike viciously with bills and feet. Females near-by look on with seeming indifference.

The booming of the prairie chicken may begin in March, but reaches its climax in May, which is the height of the mating season. Like the ruff of Europe, the birds visit the same areas each year for their mating, even though the ground has been plowed and the original sod replaced by growing crops. Their booming is one of the sounds of the prairie countries that, heard once, are never forgotten.

Nesting duties fall entirely to the female, as the male is too engrossed in his displays to have interest in such affairs. The nest is placed on the ground, where it is hidden by dense vegetation. Rarely is it located in the shelter of groves of trees. The eggs vary from 7 to 17 in number. They are olive buff in color, spotted with brown in varying degree, some being almost without markings. Incubation requires approximately 24 days.

In the northern part of their range these birds migrate southward at the approach of cold weather, traveling north again in spring. During these movements they sometimes fly at a considerable height above the ground.

When colonists came first to the area between Massachusetts and New Jersey, they found a bird called the "heath hen" that ranged in large flocks in open country. This eastern race of the prairie chicken, marked by wider dark bars and slightly darker color in general, was hunted to such a degree, and was so molested by increasing settlement, that finally all disappeared except a small colony on the island of Martha's Vineyard off the coast of Massachusetts. In spite of careful protection this group steadily dwindled in number, until the last survivor disappeared in the fall of 1931.

The true prairie chicken (*Tympanuchus cupido americanus*) ranges from Alberta and Manitoba to eastern Colorado, Arkansas, and Indiana. Attwater's prairie chicken (*Tympanuchus c. attwateri*), smaller and darker, is found in the coast region of Texas and southwestern Louisiana.

## Lesser Prairie Chicken

(*Tympanuchus pallidicinctus*)

This interesting species, marked by small size and pale coloration, is a bird of the Great Plains area that formerly was found in tremendous numbers. Early travelers in this section describe flocks ranging from fifty to five hundred individuals, whose wings, as they rose in sudden flight, made a noise like thunder (Color Plate IX).

These great flocks have disappeared, and for a period of years this species seemed on the way to extinction. With more carefully planned game laws that have afforded better protection, the birds have increased in number locally, and, though absent over much of their former range, they are still found in some sections in fair abundance.

In spring the lesser prairie chickens resort in droves to their booming ground, often a low elevation grown with buffalo grass. Here they go through antics similar to those of their larger cousins. The booming sound differs decidedly in tone, and the sacs on the neck of the male are reddish instead of yellow.

The eggs are somewhat less spotted than

those of the larger prairie chicken, some being almost immaculate.

The lesser prairie chicken ranges from southeastern Colorado and Kansas to central Texas and southeastern New Mexico.

## Sharp-tailed Grouse

(*Pediocectes phasianellus*)

In quest of food the sharp-tailed grouse may come out into the open fields of corn and wheat where its cousin the prairie chicken is at home, but it regularly ranges in and near the thickets of brush and the groves of trees that are scattered through the prairie countries (Color Plate X).

In spring the sharp-tail resorts to certain knolls where for some weeks it is occupied in the spirited dancing and fighting that accompany the mating period.

The nest is a hollow on the ground, lined with whatever vegetation is at hand. The eggs usually number from 10 to 15, and are olive buff speckled with small spots of brown. Some are almost entirely unmarked.

In the hunting season these grouse are favorite game, as they usually lie well to dogs, and to one with steady nerves, not disturbed by their roaring wings on their sudden rise, they offer excellent shooting.

At the approach of winter sharp-tailed grouse often move to regions with more timber, and at this time come into areas where they do not occur in the nesting season. Though in summer they live on the ground, in winter they spend much time in trees, where they eat dried berries and buds. At this season they often come about farmhouses and into small towns, where wheat may be found about grain elevators.

The northern sharp-tailed grouse (*Pediocectes p. phasianellus*) ranges from central Alaska across to northern Quebec. The Columbian sharp-tail (*Pediocectes p. columbianus*), which is grayer, is found from the interior lowlands of British Columbia to Utah and northern New Mexico. The prairie sharp-tail (*Pediocectes p. campestris*), of paler, buffier hue, is found from southern Alberta and Manitoba to eastern Colorado and western Wisconsin.

## Sage Hen

(*Centrocercus urophasianus*)

Walk through the aromatic growths of sage in the Great Basin region, and you may be startled by the sudden flight of a huge grouse. It rises without warning and whirls quickly away to disappear in the shelter of the gray-green shrubs that extend for miles about.

This is the sage hen, better called "sage grouse," the largest of its group in America. Old males weigh from four and one half to eight pounds, and with their long tails and striking markings are truly magnificent birds (Color Plate X).

Formerly sage hens were abundant, but with extensive settlement they have been reduced in various regions, and without protection would soon become extinct. They live almost entirely in areas grown with sage, seeking other thickets only during the cold and snow of winter.

A strong, muscular gizzard, like that of the domestic chicken, is so usual among grouselike birds that it is curious to find in the sage grouse a stomach that is merely a thin-walled sack. Feeding as it does on insects and soft vegetation in summer, and on the leaves of sage in winter, the sage grouse apparently digests this food without the need of a strong grinding organ.

In spring, sage grouse gather in certain favored localities for a strange display. This begins before dawn, when it is too dark for human eyes to see. The male bird spreads its tail so that the pointed feathers stand out in a semicircle, and inflates the sacs on the breast and side of the neck so that they come nearly to the ground. These distended sacs are thrown quickly up and down, while the stiffened feathers on the neck and breast rasp against one another and against the wings to produce a rattling sound. Finally air is expelled in a curious sound difficult to describe.

Like other grouse of this group, the present species makes its nest in a scantily lined hollow on the ground. The 7 to 13 eggs (occasionally more) are olive buff spotted with brown.

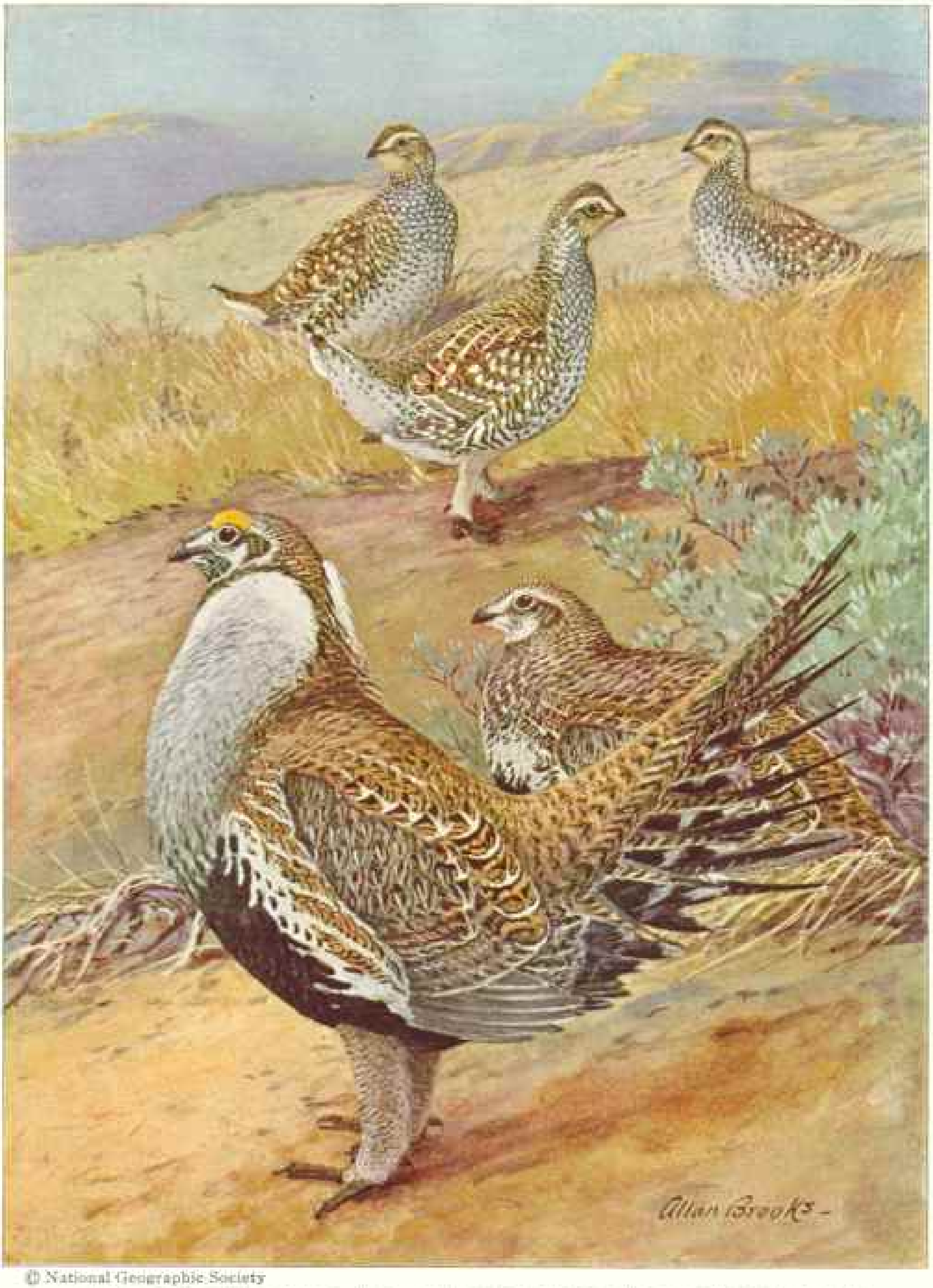
In winter the sage grouse gathers in considerable bands where food is found. In earlier days these winter flocks sometimes included thousands of birds, but that is something no longer seen.

This species ranges from British Columbia and southern Saskatchewan to California and northwestern Nebraska.

## Willow Ptarmigan

(*Lagopus lagopus*)

As Elisiy and I put up our tent in the doubtful shelter of low dunes near the end






LARGEST OF THE GROUSE, THE SAGE HEN CLINGS TO SAGEBRUSH PLAINS

Large flocks of male SAGE HENS (in foreground with female) assemble in earliest spring to croak, strut, and posture. This vainglory is punctuated with frequent vicious fights. These birds, also known as "sage grouse," are found from southwestern Canada to California and Nebraska. At the top is a female COLUMBIAN SHARP-TAILED GROUSE (left) with two males. Much grayer plumage and a more southerly range distinguish the Columbian from the northern sharp-tailed grouse.



CHAMELEONLIKE, PTARMIGAN SUIT THEIR DRESS TO THE BACKGROUND

The two WILLOW PTARMIGAN on the ground at the left (male above, his mate below) are flecked with white to merge with a sparsely snow-strewn autumn landscape. Spring decks the males (on the wing and on the rock) in striking finery, but protects the mother bird with sober plumage. In winter they all match the snow (Plate XIII). These ptarmigan range over the arctic and subarctic regions of the North, migrating southward in winter, casually to the border of the United States. They form an important food supply for northern natives.

of the Alaska Peninsula one July evening, I heard on all sides curious cackling calls that my Aleut companion said were those of *alladēk*, or ptarmigan (Color Plate XI).

The following morning as I walked across the hummocky tundra, wet from rain, a reddish-brown bird as large as a bantam suddenly ran ahead of me with neck extended and breast brushing the ground, so that it seemed more like a crouching reptile or mammal than like a bird. This was a cock willow ptarmigan.

After moving a short distance in this fashion, the bird rose with a startling roar of stiffly feathered wings, and to the accompaniment of loud cackles dashed away a few feet above the ground.

At that instant, from the corner of my eye, I caught the movement of a brown hen bird stealing quietly away to one side, and sprang forward to surprise a little brood of newly hatched chicks that instantly disappeared in the deep moss. One that I captured nestled quietly in my hand while I admired the buff and brown markings of its tiny, down-covered body.

This was the season of hatching, and several times in the next few hours this little scene was repeated, with the parent ptarmigan attracting my attention until the young were hidden. The birds were abundant, and I was fully aware that unless they were directly in my path they simply remained motionless, hidden from my eyes by the blending of their colors with that of their tundra background.

The handsome willow ptarmigan of subarctic tundras and barrens is the outstanding land game bird through the vast region of the north, though hunted for sport in only a small part of its extended range. To various races of men, as well as to predatory birds and mammals, it is an important source of food.

The seasonal changes in color are most interesting. In late fall the willow ptarmigan is in clear white plumage except for a black bill, dark eye, and black tail feathers, the latter mainly concealed except in flight. The birds match perfectly their winter background of snow (Plate XIII).

In spring, as soon as snow begins to leave the ground, dark feathers appear on head and neck, so that the birds are particolored. As summer arrives, the ptarmigan become entirely dark, but almost at once white feathers begin to replace the darker plumage, so that through the fall the birds are in mixed dress. When winter snows come again, new white feathers have replaced all of the old dark body plumes.

At all seasons these birds match their background, the mixed dark and white plumage of spring and fall simulating the patches of snow that then are scattered through their haunts.

In winter, ptarmigan grow long, hairlike feathers on the feet that serve as supports in walking in soft snow. At this season the willow ptarmigan perform regular migrations to valleys and river bottoms where willows, alders, and other trees project above the snow. On the buds of these the birds feed when all other supplies of food are hidden. In their migrations the birds often move in flocks of hundreds of individuals. Many are killed by hunters and preserved frozen for later use.

In spring these ptarmigan return to their breeding grounds, where each male selects a bare spot of ground, and, with swollen red comb, begins to strut and call. Frequently he flies a few feet into the air, to utter his barking notes as he flutters down to earth. Battles in which feathers and blood may fly are frequent when the birds are numerous.

The female ptarmigan places her eggs in a hollow in the ground, covering them carefully with grass whenever she leaves them, until incubation begins, when she seldom wanders far. The male remains close by and flies viciously at gulls that attempt to steal the eggs, often striking them hard with his firm, heavy body.

From 7 to 10 eggs are the usual number, with variation from 5 to 17. They are handsomely marked with brown that is brighter when the egg is first laid and becomes darker as the coloring matter hardens.

Five races of this ptarmigan are now recognized, their combined ranges extending from the western coast of central Greenland and the eastern Aleutian Islands to Newfoundland, and in the mountains to central Alberta and British Columbia. Accidentally they occur in the northern United States from North Dakota to Massachusetts.

### White-tailed Ptarmigan

*(Lagopus leucurus)*

Climb over the rough, rock-strewn slopes above timber line in favored parts of the Rocky Mountains and you may be fortu-

nate in finding a medium-sized, grayish-brown, grouselike bird. Often it shows no fear, permitting the closest approach without alarm.

This is the white-tailed ptarmigan, smallest of our three species of this group. In addition to small size, it differs from the others in having the tail feathers white instead of black. It is one of the rarer mountain birds and from difficulty of access to its haunts is known only to the hardier among naturalists (Color Plate XII).

The white-tailed ptarmigan live permanently on the higher slopes of the mountains and for much of the year are found above timber line. Only when snows cover their food supply do they descend into the timber or along the creeks where buds from bushes projecting above the snow furnish sustenance.

The nesting period comes in June, and the nest is placed in a depression on the ground. The eggs vary considerably in number, from 4 to 15 being recorded as complete settings. From 6 to 8 seem to be the usual number. They lack the rich coloration of other ptarmigan eggs, being buff more or less spotted with brown. Occasionally eggs are nearly plain, without marking.

Four closely allied races of this bird are recognized by scientists, extending on mountain ranges from central Alaska and District of Mackenzie to New Mexico.

### Rock Ptarmigan

(*Lagopus rupestris*)

The rock ptarmigan is found almost entirely in open country, ranging regularly in the hills and mountains above the haunts of the willow ptarmigan in areas where the two occur together (Color Plate XII).

They are birds of strong, swift flight and when startled may travel as much as a mile before alighting. The wings move so rapidly as to make a blur about the body until sufficient momentum has been gained, when the pinions are set and the bird glides away at high speed.

In fall, in the Far North, this ptarmigan makes extensive migrations, often gathering in flocks of several hundred. These travel on foot and on the wing, sometimes crossing wide expanses of water.

In summer they feed on insects, berries, and green vegetation. In winter they frequent slopes where the wind sweeps the ground bare, to search for frozen berries and buds. Or where the snow is not deep, they dig it away with strong claws to expose their food. The Eskimos often trap them by placing nets on bare ground where the birds congregate to feed.

In the Aleutian Islands in early summer I often saw the cock birds rise thirty or forty feet in the air, to descend slowly, giving a cackling, crowing call. Their lookout posts usually overlooked the nest site. When flushed, the male frequently flew low over the female on the nest, so that I found nests on several occasions by approaching the cocks and then searching along their line of flight.

The nest is the usual depression on the ground, lined with grass, sometimes with vegetation arching overhead as a protection against the sharp eyes of marauding gulls and ravens.

The eggs number ordinarily from 6 to 9, occasionally more. They are buff in color, strongly marked with black and brown, resembling in general those of the willow ptarmigan, but are smaller. The female sits very close. On one occasion I stepped on the tail of one on the nest before I saw her in the grass.

There are eleven recognized forms of the rock ptarmigan in the vast region extending from Attu, at the western end of the Aleutian Islands, to Greenland. One is confined to mountains in Newfoundland. Closely allied races are found in northern Europe and Siberia.

### White-crowned Pigeon

(*Columba leucocephala*)

Within the limits of the United States this handsome pigeon is found only in the lower Florida Keys and the adjacent mainland. Formerly it was abundant, but continued taking of its young for food and other hunting have considerably reduced its number (Color Plate XIV and p. 466).

Its loud, strongly accented cooing betrays its presence in forests where otherwise it would not be seen. I have wondered often at the ease with which such large birds concealed themselves in the leafy tree tops, where I could not see them until with loudly clapping wings they darted away in flight.

The nest is a simple collection of twigs that holds one glistening white egg. Many that I have seen were placed on parasitic plants growing on the branches and trunks of forest trees. The bases of the

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PTARMIGAN WEAR WARM "STOCKINGS" OF FEATHERS ON LEGS AND FEET

They nest on the ground, and so fully do they trust their protective coloration that they may not stir until almost trampled. The ROCK PTARMIGAN (male and female in fall plumage, above) breeds throughout arctic America and the barren lands of Alaska and Canada. The dapper WHITE-TAILED PTARMIGAN (male and female in summer dress, lower right and left, and young bird in fall plumage in the foreground) is smaller than other ptarmigan and is found in the Rocky Mountains.



IN SPOTLESS WINTER DRESS, PTARMIGAN ARE HARD TO SEE

When snow flies ptarmigan plumage changes as completely as the face of nature. Black tail feathers tipped with white identify the single bird in the foreground and the flying pair as WILLOW PTARMIGAN (Plate XI). ROCK PTARMIGAN (center pair) may be recognized by smaller bills, or, in the adult male, by a black stripe from the bill to behind the eye. They also flirt black tail feathers. Only black bills and dark eyes interrupt the uniform snowy winter costume of the WHITE-TAILED PTARMIGAN (upper pair on the ground).

leaves of these plants form cups that collect water from the frequent rains, so that in climbing to the pigeons' nests I was continually drenched as I bent or broke the plants aside.

The white-crowned pigeon ranges from extreme southern Florida to the Bahama Islands, a considerable part of the West Indies, and on coastal islands as far as western Panama.

### Band-tailed Pigeon

*(Columba fasciata)*

Through December fog, with occasional showers of rain, I walked slowly among the live oaks of a scattered grove near Stockton, California, watching eagerly for strange birds. A large pigeon, dimly seen in the haze, passed at a distance, its direct, swift flight resembling that of a hawk.

A little later one of the same kind flushed quickly from a tree top, only to be stopped by a shot as it darted away, and a moment later I held in my hand my first band-tailed pigeon (Color Plate XIV).

Its body was heavy, far more so than I had supposed, and its handsome markings seemed to me to make it one of the finest birds that I had ever seen. Its crop was filled with acorns swallowed whole to be ground to pieces in its strongly muscled stomach.

The band-tailed pigeon is important as a game bird in various parts of the West, and for this reason has had its difficulties in maintaining its numbers. Years ago great flocks came in winter to the valley lands of California when acorns were abundant, and thousands of them were killed by hunters.

With increasing population, there was danger that these birds might follow the passenger pigeon to extinction (Plate XV and page 495). Fortunately, wisely planned hunting regulations intervened and the birds were protected to a point where they are again abundant in many localities.

The nest of the band-tail is a loose structure of twigs built in a tree. Normally it contains one white egg, though rarely there are said to be two. Nests on the ground have been reported. The nesting period ranges from April to June. Ordinarily the birds breed in scattered pairs, though at times they have been known to colonize.

By the novice in ornithological matters the band-tailed pigeon is often mistaken for the extinct passenger pigeon, formerly so abundant. The band-tail is easily told by its square-ended tail, as the tail of the passenger pigeon was elongated like that of a mourning dove.

The true band-tailed pigeon (*Columba fasciata fasciata*) ranges from southern British Columbia and Montana to western Texas, Mexico, and Guatemala. It remains in winter as far north as the southwestern United States. Viosca's pigeon (*Columba f. vioscae*), which is somewhat paler, is found in lower Baja California.

### Red-billed Pigeon

*(Columba flavirostris flavirostris)*

To find the red-billed pigeon it is necessary to visit the densely wooded bottomlands of the Rio Grande in southern Texas, as this is another of the interesting southern species that come barely within American borders (Color Plate XIV).

