THENATIONAL GEO GRAPHIC MAGAZINE

DECEMBER, 1935

Special Map Supplement of the World

TWENTY-FOUR PAGES OF ILLUSTRATIONS IN FULL COLOR

Capital Cities of Australia

With 32 Illustrations and Map W. ROBERT MOORE

Flashes of Color in the Fifth Continent

24 Natural Color Illustrations

The Rock of Aden

With 25 Illustrations

H. G. C. SWAYNE

Where Bible Characters Live Again

With 20 Illustrations

ANTON LANG, JR.

In the Home of the Passion Play

11 Natural Color Photographs

Horace—Classic Poet of the Countryside

With 23 Illustrations

W. COLEMAN NEVILS

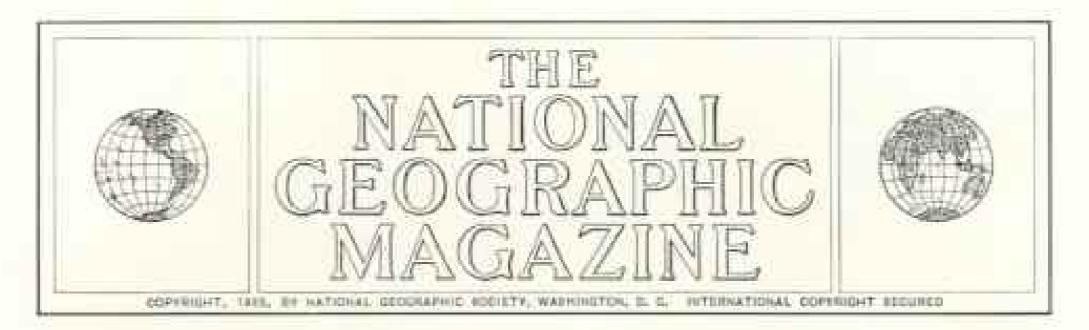
The Society's New Map of the World

PUBLISHED BY THE

NATIONAL GEOGRAPHIC SOCIETY

HUBBARD MEMORIAL HALL

WASHINGTON, D.C.



CAPITAL CITIES OF AUSTRALIA

By W. Robert Moore

AUTHOR OF "ALONG THE OLD MANDARIN ROOM OF INDO-CHINA," "COMMANDED DAYS IN ADDIT ABARA," "COMMORDIZAN SHANDHAL," ETC., IN THE NATIONAL GROUNAPHIC MANAZINE

With Illustrations from Photographs by the Author

AUSTRALIA, geologically a veteran among continents, is one of the world's youngest progressive nations. Less than a century and a half ago this land "down under" was virtually an unknown, unexplored wilderness of endless bush and seared deserts, where Stone Age black men roamed to dig grubs and kill kangaroos with boomerangs.*

Today millions of sheep and cattle range "out back," white men are probing the earth for precious metals, farms smile on former bushlands, office buildings and factories have risen in stone and steel, the boomerang has retreated before golf club and cricket bat,

A tribute to British pluck and energy is this vigorous Commonwealth, nearly seven million strong. A "white Australia" it is; 97 percent of the population are of British stock, and of these 85 percent are Australian-born (see map, pages 672-3).

In area Australia approximates the United States. Back in the early 1800's, however, when pioneer America had as large a population, New York City could boast only 110,000 people, while Boston and Philadelphia each had less than half that number. Both Sydney and Melbourne have already passed the million mark. In

* See "Lonely Australia: The Unique Continent," by Herbert E. Gregory, NATIONAL GEOGRAPHIC MAGAZINE, December, 1916, and "Australia's Wild Wonderland," by M. P. Greenwood Adams, March, 1924. the whole Southern Hemisphere only Buenos Aires now outrivals Sydney.

Australia is essentially a country close to the soil, yet, paradoxically, almost half of its entire population lives in the six principal cities. These capitals of the now federated States reflect the treasure-earning feats that the land has performed with gold and sheep and cattle and wheat.

"Doesn't Sydney remind you of San Francisco?" inquired an Australian friend beside me at the deck rail one morning when we steamed into the harbor through the bold Heads—Sydney's Golden Gate, facing the sunrise. "Our harbor even has a Goat Island, and tiny Pinchgut (Fort Denison) up ahead was once our Alcatraz."

There is a kinship—one of hills and sea and land-locked bays.

A WORLD-WONDER HARBOR

A magnificent panorama is this capital city of New South Wales. Trade cubes and tall apartments crown the ridges. There are no Manhattan-like cloud piercers, however, for Sydney has limited her skyward growth to 150 feet, yet position gives impressiveness. Homes sprawl over promontories and spill down the hillsides to the water's edge—a harbor-girdling band of red-tiled roofs and flowering gardens.

And the harbor! "Our harbor" Sydneysiders proudly call it, although on maps it appears under the prosaic name that Captain Cook gave it—Port Jackson. Its



Photograph from Neel Burnet

OUT ON A LIMB, BUT IT'S YOUNG FOLKS AT HOME FOR THEM

These playful konlas, or Australian Teddy bears, spend most of their time sitting in a crotch of a tree or climbing about in eucalypts and munching the tender leaves, their sole food. Formerly large numbers inhabited the forests of eastern Australia, but many thousands were killed for their solt furs. Now they are protected by the Government.

multiple arms and innumerable bays and coves loop and snuggle among the hillsintimate, lovely, utilitarian.

From an airplane cockpit this water maze is even more striking than from steamer deck. Its compass is 22 square miles, but so irregular is its pattern that one would have to walk or sail nearly 200 miles to go around its shores. No other harbor is more mingled with the city to provide play space and a haven for the world's rich argosies.

Sleek ocean steamers, rusty freighters, crowded double-decked ferries, speedboats, fussy tugs, and trim, billowy-sailed yachts carve frothy white paths on its ultramarine surface. Commerce also throbs beside several of the bays at engineering works, dock-yards, wheat silos, ship-coaling yards, and some 14 miles of wharfage space.

Like a rainbow over the port is the mighty arch of Sydney Harbor Bridge (see illustrations, pages 677 and 678). At the time it was opened to traffic, in 1932, forty million fares annually were being collected on cross-harbor ferries. A constant stream of motor, train, tram, and pedestrian traffic now crosses the 160foot-wide roadway hanging high in the air from the 1,650-foot span, which at its highest point loops 440 feet above water level.

A WORLD-WONDER BRIDGE

Of momentary note in this swiftly changing age of the world's "greatest" engineering triumphs is the fact that Sydney Harbor Bridge is the longest and widest arch-suspension-type structure that man has yet attempted.

Oceanic steamers tie up at Circular Quay in the shadow of this colossus of steel and stone. The genesis of trim Circular Quay was Sydney Cove, where the city was born in January, 1788.

The American Revolution, only a few years before, had denied to England a place for her "undesirable" subjects. So to this nook, in "the finest harbour in the world in which a thousand sail in line might ride in most perfect security," came Capt. Arthur Phillip of the English Navy when Captain



BATHED IN SPRAY, APOLLO STANDS NEAR A MAMMOTH DEPARTMENT STORE

The Archibald Memorial Fountain in Hyde Park, Sydney, was crected to the memory of the comradeship in arms of Australia and France during the World War. Theseus slaying the Minotaur is one of three sculptured groups at the fountain's base. In the background is an emporium employing 4,000 people (see text, page 671).

Cook's much publicized Botany Bay * had been found unsuitable for habitation. His little fleet of 11 ships bore 778 prisoners, together with officers and marine guards.

It should be recalled that "convicts" of that period included many minor offenders and those who fell into political disfavor.

"B. Y. O. B." INVITATIONS

Here Captain Phillip became governor and superintended the carving out of a small settlement beside a "stream which stole silently through a very thick wood." Would that he might stand at the water front today and look up the commercial canyons and at the ships moving in and out of port!

Much more would be the awe of some of the less visionary officers who wrote reports back to the homeland, stating that the colony couldn't even be self-supporting in a hundred years! Here is a city where the goodly governor and the officers now may

*See "The Columbus of the Pacific" (Capt. James Cook), by J. R. Hildebrand, National Geographic Magazine, January, 1927.

issue dinner invitations without the request, "Bring your own bread!"

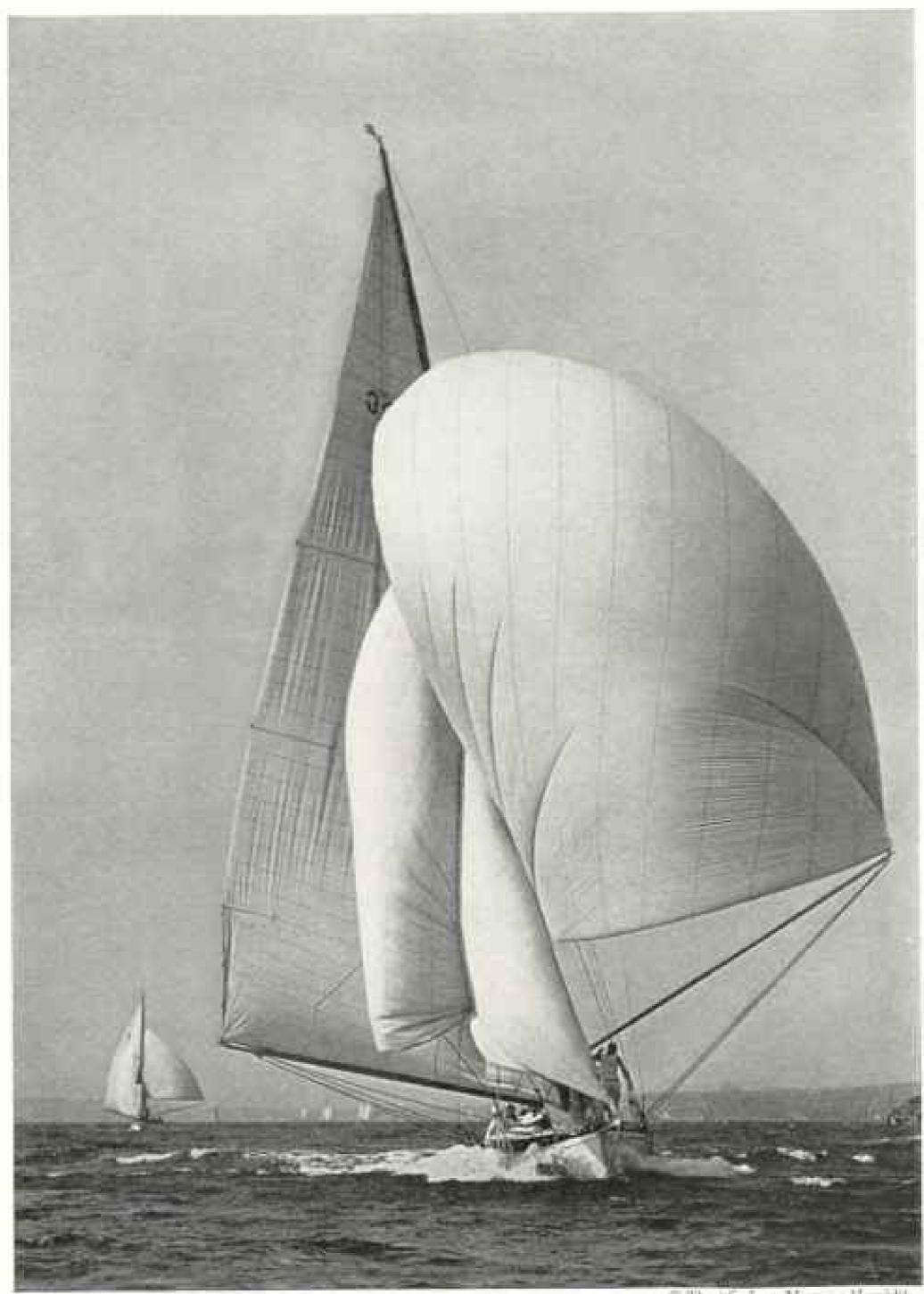
Phillip himself visualized his settlement developing with streets 200 feet wide, but his ideas were ignored and the city expanded without any definite plan.

Many of the crooked paths that the first colonists trod from one house to another have become business arteries, with few of the kinks removed. George and Pitt Streets, which lead back from the Quay, once were the tracks paralleling the course of the stream that furnished the little village with water.

Little did the governor realize that when he threw some logs across the rivulet he had founded Bridge Street, now the center of the wool, shipping, coal, and insurance industries, and Government offices.

CITY ARCHITECT, AT 75 CENTS A DAY

Other governors came and went, contributing little or much to Sydney. Notable among them was Governor Macquarie, the "building governor," who held the reins from 1809 to 1822.



© The "Sydney Morning Herald"

THE THRILL OF WIND-FILLED CANVAS

With ballooning spinnaker and jib, the sailboat runs before the wind in a Saturday afternoon race in Sydney Harbor (see text, page 674). The sailing clubs have never forgotten or forgiven the newsreel that once pictured one of the spectacular races and labeled it "The Sydney Fishing Fleet Returns to Harbor!" As at American apple blossom and rose festivals, Sydney annually crowns one of its beautiful daughters as Harbor Queen.

Assisting him in his comprehensive building scheme was Francis Howard Greenway,
a convict, who became the official architect
with the munificent salary of three shillings
a day. Greenway's labors endured, as attested by St. James' Church, the Conservatorium of Music (designed as Government
House stables), and other structures still
doing service.

One commissioner from England, however, complained that the 75-cents-a-day architect was making "too great a sacrifice of time and labour to the purpose of orna-

ment and effect!"

In 1851 came a gold strike in New South Wales. A rush was on. From all over the world arrived seekers after fortunes, as in the California rush of '49. As in our West, many of the diggers later became settlers. More men, more wealth, and more trade boomed Australia. So, too, did Sydney grow.

Today old buildings are being demolished to make way for new; riveters beat a tattoo on gaunt steel skeletons of tomorrow's new shops and offices; a pathway is being mowed through two blocks to extend

another thoroughfare.

It is a city in transition. Sleek modern buildings of concrete and polished stone surround, but do not yet engulf, a Renaissance Town Hall, a Byzantine market, Gothic churches, a Tudor castle Government House (page 676), and an Ionic Art Gallery. The florid Victorian appearance, however, is rapidly disappearing.

Neon lights proclaim night clubs, theaters, and motion-picture "palaces." Last year Sydney played to crowded houses its first all-Australian musical comedy. Libretto, lyrics, and lines were from Australian pens; beaches and the Blue Mountains

were its locale.

MILK BARS AND CHEMISTS' SHOPS

American institutions have touched the city. Milk bars, or soda fountains, fruitjuice stalls, and light-lunch restaurants have become popular. But a drug store is still a "chemist shop," where only drugs are dispensed, and one buys cigarettes from a tobacconist.

One large department store has devoted extensive floor space to a restaurant, where more than 6,000 luncheons are served every business day, besides providing special cafeterias and dining rooms for its 4,000 employees. Throughout the suburban districts, gasoline stations (or petrol pumps)
have sprung up. One that I noticed even rejoices in the name of "Ye Auto Drive Inn."

Sydney's streets in the down-town business section are becoming painfully cramped for the heavy traffic that surges through them.

One day, as a local business man and I stood on a corner waiting for a police whistle to redirect the traffic tide, I commented rather pointedly on the width of the streets.

"Not narrow by any means," he laughed.
"Why, they are so wide that we put a row

of shops down the center."

That, at least, is one manner of explaining the one-way routing down Castlereagh

and up Pitt Streets!

But Sydney is above all a city of people—a people who work and play. Australians have acquired the happy faculty of working to live rather than living to work. When you see Sydneysiders yachting, going out for cricket matches, attending the races, or sun-baking and suring at the beaches, play appears all important. Business men take time for morning and afternoon tea, served in their offices, yet the work gets done.

The Royal Exchange is the largest wool selling center in the world, having displaced London, which held that position for many years. More than a million bales of the golden fleece are auctioned off every year. In addition, there are salesrooms for tallow, hides, sheepskins, and other pastoral prod-

ucts.

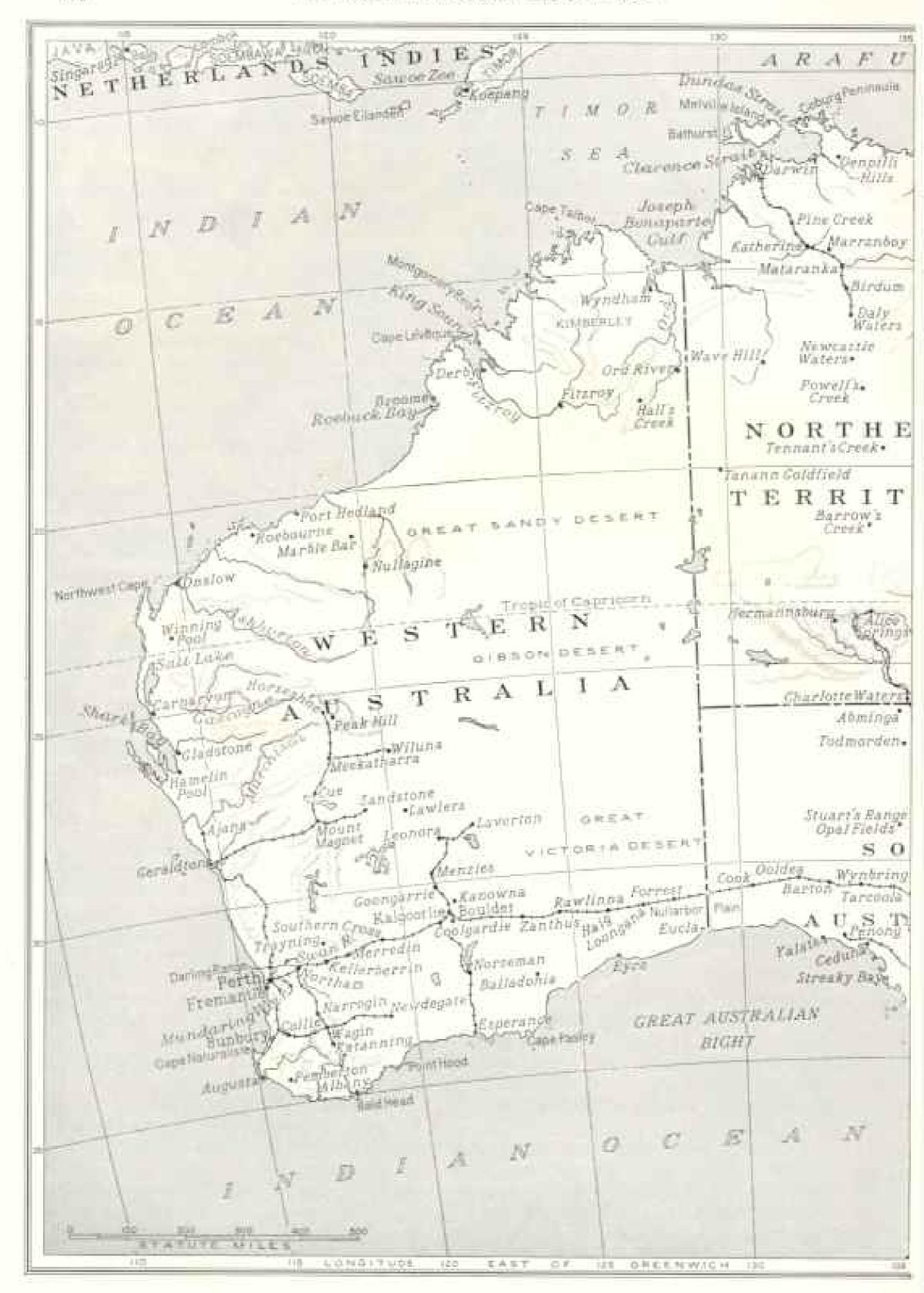
FEVERISH BIDDING FOR BALES OF WOOL

A wool sale is a fascinating thing to watch. Foreign buyers, Australian milling groups, and local wool scourers fill the amphitheater on each sale day. Catalogues are provided, in which are numbered and classified the different lots to be sold. The wool is previously put on display for inspection at local brokers' show stores, so that the selling is done only by number.

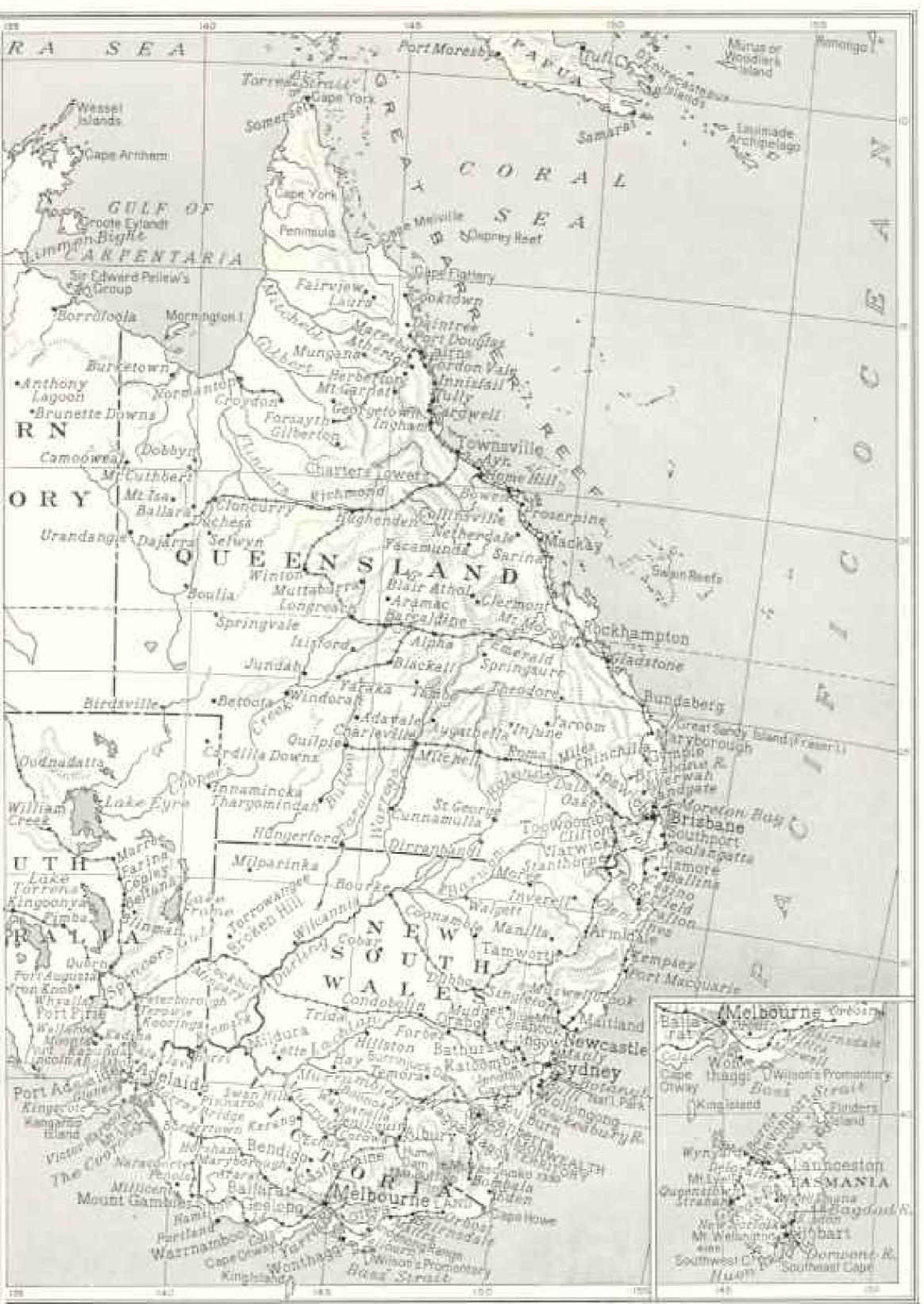
At the auctioneer's call for bids two dozen men may jump to their feet, barking figures

and signaling with their hands.

From the feverish, noisy bidding the uninitiated can hardly understand the price offered or know who has made the bid. But the auctioneer knows. There are no arguments; his word is final. Four checkers are kept busy tallying up the sales. An average of seven lots falls under the hammer every minute during the selling period!



IN AREA THE AUSTRALIAN COMMONWEALTH APPROXIMATES THAT OF THE UNITED STATES



Drawn by Arthur J. Hares



ONLY SKILLFUL STEPPING WILL PREVENT A DUCKING

The wheels turn easily as the person walks or runs on the side of them—too easily for the uninitiated! Several of these rotors, besides teeters, slides, and diving boards, provide recreation in the enclosed pool within the harbor at Manly (see Color Plate I).

Occasionally a little hum comes from the buyers; some man has bid more than the others think it is worth.

"These are actual sales; every one takes delivery of his purchase," explained my cicerone. "No lot can be put up for resale. Consequently, it is unlike the grain pits at Chicago, or the activities in Wall Street, where members buy and sell a commodity which they do not actually possess."

In the 1933-34 season more than £23,-000,000 were realized on the wool sales at the Exchange. Yes, Sydney does work.

SAILING A UNIVERSAL SPORT

Scarcely had the noise of wool bidding left my ears when my companion turned enthusiastically to the subject of sail-boating. By all means, I should see the 16footer race on Saturday. On Saturday afternoons the harbor and Sydney's flying squadron attract doctor, lawyer, business executive, bus driver, dock hand, and shop clerk.

Some devotees are in sweaters and shorts, hauling at sails; others are in flannels, watching from the decks of trim motor craft; hundreds line the rails of special ferries that follow the race; the mid-harbor islands and foreshores along the course are vantage points for still others.

Like a flock of white winging gulls, the competing craft tack and skim over the water. With all canvas piled on in a fresh nor'easter, it is a beautiful sight (see page 670 and Color Plate IV).

"Weather never interrupts our racing schedules," explained a squadron officer. "Although fair weather is the rule, we do get some dirty blows. In one race, out of



Photograph from Victorian Government Rallways

WITH A TANG IN THE AIR AND A GOOD SNOW UNDERFOOT

During Australia's winter months, especially in July and August, snow lies deep in Mount Buffalo National Park and many skiing and tobogganing enthusiasts resort to this Victorian playground. In summer the mountain is a popular temperate vacation land for hiking and riding.

more than thirty entries, only nine completed the race. Several capsized before they ever got away from the starting line."

Other sailboats, big and small, compete in their turn or just cruise about, their crews caught by the irresistible lure of wind-filled canvas. Upwards of three hundred sailboats dot the harbor on a favorable week-end. Even canoeists hang up a bit of cotton on a slender mast. Youngsters paddle about the shores in tiny boats shaped from pieces of discarded corrugated roofing.

During the long summer season thousands of the city's sun worshipers resort to the beaches and swimming pools. Nature has provided Australia with 11,000 miles of coastline, along which are innumerable golden-sanded beaches. Around the harbor and along Pacific-layed coast in the immediate vicinity of Sydney there are twenty beaches to choose from (see Color Plate I).

At two of these beaches, Bondi and Bronte, 19,000,000 annually—counting repeaters—go to "shoot the breakers" and frolic on the dazzling sands. A hardy, bronzed lot they are, these brilliantly suited children of the sun.

To see this kaleidoscope of color, one would never know that a council ordinance still exists, dated about 1904, providing that the costume should cover the body from neck to knee. Most of the bathers probably don't know of it themselves.

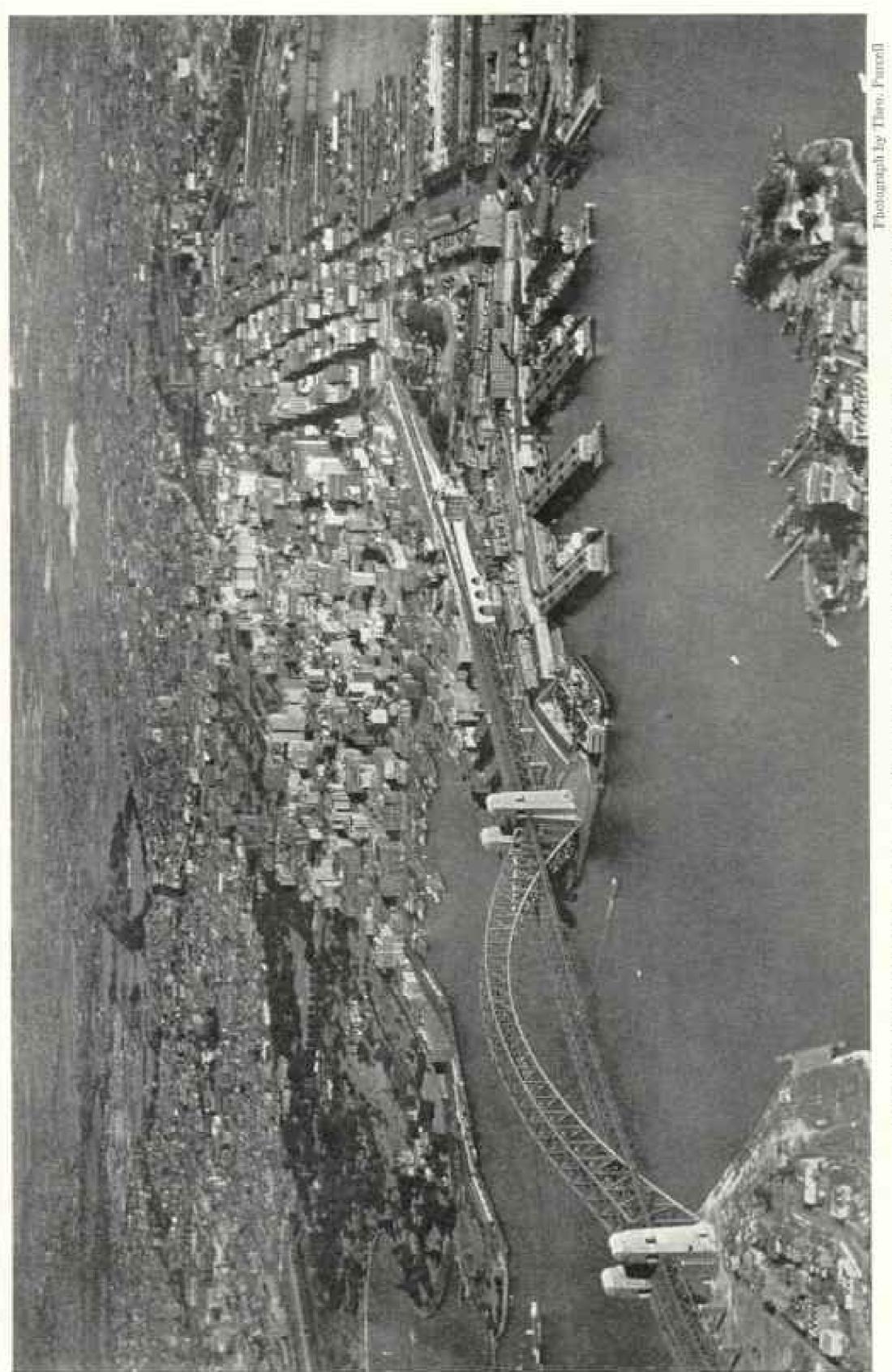
"What of the sharks that one hears so much about?" is the inevitable question of the visitor."

*See "Shark Fishing—An Australian Industry," by Norman Ellison, National Geographic Magazing, September, 1932.



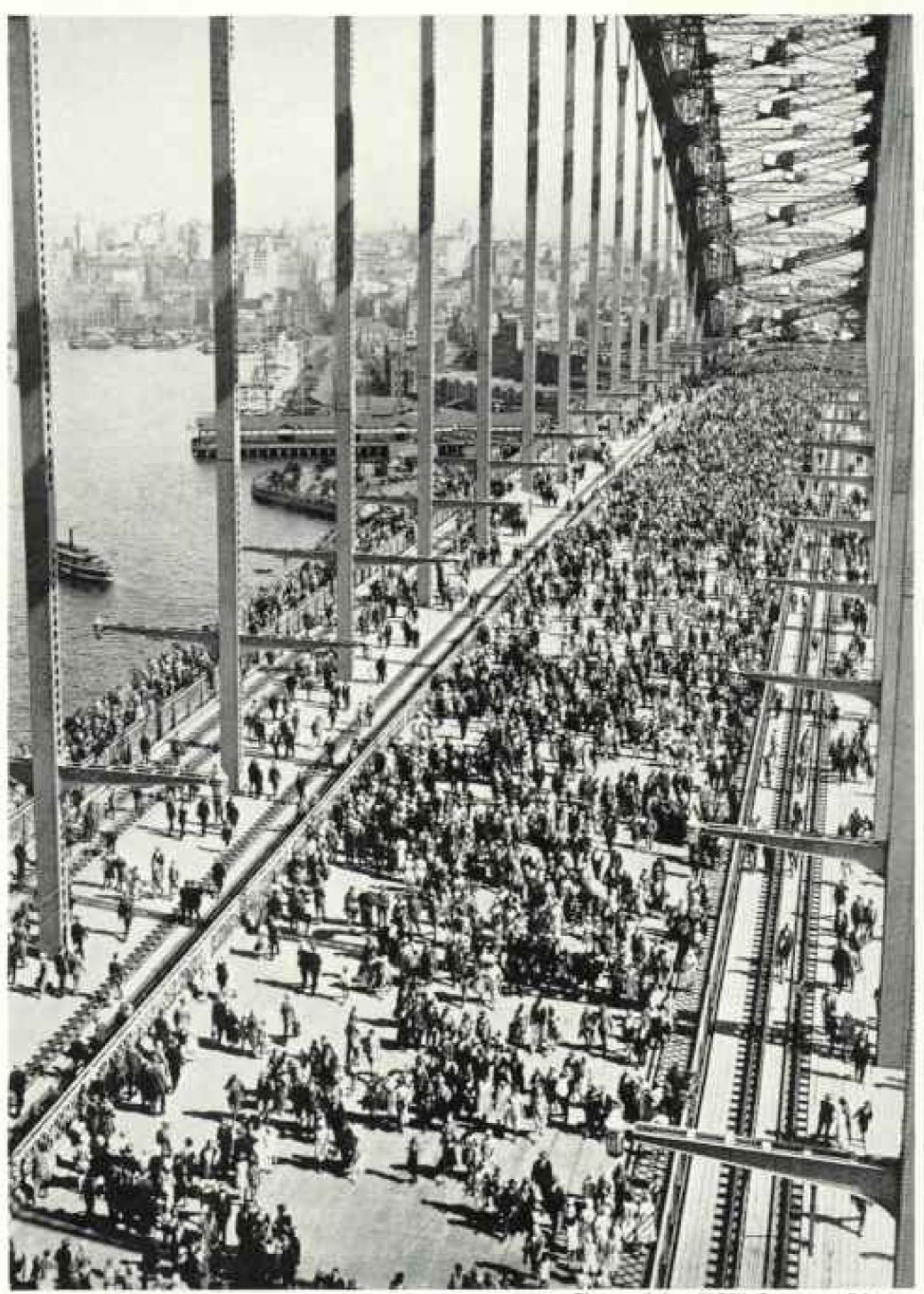
SET IN SPACIOUS GARDENS, COVERNMENT HOUSE IN SYDNEY BROODS OVER A WIDE PANORAMA OF HARBOR AND CITY

This residence of the Governor of New South Wales, replete with battlements and towers of a Tudor castle, was built nearly a century ago. On a portion of its grounds and the adjacent Botanic Gardens were planted the first small farms of the early settlers in 1788. The channel at the left leads to Circular Quay and Sychiev Harbor Bridge (see text, page 668).



GATE BRIDGE MINIATURE MANHATTAN WITH ITS OWN HELL SEEMS A FROM ITS HARBOR SYDNEY

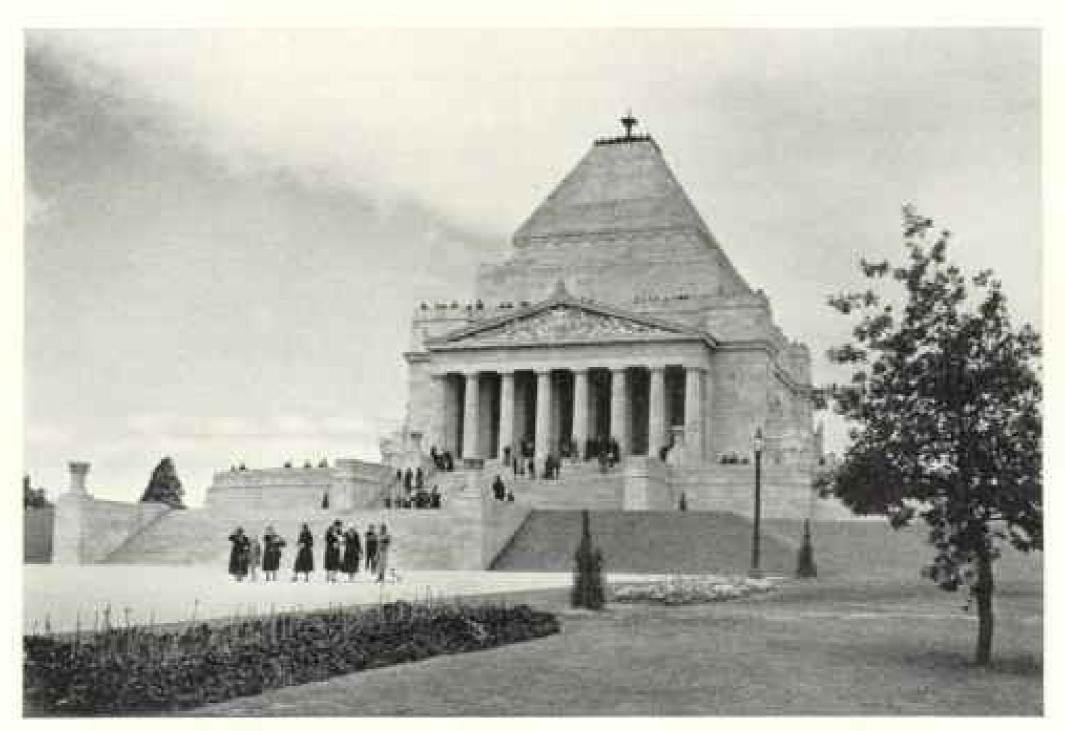
once Sydney Cove. On the tongue of land between it and Farm Cove, at the left, is the residence of the rects paralleling the shipping plers, the business houses appear like a disarray of building blocks, so irregular Behind the mighty span's rainbow arch is Circular Quay, Governor of New South Wales. Except for a few straight strate the city's thoroughfares (see test, page 659).



Photograph from N.S.W. Government Printer

"YES, I WALKED ACROSS HARBOR BRIDGE THE DAY IT OPENED"

Thousands of Sydney citizens can tell their children how, after the opening ceremony, March 19, 1932, they joined the crowds that thronged the lofty 1,650-foot span, longest and widest arch-suspension-type structure that man had built. When the two halves of the 30,000-ton arch were brought together, the ends were only slightly more than three inches out of line horizontally and two inches vertically. Part of this variation was due to the sun's heat striking one side of the framework.



"LET THEIR NAMES BE FOREVER HELD IN PROUD REMEMBRANCE"

Thus King George V has written in one of the books in Victoria's Shrine of Remembrance in Melbourne. Other books contain the rolls of the State's sons who served in the World War. In the floor in the center of the shrine is set a marble slab bearing the words: "Greater Love Hath No Man." An aperture in the ceiling is so placed that a ray of sunlight will strike this inscription each November 11. There were 314,336 casualties among the 329,883 Australian World War volunteers.

Sharks there are, but if all of them that have done damage in the past 16 years were to have concentrated their efforts just on Bondi and Bronte, the swimmer would still have only one chance in 2,000,000 of making their acquaintance.

A squad of life guards is always on duty on the beaches (see page 720 and Color Plate IV). Some of the places are provided with lookout towers; others are patrolled by surfboats and by airplanes to keep a sharp watch for the telltale fin.

When a shark is sighted, a warning bell is rung and the bathers rush for shore. A few places are also provided with sharkproof nets, which guarantee positive safety for those who may have any fears.

AN EXCITING SURF SPORT

The Australians have evolved a method of shooting the breakers, quickly learned and exciting after one acquires the knack of darting out in front of a whitecap and riding it in toward the shore. Surfboards are used in areas set apart, but the majority either ride the waves unaided or use a small mattresslike cushion with which one can have glorious thrills and spills.

Because of the large crowds and the heavy surf that ofttimes rolls in from the Pacific, it early became necessary to provide ready assistance for those who ventured too far. From that necessity for efficient organization was born the first of the Surf Life Saving Clubs, of which the Australians are rightfully very proud. Since its organization in 1907, the movement has grown to such an extent that it is unquestionably the most highly trained volunteer organization in existence.

The larger metropolitan clubs accept a member only after he has negotiated a test swim of 400 yards in still water in not more than eight minutes. Then he is placed on probation to an intensive training course in rough water. After further examination, which wins for him the bronze medallion, he becomes a qualified lifesaver. Although his service is entirely voluntary, the member has to present a very good excuse should he be absent on a day when he is supposed to serve.

One morning, as I stood on the beach, there came a call for help. Six sturdy young men snapped soldierlike into action about a life-line reel. With quick strides they were down to the water's edge. Line was paid out to one of the men who, with life belt on, swam out to the person in distress. With steady, even hauls, rescued and rescuer were soon brought ashore.

It was all over in a few minutes. The one was a bit water-logged and considerably embarrassed; the other had quietly added another number to the more than 27,500 rescues that the association members have efficiently performed.

PARADE OF THE LIFESAVERS

Grand parades of these surf lifesavers from the different beaches feature Sydney's surf carnivals. These competitive drills constitute a display of virile, well-developed manhood,

Municipal parks, cricket grounds, the Botanic Gardens, and Taronga Zoological Park are also centers of sport and recreation. Twenty percent of the city's area is devoted to these open-air spaces.

Stroll through the zoo grounds and you'll hear:

"Let's see Freddie and Freda; we've got time before they feed the seals."

"No, let's look at the 'Teddy' bears "
and the 'roos, Maybe we can even find a

duck-billed platypus."

Freddie and Freda are two trained monkeys who cavort about and perform antics in costume. They provide the buffoonery; the excellent display of native birds and animals, however, is the real show, for here are strange marsupials and other life peculiar to this ancient continent.

A fine aquarium of tropical fishes and the fascinating life of the Great Barrier Reef,† off Queensland, has been established for the benefit of those who otherwise would never see that wonderland.

National Park and Bulli Pass, overlooking the sea, are but a short motoring or bus-riding trip down the coast; the fantastically beautiful Jenolan Caves and Blue Mountains a week-ending holiday to the north (see Plates II, V, VII).

* See "Konla, or Australian Teddy Bear," by F. Lewis, National Geographic Magazine, September, 1931.

† See "Great Barrier Reef and Its Isles," by Churles Barrett, NATIONAL GEOGRAPHIC MAGAZINE, September, 1950. On this latter trip one follows the route of the pioneers, Wentworth, Blaxland, and Lawson, who, in 1813, penetrated the mountain barrier and found a way to the fertile interior.

PLYING UP TO BRISBANE

Mount Kosciusko, named for the Polish hero who also was an officer in Washington's army, near the New South Wales-Victoria boundary, is the ridgepole of the continent, and a favored spot for skiing and other winter sports (see page 692).

Varied indeed are Sydney's recreations. Approximately 500 miles north from the Mascot Aerodrome of Sydney, as the plane flies, is Brisbane, capital of Queensland. One can go by boat, as did John Oxley, Surveyor General of New South Wales, when he probed beautiful Moreton Bay and sailed up the looping course of the Brisbane River to discover the site for the city in 1824. One can also go by train. But the aerial transport, winging its way up the magnificent coastline, emphasizes one's quick entry into the subtropics.

There is more than a touch of Hawaii or the West Indies in Brisbane's appearance. Here, Brazilian jacaranda trees lift high their powdery-blue floral displays; poinciana, or "flame of the forest" trees, spread their flamboyant canopies over street and park; red and purple bougainvillea loop and twine over garden wall and about airy verandas; the frangipani fills the air with its heavy oriental fragrance; and graceful palms everywhere rustle in the breeze.

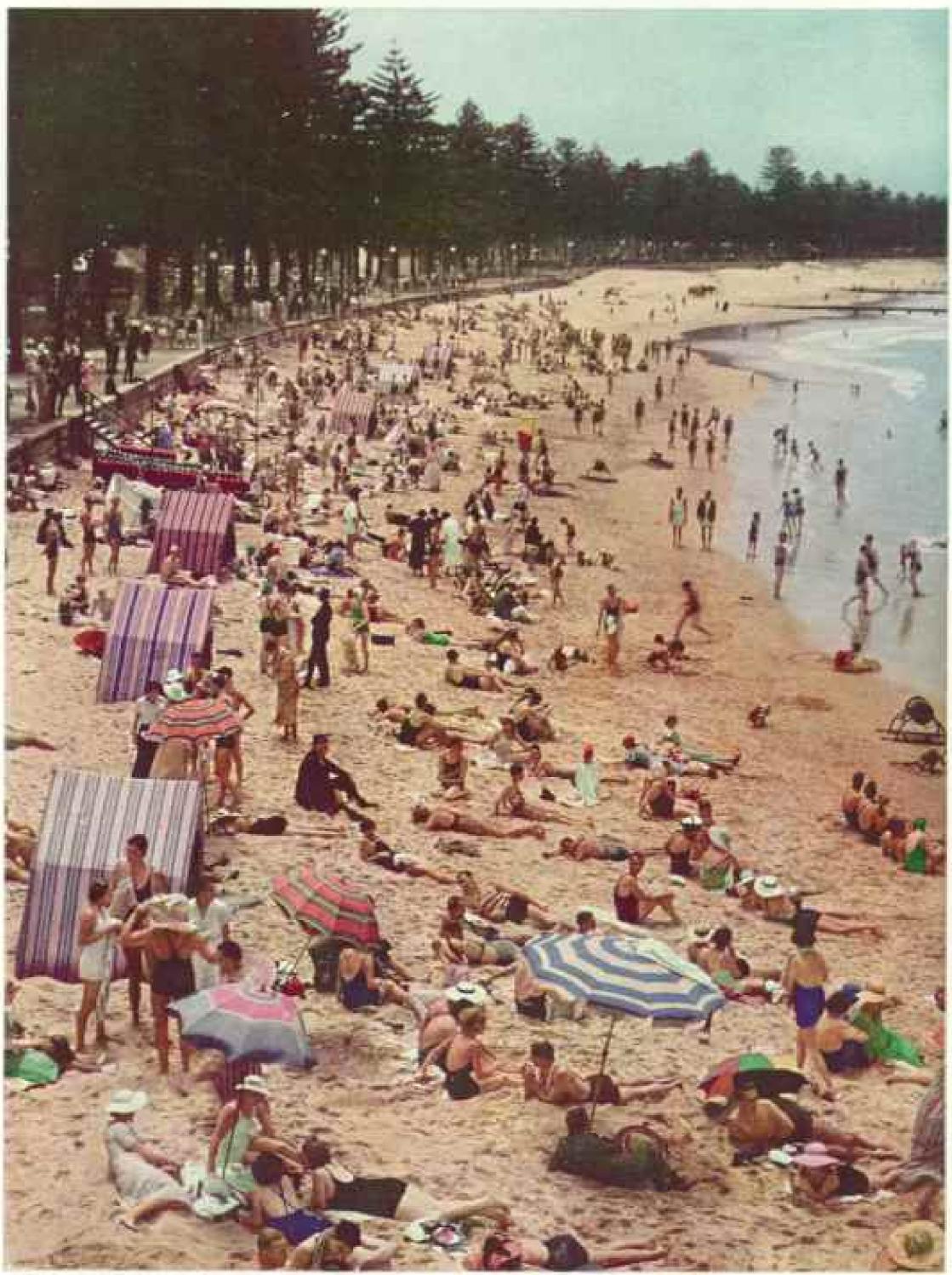
In the fruit stalls are bananas, pawpaws (papayas), pineapples, the strange fruit-salad plant known as *Monstera deliciosa*, and other tropical produce, as well as temperate fruits.

Homes, too, emphasize the mildness of the climate. Many of them are built on stilts to allow free circulation of air underneath the living rooms, giving coolness in the summer time and dryness during the three months' wet season.

Like Sydney, Brisbane is built on many hills; the serpentine course of the river is its harbor and yachting area (page 694).

"Our city is the largest in the Australian Commonwealth," say the loyal sons of Brisbane. They mean in area. With the creation of Greater Brisbane a decade ago the municipal boundaries embrace 385 square miles. Quick mathematics reveals the fact that there is an average of about

FLASHES OF COLOR IN THE FIFTH CONTINENT

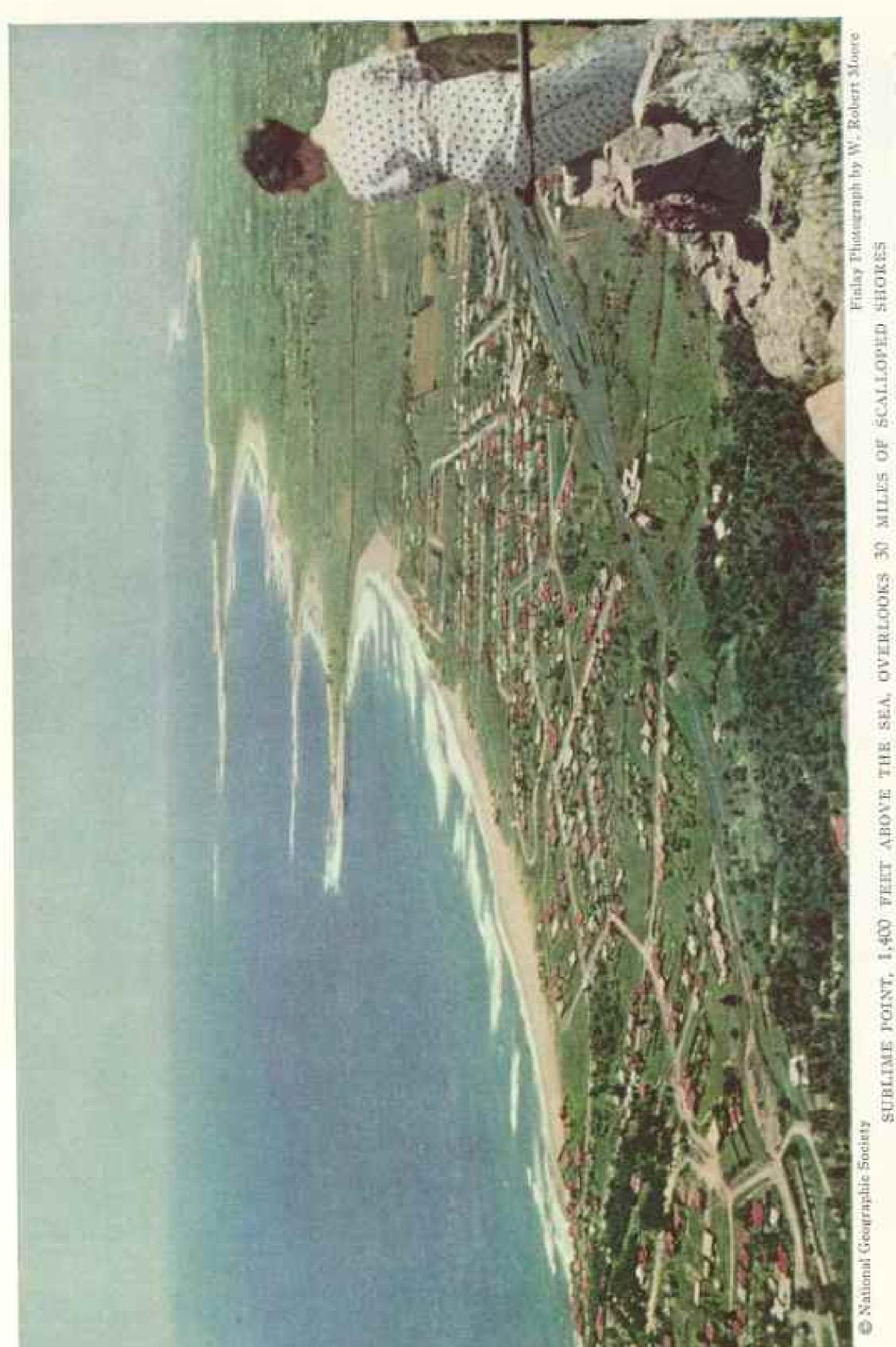


D National Geographic Society

Finlay Photograph by W. Robert Moore

A SYDNEY BEACH LURES THOUSANDS OF AUSTRALIA'S SUN WORSHIPERS

Residents may surf, swim, or sun-tan on nearly a score of these spacious strands that fringe the Pacific-laved coastline within a few miles of the city. This popular resort, Manly, also has a five-acre pool within the harbor area, enclosed with a shark-proof net. So mild is the climate that some people swim here all the year round.

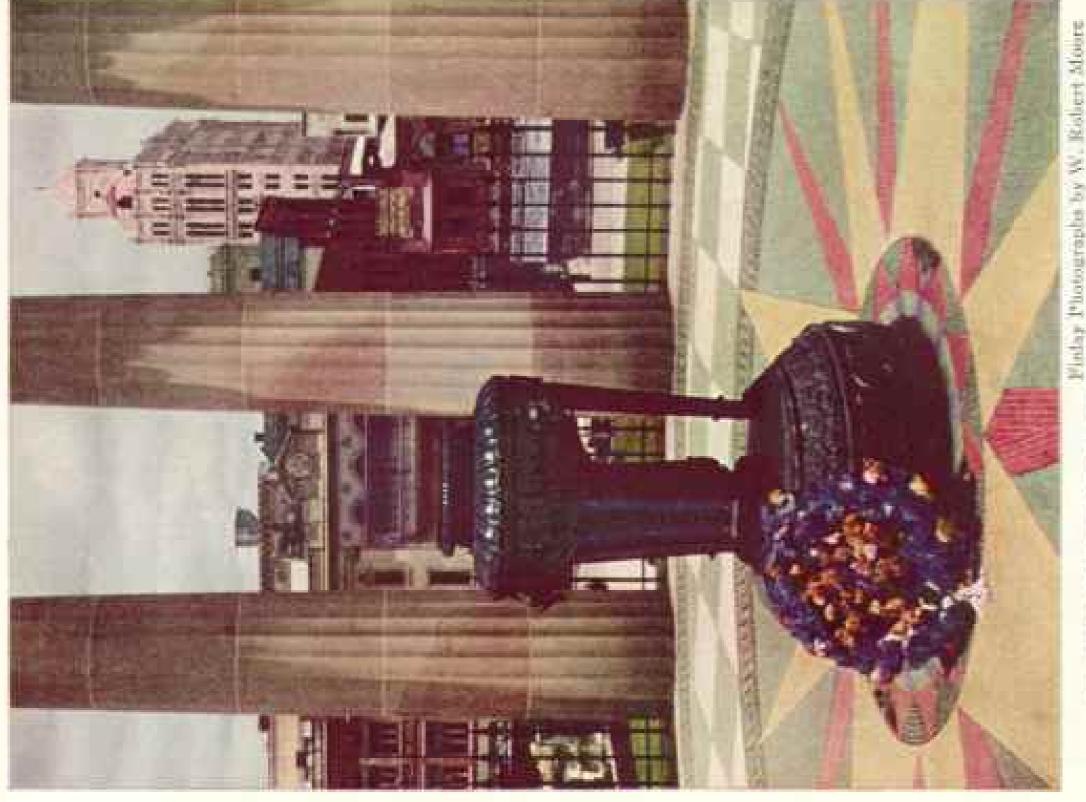


ABOVE THE SEA, OVERLOOKS 30 MILES OF SCALLOFED SHOKES

This lofty vantage point, affording an aerial-like panotams of coastal towns, wide-curved beaches, and the bla Sydney. Below is the mining town of Bulli, where one edge of a vast saucer of coal comes to the surface.

and the blue Pacific, is at Bulli Pass, 40 miles from

It reappears at Bathurst and Newcastle.



TO THE MEMORY OF QUEENSLAND'S WAR HEROES

From the mouth of this urn, set in the center of an open circular colonnade, issues the eternal flame that burns in honor of the State's nons who fell in the World War. The monument stands in the heart of Brisbane,



These oddly shaped flowers are "kangaroo paws," so named because the flat, unopened built suggest the feet of Australia's equally strange animal. Several differently colored kinds of these plants grow in the State,

THE NATIONAL GEOGRAPHIC MAGAZINE



"MANLY" THEY ARE-BUT THE WORD REFERS TO THEIR STATION

Men must undergo rigid tests to be members of Australia's famed voluntary Surf Life Saving Association, which has made more than 27,500 rescues since 1907. While one man swims out to the drowning person, the others operate hie line and reel. This group is on duty at Manly Beach (Plate I).



Dational Geographic Society

Finley Photographs by W. Robert Moore

ON WEEK-ENDS SYDNEY HARBOR IS AGLEAM WITH WINGING SAILS

A ferry lists to starboard under the weight of passengers crowding its rails as it follows a sixteenfooter sailing race on a Saturday afternoon. Other devotees seek vantage points on shore or in launches and yachts. As many as 300 sailboats sometimes cruise the wide arms of the harbor.

FLASHES OF COLOR IN THE FIFTH CONTINENT



AGAINST HEADLANDS AND BEACHES THE PACIFIC SURF SPENDS ITS FORCE

Near Sydney the constal road offers many such panoramas of sea and shore. Inland tower sandstone cliffs, some 1.500 feet high (Plate II). Beyond the hills at the left the State has established a National Park of 33,800 acres, where the luxuriant native bush has been preserved.

