VOLUME LXX

NUMBER THREE

THE NATIONAL GEOGRAPHIC MAGAZINE

SEPTEMBER, 1936

TWENTY-FOUR PAGES OF ILLUSTRATIONS IN FULL COLOR

Indiana Journey

With 32 Illustrations and Map

FREDERICK SIMPICH

Hoosier Haunts and Holidays

27 Natural Color Photographs

WILLARD R. CULVER

A Modern Dragon Hunt on Komodo

With 12 Illustrations in Duotone

LADY BROUGHTON

Within the Halls of Cambridge

With 7 Illustrations

PHILIP BROAD

Where the Winding Cam Mirrors Cambridge Spires

12 Natural Color Photographs BERNARD WAKEMAN and WALTER M. EDWARDS

error and a second

Sojourning in the Italy of Today

With 47 Illustrations

MRS. KENNETH ROBERTS

PUBLISHED BY THE

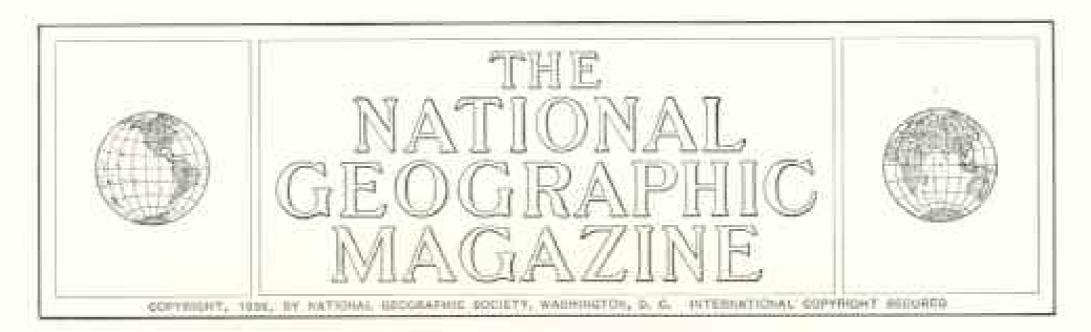
NATIONAL GEOGRAPHIC SOCIETY

HUBBARD MEMORIAL HALL

WASHINGTON, D.C.

250 AYEAR

50e THE COPY



INDIANA JOURNEY

By Frederick Simpich

INDIANA is the sum of its parts. Yet how they differ! Streams of planes, trains, motorcars, trucks, and busses whizzing back and forth across its north and central parts; yet how little travel, by comparison, in the south.

In that industrial region on Lake Michigan which is not Indiana at all but a prolongation of Chicago, nothing but smoke, noise, and moving crowds.

In the south, a serene, unhurried people whose ancestors floated down the Ohio in flathoats, came from the Carolinas and Kentucky on horseback, bringing rifles, axes, spinning wheels.

Look down, in fancy, from a drifting blimp; imagine that here and there, painted on the ground in huge, white letters, are signboards on which you may read about the audacious men whose adventures made Indiana (map, pages 272-3).

Near South Bend, La Salle camped in 1679. At Vincennes, a century later, George Rogers Clark gained for us the whole Northwest Territory.

That tall shaft at Pigeon Roost Memorial shows where, in 1812, Indians slew a whole white settlement.

East of Evansville, at Lincoln City, is the monument to Lincoln's mother, Nancy Hanks, and the boyhood home where her son Abe split rails.

Along the Wabash—the Ouabache of old—are strewn the sites of French furtrade posts, built in the early 1700's. North of LaFayette, the Tippecanoe Battlefield, where Harrison defeated Tecumseh's brother; and, just out of Kokomo, a monument to Elwood Haynes, who in 1894 launched one of America's first "horseless carriages," on the now historic "Pumpkinvine Pike."