This bird is an inhabitant of trees, in which it makes the frail nest usual among pigeons to contain a single, pure-white egg. It is like the domestic pigeon in build, with heavy body, and strong wings that make a clapping sound as it rises in flight. The call is a loud cooing note.

This pigeon ranges from El Salvador and Guatemala north to the lower Rio Grande Valley in Texas. A closely allied race is found in Nicaragua and Costa Rica.

### White-fronted Dove

*(Leptotila fulviventris angelica)*

Another species of southern affinity is the white-fronted dove, which ranges with the red-billed pigeon in the forests of the lower Rio Grande in Texas (Color Plate XIV).

Ordinarily this is a bird of the ground, where it walks about sedately under the dense cover of trees and shrubbery. It is also found in tall trees on occasion, often at a considerable height.

Flush it suddenly and it rises with a peculiar whistling sound, probably produced by the outermost primary feather of the wing. This is narrowed at the tip, so that it is shaped like a little curved sword.

The white-fronted dove differs from our other pigeons in the deep sounding notes of its call. Its nest, larger and bulkier than ordinary in this family, is placed in bushes or low trees. It lays two eggs which are creamy buff in color when fresh, but usually fade in a short time to dull white when preserved in collections.

The white-fronted dove is found from the lower Rio Grande Valley in Texas south through Mexico.

## Passenger Pigeon

*(Ectopistes migratorius)*

The passenger pigeon, the widely known "wild pigeon" found in almost fabulous abundance at the time of the discovery of America, is now entirely extinct (Color Plate XV).

As indication of the hordes of these birds that formerly existed, Kalm wrote of a flock that he observed in flight in Pennsylvania in March, 1740, that was three to four miles in length and a mile in breadth. A more graphic description is that of Alexander Wilson, who told of great columns of the birds eight or ten miles in length, and of flocks extending across the sky, whose steady procession continued for more than an hour.

The passing of these multitudes was said to darken the sun like the sudden coming of a storm cloud, and the steady sound of their myriads of beating wings was likened to the roar of a waterfall.

These pigeons not only traveled in great flocks during migration, but also displayed the same gregarious instinct in their nesting. Bands came in spring to occupy unbroken tracts of forest, with the colony extending rapidly as more migrants arrived, until the birds filled the trees for miles.

Alexander Wilson reports a nesting colony near Shelbyville, Kentucky, that covered an area a mile wide and more than thirty miles long. S. S. Stevens described to William Brewster a nesting near Petoskey, Michigan, in 1876 or 1877 that, with an average width of three or four miles, extended 28 miles.

It was not unusual to see a hundred nests in a tree, and the heavy-bodied birds often crowded in desirable groves until large limbs were broken by their weight. The ground in their colonies was strewn always with fallen nests, eggs, and young, and was covered with the droppings of the multitudes of birds.

The extinction of this most remarkable of North American birds has been commonly attributed to some storm or other natural catastrophe, but in my opinion and that of many others it is to be charged directly to ruthless slaughter by the white man.

Gunpowder gave greater killing power than sticks or arrows and there was ready sale for pigeons in the markets. In early years during the colonization period there was no appreciable effect upon the vast hordes of birds, but, as settlement increased, constant persecution had its inevitable effect, particularly since the pigeons were pursued without cessation all through the nesting period.

Men with axes cut down nest-laden trees to obtain the heavy squabs. Others with long poles knocked the helpless nestlings to the ground. Netters operated constantly with spring nets to capture adult birds by the score.

For decoys, live birds with their eyelids sewn together were fastened on movable perches. When flying flocks appeared, the decoys were set in motion and their flapping wings called their passing companions down to destruction.

The development of railroads, with improved transportation and mail service in the 1870's, gave speedy transmittal of the news of migrating and nesting flocks and brought to a speedy conclusion the last chapters in the history of one of our most interesting birds. In 1879 Prof. H. B. Roney estimated that 5,000 men were engaged regularly in pigeon hunting as a business, while hundreds more took up the pursuit temporarily wherever flocks of the birds appeared.

One account says 990,000 dozen pigeons were shipped in three years from western Michigan to New York City. Another tells of three carloads per day, each car containing 150 barrels of pigeons, shipped from one town for forty days. The birds sold for from twenty cents a dozen upward. Roney reports shipments of one and one-half million birds from Petoskey, Michigan, between March 22 and August 12, 1878. In addition, more than 80,000 birds were shipped alive for use in trap shooting.

The last wild bird for which there is certain record was one killed in April, 1904, though there is account of one identified positively in 1907. I believe that I saw two in flight near Independence, Kansas, in April, 1905, but as the birds were at a little distance this is not entirely certain.

The final end of the species came when the only surviving bird of a flock long in captivity died in the zoological gardens in Cincinnati, Ohio, at 1 p. m. Central Standard Time, on September 1, 1914. This bird

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SOME PIGEONS ARE FOREST DWELLERS, WHILE OTHERS PREFER OPEN COUNTRY

Before Federal protection of the BAND-TAILED PIGEON of the West (lower right), its flocks were easy prey for numerous hunters and the bird was threatened with the fate of the passenger pigeon (opposite plate). The shy WHITE-CROWNED PIGEON (upper left) comes north as far as southern Florida. Densely timbered areas in the lower Rio Grande Valley and Mexico are frequented by the WHITE-FRONTED DOVE (lower left and flying). The RED-BILLED PIGEON (upper right) lives along the Mexican border and southward to Central America, favoring groves of large trees close to water.




FABULOUS FLOCKS OF PASSENGER PIGEONS ONCE DARKENED THE SKY

Long extinct, the strong-flying PASSENGER PIGEON (upper) was once one of the most abundant birds in the world and its flocks were measured by the square mile. It inhabited the whole forested area of eastern North America, fifty or more pairs commonly nesting in the same tree. Branches broke under the weight of breeding birds. They were easy to kill and indiscriminate slaughter for food wiped them out. Observers who report passenger pigeons today see either the band-tailed pigeon (opposite plate) or the MOURNING DOVE (male and female, lower). The latter is similar to its extinct cousin in form, but much smaller.

is now mounted and on exhibition in the U. S. National Museum (page 465).

The nest of the passenger pigeon was a flimsy structure of twigs, placed in a tree, and ordinarily contained a single egg. Sets of two are reported, but this was unusual. The egg hatched in fourteen days (some report a longer period), and the squab rapidly became fat and heavy. When grown it was crowded from the nest by its parents.

The passenger pigeon fed on nuts, seeds, and berries, beechnuts being especial favorites. It migrated south when snow covered its food supplies in the north, and returned again in spring when the ground was bare.

Continual reports of the present-day occurrence of the passenger pigeon come to the Smithsonian Institution and other agencies interested in natural history, but there is no question but that all of the birds are gone.

In most cases the bird seen is the mourning dove, a common species of similar form but smaller size. Aside from the color differences between these two, which are well shown in the accompanying plate, the passenger pigeon did not produce the whistling sound so frequently made in flying by the mourning dove.

In the West the band-tailed pigeon is sometimes confused with the extinct wild pigeon, but can be told at a glance by its square-cut tail. There are many stories of the passenger pigeon having migrated *en masse* to unknown forests in South America, but in more than a hundred years of investigation naturalists have never had record of this bird beyond Cuba and central Mexico. It formerly nested from the District of Mackenzie and Nova Scotia to Kansas, Kentucky, and Pennsylvania. In winter it ranged from Arkansas and North Carolina to Texas and Florida, casually farther south.

## Mourning Dove

*(Zenaidura macroura)*

Stand at a desert water hole in Arizona, and usually it is not long until there is a whistling of wings as a mourning dove comes swiftly in to drink, offering a good view of its elongated form, accentuated by the slender neck and long tail as it passes quickly overhead (Color Plate XV).

In the East one more often identifies this dove by its gently modulated coo, coming from a distant bird quietly at rest on some high tree limb, or by a hasty glimpse of its contrasted black and white tail markings as one or two rise in confusion from beside the highway.

While the mourning dove frequents woodlands and groves in the better-watered sections of our country, it is equally at home in the open plains and treeless valleys of the more arid regions. It feeds on the ground, its food being composed almost entirely of seeds of various kinds. Grain fields that have been cut draw the birds in abundance, as here they may feast on grain that has fallen as waste during harvest.

In fall and winter the mourning dove gathers in little flocks where food is abundant, but in its nesting it is solitary. The nest is a fragile structure of twigs, ordinarily placed in a shrub or tree, but often found upon the ground, particularly in regions where trees are few. Frequently the eggs or young are visible through the twigs that form the bottom of the nest, so loosely is the structure made.

The mourning dove nests somewhat irregularly, especially in regions where the weather is not too severe. In California occupied nests have been found in every month from February to December.

Mourning doves are regularly hunted as game, and require definitely regulated seasons for their protection because of the small number of young they produce to offset those killed.

The eastern mourning dove (*Zenaidura m. carolinensis*) nests from Nova Scotia and Wisconsin to Kansas and the Gulf coast. In winter it migrates south as far as Panama. The western race (*Zenaidura m. marginella*), somewhat paler, is found from British Columbia and Manitoba south into Mexico.

## White-winged Dove

*(Melopelia asiatica)*

At dawn on a morning in June in Arizona, the softly modulated voices of doves came to me through my open window, and a little later, with arrival of the sun, I heard the birds on every side. As I watched one cross the sky in rapid flight, a flash of white came from its wings and I knew that these were white-winged doves (Plate XVI).

Entering a large mesquite grove, I found myself in the midst of a breeding colony of these doves. Loose nests of sticks and weed stems were placed on inclined limbs where the forking of the smaller branches

gave firm support. Sometimes two or three nests were placed in one tree, but there was no crowding, and often one pair occupied a tree alone. The nests contained two eggs that varied in color from buff to white.

As I passed under the low trees, white-wings flushed about me constantly with loudly clapping wings. Birds were continually arriving and departing, their excursions for their food of seeds and waste grain covering many miles.

Although the males did not coo in unison, the effect of hundreds calling at one time was truly remarkable. Save for the notes of one or two birds near at hand, the whole blended in such a way that it was difficult to pick out individual songs. The volume of sound carried to me easily at a distance of a mile, but the tone was soft, so that it was not deafening even near at hand. The notes formed a continuous undertone, filling the air as completely as the noise of rushing water from a stream. The effect was most remarkable and still lingers in my memory.

In recent years these birds have decreased greatly and large colonies like the one described are said to be a thing of the past. The doves are still common, though they require protection in order to maintain them as game birds.

The eastern white-winged dove (*Melopelia a. asiatica*) is found from the lower Rio Grande in Texas into Mexico, occurring casually in Florida and Louisiana. The larger, paler western race (*Melopelia a. mearnsi*) is found from New Mexico and southeastern California southward to Guerrero and Puebla.

## Inca Dove

(*Scardafella inca inca*)

A monotonous, insistent repetition of cooing notes, coming from a hidden source in shade trees or shrubbery, to many is the only recognized sign of the tiny, long-tailed Inca dove. Others more observant may see the attractively formed little birds walking hurriedly with tiny steps in search for food, or may note them contentedly at rest on some shaded porch. To see them is to forgive the monotony of their call (Color Plate XVI).

The Inca dove is most common about houses, and even comes into thickly populated towns. I have seen them in the State Capitol grounds in Phoenix, Arizona, and in Tucson have found them common at the State University. In Texas in recent years they are said to have extended their range to the northward.

The nest, which contains two white eggs, is more compactly built than in the case of most of its family. Usually it is placed in a tree or shrub, from 4 to 25 feet from the ground. On occasion the dove relines the old nest of a mourning dove, mockingbird, or other bird for a safe foundation.

The Inca dove is found from southern Arizona, New Mexico, and central Texas south through the warmer parts of Mexico to Honduras.

## Ground Dove

(*Columbigallina passerina*)

Walk quietly between the rows of trees in a Florida citrus grove, or follow some brush-bordered path near cultivated fields in more arid regions, and you may see a pair or more of tiny, gray-brown birds that walk rapidly with quickly nodding heads (Plate XVI).

At a noise they crouch immobile, and then, in sudden alarm, rise with a bright flash of reddish brown from the underside of the wings. In an instant they are gone.

To watch these ground doves, try to attract them with food and water so that they may be easily seen. Your reward will be much pleasure in the sight of their trimly graceful forms and soft colors. But observe them awhile and you will be certain that the phrase "gentle as a dove" is sometimes to be used in irony, as males constantly advance toward one another threateningly, strike quickly with their wings, and hustle one another about.

While this bird is well named in that it spends much time on the ground in search of its food of seeds, it perches regularly in trees, and on or about buildings.

While its nest may be placed on the ground, it is located frequently in a bush, on a stump, or in a low tree. It ordinarily contains two white eggs, rarely three.

The eastern ground dove (*Columbigallina p. passerina*) is found from South Carolina to eastern Texas. The paler Mexican ground dove (*Columbigallina p. pallescens*) ranges from western Texas and southeastern California to Guatemala and Baja California. There is a related form in Bermuda and the Bahamas, and many others occur in the West Indies.



THOUGH THEY SYMBOLIZE PEACE, SOME DOVES ARE HIGHLY QUARRELSOME

Fierce and bloody conflicts during the mating season belie their reputation for gentleness. The WHITE-WINGED DOVE (upper) is one of the best-known birds of the torrid cactus and mesquite deserts of the Southwest. Smallest of our pigeons is the dainty GROUND DOVE (male lower right and female alighting) of Florida, the Gulf coast, and the Southwest. The amorous little INCA DOVE (lower left) is equally at home along country roads and on city lawns throughout the Southwest, Mexico, and Central America. It is not easily disturbed as it searches unconcernedly for grain and weed seeds.

# PARIS IN SPRING

By Maynard Owen Williams

SPRING flows across Paris in waves of joy. Tender leaves bring shade to the boulevards. Horse-chestnut candelabra lighten the masses of new green. In the Jardin des Plantes, the Luxembourg Gardens, and the Bois, hoops, skipping ropes, and all sizes and colors of balls give outlet for a new surge of energy and delight.

At Pré Catelan and Armenonville tables and chairs, reappearing after their annual hibernation, invite conviviality. Along the boulevards unscientific but heart-warming braziers, around which café patrons clustered all winter, give way to green tubs of pink hydrangeas. Overcoats are laid aside. Windows open wide in unconditional surrender to spring.

Along the Seine the workmen's clubs shine up their houseboats, and ragged laborers, stripping for a sun bath, become as well dressed as any man.

Poor devils along the quays lie for hours on the warm stone stairways, savoring the blessed novelty of being neither cold nor wet. In the industrial suburbs, mild weather lessens the misery.

### "'Mid Pleasures and Palaces"

In the Tuileries Gardens, human beings suddenly outnumber the statues, and at the Palais Royal, where John Howard Payne wrote "Home, Sweet Home," little boys welcome staunch sailboats after adventurous voyages amid the waterspouts of the fountain.

The Gingerbread Fair, with its roaring lions, skin-deep beauty shows, merry-go-rounds, wheels of fortune, and photograph shops, starts its annual round under many aliases (page 502).

As the "Fair of the Throne" on the Place de la Nation, this street carnival has its biggest success, for there it is among its own, the common folk who get a thrill out of having gingerbread pigs "baptized" with the names of their proud youngsters.

Under other titles, the Gingerbread Fair later spreads its tents before the Invalides and paves the Avenue de Neuilly with pleasure from the Porte Maillot to the Seine. Along the outer boulevards it competes for custom with cinema and cabaret.

How long it can last, none of the sellers of nougat or spinners of fortune wheels can say. "People don't seem to buy live turtles any more," one veteran sighed.

There are zoos from one end of Paris to the other. Giraffes brush at the clouds with inadequate ears; a fat sea elephant tips its head back like a man gargling, in order to eat fish from the hands of a keeper standing on its back; monkeys chase fleas, lions obey a trainer, and elephants, doing elephantine tricks, collect tips in their trunks (page 520).

As for donkeys, ponies, and goats, there are squads of them, each ready to go into action any time a pair of chubby legs straddles its back or a dainty miss of four takes the reins.

### Sophisticated City in Simple Mood

Paris offers its children countless simple delights. A youngster can ride a camel, drive a llama or an ostrich, lance rings from a merry-go-round, whirl to music inside a miniature plane, dig in the sand, sail a yacht, or forget the world at a puppet show (pages 506 and 507).

Then there is the Zoo of the Little Ones. Any city might have one. A dozen lambs, two dozen pigs, six donkeys, twenty kids, rabbits, ducklings, guinea pigs, and monkeys to suit the taste—this is the recipe. Paris adds a baby camel and its mother. But that is mere swank.

The magic lies in those mutually timorous contacts through which confidence and companionship are established between a child and a pet. Tiny children feed woolly lambs from bottles and squeal with delight when the little beggars suck the nipple off and spill milk down mother's black dress. There is something enormously appealing about being allowed to feed another person's livestock when you are young in Paris in the spring (pages 504 and 520).

Every afternoon, governesses and their well-dressed charges invade the generous expanses of forest, park, and square. On Thursdays, when the schools are out, and Sundays, when everyone is, Paris goes sylvan to an unbelievable degree. Lying on the grass is a major sport. Within smart race tracks at Longchamp or Auteuil, nature lovers stretch out under the sun, some scarcely raising their heads as prize-seeking hoofs pound by.

Photograph by Maynard Owen Williams

A PIG IS THE PATRON OF THE GINGERBREAD FAIR

Here on the Place de la Nation a gingerbread pig is being "baptized" by having the name of its buyer written in frosting on its shiny flank. This street carnival moves across Paris, changing its name as it goes and keeping alive the holiday spirit once fostered by the Fair of St. Germain, the Feast of Fools, and other popular festivals (page 501).

Homes of the rich overlook the Parc Monceau, but "Liberty, Equality, and Fraternity" obtain in the park itself. Working people come in from across the Boulevard de Courcelles as well as children from the aristocratic Avenues Vélasquez, Ruysdaël, and Van Dyke (page 522).

Strangest of the Parisian parks is the Buttes Chaumont, laid out by Haussmann, the boulevard builder, on the site of the old plaster-of-Paris quarries. Rising in the middle of its artificial lake is a seeming mountain, and surrounding verdure glorifies what was once a hideous hole. It is pleasant to think that Haussmann, ruthless wrecker of medieval buildings, could create as well as destroy.

Baron Haussmann did to teeming Paris what L'Enfant had done on paper for a nascent Washington, destined to be the beautiful capital city of a new republic. Haussmann thought in terms of boulevards, with the result that whole regions fell before the hammer of the auctioneer and the onslaught of the house wrecker. But, thanks to him, motorcars move. He was one of the few road builders of his day whose mind was broad enough for anything but pedestrians. His boulevards have brought new notes to a city whose very cobbles have been cemented with human blood.

Behind each beauty spot, history reveals some high crime or misdemeanor. Even Montaigne could see the warts on the face of his beloved city (page 534). But did that make the essayist's love any less real or less lasting?

### A KISS IN THE BOULEVARDS

Young couples walk this ageless city arm in arm and openly steal kisses, some of which must be for Paris itself. One ceremonious kiss in the boulevards I shall never forget.

It was St. Catherine's Day, November 25, when girls who have turned twenty-five and are still unwed don pretty caps, parade the boulevards, dance circles around embarrassed strangers, and are kissed by all and sundry. To one Catherinette came a trim officer in uniform.

© AP from Pictures, Inc.

HUGE PORTRAITS OF REVOLUTIONARY FIGURES HANG NEAR THE SITE OF THE BASTILLE

With fluttering flags and cheering crowds, members of the left-wing "Popular Front," victors in the 1936 elections, mass at the base of the July Column on the French "Fourth of July." The anniversary of the fall of the hated prison on July 14, 1789, has become the Glorious Fourteenth, the French national holiday. This year the celebration started with a parade of tanks down the aristocratic Champs-Elysées and ended with wild enthusiasm in the working-class East End of Paris (pages 510, 511, and 533).

Photograph by Maynard Owen Williams

"LET ME FEED THEM" IS THE THEME SONG OF THE ZOO OF THE LITTLE ONES

Donkeys and sheep become so insistent on being fed that one corner of the zoo is fenced off for the tiniest children. There they pat rabbits and guinea pigs or feed bread and milk to lambs and kids. On holidays there are such crowds of youngsters eager to feed the pets that some of the animals can eat no more (pages 501 and 520).

His heels clicked. His body bent elegantly at the waist. His stiff hand touched his *képi* in a precise salute.

"You permit me, mademoiselle?"

She permitted.

His kiss brushed her cheek. He took one pace back, his heels clicked, his body bent, his fingers touched his képi.

"Thank you, mademoiselle."

Another autumn had brought its harvest of self-confessed spinsters, and, having done his bit, he could look forward to spring, which brings life to the parks and visitors to the Place de l'Opéra.

People think of the Opéra as having always stood there. Yet when the Germans entered Paris in 1871 Garnier's masterpiece was not finished and the Communards, who wreaked their vengeance on hundreds of buildings, spared this splendid structure, down whose grand staircase not an aristocratic evening gown or shirt front had yet passed. The three-acre opera and ballet school, library and museum is younger than many of the spectators (page 519).

In this Parisian show place, where evening dress is again compulsory in the best seats three nights a week, you are quite likely to hear Tannhäuser singing German to Elizabeth's French, a use of harmony which shows how far art outruns politics. As ballets, "Coppelia" and "Gisela" are much beloved.