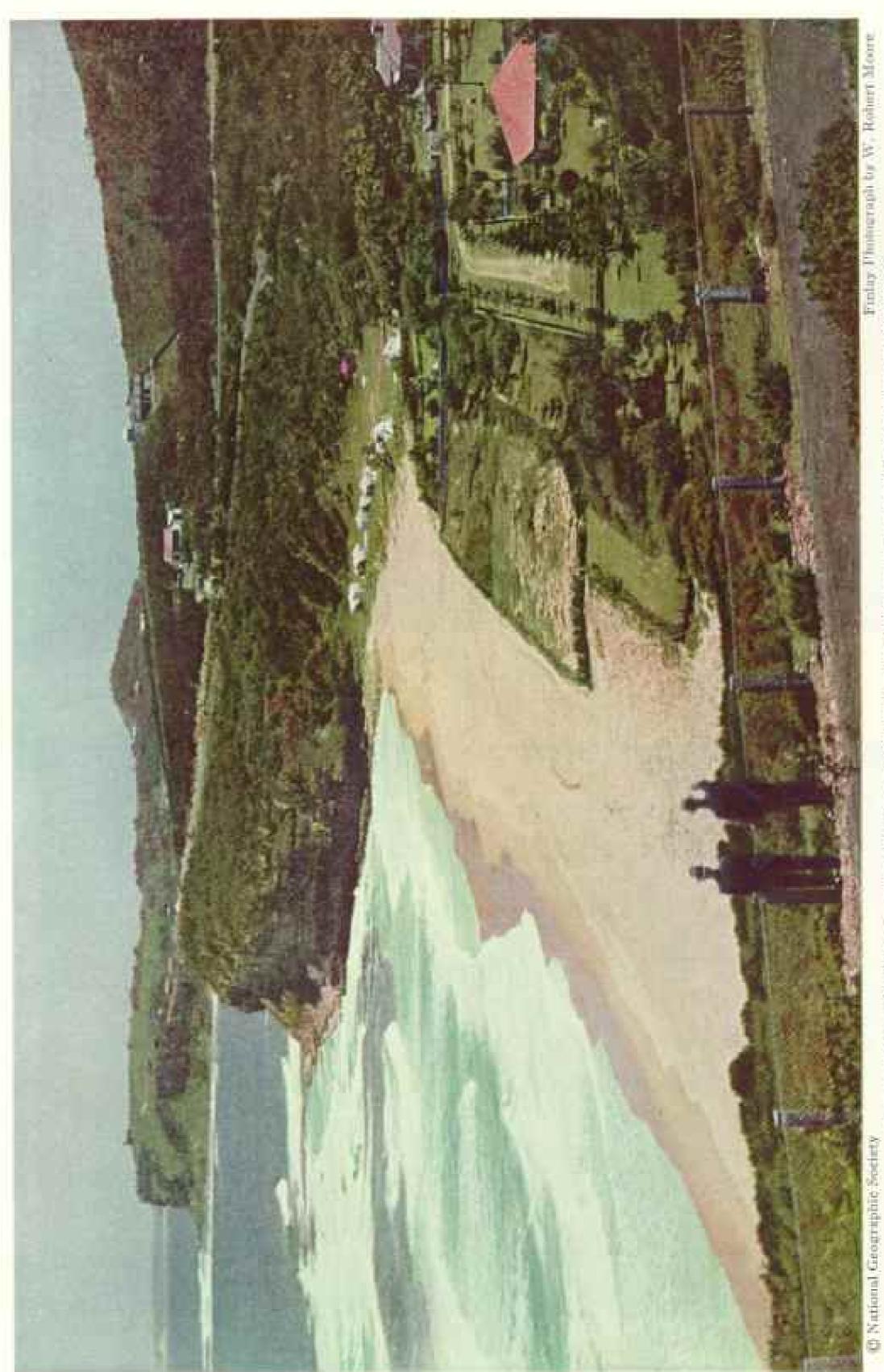


(b) National Geographic Society

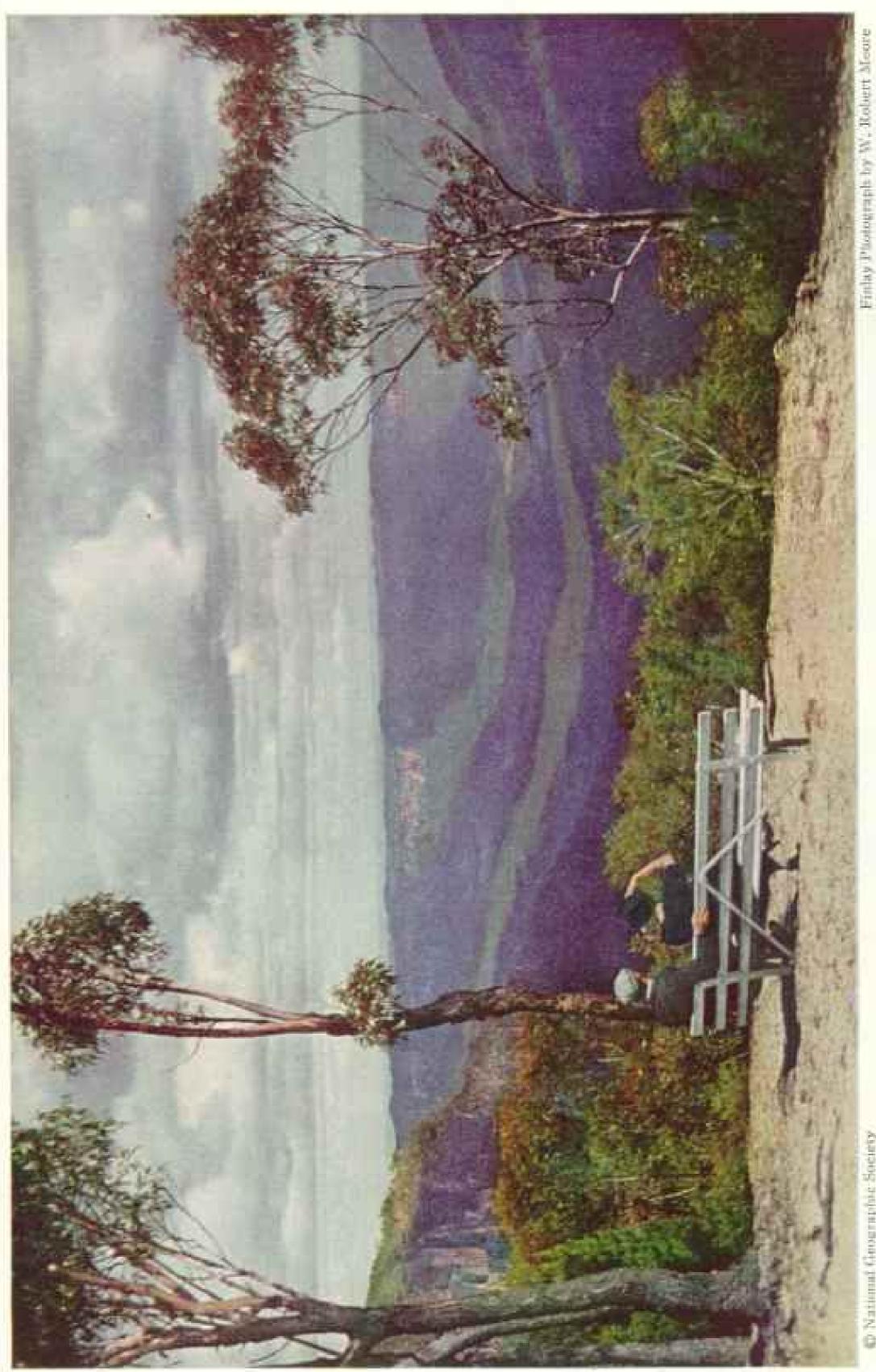
Finiay Photographs by W. Robert Moore

FOXGLOVE GROWS WILD ON A BELLE MOUNTAIN SLOPE

Once this area, now covered with bracken and flowers, was the garden of a mountain home. Except for such exotic growths, the gray-green foliage is broken only by the young red leaves on the tall encalyptus trees and by the golden splashes of wattle in springtime bloom.



In the 16 miles between Sydney harbor entrance and Barrenbery Head, there are nearly as many of these sandy coves where thousands of Sydneysiders go to bathe and surf. A road, looping around the headlands and connecting the beaches, provides a popular drive. COLDENSAND BEACHES FRILL THE COAST NORTH OF SYDNEY BOLD PROMONTORIES AND



D National Geographic Society

AUSTRALIA'S BLUE MOUNTAINS DESERVE THEIR NAME

In changing lights the coloring on these geologically ancient rumparts shades from a purple in the valleys to a smoky cobalt on the creats. For many years the range barried exploration of the interior, but in 1513 it was crossed by Wentworth, Blaxland, and Lawson, thus opening the way to the development of the fertile inland. This photograph was taken a few miles west of Katooniba.

THE NATIONAL GEOGRAPHIC MAGAZINE



TERTH HAS GROWN AROUND A WIDE LOOP OF THE SWAN RIVER

This thriving capital of Western Australia, seen from King's Park, has developed rapidly in the past
50 years because of the rich gold discoveries in the State.



D National Geographic Society

Finlay Photographs by W. Robert Moore

ST. GEORGE'S TERRACE IS THE OXFORD STREET OF PERTH

Along this avenue are banks, insurance companies, newspaper and other business offices, and a commercial college. In the background is a portion of Perth Water, a lakelike reach of the Swan River. The city's access to the sea, however, is largely through the port of Fremantle, 12 miles away.

four-fifths of an acre for every one of its 300,000 residents. But Queensland, with more than seven and a half times the area of the British Isles, can afford plenty of space for its capital.

CITY HALL IS CITY'S PRIDE

The hub of this comprehensive area and the center of the business district is the City Hall, which occupies more than two acres. It is the city's pride; I had not been in Brisbane an hour before I was asked: "Have you seen our new City Hall?"

A century ago black men camped on the site of this spacious structure, built in Italian Renaissance style from Queensland granite and freestone (see page 710).

From the vantage point of its lofty tower one can gain a splendid bird's-eye view of the city and its encircling suburbs and hills, with the river curving in and out to form a succession of long, placid, lakelike reaches upon which ride the ships of Brisbane's commerce.

Down below is Queen's Street, the city's main business thoroughfare, along which are the newest and tallest buildings, some of them built to accommodate future growth, as is the City Hall.

CATTLE, SHEEP, AND SUGAR

Brisbane lives principally on returns from cattle, sheep, and sugar.

Queensland is Australia's largest cattleproducing State. More than five and a half million range her pastoral regions. Those near the coast are mainly dairying herds, producing butter and cheese. The others are beef stock. Twenty-one million sheep also dot the State's vast acres.

Thus the city's meatworks along the river are busy processing the meat products that come from these inland districts, and through the bustling wool mart passes the lion's share of the wool and sheepskin output.

It is Queensland that satisfies the sweet tooth of Australia. Her canefields are the result of the white man's challenge to the Tropics. The Colonial Sugar Refining Company sweetens Brisbane's industrial life by refining the raw sugar from many of the State's 35 mills.

Besides its radiating railway network, Brisbane has air lines extending to the north and out into the western districts. Here, last December, the Duke of Gloucester inaugurated the final link of the aerial mail service between England and Australia."

A little more than a month before that event the spectacular air dash from London to Melbourne in three days focused worldwide attention on the Victorian capital.

Yet Melbourne is very much a landbound metropolis. She sends her European air mail by train to connect with the Empire Airways. No aerial transport links Sydney with this second largest Australian city. A few years ago such a service was organized, but when the Flying Cloud winged out into a storm and disappeared, the service came to an abrupt halt.

Rail travel between the two cities entails changing trains en route, because of the difference in the track gauges between New South Wales and Victoria. The railway authorities, however, have minimized the inconvenience. And, as most of the journey is done at night, business men lose little time from office hours.

Melbourne recently had a birthday. The event was celebrated by extended ceremony and pageantry. The Duke of Gloucester, representing the Royal Family, came out from England for the festivities. After all, the passing of a centenary milestone does merit the display of considerable gay plumage, colored lights, and bright bunting (see Plates X and XIV).

THE "VILLAGE" THAT NOW IS MELBOURNE

A hundred years ago colonial-born John Batman, over on a pioneering venture from Tasmania, stood on the banks of the River Yarra and made the prophetic entry in his diary: "This will be a place for a village."

His "village" has grown up!

In the hours that I perched on a narrow ledge a hundred feet above the densely crowded streets waiting to make a color photograph of the triumphal entry of the ducal procession into the city, I saw ambulance attendants administer first aid to nearly as many persons as there were residents of infant Melbourne.

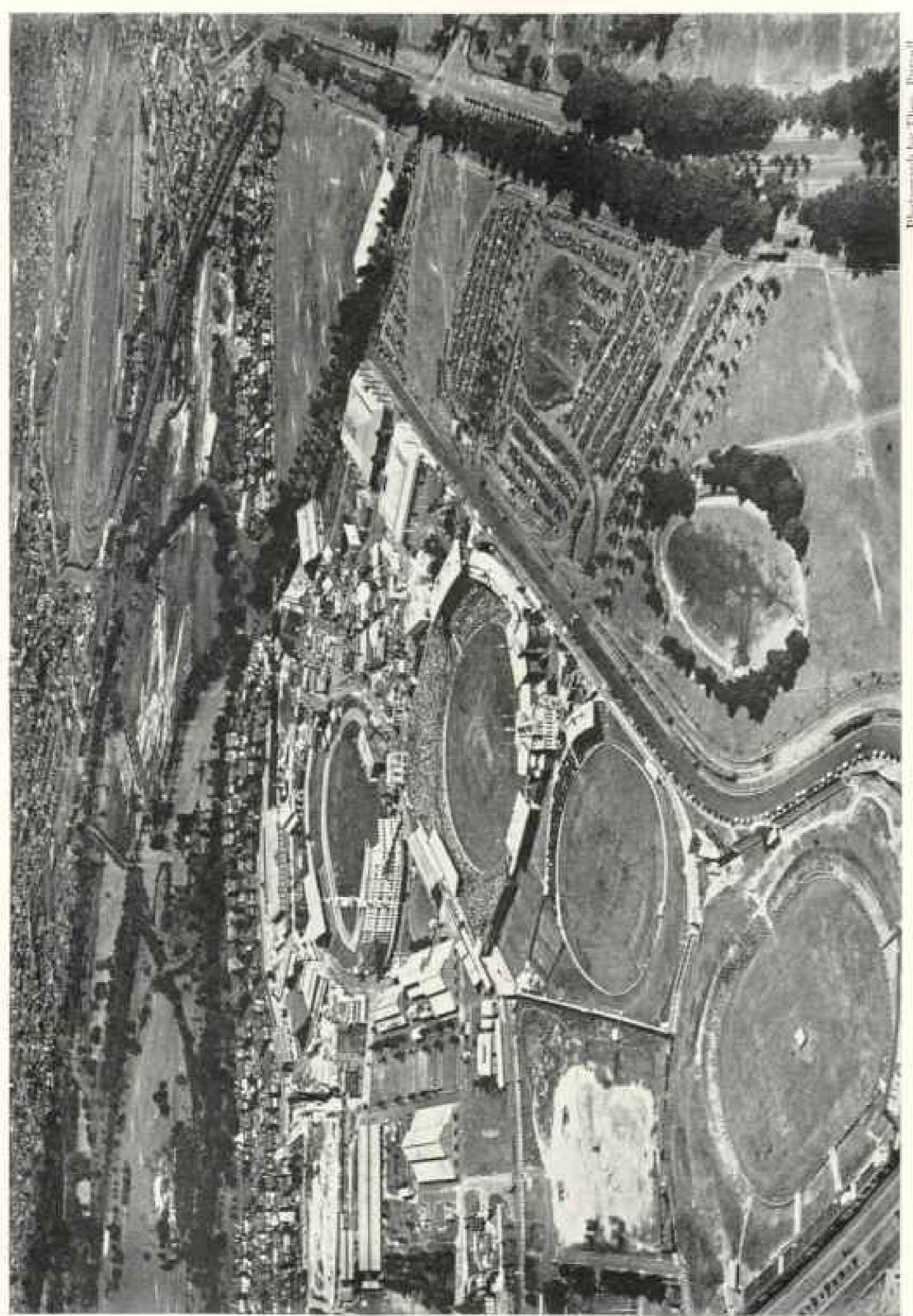
Batman's "purchase" of the site of Melbourne from a band of wandering blacks reads like the acquisition of Manhattan from the Indians. In exchange for blankets, tomahawks, scissors, knives, and other oddments he secured questionable right to a 600,000-acre tract of land.

* See "From London to Australia by Aëroplane," by Sir Ross Smith, National Geographic Magagine, March, 1921.



THROUGH PLINDERS STREET RAILWAY STATION IN MELBOURNE PASS 282,000 COMMUTERS DAILY

To accommodate them the Victorian Government operates 2,300 trains each day, most of them electric. Interstate passengers from Sydney or Adelaide arrive at Spencer Street Station, three blocks beyond the distant tower. The buildings are decorated for the State's Centenary celebrations, extending from October, 1954, into the present year,



Photograph by Theo, Pursell

FROM THE AIR SYDNEY'S SPACIOUS PLAY PLACES LOOK LIKE A MODERNIST'S STUDY IN OVALS



Photograph from N.S.W. Government Printer

THE RIDGEPOLE OF THE AUSTRALIAN CONTINENT-MOUNT KOSCIUSKO

Although only 7,330 feet high, the range is covered with snow for several months of the year and its skiing and other snow sports attract many.

Despite protests from the New South Wales authorities, Batman's associates and an independent "squatter" party under John Fawkner pitched their camps and stayed.

Born as a pastoral enterprise and fed in its late teens on gold nuggets, Melbourne proved a sturdy pioneer offspring. At the age of 16, before it went on the invigorating gold diet, the town had grown to a population of 20,000. Then came the famous El Doradan discoveries at Castlemaine, Ballarat, and Bendigo. Into half a dozen years was crammed the normal growth of a generation.

STANDARD STREETS 99 PEET WIDE

For more than 40 years Melbourne outrivaled Sydney. Today it has a population of more than a million. It has been an abundant life for the centenarian.

Unlike Sydney, Melbourne has grown by definite planning. Early surveyors laid out the town's square mile with Euclidean accuracy. While Sydney frets over narrow, crooked thoroughfares, the Victorian capital rejoices that its surveyor insisted on streets 99 feet wide, a plan he succeeded in maintaining by acceding to a number of "little" streets, or lanes, which were to serve as back entrances to the properties, but have since become business channels of importance (see page 708).

What Melbourne lacks in picturesqueness of position, it makes up in neat orderliness.

Monotony in the business district is more than redeemed by the charm of the outlying parks and lovely boulevards. Treelined St. Kilda, across the Yarra, is an avenue that few cities can surpass.

After youthful "flings" during the goldrush days and land booms, Melbourne has settled down to a comparatively sedate life of steady progress. There is more of that stolid English conservatism in its appearance and in the thought of the people than in Sydney.



QUEENSLAND'S HEROES WON PAME ON LAND AND SEA-

Hindenburg Line, Anzac, Cocos Islands, seen engraved on the inner wall of the colonnade, represent a few of the far-flung activities of the Australian forces during the World War. Hemmed in by business structures in the heart of Brisbane are the green lawns of Anzac Square (see Color Plate III). The term Anzac is an acrostic formed from the initials of the Australia-New Zealand Army Corps which made dramatic history at Gallipoli and other World War battlefields. The sewing machine sign denotes an American product sold on main business streets of the world.

Up and down Bourke Street ply the old toylike cable trams, not yet replaced by modern trackless cars.

"They're still serviceable, so why abandon them? Anyway, they're rather friendly to ride on," philosophized a Melbourne friend as we stepped aboard one on our way to the theater.

One can forgive the outmoded railway station at which trains from Sydney or Adelaide arrive, because someone has been thoughtful enough to plant beds of flowers on the embankments and between the railway tracks through the suburbs (see Color Plate XII).

Melbourne claims more interest in art and music than does any other Australian city. Near the metropolis was born Nellie Porter Mitchell, who for more than twenty years thrilled country after country with her glorious voice. The world knew her as the famous Melba, a stage name she adopted from the city she loved.

Sabbath-day Melbourne is as described as is Piccadilly Circus on a Sunday morning. Only such trams operate as will take people to church.

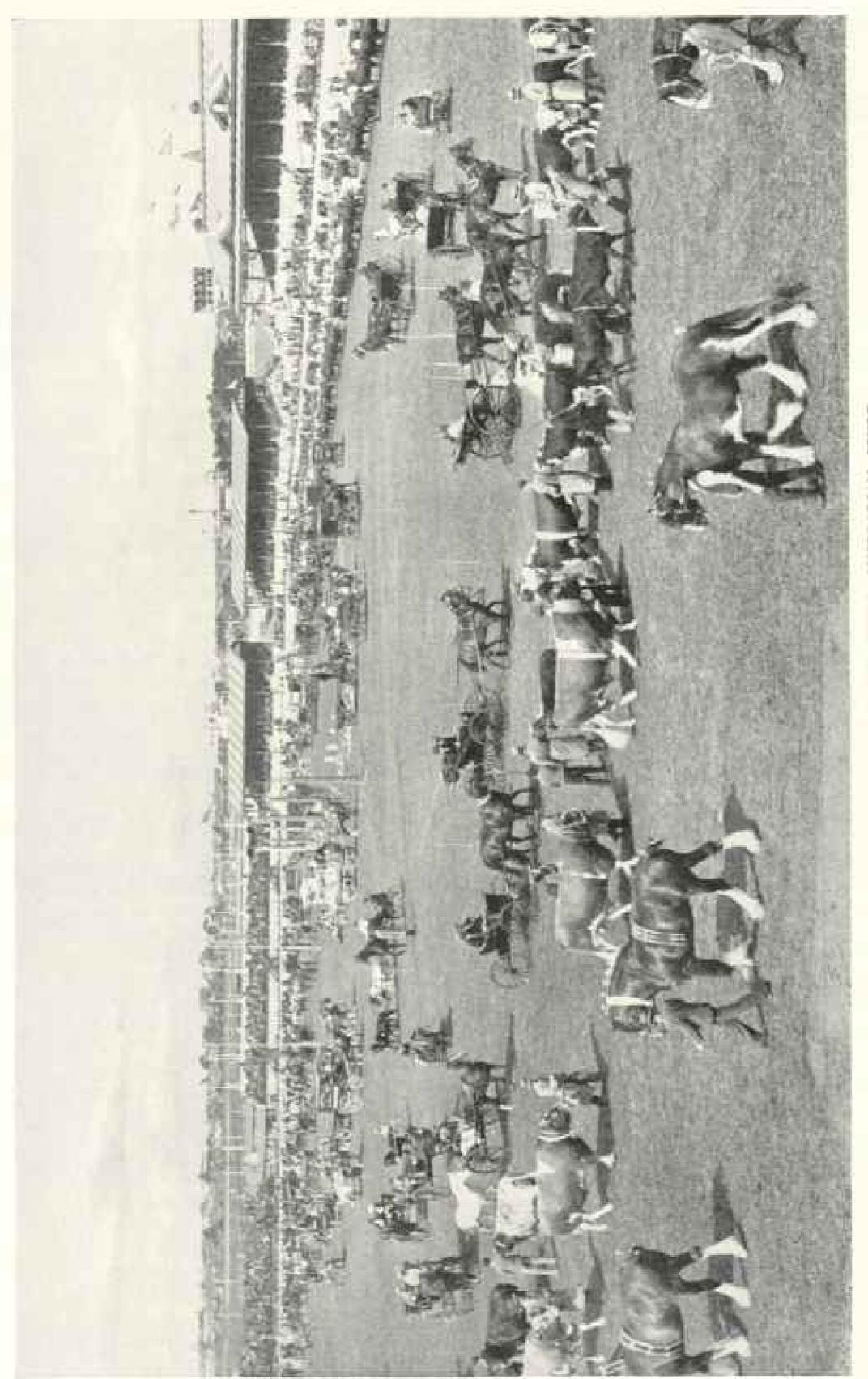
Part of the city's quietness, however, is due to its temperamental climate. Subject to sudden variations and frequent rains, it has kept the people indoors more than has the more equable weather of Sydney.

Nevertheless, the city has its beaches, 60 miles of them, where the people resort whenever opportunity affords. Countless workaday Melbournites from the factory districts also charter trucks and furniture vans to picnic in the near-by Dandenong mountains. The winter skiing grounds at Mount Buffalo are only a few hours distant. Cricket grounds, football fields, tennis courts, and golf links are likewise filled.



MIAMI, RUSTLING PALMS FRAME MANY OF THE CITY VIEWS AT BRISHANE, AS AT

Where modern business offices and the lofty tower of the City Hall now rise, black men pitched their camps only a century ago. From the water-front warehouses in the Queensland expital is shipped a major portion of the State's wool and sheepakin output, while elsewhere along the Brisbane River are several meat-packing plants (see fext, page 680).



PRIZE LIVESTOCK PARADE AT STATE FAIRS, AUSTRALIAN STYLE

Cattle and agricultural exhibits are held in all the State capitals. Sheep, hogs, agricultural produce, fruits, flowers, and handicrafts are displayed in adjacent buildings. Business firms also exhibit their products and concessionaires provide many entertainments. This is grand parade day on the Melbourne show grounds.

Last year, when the Australian cricket team was playing in England, thousands sat nightly at their radios while the matches

were in progress.

"We had to increase our electricity output by 5,000 horsepower to accommodate all the radios, lights, and heating units that were in use at the time," said one of the engineers out at the Vallourn brown coal fields, where the electricity for the city is generated.

HENLEY DAY ON THE YARRA

At Henley Day on the Yarra, in November, the spirit of carnival prevails. The river banks are lined with gaily bedecked houseboats, from which club members may view the regattas and parade of canoes. Crowds mass the grassy embankments.

Arrayed in their airiest and brightest new summer frocks, the young ladies walk in twos and threes and fours back and forth on the paths along the shores and on the lawns, seeing and hoping to be seen, as well as aspiring to be chosen as "Miss Henley" of the year. Failing that, even a picture in the press will do. A cameraman gets many smiles.

Beau Brummels paddle up and down the river in elaborately appointed canoes, their girl friends lounging under dainty parasols amid resplendent silk cushions. Only a motion picture in color could hope to record this glorious springtime pageant that blossoms forth on the placid Yarra (see Color Plate XI).

During Cup Week in Melbourne serious work is nearly forgotten. The races at Flemington have first consideration, for the Melbourne Cup is Australia's sporting classic. At that time all roads lead to Melbourne.

Hotels and clubs are filled with enthusiasts from the "bush," many of whom are wealthy station owners who perhaps own their own horses and are able to "back" them with amazing prodigality. Social life also flourishes.

Out in western Victoria a few days before the races, I stopped to photograph a
sheepherder with his flock. He could hardly
stay away from my side long enough to
round up the straying sheep, so interested
was he in questioning which horse I thought
would win the cup. I had just come from
Melbourne, so I should be able to give him
a good tip on which one he should back in
side bets with his friends!

On race day Flemington pulses with noisy bookmakers and surging crowds that fill the stands and pack every available vantage point. Old and young, wealthy and poor, careless and desperate, all come to "punt," meaning wager. Many of those who haven't the price of admission still arrange a few bets with friends or family "just to have a 'bob' or two on the winner!"

Not until one has witnessed the Melbourne Cup or the spring races in Sydney will he understand the love of sporting life, especially horse-racing, that is ingrained in

the life of the average Australian.

Last year rain soaked the Cup goers, but it failed to dampen their enthusiasm. I saw women washing the mud from their skirts under water taps between races. "A shocking day," many of them complained, but

still they stayed.

Momentarily the sun came out as the horses lined up for the race of races. Off they galloped on the two-mile run. As "Peter Pan" forged ahead for a three-lengths win, the crowd went wild. Ten thousand pounds and the coveted Cup were his owner's for the second time, Melbourne celebrated long into the night (see illustration, page 709). "We have proved that, although we have not yet produced a Shakespeare, we know how to manage a horse race," commented a newspaper man in his editorial.

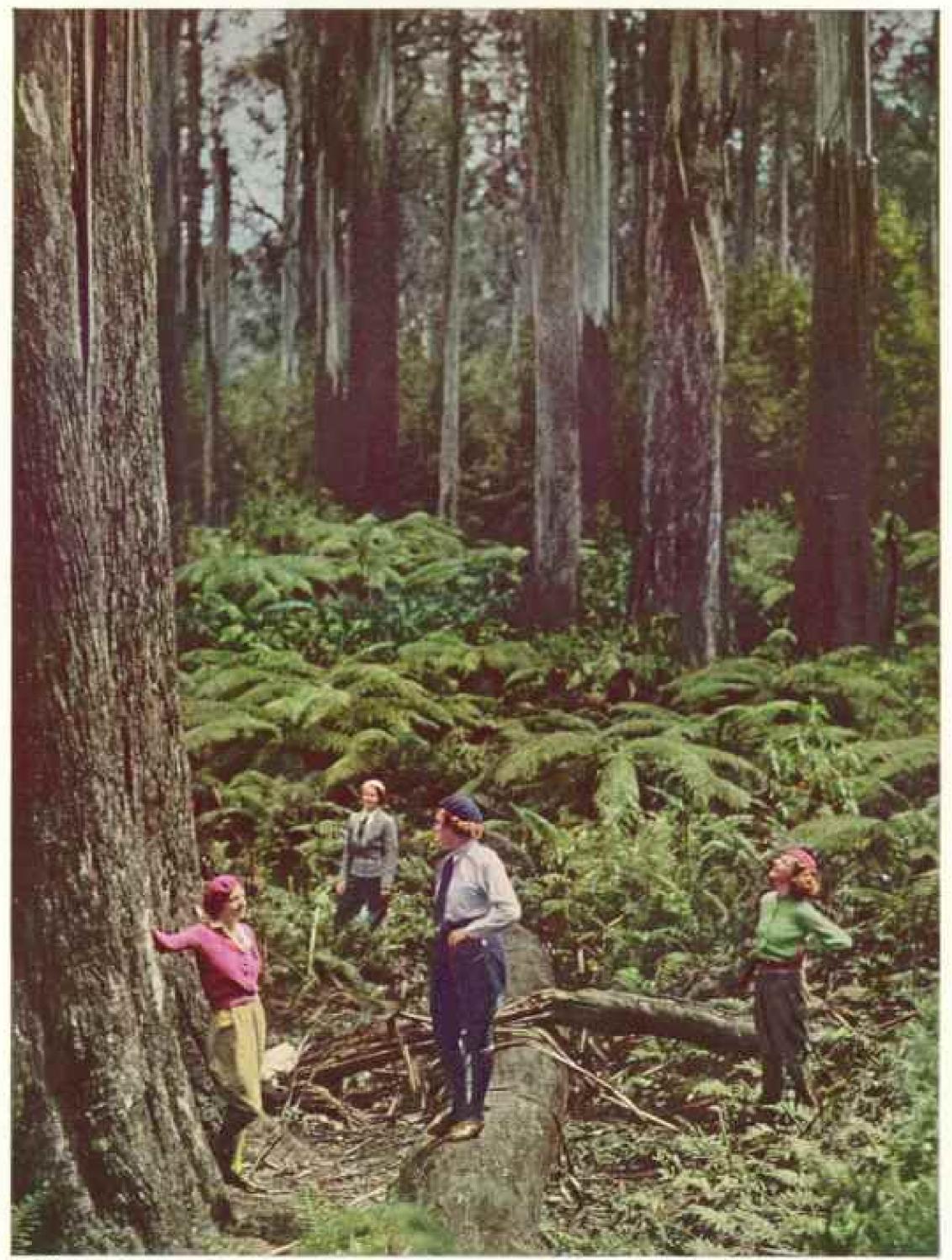
Separated from the southeastern tip of the mainland by the 200-mile-wide Bass Strait is Tasmania, Australia's heart-shaped island State. To get to Hobart I flew to Launceston on Melbourne's only regular air line, and then motored among rugged hills and fertile valley lands to the capital.

Many times on my visit to this southern city, as we passed stone houses, willow-bordered rivers, and fragrant hawthorn hedges, I could imagine myself back in southern England. While many of the early residents apparently wanted to import as much of their home atmosphere as they could, sufficient numbers of the venerable "gums," or eucalyptus trees,* and golden wattle have been left to preserve the distinctiveness of the Australian landscape.

English-flavored Hobart is the second oldest city in Australia. Here and there one sees structures built by the labor of early convicts who were shipped to the

^{*} See "The Tallest Tree That Grows" (Eucalyptus), by Edgerton R. Young, NATIONAL GEOGRAPHIC MAGAZINE, July, 1909.

FLASHES OF COLOR IN THE FIFTH CONTINENT

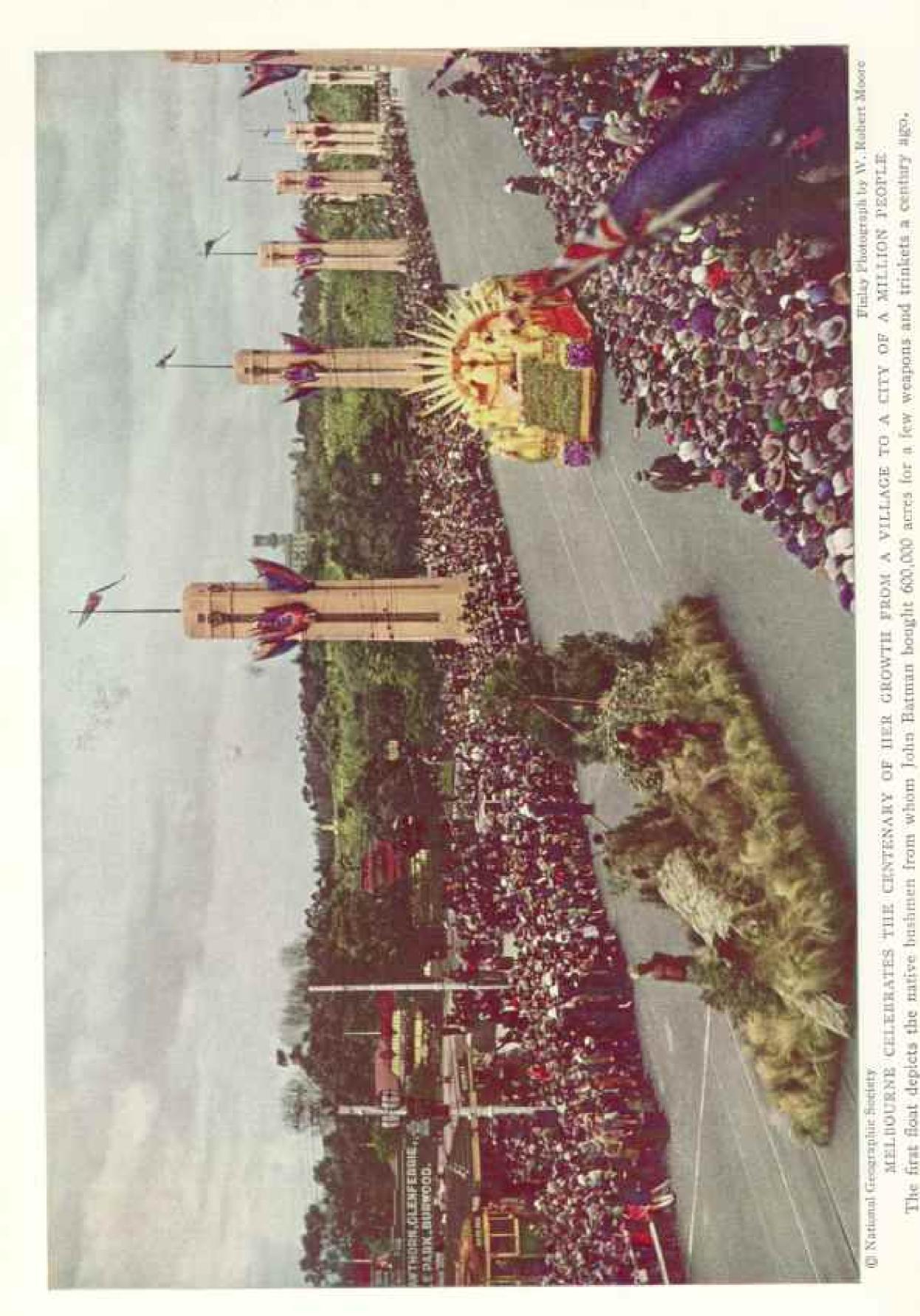


O National Geographic Society

Finlay Photograph by W. Robert Moore

GIANT EUCALYPTS SHED THEIR BARK BUT NOT THEIR LEAVES

These stately monarchs of the Cumberland Valley lift their crowns to a height of 200 to 300 feet. Like other members of their family, they are evergreen. Some of the trees in this region, a short distance northeast of Melbourne, rival the "Big Trees" of California in stature.



X

The first float depicts the mative bushmen from



THE YARRA ON HENLEY DAY BRILLIANT CANOUS PARADE

Melbourne's Henley Regatta-like that on the Thames in England-is a combined water carnival and fashion show. In this cance competition the prize goes not to the swiftest but to the most attractive. In other events stalwart oarsmen race. This spectacular plant inhabitant of New South Wales gains its pame from the period of its flowering and owes its red coloration to enlarged calyxes rather than to the actual petals. The inner petals are white and SUMMER



CHRISTMAS BUSH BURSTS AFLAME IN DECEMBER

soon wither,

THE NATIONAL GEOGRAPHIC MAGAZINE



MODERN ARCHITECTURE VIES WITH THE VICTORIAN IN MELHOURNE

Formerly many of the homes were plain bungalows with corrugated iron roofs. High, concealing hedges enclosed their gardens. In the wealthier Toorak section and other residential districts now appear many brick structures and stucco Spanish-type homes, with open lawns.



National Geographic Society

Finney Contour agains by W. Rubert Moore

"DOWN BY THE RAILWAY TRACES" IN MELBOURNE ARE FLOWER BEDS

Blossoms and foliage between the rail lines and on the embankments provide a colorial approach to the capital of Victoria. This floral display is at North Melbourne. While some of its locomotives are steam driven. Victoria has electrified a number of suburban trains.

FLASHES OF COLOR IN THE FIFTH CONTINENT



HERE BESIDES AUSTRALIA'S GOVERNOR GENERAL.

Built originally in 1891 as the home of a livestock "station" owner, the residence was extensively remodeled for its present purpose when the surrounding lands became Federal Territory for the new Capital, Canberra. The mansion is set in attractive gardens.

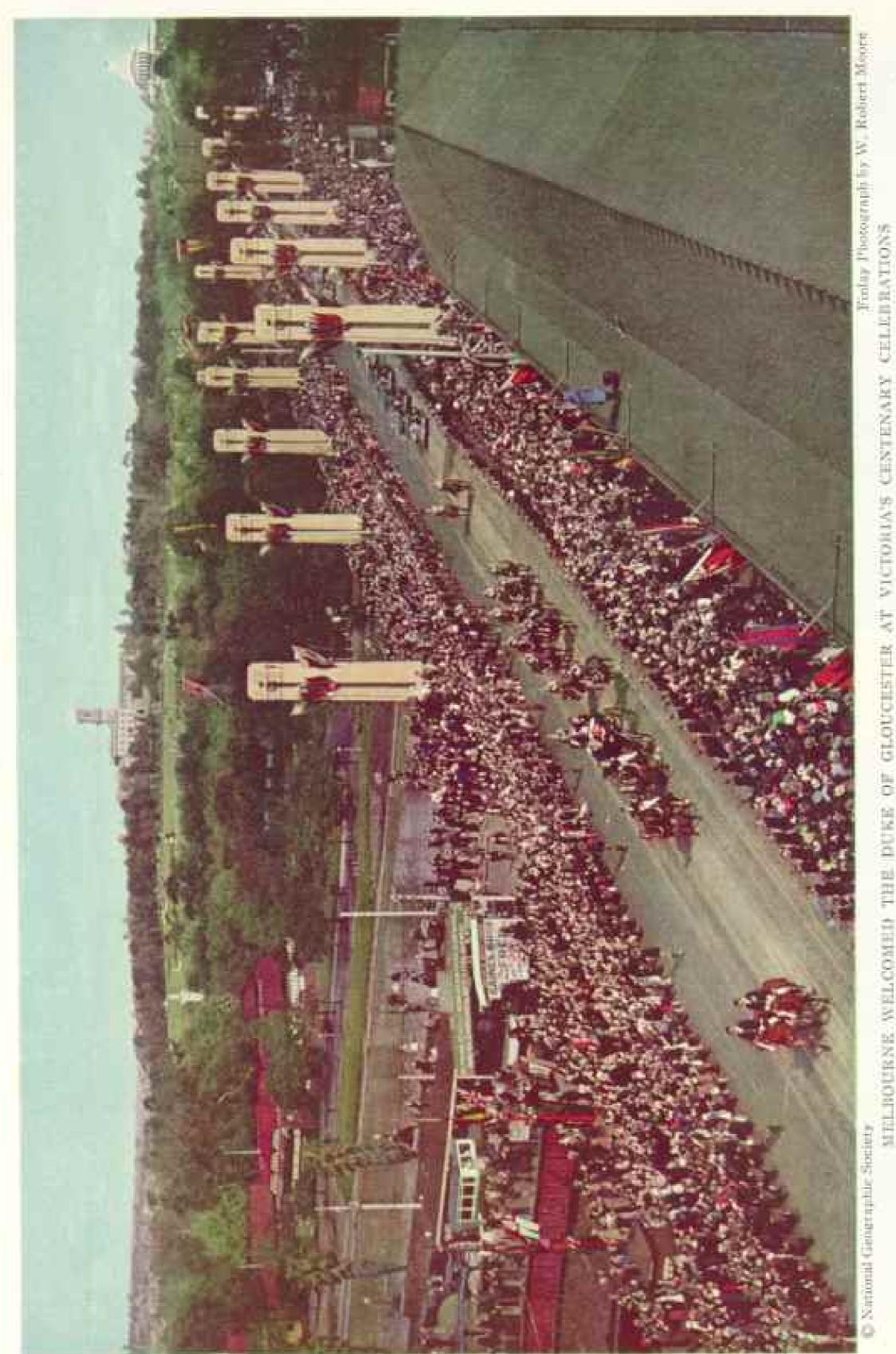


National Geographic Society.

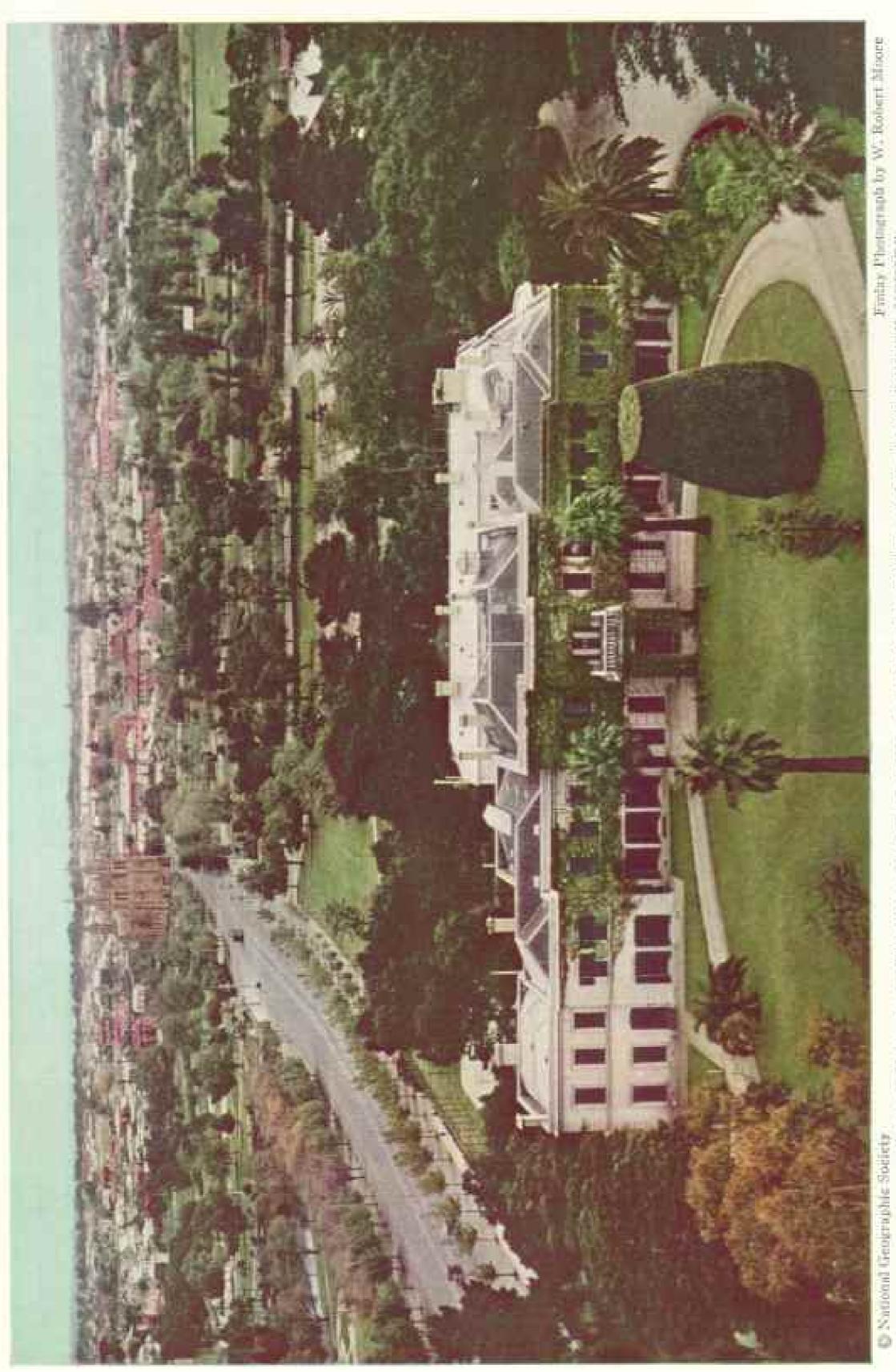
Finlay Photographs by W. Robert Moore.

ON THE LIVESTOCK RUNS OF YESTERDAY STANDS FEDERAL PARLIAMENT HOUSE

Like Washington, Australia's new Capital, Canberra, is a completely planned city. Its L'Enfant; was an American architect, Walter Burley Griffin, of Chicago. Parliament first convened in this new building in 1927, and Canberra now has a population of about 9,000.



y decorated and thousands thronged the avenue approach to view the arrival of their royal guest stood on the banks of the River Yarra, not far from this pyloned Prince's Bridge, and said. On October 18, 1934, the Victorian capital was gaily decorated and thousands thromged the avenue approach to view the arrival of their from England, Just a hundred years ago, John Batman stood on the banks of the River Yarra, not far from this pyloned Prince's Bridge. This will be a place for a village. 'Covernment House rises in the center distance; the Strine of Remembrance is at the extreme right.



TO THE GARDENS OF SOUTH SPECT PALMS LEND A SUBTROPIC

St. Peter's Cathedral

s main avenues.

William Road, one of the city with its imposing North Adelaide, King William R Between Government House -home of the State Governor and the residential suburb of (Plate XVI), is a belt of parkiand through which winds the Torrens River. At the left is

THE NATIONAL GEOGRAPHIC MAGAZINE



OCTOBER SPRINGTIME BRINGS FRESH FOLIAGE AND BLOOMS TO ADELAIDE

Besides numerous parks, the South Australian capital has a broad belt of parkland, 2,000 acres in extent, encircling its mile-square business district. North Adelaide, one of the city's chief residential suburbs, lies beyond the tall spires of St. Peter's Cathedral.



National Geographic Society

Finlay Photographs by W. Robert Moore

UNDER THIS BENDING GUM TREE THE COLONY OF SOUTH AUSTRALIA WAS BORN

The historic eucalyptus, now nearly dead, is at Glenelg, five miles from Adelaide. Next year it will be the scene of centenary celebrations, for on December 28, 1836, Capt. John Hindmarsh, R. N., the first governor, shood under its branches and proclaimed the establishment of the Colony.

island from 1804 onwards, when Van Diemen's Land was a formidable name among erring Britishers.

Those associations have long since been shaken; Van Diemen's Land has become Tasmania. Importation of criminals ceased three-quarters of a century ago, and bush-ranging belongs to the limbo of the past. Many Australians spend holidays in its genial temperate summer. Hobart, looking out toward Antarctica, enjoys an excellent climate during the warm months when some other parts of Australia sizzle in the heat.

From the western shore of the estuary of the River Derwent rises the city on low hills, against the green backdrop of Mount Wellington (see illustration, page 719). For several months of the year the mountain is capped with snow.

THE BIRTH OF A SNOWSTORM

One early summer day, when I mounted its slopes to photograph the striking panorama of the city, cobalt bays, and verdant bush, I stood in at the birth of a snowstorm. Small cloud patches formed and plumed larger and larger as they swept the bold peak. Then, as they billowed over the crest, they dropped their icy burden. All the time the city and distant hills were bathed in sunshine.

Two or three times during the flurries I retreated to the warmth of an open grate in the mountain hotel. Such is the invigorating climate that Hobart holds in her back yard.

The city is not spectacular, except for its position. Rather it is an intimate business center with attractive suburbs—the home of some 60,000 people.

The castlelike turrets of Government House rise in splendid isolation on a hill overlooking the estuary. Its extensive gardens and greensward are bracketed by the zoological park and botanical gardens.

Down in the city toward the wharves are Parliament House, the City Hall, Museum, and other public buildings. In the Museum are preserved the remains of the last fullblooded aboriginal Tasmanian, who died in 1876. Many scientists come to measure the skull of this member of a race said to have been even more primitive than the bushmen of the Australian mainland.

The business district looks out onto Sullivan Cove, a deep-water harbor where ships of any draft can tie up at all stages of the tide to load their cargoes of fruit, timber, grain, minerals, and wool.

Fruit, especially apples, is Hobart's specialty. It is a voyage of more than a month from Hobart to London, but many steamers return to England every year with their refrigerated holds filled with the fruit from the valleys of the Derwent, Huon, and Bagdad. Other loads are dispatched to Sydney and other interstate ports. Hop fields in the valleys remind one of English Kent.

Hobart also prospers through cheap electric power, which is generated at hydroelectric works utilizing water from Great Lake, in the high plateau of central Tasmania. Waddamana, or "Many Waters," has spelled magic for the zinc and other metallurgical works, as well as chocolate and food factories, near Hobart.

From Melbourne to Launceston had been a pleasant flight of less than three hours. Getting back was a different story. Miss Launceston lay a crumpled heap on Flinders Island, with a couple of broken wings, bent propellers, and a demolished undercarriage, the victim of an emergency landing.

So I returned by boat, on a 20-hour voyage when the Bass Strait was trying to live up to its evil reputation.

GETTING NEWS "ON THE RUN"

It is an overnight railway journey from Melbourne to Adelaide, capital of South Australia. During the early evening I heard boys calling "Paper, paper!" outside the train, but the express seldom halted.

At first I thought it strange that newsboys would waste their voices shouting when they had little chance of making a sale. Shortly, the person who shared my compartment threw out of the window the newspaper he had finished reading. A boy dashed from a garden and raced after the flying sheets.

Then I realized that the calls were not sales cries, but requests for the latest news. It is a unique, although somewhat uncertain, way of getting delivery of an evening paper!

The Melbourne-Adelaide trains carry no diners. At Ballarat, of gold fame, there is a 20-minute stop while everyone rushes into the railway restaurant for a threecourse meal or has a meat pie and a cup of coffee at the lunch counter. In the morning a similar stop is made for breakfast.



Photograph by International Newsreel

TWO KITTENS ARE A SMALL MOUTHFUL FOR A SHARK

Formerly regarded only as a menace, these wolves of the deep now are caught off the coast of New South Wales in huge nets, and their tough hides used for making handbags, shoes, and luggage. When entrapped, they are stupid but fierce fighters, and the fishermen often have prolonged struggles landing them on deck. This 16-foot fish was caught in Sydney harbor.

the morning of my arrival in Adelaide. A for the future capital. dust storm was sweeping over the city. The heavy jaundiced pall all but obscured the sun. The next day it rained, and the first drops were like spatters of mud.

Adelaide is like no other city that I have visited. It is a model of town-planning,

replete with parks.

The much-traveled Viscount Bryce remarked of it: "Adelaide is the nearest approach to a great garden city that I have ever seen."

It all goes back to December 28, 1836, when a party out from England, headed by Governor John Hindmarsh, stood under a looping gum tree on the coastal lagoons along the Gulf of St. Vincent (at Glenelg) and proclaimed South Australia a province under the British Crown (see Color Plate XVI).

Already there were about 500 immigrants in the district. A town was necessary. So

"A shocking day," remarked many people Colonel Light started out to survey the site

On a plain cradled in a hemicycle of hills, five miles from the coast, he pegged out the infant settlement. Light chose wisely and planned well, as witnessed by the city as it stands today (see Plates XV and XVI).

A square mile of business blocks is surrounded by a belt of parkland, 2,000 acres in extent. Outside this belt some 21 municipalities and residential districts have developed (see pages 716 and 717).

Meandering through the city, between the commercial district and North Adelaide, the chief residential section, is the Torrens River, now artificially dammed to form an attractive slender lake. Its banks are flanked by well-kept gardens which slope away from the North Terrace, where stand the Parliament Buildings, Government House, the Library, Museum, Adelaide University, and School of Mines.



THE WORD OF HIM WHO WENT FORTH TO "TEACH BY THE SEASIDE" IS PREACHED ON MANLY BEACH

"The people go to the beaches on Sunday, so there's where I'll take my church," announced one clergyman. Thus old and young attend service while they enjoy the sunshine and ocean breezes.

In the very heart of some popular suburb one comes upon extensive flowering squares or a delightfully rural scene—a green pasture where horses and cattle are grazing. At some of the gateways in the wide parkland I saw signs posted, "For Cows Only!"

Adelaide is often called the Cultural City of Australia. Indeed, its schools and churches do seem to dominate the community. South Australia has an appreciably larger number of teachers and schools in proportion to its population than any of the other States, except Tasmania.

ON "LATE CLOSING" NIGHT

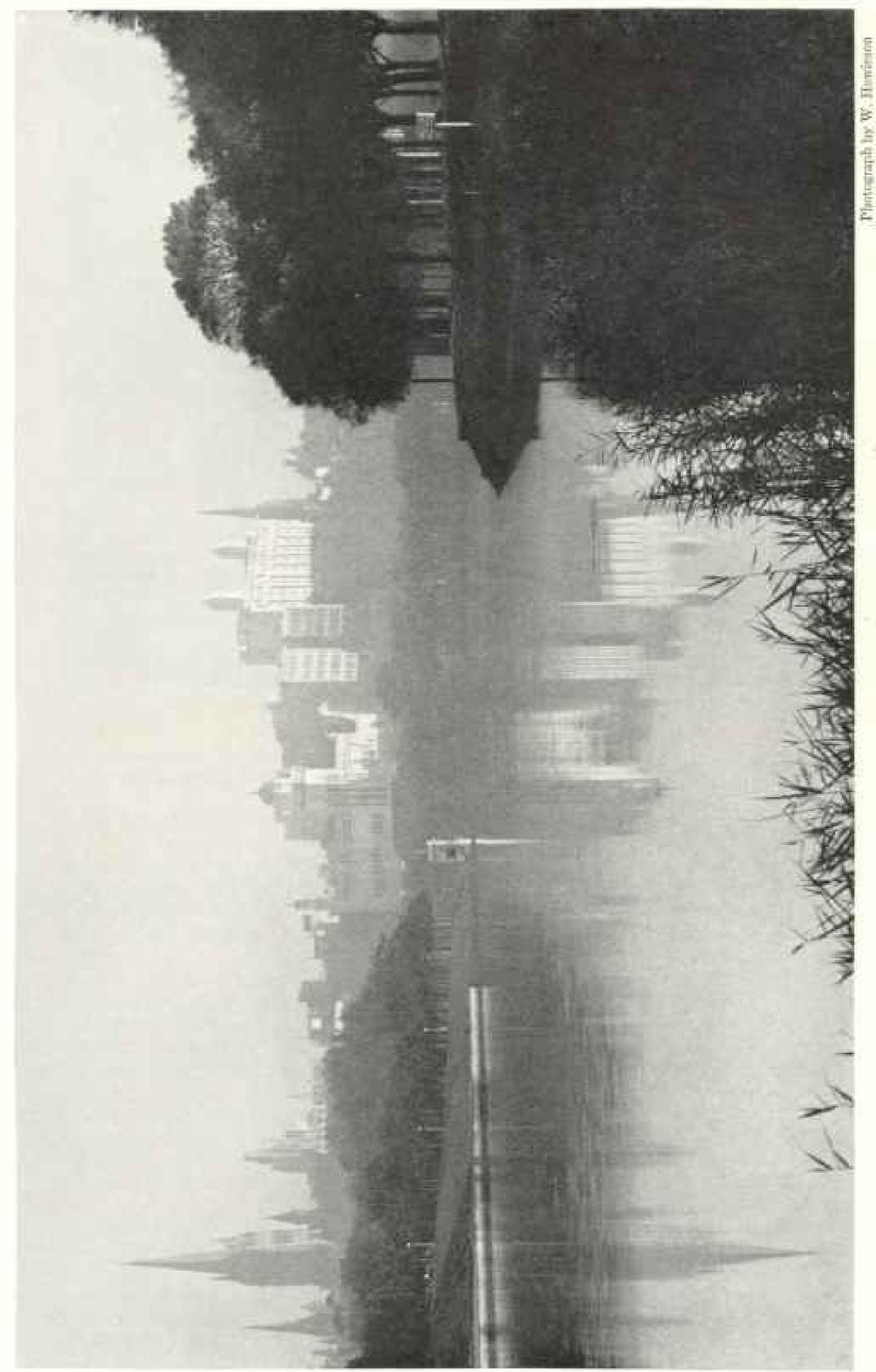
Adelaide's charm is not entirely confined to daylight hours. Motor up the side of Mount Lofty at night and below you spreads a magnificent panorama of lights that seems far out of proportion to a city of 321,000 people.

On most nights the city itself seems deserted, except at 8 o'clock, when the motionpicture shows begin, and again at 11, when they debouch their throngs to catch the first trams homeward.

One evening a week, however, is a notable exception. It is "late closing" night. Adelaide then appears like an American country town on a Saturday night. City residents and rural folk flock into the shopping district and elbow their way up one street and down another to window shop and to purchase armfuls of parcels. Wide as the streets and sidewalks are, they are completely congested with people and cars.