In fact and fancy you may see still other markers, showing the homes of such famous Hoosiers as James Whitcomb Riley, Benjamin Harrison, John Hay, Lew Wallace, Joaquin Miller, Booth Tarkington, Albert J. Beveridge, George Ade, Theodore Dreiser, Charles Major, John T. McCutcheon, Meredith Nicholson, and Wilbur Wright; and, up among the scenic lakes of northeast Indiana, in the "Limberlost" region, that rustic, tree-shaded log-house home of Gene Stratton Porter.

It sounds fantastic, the idea of floating over a State and reading its life story on giant signboards. Yet, in a vicarious way, you can do it, for there exists a pictorial map, drawn by Lee Carter and published by the State Conservation Department, which shows in graphic detail much that has happened here since Father Marquette saw northern Indiana in the 1600's. This map was our guide over some 6,500 miles of Hoosier highways and byways.

START AT TERRE HAUTE AND SEE INDIANA

"On the Banks of the Wabash" is the State song. It ought to be; down the Wabash came the French, first whites to settle in Indiana; this stream formed part of their long route from Quebec to Louisiana.

Starting from Terre Haute, we halted where a street crowd watched a tricky machine turn dough into doughnuts, instantaneously. "Think of that, making cake in a minute, by electricity," said an old man. "I used to split wood every morning before the old lady could get breakfast. Often country folks didn't even have matches; if we let the five go out, we had to ride over to the neighbors' and borrow some live coals."

Girls picking long, green, warty cucumbers out of the air in a 35-acre steamheated glass house stopped us next. Inside that place it smelled and felt just like Manila in the rainy season, hot and sticky. A bug's paradise! Swarms of bees are kept, purposely, to pollinate the cucumber blossoms. Not on the ground, but high up overhead like grapes on a trellis hung the cucumbers. Perspiring blondes and brunettes reached up with long-handled tools and clipped them off (page 274).

Elks' Country Club House, facing the Wabash, stands where Zachary Taylor whipped the Indians in 1812. Parallel with the river is the abandoned Wabash and Erie Canal, its grass-grown towpath still visible.

An Englishman—about 1848—wrote of a canal trip from here to Ohio. It was hot, he said. All day passengers sat on top the boat, many under umbrellas. Some fieldled or sang; others read, or watched the scenery go whizzing by as towpath horses pulled the boat at four miles an hour! This Englishman was disturbed that Americans should eat squirrels!

Through pioneer Terre Haute came the old National Road. Over it swarmed the cheering legions—soldiers, settlers, prairie schooners, freighters, live stock, boys and dogs—off to conquer the West. Today this early wagon trail, long but a line of ruts dodging stumps and mudholes, is U. S. No. 40. At Terre Haute it intersects U. S. 41 to form one of America's busiest cross-roads.

U. S. POPULATION CENTER HOVERS NEAR TERRE HAUTE

South of the city bovers the population center of the United States (map, pages 272-3). For the past 45 years it has been slowly wandering across Indiana.

Trotting horses, harnessed to light sulkies, set world records at Terre Haute-Nancy Hanks, Maud S., Dan Patch, Mascot, Hal Pointer, and Axtell raced here on the historic "four cornered" track in the days of Bud Doble, greatest reinsman of his age. Now a stadium, with night ball games by electric light, rises where crowds used to cheer goggled drivers holding tight reins to keep their sweating trotters from "breaking" into a gallop.

Spirits, gunpowder, glass, this town makes them all. You see piles of sand, soda, and limestone fed to big furnaces; then gobs of red-hot glass dropping into a magic machine that shapes the bottles one every two seconds.

Some men were piling tall bottles into a boxcar.

"Where for?" I asked.

"Down to Key West, across on the car ferry to Habana, then east by rail to where Cubans make Bacardi rum."

Oddly self-contained, this region. Local straw makes packing cases; printers make labels, farmers grow vegetables, and canners do the rest.

Out at Rose Polytechnic Institute boys were building a toy bridge. Some day, when they're full-fledged engineers, they may build big ones in Bolivia or the Philippines!