### NEW LIGHTING FOR LOUVRE TREASURES

From the Opéra, two famous streets lead south. The Rue de la Paix passes Cartier's jewels, Coty's perfumes, the Ritz, and the Hotel du Rhin, now empty, once leased by a Boston club for its members to use whenever they came to Paris. The Avenue de l'Opéra passes Brentano's and the Comédie Française on its way to the Louvre.

What to see at this palace turned show place? Better select one favorite artist or art treasure and work out from there:


Photograph by Maynard Owen Williams

A STATELY STREET ON THE SITE OF A MEDIEVAL MOAT

Although relatively new as Paris streets go, the Rue Royale heard the rumble of the tumbrels carrying guillotine victims to the Place de la Concorde during the Reign of Terror. At the head of the street is the Madeleine (page 512). Maxim's, known to "Merry Widow" lovers, is a bit of the gay nineties lingering on, while boulevard life follows the gasoline age to the Elysian Fields, the Champs-Elysées.

The Winged Victory; Mona Lisa's smile, and that sweeter one of Saint Anne; winged bulls from Assyria; Hammurabi's "eye for an eye" code carved in diorite 4,000 years ago and still legible; Goujon's caryatids, looking down on Diana of the Chase; the matchless Venus of Milo; Whistler's "Mother," calm amid Delacroix paintings of massacre, shipwreck, and death; Millet's "Angelus"; the homely charm of Chardin, who painted "not with colors but with sentiment"; the prettiness of Boucher and Fragonard, Watteau and Greuze, or that triumph of modern lighting over time, the frail, deathless beauty of Botticelli's Villa Lemmi frescoes, never lovelier than now.

Choose what you like, for the Louvre can satisfy all tastes except bad ones.

Venus, Diana, and Victory may be seen two evenings a week from nine to eleven. The new lighting is a revelation. With the memory of dark winter days in that inadequately transformed palace, I looked upon our American museums with native pride. We had fewer treasures but presented them better. Let us now look to our laurels.

Neither in Athens nor in London have I seen any Grecian frieze as beautifully illuminated as the Panathenaic Procession in the Louvre. Neither in Cairo nor in Thebes have Egyptian bas-reliefs and incised inscriptions been thus revealed at their full value.

The new lighting and settings, a challenge to every conservator, will doubtless allow artists, long dust and dustily presented, to speak with new eloquence.

### A WIDE VISTA TOWARD THE SUNSET

From the Louvre a broad band of beauty —like the Mall in Washington—stretches westward to the Seine, hurdles a few smoke-

Photograph by Maynard Owen Williams

A CHANGE IN STYLES HITS THE PETIT GUIGNOL

Contrary to popular opinion, the Parisian puppet show is not confined to Punch and Judy. There are scores of parts and dozens of plots, many of them as familiar as fairy tales to young visitors to the Tuileries Gardens. Père Guignol here shows a harridan of the old school a new type of wooden-headed actress for the puppet stage, thus arousing female jealousy among the nitwits.

stacks, and continues to St. Germain, St. Cloud, and Versailles, twelve miles away.

Standing in the Place du Carrousel and looking up that incomparable vista past the obelisk in the taxi-infested Place de la Concorde, one can almost forgive the destructive mania of the Communards, for it was they who, by burning the Tuileries Palace, opened this view toward the sunsets.

The Tuileries Gardens seem to have been laid out with square and compass (page 513). As if fresh from a beauty shop, Paris here challenges "Am I not fair?"

Yes, more than fair, for this combination of promenade and garden, forest and art gallery, playground and yacht pond, woos with friendliness as well as artifice.

Children adore that honest artisan and artist Père Guignol, who carves and paints his puppets, including Punch and Judy, and then gives them voice and action in his little theater among the trees.

Lovers sit beside nurses who tend to their knitting. Students read, artists paint, and even self-satisfied bureaucrats from nearby offices become human. Down the pearly distances at dusk a thousand motorcars sparkle like diamonds on the Champs-Elysées, which mounts toward the flickering flame loyal men renew each night above the tomb of the Unknown Warrior (page 518).

### MUSEUMS BY THE SCORE EPITOMIZE PARIS HISTORY

Paris, with its scores of museums, is itself more wonderful than any of them. But how understand Paris without visiting the collections in which its history is epitomized?

At the Carnavalet Museum, pictured in 16th-century tapestry, one sees the shops which formerly lined the Bridge of the Money Changers, or the Place Vendôme, usually so empty, as it looked when filled with the Army of the Orient, in 1855. Here is the First Republic's Magna Carta, the tables of the Rights of Man; here a key of the Bastille and the rooms where Madame de Sévigné lived and wrote.

Throughout my visit to Paris the billboards were covered with posters for the National Lottery. "Try your luck," urged the Government. The Carnavalet, keyed

Photograph by Maynard Owen Williams

OPEN-MOUTHED DELIGHT WELCOMES A PUPPET SHOW

Late in the afternoon and inside the theater, the camera caught this unstudied picture of audience response to a puppet performance directed by Père Guignol. Only a few puppeteers continue the craft, but children retain as keen an interest in the knock-about drama of the Petit Guignol in the Tuileries Gardens as do their elders in the farce-and-horror fare of the Grand Guignol in the Rue Chaptal.

to the present as well as the past, offered a most interesting exhibit tracing back to 1539 what Balzac called "The Lottery, the most seductive elf in the world." In turn it has been a grab bag, raffle, wheel of fortune, and charitable institution. Abolished just a hundred years ago, it is again a principal figure in the Paris scene.

Oriental art is caviar to many, but the Guimet and Cernuschi Museums bring to Paris such wonders of the East as Marco Polo knew; Greco-Buddhist stuccoes and calm-faced Buddhas with an air of peace.

As you head up the Boulevard St. Michel —the "Boul' Mich'" to thousands of American artists—you see through the railing the remains of Roman baths beside the Cluny Museum. Once among its medieval woodcarvings, ivories, armor, faience, and enamels, you may forget even a luncheon engagement.

People come here to see a curious medieval chastity belt and forget it in their wonder at a 14th-century Angel of the Annunciation. In the ruins of the Roman baths are four stone altars. Found in 1710 under the choir of Notre Dame, they date from the days when "all Gaul (was) divided into three parts" and a delegation of Parisian boatmen was received by Tiberius.

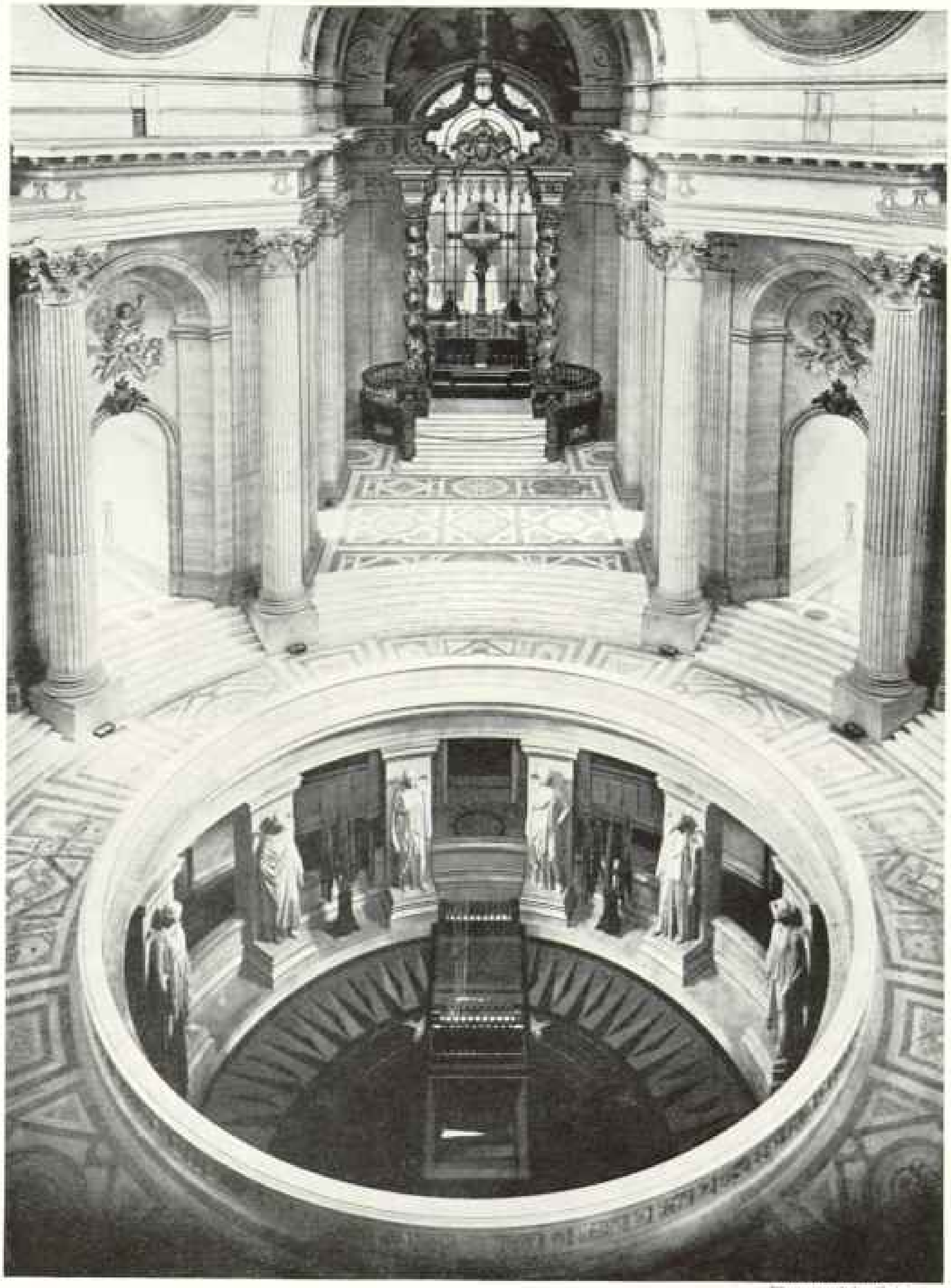
In the Luxembourg Museum the work of selected artists is displayed for ten years on its way to permanent fame. The Rodin Museum, hard by the Invalides, in the midst of a wide garden, is among the most thrilling of all.

### WHERE NAPOLEON'S SPIRIT DWELLS

Something of blue and yellow light, something of majesty and mass, something of sentiment and tradition make Napoleon's tomb in the Dôme des Invalides unforgettable. The shiny, massive cover of red Finland granite, upon which the visitor looks down, is more impressive than if it towered above his head (page 508).

In the crypt are ten heroic bas-reliefs which record the versatility of Napoleon and his influence on architecture, public works, education, law, and administration.

Twice this giant escaped from exile. His first return ended at Waterloo. His second



Photograph by Crété

SURROUNDED BY STATUES SYMBOLIZING HIS VICTORIES, NAPOLEON'S ASHES LIE IN A MAJESTIC RED GRANITE TOMB

When brought from St. Helena to a second sepulture beside the Seine, the Emperor's body was placed in the crypt of the royal chapel attached to a military hospital founded by Louis the Great; hence the name of this shrine, Dôme des Invalides. Behind the statues are bas-reliefs depicting Napoleon's versatility (page 507). Marshal Foch, whose body now lies in a crypt behind the high altar in the upper center, will soon be re-interred in the Chapel of St. Ambroise, behind the arched doorway to the right.

ended under that high dome at the Invalides. Men stand in awe beside the six-fold casket of one so impatient that Josephine, while Gros was painting his portrait, had to hold him on her lap, so patient that he almost conquered Europe.

On Napoleon's Arch of Triumph—center of aristocratic Paris—the most spirited figure is François Rude's "La Marseillaise," symbolizing a song named from barefoot Provençal troops, including men of Marseille, who came to Paris to storm the Tuileries in 1792. That marching song of a rabble—who called it "music with a mustache"—became the national anthem of French patriotism.

Rouget de Lisle, author of the "Marseillaise," knew prison and despair. But his song touches glory.

Beyond the Invalides rises the Eiffel Tower, until the erection of the Chrysler and Empire State Buildings the loftiest structure on earth. Outstanding feature of the exposition of 1889, it will look down on next year's exhibition of arts, crafts, and sciences as they affect modern life (page 512).

Viewing stand, 984-foot advertising column, and wireless mast, Eiffel's 47-year-old colossus, straddling the very center of the 1937 exposition, will probably attract new crowds to its three platforms, reached by snail-paced elevators in which a ride to the 905-foot level costs about as much as a round trip to Versailles.

### EASTERN PARIS FROM A PLANE

Thanks to aerial photography, the reader, in his easy chair, can study at leisure parts of Paris which it would take many arduous hours to cover on foot.

To picture the 20 *arrondissements*, or wards, of Paris would require some 250 aerial photographs like that on page 511.

Resolve that modern mosaic into its historic and human elements through the microscope of understanding and you will run the gamut of French life and letters from the days of the Romans.

In the foreground was the suburb of St. Antoine, through which the Sun King, Louis XIV, brought Maria Theresa, his bride, to Paris. As a protection against possible trouble from that quarter, the intimidating Bastille had been built. Its fall gave France its Independence Day and its hated stones were set in the Pont de la Concorde so that free feet could tramp upon them. In the pavement behind those two autobusses, white lines still mark the site of the Bastille walls, stormed by the frenzied Revolutionary mob on July 14, 1789.

Beneath the white lines now extends one of the most modern stations of the subway, called the "Métro." Six per cent of its riders are uncrowded first-class passengers and the rest are close-packed masses to whom the difference between a four-cent fare and a seven-cent one means more than comfort. Fifteen years ago, 14 per cent traveled first class.

### SUBWAY STATIONS BECOME REFUGES FROM POISON GAS

The relatively compact subway system of Paris leads the world in the number of passengers for each mile of track. But defense from gas attacks as well as transportation now figures in the subway program.

In the heart of the thickly populated regions of northeast Paris, two subway stations already can be used as shelters from poison gas attack. The air can be filtered against any known form of noxious gas, and 8,000 people could be safe for hours in one of these subterranean retreats.

With one hundred such stations, costing 13 to 14 million dollars altogether, nearly a million people—one-third of the urban population—could find shelter at depths of eighty feet or more. Buildings above ground could offer no such protection.

A subway turned poison-gas shelter is ultramodern, but canal barges moving silently under a Paris street are an old story. Running toward the right edge of the picture is the Boulevard Richard Lenoir. This broad avenue, tree-shaded and lined with parks crowded with the children of working folk, is the roof of a canal, which runs under the square also and is visible at the left. Through many locks it climbs to the Bassin de la Villette, the River Ourcq, and 3,000 miles of French canals, finally reaching Antwerp and other ports.

The next boulevard above takes its name from Beaumarchais, who, after creating Figaro, Barber of Seville, in his own image, flouted the King in his palace by staging "The Marriage of Figaro" at Versailles in spite of him. According to Voltaire—himself no mean fellow—Beaumarchais "had everything."

"Jesting, seriousness, logic, gaiety, strength, pathos, and eloquence"—he had them all, and kept a fleet of forty vessels


Photograph by Maynard Owen Williams

PARISIANS SAY IT WITH BANNERS IN THIS ANNUAL PARADE, MAGNIFIED BY POPULAR FRONT VICTORY

In May, 1871, a group of Communards, surrounded in a corner of the Cemetery of Père Lachaise, were shot down by General Vinoy's troops. Since 1880 an annual parade has been held in commemoration of this event. Following the victory of the left-wing Popular Front in the 1936 elections, this parade assumed tremendous proportions. Men who were ready to march before noon were still filing past the Mur des Fédérés at ten in the evening. The marchers, here forming in the Boulevard de Ménilmontant, were well behaved and in good humor. Banners identify some of them as anti-Fascists and World War veterans.

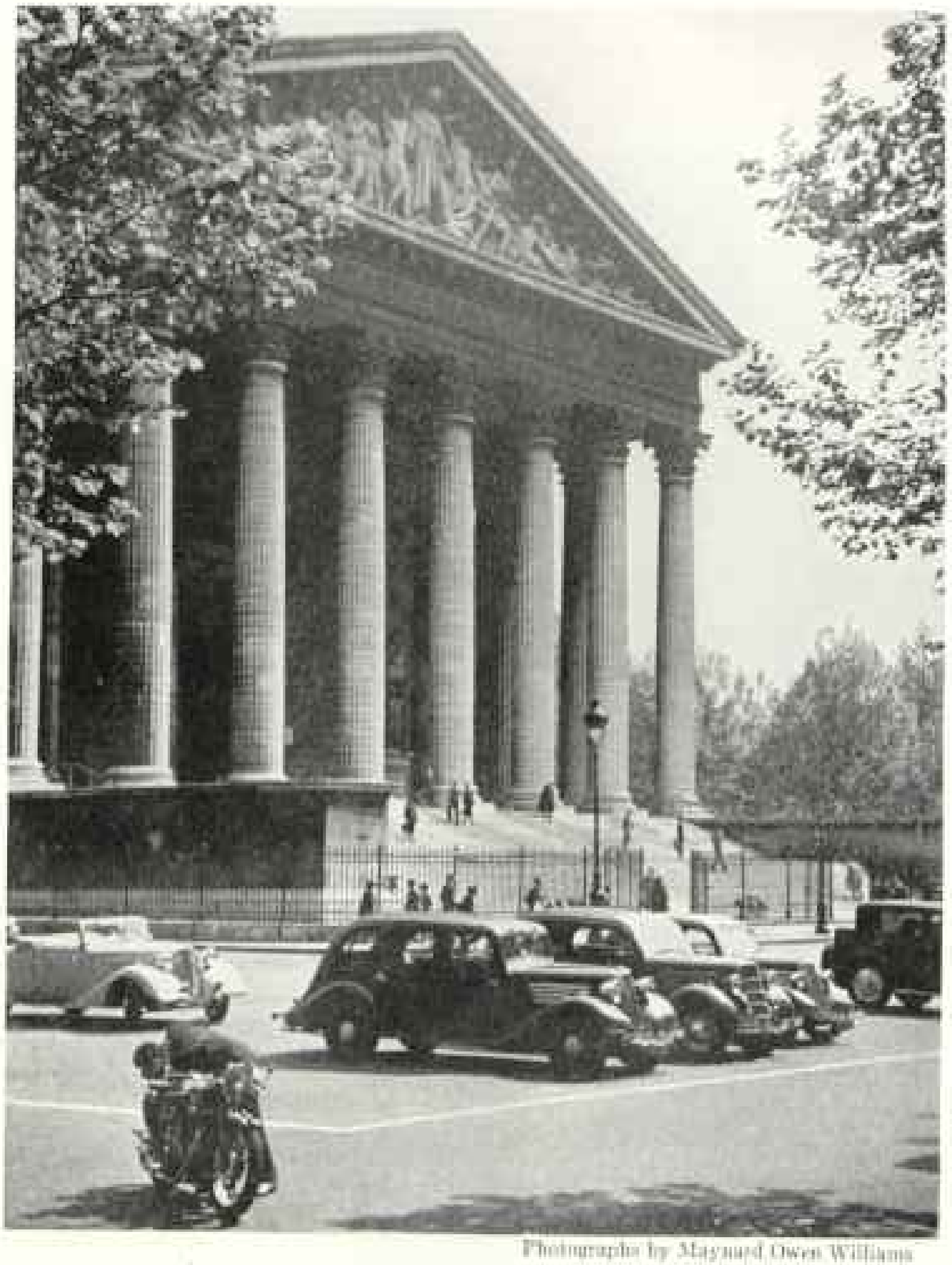
© Compagnie Aérienne Française

RISING NEAR THE SPOT WHERE THE BASTILLE STOOD, THE 154-FOOT JULY COLUMN OVERLOOKS HISTORIC EASTERN PARIS

The old fortress-prison, stormed by French Revolutionists 147 years ago last July, stood just beyond where the two autobusses are parked in the upper left-hand corner of the Place de la Bastille. Boats pass serenely beneath this busy square, for the canal at the left flows under it. Napoleon planned a huge elephant figure for the square, now dominated by the lofty column. From its summit the visitor can overlook a section which epitomizes French life and letters since Roman days (page 509).