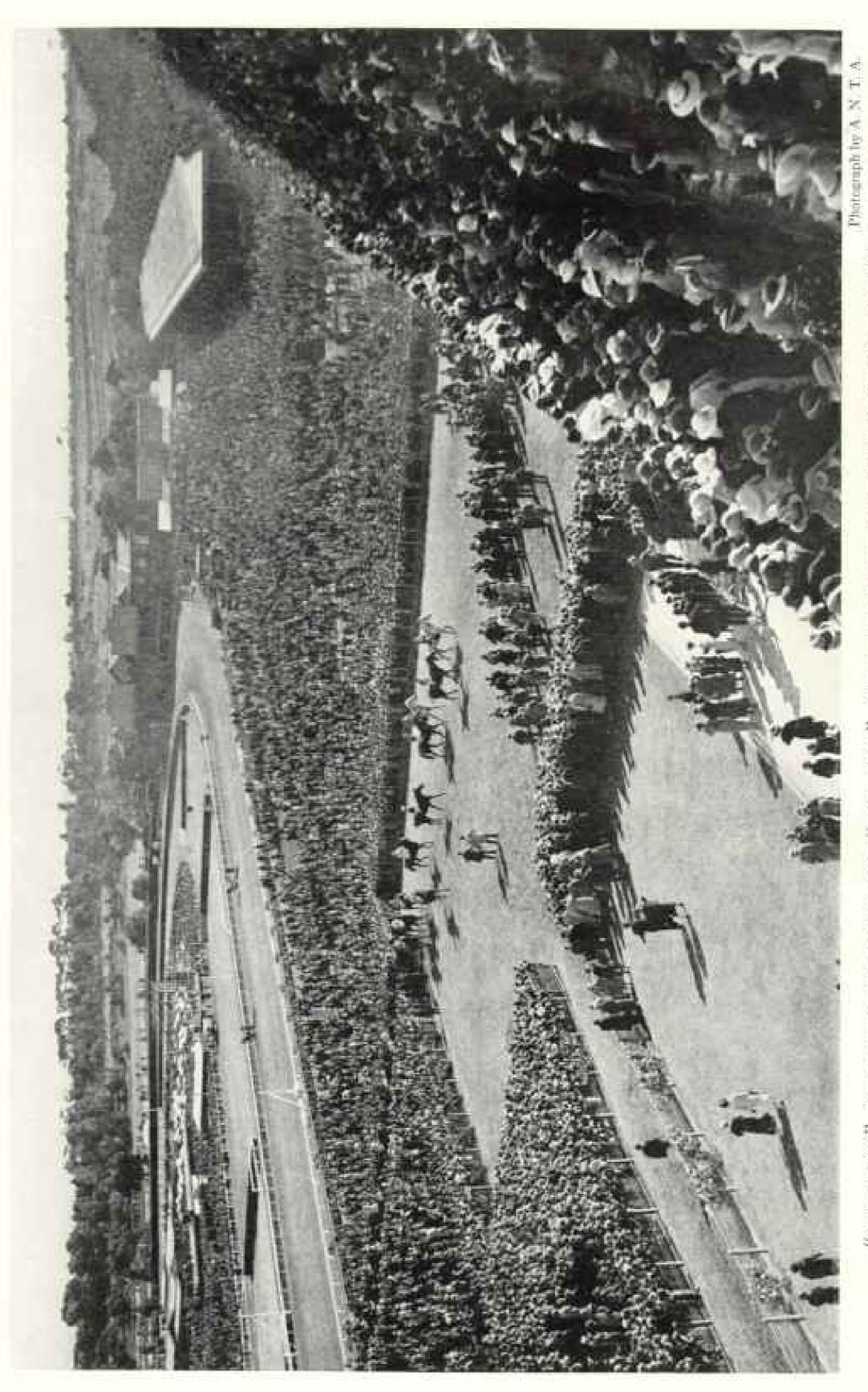
Late closing one day a week is a feature of all Australian cities and towns, but, to me, the contrasts in Adelaide are more marked than in Sydney and Melbourne, where there always is greater evening activity.

Port Adelaide and the Outer Harbor are several miles northwest of the city. From there are shipped the wheat, wool, wines, fruit, and other produce gathered in from the country districts. In addition to being the second largest wheat-growing State,



Church spires among the business blocks give the Victorian capital the appearance of an English town. The lofty spire at the left is that of St. Paul's Cathedral, which, blue the beart of a business district (see text, page 689). THE PLACED YARRA IN LARLY MORNING MIRRORS MELBOURNE'S SEVIENCE

708

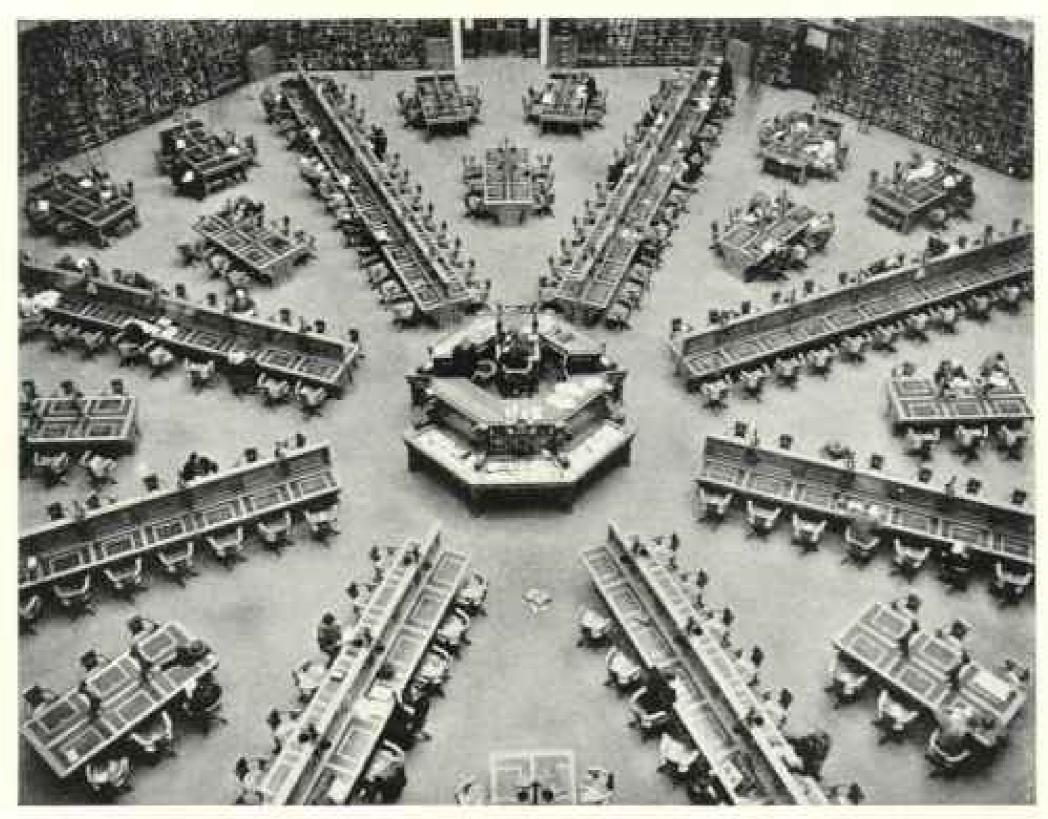


For the second straight year, this sleek, fast-stepping favorite won the coveted prize of \$10,000 and the gold trophy of supremacy in all-Amstralia's racing classic, a few minutes before this photograph was made, a three-hour rain had drenched the 100,000 spectators (see text, page 696). AFTER THE STRUKING PINISH OF THE MELBOURNE CUP RACE HE "BIRD CAGE" "PETER PAN" AND HIS RIVALS ENTER



BRISBANE'S CITY HALL TOWER IS NEARLY AS TALL AS ST. MARK'S CAMPANILE IN VENICE-320 FEET

On the pediment above the colonnaded entrance a Queensland woman has carved a symbolic group of figures, portraying the pioneering efforts of the early settlers. A low-domed roof covers a large pillarless auditorium that will seat 2,500 persons (see text, page 689). The dials of the electrically operated clock are sixteen feet in diameter.



LITERALLY A HUB OF CULTURE IS THIS LITERARY OCTAGON

Incorporated with Melbourne Public Library, of which this is the reading room, is the National Museum and Art Gallery, containing many treasures and valuable exhibits. The library is the oldest and largest in Australia.

South Australia produces three-fourths of the wine output of the Commonwealth. Many vineyards are located just outside Adelaide.

ACROSS THE AUSTRALIAN DESERT

In this quest of Australian capitals there is also Perth, the administrative center for Western Australia, which embraces a third of the Land of the Southern Cross.

Until 1917 Perth was linked to Adelaide only by sea, a voyage too often unpleasant because of the unfavorable sailing conditions across the Great Australian Bight. But that year saw the completion of the slender ribbon of steel of the Trans-Australian Railway between Port Augusta and Kalgoorlie, thus bridging the 1,051-mile gap between existing lines. Man had triumphed over tremendous desert handicaps.

The three-day journey from Adelaide to Perth is interesting if only to gain an appreciation of the difficulties that faced the builders of the railway. Leaving Adelaide in the morning, the train steams through prosperous agricultural country, devoted largely to wheat growing; then in mid-afternoon one changes trains at Terowie for a similar journey to Port Augusta. After changing again to the Trans-Australian at 10 o'clock at night, one is carried on through the darkness.

By morning the train has passed through most of the "lake" country, where dry beds of salt stretch away for mile after mile. Then it traverses red-soil plains and enters a sand-hill belt. Scrub bushes hold the dusty earth in place; were they cut down, the land would be quickly blown away.

300 MILES OF RAILWAY WITH NO CURVES

Late in the afternoon the trees, hills, and even undulating country are left behind. One looks out upon a deserted world, flat to the horizon in every direction. It is the vast Nullarbor Plain, a limestone desolation covered only by scattered low tufts of saltbush and ghostly bluebush.



Photograph by West Australian Airways, Ltd.

PERTH IS THE CITY THAT DESERT GOLD BUILT

The capital of Western Australia was founded in 1829, but it remained a small town until the rich gold strikes of the nineties. The large wooded area in the left foreground is King's Park, a thousand-acre reserve of native "bush." Between the curving front of the business district and the tonguelike portion of residential South Perth lies a broad stretch of the Swan River known as Perth Water (see text, opposite page).

All the rest of the day, throughout the night, and well into the next forenoon the train rolls on across the plain like a ship on an empty ocean. For 300 miles the line runs without a single curve.

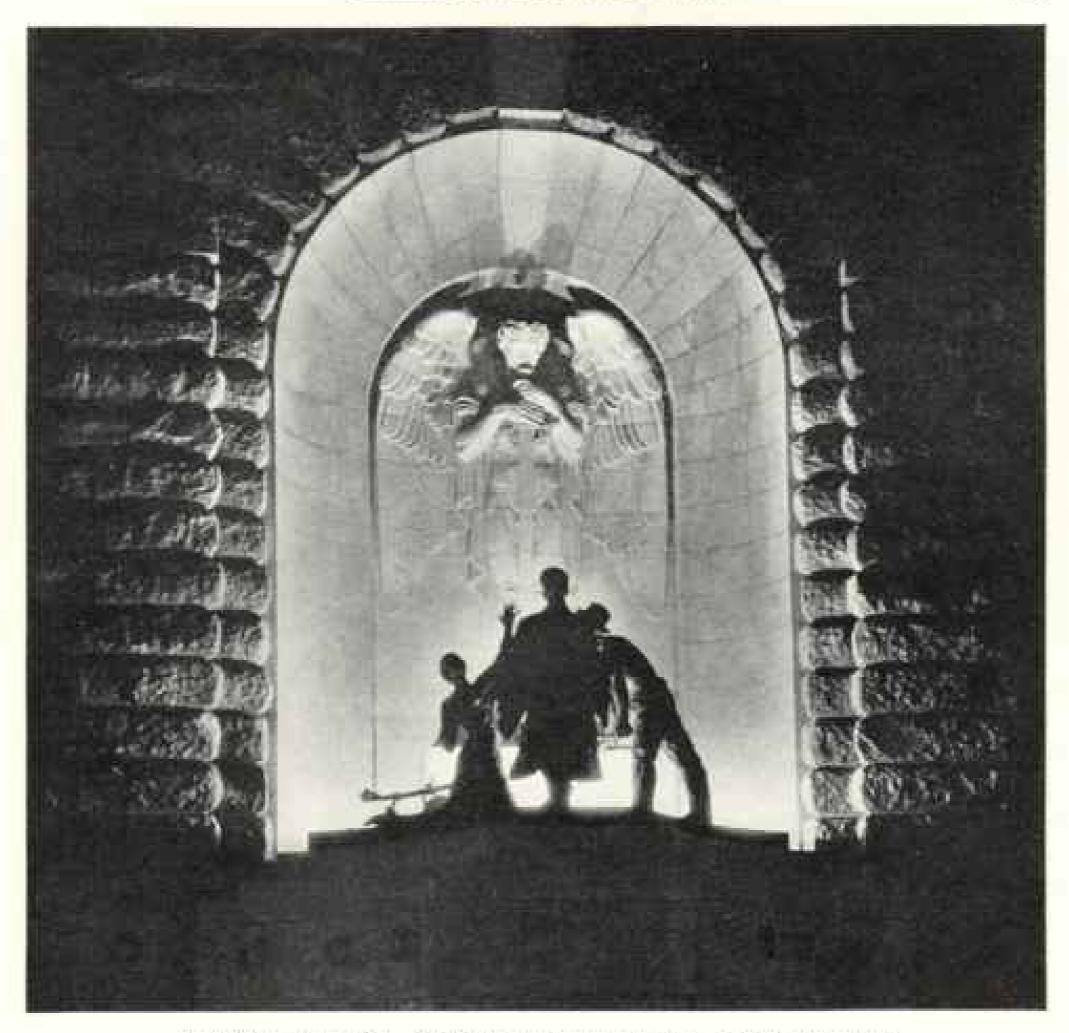
Even the reappearance of dwarfed trees, among which is the fragrant sandalwood of oriental commerce, as one nears Kalgoorlie, furnishes little relief to the parched monotony of the deserted land.

Halts at wayside stations, where a few railway employees are camped, provide moments of diversion. The passengers talk of the aborigines they have seen at some of the stops, of the emptiness of the country, politics, their prospective visits to England, the baby's first tooth, anything, and look at their watches to see when the waiter will be through the observation car to announce another mealtime.

In all its length of more than a thousand miles, the railway does not cross a single permanent stream of water. The only life that I saw outside the few railway encampments was one lone emu.

THE COMMONWEALTH'S "GOLDEN MILE"

At Kalgoorlie, famous the world over for its series of gold mines, the "Golden Mile," one changes again from the "Trans" train



WOMAN, STUDENT, AND FARMER LIFT THEIR FACES TO DUTY

Thus is depicted on the National War Memorial in Adelaide the ready response of Australia's suns and daughters in 1914-1918. By night electric floodlights etch the scene effectively against the darkness (see illustration, page 716).

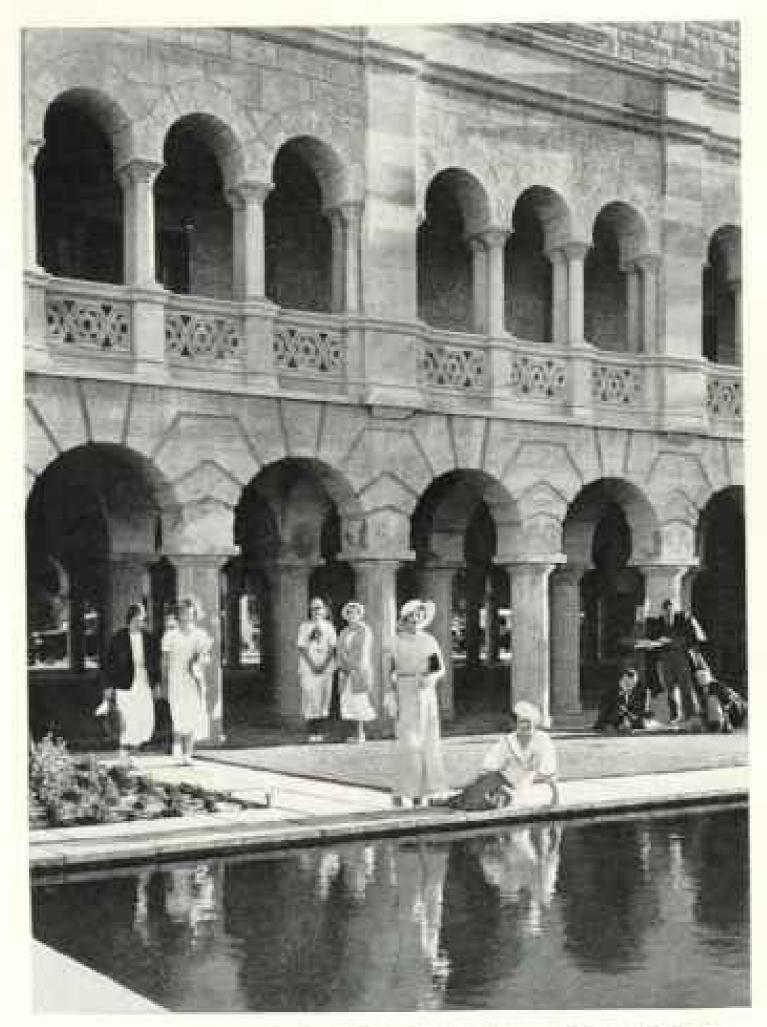
to the Western Australian line, which, after crossing the wheat belt, twists through wooded hills and delivers one the following morning in Perth. During my visit these hills were bright with spring wild flowers.

Perth is smaller than the other capital cities, except Hobart. Although established in 1829, it remained for many years little more than a small village. In 1871 the population was only 4,500; now it has nearly 180,000 people, exclusive of the port of Fremantle.

As Melbourne had her Ballarat and Bendigo, so Perth in the nineties had her Coolgardie and Kalgoorlie. Gold discoveries in these localities brought prosperity and people to the town. Since the flood of precious metal has dwindled, wheat production and pastoral enterprise have sustained its continued growth.

As the result of its late development, Perth today is a comparatively new city. Its business district has few outmoded buildings (see opposite page).

Seen from the surrounding hills or from King's Park the city stands out in striking relief against the greenery. Its site was admirably chosen, for it is situated on the sloping bank of the Swan River, which, in front of the city, broadens into a lake known as Perth Water. Residential suburbs sweep back from the commercial district and on the opposite bank sprawl the



A REFLECTING POOL MIRRORS THE ARCADED BUILDINGS OF PERTH UNIVERSITY

The institution, opened in 1913, is housed in several attractive new halls at Crawley, a suburb of Perth, that have recently been crected on its 150-acre campus. At present it has nearly 1,000 students.

settlements of South Perth and Victoria Park (see Color Plate VIII).

A fine esplanade borders the water front and provides an attractive spot where thousands can stroll. Extensive reclamation projects have been undertaken to improve the river gateway, and the land thus reclaimed is being converted into recreation grounds.

Outstanding among Perth's many play places and gardens is King's Park, a thousand-acre reserve on high land to the west of the city, along the river bank. Unlike other parks of Australian cities, it has been preserved essentially in its native state. Here in the springtime masses of lovely Australian wild flowers carpet the ground.

> KANGAROO PAW A STATE FLOWER

Strangest of all the many flowers that flourish here is the kangaroo paw (Anigosanthos manglesii). Indeed, I would call this State flower weirdly beautiful. It grows upon stems two to three feet in height, and at a few inches of the top of the red stem extend several long, flat buds, whose peculiar shape gives the plant its name. Several color varieties of this unique plant grow in the hills (see Color Plate III).

All of the State capitals hold annual Royal shows, which are the Australian equivalents of our State fairs. The first one that I saw was at Perth (see page 695).

SHOW WEEKS LIKE STATE FAIRS

Show Week attracts visitors from far and wide. Hundreds come, bringing their prize stock, samples of grain, fruits, flowers, and pre-

serves. Handicrafts also have a comprehensive display. Business concerns exhibit their products and concessionaires add to the enjoyment of the occasion.

These shows are instructive, as well as the holiday highlights for people from "out back." Business even takes a half-holiday to allow office staffs to visit the show.

Many times, while I was in Perth, I was asked if I did not think Western Australia very much like California, with its abundance of wild flowers, big trees, friendly, sunny climate, development through gold rushes, and the open hospitality of the people. Indeed, there are many similarities.

The capital keeps in easy communication

with her northern districts by an air service to Wyndham. An airway route is also in operation between Perth and Adelaide. So when time came for my departure I booked passage on this latter service.

Our course lay over Mundaring Weir, in the Darling Range, where engineers have impounded a huge water reserve to supply the arid gold fields around Kalgoorlie, 350 miles away. Below us as we flew we could see the 30-inch pipe line through which the water is pumped by means of eight stations along the way.

After three hours in the air we passed the train, which had left Perth 13 hours before to connect with the twice-weekly "Trans."

The plane touched land at Kalgoorlie for lunch and passengers and then winged toward Forrest, in the heart of the Nullarbor, where the Airways have provided a comfortable hostel beside the hangars,

As we took off the following morning for Ceduna and Adelaide, the train had just caught up with us. Early in the afternoon the tail skid cut marks in the Adelaide airport. The railway passengers had a journey of 28 hours still ahead of them.

MOTHER COLONY STILL LARGER THAN TEXAS

In 1788, when Captain Phillip arrived with his First Fleet and established his little band at Sydney Cove (see text, page 668), he became governor of the newly created British possession of New South Wales, which extended westward to longitude 135° East—approximately a half of the entire

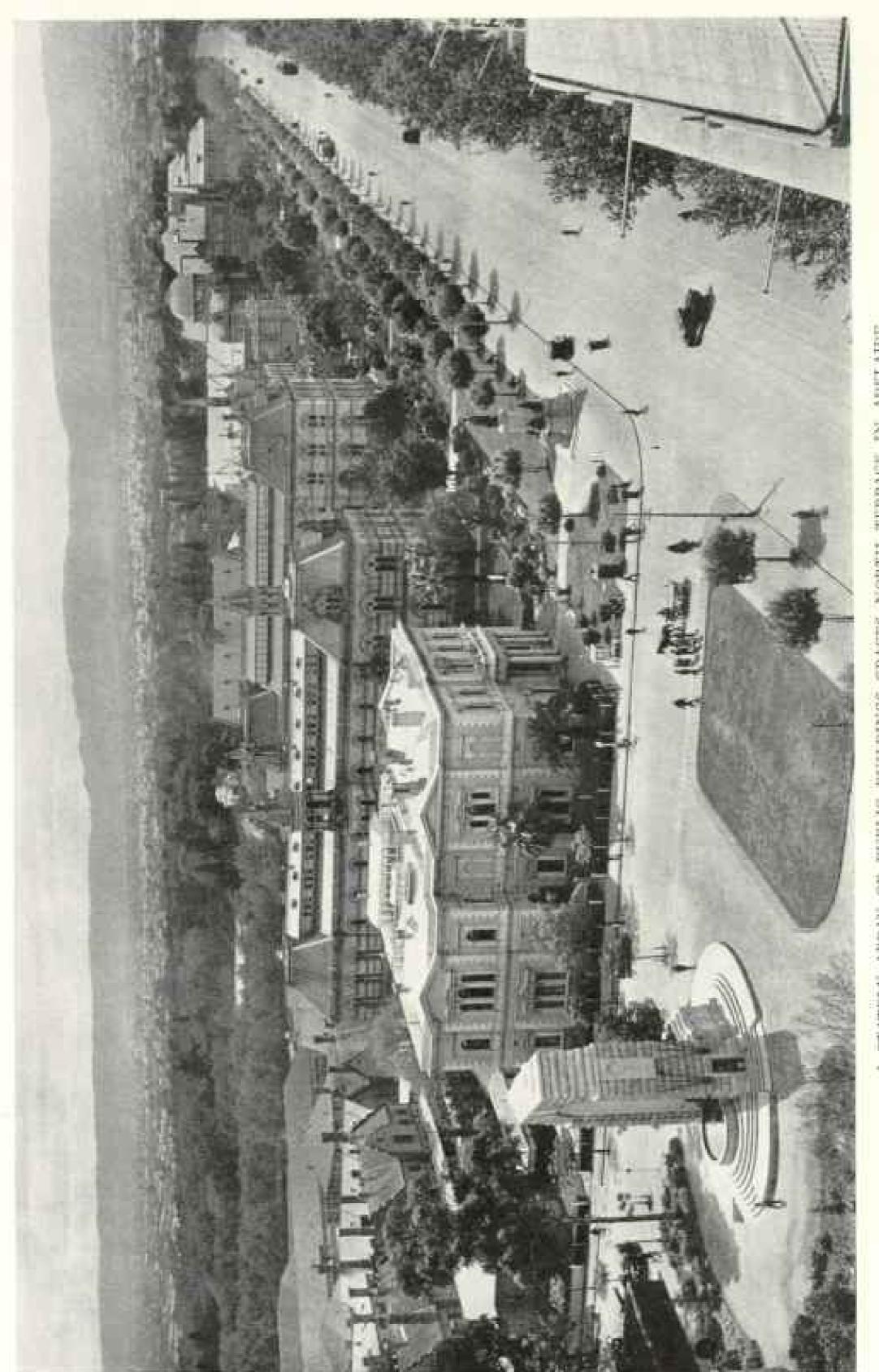


CORRUGATED ARCADES SHELTER PERTH'S SIDEWALKS FROM SUN AND RAIN

Instead of awnings these permanent roofs, usually of iron, are used in most Australian cities. They are not uniform, and often mar the otherwise attractive appearance of the buildings.

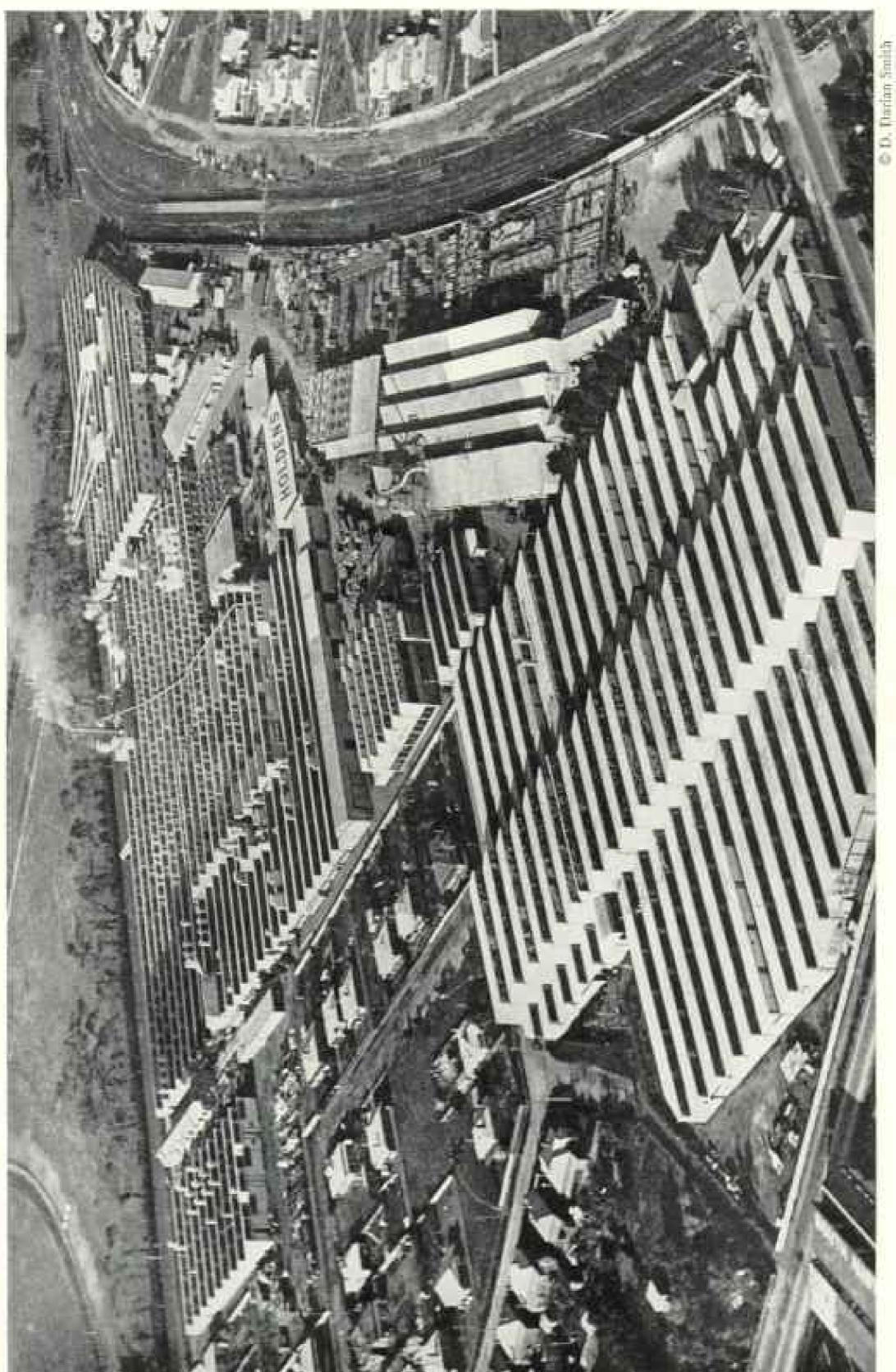
> continent. In 1825 the boundary was pushed farther westward to 129° East, which ultimately also became the eastern line of Western Australia.

> In that same year, however, the Tasmanian dependency severed its connection with New South Wales, which later came in for several subdivisions. In 1836 South Australia was carved from its southwest corner and formed into a British province. As Melbourne grew, Sydney had difficulty in supervising the settlement, so in 1855 an area of 87,884 square miles was lopped off to form the colony of Victoria. Again, in 1859, Queensland was separated from the parent colony. Even after the changes New



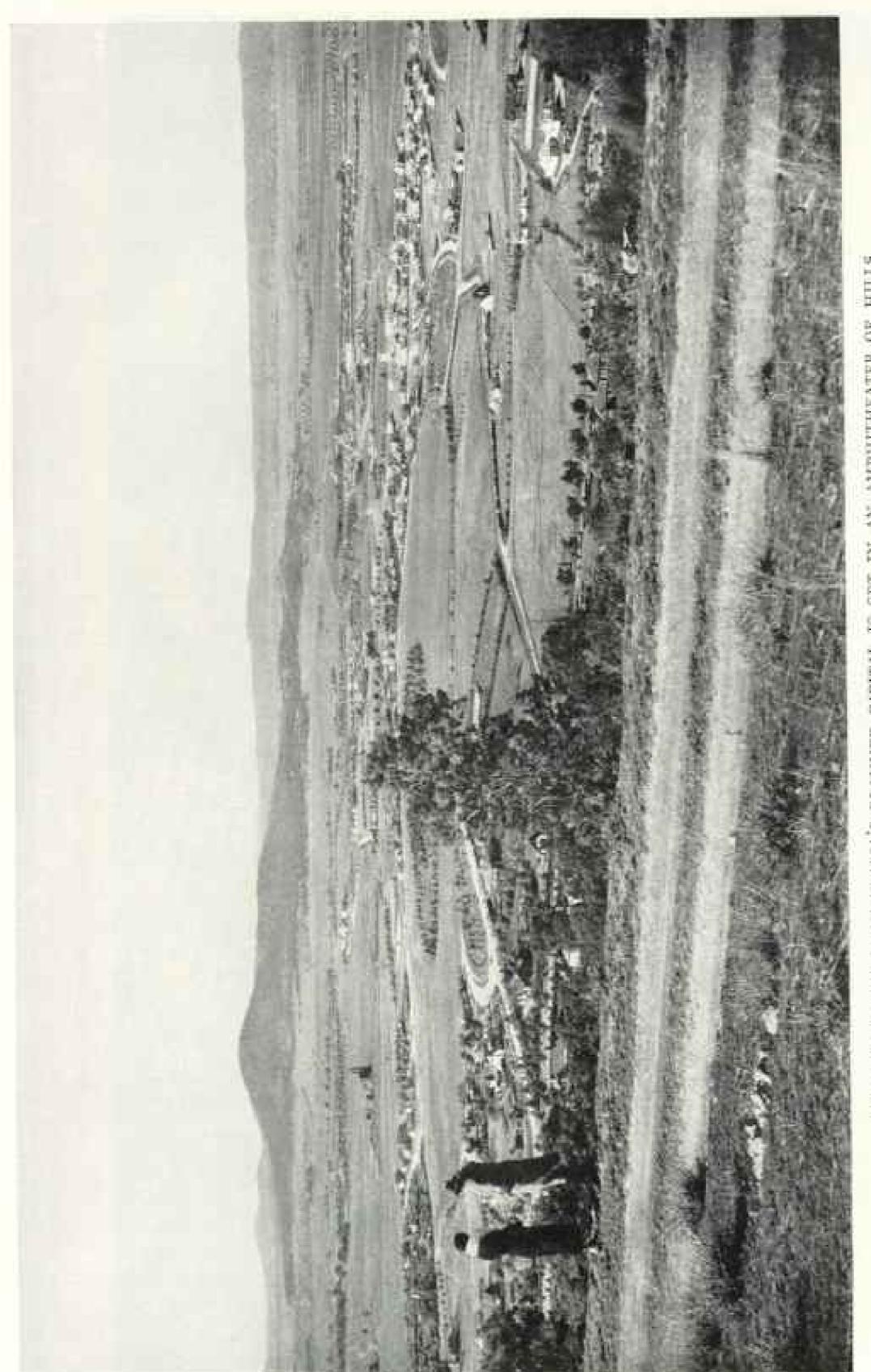
A STATELY AREAY OF PUBLIC BUILDINGS GRACES NORTH TERRACE IN ADELAIDE

Beyond the War Memorial (page 713), stand the Public Library and Museum, Art Gallery, Adelaide University, Exhibition Buildings, and School of Mines. In the opposite direction are Government House and the South Australia Parliament Buildings (see Color Plates XV, XVI, and text, page 706). Beyond the group is a portion of the wide belt of parkland that separates the square mile of business blocks from the residential subarbs.



LIKE TIERS OF SOME PREHISTORIC STRUCTURE THIS MOTOR BODY PLANT SPREADS OVER 40 ACRES

Because of a heavy import duty on finished automobiles, these vast buildings in suburban Adelaide have been erected to build bodies for chassis shipped from the United States to Australia. In ten years the firm's annual output grew from 100 to nearly 47,000 hodies, to supply a farge portion of the Australian market and a growing export trade to the East.

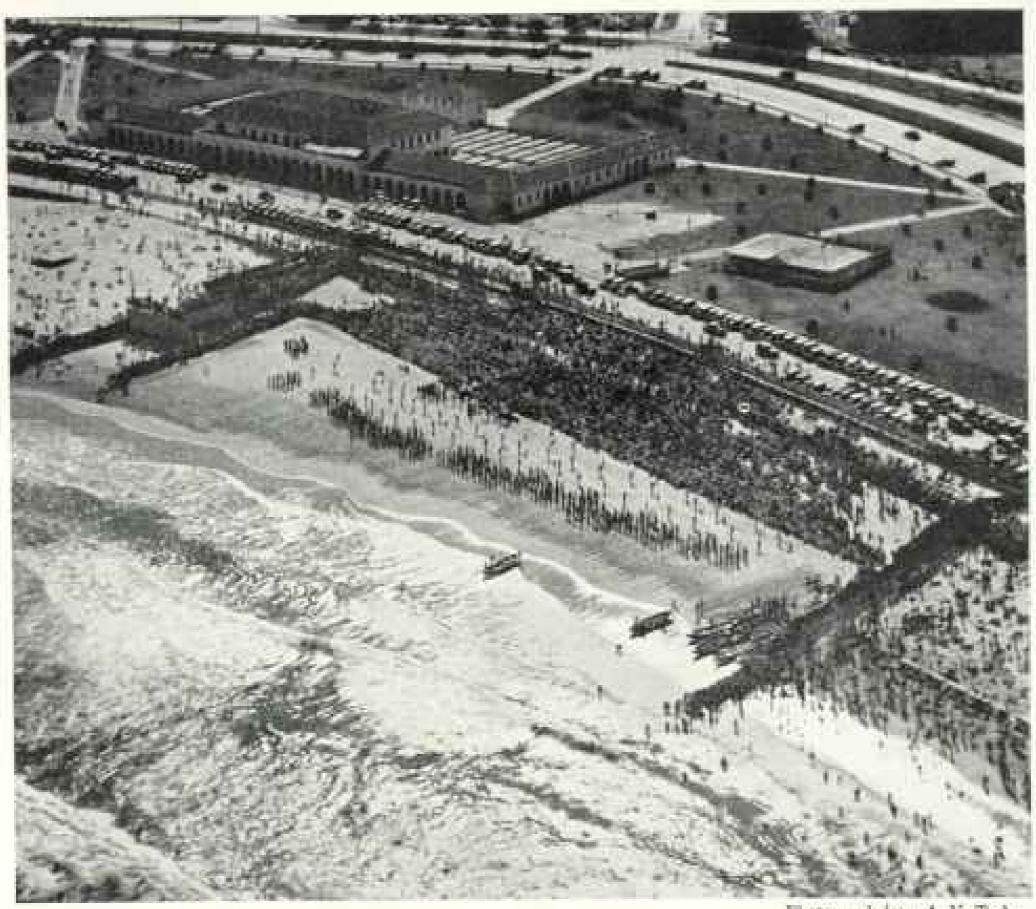


LIKE WASHINGTON, AUSTRALIA'S PLANNED CAPITAL IS SET IN AN AMPHITHEATER OF HILLS

Today, only right years after the Parliament first convened here, the site of Canberra shows scattered communities in which the full plan is scarcely yet discernible. Seen here from Red Hill are Federal buildings in the frings of trees in line with the two figures, beyond the Bolated Presbyterian Cathedral. The district of Forrest is immediately below, while another residential section is growing beyond the Federal group, near the base of Mount Ainske. Barton and Kingston form the subarbs at the right (see text, page 721).



Across the estuary from the Tasmanian capital is suburban Bellerive. The genial temperate elimate of this southern island State attracts many vacutionists from the botter mainland. Mount Wellington, riging to 4,166 feet above the city, is booded with snow for several months of the year (see text, page 705).



Photograph from A. N. T. A.

SERING SYDNEY'S SURF LIFESAVERS FROM AN AIRPLANE COCKPIT

Grand parades of volunteer teams from all the beaches feature the city's surf carnivals. This one at Bondi Beach was attended by the Duke of Gloucester, who visited Australia for Victoria's Centenary in 1934. Back of piers and beach, flecked with thousands of people, is a large bathhouse and restaurant (see text, page 679).

South Wales still remains much larger than the State of Texas.

THE BIRTH OF THE COMMONWEALTH

Although the Sydney authorities had a hand in the early efforts in Western Australia, Captain Stirling founded the Swan River settlement in 1829, shortly after Captain Fremantle had taken formal possession of the territory, and it thenceforth remained unto itself.

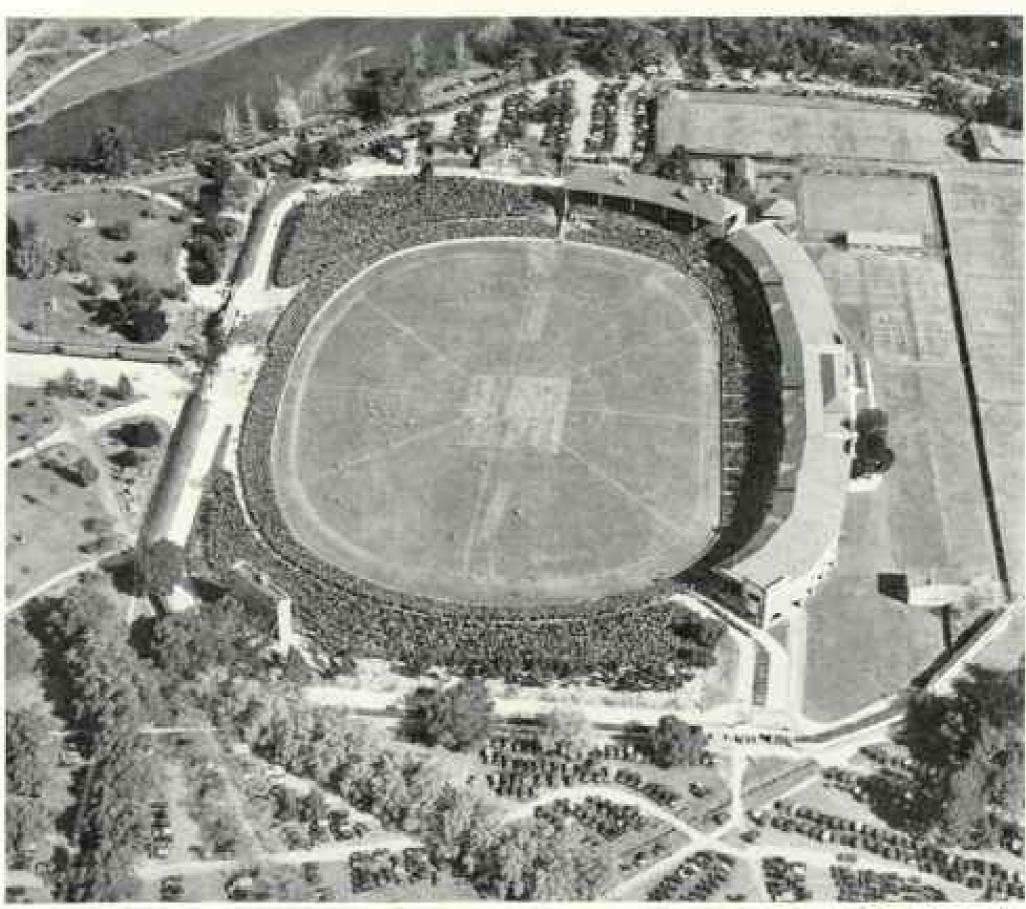
Through continued labors, Victoria acquired complete responsible government in 1855; both New South Wales and South Australia followed a year later. Self-government was conferred upon Queensland with her separation from New South Wales. By various stages Western Australia assumed full elective government in 1893.

All joined together on January 1, 1901, in a confederation, thus forming the Commonwealth of Australia.

Only the Northern Territory remained a backward child. Just less than three-quarters of a century ago it became a ward of South Australia. Then, in 1911, it was formally adopted by the Commonwealth, and sixteen years later divided into twin territories, North Australia and Central Australia.

Again, four years ago, the whole Northern Territory was placed under the control of an administrator. Although possessing 523,620 square miles, it has a population of fewer than 4,000 people.

After the formation of the Commonwealth, there was much rivalry between Sydney and Melbourne as to which city



D. Darian Smith

50,000 SPECTATORS PACK ADELAIDE OVAL FOR A FOOTBALL GAME

Cricket matches with England also draw huge crowds to this bowl set amid parks and gardens on slender Torrens Lake, at South Australia's capital. Beside the field are tennis courts so well kept that visiting players have compared them with those of famous Wimbledon.

should house the Federal Government. The first Parliaments sat in the legislative chambers at Melbourne, but a new Federal capital was deemed necessary to express the fullness of the country's new nationhood.

CHICAGOAN ARCHITECT OF NEW CAPITAL

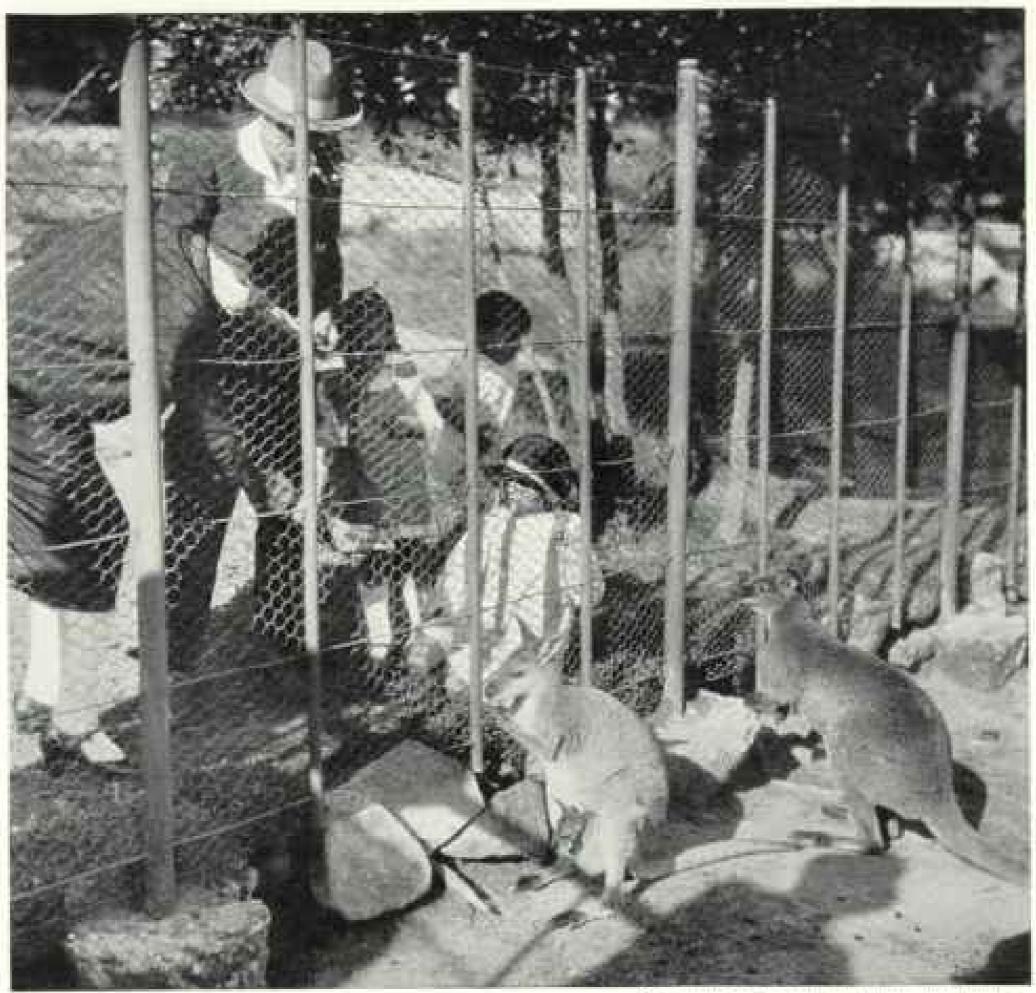
So, on the stock runs of yesterday, in territory set apart in New South Wales, the Capital City of Canberra is growing as did Washington, on the Potomac. Canberra's L'Enfant was Walter Burley Griffin, a Chicago architect. In town-planning competition his ideas were selected as expressing best the garden city Australia sought to build.

Since 1927, when the tenth Federal Parliament was opened in the new Parliament House by the Duke of York, it has been the seat of the Commonwealth Government and home of the Governor General (see Color Pate XIII).

Canberra is a topic of controversy that never appears to be exhausted among the Australians. Some denounce it as a reckless squandering of money; others are equally enthusiastic that it is a city built for the future. But Canberra is young (see illustration, page 718).

Miles of broad thoroughfares have been laid out in straight avenues, circles, and curving drives, that radiate out from Capitol Hill. More than three million trees and shrubs have been planted, the very names of which would read like a botanical catalogue. From Parliament to residential home, it is truly a made-to-order city.

When I visited it in springtime, row on row of wattles were covered with golden



Photograph by Branson De Cou from Galloway

SNUG AND SAFE IN THE POCKET OF HIS MARSUPIAL MOTHER

"Show us your haby!" cry the children to the kangaroos and wallabies in the zoo at Sydney. The term "kangaroo," now applied to the larger gray or red species, was gleaned by Capt. James Cook from the Koko Yimidir tribes, who called the common wallaby "ganguru."

bloom; buds of the cherry, peach, flowering almond, and plum trees were swelling
or had burst into glorious masses of blossoms. At that time, however, the thousands of tulips had not opened to nod before the dazzling white walls of Parliament
House.

A FOUR-ACRE PARLIAMENT HOUSE

The present Parliament House is a twostory structure which covers an area of four acres. The interior is beautifully finished with Australian woods.

The one departure from the simplicity of decoration is the Speaker's chair in the House of Representatives. It is a present from the British Parliament, and is an exact copy of the one that graces the House of Commons.

Today, with low, scattered buildings, Canberra lacks the vistas of Washington. Fewer than 9,000 people live within the Federal territory. One wonders what it will be like a hundred years hence,

With the same confidence that they pioneered the country, staked out towns which have grown to prosperous cities, and projected this Federal Capital, the Australians have their faces turned toward the future. In their march to nationhood they have made some costly mistakes and many fine achievements. But they possess an optimism and an intense devotion to their country that will carry them far.

THE ROCK OF ADEN

The Volcanic Mountain Fortress, on the Sea Route from Suez to India, Assumes New Importance

By H. G. C. SWAYNE

A HUNDRED miles east of Bab el Mandeb, the Arab "Gate of Tears" which guards the southern exit of the Red Sea, the extinct Aden volcano rises to a height of nearly 1,800 feet above the Arabian coast. It is a trade center, not only of southern Arabia, but also of Somaliland and Ethiopia.

On this desert rock-fortress, midway between Egypt and India, live the Europeans and the Indians who are garrisoning Aden, with a floating civil population of Hindus, Parsis, Arabs, Greek merchants, and Pales-

Well enough does the rock deserve the description given it by Kipling:

"Be'old, acrowd upon the beam And 'umped above the sea, appears Old Aden, like a barrick stove That no-one's lit, for years an' years."

The sun-saturated barren rock seems to suck the life and moisture from human bodies. In 20 square miles of brown precipices and patches of sandy plain grow only a few trees, no grass, and one important flower, the Aden lily, found in remote rock crevices.

The modern town of Aden, centered around Steamer Point, is connected with the old town by the five-mile Ma'ala Road. The old town lies huddled inside the crater where the rim is broken down toward the sea, and overlooks the old harbor. There, it is said, in the 1830's, the cutter from a British cruiser literally hung onto the little stone jetty with grappling irons, and a young naval officer, landing, sword in hand, at the head of his party, drove the Arabs into the mountain.

WATER IS A PRECIOUS THING

Behind the town, in a gorge of the crater, arranged like a row of masonry cups, each emptying into the next lower one, is the chain of reservoirs known as the Aden Tanks. They may have been built about 600 A. D., or earlier, and some were restored after 1856 by the British. Undoubtedly they were made to store the two showers or so of rain which visit Aden

about every other year (the annual average is only about three inches). When the rain comes, the water is sold by auction to Arabs and others, who carry it away in tins, goatskins, or water carts (page 740).

Supplies of water, independent of these tanks, are obtained by boiling sea water and condensing the steam. This is the drinking water used by most of the white population.

The Arabs believe that each time the tanks become full there must be three deaths by drowning. I know of one time when three men died thus. One of these my Indian overseer saw floating head downward in one of the huge open tanks, while a hundred people stood on the bank within a few feet of him. They could easily have saved him, but would not touch him. Many oriental peoples believe that it is unlucky to touch the dying.

If Aden is arid, it has the compensation of being in a beautifully painted setting, for by daylight the more-than-Mediterranean blue of the water lies in violent contrast with the Vandyke browns, umbers, grays, and othres of the walls of rock, which make a perfect background for the bright dress of a crowd of Eastern people.

From our bungalow, on a lava slope a hundred feet above the sea, my wife and I have watched many incomparable sunsets beyond the serrated ashen-gray ridges of Little Aden (Jebel Ihsan), an old, broken-down cone which was once a twin to the Aden volcano (Jebel Shamshan). It now shelters in its flat sandy coves an Arab fishing village (see map, page 726).

As we watched, some large Arab dhow with a high poop, looking like a caravel of the Spanish Armada, would steal out from the Inner Harbor to the sound of its sweeps, to pick up the evening breeze on its way south. Later, a little group of Somali sailors, brown figures clothed in white, would be seen squatting round the evening meal, a bowl of millet.

Later still, the afterglow would spring up from behind the line of crags, now nearly coal-black, and then brilliant rainbow rays, bars of lemon yellow, green, and



Photograph by Watter Bosshard

THE ARCADED RUE DE RIVOLI OF SHEIKH 'OTHMAN

Pottery products, coffee shops, and fruit stalls of this village, a few miles from Aden, find place under crude shelters and spill out into the streets, which have no sidewalks. Men gather under the shade of the few trees to exchange gossip (see illustration, page 734).

pink, would cut the zenith from west to east. A bright planet would begin to show itself.

Ismail, my Somali head servant, would watch the dhow as he squatted outside our bungalow, and would murmur, "Insh' Allah, nahassil hawa" (Please God, we shall soon get a breeze).

LIFE AWAKES WITH THE EVENING BREEZE

In the stillness, a large fish a mile away would leap a dozen feet into the air, probably trying to rid itself of parasites, and come down upon the water with a resounding smack. Then, farther off, another and another.

From the men pulling at the oars of the creeping vessel would come the rowing chorus, "Yahudi, wa'llah" (By Allah, a Jew!).

A cool puff of air would arise, the water would begin to ripple into little waves, the Somali crew would all get up and go running forward to the bow, and the big triangular lateen sail would rise and spread, cutting the sky, to creakings of cordage and sharp cries and the chorus of many voices: "In the name of God, in the name of God."

Then due south, keeping the mountain peaks on the starboard side, the boat would itself become a coal-black dot against the pale yellow of the west, and silence would again reign.

We, who lived under the muzzles of great guns, by day working in the glare at our garrison duties, by night sleeping outside our houses because of the heat, with our beds pulled out onto the lava rocks under a brilliant world of stars—how often we felt that we should like to be sailing on such a boat toward the faded sunset to some new adventure in a cool, invigorating climate with the resinous smell of cedars in our nostrils!

Often my wife and I observed small sharks swimming near the shore. Every few months some huge wanderer of the



Photograph by Herford Types Cowling

THE BARREN, TUMBLED MASS OF SHAMSHAN IS THE ADEN LANDFALL

Little Aden, across the harbor, presents a similar array of jagged peaks built by ancient volcanic fury. Normally the population in this British outpost is about 50,000 people.

seas would enter the harbor and terrify an unfortunate British soldier bathing beyond prescribed limits, or some Somali child singing "Daisy Bell" and diving from a dug-out canoe for the silver of passengers under a big mail steamer. Of late years the practice has been stopped.

Sometimes a netted swordfish would be landed by some fishermen from a dhow and left palpitating its life out on the sand of Gold Mohur Valley.

Yet there were bright scenes which made us forget the heat and the perils of the Tropics.

On the flat plain beside the five-mile Ma'ala Road, which runs from Steamer Point to the Crater (see illustration, page 736), is the little village of Somalipura, where Arab and Somali sailors squat on the sand and mend their lateen sails.

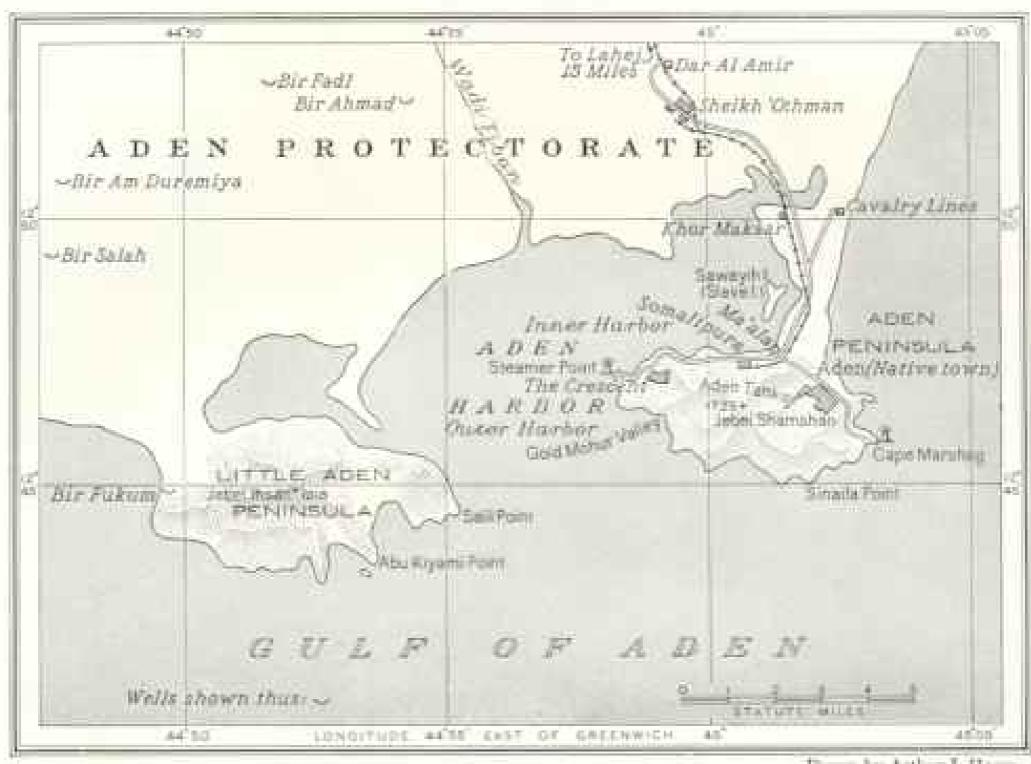
Pleasant-looking fellows, these, and, standing about in groups are more civilized wealthy Arabs in long, bright silk jibbahs and embroidered waistcoats. They are holding an impromptu stock exchange over a hill of mother-of-pearl shell from Perim Island or bags of rice from India, ready for transshipment to Africa.

Away among the gorges, about a thousand feet below the peak of Jebel Shamshan, as the volcano is called (from Ash Shams, the sun), are built the Towers of Silence, to which the funerals of the Parsi inhabitants of Aden wind up a long and desolate flight of steps.

Around the summit of the mountain kites constantly wheel in the air over the settlement during the daylight hours with their complaining scream, "cheel, cheel."