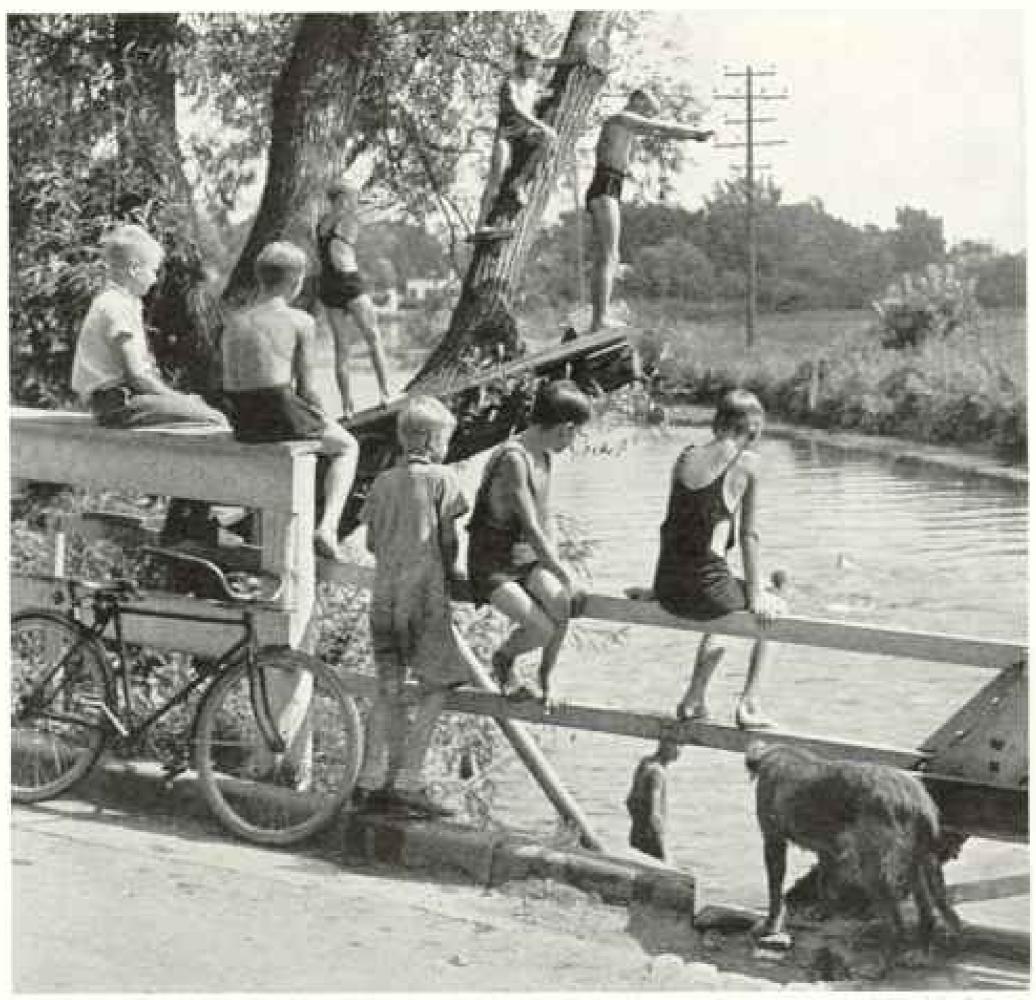
Saint Mary-of-the-Woods is one of America's exclusive schools for girls. I saw a
group riding, clad in smartest saddle-club
togs, the horses groomed slick and shiny,
their hoofs oiled. Perhaps some of these
girls have descended from women who also
rode horses—from Virginia or the Carolinas, over the wilderness trail, carrying
babies, dreading panthers and Indians
(Color Plate VII).

Glimpses of the Wabash as we rode south to Vincennes made us think of the French vayageurs, and the wild, half-naked coursurs de bois.

The voyageur had a license to trade. But the "bush loper" was an outlaw in that long war for fur between French and English. Like the honest traders, the renegade offered knives, beads, axes, guns, and blankets for the red man's pelts, but cheated when he could, and corrupted the Indians with cheap whiskey, which sold as low as 14 cents a gallon.