TWO AIDS TO PLEASURE IN PARIS: EIFFEL TOWER AND BATEAU-MOUCHE

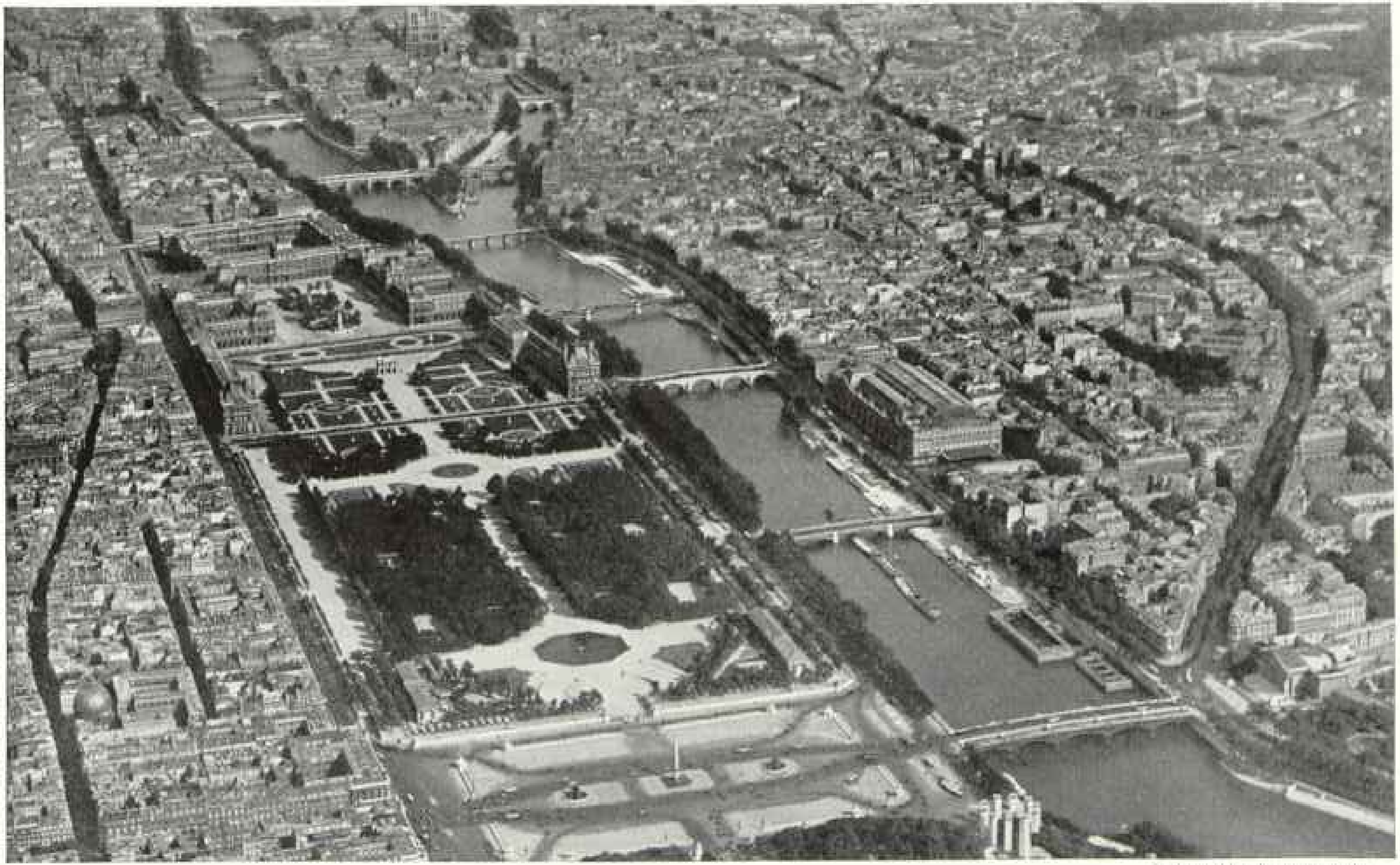
Not only do sight-seers ascend this colossal viewing stand, but time signals and radio concerts, heard the world around, are transmitted from the 47-year-old Eiffel Tower (page 509). In summer, boat trips on the Seine are highly popular.



Photographs by Maynard Owen Williams

NAPOLEON'S TEMPLE OF GLORY HAS BECOME A FASHIONABLE CHURCH

The Madeleine was begun in 1806 as a memorial to the soldiers of the Grand Army. After Waterloo turned glory to vainglory, it became the Church of St. Mary Magdalene. The massive pediment represents the Last Judgment.





WITH DOZENS OF BRIDGES, MODERN PARIS CUTS THE APRON STRINGS OF MOTHER SEINE

In the lower center is the Place de la Concorde, with the Rameses Obelisk (page 530). Beyond it lie the Tuileries Gardens, the Place du Carrousel, and the wide-spread wings of the Louvre. At the left of the Louvre and the Tuileries Gardens runs the ruler-straight Rue de Rivoli. Guillotine victims, on their way to what is now the Place de la Concorde from the Conciergerie Prison on the Ile de la Cité (upper left center and p. 529), made their last journey down the crooked Rue St. Honoré, near the left edge. The broad, curving street on the Left Bank (right in this upstream view) is the Boulevard St. Germain.

*Photograph by Mondial from European*

PUNCTUATED BY POUNDING HOOFS IS THE "BIG WEEK" OF PARIS SOCIETY

Before turning over its capital to summer visitors from the provinces and abroad, fashionable Paris has its Grande Semaine, which begins with the Grand Steeplechase and ends with the Grand Prix. Here a half-dozen racers clear a water jump at Auteuil during the Steeplechase.

© Schall from Pix

FASHIONS ON PARADE AT THE POLO CLUB

Tea tables are laid beside the playing field at the exclusive Polo de Paris, and between chukkers there is a display of gowns worn by society folk, like that between races at Ascot. Experts in fashions will recognize this as a 1935 photograph.

busy carrying arms and ammunition to the American Colonies. His statue stands down there in a nick to the right of the curving Rue St. Antoine, erstwhile Roman road built on a dike through a swamp.

Off that nick leads the Rue des Tournelles, where, in a house built by one of the Mansarts, lived Ninon de Lenclos. A medallion of Louis the Great still overlooks a staircase up which friends flocked to see Ninon; her first famous admirer, the crafty Richelieu, died in 1642, and her last, Voltaire, was not even born until 1694.

Le Brun painted her ceilings and Molière read to her his "Tartuffe." Corneille, Racine, and La Fontaine climbed those stairs below the Bourbon beak which Benoist later carved, with ruthless ugliness, in a wax relief.

Up these stairs brilliant writers brought their own provisions; down them they carried food for thoughts which still live in immortal pages.

In the upper left corner of the photograph (p. 511) is further evidence that the pen is mightier than the sword. In the 18th century an arsenal and its gardens filled that whole triangle now bounded by boulevard and canal. Sully's arsenal has become a library, the second in France.

In it is a room where Henry IV—destined to be assassinated—planned to escape the glory and boredom of a kingship shared with Marguerite de Valois and Marie de Médicis. The former, it is recorded, slept between black sheets to make her skin the whiter. The latter he later married because she was a niece of the Pope and brought him the biggest dowry of her day.

In the room are paintings of famous women from Esther, Semiramis, and Deborah to Mary Stuart and Jeanne d'Arc.

### BIG BERTHA WOUNDS MARY STUART

The ill-fortune which dogged the hapless Queen of Scots has touched her picture. When "Big Bertha" spit shells on Paris, sandbags were piled against these historic portraits to save them. The sand was damp, Mary's picture suffered. Thus a 20th-century war added one more indignity to Mary Stuart.

Now for the lion of the exhibit, the Place des Vosges, in the upper right, its rectangular gardens flanked by historic arcaded houses. Once fall under the spell of Old Paris and you'll spend days invading defenseless courtyards, bribing concierges, spotting places where the iconoclastic Revolutionists carved the word "Saint" out of the street signs, and breaking your neck in attempts to find one more medieval gable or another monogram written in wrought iron along a house front. As Hugo says: "When a man understands the art of seeing, he can trace the spirit of an age and the features of a king even in the knocker on a door."

### HERE HUGO LIVED AND WROTE

Rachel, the tragedienne, lived in the house at the upper end of the street which shows as a long white space, and Madame de Sévigné, exponent of belles-lettres, halfway along it. At the lower end of the line is the house of Victor Hugo.

Hugo! One should write his name in capitals. When he was too tired to write sitting down, he wrote standing up, using a stroke as heavy as that of a Chinese calligraphist. His drawings and paintings are works of art.

His brimming genius and intense industry slopped over into chapters which interrupt his novels, but help make them immortal. His description of Paris from the roof of Notre Dame is as essential here as a Bible in the Holy Land. His funeral blocked the mighty Arch of Triumph and changed the Church of Ste. Geneviève into a Hall of Fame, the Panthéon.

Spend an hour in that house and Paris will forever mean more.

Hugo's personality now dominates the Place des Vosges and the most interesting house upon it is that from which Hugo fled during political troubles, leaving on the table some manuscript pages of "Les Misérables."

Hugo's fifteenth chapter of "Notre Dame" gives a matchless picture of evolving human geography centered around the Cathedral. Let's follow his example and climb the famous tower (pages 517, 528, and 529).

This little island with its big buildings spread below us was the nucleus of the Seine-born city. The germ of urban life, sprouting here, extended wider and wider, pushing over a succession of walls. The last of them, now tossed into the moat which protected it, has given way to boulevards, parks, and apartment houses beyond the reach of our vision. Circling these is the

industrial belt, whose smokestacks cloud the Parisian atmosphere.

Not five bridges, as described by Hugo, but nine, now moor this ship-shaped island to the two banks of the Seine and another links it with its neighbor island of St. Louis.

Churches are still the most prominent landmarks, except for the Eiffel Tower, and near at hand is what Hugo called "the boldest, openest, airiest, most notched and ornamented spire that ever showed the sky through its lace-work crown." It is the spire of the Sainte Chapelle, which Saint Louis built to receive the Crown of Thorns and a bit of the Cross, purchased at a tremendous price from Baldwin II of Constantinople. This airy chapel, like a filigreed jewel-case, became their reliquary.

For the last two years a mystery play in the medieval manner has been presented against the façade of Notre Dame, now a gray, formless setting for colorful groups of players, now a snowy masterpiece reared by floodlights against the starless sky.

The 10,000 seats reached back to the pre-Roman road across the island, but lighting and amplifiers enabled all to see and hear. From the back row—the cheapest and, to me, the best—the players seemed mere puppets, the Man on the Cross an atom. Hundreds of feet above his head towered the 13th-century façade, broken by the delicate tracery of a rose window behind which powerful lights gave full value to the stained glass.

As the head of the Christ fell forward, so tiny, so helpless, so burdened with defeat, one conjured up the vision of a thousand cathedrals, of countless churches bearing the name of the Man of Galilee. There at the base of the mighty edifice the centurions and other actors were insignificant almost to invisibility. But the Spirit of Calvary, represented by the radiant church, outshone the stars.

Though introduced by medieval horseplay and clowning, "Le vray Mistère de la Passion" touched a climax worthy of Oberammergau. And poor folk, hiding their misery under the Pont St. Michel, saw reflected in dark waters the massive, shining towers of Notre Dame.

### PARIS TRIUMPHS OVER MOTHER SEINE

Paris is rapidly escaping the limitations put upon its pulsing life by Mother Seine. Bridges are being so widened that a high-speed motor world can ignore the river between whose watery lanes early Paris developed on its island site.

Parisians took to motors as skillfully as their ancestors did to boats. The big square taxicabs are giving way to streamlined cars into which one folds oneself, and the stiff-backed, mustachioed charioteer of post-war days has given way to a chauffeur with a slouch. But traffic, little hampered by regulations, does tricks which scare visitors into admiration, and the chief sign of Parisian authority—even during times of political upheaval—is the white baton of a traffic officer.

Paris motors have turned the Place de la Concorde into a bull ring. The visitor who wants to study the obelisk of Rameses II, erected here just a century ago, must have the courage of a matador. Few are ever hit, but pedestrians fear that they, too, may make history in this historic square (page 530).

### TRAGEDY IN THE PLACE OF CONCORD

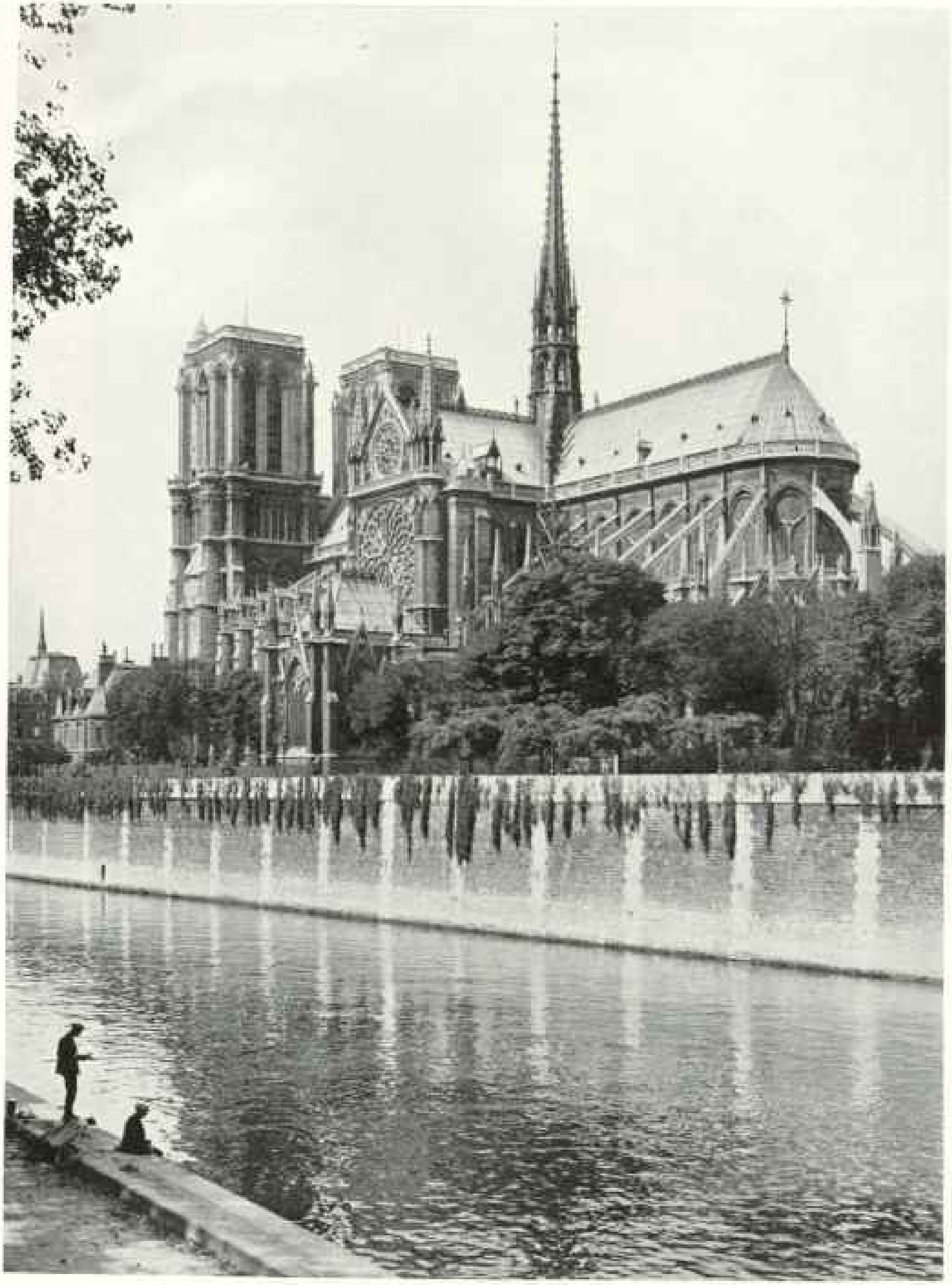
During the celebrations of Marie Antoinette's marriage, when the Place de la Concorde lay outside the walled city, an explosion of fireworks drove spectators into the Seine and hundreds were either drowned or trampled to death. Then came the guillotine, designed to provide a humane death for sheep but lent to inhuman ends when 2,800 human beings—among them Louis XVI and Marie Antoinette—perished in the "Place of Concord."

From the Place de la Concorde, twice a month, parties of visitors invade a short section of the Paris sewers, a thousand-mile underworld dramatized by Hugo.

Telegraph and telephone cables and compressed air ducts run through these tunnels, and through pneumatic tubes special delivery letters travel at astonishing speed.

In point of tonnage, Paris today is the largest port in France, but a more modest champion would be hard to find. Sand, building stone, grain, and general cargoes are handled so inconspicuously that people browsing among the bookstalls along the Seine are not even disturbed by this activity, accentuated by relief projects and preparation for the 1937 exposition.

When the strikes, amid which we lived for weeks, hit the quays, stevedores became comedians and collection boxes on long poles swung past good-humored faces lining the bridges. Even the life-guards had their



Photograph by Donald McLeish

NOTRE DAME'S ARCHITECT WAS TIME; ITS BUILDER, FRANCE

Erected on the site of a first-century temple of Jupiter and a fourth-century church, the present structure, begun in 1163, assumed its present form 600 years ago. Hugo graphically describes it as "an edifice of the transition." "The Saxon architect was just finishing off the first pillars of the nave when the pointed arch, arriving from the Crusade, came and seated itself as a conqueror upon the broad Roman capitals which had been designed to support only circular arches." The archbishop's palace, demolished in 1831, formerly hid much of the Cathedral as seen from this point on the left bank of the Seine's south branch.

Photograph by Richard A. Hansen

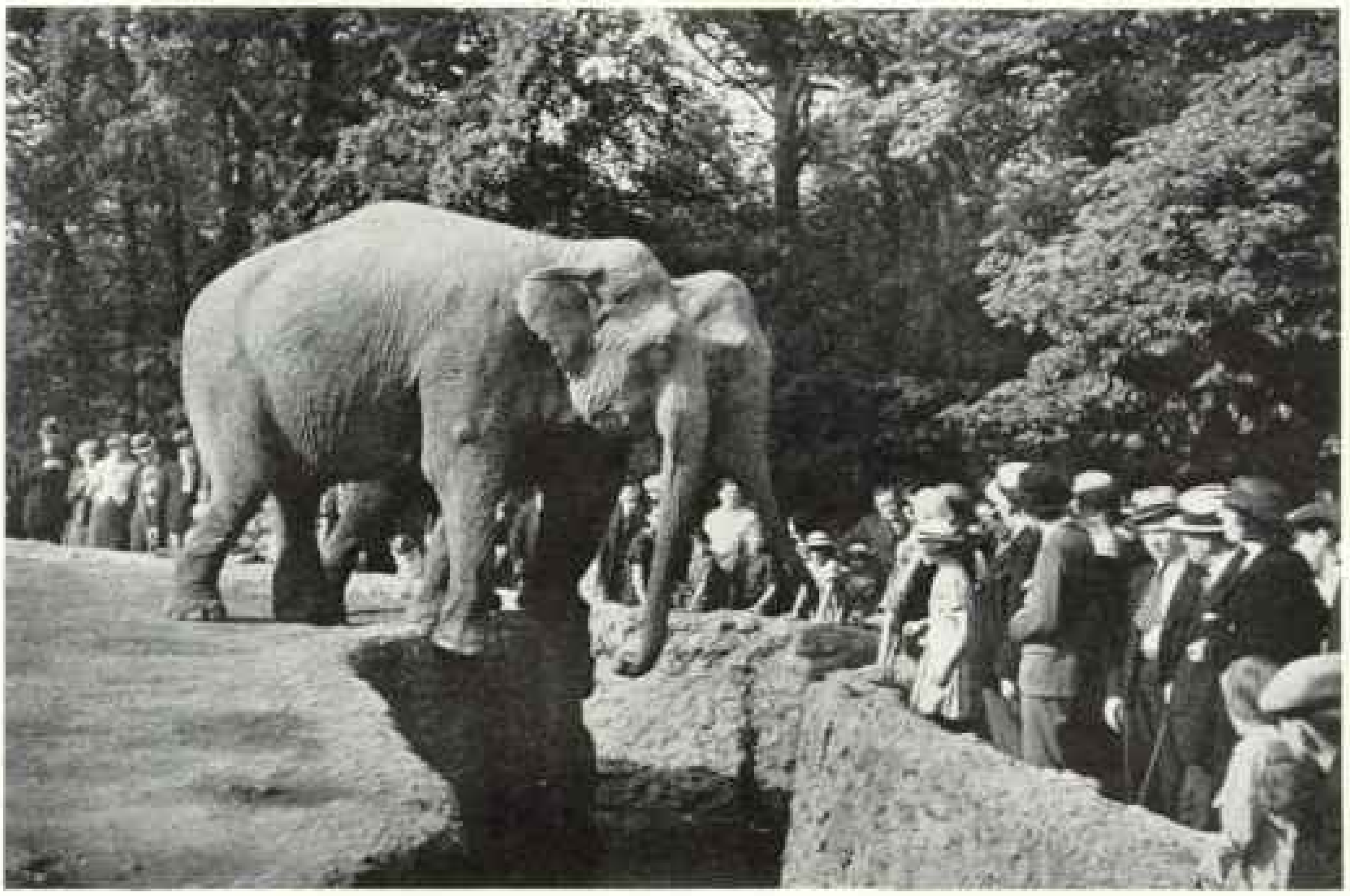
AN UNKNOWN WARRIOR HAS INHERITED NAPOLEON'S CENTURY-OLD ARCH OF TRIUMPH

Begun by Napoleon in memory of victories less famous than Waterloo's defeat, this towering arch was completed by Louis Philippe in 1836, four years before the Emperor's body, back from St. Helena, was saluted here on its way to the Invalides. Beneath this "immeasurable arch" an undying flame burns above the body of a nameless World War soldier of France. A simple street sign (right), bearing the words "Avenue Foch," shows where the proud Avenue du Bois de Boulogne has been renamed in honor of the Generalissimo of the Allied Armies.