WEIRD MUSIC IN THE MUEZZIN'S CALL

The most solemn and impressive aspect of the jagged crest of Shamshan is seen when, with your bed on the flat roof of some small hotel in The Crescent, the business quarter at Steamer Point (see illustration, page 730), you lie awake in the hour before dawn, with the black, threatening mass of the mountain obliterating part of the circle of stars.



Drawn by Arthur J. Hazes

VOLCANIC ADEN AND ITS NEAR TWIN, LITTLE ADEN, ARE ALMOST SEVERED FROM THE ARABIAN COAST

For centuries before its acquisition by the British in 1839, fortified Aden was a stronghold, protecting trade. It occupies a strategic position midway between Egypt and India, opposite Somaliland (see World Map Supplement with this issue).

Then suddenly is raised a long chant, dominating, intoned, rising and falling like the howl of a lost wolf dog, echoing and diminishing among the distant gorges. It Its resthouse has a small "Garden of is the voice of the muezzin, so often quoted.

To me it sounded like "Allah-hu-akbr; Allah-hu-akbr; Allah-illaha-illa'llah; Mohammed rasur Allah"; and I believe the translation is "God the Great; there is no God but God; and Mohammed is the prophet of God." Whether it is recorded accurately or not, no words can fully and adequately convey the elemental weirdness of the cry, leaping from echo to echo over the sleeping town.

Outside the fortress gates, on a strip of sand which connects the volcano with the mainland of Arabia, are encamped a troop of smart, black-whiskered Indian cavalry. They drill in khaki, with lance, sword, or carbine on small Arab horses, or go on escort or orderly duty on fast little Arabian dromedaries.

Where this strip of sand meets the mainland is the flat-roofed Arab town of Sheikh

'Othman, Aden's overflow, the abode of Arabs and Somalis who for any reason cannot live in the fortress (see page 724).

Allah" where the ripple of irrigation channels and the voice of the bulbul can be heard in the evenings.

From that town you can step through a postern gate of the Garden right out into the wilderness, where tribes of dark-skinned Arabs gain a precarious livelihood by cultivating durra and lentils around a few brackish wells close to the town, or, farther out, by living a Bedouin life, doing transport work in connection with the fortress.

You may see many an Arab passing on some mysterious errand, leading a carnel by a string. He is quiet and content, perhaps crooning to himself some chant which sounds like a psalm. He bristles with the hilts of silver-mounted daggers and snuffboxes and other gadgets.

When, in the past, the interior tribes of Arabs have had to be reasoned with by civilized forces, or held in check on the



Photograph by Charles K. Moses

FROM DECK CHAIRS TRAVELERS WATCH THE CRAFT THAT ONCE TRANSPORTED SPICES AND SLAVES TO EUROPE

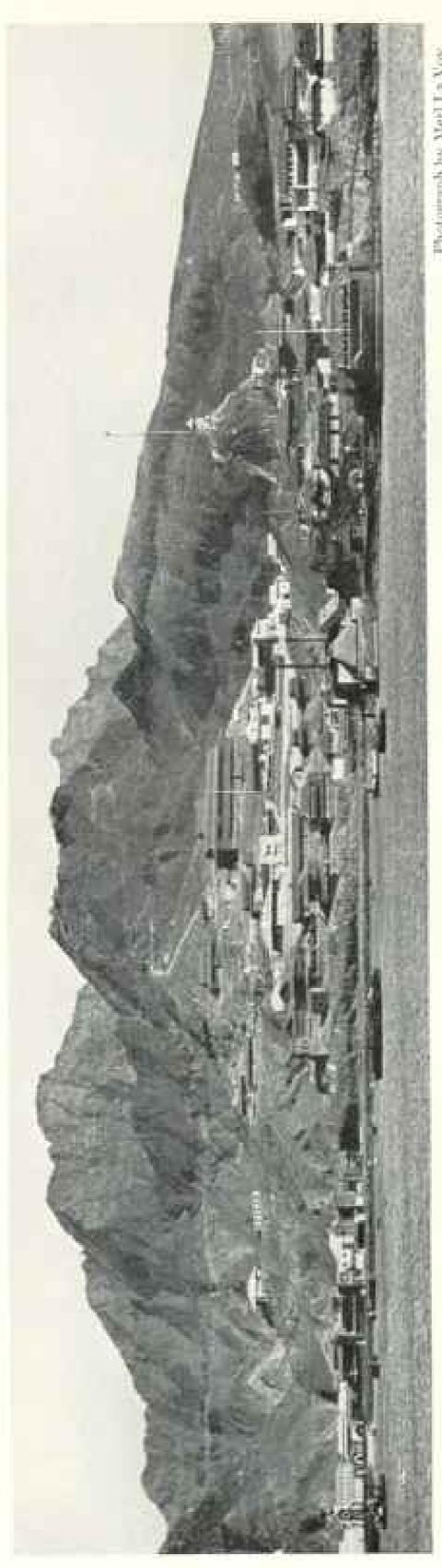
Centuries before steam navigation brought commerce to this port by way of the Suez Canal, such Arab dhows were sailing its coasts. "No craft has played a greater part in world history," asserts one writer. "The lateen yard is as much the emblem of the Faith as is the crescent."



O Alex Stiicker

A SEVEN-MANPOWER ROLLER SMOOTHS ADEN'S STREETS

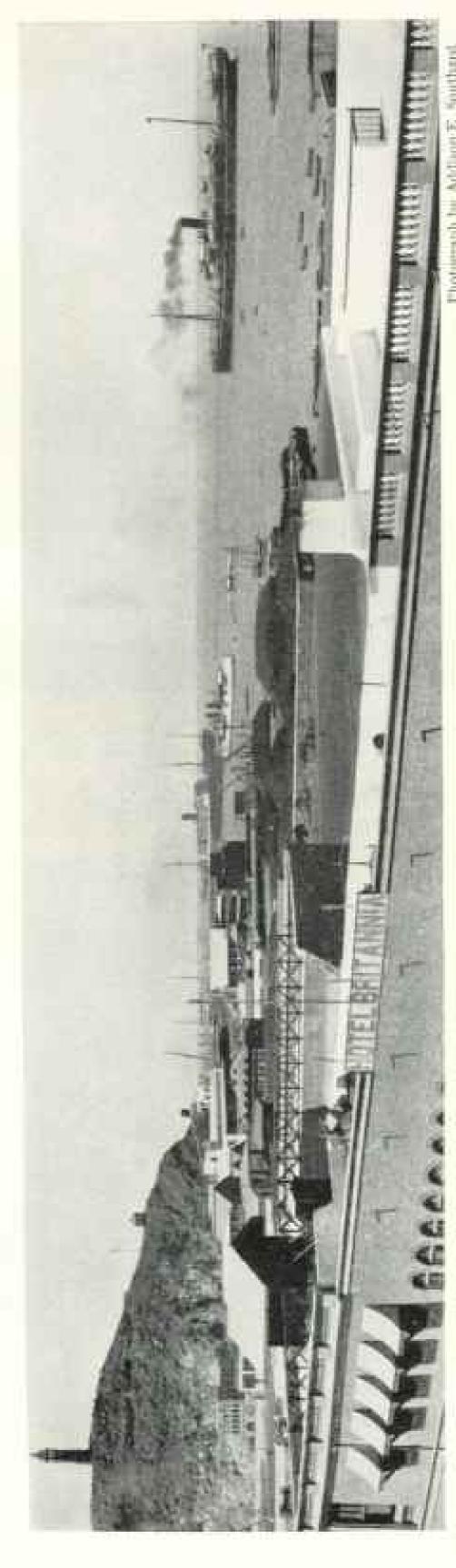
Half-naked natives work on the roads around The Crescent in the modern business district that has grown beside the Inner Harbor (see illustration, page 750). Aden was the first British territorial acquisition during the reign of Queen Victoria; a statue to her stands in the background.



Photograph by Med La Voy

VOLCANIC WALLS RRITAIN GUARDS HER SEA PATH OF EMPIRE PROM THESE RUGGED

From the barbor at Steamer Point the visitor looks past shipping offices and Barrack Hill, toward the distant crags of Jebel Shamshan. Atop the rocky knob to the right is the conspicuous signal flag station that guides shipping in and out of Aden, and almost in line with its base is the mole battery.



Southerd Photograph by Addhou E.

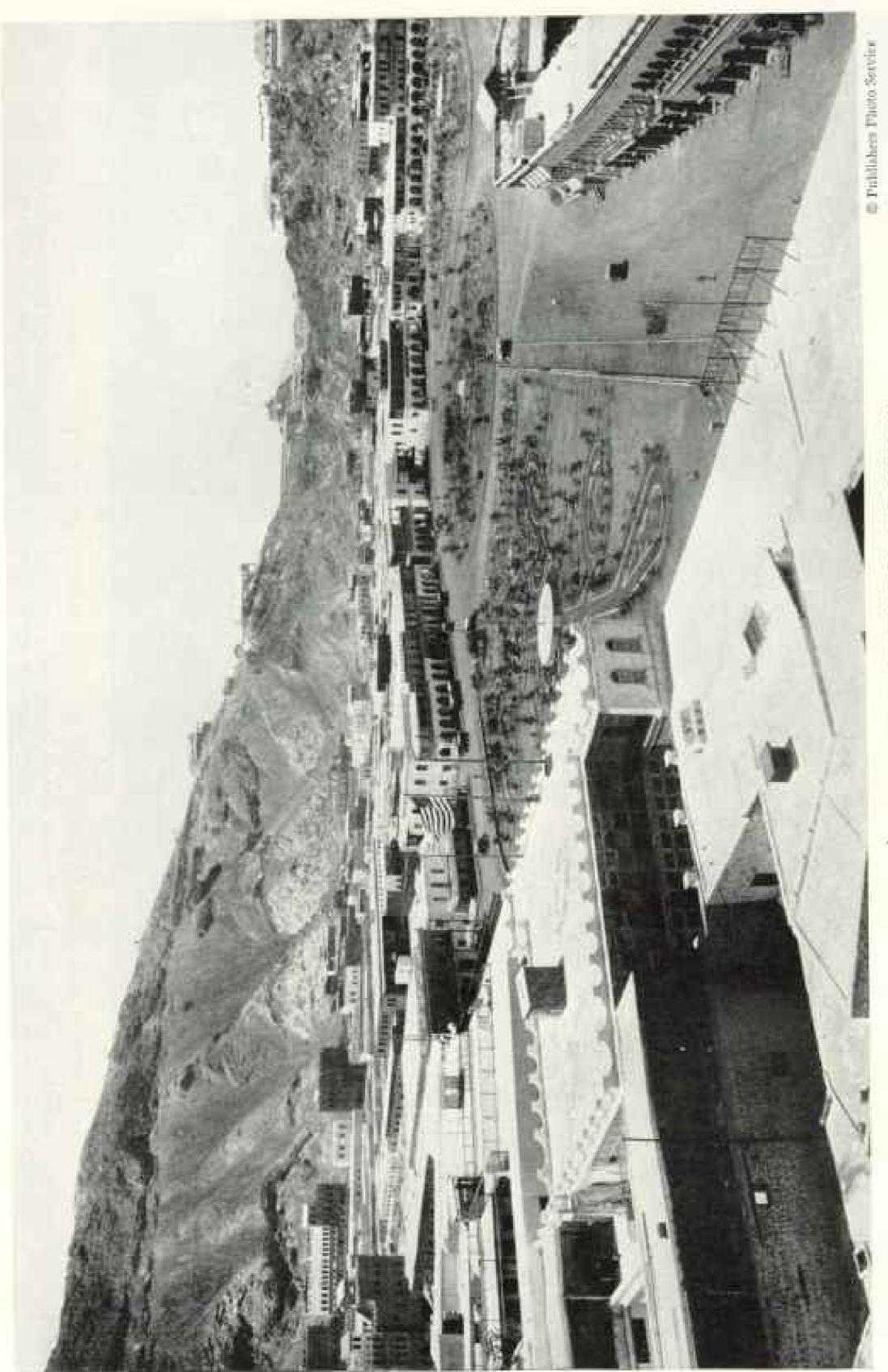
Sheep and gout skins, coffee, fvory, ostrich feathers, and frankincense are transhipped here. Aden shares with Djibouti the Ethiopian trade. The landmark on the hill at the left is a clock tower. AND THE EAST APRICAN COAST PAUSE IN THE ADEN ROADSTEAD STEAMERS TO INDIA



HALTS TO COAL, ADEN'S HARBOR SALESMEN SHOUT THEIR WARES

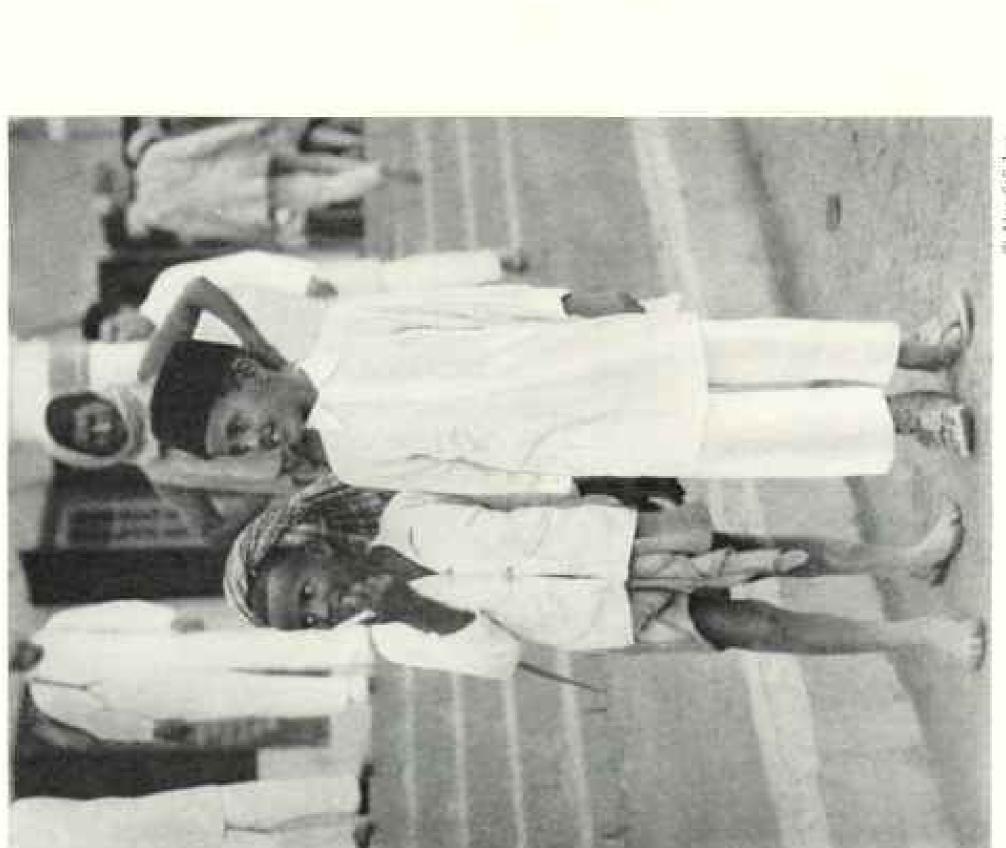
One barge is discharging the fuel while another stands by. Hawkers, manning bumboats, always flock around incoming vessels to peddie outrich feathers, beads, rugs, and trinkets (see Illustration, page 732). The principal steamship companies provide lumiches for taking passengers ashore.

AS A RRITISH MAIL STRAMER



MOST OF ADEN'S VEGETATION IS CONTINIE TO THE CRESCENT

Grouped around this slender, curving park are many of the commercial houses, batels, and consulates of Aden. The flat should four miles distant. The Stars and Stripes fly over the United States Committee (see page 755).



"LOOK AT THE FUNNY WHITE MAN WITH THE BLACK BOX!"

These youngsters become accustomed to smile when requested by cameracarrying visitors. The Indian youth (right) some day may become a merchant. The Arab (left) probably is destined for menial tasks.



HERE IS SOLD A PRECIOUS "SOFT DRINK" -- WATER

The steep, rocky crags of Aden allow the scanty rains which come, on the average, every other year, to drain quickly into the sea. Consequently, there are few good wells and water is a prized beverage (pp. 735 and 740).



Photograph by Maymard Owen Williams

"SAHIB, MEMSAHIB, BUY SOME OSTRICH FEATHERS"

Thus cry the aquatic merchants that cluster around steamers stopping at Aden. The prospective salesman throws a woven cord up on deck; when a sale is made, money goes down in a basket and the parcel is sent up on this aerial express.

caravan routes, or at times of tribal fights, there would steal out of the fortress a string of camels with little field guns on their backs. The booming voice of the guns could be heard from somewhere in the far deserts by dwellers on the Rock who were sitting down for early tea and toast.

Outside, and also within the precincts of the fortress, one is always astonished at the presence of this little white civilized colony, this pin-point of Western civilization, lying cheek by jowl with hundreds of miles of unmitigated wildness.

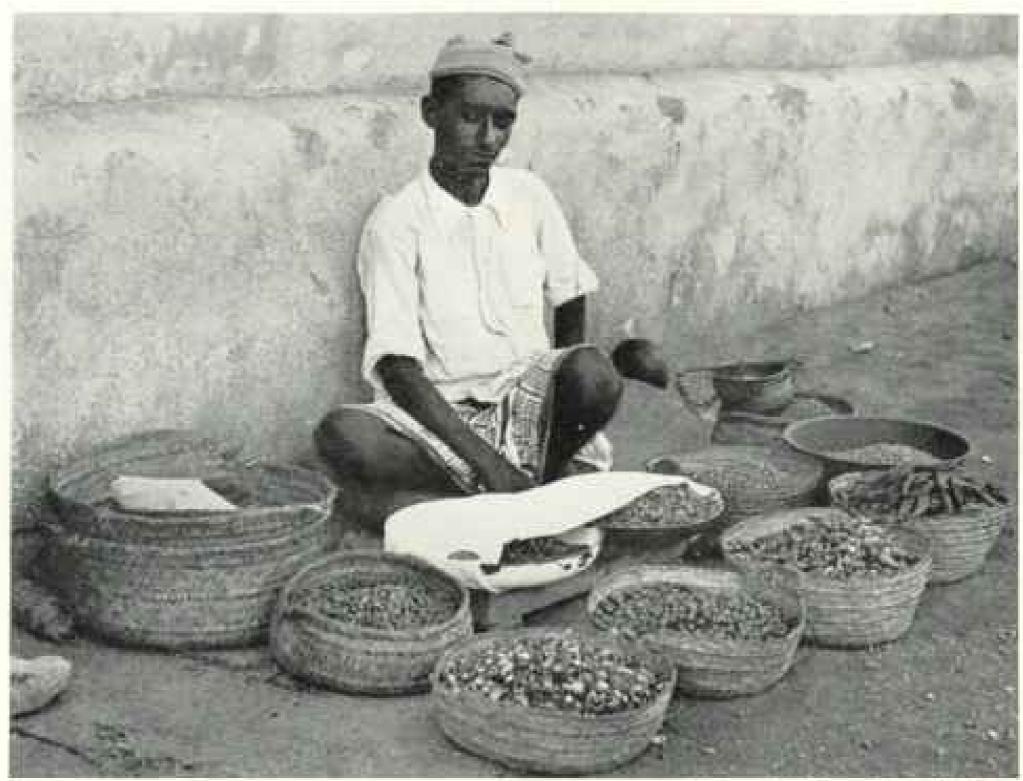
THE DESERT A MYSTERIOUS EXPANSE

They are picturesque enough—the desiccated southern Arabian deserts stretching away from the Rock, and in the distance the forbidding brown foothills which buttress the fertile alps of Yemen. The people here are light umber-brown but not unhandsome Arabs, good Mohammedans having, probably, a very slight infusion of Ethiopian blood.

Among its social elements there are petty feudal chiefs. They hold small, rough, blockhoused villages, like miniature Rhine castles, overlooking dry gorges through which trickle thin streams that become torrents when in flood. Their scanty crops can be grown by careful irrigation. The villages are dirty, each with its marginal age-old refuse midden spilling untidily over the rocks, and the wet cultivation produces malaria.

Then, also, there is a scattered, scanty population of Bedouin Arabs, unutterably poor; matchlock-bearing men, who live in squalid mud-built or stone shelters, or even caves (see illustration, page 742).

They are predatory, and quarrel with all and sundry over a few muddy waterholes. They are met with in the spaces between the organized village strongholds, or they share the meager hospitality of the



Photograph by Maynard Owen Williams

AMONG NUT SELLERS OVERHEAD EXPENSES ARE NIL

Like this vender, they select a shady spot beside a wall and patiently await the rush hour. Because Aden is barren, food has to be brought from the inland oases or from other countries.

rocky hills or desert plains with their goats and camels, or with the white oryx, the gazelle, the mountain ibex, and the carrion kite.

More comfort is found among the oases. Where some torrent issues from the mountains, carrying periodical freshets, a broad, roaring, brown flood will cut its way down to the sea and form a miniature delta.

There an oasis is established by scientifically arranged aqueducts and channels built of alluvial mud, left to dry and harden. The oases produce palm gardens, dates, and much grain, and in such favored spots there is sure to be a central castle and a flat-roofed town of medieval aspect, reigned over by a petty sultan.

SIMPLICITY MARKS HOUSE FURNISHING

Southern Arabian civilization does not attain to greater material refinement than rough castle interiors containing good oriental carpets on a dried-mud floor. There will be a Koran, say, or an Alif Leilah u Leilah (Thousand and One Nights), or Tarikh al Yemen (History of Yemen); a big Turkish pipe, and a divan or two; and stacks of silver-mounted guns and daggers leaning against the walls.

In the little town which surrounds the castle one may meet the chief or his son, or the leading merchant, in jibbah and turban, or mounted on a good horse and followed by many retainers. The merchant wears dingy bits of cloth around his waist, a profusion of the silver-mounted dagger hilts stick up from his stomach cloth, the athletic chest and legs are bare, and a bright handkerchief is twisted around his straight black wisps of hair.

As on the northwest frontiers of India, at times one of the world's open sores, where the new British civilization and the old Indian civilization, linked together, meet the wildest savagery of Central Asia, so outside Aden, in a much lesser degree, the traveler must be his own policeman.

There is little law and order beyond the influence of the British-Indian garrison, and one may not be quite safe except at



Photograph by Col. H. G. C. Swayar

DOORS HINGED AT THE TOP LOOK LIKE VISORS OF HUGE CAPS

The humble huts belong to Somalis of Sheikh 'Othman, a village on the mainland side of the hay facing Aden (page 724). These people are represented about equally with the Arabs in the native population in Aden.

the castles of petty chiefs or in the villages and fields which are irrigated under their protection. To these chiefs one should have an Arabic letter of introduction.

This was a thought that occurred to me when I rode a camel out into the blue distant mountains to inspect the engineering project which was one of the things that justified my existence in Aden. Since two tribes were quarreling across my route, I had, on the particular occasion referred to, an escort of twenty Indian cavalry, and the Sheik of Nobat Dakim had sent his only son, a young dandy on a beautiful Arabian steed, to meet me and escort me safely across the bit of desert.

THE ART OF RIDING A CAMEL

When I speak of camels, I really mean the dromedary with one hump, whether the slim, high-caste, fast Arabian kind which trots, or the coarser Somali baggage dromedary of the African side, which only walks. The Arabian white dromedary will do a hundred miles in a day and will easily outlast a horse.

Cautiously the rider throws a foot over, and before he is settled in the saddle the beast jumps up and rushes away. If one sets his mount's nose over a winding path there will be no more trouble; the camel will conscientiously follow the trail by day or night without the rider's touch on the nose-string. A push into the groove of his neck with the toe of the free dangling foot will make him increase his pace.

One rides just as a woman rides when using the sidesaddle, the inside of one knee tightly gripping the frame of crossed sticks representing the pommel. It matters not which knee grips and which dangles free, and the Arab uses no stirrup.

The gentle tap-tap of the saddle, rising against the outer side of one's gripping thigh, goes on mile after mile; and the experienced rider on a well-bred animal finds the going not in the least disagreeable or tiring. On the other hand, sitting out the oblique side swing of a walking camel is likely, with many Europeans, to induce nausea akin to seasickness.

Distant an easy camel journey from Aden is the oasis of Lahej, long an example of indigenous Arab law and order.

Issuing from the mountains at Nobat Dakim, 40 miles inland, is a life-giving river, Wadi Tiban. Sometimes it flows from that barren gorge as a slender stream;



C Alex Stocker

IT TAKES TWO LANGUAGES TO SAY "STOP" IN ADEN

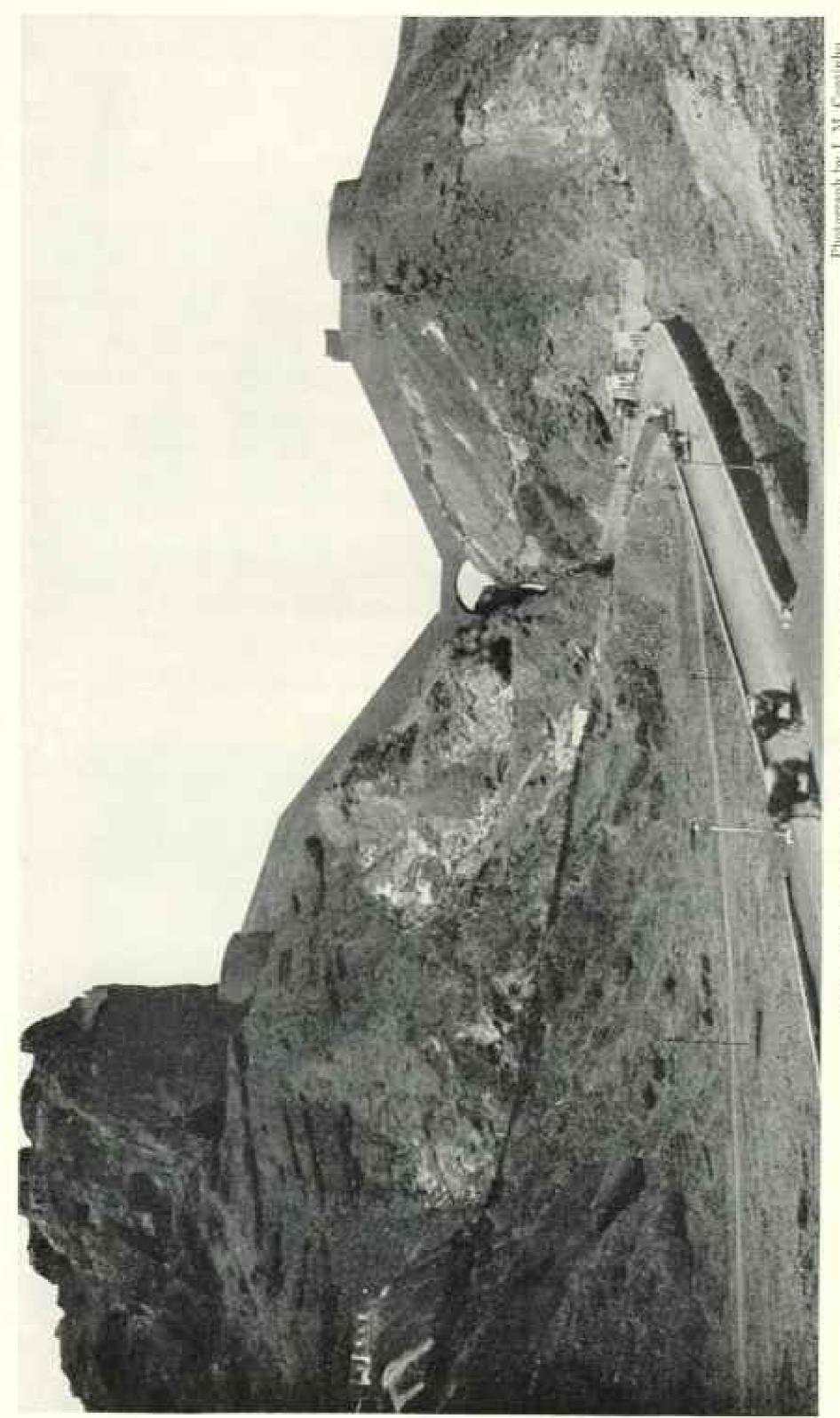
Modern busses thread their way among heavily burdened camels, man-drawn carts, carriages, and juywalking pedestrians.



Photograph by Addison E. Southard

"RUNNING WATER" IN ADEN MEANS CAMEL-CART DELIVERY

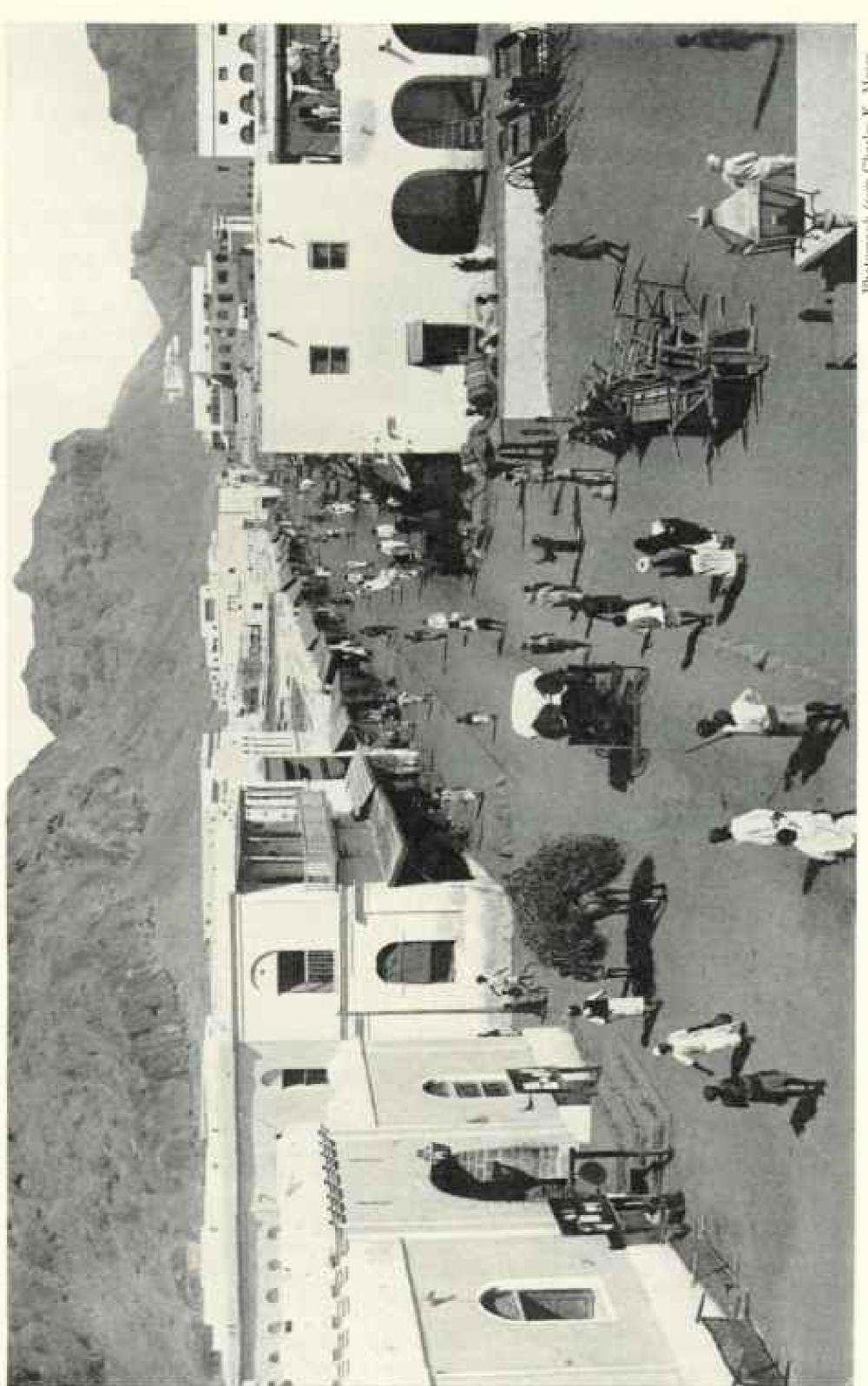
Most of the water supply for foreign residents of the arid town is distilled from the sea and brought to households in this manner. It costs about five cents for a four-gallon measure. The sign, bearing the familiar eagle, indicates the American Consulate.



Photograph to: J. M. Coatinbo

THE MA'ALA ROAD PIERCES THE WALLS OF ADEN VOLCANO

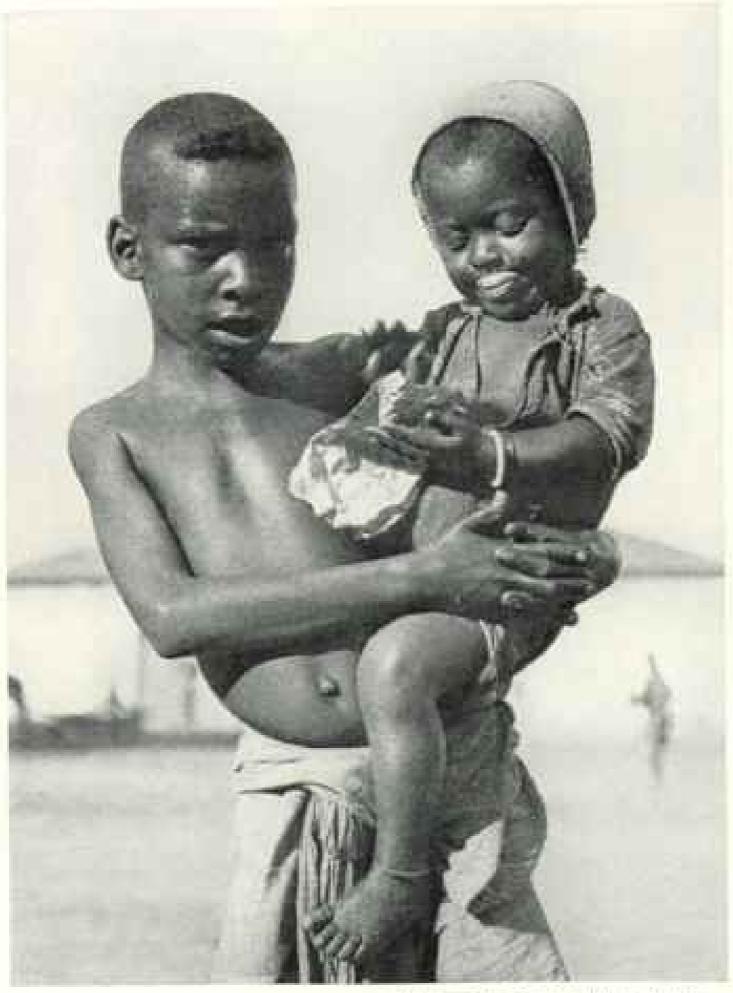
All traffic between the modern harbor settlement and the native town, which lies on the floor of the crater, travels this highway. High on the grim, black rock towering to the left of the old fortifications, once protected by a drawbridge, is a natural excavation which traditions of both Arabs and Jews hold to be the tomb of Abel (see text, page 742).



Photograph from Charles K. Maier

CUPPED IN AN ANCIENT VOLCANO, ADEN SIZZLES IN THE HEAT

Few Europeans venture out in the midday sun, but the camel drivers and wood venders are abroad at all hours. Most of the natives clustered in the bazaars are Arabs and Somalis, but Jews, Greeks, Parsis, and other races make up this modern Babel. Since British occupation, the ancient trading center has been largely rebuilt and now has wide, straight streets.



Photograph by Maynord Owen Williams
BIG BROTHER'S HIP IS HER "PERAMBULATOR"

This method of carrying children is common in many countries "East of Suez." Dark skins and curly hair indicate that these two are of East African parentage.

at other times it roars out in a wide, swift torrent, and, after leaving the hills, cuts through a 20-mile desert. Then, dividing into two branches called Wadi Kabir and Wadi As Saghir (Big and Little Rivers), it forms the fan-shaped delta oasis of Lahej, many square miles of land cunningly irrigated in the Arab way by a network of well-designed channels. It is another Egypt on a miniature scale.

In 1911 the Sultan of Lahej, already an elderly man, and a prime favorite of the British, traveled with a retinue of Arabs to Delhi to attend ceremonies celebrating King George's coronation.

Behind Lahej, the twenty miles of hopeless desert slope up to the mountains, among which the trayeler may be shot at by
thieving Bedouins any
day. Close to the Wadi
Tiban, in its upper
gorge above the division of the rivers, on
the camel path, I saw
a number of skeletons
of baggage camels
which had been shot
from an ambush laid 50
yards from the track.

The barren gorges of Nobat Dakim, onward to the interior, lead to mountains as high as 8,000 feet, the outworks of the prosperous San'a country, where Turk and Arab have faced each other and fought intermittently for 50 years.

There is a legend that the Queen of Sheba's state visit to Solomon started from Yemen when it was an Ethiopian colony.

Tearing winds sweep the desert behind Lahej, obscuring the mountains with driving sand; and a wall of sand is sometimes even pushed across the Inner Harbor of Adea from Sheikh 'Othman, falling on the bungalows of residents in a

brown darkness and leaving behind in the rooms a heavy layer of alluvial dust. The Arabs have a saying that Aden is a place where you thrust your rubbish out the door, and a great wind rises and throws it all in again through the window.

It is not surprising that we of the garrison, enduring an occasional sandstorm and also many whirling, circling dust devils even on fine days, living in a moist "winter" temperature of from 75 to 90 degrees Fahrenheit in the shade, and a "summer" one of from 95 to 105, with a drenching humidity, used to count the hours, weeks, and months till we could leave the Rock.

On many an evening, watching the sunset, we would picture ourselves setting out



WIDE-ARMED MILLS TURN LAZILY IN ADEN'S VAGRANT BREEZES

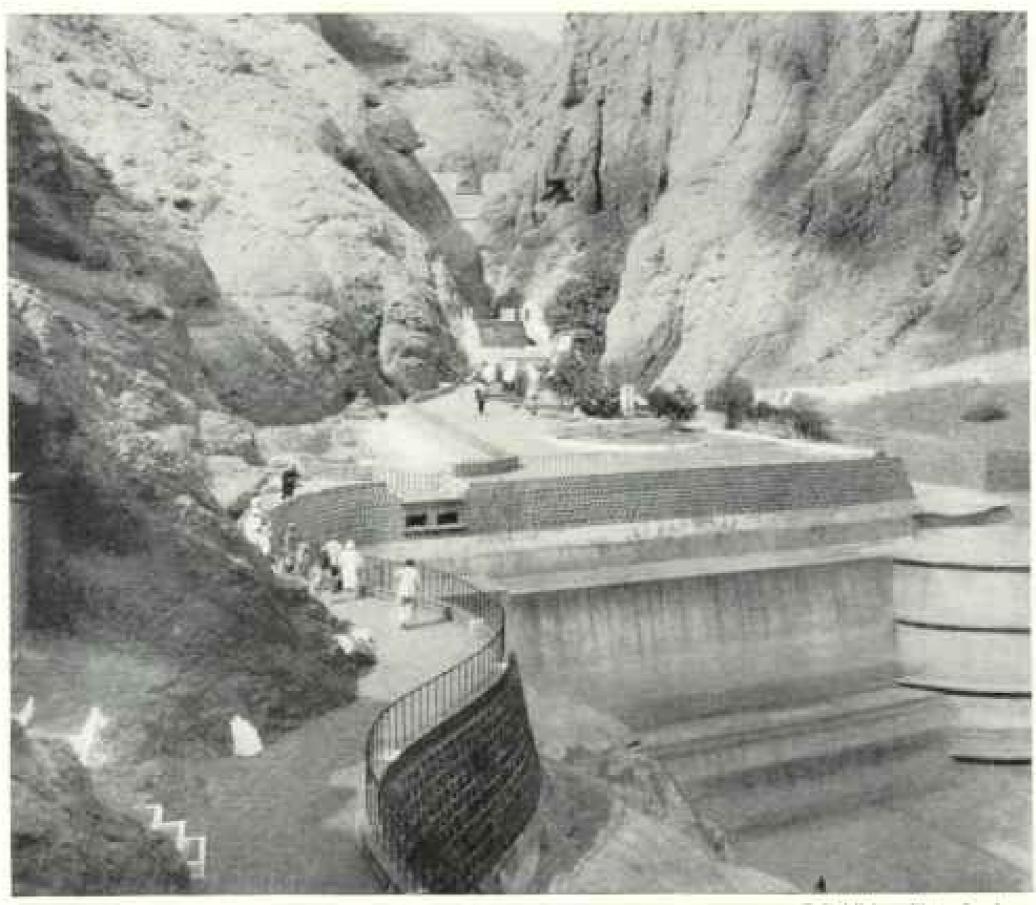
They pump sea water into canals that are linked with broad, shallow evaporating beds. The hot sunshine evaporates the sea water, leaving a thin layer of salt. After repeated fillings, the saline deposit is thick enough to be raked into heaps for final draining and drying.



Photographs by Herford Tynes Cowling

HAUGHTY CAMELS FURNISH MOTIVE POWER FOR ADEN SALT TRAINS

Salt from the evaporating beds along the narrow isthmus that connects Aden with the mainland is trucked over the narrow-gauge tracks to places where it can be loaded into barges. Lacking wharves for deep-draft ships, most of Aden's products have to be lightered to and from the roadstead.



D Publishers Photo Service

BY ELABORATE TANKS EARLY ENGINEERS CONSERVED RAINWATER FOR ADEN'S USE

Some authorities attribute these reservoirs to the time of the Persian conquest, about 600 A. D. Others believe the Himyarites constructed them before the Christian Era. Several are built in stairstep fashion in a crater gorge behind the town, each lower one catching the overflow from the tank above. Since British occupancy several of them have been restored. The water is sold by auction to the natives, who peddie it in time, goatskins, and carts.

for vacations, rowed over to embark on a small steamer, not too seaworthy, which carried goods and mails to the Somali coast.

We could see ourselves on the deck as the steamer began to move, the Somalis forming into a long line for evening prayer, turning as nearly toward Mecca as the moving of the ship would allow, and prostrating themselves on the deck.

We would imagine hearing the bugles, as we skirted the shore of the Inner Harbor, sounding the evening calls, and from the French and British gunboats at their moorings, two or three rifle shots would ring out, marking the hour of sunset.

We would turn in our thoughts to the ship itself, saluted by odors from the cargo, not only rice, dates, coffee, and calico, but ponies, Arabian dromedaries, ox hides, clarified butter, and sheep! The sheep used to be so tightly wedged together that sometimes over their living backs we would find our way to the little saloon.

Then, from this dream, we would bring our minds back to welcome the cool of the evening, aware of the pulsing life of Aden.

The main road leading past The Crescent (see text, page 725) would at this time be busy with citizens returning home from shop or other work. There would be Arab navvies, coal coolies begrimed from head to foot, many singing what sounded like Gregorian chants. The tall, slender, dark Somalis, who dislike hard navvy work, would stalk rather proudly and impertinently along, clothed in voluminous clean white sheeting, laughing, chatting, and showing their perfect teeth.



Photograph by Col. H. G. C. Swayne

THE SULTAN'S PALACE AT LAHEJ TOWERS AMONG DUSTERLIKE PALMS

Set in a well-irrigated easis, 21 miles inland from Aden, these buildings of mixed Italian, Arab, and Indian architecture can be seen from the harbor or mountains on clear days. The Sultan's realm, under the British protectorate, has long been an example of native Arab law (p. 734).



O Alex Stöcker

THE PURSE OF A TRADER IN ADEN'S "WALL STREET" IS A HEAVY BAG

With umbrella under his arm—for protection against sun, not the infrequent rain—and a sack of Maria Theresa thalers in his hand, this Arab merchant is returning from the coffee exchange. The policeman is not serving as an armed escort.



Photograph by Lendon News Agency

THREE MUSKETEERS OF ARABIA

The old rifles look more like museum pieces than firearms, yet they were faithful companions to these tribesmen against the Zeidi Imam's attacks in 1928. To the Arab, rifles and knives are prized possessions, but they must be surrendered when he visits Aden.

Ringleted Arabian Jews would be there, carrying over their backs dirty bags containing ostrich feathers to be traded to passengers on the big liners. Parsis were there in black alpaca coats, European trousers and boots, and on their heads the tall hats which appear to be covered with shiny American oilcloth. They are the city men, mostly from Bombay business houses.

A MODERN ÆSOP FABLE

A couple of Arabs might go by, father and son, carrying a small sick donkey slung in a blanket, unconsciously illustrating the old Æsop fable. Then would pass a string of baggage camels, on top of each an Arab lying fast asleep, except that the leading rider would be sitting up and constantly calling a warning to get out of the way.

Now and again some English sergeant's bicycle bell would be heard, or the hoot of motors, while ubiquitous British soldiers walked about in threes with the inevitable terrier, a picture made familiar by Kipling.

Full of life is that five-mile road running to the Crater, crowded with people between the business quarters, immersed after their kind in petty concerns.

On the rocks above the road, a thousand feet up between earth and heaven, is the opening of a little cave supposed to be the resting place, some say of Abel, some say of Aaron. By night a lamp is burning, shining down from the black cliffs like a star.

WHERE BIBLE CHARACTERS LIVE AGAIN

Everyday Life in Oberammergau, World Famous for Its Passion Play, Reaches a Climax at Christmas

By Anton Lang, Jr.

IT IS always with joy that the traveler, wandering south through Germany, views the white flag atop the Gothic city hall of Bavaria's capital, Munich (München), for the signal tells him the day is exceptionally clear and the peaks of the Alps are beckoning, in plain view some sixty miles away.

"St. Peter, the weathermaker, must be in a good mood to send so fine a day," say thousands in the city of Munich itself, and they head straight for the mountains.

A swift electric train, or a bus whirring over smooth roads, takes the traveler past the inviting Lake of Starnberg (Würm-See), the banks of which are studded with villas and manors. White sailboats greet him from the green waters, and their background is the hazy blue mountains that loom in the distance, some 45 miles farther south (see map, page 746).

A VILLAGE CRADLED IN MOUNTAINS

The first approach to these gigantic monuments of Nature has the emotional impact of the immigrant's first glimpse of New York's colossal skyline. Shortly the upward journey begins, through rolling, verdant hills which make the transition gradual. Half a mile above sea level, the wanderer finds himself surrounded by the gray peaks, partly wooded mountains, and high green hills which cradle Oberammergau.

As he nears the village, the towering crag of the Kofel bids him welcome, with its huge wooden cross on top (see illustration, page 744). This rocky cone must have been a weird sight one night in 1809 after lightning had struck it, setting its trees ablaze and turning it into an immense torch.

If the wayfarer's ambition holds out, his feet will soon follow his eyes to the lofty height, and before him will unfold a panorama of the Ammer River Valley. In its midst, peacefully resting, is the village which takes its name from the meandering, icy-cold stream (see page 748).

"District on the upper part of the Ammer River" is the meaning of Oberammergau, a word apparently formed with no consideration for alien tongues. Three miles down the river lies Unterammergau, and on the opposite side a place called Oberau, giving rise to a local tonguetwisting pun, akin to "picking a peck of pickled peppers":

"Ob er über Oberau, oder ob er aber über Unterammergau, nach Oberammergau komm, weiss ich nicht," it goes, which means, somewhat ineffectively, in English:

"Whether he is going to come to Oberammergau by way of Unterammergau, or whether he is going to come to Oberammergau by way of Oberau, I don't know."

MECCA OF 400,000 IN A YEAR

Standing in the brisk breeze blowing over the Kofel, one scans the irregularly scattered town with its red roofs amid green crowns of trees. Four bridges cut the silvery band of the Ammer, in whose mirror are reflected the town's tallest buildings—the church and the Passion Play theater.

Little more than a year has passed since the curtain once more went down on that stage, not to rise again until 1940. The hush that settled over the hall also pervaded the streets of the village which only a short while before had been resounding with the voices of thousands of people gathered there from near and far.

In this sequestered Bayarian town some 400,000 people, representing practically all the nations and creeds of the earth, rubbed elbows in the special jubilee year of 1934, when 73 performances of the Play were given.

That memorable series marked the 300th anniversary of a tradition unbelievably dear to the village whose people for generations have been living in intimate daily contact with it.

WHEN THE BLACK DEATH CAME

The history of the Passion Play may be comparatively young, considering that, even before the Roman legions, Celts populated the valley. The Bavarian tribe preceded the age of knighthood, whose members, as early as the 12th century, saw a church being built in Oberammergau.



Photograph by W. Plinget!

LIGHTNING OFTEN STRIKES AND SHATTERS THE CROSS, STANDING LIKE A GUARDIAN ANGEL ON THE KOFEL'S HIGHEST CRAG

After destructive storms, young men of the village struggle up the steep slopes, bearing on their shoulders two heavy pieces of wood—an upright and a crosspiece—and build anew the symbol, which is nearly 20 feet high. The central part of the restaurant shown here was once used as a motion-picture theater, but it was closed because there was so little business. The town has another movie house which runs three days a week. At the right is the liberally frescoed home of Josef Gerold, a cobbler, whose family has lived there for generations.

Traveling merchants kept that little hamlet in intimate touch with the outside world, making it a thriving community. But then the Thirty Years' War came, and the specter of a disastrous pestilence began to lay its grip on the settlements surrounding the village at the foot of the Kofel.

Wherever fires were seen blazing at the entrance of towns, the wanderer fled in horror, lest be also be seized by the Black Death and thrown into the raging pyre.

The guards on the outskirts of Oberammergau must have missed that lone man who, after years of absence from home, yearned to be with his family again. Nothing could keep him away any longer. Sick, he staggered over the mountains at night through dark forests, and, unseen by others, joined his dear ones.

Next morning the excited beating of drums broke the news to the inhabitants that it had come, the dread disease, and Kaspar Schissler, bringer of death, lay dead. The all-powerful Reaper began his work, and 84 persons within a short time fell a prey to him. But their doom incited in the village a spiritual awakening.

From death and despair rose the Passion Play, a memorial to those who assembled in the little parish church in 1633, making a solemn vow to produce the drama of the Suffering and Death of Jesus every ten years if the plague should disappear.

The old village chronicle tells us that it did, and that the year after, under the guidance of the monks of the Benedictine monastery of near-by Ettal, the villagers for the first time fulfilled their promise.

ONWARD DESPITE WARS AND HARDSHIPS

From 1670 on, every decade beheld the same religious spectacle, the same fervor and devotion. Only the faces changed. Ever the Passion Play kept growing, through times of interdictions, wars, and hardships of all kinds.



FOUR-FOOTED TRAFFIC FILLS THE STREET IN EARLY MORNING

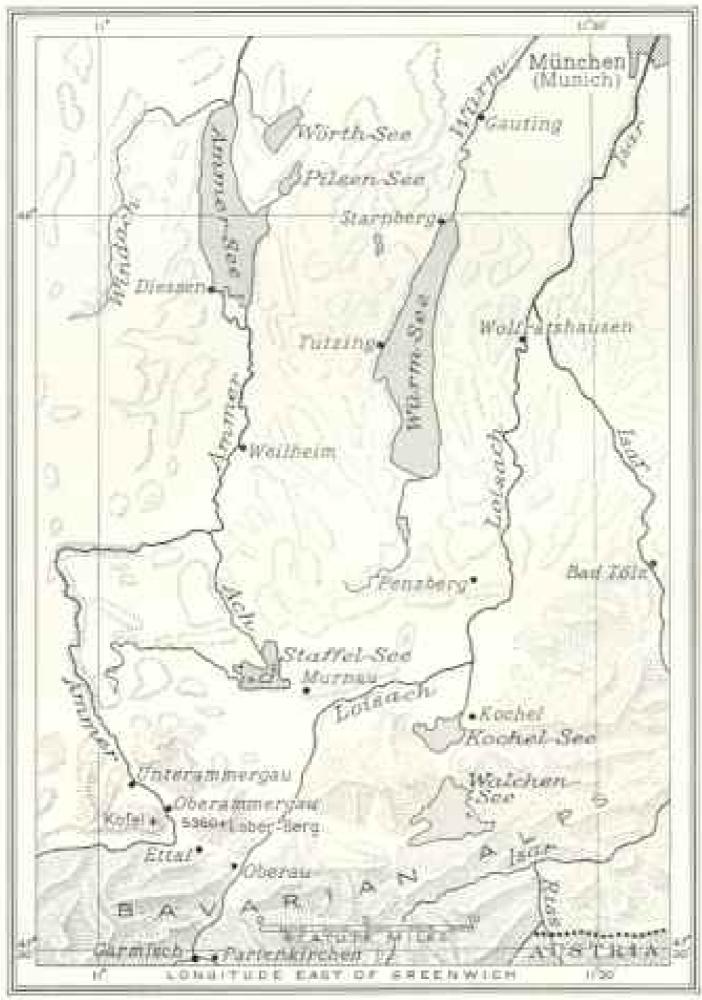
Promptly at 6 a. m. the young goatherder, seen in the rear at the right, sends the notes of his born ringing through the village, and owners open their stable doors. Out troop the milch goats to be driven off to mountain pastures for the day.



Photograph by W. Pfingstl

SNOWBANKS AS HIGH AS A MAN'S HEAD LINE MAIN STREET

Along the Hauptstrasse—also called Ettalerstrasse, because it leads toward the village of Ettal—the smaller children of the town go coasting. For the older ones there are sled runs a mile or more long on the mountainsides. Each morning the street is cleared by a snowplow drawn by half a dozen horses.



Drawn by Newman Burnstead

FAR IN THE SOUTH OF GERMANY LIES OBERAMMERGAU

The historic Passion Play village nestles in a valley of the Bavarian Alps, 40 miles, airline distance, from Munich and less than 9 miles from the Austrian frontier.

Was the mighty weight of a World War that took 70 men permanently from the ranks of this population of 2,600 souls to do away with the sublime legacy handed down by their ancestors for almost three centuries?

True it is, 1920 remained silent and bleak. There were not enough players, no provisions.

But 1922 looked down on a busy summer, saw the Play start in May and end in September. Once again Oberammergau was proving faithful to its vow.

No German will forget those heartbreaking days of inflation and currency collapse, 13 years ago, when one had to carry one's money in a satchel for the simplest shopping. Americans attending the Passion Play were
amused, even bewildered,
at the buying power of
their money, when a
single dollar would carry
them through three perfect days of pleasant
living, and thirty cents
would buy the best seat
in the hall.

The end of the season would have discouraged any promoter not steeped in Oberammergau tradition. Yes, we were poor business men, but the thought behind our work sustained us.

My father, the principal character then, received for more than threescore trying performances the sum of 20,000 marks—an amount which enabled him to buy only a pair of shoes and a few cakes of soap!

The 15,000 marks given for my work with the orchestra would, I thought, carry me a long way, particularly if I tucked the money away in the savings bank. In a few days it had depreciated to zero —and that was that.

But we carried on, and even the unheard-of sum of one million dollars was staunchly refused by the

villagers when they rejected a proposal to have their Play reproduced in the movies, and elected to have it continue to be what it had been from the very outset, a local drama with a great tradition, executed by amateurs. Only thus was it possible for the village in the shadow of the sheltering Kofel to preserve its quaint character.

TOWN CRIER SUPPLEMENTS NEWSPAPER

The visitor to Oberammergau immediately notes a cleanliness and refreshing atmosphere. Each home attracts him with its tidy appearance and the hospitable spirit of the people.

In spite of the macadamized "Hauptstrasse," Main Street, the rural character has not suffered. Traffic jams are caused by cows or goats rambling through the street, rather than by automobiles, of which there are only about ten in the town.

In how many other places in the world nowadays would one hear the husky voice of the town crier every now and then? After ringing his big bell, he announces the sale of veal, for example, available for the houses numbered I to 20. If you have lost something, he will help you find it with the yocal equivalent of a "classified ad."

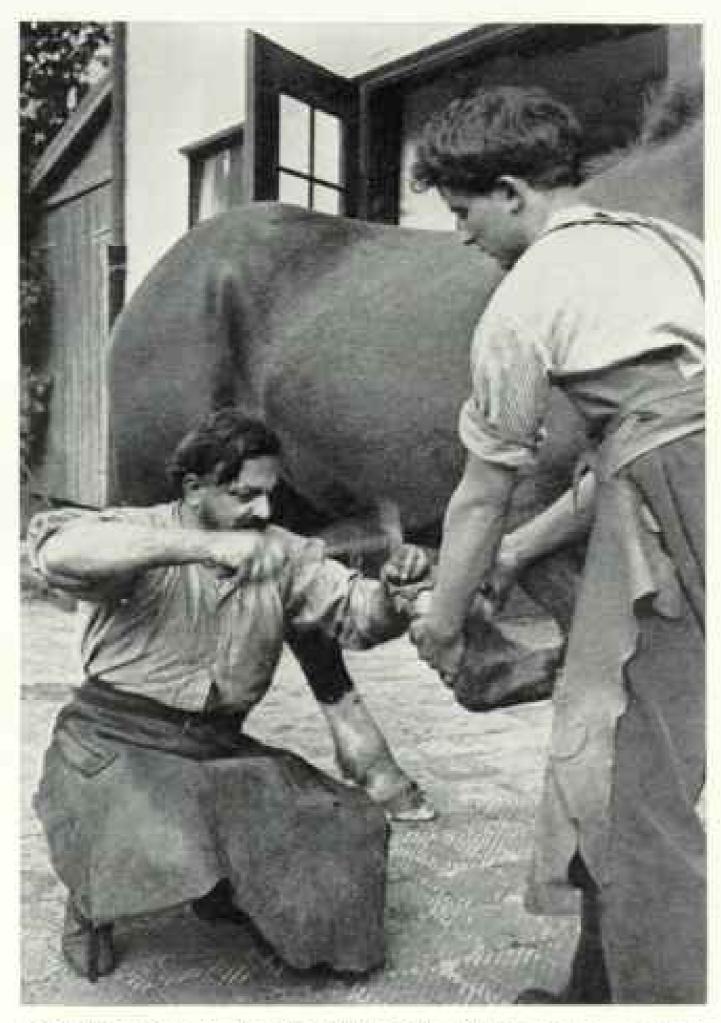
The whitewashed stone walls of the roomy houses usually have stood through many years, and, as if to protect them against inclemencies, far-protruding tile roofs crown the homes. True, gray tin sometimes replaces the striking red. But, on the other hand, even today there are numbers of ancient shingle roofs, weighted down by heavy stones.