Photograph by Richard A. Hansen

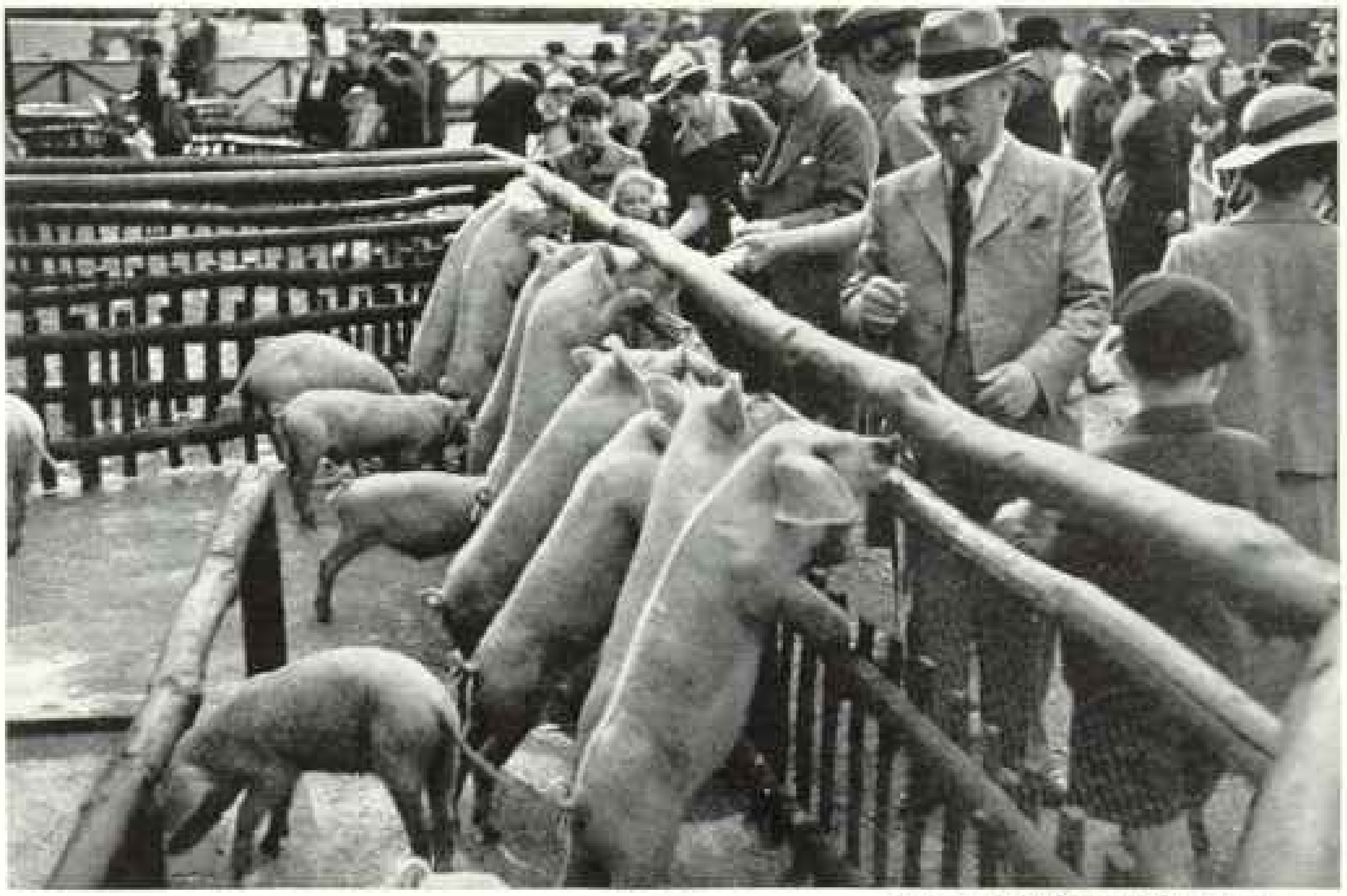
PARIS DEVOTES ITS HEART TO MUSIC

Atop the floodlighted Opéra, or National Academy of Music, figures of Harmony, Apollo lifting his lyre, and Poetry rise against the night. In spite of the growing prominence of the Champs-Elysées as a center of fashion, cafés, and cinemas, the Place de l'Opéra remains the heart of Parisian life. That portion of the Grands Boulevards known as the Boulevard des Capucines crosses the picture between the two subway ("Métro") entrances.



WITH COINS, NOT PEANUTS, PARISIANS TIP PERFORMING ELEPHANTS

In the Jardin d'Acclimatation the elephants perform at regular intervals and collect francs for their keeper across a narrow ditch by what one American called "the Trunk Line."



Photographs by Maynard Owen Williams

THESE LITTLE PIGS FATTEN ON TWENTY-CENT MILK

Children not only pay to enter the Zoo of the Little Ones, but they help feed the stock of pigs, goats, lambs, rabbits, and guinea pigs. A pint nursing bottle of milk, costing ten cents, is the usual short cut to the heart of a pet by way of its stomach.

SCORES OF BOOK AND PRINT STALLS LINE THE SEINE

Three centuries ago the dealers in old books had their stalls on the near-by Pont Neuf. On the Ile de la Cité appear a corner of the Préfecture de Police and the Cathedral of Notre Dame (pages 517, 528, and 529).


Photograph by W. Robert Moore

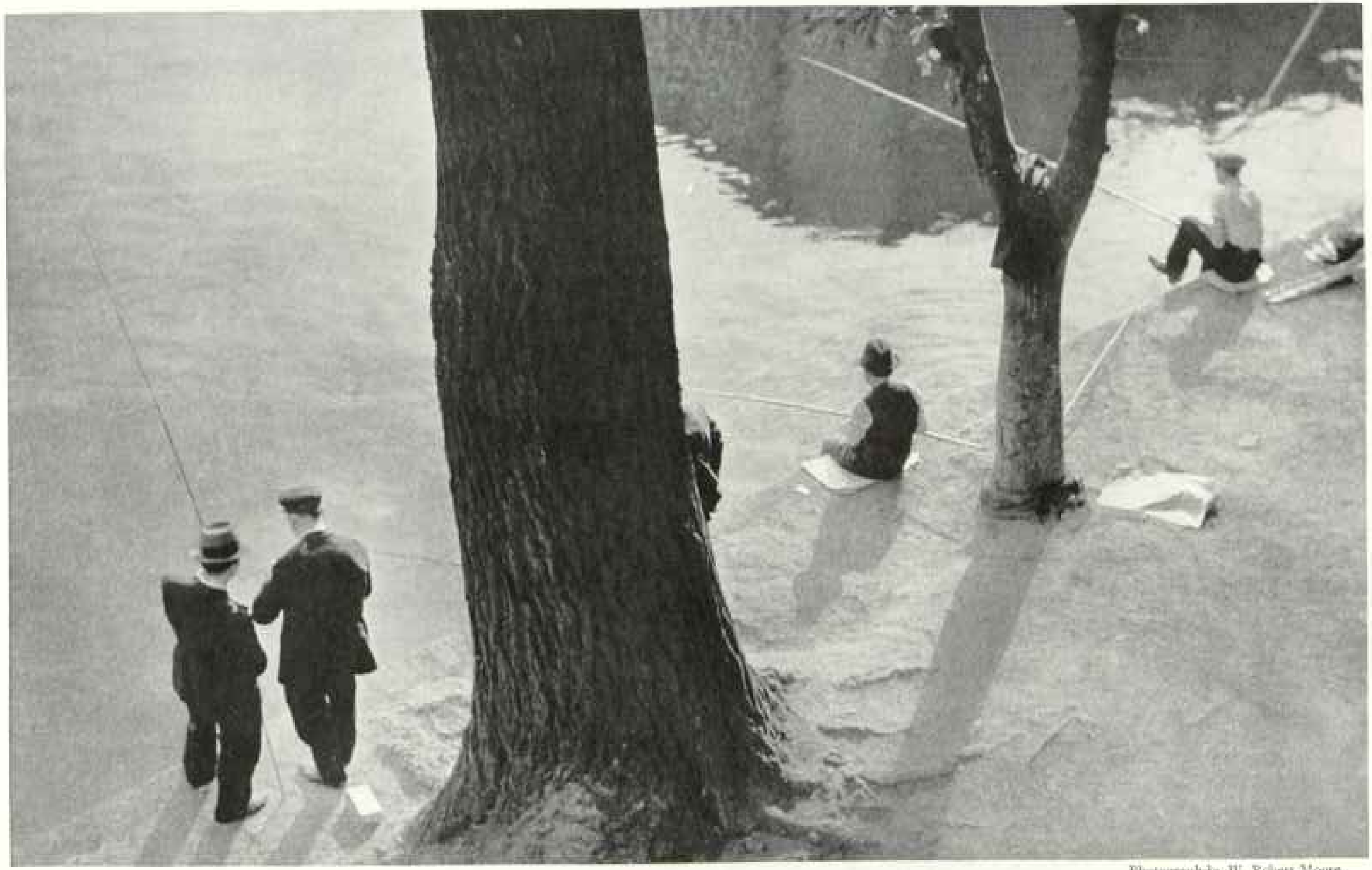
BOHEMIA'S THRONE IS A CHAIR ON THE BOULEVARDS

Parnassus, home of the Muses and Bacchantes, gave its name to Montparnasse, the Left Bank center of Bohemian life in Paris. Writers, artists, and models leaven the Philistine lump of café sitters at the Dôme, where the Boulevards Montparnasse and Raspail meet.

Photograph by Crété

CORINTHIAN COLUMNS ARE REFLECTED IN A PARISIAN POOL WITH A CLASSIC NAME

In ancient times, those who did not care for farce, drama, or gladiatorial contests could watch miniature naval battles staged in a *naumachia*. This little lake, the Naumachie, in the Parc Monceau, takes its name from such classic spectacles. Its colonnade, designed for a mausoleum for Henry II and Catherine de Médicis, was brought from St. Denis, burial place of French kings. Aristocratic homes surround the park, which contains monuments to Chopin, Gounod, Maupassant, and others.



Photograph by W. Robert Moore

PHILOSOPHICAL FISHERMEN PASS THEIR LEISURE BESIDE THE PLACID SEINE

Infant Paris was cradled on an island within the protecting arms of Mother Seine. Although, with subway and bridges, the proud city now seeks to escape her apron strings, Paris loves its river. Barges laden with grain and wine, with sand and building stone, move through the town, and men with fishing poles linger beside the river's banks with scant hope of a catch, but with deep content.

© Schall from Daniel

BEAUTY AND BEAST IN THE BOIS DE BOULOGNE

The motorcar is slowly moving the center of Parisian pleasure to the west up the Elysian Fields, past the Arch of Triumph and into this oak forest, which lies between the city and the Seine. Zoo and race track, outdoor restaurant and boating basin, polo field and swimming pool, all have been added to the 2,000-acre expanse of woodland, but walking still has its devotees. Down the shady paths, like modern Dianas of the Chase, come young women who bring the breath of youth and spring to the Bois de Boulogne.

fun: "Don't try to drown yourself. We're on strike."

Crossing to the Left Bank, one enters the Latin Quarter, so called because medieval scholars used the language of the Romans whose baths, villas, and arena occupied this site.

Paris is the Mecca for students from all over the world. Near the Sorbonne or Polytechnique one can eat soup in many languages and curdled milk in many more.

### ON THE LEFT BANK LEARNING THRIVES

University education, born in the cloisters of Notre Dame, soon spread to the Left Bank. Poor but proud, this republic of scholars made Paris the intellectual capital of the Middle Ages, the leavening pan of the Renaissance. The person of a student was sacred, as the Count of Savoisy learned to his cost when his residence was destroyed and he was banished because his lackeys started a brawl with the devotees of Latin and learning.

Near the Rue St. Jacques, which had known the tread of Roman legions, were the houses of the four "nations" within a nation, the four scholastic centers which made a thought center of medieval Paris.

At "Normandy" lived the Normans and Bretons; at "Picardy" the Picards and Walloons; at "England" the English, Scots, Germans, and Swedes; at "France" the French, Spanish, and Italians. These four "nations" were the harbingers of the Cité Universitaire, residential center for modern scholars.

The University of Paris, being only a teaching and examining center, lacked both campus and campus life. But the razing of the outer wall and the generosity of Emile Deutsch de la Meurthe provided the land for a "University City" resembling the quadrangles of Oxford or Chicago.

The same philanthropist, encouraged by M. André Honnorat, built the original seven buildings near which new "nations" have risen. The French provinces and Monaco, England and Canada, Denmark and Sweden, the Netherlands and Switzerland, Cuba and Spain, Armenia and Greece, Indo-China and Japan, Belgium, the Argentine, and the United States here provide homes for their sons. Provincial France, Denmark, the Netherlands, and the United States offer shelter to their daughters, too.

The heart of this University City is International House, sister of similar cosmopolitan student centers in New York, Chicago, and Berkeley. There, during one luncheon, I saw more college life than I ever did around the Sorbonne, the Polytechnique, the School of Medicine, or any of the lyceums, whose graduates, though bringing honor to their "schools," never heard of Alma Mater.

University life began in a cloister. Parisian college life today flourishes in a cafeteria. The man with a topic has become the man with a tray.

It is a far cry from the days when students slept in the doorways, to the cheap, comfortable rooms in the new University City outside the Park of Montsouris, or from narrow Latin Quarter streets, lined with Annamite, Armenian, Algerian, Greek, and Syrian restaurants, to the airy cafeteria at the Cité Universitaire.

International House helps solve a pressing problem of student leisure, hitherto spent in less desirable surroundings. In the age when "City of Light" meant "City of Gas Jets," the Bal Bullier had world-wide fame. When I last saw that dance hall, most of the patrons were Chinese students. Now it lies in ruin and a swimming pool will take its place.

In the Rue de la Huchette in the Latin Quarter great guests of the city once were lodged, and Napoleon—then unknown—once lived in the Street of the Little Fish Stall Tax.

Medievalism still shrouds these walls and painters are ever seen trying to save from oblivion such picturesqueness as has thus far escaped "improvements."

### TO A MONTMARTRE MINSTREL'S MEMORY

One day, guidebook in hand, I sought out the Rue Zacharie, which erudition relates not to Zacharias but to "sac-à-lie," or "sack for lees" from wine presses which were common between the Mont Ste. Geneviève and the Seine.

Death held sordid rendezvous so frequently in this narrow lane that it had once been closed. Now it has a new sign: "Rue Xavier Privas." Standing at the entrance to this medieval alley was a woman who noticed my confusion over place names.

"Wasn't this the Rue Zacharie?"

"Yes."

"Why, after three hundred years, has its name been changed?"

"In memory of a famous *chansonnier* of Montmartre."

"Since when have Montmartre cabaret singers found honor in the Latin Quarter?"

"But he was a true artist. Verlaine himself, recognizing a great minstrel, had him repeat his songs. True, he sang in Montmartre, but all Paris listened."

"And you—did you ever hear him sing?"

"Oh, many times, m'sieu. He sang songs to me that Paris never heard. He was my dearest friend."

So much for a new street sign, around the corner from Saint Séverin, the vaulting of whose apse resembles a forest of palm trees. In this church in the Latin Quarter, students have long placed marble plaques commemorating their success in examinations. One read "Une Bachelière Reconnaissante. 26/6/25. Chiquita." A female Bachelor of Arts with a foreign name!

### FRENCHWOMEN SEEK THE BALLOT

The presence of women students in the University—and they are numerous—makes one wonder when Frenchwomen will get the vote.

Pleading for political privileges already won by Turkish women and others, they meekly promise, "Even if we get the ballot, we'll still darn your socks." This in the land of those female saviors of Paris, Sainte Geneviève and Sainte Jeanne d'Arc!

Not only a woman but a photographer may get strange sidelights on "liberty." No Frenchman believes that a photographer is hampered in Paris, but it is amazing how many "authorizations" are required.

You cannot photograph the tables on the sidewalk outside a big department store without written permission. If it occurs to you to take pictures in the Gare St. Lazare or the Gare de l'Est, someone politely tells you that it is forbidden. In Les Halles I was photographing some innocent-looking and supposedly non-explosive cheeses when an attendant murmured that awful word "authorization." But go to the right man, say "Please," and you can do anything.

Thanks to Les Halles, the Central Markets, one can, with profit as well as pleasure, stay out all night. By the time the theaters are out, the whole market place is crowded with trucks piled high with crates and fragrant with odors of good things to eat. The vegetables seem to have been scrubbed, the fruits waxed and polished. In England it is the docks that thrill. But in Paris it is Les Halles. Snails and onion soup never seem to taste so good as at three in the morning within the shadow and sound of the markets.

### PARIS IS CHANGING FAST

One day, in my hotel, I came upon these words of Watson White in "The Paris That is Paris": "So haste thee, gentle reader, would'st thou view the ancient courtyard of the Inn of the Compass of Gold."

I grabbed my hat, jumped into a taxi, and went at all speed to the Street of the Haughty Mountain. But I was seven years too late.

A modern apartment building stands on the site of this old-time inn, where the Normandy coaches once clattered to a halt. In it a service of refrigerator cars, also serving northwest France, has its prosaic offices.

Pushcarts line the curbs and curious folk no longer see noted beauties, followed by half the young bloods of Paris, enter Philippe's, chic restaurant which once stood next door. At the corner, a modest *bistro*, or wine shop, with its shiny segment of zinc, marks the spot where the greatest writers of Balzac's day amused themselves in "Le Rocher de Cancale."

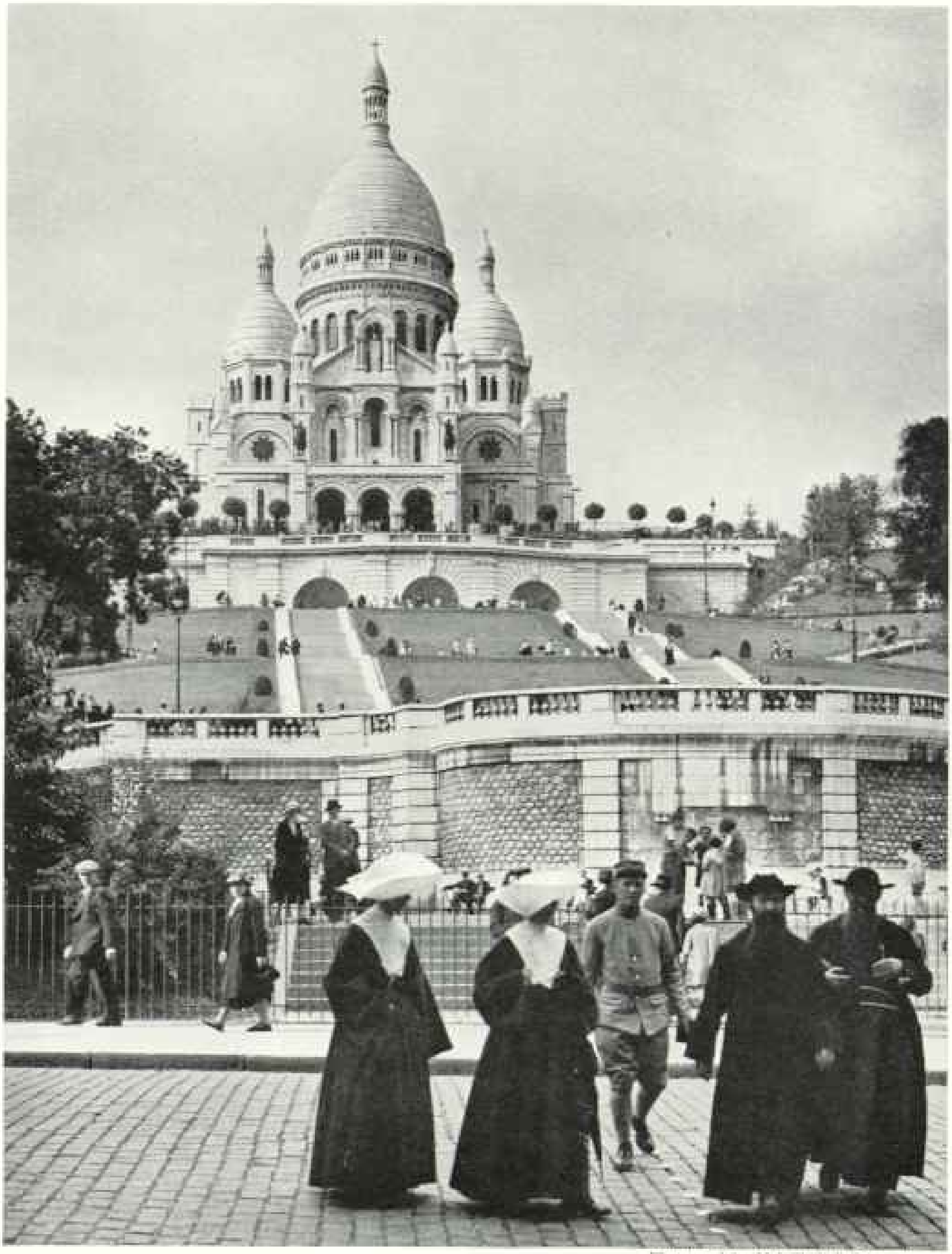
Pouring drinks for the thirsty, mine host dismissed the brilliant days of the past with the statement that they were before his time. But he did clear up the mystery as to why May is the month when miniature brides in long veils and Eton lads with white arm bands brighten the Paris scene.

"The catechism class begins in October, and if a child is bright she has learned her catechism by May. First Communion is like graduation day."

Past the thick-walled tower which John the Fearless, like some Abdul Hamid or Governor of Sinkiang, built to protect himself from fear of assassination, I went on to the splendid house, now an employment bureau for typists and salesgirls, where Madame Du Barry lived after the death of Louis XV. I wonder if, while seeking work, they dream of that milliner's assistant who became the rival of Madame de Pompadour. Two charming women wasted on a blasé king who, knowing them, could ask, "What would life be without coffee?"