Swallows, our weather prophets and bringers of good luck, love to build their nests under the eaves, or actually inside the houses, when they return from the south in the spring. The landlord al-

ways considers it a good omen when those swift, shy birds pick a lampshade in the ceiling of a room as their summer perching place, though the orderly housewife may have her own ideas about this choice.

Until about 150 years ago the sight of the towering mountains filled the people in the valley with awe; in fact, fear; and they were looked upon more as drawbacks than as objects of beauty and inspiration.

The custom of offsetting the depressing effect of the looming rocky background by vivid color still prevails, and besides old but ever fresh fresco paintings depicting



RESPLENDENT ROBES OF THE HIGH PRIEST CAIAPHAS ARE LAID ASIDE FOR A BLACKSMITH'S LEATHER APRON

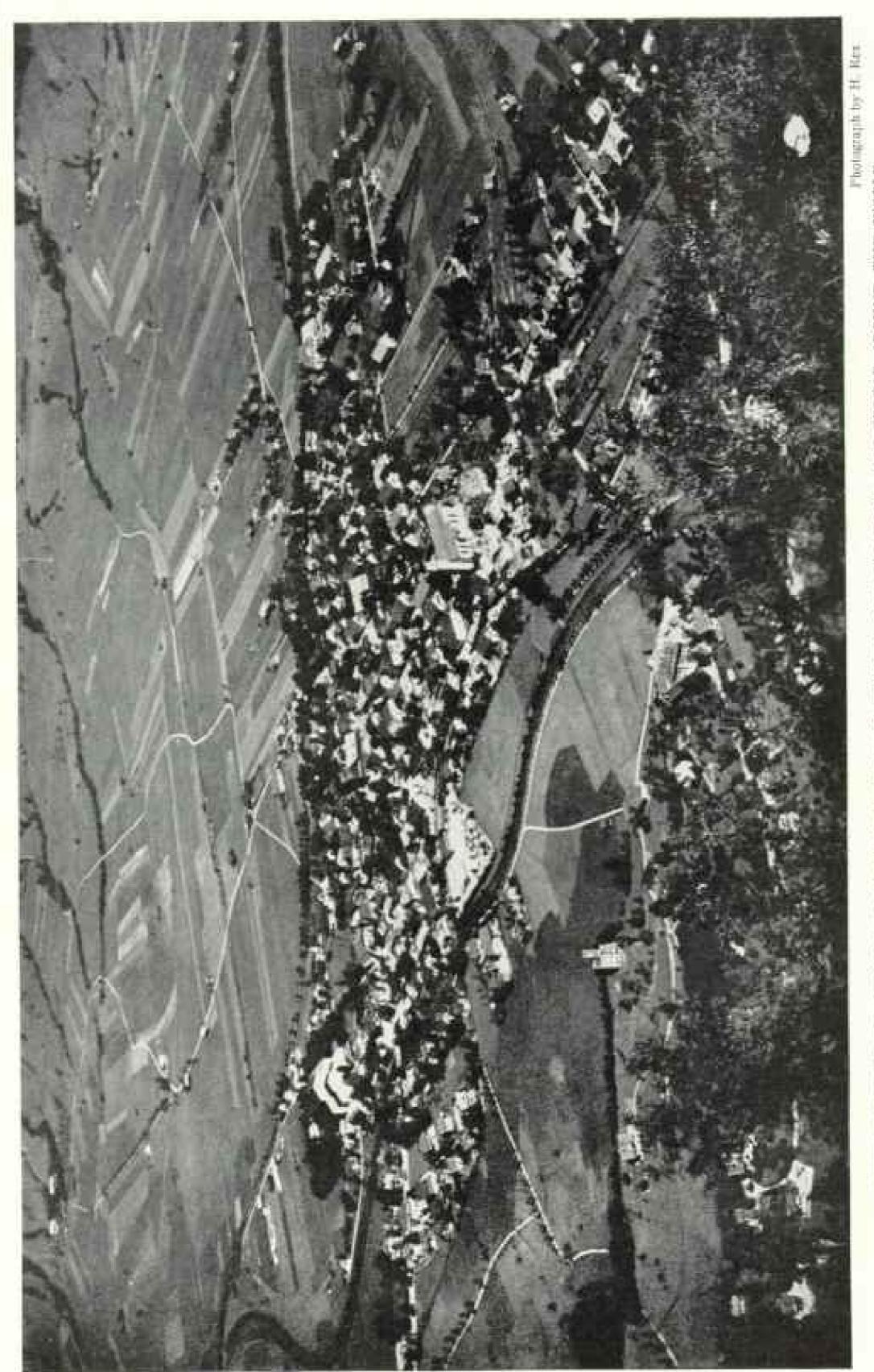
Fiery inciter of the mob against Jesus in the Play (see Color Plate VII), Hugo Rutz in real life is a mild-mannered man who hammers out a humble living by shoeing his neighbors' horses. His village smithy stands under no spreading chestnut tree, but near a school—out of sight beyond the bushes at the left.

scenes from the Bible on the walls of the houses, new ones are beginning to decorate several homes. These show a more modern trend, and generally are done by young Bavarian artists. They lend vivid color to a street scene already bright with houses painted yellow, pink, green, and blue.

Hardly a house lacks a balcony, and this, like all the windowsills, is lined with a profusion of flowers.

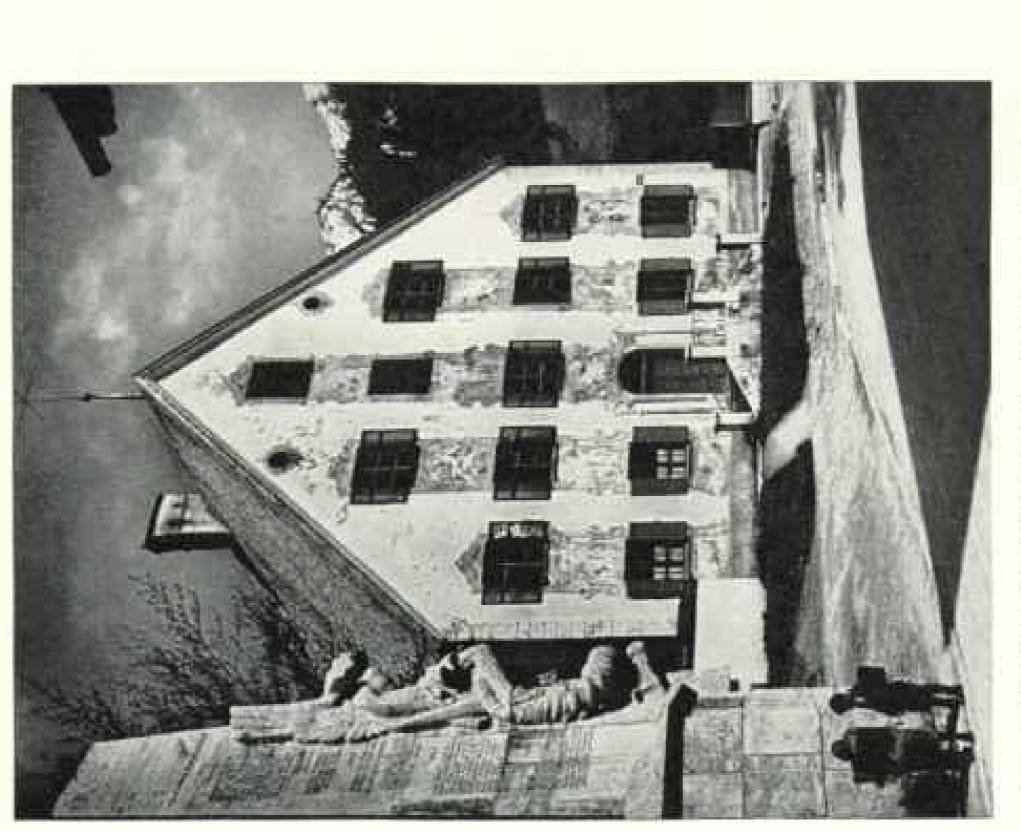
Green shutters and painted frames around the windows put a special stress on the "eyes" of most homes.

Usually near the door, in large letters,



HAS SPREAD AROUND THE WORLD HIGH MOUNTAIN VALLEY, BUT ITS FAME A MERE HANDPUL OF HOUSES IN

green trees, and rugilike fields of Oberammergau. just to right of center, is the village church * population of only proportion to il 14) the traveler looks down upon the red roofs, rtyrdom of Christ attracts througs out of all The other large building, the Martyrdom of Christ attracts thrater. From a lofty trag of the Kofel (see illustration, page 7 little Bayarian village's decemblal dramatization of the Mcbuilding at the left, near the icy-cold Ammer River, is the



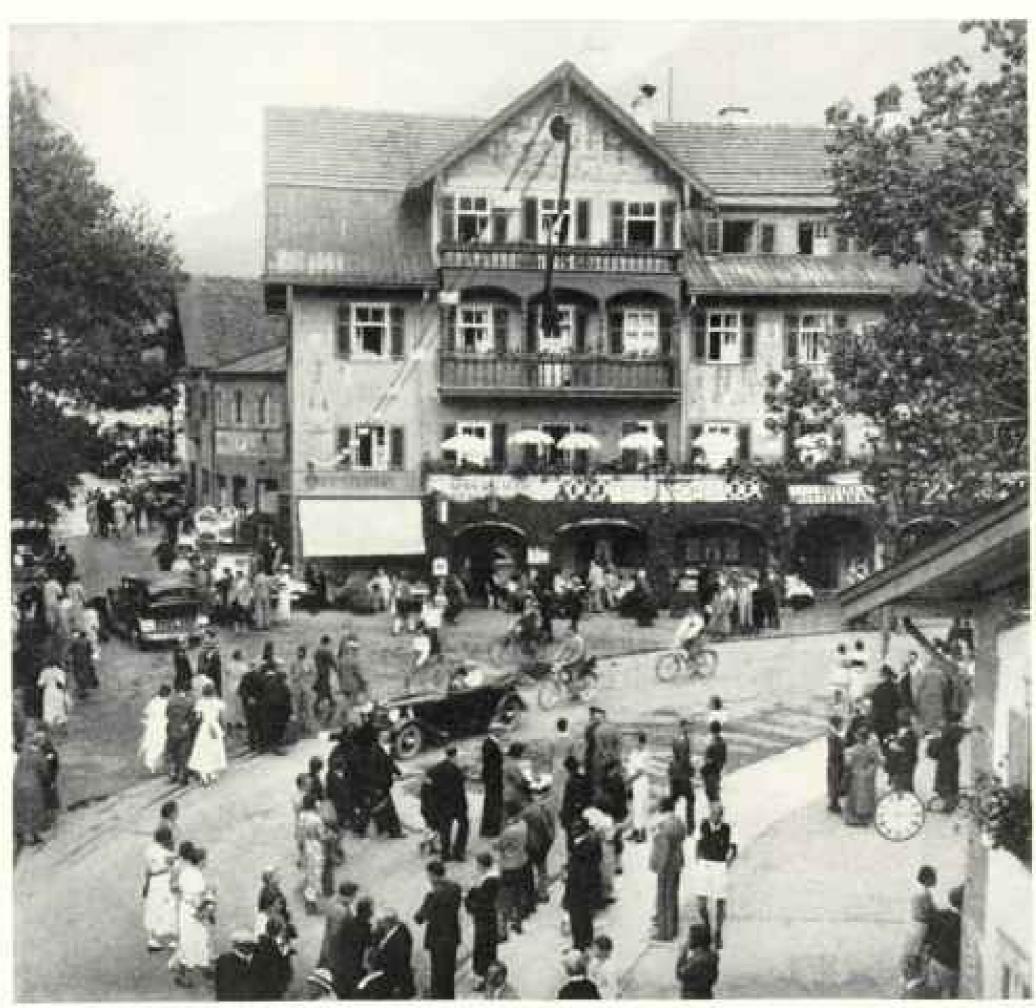
250 ORERAMMERGAUERS FOUGHT IN THE WORLD WAR, AND 70 DID NOT RETURN

Their names are graven on the War Memorial at the left, designed by Georg Lang, director of the Passion Play. The building frescood with hunting scenes is headquarters for forest and wild-life preservation.



ALONG SNOWY MAIN STREET PLOD OXEN, DRAWING FIREWOOD PROM THE MOUNTAINS

In the background rises the onion-shiped steeple of the old church, topped by its shiny cross (see text, page 761). Beyond, in the distance, is Laber Mountain (Laber-Berg), which has a little inn on its summit,



Photograph by E. Oerter

PASSION PLAY VISITORS SWELL THE TOWN TO MANY TIMES ITS NORMAL SIZE

Here a few of the 400,000 persons who saw the special tercentenary performances in 1934 throng the main square in front of the Hotel Wittelsbach (see Color Plate II). The Play lasts all day, and this is a luncheon recess, notwithstanding the "clock" at the right, which is only a tin symbol of the watchmaker's trade. A modern note in the frescoes on the hotel walls is the picture on the gable, showing one of the alien automobiles that stream into town in Passion Play years.

is exhibited the name and occupation of the owner, who might well appear to be the proprietor of the entire valley as he complacently walks through the streets and fields, hills and mountains. Born here, he feels himself part of all this:

The inside of his birthplace breathes the same spirit. The center is not the kitchen whence the healthful, frugal meals come, but the living room with a carved wooden crucifix solemnly hanging in one corner. There is the cradle of family life. There the men and women and children assemble when they come home from field or shop,

The fields yield just enough grass for the cattle and potatoes for the people, though most of the villagers have their own little gardens, with vegetables and flowers.

Farmhouse and stable are usually in one building. This saves the peasant many a step in bad weather and keeps him always near his beloved cows, which in turn help supply warmth in the long, cold winter.

The arrival of the White King is hailed by everybody, for the thick blanket he always spreads over the mountains and the valley does not mean being buried for four or five months



"GOD'S GREETINGS-STEP IN AND BRING IN HAPPINESS WITH YOU"

So reads, in German, a sign on the Villa Daheim, home of Anton Lang, Sr., long the Christus of the Passion Play (see page 761). The house, built in 1907, is flanked by a store and an inn (see Color Plate II). The motorcycle is alien to Oberammergau.



Photographs from Anton Lang, Jr.

ON HIS WIDE BELT EACH MALE DANCER WEARS HIS SWEETHEART'S PICTURE

Holding garlands, they tread the measures of a quaint, old-fashioned mountain dance, on a shrub-decorated platform built on a side street (see text, page 767). Girls wear silk aprons over pleated skirts, and a colorful scarf partly hides the bodice. Men have leather shorts, H-shaped leather suspenders, and woolen stockings with detachable feet.

Oberammergau lies in about the same latitude as Montreal, and masses of snow cover the mountains, at times to a depth of 30 feet (page 745). Many visitors come to try their luck on skis, and skiing becomes an easy accomplishment for the local youngsters. Sometimes they climb up a high mountain on skis, taking several hours, then whisk back to the starting point in a few minutes (page 768).

Sleds and horses with tinkling little bells break what to strangers might seem a Skaters dart across frozen monotony. ponds, while older men enjoy their game of curling on Sunday afternoon, regardless of the icicles swinging from their beards.

However, the climax of that time of year is reached with the approach of Christmas. It is initiated by Santa Claus himself, who, incidentally, has nothing in common with what is frequently referred to as the "Kriss Kringle," in German the "Christkind," meaning "Holy Child."

SANTA CLAUS ARRIVES ON DECEMBER 5

Santa Claus, arriving December 5, furnishes our Christmas preview. The children's good and bad deeds are read from his immense golden book, and, afterward, there may be nuts, candy, and gingerbread, and a few modest gifts of practical use; or, if the little memorized poem or prayer has been forgotten in his presence, the switches may have their say. Or, worse still, Santa Claus' servant may open his huge sack and in it remove the small offender forcibly from the good children for sion Play as we have it today. a little while.

On the last Thursday before Christmas, little groups of children troop from door to door to sing their old Christmas carols.

Then, suddenly it seems, Christmas Eve is here, and behind shutters closed against the cold, there is brightness, glamour, and bliss, all centering around the little carved wooden manger with the Christ Child in it. Above it a gaily decorated pine tree stretches solemnly its green branches, and the wax candles on it lend a fragrance to the room that can be experienced in all its meaning and deepness at no other time than Christmas Eve.

Christmas carols are sung by impatient children in front of the door which for several days has been concealing a great secret from them. After the presents have been distributed, a little play generally follows as a token of thanks to the good parents.

A warm, pleasant atmosphere surrounds this scene. The big tile stove in the corner crackles away at its task. There is something exceedingly comforting about it which those used to steam heat from the very beginning will never appreciate,

RADIO ANTENNAS AND STEAM HEAT

Like the coming of radio, which boldly stretches its antennas behind wooden crosses from gable to gable, the advent of modern heating methods is slowly working its changes; but it is hard for the old

people to see the stove give way.

From the moment steam heat was installed and my grandfather had nothing in the corner of his little room but a radiator, he constantly felt cold. So a stove was once more put in, and as soon as he could hear the crackling fire and add a piece of wood or peat now and then, all was well again.

When midnight comes on Christmas Eve and a faint smoke lazily rises from the chimneys, silent doors open and creaking steps are heard in the snow, all directed toward the church, bathed in the pale blue

of the dreamily rising moon.

Little Christmas trees on numerous graves blaze up in the silent churchyard.

Inside the Roman Catholic Church of St. Peter and St. Paul swells heavenly music, the work of Rochus Dedler, who, more than a hundred years ago, composed that midnight mass for his own town, for which he also wrote the incidental music of the Pas-

On New Year's Eve comes a celebration that takes the villagers away from their glass of punch, out into the street. There, the members of the Liederkranz, the local glee club, slowly march along "Main Street" from one end of the village to the other. A cheerful crowd follows the brass band, which is preceded by men carrying a huge star, sometimes five feet in diameter, made of parchment and illuminated from within. Boys carry a smaller one which is borne into the houses (see Plate I).

Singing and congratulating make the village resound all evening, and, with a "Glückliches Neujahr!" and the churchbells ringing, a whole town sets foot into a new year, just another stepping stone closer to the next Passion Play. Around it revolve everyone's thoughts and aspirations.

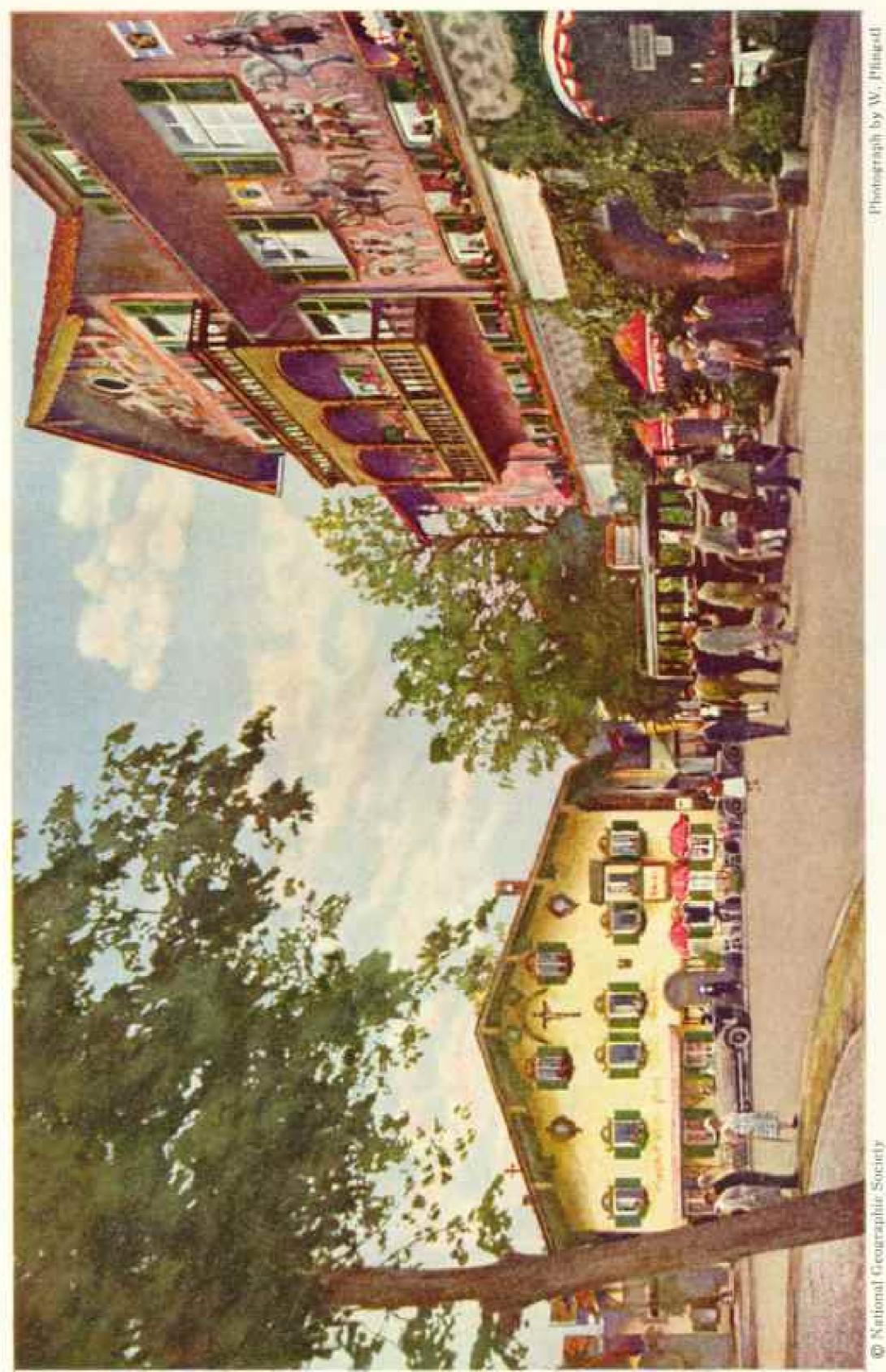
A symbol of this deep and constant spiritual interest is the crucifix, which reaches



O National Geographic Society

WHIRLING STAR AND JOYOUS SONG SALUTE THE NEW YEAR IN OHERAMMERGAU

Gay lanterns glow in the darkness, and proudly aloft is borne the candle-lighted parchment star, with revolving points and the likeness of the Christ Child, which is supposed to show the way into the coming year. The boys made it and carry it from house to house, bringing holiday happiness even into the homes of the bedridden with their violin-accompanied carols and shouted greetings. "The Star has risen," sing the youngsters, some of whom wear their hair long because they are training for parts in the Play (Plate VIII).



Wattonal Geographic Society

EVERY DECADE HUNDREDS OF THOUSANDS PLOCK TO THIS OUTET HAVARIAN TOWN

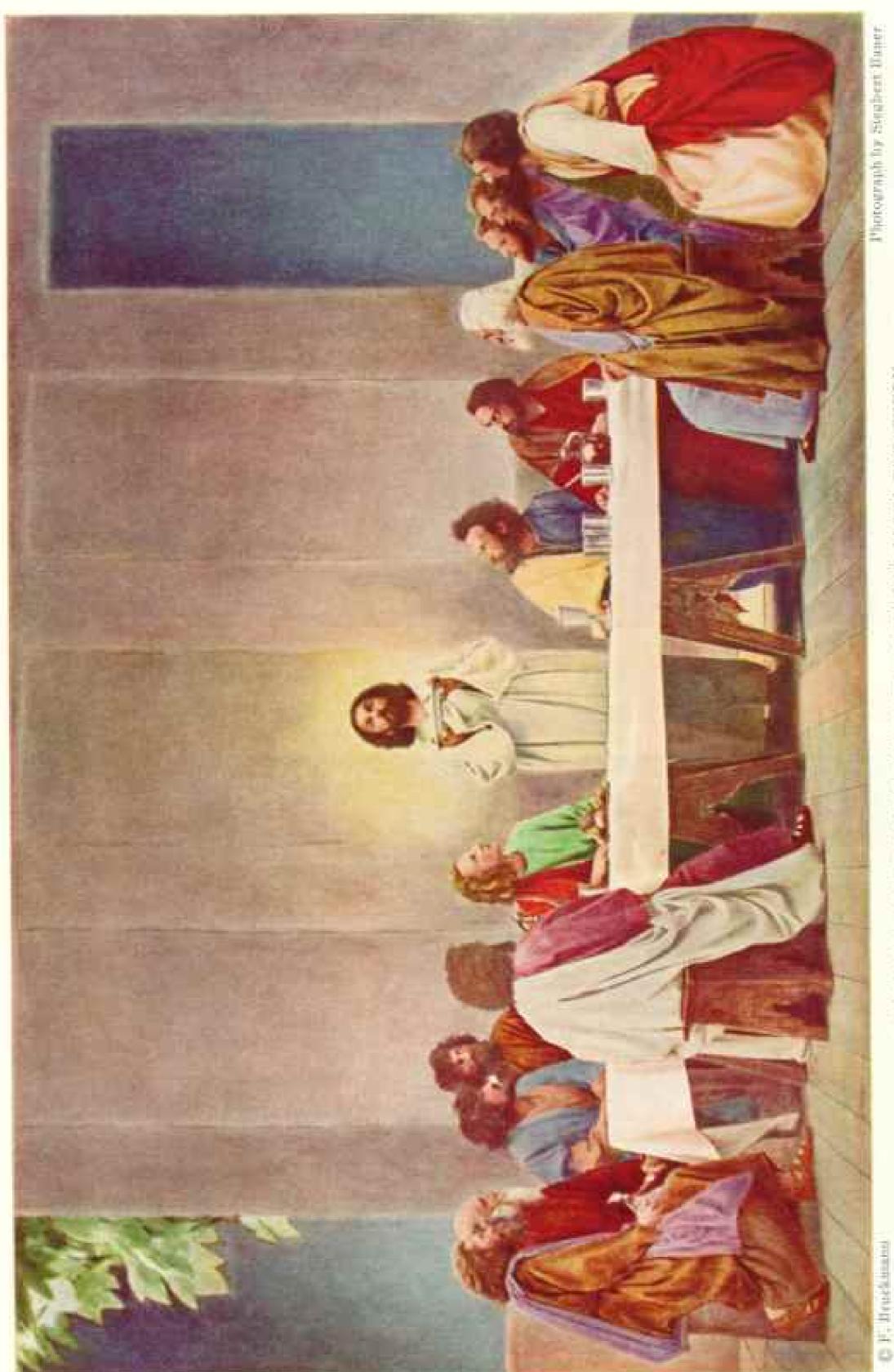
From all over the world they come to see the citizens of Oberammergau reverently referred; in fulfillment of a 300-year-old yow, the drama of Christ's betrayal and markerdom on the Cross. Crammed to overflowing then are the comfortable old Gasthof Afte Post and the newer Hotel Wittelsbach, with its frescoed walls. Both overlook the marketplace.



HIKERS PROM THE VILLAGE OFTEN VISIT THIS INN

on a green, sunny hillside near Oberannnergan. While his wife mends his woolen socks, he strums his guitar, and his ringing yodels echo from distant hills.

Eagle-down plumes adorn the velvet hats of the girl in pleated skirt, allk apron, and colorinf scarf, and her swain in leather shorts. The chaperon wears a heavy for cap and from five to seven petticoats!



lay is the Last Supper, during which the Master uttered the fateful words: "One of you shall a bread toward Heaven before He passes it to the Disciples. Dark Judas, fourth from left, stirs of Jesus, help to give the scene the appearance of Leonardo da Vinci's famous painting. THERTERN BREAK BREAD TOWETHER-AND ONE PLOTS TREACHERY

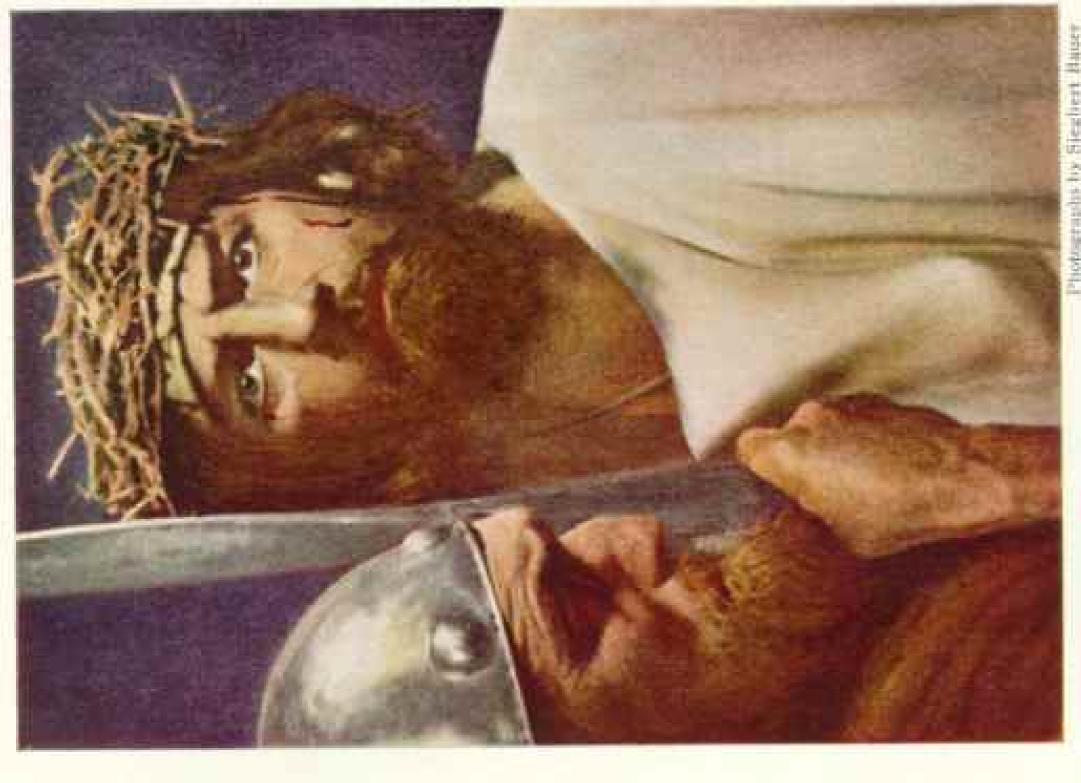
berray me." Here the Christus (Plate VI) raises the uneasity. Boyish John and rugged Peter, at either band o

IV



AND CHILDREN HALL CHRISTS HYTRY INTO JERUSALEM SIX HUNDRED MEN, WOMEN,

Here the cast includes nearly a fourth of the entire population of the village, all waving palm branches and halling the Master as the Son of David. In the company of His Disciples, with John at His right hand, the Christus rides slowly into the city, blessing the people who so open-heartedly receive Him. This is one of the outstanding scenes during the first bour of the Passion Play.



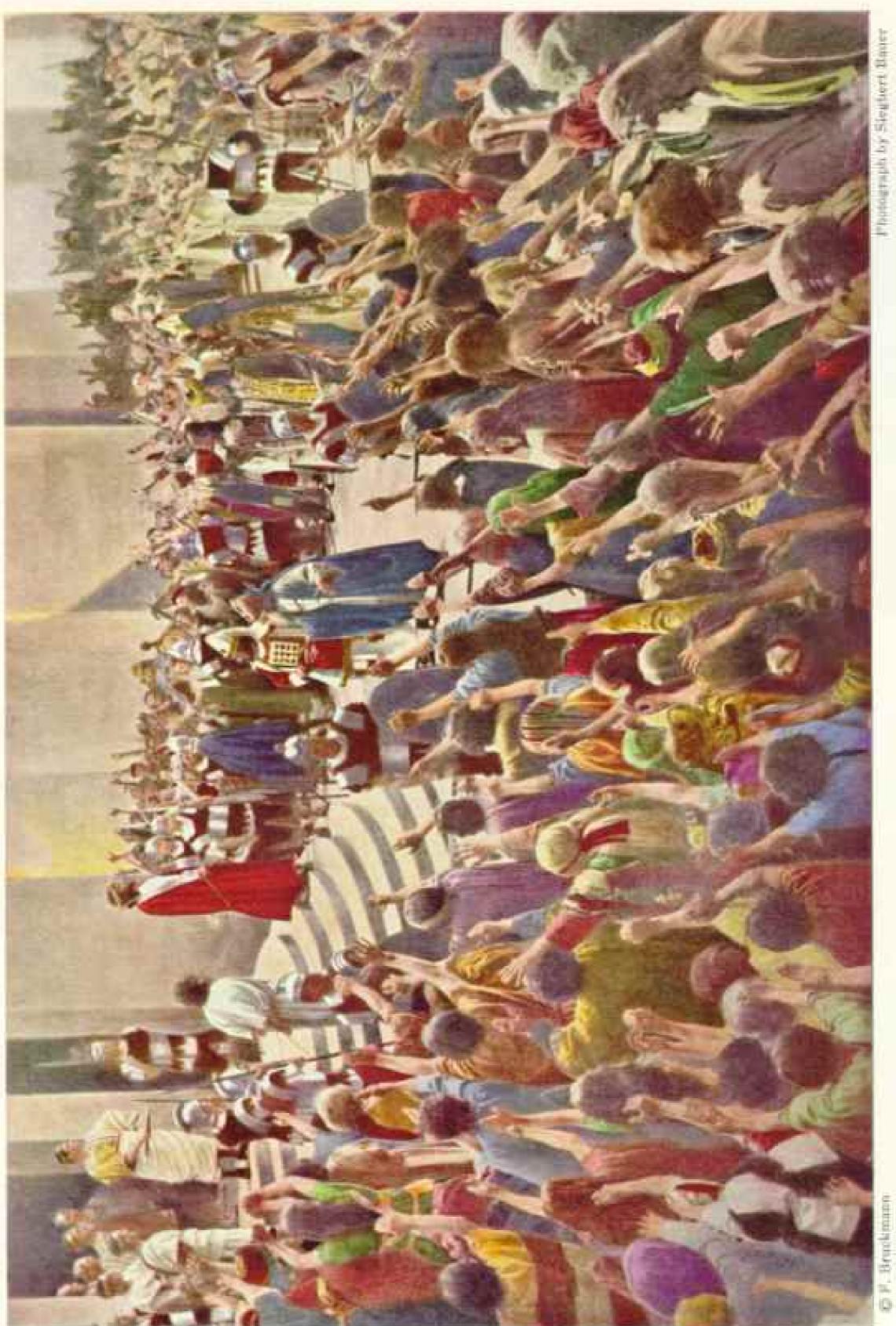
While the Christus of Auton Lang for three decades was one of tender love and humility. his recent successor, a distant relative, depicts a more alonf and kingly Savior, Grimly the executioner Photographs by Sieghert Bauer ALOIS LANG PORTRAYS A STERNER CHRIST

grips the spear,

Hanns Mayr, patriarchal burgomaster of Oberammergan, died this summer, Both in 1930 and in the special Play of 1934 he portrayed the pleasure-loving ruler of Galilee who mocked Jesus and sent Him DEATH HAS ROBBED THE CAST OF ITS KING BEROD

back to Pilate.

D.P. Bruckmann



(Plute V) have now fallen prey to the inciting speeches of the high priests, Caiophas and Annas, against Him, and the mob of nearly 700 shouts "Crucify Him! Crucify Him! APPEALS IN VAIN IN THE PLAYS MOST CRUPING SCRNE Y003 The very people who received Christ with open arms in the center. Many hands are raised PONTIUS PILATE, IN THE

THE NATIONAL GEOGRAPHIC MAGAZINE



Photograph by Ham Huber OVER HILL AND VALLEY RINGS THE TINKLING MUSIC OF THE COWBELLS In such countryside, amid the jagged Bavarian mountains, lies Old World Oberammergan. Sometimes farmers hitch a cow and a horse together to draw a plow.



D National Geographic Society

Photograph by W. Pfingstl

HAIRCUTS ARE TABU FOR AMBITIOUS BOYS IN OBERAMMERGAU

No wigs are allowed in the Passion Play, so prospective actors, to acquire the appearance of Bible characters, must let their locks grow. Each of these youngsters—all boys, though some look like girls—considers himself the potential successor to this or that major figure in the Play, and will mold his whole life toward that goal.

far beyond the walls of church and cemetery out into the streets, the roadside, the fields, up into remote mountains, and to the summit of their peaks. The carved and painted wooden crucifix also stands at many crossroads and the entrance to towns, or marks the spot where an unfortunate wanderer or worker has met death (766).

A shiny cross tops the onion-shaped steeple of the 200-year-old parish church, from which as many as seven bells, each reserved for a different purpose, call the inhabitants to worship. Its interior generally stuns the foreign visitor because of its gay and colorful appearance. Not being sufficiently acquainted with the ornate, flamboyant style of 18th-century baroque art, be is bound to call it "overdone" (749).

However, services and musical embellishment by choir and orchestra help to make it appear a perfect haven of joy and devotion within the sternness of the mountains all year round.

TO THE HOME OF THE "CHRISTUS"

"Where does the 'Christus' live?" is commonly the first question of the newcomer. It is not unusual to hear the villagers refer to this or that man in town as the "Judas," or "St. John," or whatever important part he may have portrayed.

So we find the Christus on the outskirts of Oberammergau, living in an attractive new home that breathes the fragrance of an orchard all summer.

His wife greets us and gladly takes us to the rear of the bouse, where Alois Lang (see Color Plate VI) is seated in his workshop, carrying on the craft of his forefathers, the art of woodcarving. Several statues are standing in front of him, but now he is engrossed in the execution of a crucifix.

MACHINE AGE HURTS WOODCARVING TRADE

It takes days, weeks, and months to carve by hand an elaborate piece of work out of pear wood, walnut, or maple (see illustration, page 765).

The principal livelihood of the Oberammergau people at present finds itself in a deplorable state of depression. Rusting tools have to be exchanged for shovel or scythe while the outside world disregards the plight brought on by a mechanical age.

Young Willy Bierling is likewise struggling along on the slender proceeds from his woodcarving, exhibited in his little show window on Main Street. His charming wife of two years likes to indulge in the fond remembrance that 1934 saw her husband in the rôle of St. John. She did not mind being eliminated from the Passion Play because of the rule that no married women may take part in it.

On the other hand, cases are known in which a girl prefers to postpone her marriage a year or so rather than miss the thrilling experience of having one of the

two leading feminine parts.

When my wife, the former Klara Mayr, recalls the summer of 1934, her thoughts wander back to the huge stage of the Passion Play theater where she was privileged to appear as the Mary Magdalen, side by side with Anny Rutz, the simple stenographer and hardworking support of a widowed mother, who enacted Mary, Mother of Christ.

Even in 1930, Klara Mayr would have been chosen as Magdalen had it not been the rule that two principal rôles cannot be shared by one family. Her father was Judas then, famous for his stirring interpretation of the part. Four years later he gave it up to enable his daughter to take with her through life the memory of participation in the Passion Play.

Yet a stern law rules. Twenty-four men, appointed by the village, form the Passion Play committee, and, under the presidency of the burgomaster and the parish priest, the players are selected half a year before the opening of the season. All the participants, of course, are Oberammergauers, the only outsider being the donkey which carries the Christus into Jerusalem and is usually imported from Austria.

The elections arouse the greatest excitement in ten years. The aftermath brings joy and disappointment, flushed faces and aching hearts, for not only quality of character, but also general appearance and histrionic ability weigh in the choice, and not all can win the coveted rôles.

SOME VISITORS SHUN "JUDAS"

Judas is a rather unfortunate man, just because he has to play that part. Many people refuse to stay under the same roof with him. In former years they even tried to do him physical harm after the Play.

But this strong feeling did not disturb Hans Zwink, who carried on his father's profession as painter, and by way of coincidence — as no part is hereditary — his



by W. Pfinget! Photograph

767). When he first appeared in the part, in 1900, he was 25, the youngest rian ever to play it. Again in 1910 and 1922 he gave his gentle, moving interpretation. Since then, as a former Christus, he has served, in accordance with tradition, as Speaker of the Prologue. and text, page half a lifetime ANTON LANG WORKS AT A POTTER S WHEEL The author's father, now 60 years old, looks back on menrly spent in portraying the Teacher of Galliee (see Color Plate VI



Photograph by Barton Holmer from Galloway SHAGGY-REARDED "ST, PETER" IS FOND OF CHILDREN

In the Passion Play, Hubert Maye is Christ's impetuous Disciple (see Color Plate IV). Off the stage he is the village milkman. Smiling, singing, and whistling, he drives his little pony cart through the town, dispensing TAXE. good cheer along with his milk. When his work is done he sits on bench in front of his house, with his niece on one knee and his eve smaller quughter on the other, and tells them stories.

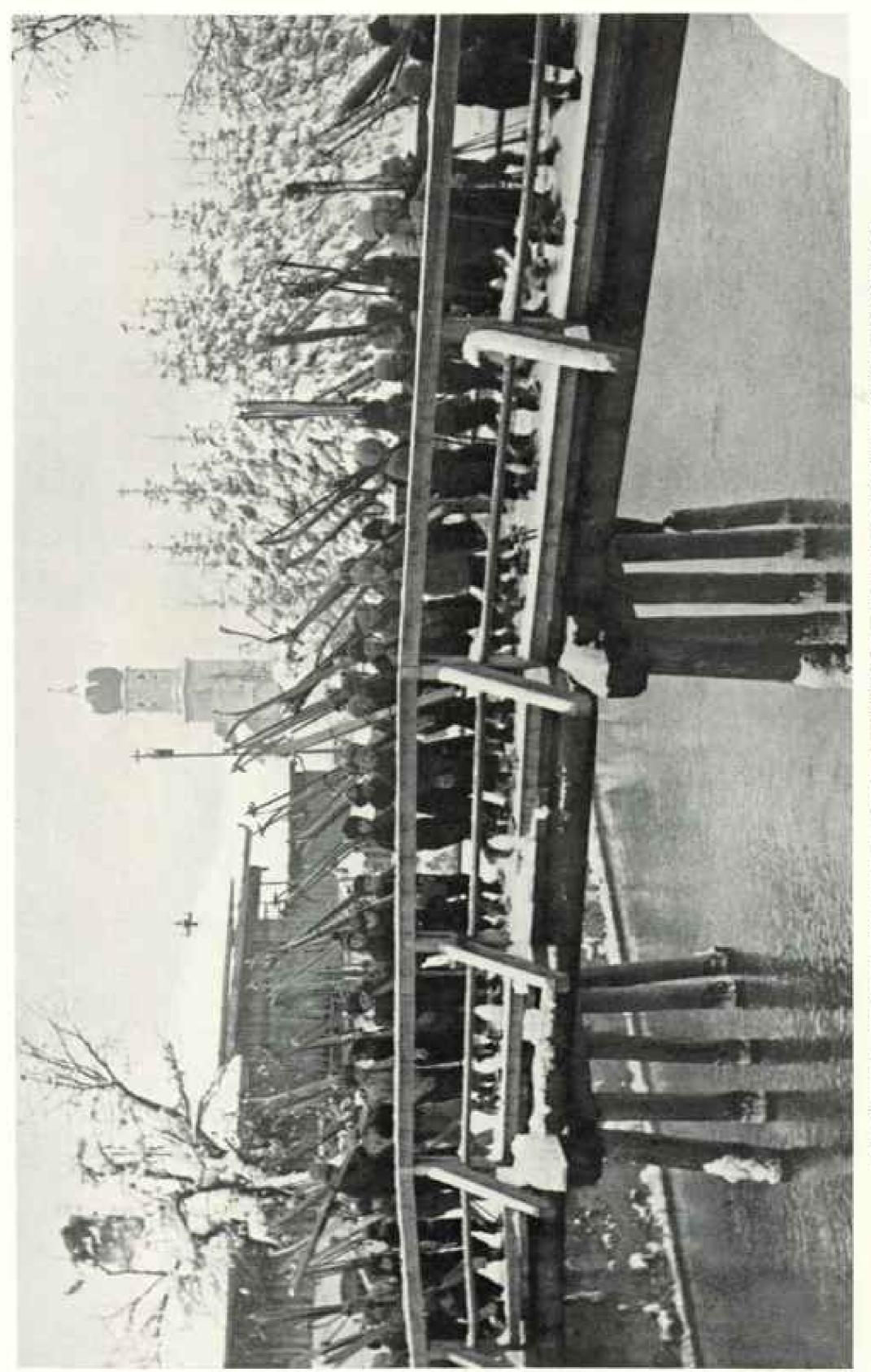


"JUDAS THE BETRAYER" PAINTS RELIGIOUS SCENES

Gritm-visaged, with almost black hair and beard, Hars Zwink follows in the footsteps of his father, not only in his lifework as an artial, but also, by coincidence, in his rôle as the fake Disciple in the Passion Play. Here he kneeds to paint a saint on the door of a bouse. "Judas" sometimes is shunned by visitors, and in carlier years attempts were even made to harm him.

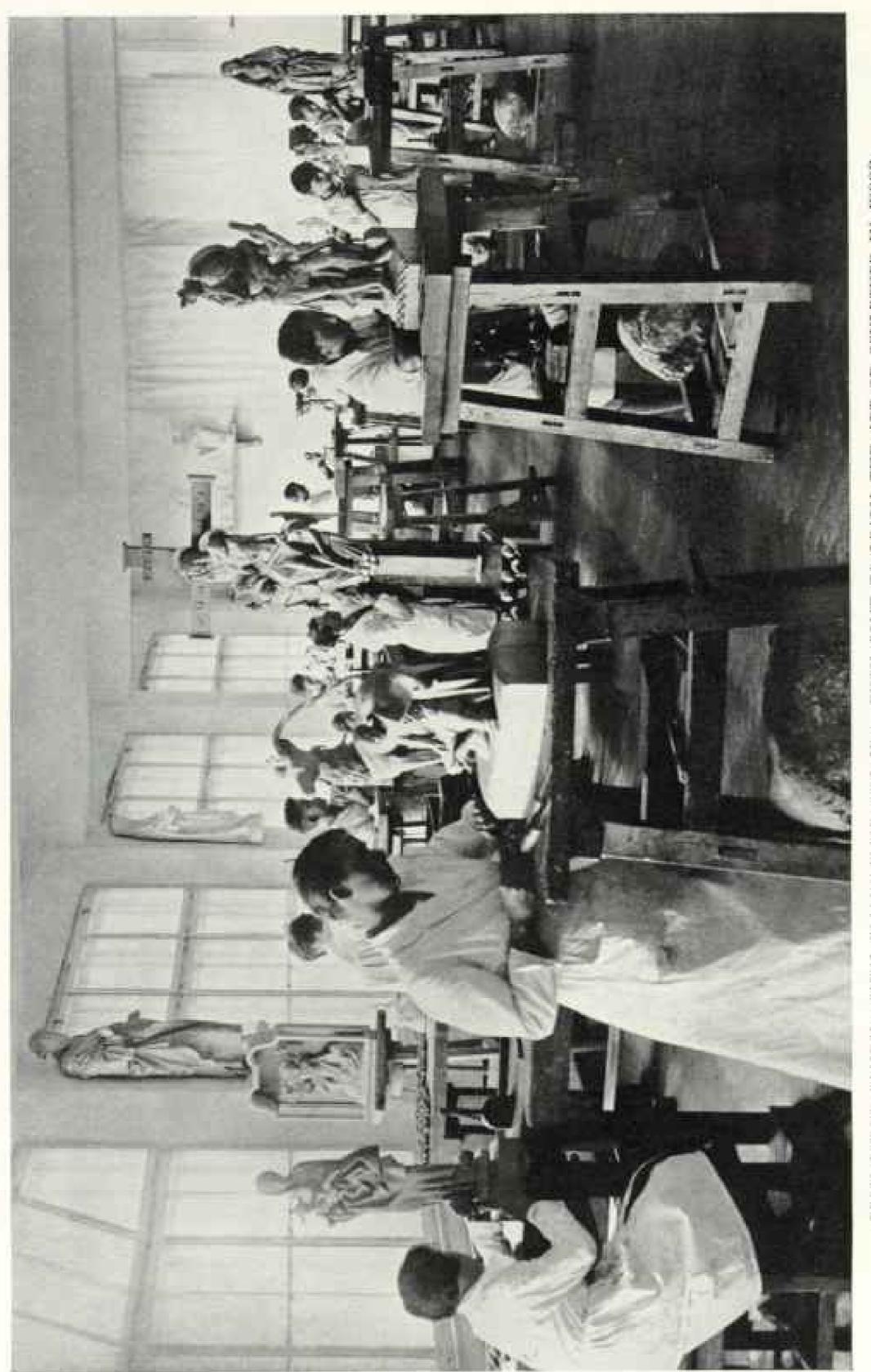
HE WAS OFTEN THE CHRIST CHILD IN CHRISTMAS PLAYS

One of Oberammergan's most popular young citizens is little "Bubi" Wenig, whose nickname is about the equivalent of "Sonny." Though a mere haby when his mother died, he began right away to help his father, the village mailman, by deing the shopping and other chores. Here he starts home with the makings of a bountiful meal.



THE RARS, SHOULDER SKIS AND BEAD FOR THE SNOWY MOUNTAINS SCHOOLBOYS, BUNDLED UP TO

of winter sports (see text, page 752). Typical of the crowds of young people who come down from all youngsters, trudging across the smallest of the town's four bridges for a day's outing. At the left grows extremely cold here, but the Ammer River seldom freezes over, Munich to try their skill on the Alpine slopes is this band is a farmer's house, in the distance the village church. It often



ACROSS THE SEA-THEY COME TO LEARN THE ART OF SCULPTURE IN WOOD FROM MILES AROUND-EVEN FROM

Students at the State Woodcarving School at Oberammergau have included several from the United States, although most of them come from the fown itself, from surrounding villages, or from Munich. Girls and boys may enter. Heavy rocks in the bottom of the workstands hold them steady while the sculptors, with chief and knile, turn blocks of well-sessoned walnut, maple, or pear wood into lifelike figures representing Christ on the Cross, the Madonna and Child, the Apostles and Saints. The mechanical age has dealt a blow to this, the town's leading occupation (see text, page 761).



NEAR GERMANY'S HIGHEST MOUNTAIN STANDS A CRUCIFIX, STARK AND TRAGIC IN THE SNOW

The Zugspitze, meaning "Ghost Peak," in the distance is nearly 10,000 feet high, and just beyond it lies the Austrian border. The typical woodcarved and painted representation of Christ on the Cross, with a little gabled roof to keep off the snow, stands at the entrance to Garmisch-Partenkirchen, where the winter Olympic Games are scheduled to be held this February. Oberammergau is seven miles away.

father's rôle as the Betrayer in the Play

(see illustration, page 763).

Singing and whistling, Hubert Mayr, the St. Peter of our Play, drives his little pony cart through the town every day, distributing milk among the people (see illustration, page 762). How happy and pleased he is that at last his life's dream has come true and he has become "St. Peter"!

The meek manners of Hugo Rutz, the village blacksmith, would never lead one to guess that on the stage he was the fiery high priest, Caiaphas, inciting the mob against Jesus (see illustration, page 747).

GENTLE DRAWING TEACHER IS THE HIGH PRIEST OF THE PLAY

Anton Lechner, teacher of drawing at the local woodcarving school, is just as much of a surprise. To see him sitting behind his glass of beer, enjoying that old pipe of his, is something entirely different from finding him in the Play as the high priest, Annas, standing beside Caiaphas and shouting accusations against Christ, while Melchior Breitsamter, the lovable St. John of 1922, listens as the Roman prefect, Pontius Pilate, a rôle he has twice enacted most impressively (see Color Plate VII).

Ludwig Lang, fierce-looking Barabbas on the stage, is a peaceful cowherd who may be seen walking along the street at 6 o'clock almost any morning, driving a herd of cows out into the fields and hills, and not

returning until 6 at night.

That is the rush hour for the cows, and traffic has to comply with their whims as they slowly trot homeward, never minding the bonking of automobiles that might get

into their path.

Goats and horses, all equipped with bells

—the sound of which is known to each
owner—follow the cows through the streets
at leisurely pace; and, of course, there are
always the street cleaners, whose ambition
allows no time for idleness.

The ten or so motor cars are far outnumbered by the bicycles which provide a healthful and useful means of conveyance

for young and old.

I know of a family that fully enjoys the advantages of an automobile, and yet wishes there were no such thing to take the restfulness out of life in Oberammergau.

The people I am thinking of—very much so—live at Theaterstrasse 2, in the "Villa Daheim," the residence of Anton Lang, Sr., who played the Christus in the Passion Plays of three different decades (see illustrations, pages 751 and 762).

Through its doors countless visitors have passed to spend days and weeks of contemplative existence. It is little wonder that I know the place so well, with all its cozy nooks and corners, its inviting balconies and rooms, the pottery shop, and the pretty garden, as it happens to be my birthplace.

There are six of us, three girls and three boys, who owe to our untiring parents a sense of value of family life. Their influence and the presence of the Passion Play in our lives from earliest childhood have been continual sources of inspiration.

Just as the ability to act seems to be in the blood of the majority, the people of Oberammergau hold a deeply inbred feeling of personal responsibility toward their important task, their sacred tradition. They live and die for their Play, and I should like always to emphasize that we do not play to live, but live to play which may at times appear incomprehensible to the hurried traveler, rushing in and out again without ever penetrating more deeply into the meaning of our life's work, habits, and customs.

DANCING BANNED DURING PREPARATION

All amusements, such as dancing, are prohibited during the solid year of preparation for, and concentration upon, the Passion Play. Yet the village, during its six months of rehearsing under Georg Lang's most able direction (there are more than 30 families by the name of Lang in Oberammergau), dons festive attire. Houses look more attractive. Gardens, streets, walks, and parks hum with activity. And there is always the strange sight of men walking or riding about with long flowing hair and beards, dressed in the old and ever-practical native costume.

Not until all is over will the Bayarian mountain dances, called "Schuhplattler" (page 751), be revived by the Oberammergauers. So, for the time being, there is no more of this sort of terpsichorean wooing, in which the eager young man rhythmically slaps his hands, knees, and the soles of his heavy shoes, jumping up and down, while in three-quarters time his partner slowly waltzes about him to the strains of a zither, a guitar, and a violin.

The year 1940 will display about the same course of things, but there will be



WINTER HIKERS STRIP TO THE WAIST TO TAKE SUNBATHS IN THE SNOW

Even at Christmas the sun is often surprisingly hot and can inflict a painful sunburn in a few minutes. Yet the snow on the mountains is so deep that comparatively little of it melts. In this Sunday afternoon ski party on the slopes behind Laber Mountain appears the author, third from the left in the front row. He took the picture with a self-timing camera.

more busses and automobiles from May until September. Once again, for a period of five months, the village will have to be handed over, willy-nilly, to the countless visitors, their prejudices and criticisms, their whims, their admiration and praise of what is but natural to those laboring in the homes and playing on the stage of the mammoth theater before 6,200 spectators, occasionally as often as five times a week.

PLAY BEGINS AT 8:15 A. M.

From 8:15 a. m. to 5:25 p. m., with two hours' recess for lunch, the thousands watch the performance with tense interest from beginning to end, never turning their eyes, which are often dimmed with tears, from the recently built and modernized central stage.

In front of it, flanked by the house of Pilate and the palace of Annas, opens the proscenium, 140 feet wide, on which—rain or sunshine—the mass scenes take place and the 47 members of the chorus—all local talent—appear, led in and out by the majestic figure of the Speaker of the Prologue, whose task is to introduce each act of a tableau. He has more lines than any other member of the cast.

There are 24 of these artistically set and lavishly mounted pictures, irregularly scattered among the 16 acts and representing scenes from the Old Testament, running parallel with the New.

The chorus then, accompanied by the local orchestra, musically dwells upon these living, yet still, "paintings,"

Behind all this, Nature itself forms the most imposing background, made up of green and partly wooded hills, the arching sky, and the ceaseless train of clouds.

Could there be a more overwhelming spectacle than the rolling thunder in the distance and flashes of lightning shooting across the heavens during the scene of the Crucifixion? Yet this has happened time and time again.

Throughout the performance the amazed onlooker observes a sincerity of intention, a naturalness of acting, and a spirit of affection and devotion that reaches a climax



THROUGH THE GATES OF THE 200-YEAR-OLD CHURCH NEARLY THE ENTIRE VILLAGE COMES AND GOES

On the eve of the election of participants in the Passion Play, a solemn High Mass is held, at which the committee prays that it may make the right choices. Generations of Oberammergauers are buried in the churchyard, with its quaint old headstones and woodcarved crosses.

on the day of the last Passion Play of the decade.

The very beginning of the performance, announced by the boom of a cannon discharged on a distant hill, plunges the audience into deep silence and absorption. Orchestra, choir, prologue, and tableaux heighten this mood; then the curtains part.

Now Christ triumphantly enters Jerusalem (see Color Plate V). The jealous priests begin their work against Him, while Christ bids farewell to His Mother and friends at Bethany before returning to the city of His doom.

THE LAST SUPPER

There the Last Supper unites Him and His twelve Disciples once more (Plate IV). Judas hastens away to betray His Master in the Mount of Olives. Christ is seized.

The afternoon sees Him before the high council, slandered, mocked, and jeered, and eventually sent to Pontius Pilate, who passes Him on to King Herod. Peter repents his sin of denial, whereas Judas finds no way out but the rope.

Christ is scourged and crowned with thorns, and presented to a raging mob in a scene of highest dramatic values (Plate VII). Pilate finally hands Him over to His enemies, and, with the Cross on His bleeding shoulders, Christ staggers up to Golgotha to be fastened to the Cross, to die, pierced by a spear in realistic manner.

We see Him rise again from the tomb, and, in the finest of all tableaux, ascend to Heaven.

Above that glorious closing scene stands the bleeding evening sun, and, as it casts a ruddy glow over the stage and the mountains, we Oberammergauers would always like to see a few beams fall also into the hearts of many, so they might take back with them into the drabness of life a bit of inspiration and the memory of a lofty inner mission carried out by the simple people of Oberammergau for three hundred years.

And let there be written on the beams of the Cross the words: Good Will, Friendship, and Peace!



Photograph by Frank W. Powelson.