### "DEVILS" FOR RENT

Near Les Halles one can rent a "devil"—a cart on which foodstuffs and other burdens are carried—for three francs a day.



Photograph by Melville Bell Grosvenor

HIGH IN MONTMARTRE STANDS THE GLEAMING WHITE CATHEDRAL OF SACRÉ CŒUR

From almost any point in the city its graceful domes can be seen, fitting crown for the skyline of Paris. This Romanesque-Byzantine structure, built as a votive offering after the disastrous Franco-Prussian War of 1870-1871, rivals the Eiffel Tower as a landmark. Under dark storm clouds it takes on an unearthly beauty; on a sunny day it glistens like snow. The terrace at its foot commands a magnificent view, and along the Place St. Pierre passes an ever-interesting procession, from nuns and priests to soldiers and café singers.

© Donald McLeish

HOW PARIS MIGHT LOOK TO HUGO'S ACROBATIC "HUNCHBACK OF NOTRE DAME"

Over the parapet leans a figure as forbidding as the deformed bell ringer, Quasimodo, but it is only one of the bizarre gargoyles that gaze down from the medieval towers (page 517). Plainly seen in the distance at the left in this view from a gallery of Notre Dame are the lordly Dôme des Invalides over Napoleon's tomb (page 508), the tower of the Church of St. Germain-des-Près, burial place of the Merovingian kings, and the Eiffel Tower (page 512). Across the curving river from the Tower, the Trocadero has since been deprived of its two tall minarets. The bridges connect the Ile de la Cité with the Left Bank (opposite page).



PARIS WAS CRADLED ON AN ISLAND SHAPED LIKE A SHIP

Today the Ile de la Cité is moored to shore by bridges and freighted with important buildings. In the lower left corner is a bit of the Pont Neuf (New Bridge), oldest in Paris. In the foreground, just beyond the old houses forming the wedge-shaped prow, are the massive walls of the Palais de Justice, and partly enclosed within them is the Sainte Chapelle (page 516). In the next block are the Tribunal de Commerce and the Préfecture de Police. The building with several wings is the Hôtel-Dieu, one of Europe's oldest hospitals. Behind Notre Dame (upper right) appears the Morgue, now demolished. Bulking large on shore at the upper left is the Hôtel de Ville, the City Hall, and linked to the island by a bridge, like a barge in tow, is the Ile St. Louis, farther upstream.

You can hire a man on the spot to push your "devil" around, following or leading you, as you wish. The Empress Eugénie started the custom to help the poor. Now the devils introduced to these narrow streets by that lovely lady are often consigned to their namesake by chauffeurs in a hurry.

Beneath the modest rooms where Molière was born was a gilded horse's head, indicating horse meat was sold there. Where good beef costs 50 cents a pound, equally choice horse meat sells for 80. In this age of motorcars, horse meat is a cherished luxury.

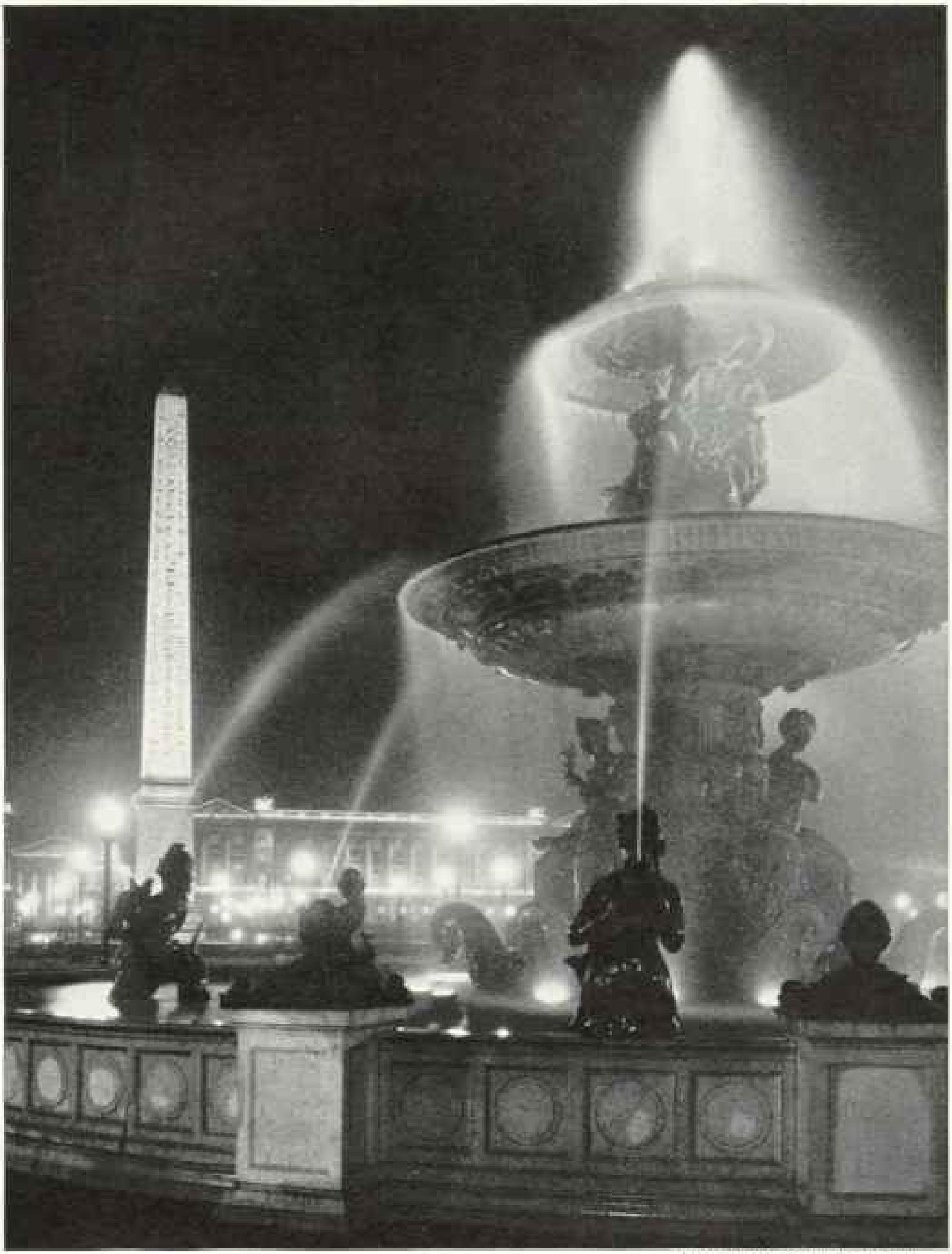
Going to St. Eustache one Sunday to hear Joseph Bonnet play that splendid organ, I found myself among butchers and poultry sellers on the day of their annual church festival.

Before the altar was a table piled with mutton to which little girls with flower crowns and small boys in white-braided sailor suits brought offerings of chickens.

The sermon, recognizing Christ's role as a shepherd and recalling how he would have liked to gather the people of Jerusalem under his wings, had a Rabelaisian succulence and in this church, which was once a Temple of Agriculture, due praise was given to flesh and fowl.

### PARIS IN THE GRIP OF STRIKES

In view of reports that Paris during the strikes last spring was a place of terror, it seems only fair to say that I roamed far and wide through the city all that time and that I not only found good humor and self-control throughout, but gained added admiration for the French.



Photograph by Richard A. Hansen

AN ANCIENT EXCLAMATION POINT PAYS TRIBUTE TO THE AGE OF ELECTRICITY

From a fountain in the Place de la Concorde, one looks north past the glowing façade of the Ministère de la Marine toward the Madeleine, at the left (page 512). The ancient obelisk, designed to say to Rameses II, "How wonderful you are!" now says to Paris, "How beautiful!" Standing on a pedestal of Breton granite, the syenite pillar celebrates the latest of its more than thirty centuries this year, for it was erected here just 100 years ago.

Photograph by Maynard Owen Williams

STUDENTS FROM AS FAR AWAY AS CHINA ARE ENROLLED IN THIS LIFE CLASS AT THE SCHOOL OF FINE ARTS

Painting and sculpture, architecture and engraving are taught at the noted institution, whose best scholars are sent to Rome for four years at State expense. This studio in a 300-year-old building, designed by Mansart, is dimly lighted, but sketches, a theatrical poster, and a one-way traffic sign brighten the walls (page 532).

The self-confidence and determination of the workers was matched by the philosophical calm and genuine sympathy of those who saw power, for the moment at least, slipping from their hands. Paris was not so gay as I had known it under other skies. But it seemed to me more human. Calm and moderation ruled.

What Hyde Park is to England and the radio to the United States, posters are to the French. Grievances are aired and explanations made on the billboards.

Between the two Sundays on which France votes, campaign arguments are marshaled along the streets. This year there were 1,142 candidates in Paris alone and the billboards for 31,204 campaign posters cost the city about $66,000.

Paris newspapers, numbered by the scores, represent a wide range of interest and opinion. The satirical and critical are strongly represented in such names as "Candide," "Gringoire," "Figaro," or "L'Intransigeant." Newspapers, discussing the strikes from all angles, were seldom sensational and we in Paris took events more calmly than did my New York taxi driver, who asked me how I had ever "escaped."

Even on the one day when I did not know where my next meal was coming from, I did rather well. With my pocket-knife I spread oozy masses of *pâté de foie gras* on a yard or so of crusty French bread. Two boat-shaped tarts with their holds running over with wild strawberries were

not hard to swallow and an apple from the Yakima Valley finished an admirable dinner. For finger-bowl, the washbasin, lacking, it is true, a slice of lemon or a sprig of geranium leaf.

It was with a sense of virtue and independence that I made my own bed.

### SEVEN O'CLOCK AND NO PLACE TO SIT

Seven stories below me the life of the Boulevard de la Madeleine went on about as usual, except that three million Frenchmen saw seven o'clock arrive with no place to sit. The sidewalk at the Café de la Paix was as bare as Mother Hubbard's cupboard.

As I had my shoes shined in the subway instead of at my hotel, I saw the sign "Shine 10 cents, service not included." When a customer sits down, the chair records the fact and the shine boy pays ten cents to the boss. His only income is from tips. Understand that sign and you can understand the strikes.

"What did you gain from your strike?" I asked my waiter.

"We used to have to pay 60 centimes per person for the use of the napkins, plates, and silverware. Now we keep our tips. But that isn't enough. We want to be workers, not beggars."

"Did you ever hear anything like it?" the man at the next table asked me when the strike deprived him of food. It seemed to me I had, in the Hugo of a century ago describing conditions centuries earlier.

It is January 6, 1482. The Day of the Kings is ending in the Feast of Fools. The university bookseller is talking to the king's furrier. Ten years from now, an unknown named Columbus, sailing into the unknown, is to bring back a rich cargo of new visions. But how can the bookseller know that? His story is as old as Noah, but let's listen:

"I tell you, monsieur, the world's at an end. . . . It's the cursed inventions . . . and above all, the printing press, that German pest! No more manuscripts—no more books! Printing puts an end to bookselling—the end of the world is coming!"

"I see it is, by velvet's coming so much into fashion," sighed the furrier.

Changing styles long favored the Parisian couturier, but today even the "creation" is menaced by such sartorial ditto marks as I saw selling for $1.25 each in an arcade on the once aristocratic Champs-Elysées.

One afternoon a style show walked into the middle of my tea. It moved majestically past, turned and stopped, slipped out of its jackets or coats and, in the nicest and most impersonal way, showed off.

With each change of costume came a striking change of personality. Thirty women, showing three styles, could not have been as different as were those three mannequins, wearing thirty changes of dress!

### ART IN THE MAKING

From style I turned to art. At the Salon, one of the most admired paintings was Jean Gabriel Domergue's spirited study of a dusky girl with long limbs, carrying a green parasol aslant against a blue sky. After I took some candid shots in his studio, M. Domergue gave me a card to the School of Fine Arts (page 531).

"My chief interest is in the class," I explained to the model. "Do you mind if I go behind your back to take my pictures?"

"On the contrary," was her eager response.

The life-class students were serious, the students of architecture delightfully gay. In a sculpture class I found one of the most promising pupils to be a slant-eyed and charming Chinese girl from Shanghai.

The dignity of the School of Fine Arts was a protection, but on being welcomed to the renowned Julian's Academy I had to depend on my wits. It was like the Café Momus scene in La Bohème, with myself playing the Philistine among Bohemians.

The model and I flashed signals of helpless sympathy across the barrage of fun, while one serious painter continued his work.

Among the 60,000 students who have studied at Julian's have been many Americans and the walls show the high quality of some of the sculpture and painting done there under the tutelage of such men as Landowski, Bouguereau, Jules Lefebvre and Jean Paul Laurens. But the visitor who arrives after school is out is likely to provide most of the fun. I was never so grateful for fluent, though horrible, French as during the charivari which greeted my visit to the famous Academy in the Street

Photograph by Mondial from Europress

HARMONY IN THE MIDST OF A STRIKE

The advent of the Popular Front government in May, 1936, was complicated by an outbreak of spontaneous strikes. Instead of staging a walkout, workers in factories, department stores, and hotels simply stopped work and stayed there, refusing to go home. Impromptu orchestras were organized and dances were held on the premises.

of the Dragon. Julian's seemed the gayest spot in Paris.

In the days before Hollywood sent its lenses along tunnels of black silk hose arched overhead like swords above a military bride and groom, the music halls of Paris were unique. Now they have to shoot their lovely ladies up through the floor or drop them through the roof by way of novelty and imitation.

### IGNORANCE OF FRENCH A HELP

Personally, I have never known a person who was shocked by a Parisian revue, though ignorance of French can be a help at times. Some of the settings are of rare beauty. A recent one showed "Manon" in the French and in the Hollywood manner. The French interpretation was beautiful, the American version the hit of the show.

Even in Paris, the music hall is surrendering to the movie, but if you are fortunate you may hear a singer whose art is at its best in the intimacy of a small, packed hall.

A girl in a dark-blue gown of classic simplicity appears and time stands still. Meaning and sentiment spring from every nuance of sound and sense. This is pure enchantment and the response of this tight-packed audience is instinctive. Each listens as if over a private wire reaching straight to his heart.

Theatrical Paris has many attractions, even for those who do not speak French. Be sure that the best acting will be at the Comédie Française. Newly redecorated, this is one of the most comfortable theaters in Paris and in it you won't be brought back from the land of illusion by some shrill-voiced harridan shouting "Chocolat glacé!" in your ear.

Molière's verse will flow swiftly perhaps, to avoid singsong, but anyone who can understand a silent movie should be thrilled by the matchless performances at this theater where Molière's vagabond comedians found home and fame.

How could "Tartuffe" possibly be so fresh at its 2,267th performance at a single theater? "Carmen" at the Opéra-

Comique has had almost as many performances.

"The Trial of Mary Dugan" at the Odéon gives Americans a chance to see an American play in a state-supported theater of France. The District Attorney—splendidly done—seems more brutal beside the Seine than at home. One wonders whether the technique of American justice is justly pictured. But it is a treat to see an American play in a city which has so innocently accepted the American movie—slang, chewing gum, "chaps," "gangstairs" and all.

### FRENCH VOICES FROM AMERICAN MOUTHS

There are two ways of presenting Hollywood to Paris—in the original "English" version with subtitles in French, or in post-synchronized French with Parisian voices emerging from American mouths. In either case, the name may be changed. "Ah Wilderness" becomes "Impetuous Youth" and "Mr. Deeds Goes to Town" is "Extravagant Man."

The difficulties of matching French words and meanings to the gestures, mannerisms, and lip movements of Hollywood stars can be well understood. The provinces and suburbs like to hear their movies in French. Central Paris, wise in dramatic values, takes its Hollywood straight.

The most serious competitor of the summer theater is not the cinema but the café, for the stage for the "Human Comedy," so dear to Balzac, is the sidewalk as seen from a chair on the boulevards (page 521).

Overlooking all Paris is Montmartre, hill of saints and singers, where Saint Denis, Rusticus, and Eleutherius are supposed to have suffered martyrdom A. D. 270.

Once Montmartre was a place to which one went to hear, sung in brilliant verses, a sardonic résumé of the week's current events. But franc-laden post-war visitors were unable to comprehend sly stanzas in French poking fun at Parisian life along the boulevards and in the ministries, so the Montmartre minstrel was elbowed out by the singer of popular songs.

Buying a glass of brandied cherries as the price of admission, people linger on to savor cabaret life, humming songs they cannot sing and laughing in the wrong places—even as you and I.

Of French cooking I am poorly qualified to speak. The food at my hotel was so good that there was little temptation to indulge in gustatory explorations and I usually ate where mealtime found me.

Some stewed mushrooms on the way to the Odéon, a thick steak after visiting the royal monuments at St. Denis, and a strawberry soufflé in the Elysian Fields were memorable among scores of palatable meals.

Suffice to say that French food is so good that Frenchmen are dissatisfied with all other. But grapefruit, orange juice, and other novelties are rapidly invading a field long jealously guarded.

### DINNER WITH COMRADES OF THE TRAIL

To me the finest meal in Paris was one in a modest restaurant in the industrial district. For here were gathered Iacovleff and Gœrger, Penaud and Ferracci, Morizet and Sivel, Reymond, Specht, and as many more—Frenchmen and Parisians with whom I had crossed Asia. For months on end we had lived together, facing difficulties together, sharing each other's pains and triumphs.*

Tomorrow we would go our several ways, they to their several tasks, I back to America on the *Normandie*. But tonight we sang the songs Reymond taught us inside felt yurts or low-topped tents in the Gobi. Nothing in Paris made me feel more at home than these comrades whose "home," like mine, for many months was a moving dot across the face of Asia.

Who better than Montaigne, during the disenchantment following the French Renaissance, has voiced the hope of all who love this city of many moods?

"I love Paris for her own sake and more in her own being than when it is fraught with foreign pomp and borrowed ornaments. I love her so tenderly that even her spots, her blemishes, and her warts are dear to me. God in His mercy free her and chase away all divisions from her."

* See "From the Mediterranean to the Yellow Sea by Motor," by Maynard Owen Williams, NATIONAL GEOGRAPHIC MAGAZINE, November, 1932.

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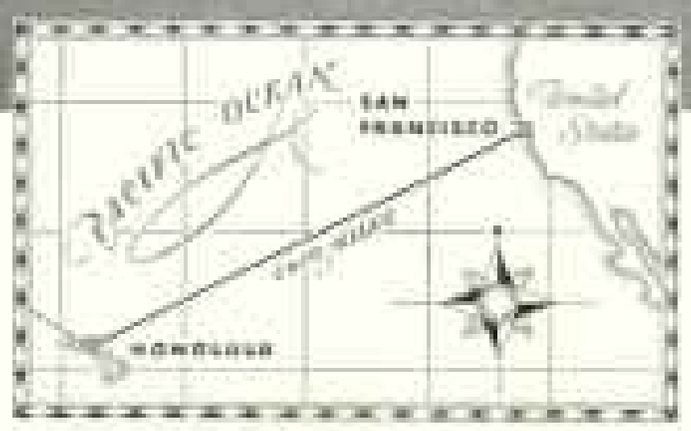


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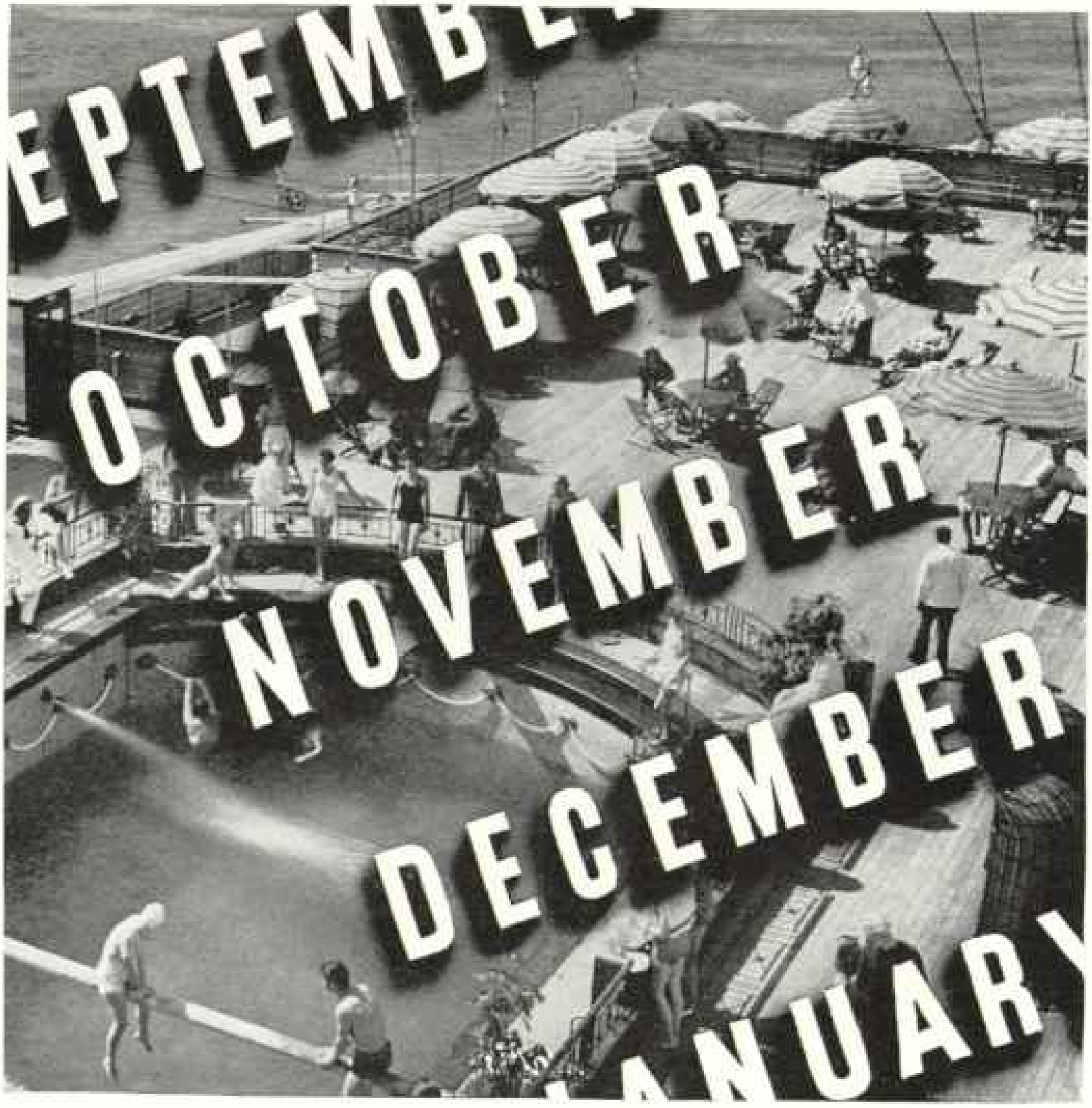