STATUES OF 166 SAINTS FORM DARK SILHOUETTES AGAINST THE SKYLINE IN ST. PETER'S SQUARE

When Pope Sistus V moved the Egyptian obelisk (left) to its present position, he ordered the task done in silence. After workmen had raised the structure almost to perpendicular, they could stretch the ropes no tighter, and the tower seemed about to full. A sailor named Bresca shouted "Water on the ropes!" His command was obeyed. The ropes tightened; the obelisk straightened into place. Instead of being put to death—the penalty for breaking the silence—Bresca and his family received the right to supply palms perpetually for St. Peter's on Palm Sunday. His posterity still carries on the custom (see illustration, page 793).

HORACE—CLASSIC POET OF THE COUNTRYSIDE

By W. Coleman Nevils, S. J., D. D., Ph. D.

AUTHOR OF "THE PERSONAL GROGRAPHER (VERGIL)," IN THE NATIONAL GROGRAPHIC MADALINE

If the cold Romans used the same word for a prophet and for a poet. Somehow they seemed persuaded that there was something of the seer in the inspired writer of verse. Two thousand years ago there was born a poet whose prophetic lines have certainly seen fulfillment. In an outburst of joy he exclaimed:

"I shall not wholly die; my bones shall be interred, but my name and my song will live on and will ever increase in the praises of men."

Had he foreseen the decay of Empire, the fall of classic Rome (Roma), and the dire destruction by Vandals and other public enemies, he would probably have sung with less assurance. His prophecy has nevertheless been fulfilled and his writings have had, and still have, an influence on the literature of all nations of culture, while the Roman Forum is a heap of ruins, the Capitol, the palaces of the Caesars, and many other great monuments of the Empire have fallen and are no more.

CELEBRATIONS IN MANY LANDS

During the past months there have been Horatian pilgrimages elaborately carried out, and in other countries as well as in Italy unusually brilliant exercises have been held commemorating the two-thousandth anniversary of the year 65 B. C. when Horace, the popular classical poet, was born.

Five years ago there was a world-wide celebration in bonor of the two-thousandth anniversary of the birth of the great Roman poet, Publius Vergilius Maro. It is not surprising that 1935, which is the bimillennium of Horace's nativity, should have similar or even greater commemoration. Perhaps we should say the celebration is more popular, for of all ancient writers Horace seems to have the strongest human appeal; he is, as the inimitable Spanish puts it, simpatico, the most companionable of writers, and no poet of antiquity has been more frequently quoted.

When Burke and Lord Chatham and other English scholars were selected as statesmen and were recognized as political leaders, it was quite the vogue to throw spice into a speech by quoting a line or two from Horace, and sometimes in repartee the phrase proved to be a telling blow. His marvelous power of using the most expressive word and the happiest phrase has won for him an immortal crown of bay leaves.

HORACE BORN A SMALL-TOWN BOY

On December 8, sixty-five years before the Christian Era, Quintus Horatius Flaccus was born at Venosa, which the old Romans called "Venusia"; it had been colonized by Rome in 291 B. C., after the Samnite War. Nestling in the Apennines, on the borders of Lucania and Apulia (Puglia), it has not had a very thriving existence. Now there are only about 9,000 inhabitants.

The town possesses an ancient structure called Casa di Orazio, but up to the present there has been slight evidence that the great poet lived there. In the Piazza there is a statue of Horace, its value as sculpture not very high (see page 777). Somewhere in or near this town was born the freedman's son who was to fulfill in the strictest sense the belief that "poets are born, not made."

Venusia made so little impression on the ancient annalists that we are forced to regard it as just another town in the provinces of Italy. Even today its main claim to be noticed is that Horace was born there.

What is now the public plaza, or piazza, was probably the site of the town's forum, where a few shops did a meager business and farm produce and other wares were on display. Here, too, the townsmen assembled and discussed public questions of the day, and no doubt settled them with the same finality and assurance we find in many of our country stores today.

In Horace's time social distinctions were rather rigidly defined, somewhat as in France in the 18th century.

There was, first of all, the Senatorial order, which Augustus himself had created, and to which admission depended entirely on the will of the Emperor. The second rank embraced the Knights, the moneyed class, which then, as now, held great power. Next came the people, "plebes," among whom were found the schoolmasters, architects, physicians, and tradesmen.



Photograph by Ham Hildenbrand

TIRED HORSES SLAKE THEIR THIRST OUTSIDE THE GATES OF ROME

A cask in the cart (right) carries some of Italy's finest wine—Castelli—which tradition says will lose its quality if hauled in any other manner (see illustration, page 788). The roughly paved street is the Applan Way, or Via Appla Antica, which had been used nearly 250 years when Horace was born. Applus Claudius Caecus, the Censor whose foresight made the road possible, was blind.

The freedmen, or manumitted slaves, had a voting power as early as 220 B. C. Under the Empire they had already become somewhat important on account of the wealth they had amassed by trade, and often they were courted by the higher classes of society.

Horace's father was a freedman of the Horatian family; he seems to have acquired considerable wealth as a servant to a money broker, attending sales at auctions, collecting money from purchasers, etc.

SCHOOL DAYS IN ANCIENT ROME

After elementary training in Venusia, Horace was taken by his thrifty father to Rome. To his father the poet in his greatest prosperity pays loving and grateful tribute in the sixth poem of his first book of "Satires"; it is addressed to his lordly patron, Maecenas, "who distinguished the good from the bad, who cherished a friend not because he was the son of an illustrious father but because his life and heart were upright."

Boys were sent to school usually at the age of seven years; to the elementary subjects, the three R's, about five years were given. Simultaneously with the learning of the alphabet the pupils were set to writing the letters; for this they used the stilus, a pointed metal for writing on wax tablets; sometimes they cut the letters on a wooden board. They received formal instruction in Greek as well as Latin and there was regular drill in correct pronunciation and in accurate reading.

After the letters had been mastered, carefully chosen maxims, proverbs, and selections from standard literature were copied out and committed to memory. Considerable time was also given to calculation.

No doubt Horace's father soon saw the promising talents of his son and felt a provincial institution would not be competent for his development. At Rome young Horace was placed at a select school for boys; the headmaster seems to have been quite irritable and spared not the rod—at least so this pedagogue is handed down to posterity in his pupil's immortal lines.

Secondary education was mainly a study of Latin and Greek literature, with special



Ehotograph by C. H. Cimo

THE TRIUMPHAL ARCH OF CONSTANTINE IS ONE OF THE LAST MONUMENTS BUILT BY IMPERIAL ROME

Erected A. D. 315 to honor Constantine's victory over Maxentius at Saxa Rubra, the arch portrays Roman history and allegory. One of the reliefs represents Trajan, Emperor from A. D. 98 to 117, entering the city to receive greetings from the Goddess Roma in front of the Temple of Mars. About afteen years after the arch was erected, Constantine moved the capital to Constantinople (now Istanbul).

stress on poetry. Horace lived to see his own works introduced as texts in Roman schools. They were immediately popular and for many centuries have been regarded as a required subject for genuine education in letters. The Roman schools exacted a thorough foundation of grammatical knowledge, with frequent exercises in verse and prose composition. Passages from the leading authors were committed to memory during the entire training. There was also instruction in geometry, music, and dancing.

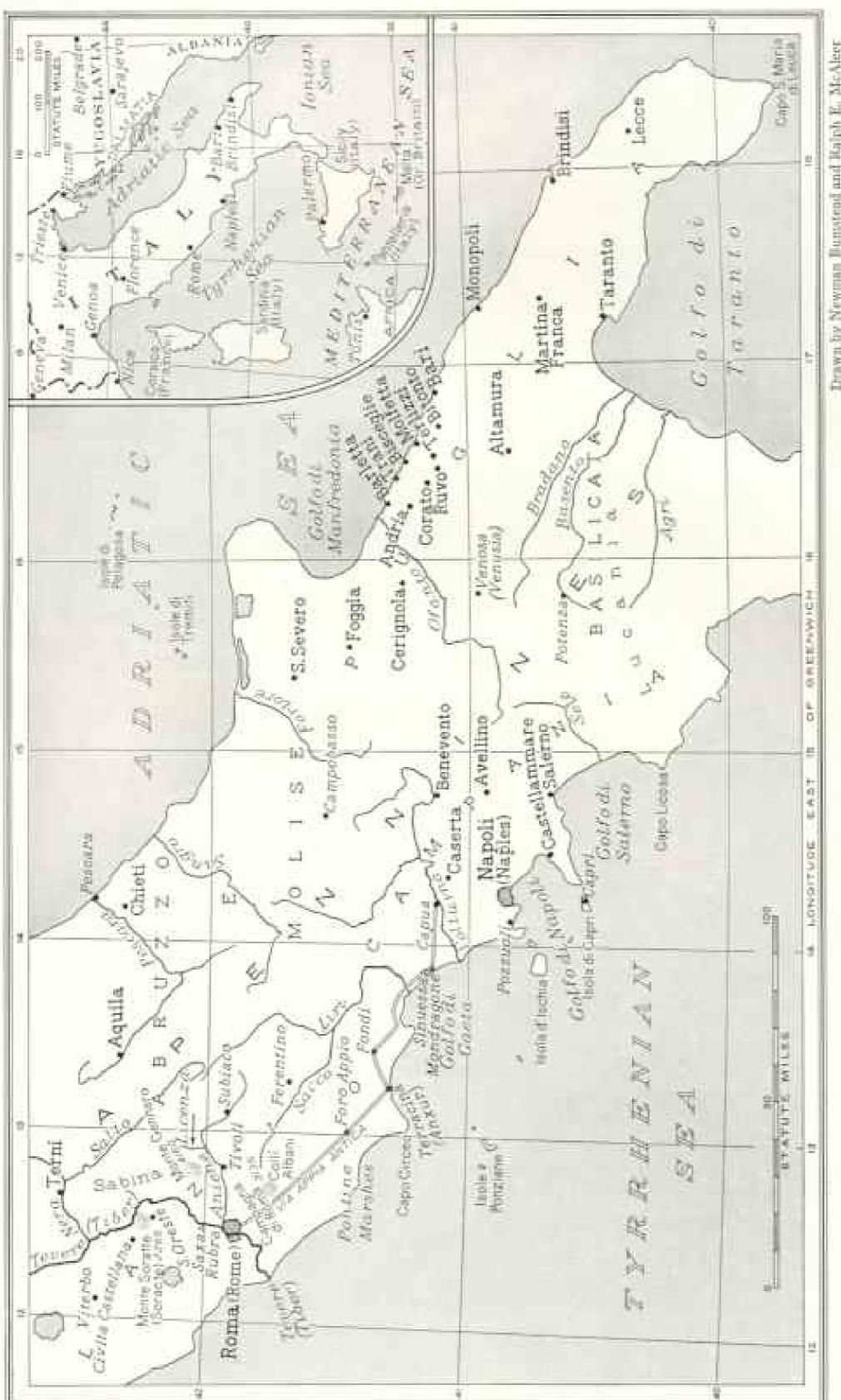
This secondary education was followed by the study of rhetoric and the art and practice of public speaking, and this was regarded as the crown of Roman education.

POETS POORLY PAID-THEN AS NOW

After completing the full course at Rome, Horace was sent to Athens to study Greek literature and philosophy under native teachers. This was a year or so before Julius Caesar was assassinated. When Brutus and Cassius came to Greece, they managed to get a number of student Romans there to join their army. Horace rose to the position of tribune under Brutus, and shared in the defeat at Philippi.

During the war he lost his patrimony, and upon his return to Rome began writing verses to obtain the means of subsistence. He was wise enough to secure as soon as possible a more lucrative position and became a copyist or secretary in the Quaestor's office. He soon made many friends, and among them was Vergil, who about three years after his return to Italy introduced him to the leading patron of the arts, Gaius Cilnius Maecenas.

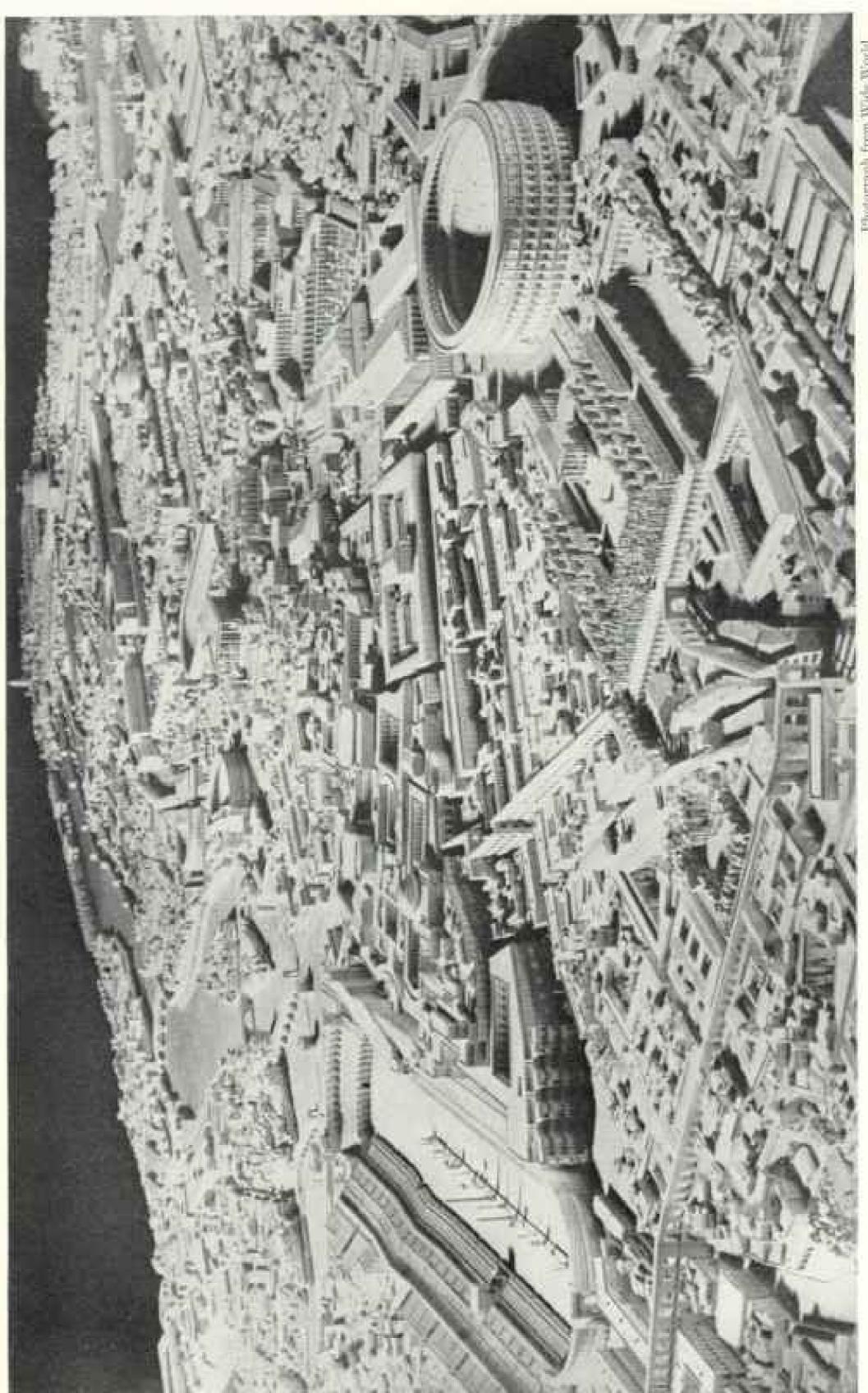
This distinguished Roman was a thorough and sincere imperialist, and it was mainly due to his persuasion that Octavius assumed the title of Emperor and took the name of Augustus. Maecenas himself was made by the Emperor administrator of all Italy and evidently had great authority. He was several times occupied in the office of a private diplomat and seems to have



Drawn by Newman Burnstead and Ralph E. McAleer

PROM ROME TO BRINDISH JOURNEY IT TOOK HORACE 15 DAYS TO

By airline, the cities He scarcely 300 miles apart. The poet and his party left the capital city along the Appian Way. Before going far, they came to the Pontine Marshes, which they started to cross by night in a canal boat pulled by a mule. Gnuts and frogs "drove off skeep," while the boatman, "soaked in sour wine," sang of the girl he left behind. Leaving Anxur (Terracina), the travelers went inland to Capua and across the Apennines. From the hill country of Venesa, birthplace of the poet, they made their way to Brindisi, on the eastern coast, "the end of a long story and a long journey" (see text, page 786).



Photograph from Wide World

THUS ANCHENT ROME, HE WOULD HAVE BEHELD IT HAD AN AVIATOR WINGED OVER

Four hundred times smaller than the actual city is this scale model of the marble capital constructed by Paul Bigot, member of the Institute of France, in Paris, Charioteers raced to victory and to death in the Circus Maximus (left) and gladiators fought to thrill the populace in the Collecum (right, see illustration, page 789). The Tiber winds through the city in the background,



Photograph by Morgan Heiskell

AN ITALIAN BAGPIPER WEARS THE DRESS OF HIS CALLING

He puffs the bag full of wind, and squeezes the sack close to his body with his right arm to regulate the pressure of the air that rushes through the pipes. With the decline of Rome, the bagpipe, which Italians call zampogna, seems to have lingured only among itinerant musicians. In the 13th century it became a court instrument. Its origin is unknown, but many believe it came from Greece to Rome, and was introduced to Ireland and Scotland by the Romans or Norsemen.

been successful. He had inherited as well as acquired immense riches, and on the Esquiline Mountain possessed a beautiful home which later became the rendezvous of the littérateurs of the day.

A RECLAMATION PROJECT OF LONG AGO

"Gardens" on the Esquiline Mountain.

This spot had been in a pestilential condition, which was not unusual for popular cemeteries in those days. By heaping clean dirt twenty-five feet deep on the entire dis-

trict, and by exquisite landscape gardening he reared a magnificent pleasure ground and changed an unhealthful locality into a safe and delightful park. This feat of progress is celebrated by Horace in his first Satire. It is said that from his palace within these gardens the infamous Nero watched the burning of Rome, A. D. 64, about seventy years after Maecenas' death.

In 1874 a building was discovered halfway between S. Maria Maggiore and the Lateran, on the Via Merulana. It is supposed to have been an auditorium or other large room belonging to the gardens of Maecenas. The chamber is oblong and has a number of steps at the north end which would give the impression of seats for a theater. What is preserved of the walls shows that they were richly decorated with paintings.

It took Horace some months to win his way to the inner circle of Maecenas' friends, but, once admitted, he never lost the patron-

age and affection of the most influential man of the time. For more than thirty years, until death at last separated them, Maccenas always remained the dominating influence on all Horace said or did. In fact, it is mainly from the poet that future generations have come to know the good qualities of Augustus' leading adviser. Horace has reared to him "a monument more lasting than bronze."

Elsewhere we learn of some of Maecenas' eccentricities, which we are told were due to the state of his health. Suffering from

insomnia, he resorted to many devices to allure sleep. In his palace he had artificial waterfalls, that the plash of the streams might induce slumber; at other times he had the soft strains of music played, and devised similar soporities. As his house was open to writers of verse and other literary aspirants, we are surprised that he did not ask them to read their latest productions!

During the last ten years of Maecenas' life he voluntarily withdrew from state affairs and enjoyed the companionship of his intimate and devoted friends. He also continued to entertain lavishly and in this he was somewhat indiscriminate-at least, the Emperor criticized him for offering his magnificent hospitality to mere parasites. He became luxuriantly indolent and easily yielded to the self-indulgence of an invalid, However, he is best remembered as the princely protector of the virtuosi of the day; his enormous fortune was generously given

the encouragement of art and letters. It was through the influence of Maecenas that the Emperor Augustus presented Horace with a grant of land in the Sabine district (Sabina). From this beautiful estate it was only a few hours' drive to Rome, so that the leading social and civil life of the day was within easy access. The valley is crowned by Mount Lucretilis (Monte Gennaro), and forms a picturesque amphitheater.

While the precise position of Horace's estate is doubtful, the general locality is



Photograph cooriesy ENIT

"THE FRIEND OF MY FRIENDS AND OF SO MANY GENERATIONS OF MEN"

Andrew Lang's tribute to Horace expresses the gratitude felt by a world enriched by his "Satires," "Odes," and "Epistles." The poet rose from humble birth to a high position among his patrician contemporaries. The monument stands in the city of his birth, Venosa, called Venusia by the Romans. The toga, or loose outer garment, was made of a single piece of cloth, usually undyed wool.

determined, and a country home of supreme contentment and abundant happiness is easily imagined in the valley of the Licenza. The valley crosses the road from Tivoli to Subiaco at right angles.

A DAY ON A SABINE FARM

As far as we can gather, Horace's daily routine at his Sabine farm was somewhat as follows: He would rise about 6 o'clock and spend most of the morning in literary work, study or writing. At 9 he would take breakfast, jentaculum, which was



Photograph courtesy ENIT

MARBLE MAPS SHOW HOW ROMAN LEGIONS PUSHED THEIR ANCIENT EMPIRE INTO ADJACENT LANDS

Rome, scarcely a dot on the plaque (left) eight centuries before Christ, expanded to include all Italy, part of Spain, and a strip of the Dalmatian coast at the end of the Punic Wars, about 146 B. C. (second map from left). In Horace's time, the advance continued into Gaul, Egypt, and Asia Minor (third illustration). At the Empire's height, under Trajan, it completely surrounded the Mediterranean, and reached north to Britain (right). Premier Mussolini erected the graphic maps on a wall of the Basilica of Constantine, along Rome's new highway, Via dell' Impero (page 783).

merely bread with honey, or cheese or dried fruits.

Before the midday meal, prandium, he would occasionally take a short drive; and luncheon was followed by the midday siesta. It would seem from casual remarks in his poems that, weather permitting, Horace liked to enjoy this gentle slumber beneath a shady tree not far from a babbling brook.

The midday lunch for the Romans usually was quite light and informal, generally just cold remains from the dinner of the night before.

The afternoon was spent in walking, and, for those more careful of reducing than Horace seems to have been, gymnastic exercises and bathing were in order.

The principal meal, coena, was taken about 4 o'clock. It consisted of appetizers, such as eggs, leeks, lettuce, mint, and shellfish, during which a mixture of wine and honey was sipped. Then followed the courses which in olden days had been limited to two, but gradually increased till we read of one Roman who served twentytwo at one coena; nor does he seem to have ever been in China. There were various kinds of fish and fowl and flesh meats; in fact, one chronicler says they served "all the products of land and sea, river and air."

The dessert was most frequently fruit, dried or fresh, with cake and wine. It was quite the ordinary thing to take three hours for the coena.



Photograph courtesy ENIT

"A GARDEN AND AN EVER-PLOWING SPRING, WITH A BIT OF WOODLAND"

"Nothing beyond what I have do I ask," wrote Horace, "blessed in my one, my only Sabine farm." Emperor Augustus gave him the villa at the suggestion of Maecenas, the poet's wealthy benefactor. Though the exact location of the estate is unknown, it lay somewhere in the Sabine district. This grove covers part of the supposed ruins.

The evening was spent in conversation, and on special occasions actors or musicians were called in to provide entertainment. During the dinner wine was served with moderation, but not infrequently a drinking bout followed, one of the guests being chosen as the arbiter bibendi to decide the respective proportions of wine and water.

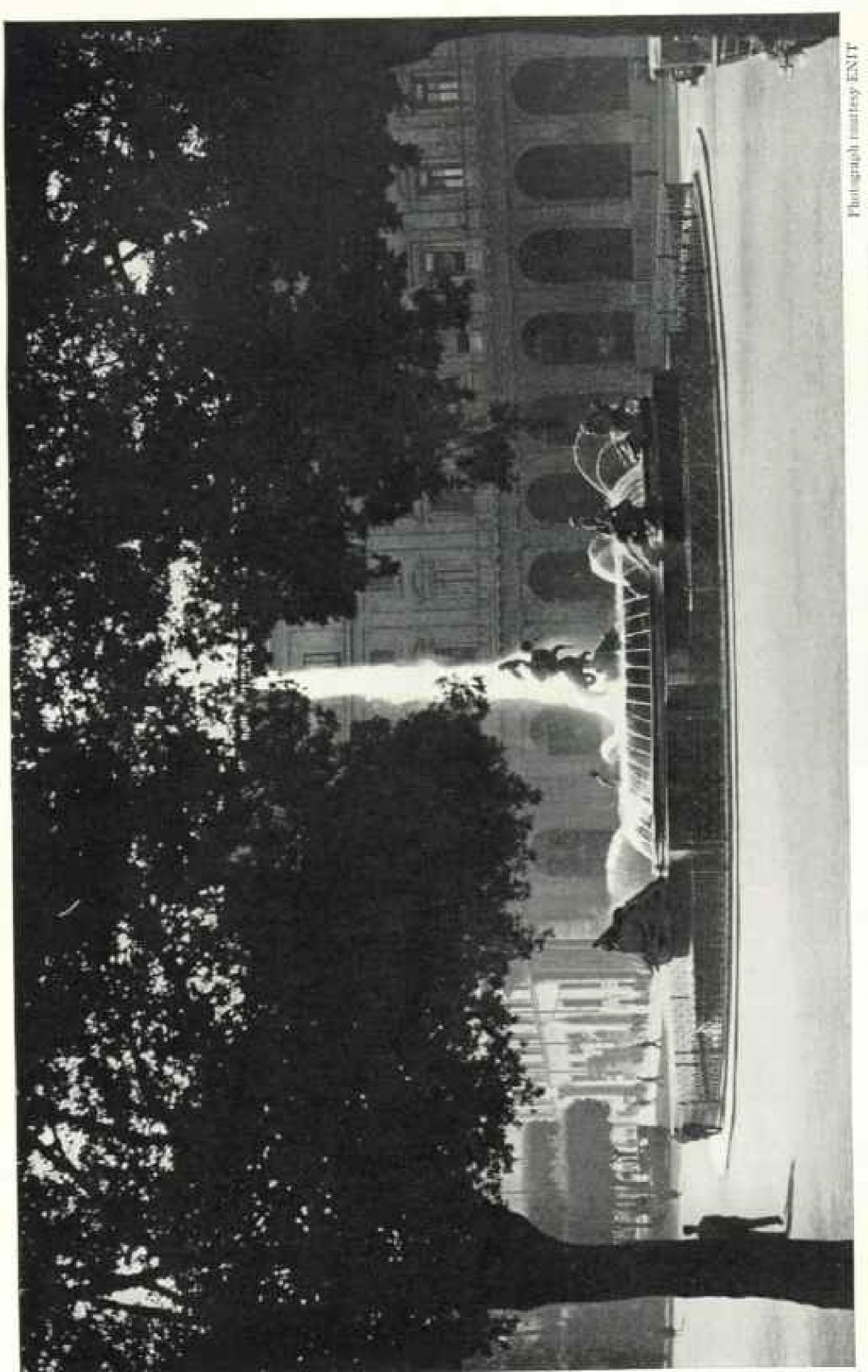
Horace's Sabine farm, in addition to a meadow and plowed land, embraced a delightful woodland, a pasture for goats, and a refreshing brook. One of his shortest but most popular poems, Bandusia, is an ode addressed to a fountain.

The profusion with which the beautiful fountains of present-day Rome send forth their gushing waters suggests that the Horatian love of fountains has not decreased. A whole day could pleasantly be spent in visiting these lively monuments, and perhaps we shall yield to the popular superstition and drop a coin in the Trevi Fountain, to be sure of coming back to Rome (see illustration, page 795).

In several of Horace's poems he sings the praises of his Sabine farm.

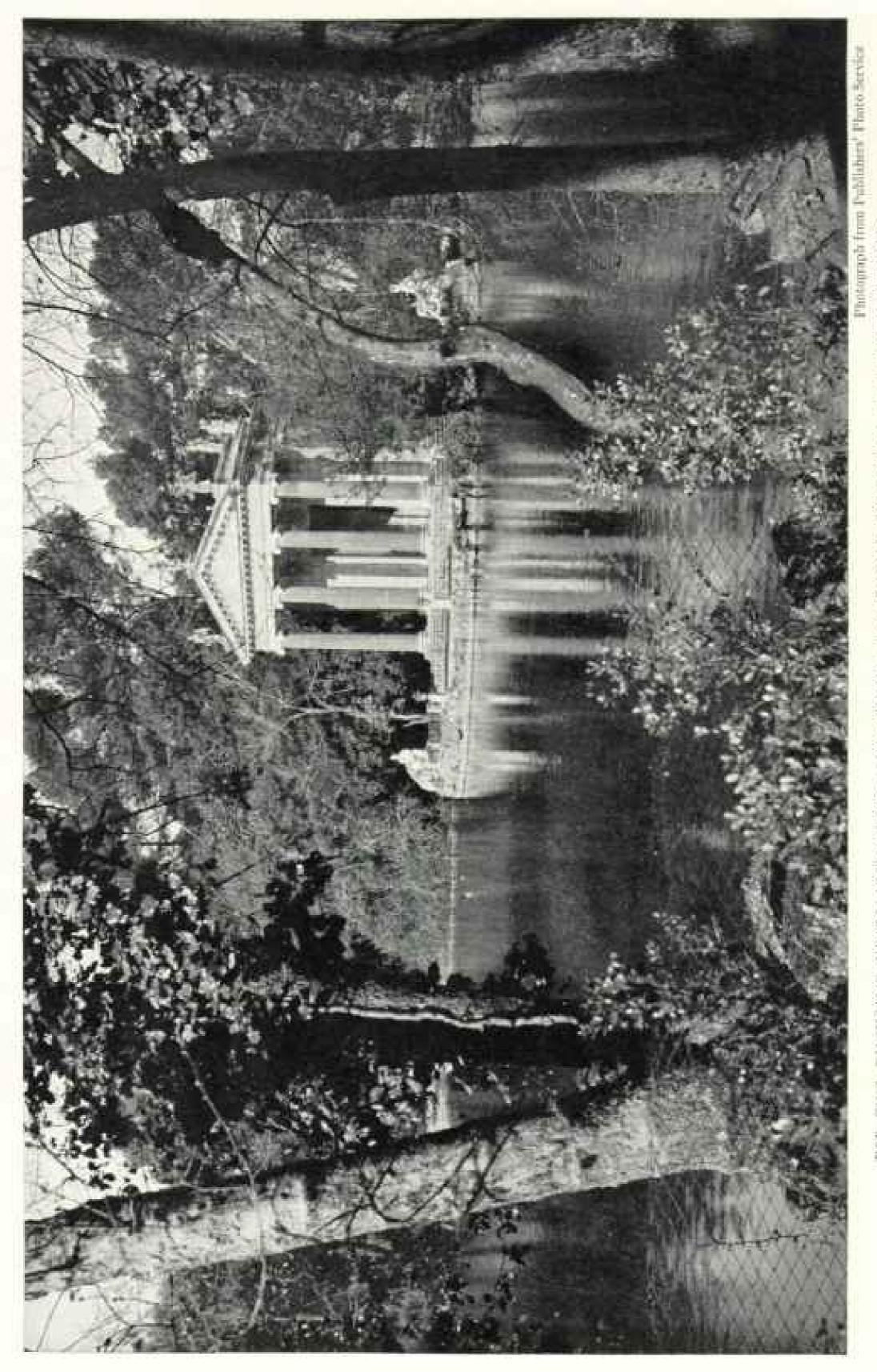
In his second book of Satires, in the sixth poem, he dilates upon the inconveniences of city life and the charms of the country. Deepest satisfaction with his quiet farm and perfect contentment breathe in every line, and the whole satire is really a song of thanks to his patron Maecenas, who had made all this possible for the happy poet:

"This used to be my prayer-a tract of land, not so very large, a garden and an ever-flowing spring, with a bit of woodland. But the gods have done far more for me, and I am quite content with what I have. I only pray that these blessings may be mine till I end my days on earth."



THE SHOOTING FOUNTAIN STREAM GLEAMS LIKE A PHLIAR OF FIRE CAUGHT IN THE SUNLIGHT,

Here in the Piazza dell' Esedra, three centuries after Horace died, Emperor Diocletian everted same of the most luxurious baths ever built in Rome. Condemned Christians tolled to construct them. More than 3,000 bathers could enjoy the waters at one time. Michelangelo converted the ruins into a church at the request of a priest who dreamed he saw angels among the halls. Part of the structure now houses a museum.



Although the Rome that Horace knew had many villas, this estate, Villa Borghese, was not even planned until the 17th century. The grounds, which contain several such edifices, became a public park in 1902. Near by is the Borghese Museum, housing works of Titian, Rubons, Rapbael, and other immortals. FOR TWO THOUSAND YEARS ARCHITECTS HAVE COPIED THE SIMPLE SYMMETRY OF GRECIAN TEMPLES

Eight years have passed since Horace began to be numbered among Maecenas' intimate friends. "What a favorite of fortune am I!"

Then the poet pictures the homelike meal at which he entertains some rural neighbors. He tells us they do not spend their time in rehearing the latest scandal, or in finding fault with their fellows, but ever and anon someone narrates a story that is quite apropos. Horace was, of course, happily ignorant of even the possibility of the usual after-dinner speeches of an American banquet.

COUNTRY MOUSE AND CITY MOUSE

On one occasion there seems to have been some mild discussion as to the relative values of urban conveniences and rural contentment, and Cervius, one of the neighbors, tells in happiest vein the fable of the country mouse who entertains his old friend, a city mouse, who has become somewhat prosperous and has been admitted to the best society of Rome.

The first scene is the simple abode of the country mouse, who, in spite of his usual thrift and care, allows his virtue of hospitality to expand as never before, and from what he has so frugally stored away lavishes upon his guest nibbled bits of bacon and

even a carefully guarded raisin.

All the while the city mouse just barely touches the precious titbits. Finally he gives way to his fastidiousness and expresses amazement that one could live in such a place and on such poor fare while within reach are the delights of the city. Yielding to the pressing invitation, the country mouse agrees to accept the hospitality of the city mouse and off they go together.

The dark night is far spent as they creep into the dining hall of a wealthy palace, where ivory couches are gorgeously draped with scarlet coverlets; and as the great table still groans under the weight of left-over courses, it would seem both master and slaves have retired for a good solid sleep.

With pride the city mouse serves course after course to his rustic friend. The latter is about to yield to such good cheer and abundance, when all of a sudden the barking of Molossian dogs is heard, and the huge dining-room doors burst open. The two mice, "distilled almost to jelly," scurry about and, by some good fortune, breath-lessly save their grizzly skins.

"That's not the life for me!" says the rustic mouse, more in sorrow than in anger; "give me my woodland hole and homely fare, free from the fears of the city!"

A USURER YEARNS FOR A FARM

In addition to this satire, there is another delightful eulogy of country life in the
second of the "Epodes." Perhaps it was
a time of depression in Rome; anyhow, Horace represents a notorious usurer who may
have met with some setback in his financial transactions and imagined he could
find solace in the life of a farmer.

This particular phase of the poem possesses a poor appeal to the financiers of our day; there seems to be little hope of help in pursuits agricultural.

"Happy indeed is the man who, free of business cares, can live like the men of old; with
his own oxen can plow the wild acres of
his forbears quite free from money-lending anxicties. He does not have to face trials at court
and he can shun the proud portals of the powers
that he. He weds the lofty poplars to the fullgrown vines, and sees afar his lowing herds
meandering homeward. Carefree, he can stretch
out on the thick grass beneath the cooling shade
of some ancient tree, and while near by a babbling brook keeps up a perpetual chatter and
the birds warble gentle songs, soft slumbers
come.

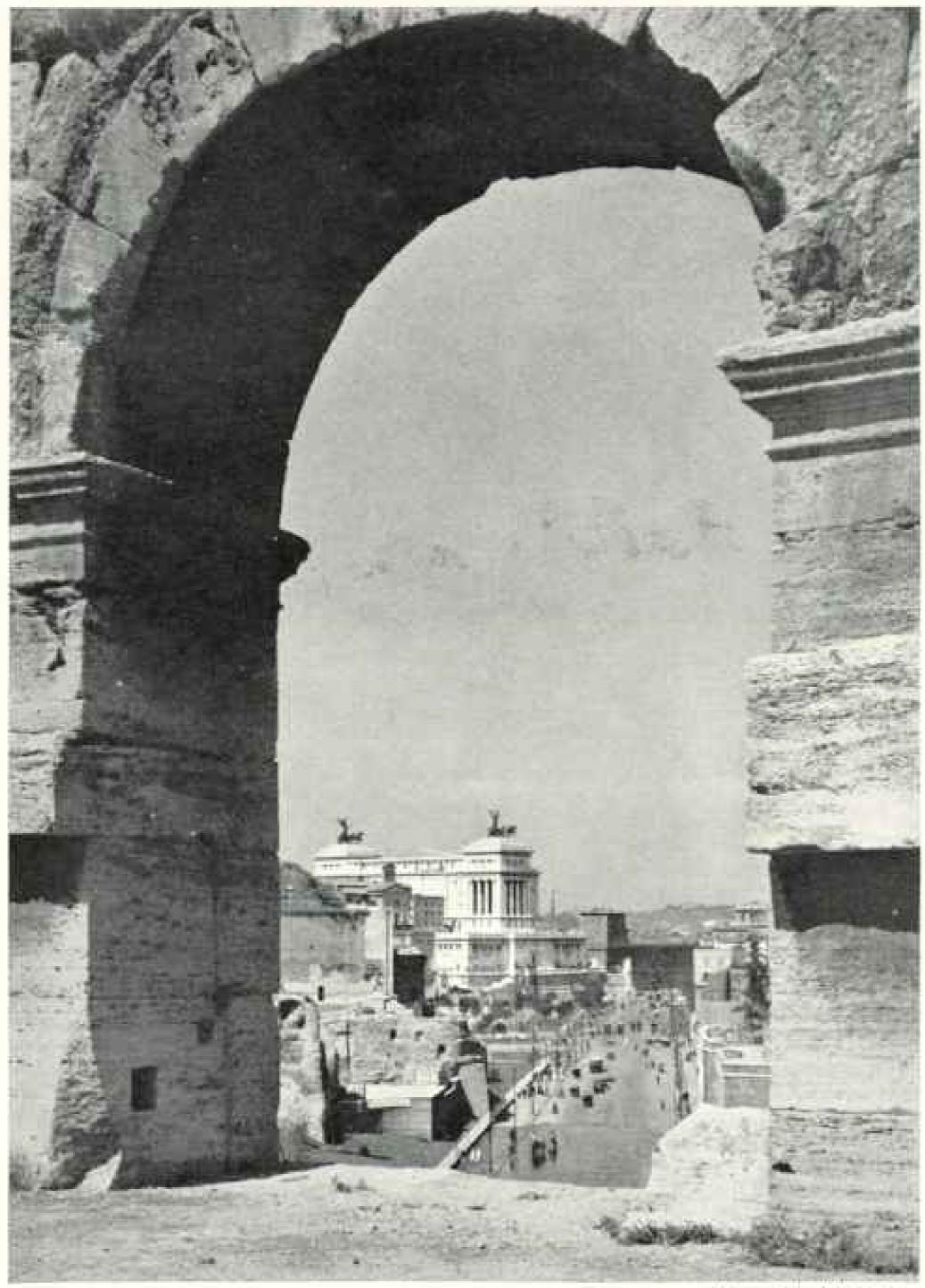
"And when the rains and snows of winter appear, with his pack of hounds he can go hunting, or he can set snares for thrushes and other unwary birds. And if his household is graced by a modest wife, of sturdy Apulian stock, his willing helpmate, and by smiling well-tanned children, who gather about the sacred hearth and watch the seasoned log crackle in the fire which has been piled up against the evening arrival of their weary sire, no man can ask for more.

"Some may like Lucerne oysters, or turbot, or maybe a turkey or an Ionian pheasant; as for me, I much prefer a homemade meal by the family fireside!"

So sings Alfius the usurer. On the fifteenth of the month he calls in all his money to get ready for life in the country, but alas! by the first of the next month he puts it all out again, and still clings to the city.

ROMAN "PULLMANS" AND WAYSIDE INNS

To those who enjoy traveling in comfortable limousines over the excellently constructed new roads of Italy, the fifth Satire of Horace's first book possesses particular attraction because of its contrast. The vivid lines portray in pleasant style the great difficulty and discomfiture of travel



Photograph by Fritz Henle

ONLY A FEW YEARS AGO VIA DELL' IMPERO WAS A CLUTTERED MASS OF OLD HOUSES

Now the street, seen through a massive arch of the Coliseum, is flanked by gardens and remnants of ancient buildings that are being restored. The white temple is the monument to King Victor Emmanuel II. Fourteen female figures, representing Italy's most important cities, surround the gilded equestrian statue. At the base of the monument lies Italy's Unknown Warrior.



Photograph courtesy ENIT

ONE OF LITERATURE'S MOST FAMOUS BORES BUTTONHOLED HORACE ON VIA SACRA

While walking with a slave along the Sacred Street of Rome, the poet, according to his first book of Satires, was overtaken by a bore, whose bragging chatter caused his victim to hang his head like an overloaded donkey. Even Aristius, one of his friends, avoided him, lest he, too, be caught by the pest. A man with a lawsuit against the termenter finally made it possible for Horace to slip away in the crowd (see text, page 787). The Palace of the Caesars rises in the background.

in those ancient days. It is just a simple narrative without any stirring incidents or extraordinary adventures, and any traveler might have had the same experiences.

In fact, this satire is the leading "classical commonplace" for students of Roman antiquities, being recognized as typical of traveling in the early days of the Empire. It is the best and most amusing description of an inland trip that has been handed down to us by the ancients.

From Horace's account we should judge that he stopped at one of the ordinary inns which abounded on the Appian Way (Via Appia Antica). They supplied the barest necessities for an overnight stay, and did not enjoy a very high reputation.

Cheating and overcharging seem to have been common among the innkeepers, and we read of complaints that beds which were supposed to be stuffed with feathers were found to be charged with uncomfortable rushes. The inns were poorly constructed and sound-proofing was not considered, while air-conditioning was undreamt of: in fact, smoke would often seep through the floors with heavy fumes from the kitchen.

Roman traveling vehicles saw many changes during the lapse of centuries; we are concerned with those prevalent in Horace's day. First of all, there was the lectica, a portable couch carried on poles; it had a leather roof and side curtains. There was a soft mattress on which the occupant could recline; there was also a head rest so that he might read or even write.

WHEN A CITY KNEW NO WHEELS

According to the wealth of the owner, there were two or six or eight slaves who carried the lectica. This vehicle was used both in the town and in the country; wheeled conveyances were generally forbidden in the city.

For outside travel the reda was the most generally used, a four-wheeled carriage adapted for the transport of large parties and with some sort of accommodation for baggage. It was drawn by mules, The aristocrats had them carefully matched



Photograph by Burton Holmes from Galloway

ELECTRICITY NOW LIGHTS THIS MEDIEVAL STREET IN TERRACINA

In olden times, Romans in outlying towns built their dwellings close together for protection against invaders. Shopkeepers and tradesmen, now as then, have their stalls on the ground floor. People who live above reach their homes by climbing the outside stairs. A custom of nailing cattle horns over the door of a meat market persists (left). In Horace's day, scribes sat in the alleys offering their services to passers-by who could neither read nor write.



Photograph by Hans Hildenbeand

HIS OXEN ARE WASHED AND CURRIED EVERY DAY

Farmers strive to keep their animals and stables spotlessly clean. All manner of crops, including fruit, grain, and hay, are hauled in such squeaking two-wheeled carts. Leaves from the mulberry trees in the background provide food for silkworms, now being raised in Italy.

or used Gaulish ponies, richly caparisoned. There were also two-wheeled carriages for fast traveling, but Horace undoubtedly used the reda for whatever road travel he did on this occasion.

The trip was from Rome to Brindisi, and it would seem that they were in no way pressed for time, as they took three days and an extra night in going about fifty-six miles from Rome to Terracina. Horace says the Appian Way was less tiring to travelers who were not in a hurry, for the road was quite rough, being paved with large square blocks of stone with merely a coating of gravel.

The Appian Way was the first of those great roads so splendidly constructed by the Romans; it was planned by Appius Claudius Caecus, the Censor, in 312 B. C. The main roads usually bore the name of the censor who had planned them.

In the provinces roads were named for the provincial governors who had executed them. The main highways were owned and maintained by the State, while side roads were controlled by the local magistrates. Among Rome's most lasting and best preserved monuments are the roads it built. At the Appli Forum (Foro Applio), which is about forty miles from Rome, Horace made part of the journey by canal, and what a trip it was! In addition to slaves fighting with boatmen, there were the cursed gnats, and then the croaking frogs of the fens made sleep impossible, while a tipsy boatman insisted on serenading at a distance the girl he left behind him, or, dropping supinely on his back, supplied a sonorous obligato to all other noises.

After a sleep from sheer exhaustion, it was weefully found by Horace that mules and boatmen had slept through the entire night and no progress had been made.

At Sinuessa, a few miles north of Mondragone, Horace was joined by three of his dearest friends, among them Vergil. Here the poet waxes eloquent on the value of the true friend, than which there is no greater joy in life.

After a few mishaps the party finally arrived at Brindisi. We regret that Horace was so tired of his journey, and from the abrupt ending of his satire it would seem he was equally tired of writing his diary. That may be why he gave us no description of this city which at the time was the most important seaport of eastern Italy; it is still held in high repute. The harbor is excellent, and its proximity to Greece and the Near East has added much to its popularity.

THE FORUM, CENTER OF CLASSIC ROME

No visit to Rome is complete without a walk on the Via Sacra (page 784). It is one of those streets which formed the boundaries of the Roman Forum; in fact, it was the most important, as it was the leading ascent to the Capitol. The excellent restorative work of recent years has made the approach to the Forum attractive, and wandering through the ruins is done with ease.

It is impossible to think of the Roman Republic without the Forum; it was the center of the greatest civil conflicts and it has resounded with the most eloquent flights of oratory. To the classicist no spot of all this earth is more interesting, and it is not hard from columns here and there to reconstruct the magnificent buildings of ancient days (see page 791).

One of Horace's happiest satires narrates with inimitable skill his encounter with a bore, when one morning, all absorbed in thought on daily trifles, he was trying to take a quiet stroll on this Sacred Street. Up comes a pushing fellow who greets the poet as his long-lost friend. Horace, in a most civil but clear way, suggests that he be left alone, but the boorish fellow clings to him.

The entire satire is a playful picture of Horace's supreme effort to rid himself of the bore. He compares himself to a poor little Italian donkey who hangs his head when a too heavy load is placed upon his back. Perhaps the most amusing lines are those that give Horace's inward reflections on bores in general, possessing as they do an age-old application.

About twenty-five miles from Rome is a peak 2,267 feet high that has been immortalized in one of Horace's most delightful songs. He called it "Soracte," but we know it as Monte Soratte. The village from which ascent is made is S. Oreste.

From the northern part of Rome the mountain is easily seen, and no doubt in the days of Horace it was prominent even from other parts of the city. On the highest summit there is a church dedicated to St. Sylvester, and there is also a monastery on the slope; it was founded A. D. 746 by Carloman, son of Charles Martel and brother of Pepin (Pippin) the Short.

Horace's poem paints a winter scene, and as he and his friend look from the comfortable fireside where they are quaffing some Sabine wine, they see in the distance Mount Soracte glistening in an ermine mantle of purest snow. The rivers are frozen and the trees of the surrounding wood are straining under the heavy winter burden. Then, in Epicurean style, Horace bids his boon companions eat, drink, and make merry, enjoy today and don't bother about tomorrow.

A POEM OF FAMILIAR QUOTATIONS

It seems strange, and yet it is not unusual for authors to be known by quotations from their inferior writings. This is certainly true of Horace. One of his poorest compositions is his didactic poem, "The Art of Poetry," from which can be culled more sententious sayings than perhaps from any other single poem of fewer than 500 lines. It has been imitated but never equaled in other languages; it defies satisfactory translation. With little sequence one dictum after another is enunciated, and, if followed, what a boon it would be for publishers!

Among other things, Horace suggests the locking up of one's manuscript at least nine years, and only to write when inspired; to pore over the great masters day and night; to be clear and concise, not diffuse; brief, but not obscure; combine the useful and the pleasant. From this poem we have the original of such commonplaces as the "purple patch," the "nodding of Homer," and "sesquipedalian verbiage."

"The Art of Poetry" has indeed had great influence on the literature of the ages, though its maxims can well be applied to all creations of art. It is rather amusing to read Horace's tenth Satire, where he makes fun of those producers of verse who aspire to have their published works used as textbooks to teach the ignorant how to write. "Are you foolish enough to prefer that your songs be dictated in the commonest schools? That surely is not my ambition." Alas, poor Horace—he is best known in the classroom.

There is something delightfully human about Horace, and perhaps therein we may find his greatest source of popularity. Like so many middle-class Romans of his day, he occupied some sort of official position



Photograph by Branson DeCou from Gallowsky

EVEN THE APPIAN WAY HAS ITS TRAFFIC PROBLEMS

The jovial wine cart driver takes his time despite a shower of invectives from the truckmen behind. Hung from the horse's harness is a bundle of hay which the animal munches as it walks along. The driver may swing the decorated canopy, now tilted to one side of the cart, over his head to keep out the sun.

with a small salary attached, but his main support came from an influential friend. Thus it was that he had the leisure to write and has bequeathed to posterity more than one hundred "Odes," some "Epodes," two books of "Satires," and about twenty "Epistles."

Like those ungracious pastors to whom Ophelia refers in answering her brother's advice about her proper decorum, Horace often points the way "to the steep and thorny path to heaven," but "himself the primrose path of dalliance treads."

His praise of poverty seems to have been at a time when he was ready to grasp the good things that fell his way, and while he paints in most attractive colors the idyllic delights of the simple farmer, he seems to have written these lines while enjoying his fill of city happiness; nor should we take him too seriously when he extols pristine austerity to the skies. He is an eloquent example of the non-practicing preacher.

As a moralist, Horace inveighs against avarice and meanness; he is particularly effective in the shafts that he directs against the pedantic and the pretentious, and his amusing reflections on the insincerity of society, on personal eccentricities, and on the follies of social and political life are



Photograph by Fritz Henle

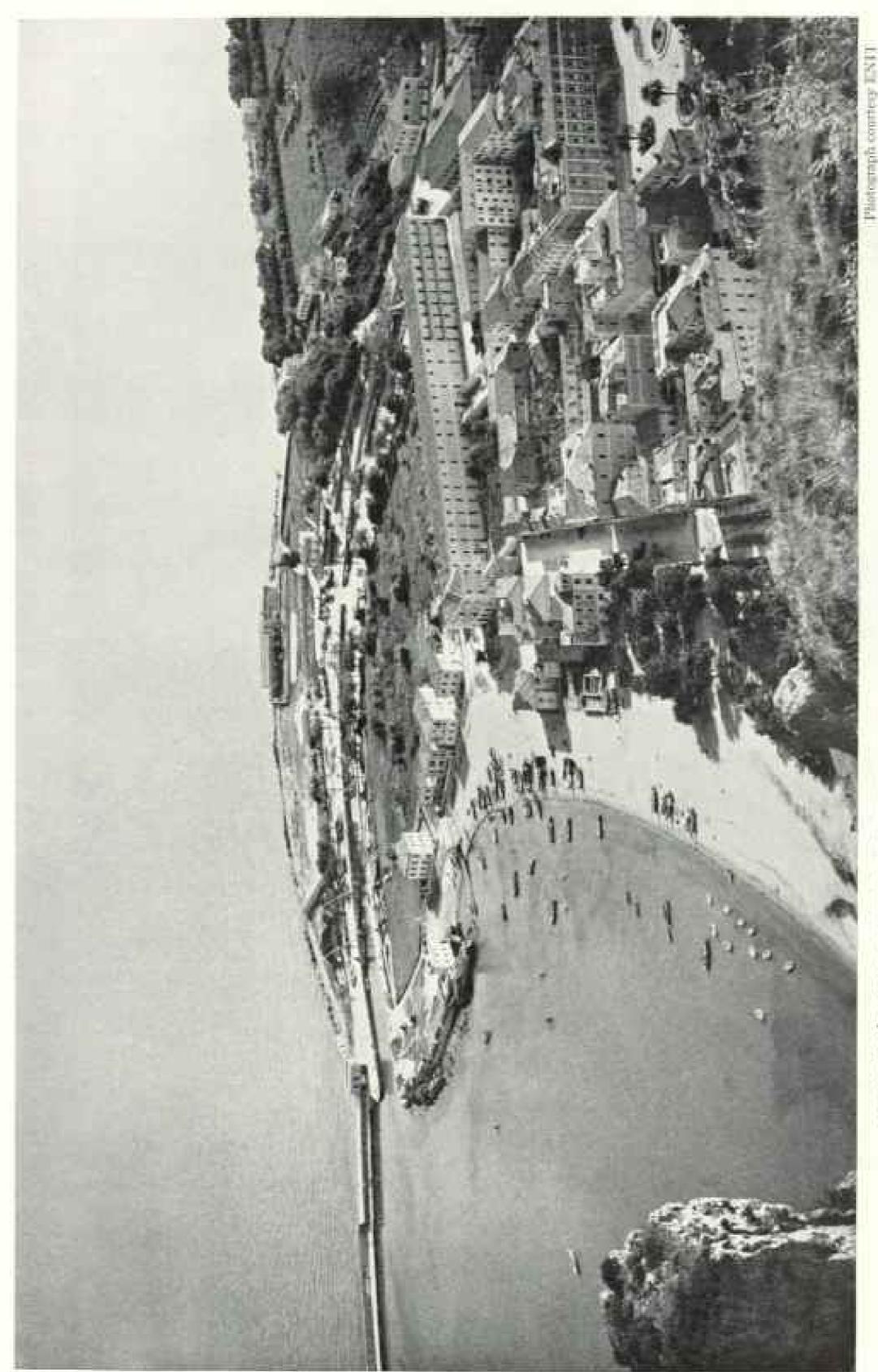
ROME'S COLISEUM SEATED 45,000 SPECTATORS—ABOUT HALF AS MANY AS MAY WATCH A BASEBALL GAME IN VANKEE STADIUM

Begun by Vespasian 80 years after Horace died, the Flavian Amphitheater, as the structure was called for seven centuries, rose 160 feet high and covered six acres of ground. During a single show commemorating the thousandth anniversary of Rome's founding, 2,000 gladiators fought, and hundreds of animals were killed. After the arena was abandoned, lightning and earthquake damaged it, and hundreds of years later men plundered the ruins for building materials. Therefore, to prevent its complete destruction, Pope Benedict XIV made it a Christian shrine in 1750. The towering cross in the center bonors Christian martyrs.

not only pleasant poetry but valuable exposition of the customs of the day, cherished by the historian as well as by the lover of letters. Horace holds up the mirror of the Augustan Age and we owe much to him in completing the picture of the time.