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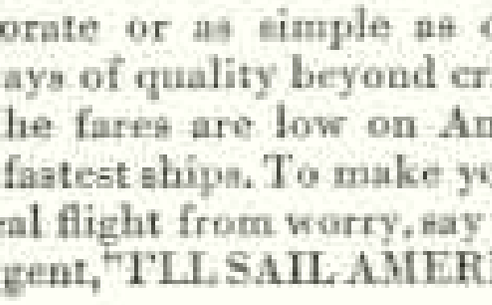


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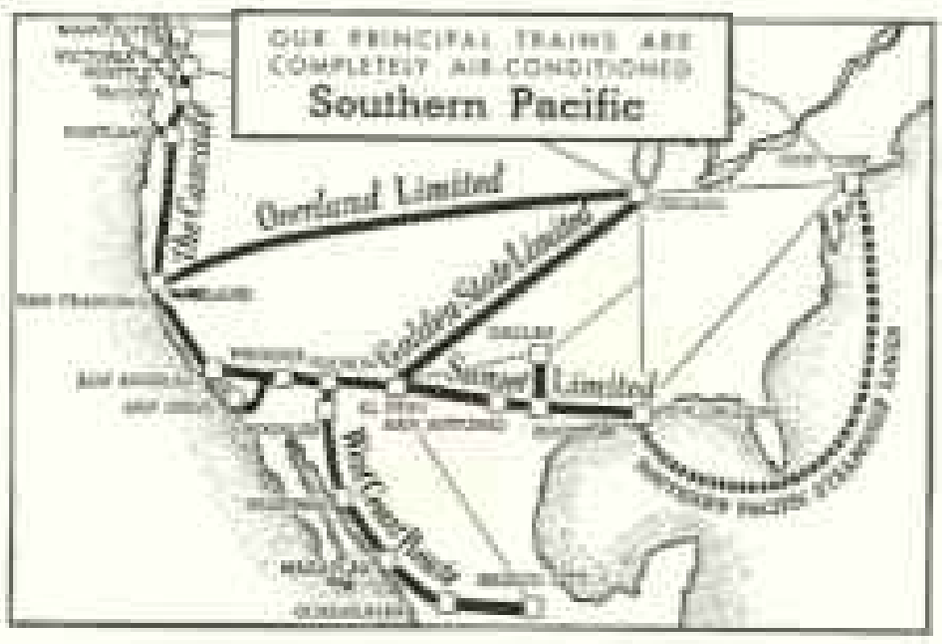


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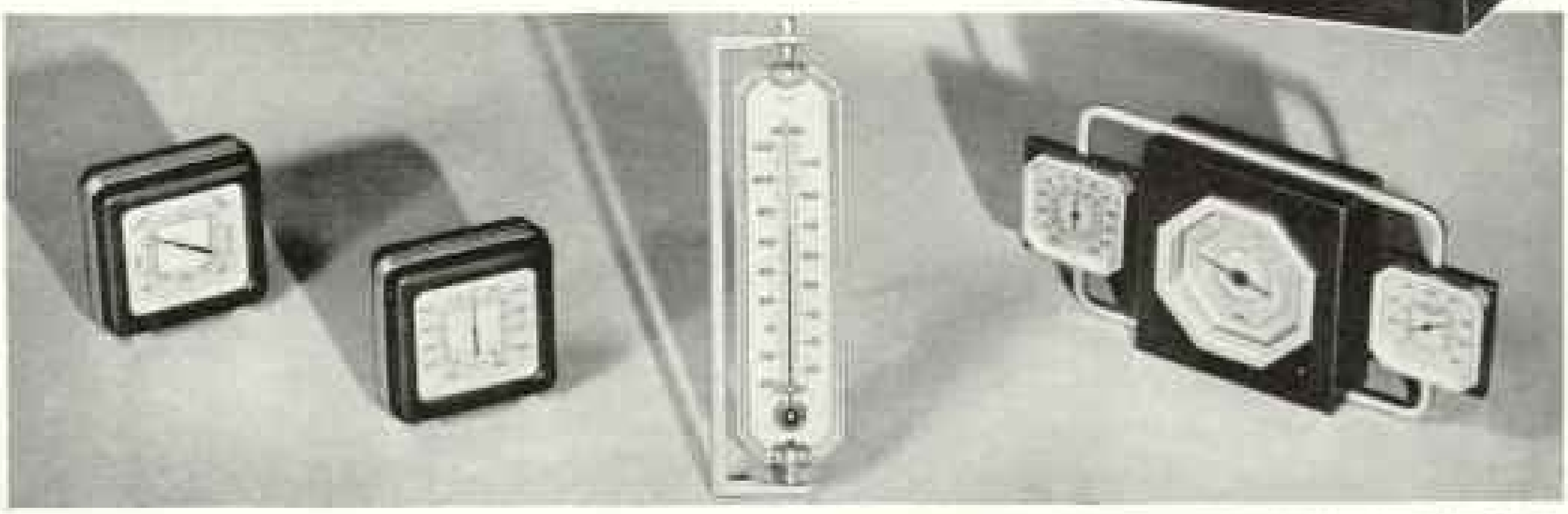

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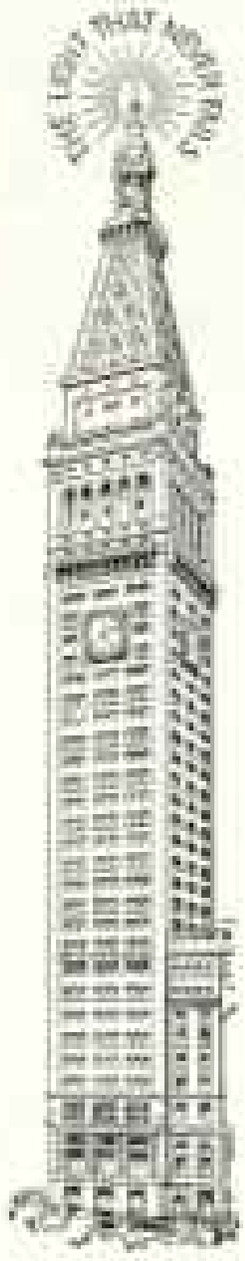
If you would save a great deal of needless trouble and expense, have your children visit the dentist every six months in order that small cavities, of which they are unaware, may be discovered and treated before they can do any real damage. The dentist will also encourage systematic and correct toothbrushing in order to lay a foundation for lasting health habits.

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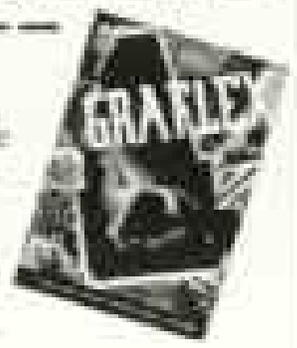


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City_____ State_____

# THE *Authentic* AUTUMN ATMOSPHERE

Golden, heart-warming, health-building days of the fashionable season on the Boardwalk . . . summer continuing with its finest features for rest and relaxation, for activity in golf, tennis, riding, sailing and fishing • Supreme comfort in scores of palatial hotels and numerous modern boarding houses. Metropolitan entertainment of ocean piers, theatres, smart shops, restaurants, cafes, and exhibits • Splendid highways. Low fares by train and bus.

*For Illustrated folder, write*
ROOM 203, CONVENTION HALL

# ATLANTIC CITY

THE WORLD'S PREMIER HEALTH & PLEASURE RESORT

# *Beautiful Fall* MEMORIAL DAYS

IN the mellow beauty of the autumn season the approaching days of national and religious observance are increasingly occasions of private as well as public commemoration. Timely and appropriate, in the consciousness of sacred obligation to the memory of loved ones, you may now realize your ideal of a memorial with complete assurance of the satisfying fulfillment of your reverent intent.

In every Rock of Ages Memorial the "evidence of things unseen" is graven in the stone itself, identifying the genuine Rock of Ages from the famed deposit at Barre, Vermont. Executed by highly skilled craftsmen and exclusive patented processes at Rock of Ages plants, the flawless perfection and artistry of Rock of Ages Memorials are certified by the makers and further assured by legal indemnity bond of National Surety Corp. Rock of Ages Memorials with Seal and guarantees are available to you through your nearby Authorized Dealer.


ROCK OF AGES MEMORIALS

For your protection EVERY ROCK OF AGES MEMORIAL BEARS THIS SEAL etched in the stone.

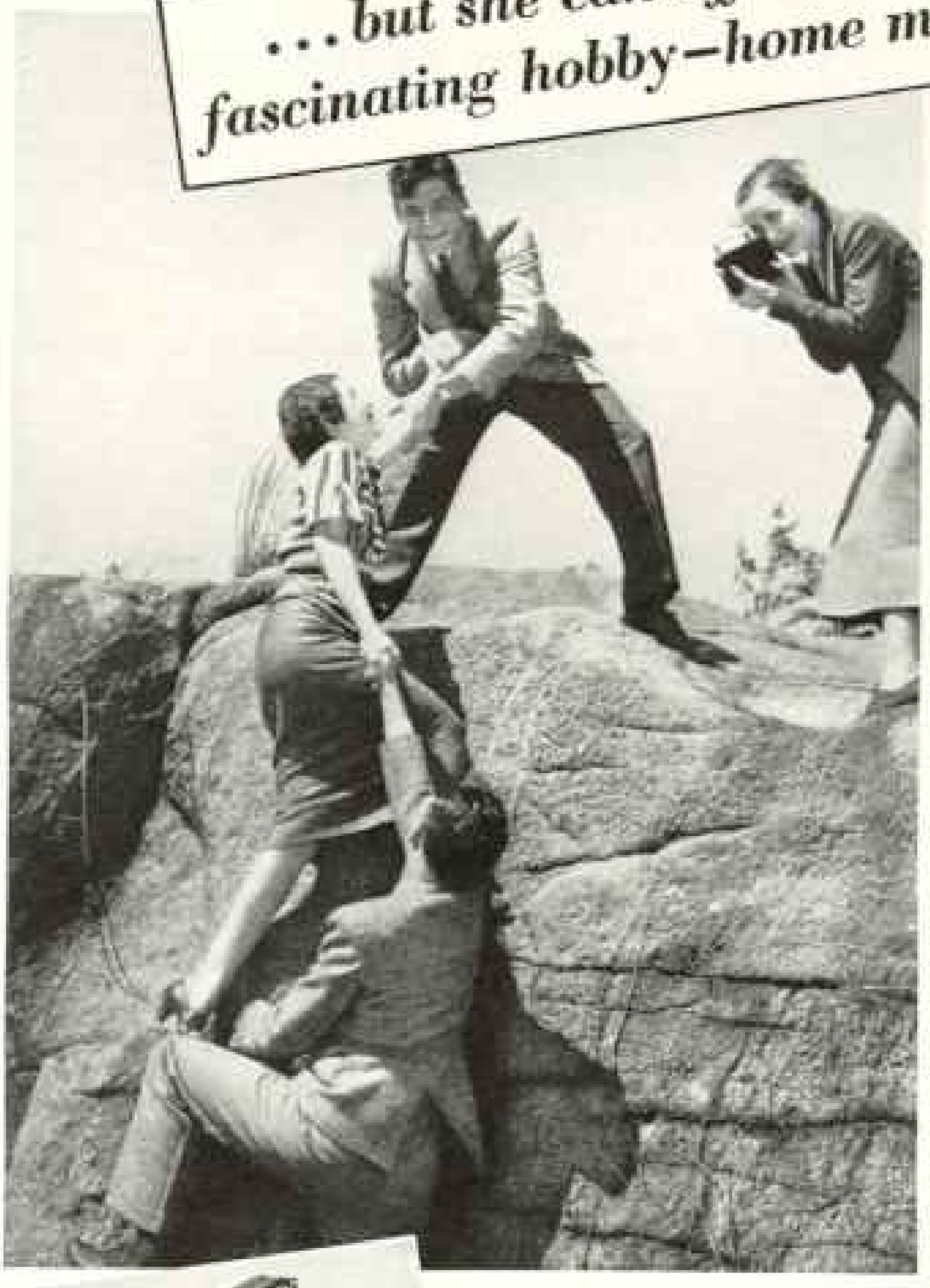
ROCK OF AGES MEMORIALS
ROCK OF AGES CORP., Dept. D-10
Barre, Vermont

Please send latest revised booklet, "How to Choose a Memorial," with design suggestions illustrated.

Name_____
Address_____

# "Recreation" is the smallest item on her budget

*. . . but she can afford a fascinating hobby—home movies*



WAY DOWN at the end of her budget comes "Recreation"—and only the dollars not needed elsewhere ever get listed there. But don't get the idea that she never has fun. Fact is, she can afford a most fascinating hobby—home movies. Ciné-Kodak Eight makes it possible.

Ciné-Kodak Eight was designed for a single purpose . . . to bring home movies to people of limited incomes. It's the camera you've hoped for . . . Now exciting human action records cost only a few cents each.

See the Eight, and the fine pictures it makes, at your dealer's today.

***Now gorgeous full-color Kodachrome for Ciné-Kodak Eight***

Just load your Eight with Kodachrome, and "shoot." Color movies are as easy to make as black-and-white. No extra equipment is needed for all ordinary shots. The color is in the film . . . Eastman Kodak Co., Rochester, N. Y.

● A new type of camera and film makes inexpensive home movies possible. A twenty-five foot roll of Ciné-Kodak Eight Film runs as long on the screen as 100 feet of amateur standard home movie film. The Eight makes 20 to 30 black-and-white movie "shots"—each as long as the average scene in the newsreels—on a roll of film costing $2.25, *finished, ready to show*. Ciné-Kodak Eight is small, sturdy—costs but $34.50. As easy to use as a Brownie.

# Ciné-Kodak Eight

*. . . home movies at less than 10¢ a "shot"*

# The Tastiest Ocean Treat from Gloucester

*plump, tender, juicy*

# SALT MACKEREL FILLETS

I guarantee them to please you!

## TASTE THEM AT MY EXPENSE

Just what you want for a hearty breakfast!

You'll never know how delicious fish can be until you serve some of my mackerel fillets, prepared the Down East way. It will be the rarest treat you've known in months.

Take one of my new, small, meaty Fall-caught mackerel fillets. Freshen it. Broil it in its own juices to a tempting brown, until the rich, tender meat falls apart at the touch of your fork. Serve piping hot. Your mouth will water at its appetizing aroma. You'll smack your lips over its wonderful flavor.

### What Makes My Mackerel Fillets So Good?

But you must get the right kind of mackerel fillets—the pick of the new Fall catch is what you want—to get this real food joy. That's the secret of the tempting goodness of my mackerel fillets. I send you the choicest fillets that are carefully sliced from the fat, tender sides of the new Fall-caught mackerel. Practically boneless, no waste parts whatever, these mackerel fillets are so tender and full bodied that they just flake into juicy mouthfuls.

## Send No Money Now—

*unless you wish to*

Just send the coupon below or write me a letter, and I'll ship you a pail of 18 extra choice mackerel fillets—each fillet suitable for an individual serving. My fillets come to you all cleaned—no heads—no tails—no large body bones—no waste whatever—just meaty fillets packed in new brine in a wax-lined wooden pail. Taste one—broiled the Down East way. If not satisfied it's the finest mackerel you ever tasted, return the balance at my expense. Otherwise, send me only $2 within 10 days. 250,000 families get their seafood from me this "prove-it-yourself" way. I've been doing business this way for 31 years and I must say that this is the lowest price for this size pail of mackerel fillets I've ever offered. Send your coupon today for this real Gloucester treat.

**18 Extra Choice Mackerel Fillets Only**

**$2.00**

**Delivered FREE!** Anywhere in the United States

Frank E. Davis, The Gloucester Fisherman
112 Central Wharf, Gloucester, Mass.

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Mr. Frank E. Davis, The Gloucester Fisherman
112 Central Wharf, Gloucester, Mass.

Mr. dear Mr. Davis: Please send me, all charges prepaid, a pail containing 18 extra choice mackerel fillets, clear fish, no heads, tails, or waste parts, and practically boneless. If, after trying a fillet, I am not entirely satisfied, I will return the rest at your expense and will owe you nothing. Otherwise, I'll send you $2.00 within 10 days.*

Name.....

Address.....

City.....

Bank or other reference.....

* If you wish to send check for full amount now, I'll include with your mackerel a copy of my 25c beautifully illustrated cook book containing 150 delightful recipes. Your money will be instantly refunded if you are not pleased in every way.

---


**FOURTH MEAL** For those people (*and there are quite a few of us*) who like to have a fourth meal around midnight, herewith a suggestion—a bowl of Kellogg's Corn Flakes.

They're crisp, appetizing, satisfying. And you'll be impressed at the ease with which you make the 8:15 next morning. Served everywhere. Made by Kellogg in Battle Creek.

**Nothing takes the place of**

# Kellogg's CORN FLAKES

---

# LOOK AMAZING INVENTIONS AND DISCOVERIES

Revolutionary inventions—man's latest conquests. Read about them in Popular Mechanics. Every month this big 250-page magazine is crammed full of fascinating accounts and pictures (many in full color) of daring adventures, astounding scientific discoveries, new achievements in aviation, electricity, engineering, chemistry, physics, radio. Special departments for home craftsmen and practical shop men—easy to follow plans. Get real fun out of making things. Don't miss this month's issue—a thrilling, gripping record of the world's newest wonders—

POPULAR MECHANICS

**25c at all newsstands.**

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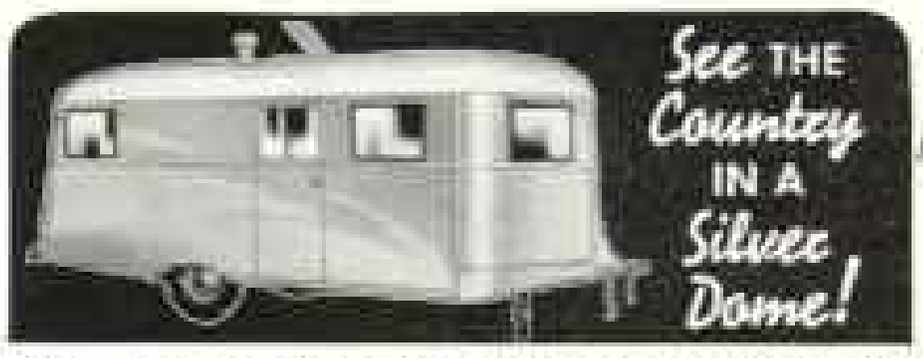


4 BIG ROOMY MODELS $465 TO $975

## *America's Standard of Travel Coach Value*

It is important to select a coach of established reputation. Enjoy the satisfaction of owning the trailer by which the others are judged! Silver Dome's famous quality construction has been proven by hundreds of thousands of miles of satisfactory service. Years of experience enable Silver Dome to give you the utmost in beauty, ruggedness, convenience, and comfort at the lowest possible price. Before you decide on any trailer coach, see Silver Dome. Send 10c for 20-page illustrated catalog. Dealers: send for attractive sales plan.

**SILVER DOME, Inc.** 6244 Woodward Ave. Detroit, Michigan

# ARE YOU MAKING PROVISION FOR THE FUTURE?

Now you have the opportunity to establish a basis of financial security for your family through the Regular Purchase Plan of United States Savings Bonds.

Investment in Savings Bonds turns today's $75 into $100 in ten years and permits setting aside as little as $18.75 or as much as $7,500 in each calendar year.

The Government checks, which you will receive as your United States Savings Bonds mature, will provide cash for definite needs.

This is a safe and convenient method of providing cash for the future: to educate children . . for a retirement fund . . to take care of dependents . . for a cash estate . . for travel and recreation.

Select the systematic savings program in the table below best suited to you.

## QUICK FACTS ABOUT UNITED STATES SAVINGS BONDS

**They are direct Obligations of the Government.**

**Your investment will increase 33⅓% if held for ten years.** Bonds are available in the denominations shown in the coupon.

**Interest Accrues at the Rate of 2.9% Per Annum Compounded Semiannually,** provided the bond is held to maturity.

**May be Redeemed in Cash** after 60 days from issue date, in whole or in part.

**Free From Price Fluctuation.** The fixed cash redemption values, which are never less than the purchase price, are printed on the face of each bond.

**Ownership.** They may be registered in the name of an individual, a trustee, a corporation, or any other legal entity.

**Ownership by Two Persons.** They may be registered in the names of two (but not more than two) individuals. Such bonds may be redeemed by either person named as co-owner.

**Beneficiary Can be Named.** You may register your bond with the name of a beneficiary to whom, on request, your bond will be payable or reissued in the event of your death.

**Protection Against Loss.** Should your bond be lost, or destroyed, a duplicate will be issued upon proof of loss and proper indemnity.

**Tax Exempt** both as to principal and interest to the same extent as other Treasury bonds, as more fully defined in Treasury Circular No. 554.

**$10,000 Maximum in One Year.** It is permissible under the law authorizing these bonds that $10,000 (but not more than $10,000) maturity value, issued during any one calendar year (Jan. 1 to Dec. 31), may be held by any one person. An additional $10,000 maturity value issued during each or any subsequent calendar year may be so held.

# UNITED STATES SAVINGS BONDS

### The Basis of a Secure Future

The maturity values of United States Savings Bonds, bought at regular intervals and not redeemed prior to maturity, will be payable at the same intervals as the purchases, ten years from the respective issue dates.

For example, a $25 denomination bond (present price $18.75) purchased each month for 120 successive months will result, if each bond is held to maturity, in an ownership of $3,000, maturity value, of these bonds, payable during the following ten years by the United States Government on the first day of each month at the rate of $25 per month. Likewise—

| Amount you invest each month for 120 months | Maturity Value in 120 months | Payable each month for 120 months starting in 10 years |
|---|---|---|
| $37.50 | $6,000 | $50 per month |
| 75.00 | 12,000 | 100 " " |
| 93.75 | 15,000 | 125 " " |
| 187.50 | 30,000 | 250 " " |
| 375.00 | 60,000 | 500 " " |

For sale at Post Offices and — DIRECT BY MAIL

### TO ORDER BY MAIL

TREASURER OF THE UNITED STATES, DEPARTMENT 1006, WASHINGTON, D. C.

☐ Please send me without obligation your Regular Purchase Plan and forms for my consideration and optional use.

☐ Send me the following bonds for which I enclose check, draft, or money order.

| NUMBER | | | |
|---|---|---|---|
| ..... | $25 | U. S. Savings Bonds at | $18.75 $ ..... |
| ..... | $50 | U. S. Savings Bonds at | $37.50 $ ..... |
| ..... | $100 | U. S. Savings Bonds at | $75.00 $ ..... |
| ..... | $500 | U. S. Savings Bonds at | $375.00 $ ..... |
| ..... | $1000 | U. S. Savings Bonds at | $750.00 $ ..... |
| | | | Total $ ..... |

*Register in the name of and send to*

Name_____

Street Address_____

City_____ State_____

Make all checks payable to the Treasurer of the United States.

VACATION VOYAGES to—or from—

# CALIFORNIA

***The "BIG 3" route via Havana and the Panama Canal***

**Special "between-season" rates now in effect**

★ Coast to Coast. First Class from $190 (from $225 at certain seasons). Tourist Cabin from $123. All rooms are *outside* rooms. Now, 25% reduction on round trip. Sailings fortnightly throughout the year.

★ Circle Tours, one way by sea, one way by rail or air. Special home-town to home-town combination rates. Stopover privileges on both steamer and rail tickets. And a new tour adds MEXICO, connecting with Eastbound "Big 3" Liners at Acapulco.

★ 9-Day Havana All-Expense Cruise Tours from New York from $140 for everything aboard ship; room, bath and meals for 3 days in Havana and sightseeing.

★ 16-17 Day Cruise Tours to the Caribbean, Panama, South America, $253 up. Wide choice of itineraries. Sailings all year round. Folder upon request.

★ 3 Weeks Panama Vacation from San Francisco (or Los Angeles). Inclusive rates for all expenses ashore and afloat. Also Havana round trip and connections for Florida and Mexico.

***See your travel agent for further details.***

***The "Big 3"***

**S. S. CALIFORNIA  S. S. VIRGINIA**
**S. S. PENNSYLVANIA**
(33,000 tons each)

***Panama Pacific Line***

International Mercantile Marine Company, 1 Broadway and 601 Fifth Ave., New York. Offices in principal cities.

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YOU'RE THERE WITH A CROSLEY SUPER SENSITIVE RADIO

**COMPARE THESE PRICES TUBE FOR TUBE, FEATURE FOR FEATURE, WITH ANY RADIO ON THE MARKET**

✲ **AUTO-EXPRESSIONATOR**
Brings back the expression necessarily taken out in the studio in transmitting the program.

★ **MYSTIC HAND**
(A. F. C.) Automatically tunes set sharply without use of motor tuning or other gadget.

☽ **MAGNA CERAMIC DIAL**

† **VIBRACOUSTIC SOUNDING BOARD**

⊙ **METAL TUBES**

and 8 other CROSLEY FEATURES

| | | | |
|---|---|---|---|
| ✲★☽†⊙ | 15 TUBES, | 44" Console, | $167.50 |
| ✲★☽†⊙ | 13 TUBES, | 43½" Console, | $137.50 |
| ✲★☽†⊙ | 11 TUBES, | 41½" Console, | $99.95 |
| ✲ ☽†⊙ | 9 TUBES, | 41½" Console, | $89.95 |
| ☽†⊙ | 7 TUBES, | 40" Console, | $59.95 |
| ☽†⊙ | 6 TUBES, | 39" Console, | $49.95 |

Prices slightly higher in Rocky Mountain States and west.

CROSLEY stands, always, as a warranty of the highest value in radio. It is only natural that the 1937 models are Crosley's greatest achievements. Beautiful . . . as near perfection as science can attain . . . and priced for you who demand the best at prices you're pleased to pay. See your Crosley dealer today . . . you will hear radio you've never heard before.

**THE CROSLEY RADIO CORPORATION**
**Cincinnati, O.  Powel Crosley, Jr., Pres.**

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**NEW MEXICO STATE TOURIST BUREAU**

ROOM 311, STATE CAPITOL, SANTA FE, NEW MEXICO
Please send free booklet, "TWO WEEKS IN NEW MEXICO."

Name _____

Address _____


# To Members Come First-hand Accounts of Geographic Conquest and Exploration

As a member of the National Geographic Society, you receive the first-hand accounts of many constructive achievements in geographic research and exploration, first published in complete detail and with superb illustrations in THE NATIONAL GEOGRAPHIC MAGAZINE.

Famous GEOGRAPHIC "Firsts" would fill volumes. Memorable are reports of epic conquests like Lincoln Ellsworth's crossing of Antarctica and planting of the American flag on the last large expanse of unclaimed territory in the world; Byrd's polar explorations; the first flight across the Pacific under the leadership of Kingsford-Smith; and the record-breaking ascension into the stratosphere of the scientific research balloon *Explorer II*, manned by Major Stevens and Captain Anderson—thrilling achievements described in personal narratives by heroes of the expeditions.

© [illegible]

The *Polar Star* Being Hoisted Aboard the *Wyatt Earp*

## A New Geographic Achievement

Leading The Society's recent expedition to Mount McKinley, Bradford Washburn made a successful aerial survey of North America's loftiest peak. At 21,000 feet he photographed stupendous cliffs for the first time and obtained data on vast, little-known mountain tracts in that skyland area of Alaska. An archeological article by Henry B. Collins, Jr., will describe his investigations in the Bering Sea region to trace America's first human beings, while Irvine C. Gardner's remarkable solar-eclipse photographs will reenact the outstanding cosmic drama of 1936. Both Mr. Collins and Mr. Gardner led expeditions co-sponsored and financed by your Society.

In contemplating the rich returns of the past and the "dividends" to come, do you think of friends who would enjoy the opportunity to share The Society's benefits with you? By nominating them for membership, you can, without financial obligation, accord a tribute to their intellectual interests and serve your Society as well. Each new member helps The Society extend its altruistic work in science and exploration, and thus to make for you a more informative and brighter Magazine.

DETACH HERE—OR NOMINATE BY LETTER IF YOU PREFER NOT TO CUT THIS PAGE

## Nominations for Membership in the National Geographic Society

Secretary, National Geographic Society,
Sixteenth and M Streets, N. W., Washington, D. C.

_____, 1936

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.

Name and Address
of Nominating Member _____

# "Where shall we stay?"

NATIONAL GEOGRAPHIC MAGAZINE'S HOTEL SECTION

## ARIZONA

### Litchfield Park

**The Wigwam.** Distinguished Inn and attractive bungalows in glorious desert setting near Phoenix. Golf, ride, relax. Rates from $8. Amer. Plan. Bklt.

### Tucson

**El Conquistador.** Landscaped resort hotel, with spacious bungalows, in midst of desert grandeur. Distinguished clientele. Glorious climate. All sports.

**Pioneer Hotel.** Southern Arizona's Finest. 250 Rooms with bath. Europ. Coffee Shop. Dining Room. Roof Garden. Sun Deck. Sensible Rates. Booklet.

## CALIFORNIA

### Arrowhead Springs

**Arrowhead Springs Hotel.** Curative waters, radio-active mud baths, steam caves. Swim, ride, golf, tennis. 1½ hrs. from Los Angeles. H. E. Ward, Mgr.

### Los Angeles

**The Ambassador.** Twenty-two acre Playground in heart of City. All Sports, Plunge, Beach, Lido. Cocoanut Grove for Dancing. European, $5.00 up.

### Santa Barbara

**El Encanto and Villas.** On the Riviera. American Plan. Excellent Cuisine. Separate Diet Kitchen. Beach Club. Golf. Charles B. Harvey, Proprietor.

## DISTRICT OF COLUMBIA

### Washington

**The Dodge Hotel** on Capitol Hill. Men and women travellers enjoy the "No Tipping" service in all departments. Noted cuisine. $2-$3, single; $4-$5, double.

**Hay-Adams House.** Across from the White House at 16th and H. The best in accommodations amid smart surroundings. European, $3.00 up.

**Hotel Martinique**—16th Street at M. Directly across from National Geographic Society. New and Modern. Every room with bath. European. From $3.

**The Raleigh Hotel.** Across Penn. Ave. from new Govt. Bldgs. Dining rooms air conditioned. Rooms with tub and shower, $3-$5 one, $4.50-$8 two. E. P.

## ILLINOIS

### Chicago

**LaSalle Hotel.** Foremost in Friendliness. Near everything—LaSalle at Madison St. You'll like the clean, bright rooms—good food—reasonable rates.

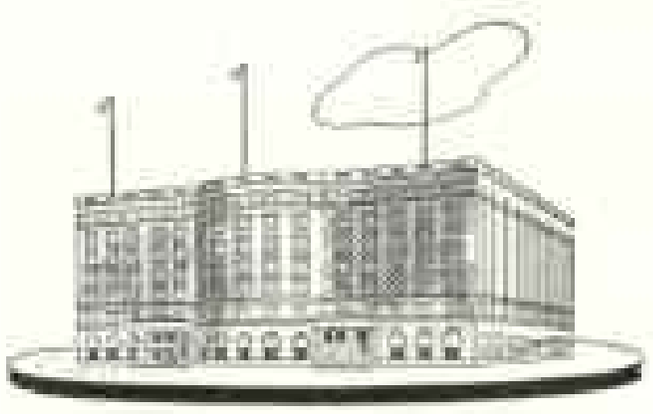
## MARYLAND

### Baltimore

**The Belvedere.** Outside the business district, yet convenient to all the city's activities. Every modern comfort and luxury. Rates begin at $4.00.

## MASSACHUSETTS

### Boston



The Copley-Plaza

When in Boston, make the Copley-Plaza your address. Situated in historic Copley Square, with the world-renowned Trinity Church and the equally famous Boston Public Library, the Copley-Plaza provides a hotel setting as distinguished as any in the world. Rooms with bath $4 single—$6 double. Illustrated folder on request. Arthur L. Race, Mng. Dir.

## MINNESOTA

### Minneapolis

**Curtis Hotel.** Contiguous to Minnesota's 10,000 Lakes region. Largest Hotel in the Northwest. Soft-water baths throughout. Rates $2 to $6.

## NEW HAMPSHIRE

### Hanover

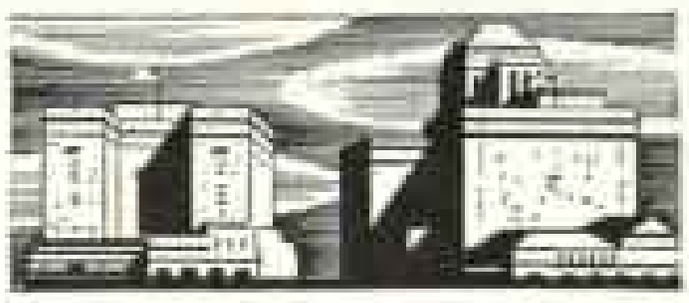
**Hanover Inn** at Dartmouth College. Superb golf, tennis, recreation. Central for White Mountains, Green Mountains. Open all year. Illustrated booklet.

### White Mountains—Franconia

**Pockett's-on-Sugar Hill.** New England's unique all-year resort. Internationally renowned for its cuisine and service. Fall foliage season delightful.

## NEW JERSEY

### Atlantic City



Chalfonte-Haddon Hall

Out of doors, the refreshment of autumn by the sea (golf, riding, hiking along the Boardwalk). Indoors, the refreshment of wholesome, tasty food, sound slumber, and genial, refined surroundings. Modern health baths. Long Ocean Decks. 1000 comfortable rooms. American and European Plans at surprisingly moderate rates. Central beachfront location.

### Princeton

**The Princeton Inn.** Facing golf course and Graduate College. Amer. plan. 100 rms. Fireproof. "Hospitality as in days of old." J. Howard Slocum, Mgr.

## NEW MEXICO

### Santa Fe

**Hacienda de Los Cerros.** Picturesque guest ranch near Indian pueblos, cliff-dweller ruins, quaint Spanish villages. Open all year. Booklet.

**La Fonda**—Old world charm, city sophistication, the End of the Trail in Old Santa Fe. Cool summers, mild winters. Harvey Management.

## NEW YORK

### Albany

**De Witt Clinton.** A Knott Hotel. New, well appointed. Faces Capitol Park. Splendid meals; attentive service. Come, we'll make you happy.

### New York City

**Barbizon-Plaza.** New skyscraper hotel overlooking Central Park at 6th Ave. Tower rooms from $3 single, $5 double. Continental breakfast included.

**The Plaza.** New York. Fifth Avenue, facing Central Park. Single Rooms from $6; Double from $8; Suites from $12. Henry A. Rost, President.

### New York City (continued)

The Waldorf-Astoria

Famous scene of New York social and business activities . . . convenient to the City's important and interesting centers . . . single rooms $6, $7; double $9, $10. Various restaurants with comprehensive range of prices and types of service. Park Avenue, 49th to 50th Street, New York.

## OREGON

### Portland

**Multnomah**—Oregon's largest. 600 rooms. From $2.50. Three to four blocks to leading stores and banks. Three cafes. Famous food.

## SOUTH CAROLINA

### Aiken

**Willcox's.** Excellent south bound stop-over. Ideal fall climate. Golf, shooting, tennis, horses. Fortieth winter. Write pre-season rate, Box 467.

### Camden

**Hobkirk Inn.** Traditionally Famous. Located in heart of Southern Horse Country. Emphasizing Golf and Quail Hunting. Cottages. Season—Dec. to May.

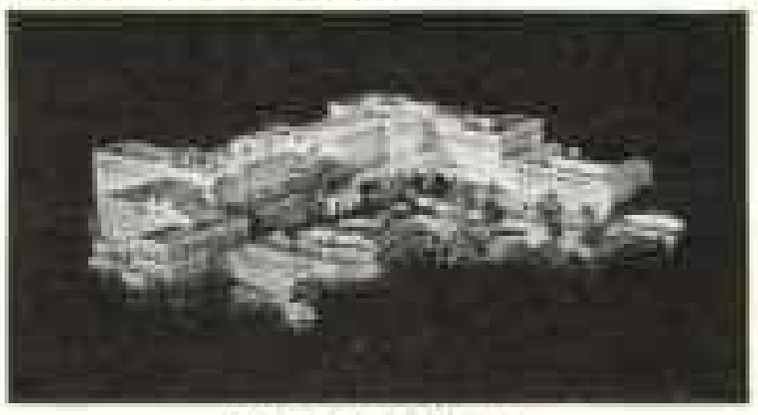
## TEXAS

### El Paso

**Hotel Paso Del Norte.** A friendly, cordial host offering travelers unexcelled accommodations, cuisine, service. Ideal climate. From $2.50. Booklet.

## WEST VIRGINIA

### White Sulphur Springs



The Greenbrier

World-famous spa and resort affording year 'round recreation and relaxation to the discriminating. 7000-acre estate high up in the Alleghanies. Golf (3 courses), riding, tennis and skeet. Finest facilities for "the cure." Fall reservations now. Tariff and information upon request to L. R. Johnston, General Manager.

## MEXICO

### Guaymas

**Hotel Playa de Cortés.** Southern Pacific's new beach resort. Finest deep-sea fishing. Overnight from border. Write manager or S. P. agents.

—and this is a

# Spring-Air

TRADE MARK
REG. U.S. AND CAN. PAT. OFFICE
SPRING AIR MANUFACTURING COMPANY, HOLLAND, MICH.

SLEEP CUSHIO


★ If you buy the innerspring type of mattress you need not sacrifice in life, health and happiness by getting a construction inferior to the patented Karr Sleep Unit. In the Spring-Air Mattress Line — with prices ranging from $24.50 to $49.50 — there are, in addition to the Sleep Cushion, five innerspring mattresses in either Tufted or Tuftless Style, all of them built with the patented Karr Sleep Unit.

Buy value — buy comfort, and be sure that it is comfort that endures. Buy beauty — buy loveliness, and be guided by the tests and selections of the greatest bedding buyers of all time. Then you will buy Spring-Air!

"You can feel like I do — all day long — when you sleep on Spring-Air"

SPRING-AIR, *Dept. G*, Holland, Michigan
*Please send me illustrated literature describing:*
☐ Spring-Air Sleep Cushion
☐ Spring-Air Innerspring Mattresses

Name_____

Street_____

City_____

## It makes you Sleep Bette than any other type of mattress

• Tonight—thousands of people will thrill to the pleasure of sleeping on the Spring-Air Sleep Cushion. In homes, hotels, and hospitals; on luxury liners and at fashionable resorts, these people will enjoy the kind of sleep that Caesar would have traded a kingdom for.

The sleep cushion type of mattress has brought, not only better sleep to its users—it has also furnished absolute proof of the superiority of the Karr mattress spring construction for ALL types of mattresses.

For the truth is, that only the Karr mattress spring construction has made good when used as a separate, or sleep cushion unit. In the sleep cushion type, all t padding is on top where it belon and where it can be fluffed up will;—leaving the mattress spri construction free from bindi and cramping to give its ma mum flexibility and buoyan Practical housewives, nurses, a managers of the most famo institutions show their pref ence for this type of mattre

*Sold by Stores Who Care*

For economy, comfort, and end ing satisfaction be sure that t Spring-Air Trade Mark is on t mattress label, and ask for y written Karr Sleep Unit guarant

**SPRING-AI**

*General Offices:* HOLLAND, MICHIG

*Ask to see the new Sleep Cushion and other numbe the Spring-Air Line at your favorite store. 44 Facto in U. S. and Canada now supplying the dem*

Spring-Air product standards are specified and, through inspection, maintained by the license, Charl Company, Holland, Michigan, manufacturer of the spring elements used in completed Spring-Air p

WHEN EXPERTS BUY—THEY DEMAND SPRING-A

# *Flame Ate Those Fuses Fast!*

**While I was trapped in the Dark with 380 Sticks of Dynamite"**

"When you are spitting (lighting) blast fuses underground, the thing to do is to get them going and get away from there," writes George B. McIntyre, tungsten miner.

"I had a round of 24 holes to spit, 380 sticks of 60 and 40 per cent dynamite.

"I got the fuses all going with my miner's lamp . . . then I stumbled, the lamp fell from my hand into the ore chute at my feet and clattered away.

"There I was, trapped in a black silence punctuated by twenty-four glowing, hissing fuses. Three hundred feet to the manway, but in that inky rock-strewn passage, it might as well have been 300 miles . . . and in a matter of seconds she'd let go. Thousands of tons of ore would seal my tomb . . . after I was blown to bits.

"Nothing of this kind had ever happened before . . . but for years I had carried an Eveready pocket flashlight . . . and now its moment had come! I don't know how long the batteries had been in that flashlight . . . months at least. But when my life depended on them, they came through! Once I could see my way, escape was easy, where it had been impossible a second before. And believe me, when I read your ads about FRESH Eveready Batteries, I said 'Amen, Brother'! DATED Eveready Batteries saved me from a horrible death because they were *fresh* and full of life when I bought them so long before."

Geo B McIntyre

**Once more the**

**DATE-LINE is a LIFE-LINE**




**EVEREADY BATTERIES ARE *FRESH* BATTERIES**

National Carbon Co. Inc., 30 East 42nd St. New York