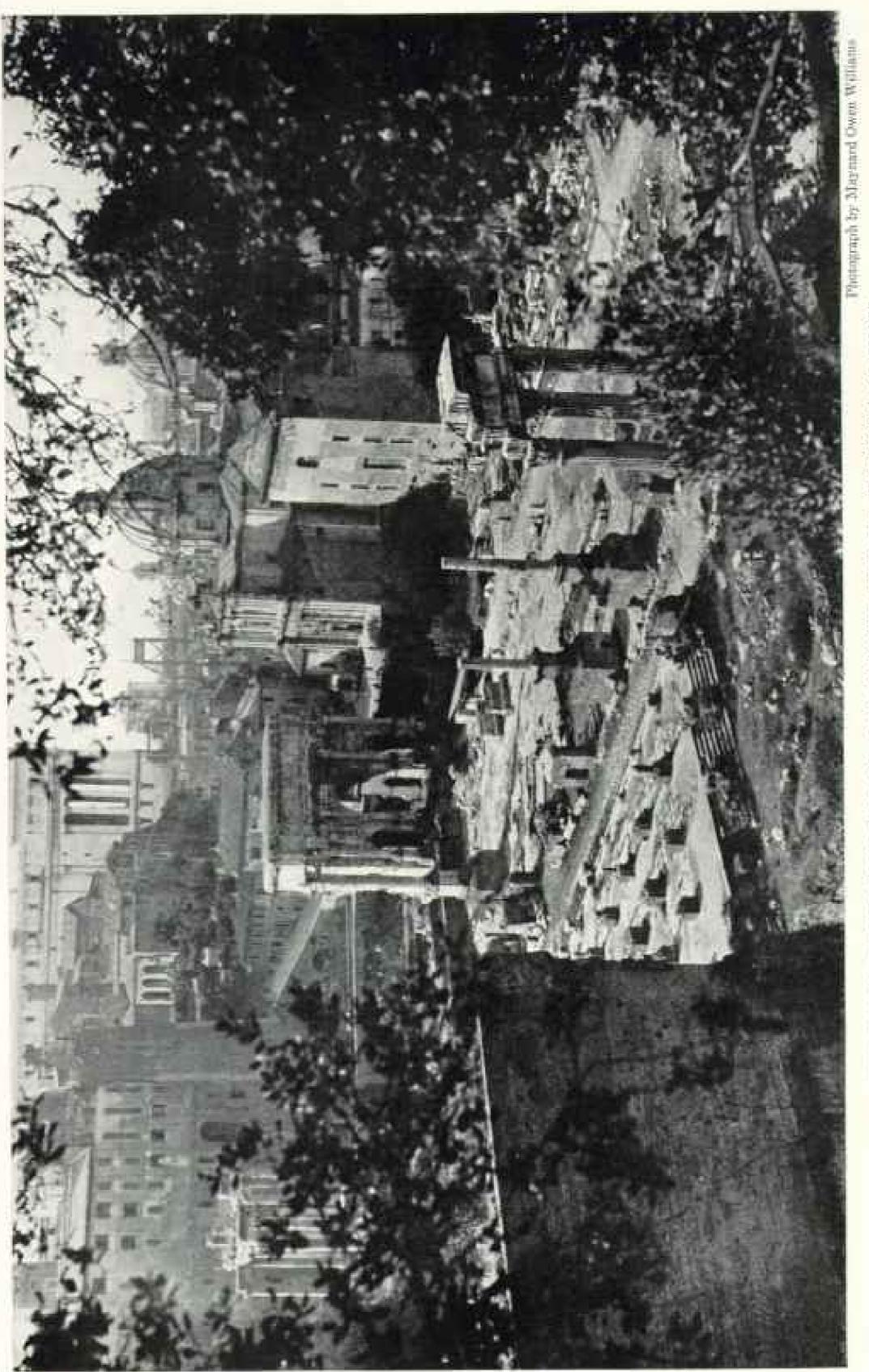
Vergil gives more details of the geography of Italy; from his pages we could almost make a map for the farmer who would plow the fields or for the traveler who would wish to see the grandeur of the mountains and the delights of the valley. If Vergil is the favorite of the geographer of Italy, Horace is the agreeable companion of the social psychologist of the Roman people: the cherished interpreter of his times,

To him we owe the interesting details of how the Romans lived in the city and the country; how they entertained their friends, what were their weaknesses. Nor does he neglect to paint their virtues, and whatever is lovable and admirable in the ancient Roman is best of all handed down to us by Horace. We can live again their everyday



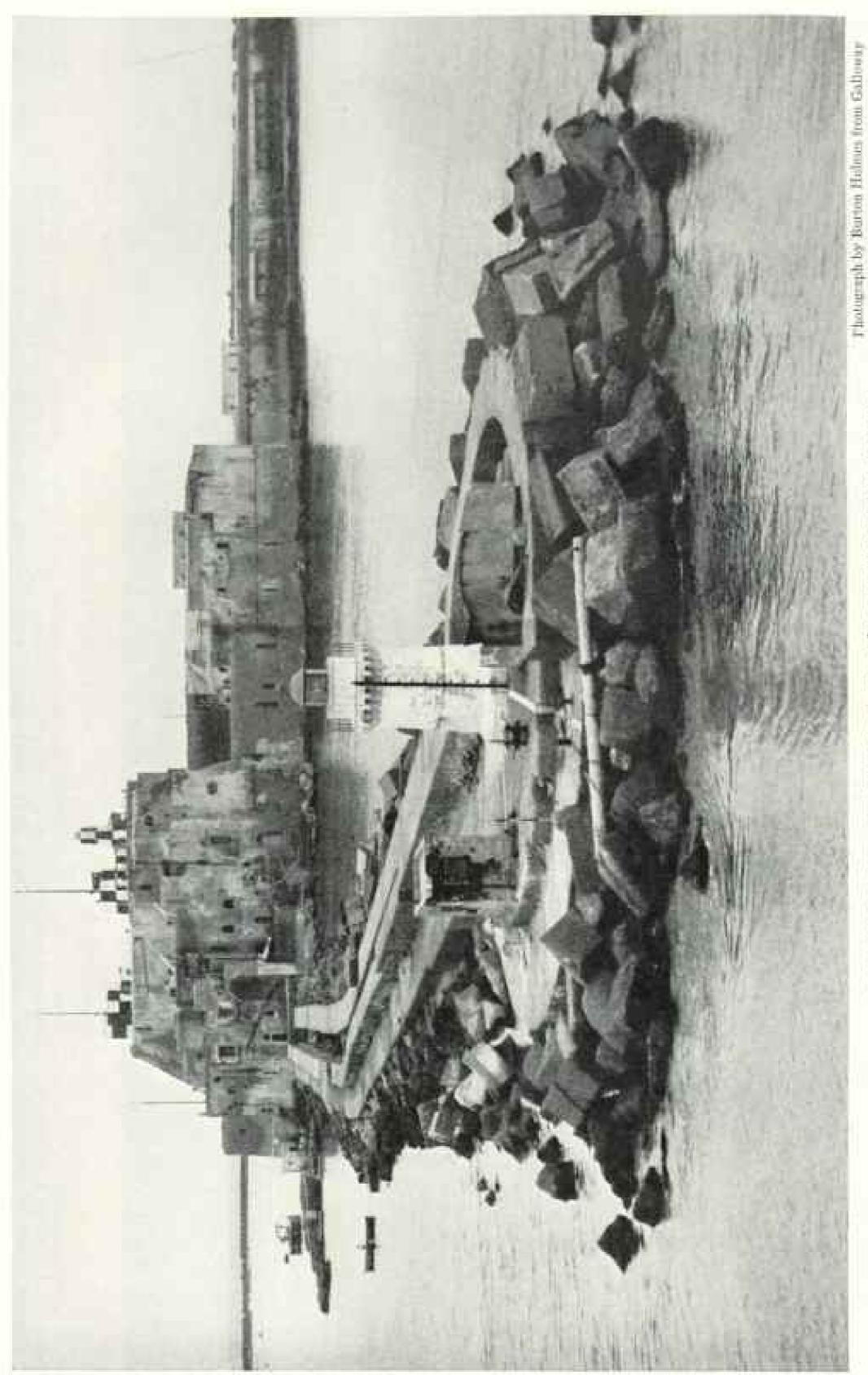
LUES NEXT TO THE SEA; THE OLD CLIMBS THE RELES HEYOND TERRACINA'S NEW SECTION

Romans gouged a passage 120 feet deep through a rocky promontory at the cust end of the city to facilitate entrance to the town along the Appian Way. Long an old seaside resort, the place attracted aristocratic Romans. The highway along the water leads toward Naples.



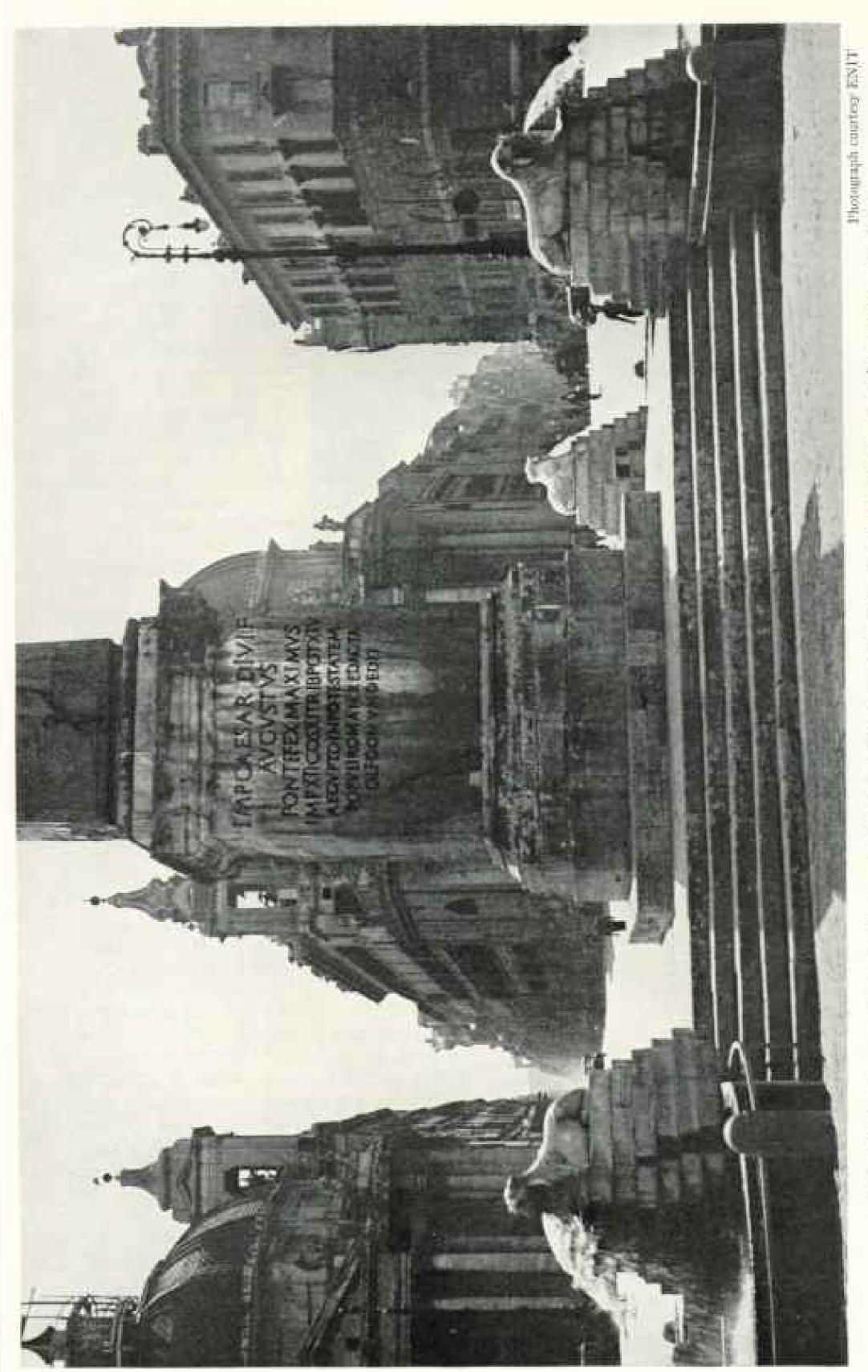
THE ROMAN FORUM ONCE WAS AN OPEN MARKET LINED BY TWO ROWS OF SHOPS

Between that area and the markets rose a speakers' platform. In Horace's day there were two kinds of Roman Forum became the latter type. From alop the Palatine Hill, the photographer glimpsed (through an In the center rives the Arch of Septimius Severas. Just outside the Forum level is the domed church of fortuns—one a market place, the other a judicial tribunal. The Roman Forum became the latter type. From atop the Palatine Hill, the the trees at the left) the granite columns of the Temple of Saturn. In the center rises the Arch of Septimius Severas. Just outside the Fe SS. Luca and Marina. In the lower right are the three remaining columns of the Temple of Cantor and Pollux (see text, page 788). A space for open-air town meetings occupied one corner.



BRINDISI IS THE TERMINUS OF ITALY'S ROUTE TO THE ORIENT

In Horace's day, as now, the port was the eastern gate to the Empire. Here Cicero came from exile, and here Octavius first called himself Causar. Veryil died at Brindisi upon his return from Greece after completing the Zoday, airplanes fly between the port and Islanbul. The lighthouse surmounts one of the five reafs that jut from the mainland; behind it perches an old fort.



PROM ECYPT, AUGUSTUS BROUGHT THE OBBLISK THAT STANDS IN THE CENTER OF ROME'S PIAZZA DEL POPOLO

se Sixtus V moved it here in 1589 (see pages 770, 775). On either side of Corso Umberto Primo (left) rise Before the railway came, Porta del Popolo, Rome's old north gate opening into the square, was the chief It stood 1,600 years in the Circus Maximus before Pope the beliried towers of the twin churches of Santa Maria. Bentrance to the city.



Photograph by General Marlborough Churchill

OFF TO A VILLAGE FOUNTAIN FOR THEIR HOUSEHOLD.
WATER SUPPLY

To ease the hurden and help balance the jar, girls twine a handkerchief round and round and place it on the head beneath the load. Ancient walls, pierced by two gates, surround Ferentino, home of the smiling maids. A trellis clings to the building (left).

life, thanks to his satires, his epistles, and lyric poems.

At times he is sublime, especially in the third book of his Odes, where he speaks on civic virtues, on integrity and justice, simplicity and fidelity, endurance and steadfastness of purpose. It is in these songs we hail him poet laureate of Rome. His exhortations to martial courage and love of country, to a pure life and reverence for the gods, have not been surpassed and they resound with the grandeur of Isaias, and come closest to the triumphant poems of David.

One of the truly historic trips to be taken

by the visitor to Rome is a ride along the Appian Way, or, to keep to the vernacular of the spot, Via Appia Antica. Starting from the Piazza di Venezia, we can easily make our way past the Roman Forum and the Coliseum to the Via di Porta S, Sebastiano.

To the right are the famous Baths of Caracalla, which were opened in the two hundred and seventeenth year of our era; the huge ruins give some idea of their amazing splendor, with luxurious accommodations for about sixteen hundred bathers at one time. It is stated that a good square mile was needed to embrace the baths themselves and the surrounding gardens and the field for gymnastic exercises, with the theater, the library, picture galleries, and everything else that might allure the Romans of that day.

The Via Appia Antica stretches across the broad Campagna, which at one time was a treacherous and dangerous plain, ensnaring

all by its many charms. The poisonous atmosphere frequently brought on malaria. Today, as in so many other localities in Italy, great changes have taken place here, and we can read with more satisfaction the picturesque musings of artistic travelers.

To view a golden-red sunset from the Alban Hills (Colli Albani) is to see the sky in its loveliest splendor and to behold the sea and the land decked in most precious hues.

On each side of the road are the stone arches of the ancient aqueducts; at dusk they look like specters, which, as Ruskin



Photograph by Burton Holmes from Galloway

NEPTUNE, GOD OF THE WATERS, COMMANDS THE TRITONLIKE FIGURES IN TREVI FOUNTAIN

In the niche at the left of Neptune stands a statue to Fertility, while to the right, just outside the photograph, is a figure representing Health. One man in the fountain (right) has a trumpet made of a conch shell, which, according to mythology, he blows to control the waves. Legend says that the visitor who tosses a coin in the fountain will surely return to Rome.

says, "melt into darkness like shadowy and that its use and its letters may not be relecountless troops of funeral mourners passing from a nation's grave." Then, too, there are the ruins of many tombs, sad memorials of departed worth, the glory that was Rome.

To the classicist of today, who may remember when throughout our country the bachelor of arts degree presupposed a full college course in Latin, whereas one by one institutions have ceased to require this timehonored cultural subject, the ruins on the old Appian Way seem symbolic of what is soon to happen to Roman Letters unless some reform takes place. Business courses and sciences, and all sorts of useful arts are crowding out the cultural, and even among many educated people a quotation from Horace might as well be in Sanskrit.

It is our cherished hope that the bimillennial commemoration of Horace's birth may stimulate anew the study of Latin, and

gated, as in the Dark Ages, to monastic walls and be intelligible only to ecclesiastics.

In the concluding poem of his third book of Odes, Horace predicts that his writings will last longer than the royal Pyramids, which no wasting rain nor herce north wind will destroy, and that they can withstand the wreckful siege of years and time's fell hand.

"I shall not wholly die; nay, I shall for the most part escape from the funeral goddess, nor shall I cease to be reborn again and again, my glory always increasing."

Such was the poet's prophecy, and for two thousand years he has remained the favorite of those who love lyrics, the entertaining companion of those who enjoy satire, the most complete exponent of the everyday life of the Augustan Roman. He well deserves the bimillennial honors that are being heaped upon him,

THE NATIONAL GEOGRAPHIC SOCIETY'S NEW MAP OF THE WORLD

A TIME when world events command everyone's attention, and are watched for possible effects upon our own country, our homes, and our business, the National Geographic Society this month issues to its million member families, as a special supplement to their Magazine, the finest Map of the World it has yet produced.

Drawn in two hemispheres, and printed in ten colors on durable paper, the new World Map contains a veritable library of up-to-date information, easy to read, on a sheet only slightly larger than two pages

of a newspaper."

For following the conflict between Italy and Ethiopia, and the mobilization of naval vessels and airplanes in the Mediterranean, The Society's Map of Africa, published in June, 1935, is ideal. The World Map, by showing the distribution of British territory, and the sea and air routes linking its world empire, reveals why the region of the Mediterranean, Suez Canal, and Red Sea is so vital to Great Britain.

The airplane, the transoceanic telephone, the radio, and other inventions have made a knowledge of the world necessary to read a newspaper, tune in on a broadcast, or answer many business letters.

News under date lines of far-away places that were practically unheard of a year ago crowded even World Series baseball games off the front pages of daily papers.

Events in China, in India, in Ethiopia may have such far-reaching effects that they are "home news" to places many thousands

of miles away.

For these reasons The Society's new Map of the World should prove particularly useful, helping members to follow history in the making, to see spotlight areas in relation to the whole world, and to comprehend the moves made by statesmen on the vast diplomatic, and sometimes military, chessboard that the world has become today.

THE "BIG SIX" IN NATIONAL AREA

About one-fourth of all the land in the world—excluding the uninhabitable polar regions—is included in the British Empire, or Commonwealth of Nations. The foun-

* Members desiring additional copies of the new World Map may obtain them, by writing The Society's Washington, D. C., headquarters, at 50 cents, paper; 75 cents, mounted on linea. tainhead of all these scattered places and peoples is an island group no larger than

the State of Oregon.

In contrast to Britain's widely distributed domain (shown in pink) is the compact bulk of the Union of Soviet Socialist Republics, its yellow-tinted form spanning much of Europe and the whole northern part of Asia. In size the Russian Bear is second only to the British Lion.

France, with its extensive colonial empire, especially in Africa, takes third place in territorial size; then come, in the order named, China (if Mongolia, Sinkiang, and Tibet be included), the United States, and the South American giant, Brazil.

All together, these six nations comprise more than two-thirds of the total habitable land surface of the world.

The map discloses how thoroughly man has explored and populated the land surface

of the globe.

For many centuries civilized mankind's world surrounded the Mediterranean or fringed the Indian Ocean and the China Seas. In fact, these worlds were twain, and only occasionally a Marco Polo or a Vasco da Gama spanned the gap to bring back such strange tales that one of the isolated worlds would not believe what travelers told of the other.

Then, after centuries of maritime training in the Mediterranean, nation after nation radiated across the oceans—to the Americas, to India and China around the Cape of Good Hope, to Australia and New Zealand and the myriad islands of the Pacific, and now even to the heart of Antarctica.

Thus, on a world map, may be traced the course of discovery and settlement, of conquest and control, and the spread, not only of flags, but of the language and cultural empires that often override all boundary lines.

It is interesting, for example, to trace the places where the languages, the music, the art, the literature, the architecture, the customs of the once vast domains of Spain, Portugal, and the Netherlands remain, though political sovereignty long since shifted.

The major blank spots left on the world are in the polar regions, and much smaller areas in the desert interior of Arabia and the jungles of the upper Amazon. In all of these much knowledge has been gained in recent years by explorers, especially by those employing airplanes.

MEMBERS HELP IN REMAKING MAP

Each member of the National Geographic Society had a very real part in the making of this new World Map, for it has been modified in important areas by discoveries of The Society's expeditions, which are financed from the dues of the membership

of more than one million homes.

The Pacific Quadrant of the Antarctic Continent has been largely remapped by the discoveries of Admiral Byrd's Expeditions, to which The Society contributed substantially. Daring airplane flights over icy seas on the second Byrd Antarctic Expedition removed some 200,000 square miles from the suppositious area of the Antarctic land mass and showed it to be a part of the Pacific Ocean.

Moreover, this World Map is the first to be issued showing with certainty that Antarctica is a single continent, not two islands —the epochal conclusion reached by Admiral Byrd after a series of flights and surveys made on his expedition of 1933-35."

A 2,000-square-mile blank spot in southwestern Yukon Territory of the Dominion of Canada, a region of lofty ranges and glacier-filled valleys and gorges, was filled in on the map of North America by The Society's Yukon Expedition in 1935, led by

Bradford Washburn,

The World Map records these and other findings of The Society's expeditions, along with many new discoveries of explorers through 1935. In effect, it summarizes the information upon the large maps in color issued in recent years—those of the United States, Europe, Asia, Africa, South America, the Caribbean area, the Pacific Islands, and the North and South Polar regionsadding much material not before published on any general map.7

Through Canadian Government aerial surveys, the whole east coast of Hudson Bay has been moved eastward almost a degree and the Belcher Islands have been

changed in outline.

* See "Exploring the Ice Age in Antarctica," by Richard Evelyn Byrd, in the National Geo-Geaphie Magazine, October, 1935.

† For a complete list of The Society's large maps in color, and for the maps accompanying articles, see the new Cumulative Index to the NATIONAL GEOGRAPHIC MAGAZINE, 1899 through 1934, now available to members at \$1.50 for cloth binding, and \$1.00, paper bound.

New lakes, discovered and mapped by Government air surveyors, appear in the interior of Australia.

The position of new Arctic islands reported in 1935 by the icebreaker Sadko has been indicated. Sergeant Andreev's Land, the existence of which has been a subject of speculation for nearly two centuries, is shown-although with a question markin the light of reports of its rediscovery.

In Antarctica is Kaiser William II Land, the territorial possession left to the Germans after the Treaty of Versailles. Was it overlooked, or merely ignored as useless frozen waste? Territorial rights in Antarctica are so ill-defined and claims so conflicting that it is not practicable to show them.

Near the end of the Aleutian Island chain are the Rat Islands. Although they are in the same latitude as frozen Labrador, these islands are washed by a warm ocean current which would make life on them possible,

though difficult and strenuous.

In the Pacific, near Hawaii, are three islands-Wake, Johnston, and Kingman Reef-which were declared under United States jurisdiction in 1934. In 1935 the coral reefs, Jarvis, Baker, and Howland, were formally proclaimed as annexed to the United States. Many lonely fragments of land have potential value as air stations.

Main trunk airways are drawn on the map in red, and trunk railways are shown by black lines. Big American seaplanes begin scheduled flights across the Pacific in 1936, and the route is indicated by a red line from San Francisco to Honolulu, Midway Island, Wake Island, Guam, Manila, and Canton. These planes will connect with those of the American-operated airways in China.

ITALIAN COLONIAL BOUNDARIES EXTENDED

Important changes in political boundaries include the new frontier between Italian Libia and the Anglo-Egyptian Sudan and French Equatorial Africa; and between Eritrea and French Somaliland. These three grants add territory to Italian Africa. The new boundary between Yemen and Saudi Arabia has been the subject of recent dispute, and the newly defined Northern Territory in Australia combines the old territories of North and Central Australia.

The National Geographic Society, complying with the Netherlands' effort to eliminate the word "Dutch," employs the term

"Netherlands Indies."

"Persia" has been changed to "Iran," derived from the old historic name which meant "the country of the Aryans." "Ethiopia" is preferred to "Abyssinia."

Relief is shown by contours and emphasized by tinting in shades of olive, running from light to dark with increasing height, and making the major features of world re-

lief stand out clearly.

If seen through a powerful telescope from the moon, the earth's continental land masses would appear like scattered pieces of a jigsaw puzzle stuck about on a big ball of ocean, since the world is 71 percent water-covered.

The main mountain ranges probably would stand out, especially those mighty ones which rim the Pacific in a tremendous curve and almost form a complete circle, if one includes the half-drowned mountains

which we know as islands,

Starting in Antarctica with the Edsel Ford Range, which Admiral Byrd discovered, this range runs northeast through the Antarctic Archipelago, then up the coast of the Americas in the Andes and Rockies. Swinging westward in Alaska, it bends south along the east coast of Siberia and China, through the East Indies and Australia, returning almost to its starting point before it is broken by really deep ocean water.

Impressive to an observer high above the earth would be the extensive drainage systems, such as those of the Mississippi, Amazon, Ob, Yangtze, or Congo; and if he could see cities he would notice that many

of them lie along the rivers.

A globe is the only exactly accurate means of mapping the earth. Although this representation of the world, which comes neatly folded in your NATIONAL GEOGRAPHIC rather than crated and on a delivery truck, is a compromise, yet it has many advantages over a bulky globe.

For convenience in locating points on the earth's surface, it has been divided into small sections by a system of theoretical lines drawn about it. These are the parallels of latitude and the meridians of longitude, which are the foundation of all maps. Many systems have been devised for drawing this grid, or network, of coordinates on a flat piece of paper. All are distortions in one way or another.

The projection used on the new World Map, called the Equal Area Azimuthal Projection, overcomes any error in showing the size of areas. All areas are in the same proportion to the actual land surfaces they represent. This result is obtained by some sacrifice of accuracy in shape, but the distortion becomes noticeable only at the edges of the map. Not one, but three scales of miles to an inch are given for use in different parts of the map.

When work upon the projection was completed, the base map appeared as two large hemispheres, blank except for the gridwork of the parallels and meridians. Meanwhile, months of research resulted in placing upon this network the most important,

reliable, timely data obtainable.

Thus each line, dot, and color of the completed map is a paragraph in the story of Mother Earth's making and structure, and of the changes Nature and man constantly

are effecting upon its surface.

The margins are filled with information: the speed of the earth in its orbit around the sun; its speed of rotation at the Equator; the deepest known spot in the ocean; even the weight of the earth is given —6,587,406,000,000,000,000,000 tons!

A table of the areas of the continents and principal islands shows silent, almost lifeless Antarctica bulking considerably larger

than Europe.

The concentration of most of the earth's dry land in one-half of the globe is graph-

ically illustrated.

In a comparatively narrow band on either side of latitude 40, north and south, lie most of the world's large cities.

TIME ZONES HELP RADIO TUNING

Particularly helpful in this era of tuning in on short-wave radio programs of foreign lands are the small hemispheres in the lower corners which show the time zones the world over, making it possible to tell in a moment what hour it is in London or Los Angeles, Eritrea or Australia. Washington, D. C., for example, is in the zone marked —5, which means that clocks in our Capital are five hours behind those in Greenwich, England, the world standard.

Foreign place names are given in the language of the country in which they occur, but a glossary on the margin has the English equivalent for the most important places. In some cases the foreign and English terms differ widely. Memel, for instance, is Klaipeda; Port Arthur is Ryojun.

NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC ADMINISTRATION BUILDINGS

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

GILHERT GROSVENOR, President

ROBERT V. FLEMING, Treasurer
HERBERT A. POOLE, Assistant Treasurer
FREDERICK V. COVILLE, Chairman Committee on Research

EXECUTIVE STAFF OF THE NATIONAL GEOGRAPHIC MAGAZINE

GILBERT GROSVENOR, EDITOR

IOHN OLIVER LA GORCE, Associate Editor

J. R. HILDEBRAND
Assistant Editor
MELVILLE BELL GROSVENOR
Assistant Editor
McFALL KERBEV
Chief of School Service
LEO, A. BORAH
Editorial Staff

FREDERICK SIMPICII
Assistant Editor
WILLIAM JOSEPH SHOWALTER
Chief Research Division
ALBERT H. BUMSTEAD
Chief Cartographer
E. JOHN LONG
Editorial Staff

FRANKLIN L. FISHER
Chief Illustrations Division
MAYNARD OWEN WILLIAMS
Chief Ferrign Editorial Staff
CHARLES MARTIN
Chief Photographic Laboratory
LEONARD C. ROV
Editorial Staff

BOARD OF TRUSTEES

President and Chairman of the Board, Riggs National Bank

WALTER S. GIFFORD
President American Telephone and
Telegraph Co.

Special Agricultural Explorer, U. S. Department of Agriculture

C. HART MERRIAM Member National Academy of Sciences

LYMAN J. BRIGGS.
Director National Bureau of Standards

GRORGE R. PUTNAM.
Commissioner of Lighthouses,
Retired.

THEODORE W. NOVES Editor of The Evening Star

GEORGE W. HUTCHISON Secretary National Geographic Society CHARLES EVANS HUGHES
Chief Justice of the United States

WILLIAM V. PRATT

Rear Admiral U. S. Navy, Retired.

Director U. S. Coast and Geodetic Survey

ALEXANDER WETMORE
Assistant Secretary, Smithsonian
Institution

GILBERT GROSVENOR

Editor of National Geographic

Magazine

J. HOWARD GORE
Prof. Emericus Mathematics, The
George Washington University

FREDERICK V. COVILLE

Botanist, U. S. Department of
Agriculture

JOHN J. PERSHING General of the Armies of the

United States

A. W. GREELY Arctic Explorer, Major General U. S. Army

GEORGE OTIS SMITH
Formerly Director U. S. Geological
Survey

O. H. TITTMANN

Formerly Superintendent U. S.

Court and Geodetic Survey

JOHN OLIVER LA GORCE

Associate Editor National Geographic Magazine

CHARLES G. DAWES
Formerly Vice-President of the
United States

GEORGE SHIRAS, In Formerly Member U. S. Congress, Faural Naturalist and Wild-Game Photographer

ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

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

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

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

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

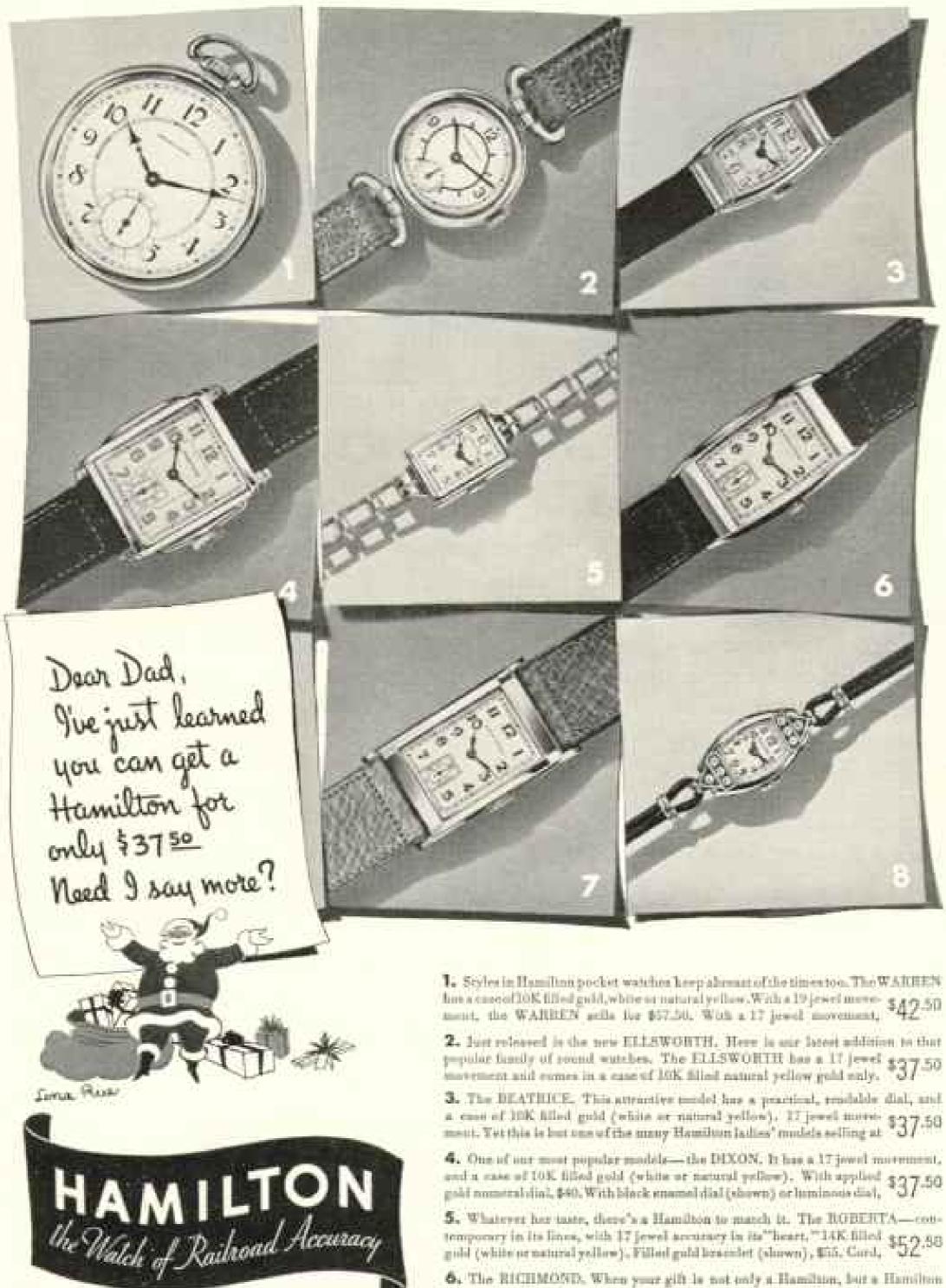
THE Society also had the honor of subscribing a substantial sum to the expedition of Admiral Pruty, who discovered the North Pole, and contributed \$13,000 to Admiral Byrd's Antarctic Expeditions.

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

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

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

Copyright, 1935, by National Geographic Society, Washington, D. C. International copyright secured. All rights reserved. Quedan reservados todos los detechos. Printed in U.S. A. Entered at the Post Office as Washington, D. C., as Second-Class Mail Master. Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of October 3, 1917, authorized July 1, 1918. Cover design and names registered in United States Patent Office. Marca Registrada.



FREE TO WOMEN. Emily Post, leading authority on etiquetre, has just completed a new little book entitled, "Time Etiquette. "In this book Mrs. Post dispuls forever the illusion that it is, or ever was, fashionable to be late. It is a valuable guide to conduct in the moial and business life of the modern noman. Write for FREE eupy. Hamilton Watch Company, 382 Columbia Ave., Luneaster, Penna. An illustrated folder describing the most beaut ful watches in Hamilton history also sent to you upon seguest.

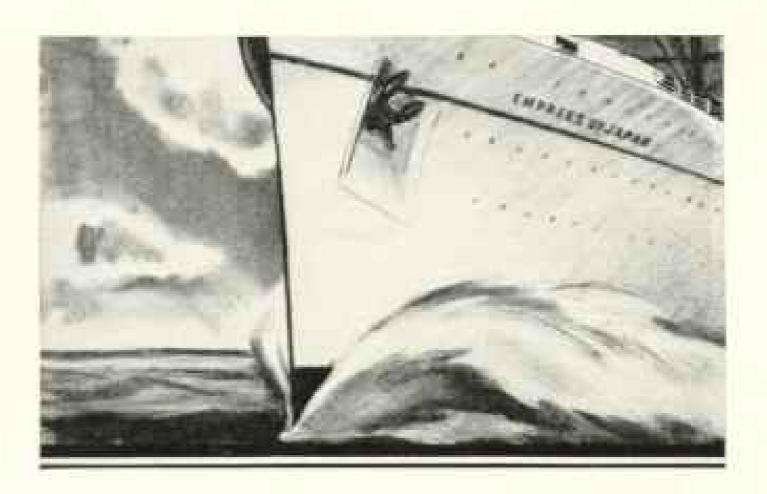
6. The RICHMOND, When your gift is not only a Hamilton, but a Hamilton with a 19 powel movement and an IRK solid gold care (natural yellow gold only) - what more is there to ask? IRE applied gold numeral disk.

7. The BOGNE. 17 jewel movement, a case of 14K filled natural yellow gold. With 18K applied gold numeral dial (shown), \$52.50. With a special \$50.00 gold fluished dial and unique simplified numerals in inhald black snamel,

3. Diamond-set watches are no longer an estrayagance. The MARGOT has it exquisite diamonds set in playioum. The case is 18K solid white gold. \$125.

And underneath it all is a 17 jewel Hamilton movement. The prior is \$125.

(Other Hamilton watches for both mes and women from \$17.50 to \$1000.)



SHANGHAI EXPRESS!

Go Empress!

When you go *Empress*, you're sure of record speed. You're also sure of service that is prompt and courteous, meals that are seldom equalled ashore, rooms that are complete for modern comfort . . . a harmony of gracious living.

YOKOHAMA IN 10 DAYS ... the fast, short way is by this Direct Express Route. Sail by Empress of Asia or Empress of Russia.

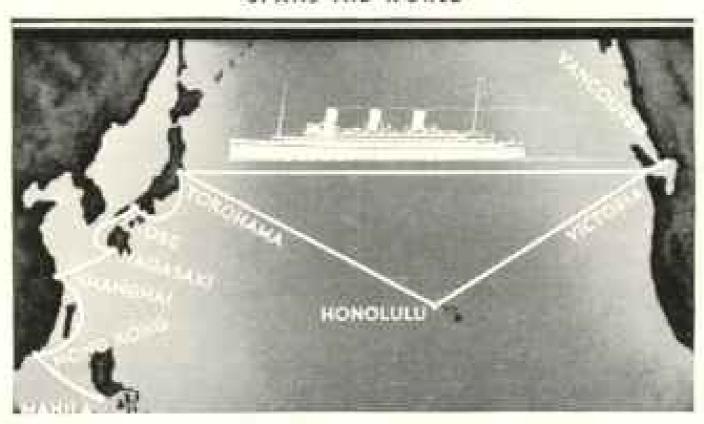
HONOLULU IN 5 DAYS . . . then on to Yokohama in only 8 days more. Go on the Empress of Japan (largest, fastest liner on the Pacific) . . . or her running mate, the Empress of Canada. FREQUENT SAILINGS . . . from Vancouver and Vic-

toria to Yokohama, Kobe, Nagasaki, Shanghai, Hong Kong, and Manila. If you sail from California, connect with an *Empress* at Honolulu. Orient fares include passage to and from Seattle. Low all-year round-trip fares...First and Tourist Class. Low-cost Third Class on all *Empresses*. All-expense personally-conducted tours.

PLAN YOUR OWN WORLD TOUR . . . at surprisingly low cost. Over 200 itineraries.

MAPS - BOOKLETS - RATES . . . from YOUR TRAVEL AGENT of Canadian Pacific: New York, Boston, Chicago, San Francisco, Washington, Montreal, and 31 other cities in the U. S. and Canada.

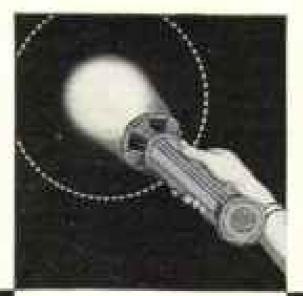
Canadian Pacific



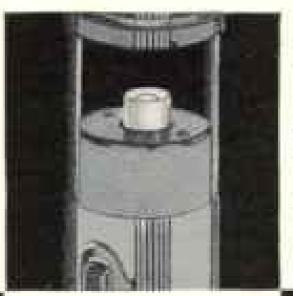


General Offices (New York, N.Y. Branches) Chicago, San Económica Unit of Union Corbide [1] and Corbon Corporation

DADS LIKE A HIPLE!
Below) No detachable
arts. Front and scarrage
lide out amouthly an
brome runways. Nothing
a unscrew...nothing to
sisplace! To load, just
wist the cap... and it
prings out on the runays. Butteries go in like
bellalua breech-bedding
iffe...quickly and entity.

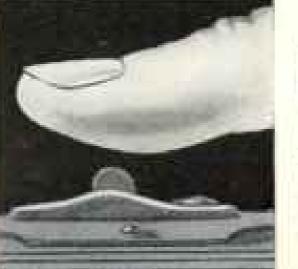


"HAIR-TRIGGER"
SWITCH (Below) You just touch the switch and the light is ou! Release, and it's off, And instead of pushing a slide switch as you formerly had to do to get a steady, "locked-on" light...you just flick your thumb forward and it's done! The switch is so designed that it can 'tturn an accidentally.



YOUR OWN INITIAL, RIGHT ON THE CASE: (Bolow) You may replace the trade-mark plate with a haudsome black and chrome plate bearing your own initial. A valuable means of identifying your light; and a good idea, too, for a personalized Christmas gift... See the Everendy Masterlites at your dealer's today.

TWO TYPES OF LIGHT AT A TOUCH OF YOUR THUMB! (show) The Light Selector provides instant, one-hand selection of either a pleecing "spot" or a broad, diffused beam. For the first time, you confocus the light quickly nod easily with one hand while you hold the beam on the object you must to see!



CANDLE-LIGHT TOP,
(Above) By just pulling the
lens bonning out on the
curways and standing the
light on end... you have
a condle-light which illuminates a room yet leaves
both hands free for the job
in hand. The light can be
regulated ... soft and diffused, or bright enough to
the end a needle!



WHAT ELSE CAN YOU GIVE A MAN

that hill use every day and carry over his heart for life!

A Gift that Every Woman, Too, Would Joyfully Welcome, for This Revolutionary Pen Holds 102% More Ink-Shows When to Refill-Hence Ends Running Dry



This Christmas PARKER GIVES OUTRIGHT THIS SMART PLASKON UTILITY CASE

(for cigarattes, jewelry, or boudein trifles) with the purchase of this Laminated Pearl Pen and Pencil Set

For this princely Christmas Special, go promptly to your favorite department store, pen shop, stationer's, jeweler's, or druggist's. Purchase one of the lovely Parker Vacumatic Laminated Pearl Pen and Pencil Sets, and your dealer will mount this utterly new style creation in this permanent Plaskon Case, for which he will charge you absolutely nothing.

On receiving this handsome gift, your friend or loved one will merely

Pencil to pocket, handbag, or desk, and put to use the smart Plaskon Case as a cigarette box or jewel case. Made in Jet or African Brown with Ivory Plaskon lid—it's permanently strong, thoroughly durable, and extremely artistic and attractive. See illustration above.



So don't forget to ask for the famous "Parker" by name instead of for just "a fountain pen." For "Parker" is the name that your dear ones will look for on any gift Pen or Set—the name that will make them stand up and cheer on Christmas morn!

And remember that the Parker is the only Genunn Vacumatic Pen—contains No Runner Inc. Sac—No Lever Filler—No Squirt-Gun Piston Pump—nothing to render it useless later. That's why it's Guaranteed Mechanically Perfect.

Stop at the nearest pen counter—see why the marvelous new Parker Vacumatic leads all Christmas lists. The Parker Pen Company, Janesville, Wisconsin.



Two superb achievements presented by RCA Victor ... The D-22 and the Victor Library of Recorded Music

THIS could be your Christmas morning: It is the zero hour, just when the tree is lit. Now the door opens, and, as the family crushes through, the Hallelujah Chorus from the Messiah rings out in triumph and thanksgiving. The Trinity Choir might be there about the Christmas tree, so clear are the voices, so warm with life the music. Instead, it is the beginning of a 90-minute concert selected by you from the Victor Library of Recorded Music, played by the D-22, greatest RCA Victor combination radio-phonograph.

With these two crowning RCA Victor achievements—the Victor Library of Recorded Music, and the D-22, RCA Victor radio-phonograph — you make your family a gift that embraces the entire world of music.

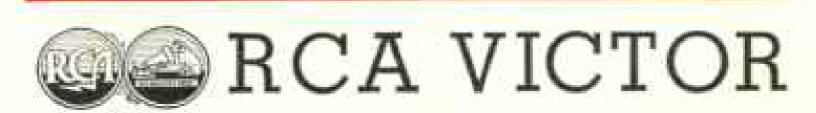
The years stretch ahead, illimitably richer for this gift. Bach—Szostako-wicz—Beethoven—Ravel—Kreisler—Ponselle—Harold Bauer—The Philadelphia Orchestra—Rachmani-noff—are just a few of the hundreds of musical great who will be the inti-mates of your children.

The Victor Library of Recorded Music is the first, all comprehensive, completely classified record library. Its 461 records cover the most important works in every musical field from ancient to modern — include recordings by most of the great musical

artists and organizations,

The D-22, RCA Victor's greatest radio-phonograph, incorporates the revolutionary Dynamic Expander, with automatic record-changer, and home recording, in combination with the finest "Magic Brain" radio with the "Magic Eye". To both radio and recorded music D-22 brings all the warmth, the infinite variations of total color, the full range of the complete orchestra—exactly as you hear it in the original production. Here is the most superb musical instrument ever offered you.

Ask your dealer for complete information about the Victor Library of Recorded Music, and the D-22, or write RCA Victor, Camden, N. J.



The

New Gift

is the New FILMO Straight 8



A compact, lightweight, truly pocket-size 8 mm. Movie Camera

Makes brilliant, life-like motion pictures easily and economically. Loads almost instantly with the new Bell & Howell 8 mm, film costing only \$1.45 a roll, including processing. Just look through the spyglass viewfinder and press the button . . . what you see, you get?

Never before has Bell & Howell offered so desirable a camera at so low a price . . . only \$69. What gift could bring so much genuine pleasure?

Nearly identical in size and appearance is the Filmo Double 8, a 50-foot capacity 8 mm. camera, priced at \$75.



For those who prefer limm.
... the new Filmo 121 Camera, magazine-louding,
small, light, excellent for
Kodachrome full color movles and for black and white.

BELL & HOWELL COMPANY

Chicago · New York · Hollywood · London · Paris

World's largest manufacturer of precision equipment for professional motion picture studios

MAIL COUPON FOR FREE BOOKLET



Bell & Howell Company, 1804 Larchmont Ave., Chicago

Please send booklet on □ Filmo Straight 8. □ Filmo Double 8. □ Pilmo 121, and name of nearest dealer.

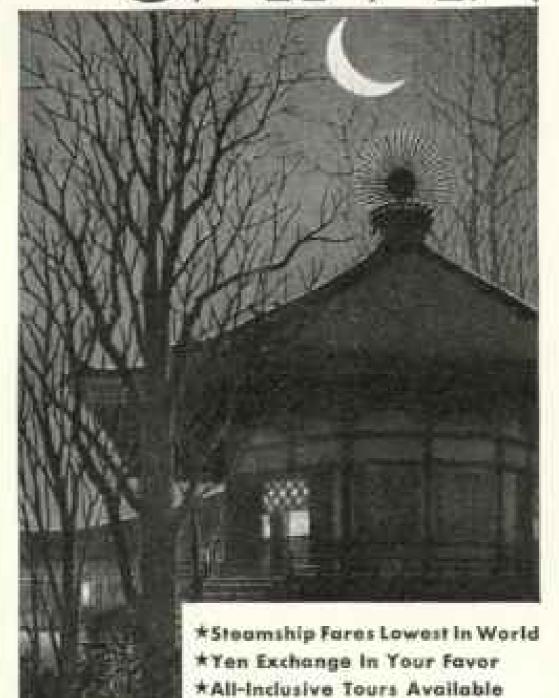
Name____

Address.

City____State_

No Need to Wait a Lifetime

to JAPAN



SAITING to see Japan! But what are you waiting for? This is the year to make the trip at minimum expense. Although the Island Empire lies on the other side of the world, the cost of getting there is amazingly low. And the cost of staying there and using everything you want to see is lower still—thanks to favorable exchange and the all-inclusive tours prepared by Japan Tourist Bureau, a non-commercial organization. In six weeks you can make the round trip from the Pacific coast, with two weeks to see the greatest cities, shrines, and natural wonders of Japan—all at an unbelievably low dollars-per-day figure!

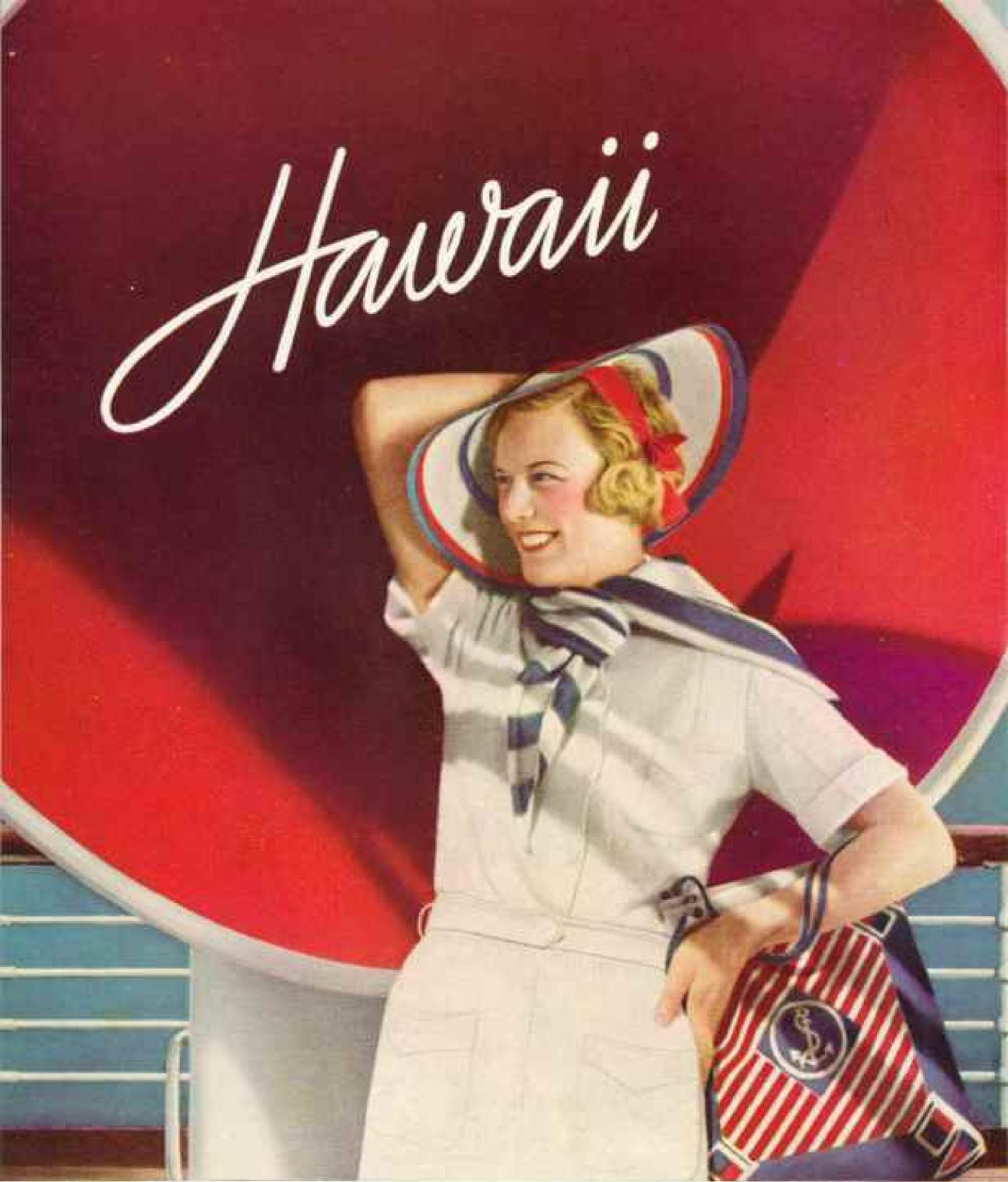
*Trip Requires Only Six Weeks

Probably you've never actually "counted the cost." Do so-consult your travel agent and find out how little it can be! Or write to the nearest office below for fuscinating literature and detailed itinguaries.

JAPAN

Address 331 Fifth Ave., New York, or Chamber of Commerce Bldg., 1151 South Broadway, Los Angelm, Cal., or 610 Noppon Yusan Kaitha Line, 25 Broadway, N. Y. C. Please address Dopt. G in each case to facilitate prompt reply.

TOURIST BUREAU



Photographed in Heisrad Calor on hard S. S. Lattice on your in Hermall

The voyage the whole world hopes to make

Pictures and complete details about "this playground of the sun" from your Travel Agent or our offices... Allinclusive-cost tours to Hawaii... Personally excerted Matson South Pacific Cruises... to New Zealand and Australia... via Hawaii, Samoa, Fiji. Matson Line-Oceanic Line: New York, Chicago, San Francisco, Los Angeles, Seattle, Portland.

S. S. LURLINE - S. S. MABIPOSA - S. S. MONTEREY - S. S. MALOLO

Matson Line



Make it a GRAFLEX Christmas

IN THE OPEN, AND ..

With an American-made Graffex Camera, it's always "open season." Indoors and out . . . every picture opportunity is yours. No fivning guaranerh . . . your Graffex picture will be exactly as you see it on the ground glass, America's finest camera "for more interesting pictures" is among the earliest to use. That's why all the family will enjoy a gift GRAFLEX. There's one for every purse and purpose.



IN THE DARKROOM

More than half the joy of picture-taking is picture-making. But many, lacking space for conventional darkroom equipment, have been denied this pleasure. NOW! GRAFLEX revolutionizes darkroom requirements, by consolidating and simplifying the essentials of picture-making equipment. Combined into a single unit only 113-2" x 153-2" x 263-4" overall: an enlarger, custuat printer and retunching desk!

The SERIES B GRAFLEX

— illustrated above, is deservedly popular, 24 Graffex Focal Plane Shutter speeds to 1/1000 second, F.4.5 lens, Uses film, plates or packs, Sizes: 234"x334", 334"x434", 4"x5", and 5"x7".

The National GRAFLEX Series II

Handful" No so she she for for gar prices

Handful" NOW, with the accessory Self-Timer — 19 shutter speeds from 10 full mounts to 1/500 mc. Its guess-proof GRAFLEX Focusing is "the tops" for color-film photography. F. 3. 5 lens. 10 pictures 234"x234" from each 8-exp. film roll.



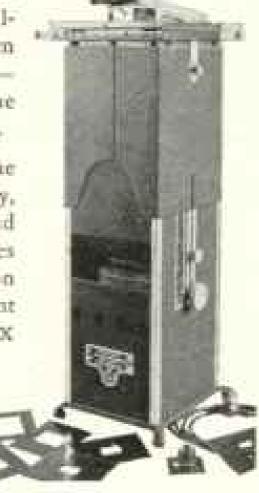


GRAFLEX ENLARG-OR-PRINTER

— almost a samplete darkroom in itself. Makes enlarging as simple as contact printing. Takes negatives to 234" x 354"—or sections of negatives to 4" x 5"

enlargement sizes limited only by negative quality. Contact prints from negatives to 8" x 10"—to 11" x 14" with the accessory extension top.

You will marvel at the compactness, portability, ease of operation, and the denew extra features that await your inspection of the new ... different ... desirable GRAFLEX ENLARG-ON-PRINTER.



See your dealer reday! Send for free descriptive literature.

FOLMER GRAFLEX CORPORATION Dept. G-6, Rochester, New York, U. S. A.

Please send descriptive data. I am interested in: Series B Graffex Cl. National GRAFLEX Series II D. The New GRAFLEX ENLARG- ox-PRINTER. D

NAME	
ADDRESS.	
CITY	STATE





Give not just one day's pleasure, but shaving comfort for a lifetime. NO MORE LATHER, NO BLADES, never another cut nor the slightest pain nor discomfort. It is a gift of QUICK, CLOSE SHAVES and a new, more youthful skin, for with continuous use of the Shaver, nature discards your old blade-calloused skin. It is good for TOUGH BEARDS or the most TENDER SKINS. Ask any of our dealers to show you the Shaver. If none is near you, send \$15 to Dept. V.

SCHICK DRY SHAVER, INC., STAMFORD, CONN. Western Distributor: Edises, Inc., San Francisco. In Canada, Henry Birks & Sons, Ltd., and other leading stores. (Canadian price, \$16.50.)

SCHICK SHAVER







-Come do all these things yourself. Look how easy and inexpensive it is:

Even from New York, Southern California is just overnight by plane, 3 days by train, 1 to 7 by motor or stage, 2 weeks through the Panama Canal. So even a short vacation is ample. And costs here are 18% under the U.S. average; half the "peak prices" of many short-season resorts.

The map, although we couldn't picture the climate, suggests why travelers tell us there are more different ways to have fun in Southern California than in any other single resort.

FREE: Automatic Trip Planner

Your trip plans itself from the time you leave home till you're back again, with this new, 80-page Official Southern California Guide Book, What to do and see, over 100 pictures taken in settings shown here, maps, itemized costs, free routing, etc.... facts not available elsewhere, furnished by this non-profit civic organization.

(Limited offer: Would you like, free, an enlarged full color copy of the above "Fun Map" containing no advertising? Just mark the coupon.) ALL-YEAR CLUB OF SOUTHERN CALIFORNIA

Came to California for a glorious vacation. Advise anyone not to come seeking employment, lest he be disappointed; but for tourists, the attractions are unlimited.

MAIL COUPON TODAY

All-Year Club of Southern California, Dept. 12-G, 829 So. Hill St., Los Angeles, Galif.

Send me free book with complete details (including costs) of a Southern California vacation, \(\) I would also like the "Fun Map" in colors. Also send free couting by \(\) auto, \(\) vail, \(\) plant, \(\) bus, \(\) attainable, Also send free bushlets about compairs abrokul: \(\) Lox Augules, \(\) Souta Harbets, \(\) Orange, \(\) Abyo, \(\) Riverside, \(\) Ventura, \(\) San Diego, \(\) San Bernardine.

Name______Street____

GUAYMAS

ON THE WEST COAST OF MEXICO



THE HOTEL PLAYA DE CORTÉS

We are glad to announce that our modern resort hotel, now rapidly nearing completion on the beach near Guaymas, will soon be opened. Its name: Hotel Playa de Cortés. Its purpose: to give sportsmen and winter vacationists a thoroughly modern, American type hotel on Mexico's tropical West Coast. Its rates: \$6 to \$10 a day, including meals.

Guaymas is one of the most exciting places in the world to hunt and fish. The warm, blue waters of the Gulf of Lower California fairly swarm with Sea Trout, Red Snapper and giant Sea Bass. In summer come the fighting Swordfish, Sailfish and Marlin.

HOW TO GET THERE

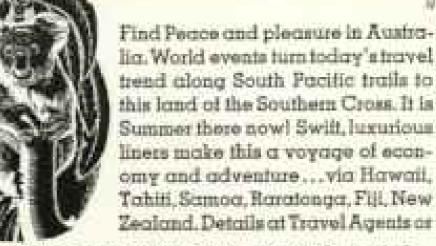
Guaymas is just a short distance across the border, on our West Coast of Mexico Route. This route meets our Iuxurious Golden State Limited (Chicago-Los Angeles) and Sunset Limited (New Orleans-Los Angeles) at Tueson and speeds you to Mexico City via Guaymas, Maratlan, Tepic, and Guadalajars. Through airconditioned Pullman service.

Very low roundtrip fares to Guaymas and all West Coast of Mexico points—also to Mexico City, with the privilege of using the West Coast Route one way and the El Paso Route the other.

For booklets and information about the West Coast of Mexico, write O. P. Bartlett, Dept. C-12, 310 So. Michigan Blvd., Chicago. For de luxe booklet with large map in full colors, enclose 25c, stamps or coin.

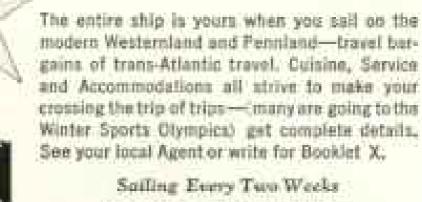
SOUTHERN PACIFIC

lustralia



AUSTRALIAN NATIONAL TRAVEL ASS'N (A non-profit community organization) Suite 300, Hotel Clork, Los Angeles, Colif.

SAIL—"ONE CLASS" Run-of-the-Ship The Modern Way To Europe



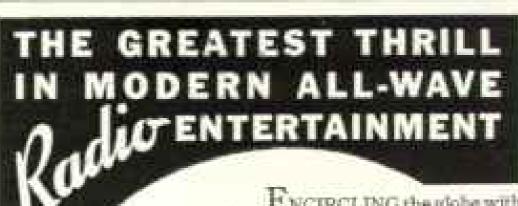
One Class — Tourist Class

ROUND TRIP \$207 ANTWERP
SOUTHAMPTON 207 \$214

RED STAR LINE

17 BATTERY PLACE

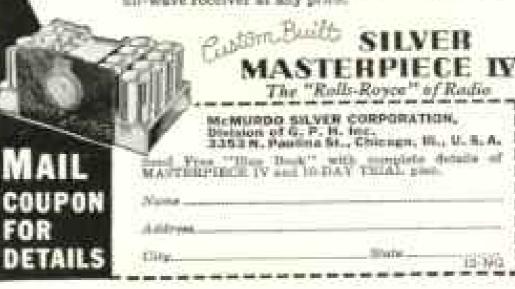
NEW YORK



ENCIRCLING the globe with its world-wide mastery of distance... re-creating every audible sound and musical note with studio-like fidelity and tonal clarity... with a tuning range covering every broadcast service on the air... the new Silver MASTERPIECE IV is made for discriminating listeners who want nothing but the best in radio.

Contour-designed, custous-built and laboratory mated, the MASTERPIECE IV introduces 25 startling new engineering advancements to bring you the flount and most exciting radio untertainment you have ever known... world-wide news... bistary in the making ... music of every land and clime ... ships aften ... your favorite "locals" as you have never really heard them before.

If you'd like, without obligation, the whole faminating story of the grantest thrill in radio, send the scopes or a pastenrd for El-page "Blue Book," with details of plan which enables you to test the MASTER-PIECE IV in your own home, in comparison with any all-wave receiver at any price.





East O' The Sun West O' The Moon

YOU'RE Mete

PIONEERS IN RADIO

15 Minutes of Your Time

FIVE to send the coupon; ten to read the simple, clear, untechnical story of life insurance and what it can do for you in our booklet which answers important questions.

You'll find it well worth fifteen minutes of your time. May we send your copy?

FE INSURANCE COMPAN OF BOSTON, MASSACHURETTS

JOHN HANCOCK INOURRY BUREAU 197 Clarendon Street, Buston, Mass. Please send me your booklet about the many uses of life insurance.

					Hivi	
Street	and No.			VETOT	orena	
City.	aranni	1.000	State			



There's a new MIAMI BEACH waiting for you this year...

THIS winter a great many new visitors will come to Miami Beach for the first time. "The Beach" has always been first choice for vacationists-just as it is the established winter home of the Nation's business and social leaders.

Now, record breaking new construction (more than \$8,000,000 so far this year) has greatly increased facilities. There's a new Miami Beach, and new opportunities to enjoy the carefree outdoor Hving of the tropics-sun, surf and golden sands - made doubly enjoyable by contrust with gloomy weather in the North.

Particularly attractive are the possibilities for long vacations. Accommodations to suit every need and every family budget are plentiful. Season rates are effective through April, Business men find it practical to send their families here and visit them on "week end" trips. School children may register on arrival.

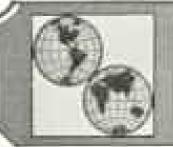
It's a health-building and economical



adventure for the family -and a glorious respite from mid-winter cares and worries in the North.

* For Detailed Information and rates, write to the City of MIAMI BEACH, Fla., or to C. W. Chase, Sr., Miami Beach Chamber of Commerce.





The National Geographic Directory of Colleges, Schools and Camps



Girls' Schools

Coseducational

ANNIE WRIGHT SEMINARY @

Chicago Senoot, for girls of all ages. Founded 1884, According College Proparation, Modern surriculum contami. Varied athletic program. Ideal home and social environment. Sallie Egerton Wilson, Principal, 829 N. Tacoma Ave., Tacoma, Wash. .

ARLINGTON HALL Justion Contaction school. Strong Academic work. Exertient music and other depts. Virginia bills 15 minutes from White House. Modern buildings. 110 acre wooded compact All sports. Carrie Sutherlin, M.A., Pres., Ben, Franklin Sta., Bax N. Washington, D. C.

THE ANNA HEAD SCHOOL

Her. 1881. Accredited College-preparatory and Lower School, Swimming, Hockey, Biding, Tennis, the year round. Comfortable home and garden in rollege town, Address Mary E. Wilson, M.L. Principal, 2540 Channing Way, Berkeley, Calif.

LASELL JUNIOR COLLEGE

Tris attant from Boston, Two-year courses for High School graduates, Amdenie, Secretarial, Bene-Richmonnien, Marcie, Art. College Preparatory, Sep-scats Junior School, Catalogs. Gay M. Winsdow, Ph.D., 123 Woodland Road, Autorounte, Mass.

THE MARY LYON SCHOOL

Cottagns preparatory, general courses. Alcet facpley. Cultural events aftended in Phila, Music, art. dramatics. Golf. swittening. Wilderly, 2 year barminni Junior College courses. Mr. and Mrn. H. M. Crist, Principals, Box 1525, Swarthmark, Pa.

NATIONAL PARK SEMINARY

SCHURRAN to Washington. Japaine college and preparatory school. Distinguished patrimage. All sports. Terminal sources and proparation for advaries of standing in universities. Catalog. James E. Amunt, Ph.D., LL.D., Box 9125, Forest Glen, Mr.

WARRENTON COUNTRY SCHOOL inglism. Gillege preparatory, culturthe house. Teaches girls how to study, brings them neuror nature, inculents widow of order and accorder.

Mile. Lau M. Bouligny, Bux N. Warrenton, Va.

WEBBER COLLEGE

TRAINING FOR WOMEN

Winter session starts Jan. 6 in Florida, Complete surrieuhunt, socretarial and executive. One shill Two-Year courses. Preparation for responsible positions. Swimming, thinng, golf, and tennis. For outnouse sertile Helien A. Allen, Sourcetery, 535 Beacen Street, Bouton, Massachusetta.

AUGUSTA MILITARY ACADEMY

Boys' Schools

Countings preparatory. Modern game and pool. All sports, including riding, 400 acres. Graduates in 42 colleges, 69th year. Resonable rates, For entologaddress Box 14, Col. T. J. Roller or Maj. C. S. Steller, Jr., Fort Deflance, Va.

CRANBROOK SCHOOL

DESTINATIVE endowed bays' school, grades 7-12. Graduates in 29 endages. Countries apportunities in arte, sciences, attiletim, bobbies. Creative falent cultivated. For entalog write Registrer, 2370 Lane Pine Rood, Bleomfield Hills, Mich.

CULVER MILITARY ACADEMY

on Lake Maxinkuckou: Educates the whole lay, College preparation. Junior College work, Complete fucilities. Infantry, Artillery, Casulry. Moderate cost. Centries.

1211 Pershing Stood

Culver, Indiam

ACADEMY

The second term opens January 6 - a good time to enter your boy. Honor School. Highest academic rating. Every modern equipment. Junior and high schools. ROTC. Accredited, Moderate terms. For catalogue write J. J. Wicker, Pres., Fork Union, Va.

FRESNAL RANCH SCHOOL

Continue preparation for 30 here 11-1s. Stuff of ex-Berlenged teachers. On 15,996-acre cattle runch in a sheltered raspos to the Baboquiveri Mountains. All the interests of Western Rfs. A horse for every key. Bryon F. Peters, Headmaster, Tocons, Aricona.

OHIO MILITARY INSTITUTE

Hillip TEAR. Certificates admit to College. Lower School for younger boys. High, beautiful tocathan, Carming, Col. A. M. Henshaw, Bire N. College Hill, Cincinnati, O.

ST. JOHN'S MILITARY ACADEMY for endlage. Faculty of "boy spemilitary training. Himildings an Mineres. Gree. All sports, swimming, skating, riding, gulf, rowing, 51st yr. Catmay, 13125 Dekoven Hall, Delafield, Wis.

SAN DIEGO ARMY AND NAVY ACADEMY international patromago. Ex-"When Point of the West reptional familty. Fully acceptited. Unrealed recreational facilities and elimate. Boys i to Di-Catalogue, Bux 7, Pacific Beach, California,

OUT-OF-DOOR SCHOOL IN SAME Florida, Progressive resident and day school for book und girls 1-18. Special attention to health. Hwim-ming in Gulf. Fail term in Worth Carolina magnitudes. riding. Formest N. Harrison, Dir. N.Y. Address: 32 W. 58th St., Wickersham 2-0288.

> Colleges FOR WOMEN

MARY BALDWIN COLLEGE

For Warmer: Process outside of culture and achieve the Aerredited; codowed, A.B. degree, Music, Art. Drumaties, Secretarial, Educationally efficient, vocially mostive spiritually sincere, lidding sports Catalog. L. Witson Jarman, Pres., Box J. Stauston, Va.

MARYLAND COLLEGE WOMEN

HACRISTON degrees, exciticates. Education, Home Economics, Music, Kindergurten Training, Speech, Secretarial, Fine Arts. Pleasant social life. Spects. Etding. Near Baltimore. Write for Catalog. Bus. N. Lutherville, Maryland.

Vocational

ALVIENE SCHOOL THEATRE

41st YEAR, Graduates .- Fred Astaire, Lee Trucy, Una Merkel, Peggy Shahum, Zita Jahans, etc. Hugs, Scrum, Rodo. Black Theatre training. Appearance, N. Y. Debuts. Wetts See'y Landi for Catalog 4. 66 West BSth St., New York,

AMERICAN ACADEMY OF DRAMATIC ARTS Franklin H. Sarpent.

The forement institution for Dramatic Training. Winter Term bogim Jan. 15th. Catalog from Secretary, Raom 271-L. Carnegie Hall, N. Y.

MISS CONKLIN'S SECRETARIAL

SCHOOL FOUNDER 1006. Secretarial and Exercitive training. Students from leading Couleges and Schools, Midlown Location, Enrollment for January 2nd and February 2nd. Bequest Booklet 105 West 40th St., New York.

GRAND CENTRAL SCHOOL

OF ART innivitate talent developed by suc-Painting, Scalptury, Hisstration, Advertising, Applind Arts, and Interior Decemption. Catalog. 7010 Grand Control Terminal, New York City.

NEW YORK INSTITUTE OF

PHOTOGRAPHY ortrait, or Motion. Pletture Photography, Personal Attendance or Home Study. Many profitable opportunities. Free bookint. Dept. 44, 10 West 33d St., New York City.

"Mention the Geographic-It identifies you."



National Geographic Magazine's new Directory of Hotels will be found in the back advertising section.

Prevate Geft List of the most popular man in town (you'll do well to steal his thunder)



Mother-in-Law Dee

"My Son," slip cound in gratitude for this "Fairfur" Stormognide. Predicts rain, shine, cold or heat 24 lours in advance. Smart satiu-black case, trimmed with shooms. Aluminum dial. \$10.*

Friend Wife

lost 10 years of her age once she cooked with this Roust Mest Thermometer. Signals when ment is rare, medium and well-done. No more guesswork, no more guesswork, no more rained rosets. Easy to use and resit \$1.50.*





Sister Susie

with her passion for untiques, eighed with relief over this Humsdiguide which nementally measures the dryness of the nir. Does wunders to keep her autiques whole and hearty. Satin-black case, channe trimming, sluminum dial with indoor thermometer to match, \$3.50,*



Brother Pete

lead the time of his life with this Auto-Altimeter in his ear. Tells how high he's driving—a great help in controlling the "mixture." 3" nickel plated case, 3000-loot range. \$53."

Aunt Maria

put this Petite Indoor Standing Thermometer on the library mantel and knew at a glasse whether must or the room temperature made her sneeze. Black buse and scale, 4 inches high, black figures, Permacolor tube, \$1.*





Uncle Elihu

rich and cantankerous, with a passion for exploring, re-wrote his will as thanks for this Admiral Byrd set of compass and altimeter. Tells how high you are and where you're going. Swell for flying or driving. Smooth leather case, perket, size, \$50,*

Bob Junior



turned a double back-flip when he opened this Lamentte Compass. Deligagrained hunter case with orannestal bow, two-tuned floating dial with luminous N and S points. \$0.*

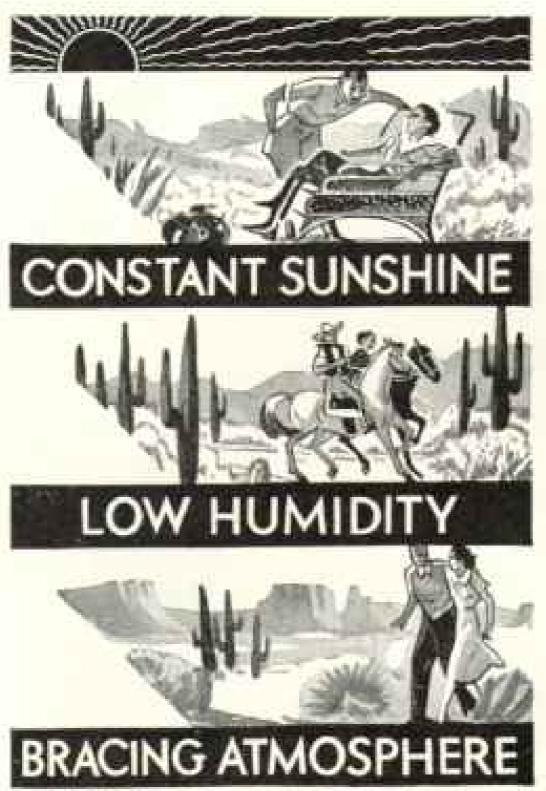
NE SURE WAY to get a repu-I tation for originality - and sense-is to give weather instruments and thermometers as presents for Christmas, Taylor makes dozena more-equally welcome-ranging in price from \$1, to \$50. One thing all Taylor Instruments have in common: they're tested to assure scientific accuracy. What's more, they're guaranteed against everything except breakage. Look for the name Taylor, for 83 years it has been the guarantee of accuracy and full value. If your dealer cannot supply you, write direct to Taylor Instrument Companies, Rochester, N. Y. Offices also at Toronto, Canada.

 Prices slightly higher sount of the Rindles and in Canada.

Taylor

INSTRUMENTS

IN INDUSTRY, other types for indicating, secreting and controlling uniperature, pressure and humility.



Thousands... ..find life better in TUCSON

TUCSON'S Inspiring climate brings now joy to life. 1 Here 336 days a year are sunny! The air is clear and pure. Fog and dow are practically unknown, U.S. Weather Bureau records declare Tueson "the driest city in the desert sunshine country."

Moreover, Tucson's abundance of medical facilities makes this region particularly favorable to convalescence. Fine sanatoria and skilled physicians are concentrated at Tucson. Here the unsurpassed climatic conditions have attracted the U. S. Veterans Hospital, Southern Methodist, Catholic, Episcopal, Elks' and Southern Pacific Hospitals. Living accommodations at hotels, apartments, guest ranches, schools, homes and sanatoria are scaled to every purse.

Best of all, life is ever varied and interesting in this Old West region. Send for detailed, illustrated booklet. Mail coupon today for fuscinating Tueson booklet and travel information. toble on Rock Island and Southern Pacific Lines.

	Sunshine Climate Club
	UCSON. ARIZONA
Vante	
Address	





Air-Conditioned Throughout-No Extra Fare

Quickest daily through service by many bours Chicago to Phoenix — shortest to San Diego — most novel and colorful to Los Angeles and Santa Barbara. Only through service to El Pasa, Tucson. Chandler, India and Palm Springs,

Rock Island - Southern Pacific - the comfortable low-altitude route to the Coast.

Daily Pullmans also from Minneapolis-St. Paul and St. Louis via Kansas City.

L. M. ALLEN, Pass'r Traffic Mgr., Rock Island Lines 777 La Salle St. Station, Chicago, Ill.

Please send me literature on Arizona and Southorn California with complete travel information.



OHILDREN must have the proper amount of sleep in order to grow, to fight off disease, to become alert mentally and strong physically. Foremost child experts prescribe the definite amounts of sleep which children should have at various ages (shown in the chart). A child should be in the right frame of mind when he goes to bed. If he has been unduly excited, it is difficult for him to relax.

Adults, too, should have the proper amount of sleep. Each day they burn up tissue which rest helps to restore at night. During hours of physical and mental activity the body accumulates fatigue poisons which are thrown off in sleep.

Pain, worry, bad digestion are sleep thieves. Prolonged loss of sleep makes one irritable and below par, mentally and physically. The tendency to insomnia may often be successfully combated in various ways—sometimes by taking a walk before going to bed—reading a non-exciting book—drinking a cup of hot milk, but above all, by learning to relax. Let go of every muscle,

SLEEP REQUIRED BY THE AVERAGE CHILD

One of the most valuable things you can do for your child is to insist that he gets enough sleep. Make sure that he receives his full amount of Nature's great builder and restorer—sleep.

Age						H	distr				needed
At birth	14	90	60	16	400						hours*
At 6 month	6	8	6.0	4	40		8				hours*
At I year			60		7	100					hours*
2 to 5 years	4		6.50	8	×	45	9				hours*
6107	4 1		6	9	$\mathcal{H}^{(k)}$	40		40			hours
8 to 10 "		*	6	*	40	6		30.7			hours
11 to 12 "	4	4.	6	*		40					hours
13 to 15 "	(4 · 3	27		*	+33	800	1907	3.5	0.00	12	Execute
					. 27	ne	lud.	mp	day	1500	ie sleep
(Compiled fr	oma	U.	5.	Ch	11.3	ren	34 I	3uir	eata.	Fol	der 11,

"Why Sleep?")

ease every tension, drop your problems until tomorrow and let yourself sink into the bed instead of holding yourself rigidly on top of it. Even though you do not actually go to sleep, such repose will bring a good measure of health repair. But when loss of sleep is persistent, a physician should be consulted.

Sleep sweeps away the mental cobwebs from tired brains, recharges wearied muscles, rebuilds worn tissue and gives the heart its nearest approach to rest. Send for a copy of our free booklet entitled "Sleep." Address Booklet Department 1235-N.



METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER, PRESIDENT

ONE MADISON AVE., NEW YORK, N. Y.



300 NOTE SHEETS 150 ENVELOPES

All Neatly Printed with Your Name and Address

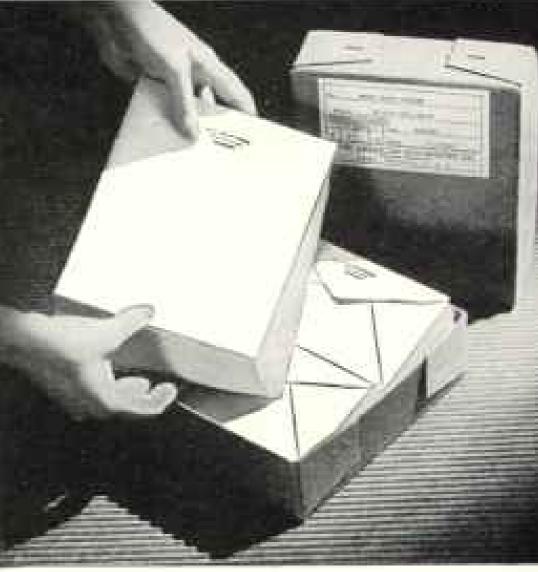


The "450" Package

Everyone likes this lovely stationery. It is a practical note paper for all kinds of every day notes and letters. It properly serves more writing purposes in the home than any other type. It is correct in style and size. Each sheet and envelope is neatly printed with your name and address-the smart and logical way to have your stationery finished.

FINE QUALITY The quantity is big thing about the "450" Package is its quality. Actually, finer paper is used than is found in many boxes of high priced stationery. It is pure white, high grade rag content bond paper - a paper made for the pen. It doesn't "blot"-it doesn't "scratch."

Send \$1.00 for a trial package (west of Denver, Colo., and outside of U. S. \$1.10). You'll be delighted with your bargain. If not, your money will be immediately refunded.



CHRISTMAS

 The "450" Package is a little gem among gifts...correct in style and quality, in perfect taste-and personalized. If you haven't yet sent in your Christmas order, better do so at once .. All packages printed and mailed within three days of receipt of order.

THE AMERICAN STATIONERY COMPANY 300 PARK AVE. PERUINDIANA





Of course there's a Santa Claus. Of course he gets tired and thirsty. Ice-cold Coca-Cola, with energy-giving refreshment, quenches his thirst as nothing else can. It will do the same for you, too...of course.

STATE OF THE PERSON.

ON THE ALR

Refreshment Time - RAY NOBLE and his orchestra. CBS coast-to-coast every Wednesday night, 9:30 EST

It's the New'36 Plymouth _Now on Display!



0 Improvements-Greatest Plymouth ever Built!

PROPLE EXPECTED IT. And now it's here...the greatest Plymouth a eight great years. More than forty improvements add to Plymouth's ensational value.

It's the biggest and sturdiest car re've ever built...with a 100% more igid frame...body newly reinforced t five main points.

It is again the most economical all-size car you can own . . . with evience piling up that it gives 18 to 23 alles or more per gallon of gas.

The 1936 Safety-Steel body is not

only stronger, but also has new insulation against rumble and road noise. Plymouth's brakes are 100% hydraulic—they stop you safely.

Steering of new design does away with the final trace of road-shock at the wheel,

Eleven new comfort features are added to Plymouth's Floating Ride ...inches more leg room... 2 inches more elbow and shoulder room.

This new 1936 Plymouth is being displayed now by Chrysler, Dodge and De Soto dealers. See how big and

4 THINGS PEOPLE WANT:

- ECONOMY All evidence indicates
 18 to 23 miles per gallon of gas.
- SAFETY— Plymouth's body is Safety Steel... Brakes are 100% hydraulic.
- RELIABILITY—Of all low-priced cars, Plymouth has most long-life features.
- COMFORT—Plymouth's Floating Ride plus 11 new comfort improvements.

beautiful it is...ride in it...drive it. (Ask about the official Chrysler Motors Commercial Credit Plan.)

PLYMOUTH DIVISION OF CHRYSLER CORP.

PLYMOUTH GREAT CARS



THOUSANDS OF WIVES ANTICIPATE HOOVERS

SENSATIONAL PRICE on new Model 300 promises record giving of Hoovers this Christmas. Surveys show this famous cleaner first choice among women. Now—Positive Agitation and Dirt Finder, in full-size, Hoover quality cleaner, at lowest price in Hoover history—\$49.75. Sold on easy terms by leading stores everywhere. Husbands advised to see local dealer.



THERE is a priceless gift within reach of every one — the gift of friendship.

Of all the services of the telephone there is none more important than this — helping you to make friends and to keep them.

When people are in trouble, you go to them quickly by telephone. The telephone carries your good wishes on birthdays, weddings and anniversaries. Arranges a golf game or gets a fourth for bridge. Invites a business acquaintance to your home for dinner, and advises "home" that he is coming. Congratulates a youngster on his work at school. Thanks a neighbor or asks about the baby. Renews old times—shares confidences—plans for the future.

Thus the bonds of friendship are formed and strengthened. Greater happiness comes into the widening circle of your life. Some one, somewhere, says sincerely—"It was nice of you to call."

This day, a voice-visit by telephone may bring reassurance to some good friend who is wondering how you are.

BELL TELEPHONE SYSTEM



PROVED





TO FRANCE - ENGLAND - GERMANY Increasing passenger lists - 100,013 on our ships, Jan. to Oct. - prove the value of our ideals of service.

Bremen

Westward, Sept. 16, corrying 2,078, a 3-year record

EUCOPA Eastward June 30, with 1,985, olso a 3-year record

De Luxe Columbus Express

Offering Atlantic crossings between her epic cruises



IRELAND . ENGLAND . FRANCE . GERMANY A Bailing Every Wednesday Midnight, Ist Class \$170 up

New York · Deutschland Albert Ballin · Hamburg

Cobin Crassings : Hapay M.S. St. Conis . . Lloyd S.S. Berlin

WORLD CRUISE of the famous Hapag Reliance from New York Jan. 9th for 415 months Eastward. 35 ports in ideal travel seasons. Exclusively First Closs, \$1750 up. with shore traps.

Mayor de luxe Calumbas Felt. 11 crusing Around South America via Phoama Consil and Steals of Magellan, Cooperation with Represed Whitcook. 45 days. \$550 sp. Type optional.

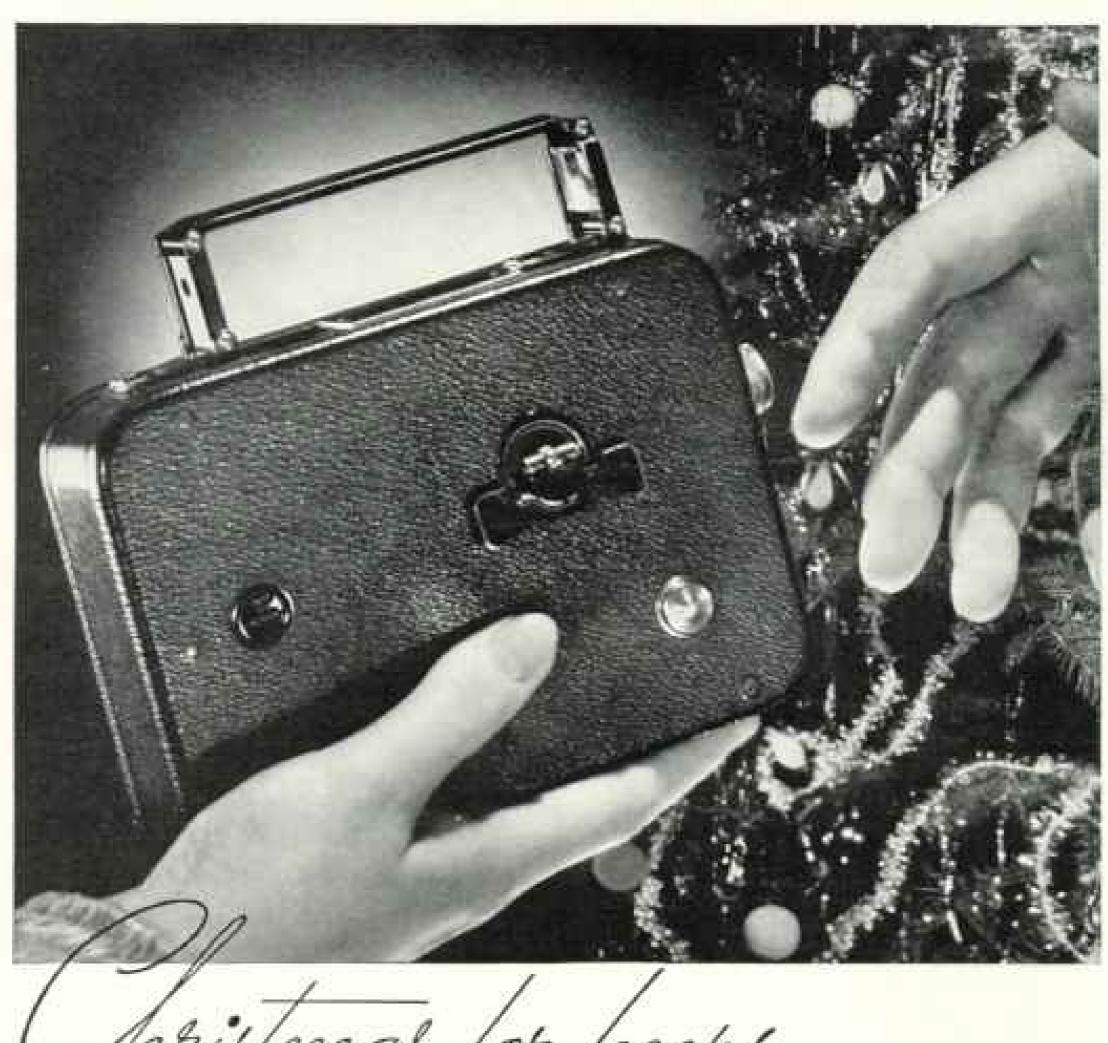
Literature and Reservations

Hamburg-American Line · North German Lloyd

57 BROADWAY, NEW YORK, N. Y.

Atienta, Beltimore, Baston, Buffelo, Chicago, Cincinnati, Cleveland, Detrait, Houston, Los Angeles, Memphis, New Orleans, Philadelphia, Fittsburgh, San Francisco, Seattle, St. Louis: In Canada—Edmonton, Mantreal, Toronto, Yancouver, Winnipers.

A COMPLETE SERVICE, WITHOUT EXTRA COST, IS OFFERED YOU BY OUR LOCAL AUTHORIZED TRAVEL AGENTS.



Musimus for Regs when you give

A CHRISTMAS MOVIE that you make yourself: The family gathering. The youngster trying out his new wagon. Or visitors bearing gifts. Or some fast action in a snow fight.

Cost of each scene: Ten cents or less. Then the fun of seeing your movies, clear, brilliant on the screen. Christmas for keeps...

That's what a family gets when someone gives Ciné-Kodak Eight. Christmas and a thousand lovely days you want to save.

It's a movie camera of remarkable economy. It gives you four times as many movies per foot of film. A twenty-five foot roll of Ciné-Kodak Eight Film runs as long on the screen as 100 feet of any other home movie film. Twenty to thirty movie scenes—each as long as the average scene in the news reels—on a roll of film costing \$2.25, finished, ready to show.

The Eight costs only \$34.50. See it, and sample movies, at your dealer's. What to give that's new, fresh, and will win everybody's heart? The Eight settles it. Eastman Kodak Co., Rochester, N. Y.

Giné-Kodak Gyht

GIVE A KODAK



CUNARD WHITE STAR Sunshine Cruises

DEACH EVERY PLEASURE PORT ON THE MAP

(1) Bermuda. (2) Nassau. (3) Havana. (4) Haiti. (5) Virgin Islands; St. Pierre and Fort-de-France, Martinique; Barbadas; Brighton and Port of Spain, Trinidad. (6) La Guaira, Venezuela; Curacao; Cartogena, Colombia; Colon, Panama Canal Zone. (7) Kingston, Jamaica.

(Numbers are keyed to schedule below)

FROM N.Y.	SHIP	ITINERARY	DAYS	PRICE, MIN
DECEMBER 21	Georgic .	. , (1, 4, 3, 2)	TI.	\$132,50
DECEMBER 27	Majestic .	(2)	5	60.00
JANUARY 25	*Carinthia	(2)	6	70.00
FEBRUARY 1	*Corinthia .	(2)	6	70,00
FEBRUARY 7	Georgic .	(5, 6, 7, 3)	18	210.00
FEBRUARY 28	Georgic .	. (5, 6, 7, 3)	18	210.00
MARCH 20	Georgic .	(5, 6, 7, 3)	18	210.00
APRIL 10	Georgic .	(1, 2)	8	100.00

*AND EVERY SATURDAY THEREAFTER TO MARCH 28 INCLUSIVE

MAKE yours a glamorous getaway from winter's grey horizons. Let the dash and verve of a Cunard White Star sailing lift you smartly from your personal humdrum...start you gaily on your way to a brighter, fuller cruise-life.

You have the best of the fleet to choose from: its popular modern motorliner, its largest ship, and a favorite world-cruiser... sailing to 15 enticing ports of the West Indies and South America. You can obey that impulse to Escape

practically any time you feel it ... and if it's a big Urge, not to be satisfied with two or three weeks, you have our grandest cruise of all, in the proudest ship: Aquitania to the Mediterranean

AQUITANIA to the MEDITERRANEAN

from New York Feb. 20...visiting 15 radiant parts...
full week in Holy Land and Egypt. 40 days—including
cruise to Villefranche second call and return transatlantic passage—\$575 First Class; \$315 Tourist.

Book through your local agent or Cunard White Star Line. Offices at 25 Broadway and 638 Fifth Ave., New York, and in other principal cities.

CUNARD WHITE STAR



EVEN WITH A CRANKCASE FULL OF OIL . . . you're not always safe!

is. Then imagine what oil-tar can do to tiny oil ducts-channels no wider than a pinhole, which must be kept open to let the oil reach every bearing!

The sure way to prevent tarclogged oil ducts and faulty lubrication is to keep tar out of your crankcase. And the way to do that is to insist on the New Havoline.

This is the oil that's Tarfree. It is refined by a new, patented Furfural Solvent Process which flushes out all the sludge-forming impurities that ordinary refining methods leave in. Havoline is Waxfree tooa 100% paraffin-base oil that's all oil!

You know what stubborn stuff tar Of course it's better for your motor. You'll have smoother engine performance, easier starting, swifter acceleration! You'll have less burning-up and thinning-out in long, hot driving-which is another way of saying that your oil consumption will be less, and your repair bills too!

Make a point of asking for the New Havoline. Mention the name and look for the refinery-sealed can that guarantees that you are getting the real thing-proof against substitution and contamination.

It costs just a little more-but

it's worth it every time. Ask for the New Havoline-at all Texaco Stations and of good dealers and garages everywhere.

INDIAN REFINING CO., INDIANAPOLIS . Affillated with The Texas Company



OLINE TARFREE

HUNTING WILD LIFE WITH CAMERA AND FLASHLIGHT



THE NATIONAL Geographic Society announces the publication of "Hunting Wild Life with Camera and Flashlight," in two volumes, by George Shiras, 3d, illustrated with 950 of the author's remarkable photographs.

This 950-page work-by the man who was the first to take photographs of wild animals in their natural habitat, who originated flashlight photography of wild animals. and whose unique photographs have been awarded highest honors at home and abroad-is the living record of sixty-five years' visits to the woods and waters of North America.

The publication of these volumes and the sale of them at the nominal price of \$5.00 the set is undertaken by The Society as one of its contributions to the increase and diffusion of geographic knowledge. Although they might reasonably be expected to sell for \$20.00, a price of \$5.00 is made possible because neither the author nor The Society makes any profit, Mr. Shiras having presented his priceless pictures and negatives to The Society, and because the first cost of the engravings has been assumed by THE NATIONAL GEOGRAPHIC MAGAZINE, in which most of the photographs have appeared between 1906 and 1932.

For the adult who wishes to study natural life as it is in the wilderness. these profusely illustrated volumes are indispensable.

They will fascinate and interest the growing boy or girl who likes to tramp through woodland or meadow.

They will prove their worth to the sportsman and vacationist.

They will give lasting pleasure to anyone who loves a well-told story of outdoor adventure or who appreciates superlative photography.

They will be a rich and much-used addition to your library.

AN IDEAL CHRISTMAS GIFT

\$5.00 THE SET

42 FASCINATING CHAPTERS

Descriptive Folder on Request

Each of the two volumes is 7 x 10% inches, bound in attractive, durable, stiff blue-cloth covers stamped in gold. Each volume contains 475 pages. Order your copy of this remarkable publication today, for the edition is limited

Obtained only from

A Gift to Delight Your Friends

NATIONAL GEOGRAPHIC SOCIETY, Washington, D. C.

NATIONAL GEOGRAPHIC SOCIETY: Department AA, Washington, D. C.

Englosed plause find 5. * for which send me sens of George Shiras, 3d's, book, "Hunning Wild Life

*55.00 the set, poundid in U. S. and Possessions. For mailing to other countries add 50 cents per set for possesse and packing. Please remit by check, draft, possess or express order. A set consists of rico volumes which cannot be purchased megna yannaliy."

with Camera and Flashlight," in two solumes, with 950 illustrations.

Name ____

LOVELY OJAI

(Froncunced O-High)

California's Beautiful Mountain Valley

UNDISCOVERED and unspotted, Climate and scenery unexcelled.

Peaceful, secluded and restful—yet very accessible, only 80 miles from Los Angeles, Hollywood

and Pasadena on fine roads, Scenic golf course, hundreds of miles of trails and bridle paths. Plan to spend the winter in the Opai Valley at the new Country Club, one of the most unique and beautiful resorts in California, Illustrated booklet and

trated booklet and full information on request.

VALLEY CO.

Drawer B

Insist on these

PRICELESS TRAVEL INGREDIENTS

Gold-washed days of fun, pleasure and adventure. Star-spangled nights of rest and recreation—on the Pocific—Japan bound.

Deck sports, tennis, golf, quoits, traps, etc.—or leisurely loading in the sun—on modern motor ships. Magnificent state-rooms, public salons, impeccable service. Excellent cuisine...a priceless prelude to a trip to Japan.

JAPAN, CHINA, the PHILIPPINES

LOW ROUND-TRIP FARES

First Class., \$542 up Cabin Class., \$437 up Second Class \$332 up Tourist Cabin \$236 up

Also from Souttle—Vancouver direct to Japan. Write to Department 93 for Information, rates and reservations. New York, 25 Broadway, Stin Francisco, 551 MarketSt., Seattle, 1404 Fourth Ave.; Chicago, 40 N. Dearboin St., Los Angeles, 518 W. Sixth St., or any Conord White Star Limited affice. Consult your local tourist agent. He knows.

NYK-LINE



Give AMERICA'S MOST POPULAR FINE CAMERA

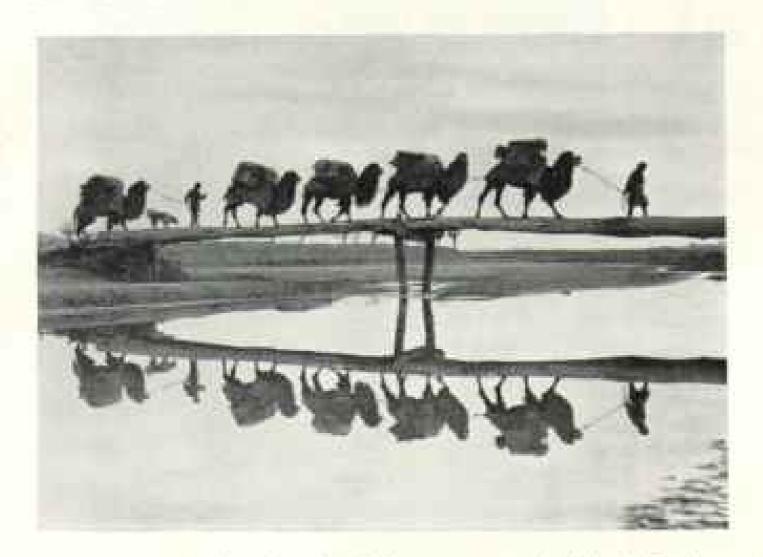
BECAUSE it gives extra picture-making range . . . is handsomely styled . . . represents the high point of American camera craftsmanship — Kodak Six-16 (f.4.5) is the choice of those who know fine cameras.

Snapshots that ordinary cameras can never make are a matter of course to Kodak Six-16... At dawn or dusk... in the rain. Even at night, if you use Kodak "SS" Film and Photoflood bulbs.

As to features: A touch of a button and the Six-16 springs into action . . . It offers both eye-level and reflecting finders . . . Compur shutter . . . leather covering . . . etched metal sides . . . and it's the world's smallest roll-film camera for its picture size, 2½ x 4¼ inches. Price, \$40 . . . see it at your dealer's. Eastman Kodak Co., Rochester, N. Y.

KODAK SIX-16 (f.4.5)

Share With Your Friends This Christmas-



EXPLORATION DISCOVERY ADVENTURE

YOU, AS A MEMBER of The Society, have an active part in the great adventure of modern-day exploration.
On your behalf, brave men have carried The Society's flag across the seven

1935

continents and the islands of the seas, to the North Pole and the South Pole, through jungles, across deserts, over icy wastes, into the mysterious stratosphere, and deepest down in the inky ocean depths. Month by month, The Magazine brings you the record of these thrilling exploits in fascinating narratives,

dramatic photographs, explanatory maps.

These incomparable geographical treasures that you enjoy suggest the answer to your gift problem this Christmas. Why not present gift memberships in your Society to sons and daughters, relatives, friends, business associates, employees? Young and old will regard membership—which brings with it THE NATIONAL GEOGRAPHIC MAGAZINE—as the ideal Christmas remembrance. All through the coming year as their Geographic arrives, they will thank you for your thoughtfulness, and The Society will appreciate your active co-operation in its far-flung educational work.

The form below enables you conveniently to make these seasonal gifts. Mark it "Christmas Gift" and return it to us with the annual dues of your nominees. If we receive your nominations promptly, we will send your recipients an engraved announcement card in your name in time for Christmas.

DRIVACH HERE—OR NUMBERS BY LETTER IN THE PRESENT WIT TO CUT YOUR MADAINS.

NOMINATION FOR MEMBERSHIP

Secretary, National Geographic Society, Sixteenth and M Streets N. W., Washington, D. C.

I nominate for membership in the National Geographic Society:

DUES

Annual membership in U. S., \$3.00; Cenade, \$3.50; abroad, \$4.00; life membership, \$100. Please make remittances pevable to the National Geographic Society. Please remit by check, draft, postal or express order.

The membership fee Includes unrual subscription to The National Geographic Magazine.

(1) N	ame	
	Address	
	7.00	(Occupation)
(2) N	ain c	
	Address	
		(Occupation)
(3) N	am-c	
	Address	
		(Occupation)



Your NATIONAL GEOGRAPHICS Deserve These Beautiful Bindings



AT LAST-a beautiful binding that opens flat as a bound book! Save shipping by binding your

for two polumes rendy Single vol., \$2.00

ONLY \$345 Geographics at minutes. Covers Each holds als herices, 10 days

free trial Mail coupon TODAY, SUCKERT LOOSE LEAF COVER CO., 234 W. Larned, Detroit, Mich. Mail post-paid 2 The Luxe Bindings for year . . . Nat. Geog. Will remit \$3.45 in 10 days or return binding collect.



You'll enjoy every sun-soaked minute in this glorious, warm, dry climate, thrilling to scenie wonders, doing new things, or relaxing under turquoise skies. Phoenix and nearby Mesa, Glendale, Chandler, Wickenburg, Tempe and Buckeye, offer smart shops, fine schools, modern botels, desert inns, dude ranches, apariments, bungalows; colorful desert, paved roads, orange and date groves, Indian dances, prehistoric ruins, polo, golf, rodeos. Let us help plan your trip-meet your train. Come to the VALLEY OF THE SUN.

Winter nature new officiative on Mach Island -Similary Pacific and South Fr Lines.

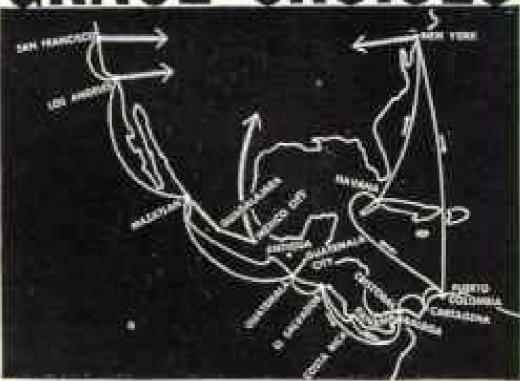


Please send me attractive free fiverarare and booklets

Name

Address

GRACE CRUISES



Between NEW YORK and CALIFORNIA

Only the exclusive GRACE Cruise Route between New York and California includes visits to Puerta Colombia and Cartagena in South America; Cristobal, Colon, Balboa, and the ruins of historic Old Panama; a 20-mile drive inland to San Salvador; an 80-mile trip in a special train to Guatemala City and Antigua; Mazatlan, Mexico, and eastbound, Havana (Costa Rica, westbound). RAIL-WATER CIRCLE TOURS, from any point to either coast by rail, GRACE Line thru the canal to apposite coast, home again by rail.

TO MEXICO CITY

One way water-one way rail; from any point by rail to New York: GRACE Line thru Panama Canal (Itinerary identical to New York-California) as for as Mazatlan, Mexico: air-conditioned Pullmans to Guadalajara, Mexico City and home. Or by rail to Mexico City, Guadalajara and Mazatlan, thence a new GRACE "Santa" to New York following the same itinerary as the California-New York Cruise, with an additional visit to Havana. Home by rail.

NEW "SANTA" LINERS

sail every two weeks from New York, San Francisco and Las Angeles—the only ships having all outside rooms with private fresh water boths; dining rooms on promenade decks, with rall-back domes which open to the sky; Dorothy Gray Beauty Salons; pro-release talkies; outdoor, built-in filed swimming pools.

GRACE LINE

Ask your fravel agest for the new booklet describing these new ships and the exclusive GRACE route or GRACE Line, New York: finefung Wushington, D. C.; Pittsburgh; Chicago, San Francisco, tos Angeles, Sauttle.





Just Off the Press

A NEW CUMULATIVE INDEX

to the

NATIONAL GEOGRAPHIC MAGAZINE

1899 to 1934, inclusive

\$1.50 Cloth Bound \$1.00 Paper Bound

Postpaid in U. S. and Possessions; ebewhere 25 cents extra per volume for postage and packing.

National Geographic Society, Department AA, Washington, D. C.		, 1935.
Cumulative Index to THE NAT (1899 to 1934, inclusive) in cuch; copies in the Pr (Pestpaid in U. S. and Pessessi per volume for postage and po	the Cloth sper Bladi ions; elsew	Binding @ \$1.50 ng @ \$1.00 each.
Name		
Address		

THIS volume-which unlocks the vast store of useful information in The Geographic-refers you instantly to all published articles and illustrations describing the places, peoples, explorations, costumes, maps, or Nature subjects in which you are interested. It is indispensable to the student-members of your household, containing 12,522 references to subjects, authors, and titles.

> In addition, this new Cumulative Index contains an illustrated foreword by Gilbert Grosvenor, describing in chronological order the history and growth of the National Geographic Society and its Magazine-of vital interest to all members of The Society.

> 416 pages, National Geographic Magazine size.

Obtainable Only From

NATIONAL GEOGRAPHIC SOCIETY Department AA WASHINGTON, D. C.

ive Where You Enjoy

the true "guest-feeling"—the Dodge hans tipping.
"How to Spend a Week or a Day in Washington" le a fascinating illustrated booklet. Write for it.

A Word to HOTEL OWNERS

Examine the Hotel Directory page as it appears facing the third cover in this issue. Then write for full details and rates to the Advertising Department.

NATIONAL GEOGRAPHIC MAGAZINE Washington, D. C.

CHRISTMAS



THE CHOICE OF CHAMPIONS

Roller Skates

Get 3 times longer life., with TRIPLE-TREAD "TRIPLE-WARE" Wheels. More SPEED with OVERSIZE BEAR-INGS. Greater skutting pleasure and lowest rathrage cost. . . Found only in "CHICAGO'S."

Get CLUB PIN and FREE BOOKLET Free Booklet gives secrets of winning races. games, etc. Write today! If beautiful GOLD chile pun la waxwed enclose the for smilling.

ORDER TODAY! If dealer down't cury "CHICAGO'R" refuse others. Order Direct!
We'll strip portpaid on vecetat of \$1.85. Give slow slow. Roller Shirter with Report for your \$2 years.

CHICAGO BOLLER SKATE CO., 4408 W. Lake St., Chicago, III.



The New merriam-

No other gift can convey so well the esteem and affection of the giver

WEBSTER'S NEW INTERNATIONAL DICTIONARY

Second Edition

600,000 entries-122,000 more than any other dictionary; 12,000 terms (flustrated); 35,000 Geographical entries; 13,000 Biographical entries; 3,350 pages. At All Booksellers.

Write for Information. 557 Broadway G. & C. MERRIAM CO.

Springfield, Mass.

MAKE YOUR OWN

Raised-Letter Stationery

With this unique Steel Die Embosser, your name and address, monogram, or initial is quickly impressed in beautiful raised letters on your favorite writing paper or envelopes. Far superior to printing—and SO componical!

Write today for FREE STYLE SHEET showing wide range of Intering, monogram, initial, and seal designs for hand and desk models. Special notary, corporate, or lodge seals. Lifetime gustantee. Orders shipped day received. Sold by many stationers and department stotes.

ROOVERS EMBOSSERS

1409-37th St., Brooklyn, N. Y.



CHAMPION-INTERNATIONAL COMPANY

MANUFACTURERS OF

National Geographic Paper

and other high-grade coated paper

LAWRENCE, MASS.



NATIONAL GEOGRAPHIC MAGAZINES

You treasure them. Their pages are full of articles and illustrations too interesting and valuable to be thrown away or carelessly hamiled.

It Costs Little

To have us put them in permanently lound, heautiful volumes that will make attractive additions to your library.

Serial for PHEE hooklet illustrating different types of binding, quoting prizes and giving shapping instructions. We alsobend "Esquire", "Fortune" and other magazines. All work guaranteed.

Art Binders Since 1904

BURGMEIER BOOK BINDERY, Inc. 1855 Milwaukee

THIS MAGAZINE IS PROM OUR PRESSES

JUDD & DETWEILER, INC. Master Printers

ECKINGTON PLACE AND FLORIDA AVENUE WASHINGTON, D. C.

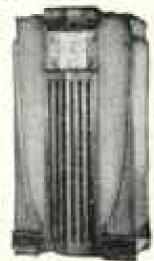


CUSTOM BUILT ROYALE 24-TUBE Radio

THIS reper radio-most calinotroment was created for those discriminating and exacting few who insist on the finest, soort beautiful, most precisely built radio obtainable. A set of sare distinction, numerally and artistically perfect, the Royale offers over 108 features... amoring a beautious and idealized type of brilliant, sparkling, guaranteed world-wide performance. Now enjoy a new conception of cich, vibrant music and unice reproduction. It is today's only "aged" sudio ..., offers all 6 tuning ranges ... 45 to 2400 meters ... etc.

This 24-tube achievement reflects notable sugmeeting advancement. Assures Unlimited Scope Full Fidelity. Audio range is 20 to 16,000 cycles per second... 40 watts undistorted output. Fully guaranteed for 5 years... absolute satisfaction assured.

The 50-day FREE Trial Offer enables you to try the Royale in your own home, without obligation. Write now for literature or mail coupon.



DOYALE DADIO CDAFTERS (Division Midwest Radio Corporation)

Dept. 223F, Cincinnati, Ohio.

Wishout abligation, and we literature describing Custom-Buils, 26-Tube, 6-Tuning Range, Royale Badin . . and details of your 50-day Free Trial Plan.

Staret ...

Tuwn. State

NATIONAL GEOGRAPHIC MAGAZINE'S DIRECTORY OF HOTELS

CALIFORNIA

Hollywood

Hellywood Knickerbooker Apartment-Hotel.
In the heart of Hellywood's famous screen senter,
Dising terraces, Tariff 165 to 1250 a month, 18.30 daily.

Hallywood Plaza Hotal, "The Doorway of Hospitality," Near studios, theatres, cafes, shops. Ideal for humans or pleasure. Write for rates and folder.

La Jolla

Le Valencia Hotel. European Plan, everlooking park and sm. Une hundred rooms and apartments. Excellent cuisins. Write for complete duta.

Los Angeles

The Ambassador, Twenty-two acre Playground in heart of City. All Sports, Florage, Beach, Lida. Coccarat Grave for Duncing, European 5.38 up.

Palm Springs

Desert ive. Lucrarious butel and bungalow accommodations. All sports. Heasen, Outsber I to June L. American Plan, 50 up. Write for felder.

El Mirador Hotel. America's forument desert resert. Unexemined outsine, Golf, tennie, riding, estidour swimming pool. Discriminating sitentals.

Pasadena

The Huntington and Bungalows. Most distinguished address in Southern California. Operated on the American Plan. B. W. Reyce, Managor.

Santa Barbara

El Encanto and Villas. On the Biviers, American Plan. Exacilent Cunits. Separate Diet Klistien. Bench Club. Guif. Charles B. Hervey, Proprietor.

El Miranot. Albert Herter decorded hungalow accommodations. Exclusive Am. Plan resert. Somey residential person. 300 single; Elé double and up.

Santa Barbara Biltmers, Famed senshure resort hetel. It sers park in Montacto district. All sports. American Plan, Write for folder.

COLORADO

Denver

Brown Palace Hotel. The accepted stop-over in transcontinental travel. \$200,000 improvements just made. Central location. Moderate rutan.

FLORIDA

Daytona Beach

Clarendon Hotel. Directly on the Ocean Front. Fireproof. Amer. Ping E up. Golf. Tenns. Fishing. Select Chantele. Open December 1s to May 1.

Princuss taxena, Noted Chivine. Best clientele.
All sports. 19-bels miniature gulf course on groupels.
Eunderlie, Concerts. Cottages. H.W. Hayses, Prop.

Dunedin

The Fenery, On Gelf and Clearwater Bay, Golf, beating, fishing, bathing, 116 runns, American plan. Finest small botsi on Gulf Const. C. T. Scanian, Mgr.

Miami Beach



The Fleetwood



On beautiful Biscayne Bay, one of Miami Beach's Buscayne an plan. Splencoellest service. For rates

did food and excellent service. For rates and particulars, call or write New York Office, New Yorker Hotel.

Florida (continued)

Miami Beach



The Flamingo

Florida's Foremost Resort Hetel-Famed for food, service, unsurpassed location, and distinctive clientele—Surrounded by 12 acres of beautifully landscaped grounds, yet in the center of social and sports activities—Unricularly attractive rates during December—Just the place for the Christmas Holiday Senson. C. S. Krom, Manager.

Restell. Exclusive residential apartments. Ideal location on that Street. Near secan and bought clubs. Sciout clumbaie. Garage. Write for booklet.

The Barelay-Place. Commonwelly located, ultra modern, agreeably different, thoughtfully planned for the most discriminating. Open for first season.

Miami

The Dallas Park, Fire-proof. Overlooking Binmayor May. I to 4-room apartments. Attractive Hotel Resem. Burn Bathing Cahanas atop 11th floor roof.

Ormand Beach

Coquina Hutet, Directly on the Ocean Front, Firegroof, Amer. Plan 97 up. Golf, Thends. Finbing. Select Clientels. Open January II to May i.

St. Petersburg

Princess Martha Hatel. In the heart of St. Petersburg, Medern, freprint Mitrooms, such with listh. European plan. A. L. Manning, Manager.

Soreno Motof. On Tampa Bay. Modern, fireproof. 220 tooms much with bath. Finest service and missine. American plan. Every sport attraction. Booklet.

Viney Park Hetel. Opens December 18. On glarious Tumpa Buy. Burs testing. Every recreational feature. Booklet. Clement Kennedy, Mag. Dir.

DISTRICT OF COLUMBIA

Washington

Hay-Adams House, Across from the White House at 16th and H. The best in accommodations amid smart surroundings. European, \$3.50 up.

The Willard Hatel. Prosting brings the shuringinating traveier here and hospitality holds him happily. Stone, St two, up. Free Simitrated booklet.

GEORGIA

Savanneh



The General Oglethorpe



On beautiful Wilmington Island, in a domain of its own, with an 18-hole golf course, fine fresh-water

pool, dining and dancing, splendid stable and miles of bridle paths, tennis, skeet, fishing, bunting, etc. Open year round. Commercial rates, Free Garage.

Georgia (continued)

Sea Island



The Cloister

Zestful sports at Sen Island vie with the lure of restful hainess. Finest golf, sheet, tennia, riding, fishing, hunting, saiting, syritag, surf and pool inthing, dancing—at The Clotster indulge your flair for good living. Easily accessible. Harly senson rates until February. Call New York Office, 500 Fifth Avenue (Penn 6-2060) or write The Claister.

MINNESOTA

Minneapolis

Curtis Hotel. Configurous to Minneseta's M.980 Lakes region. Largest Hotel in the Northwest. Suft-water butter throughout. Exten 22 to 26.

NEW JERSEY

Atlantic City

The Ambiesander. Drighton Avenue and the Burriwalk. American and European plans. William Hamilton, General Manager.

Hotel Danels. Sun decks and salarin very solding Bourdwalk. Health Initial. Sports program in auditorium—3 blocks. Buth Phans. Walter J. Bushy, Inc.

NEW YORK

New York City

Barbiron-Piaza. New skyseruper hotel overlooking Central Park at 4th Ave. Tower mones from 13 single, 55 double, Continental brunkfast included.

The Pizza. New York. Fifth Avenue, faring Central Park, Bingle Bosons from \$5; Double from \$7; Suites from \$10. Henry A. Rost, President.

St. Moritz-ser-the-Park, 10 Central Pack South. Continental, convenient. Single 33.56-55. Double El-67. Bibles from Th.

SOUTH CAROLINA

Alken

Willicox's, Excellent south bound stop-over. Island full commis, Giolf, absorbing, termin, borner. Factioth winter. Write pre-massin rate, Ban 457.

Camden

The Kirkwood, Camden Heights. Long-leaf pine motion. Colonial betel. Delightful climate. All aports. American plan. New England cooking.

BERMUDA

Princeus & Cuttage Colony, Balmont Maner & Gotf Club. Corst Island Club. Inversors & Cedar Ledge. Apply to any travel agent at offices below.

Bermuda Hotels Incorporated, 300 Fifth Ave., New York: 1416 Mass. Ave., Cambridge, Mass.; 1806 Waleut St., Phila.; Houseke Arcade, Minnespolis.

SOUTH AMERICA

Caracas, Venezuela, S. A.

Hatel "Casa Dowke". European management. American, European Cooking. Terrace with wancerful view of mountains and town. P. O. Box 474.



When next you cross a bridge remember the pure 2. . Every bridge supports two loads. One an are always aware of. It is the live load, comsed of you and your car, and all the teeming affic of other cars, trucks, busses, street cars. Load number two is dead load, which every xpayer, every traveler should know about. It is e enormous weight of the bridge floor, itself. s a matter of fact, bridges are designed first to rry the heavy floor, with the live traffic as an ided burden. The weight of the floor system is e greatest single problem in modern bridge astruction · Alcoa Aluminum can make bridge sors lighter. That fact is important to you pernally, both as a taxpayer and as a bridge er. . Is there in your community a bridge high cannot safely accommodate a further inease in traffic? A new, light floor system of leon Aluminum can make that bridge safe for eatly increased traffic for many years to come. Is there in your community a vital need for a w long span bridge? A floor system of Alcoa luminum may greatly reduce the total cost of e proposed structure. . Alcoa Aluminum can these things because Nature made Aluminum tht, and research has made it strong. These two taracteristics enable engineers to revolutionize idge construction, "bridge economics." . Likeise, engineers in every branch of industry find aw places every day where the lightness of luminum reduces dead load, and thereby saves iwer and adds convenience and mobility. With as saving, the user gets, in addition, superior sistance to corrosion, which is to say, long life id low maintenance. ALUMINUM COMPANY OF MERICA, 1899 Gulf Building, Pittsburgh, Pa.

ALCOA ALUMINUM