Traders and boats of all kinds used to swarm on the Wabash. John Parsons, a young Virginian who came here in 1840 to buy land, wrote: "In the fall, 1,000 flat-boats will pass down the river, the majority loaded with flour, pork . . . lard, cattle, horses, oats, cornmeal, and corn on the ear. . . . They told me of a flatboat . . . carrying a load of hickory muts, walnuts and venison hams."

In 1935 I saw only skiffs, canoes, small houseboats, and pleasure launches. But



Plintograph by Willard R. Culver

"SKINNY" TAKES A DARE AT GOSHEN'S OLD SWIMMING HOLE IN THE ELEHART RIVER

"Oh! the old swimmin'-hole! In the happy days of yore, When I just to lean above it on the old sickamore, Oh! it showed me a face in its warm sunny tide That gazed back at me so gay and glorified, It made me love myself, as I leaped to caress My shadder smilin' up at me with sich tenderness. . . "

- James Whitcomb Riley, a native son of Indiana (Color Plate IV).

you can't ride along the Wabash, with all its traditions, historic sites, old graveyards and monuments, without thinking of its part in making America.

On a Wabash tributary near Peru is the grave of Frances Slocum, stolen by the Indians as a girl in 1778. She spent her whole life with them, refusing, when finally visited by her own white relatives, to leave the tribe. Pioneer John Parrett of Whitley County advertised that he had paid Indians \$2.50 to release a six-year-old white boy, and that he would keep the boy "till his parents, if living, and chance to see this notice, may find him."

Burned at the stake, tomahawked, scalped, what a tragic host of white men, women, and children were slain by Indians -or held captive, often for life-in the settlements of Kentucky, Indiana, and beyond!

Before our American Revolution the French had a trading post at what is now Ft. Wayne, one at Fort Ouiatenon, near



Photograph by Willard R. Culver

FROM THIS LANDING ON THE OHIO, YOUNG ABE LINCOLN EMBARKED FOR NEW ORLEANS ON A FLATBOAT

Spencer County's first settlement was made here at Rockport ferry in 1802 by Waller Taylor, who served later as a major on the staff of Gen. William Henry Harrison at the battle of Tippecanoc. In early days the place was known as Hanging Rock, its Indian name. Lincoln's home, to which his father brought him from Kentucky at the age of seven, stood about 17 miles north of Rockport. A replica of the log store where Lincoln clerked is one of the buildings in the "Lincoln Pioneer Village" (page 302).

LaFayette, and at Vincennes a well-formed settlement, with more than 250 Frenchmen, wives, and children.

Fighting Indians and English to the north; fiddling, singing, scouring the forests for pelts; building a wooden chapel which was Indiana's first church, the French dominated this era, often called the most romantic in Hoosier history.

GLAMOUR OF OLD VINCENNES

Rain poured from black skies the Sunday we reached Vincennes. Floods swept under the Lincoln Memorial Bridge, which spans the Wabash where Lincoln's family crossed in migrating to Illinois (page 279).

Mass was being said in the Cathedral of St. Francis Navier—standing now where the French held their first Mass more than 200 years ago. Its library, next door, was locked; but from a friendly priest I borrowed the big key.

"Go in, my son," he said, "and stay as long as you like."

I could have stayed a week!

Here is an astonishing collection of books and manuscripts. It was assembled by Bishop Brute, declared by President John Quincy Adams to have been "the most learned man of his day in America."

The oldest volume here was printed 16 years before Columbus discovered America! Here, too, is a map of Lake Superior, drawn by two Jesuits about 1670.

Vincennes enjoys deathless fame for its role in the conquest of the vast Northwest; its eventful history fills books. First the French, then the British, held it.

During the American Revolution, Governor Patrick Henry of Virginia sent Col.



Photograph couriesy Gen. Robert H. Tradall.

THE MASSIVE HOOSIER CAPITOL IN INDIANAPOLIS IS BUILT OF ROCK FROM INDIANA'S LIMESTONE HILLS

Begun in 137% on the site of a previous capitol structure, it enjoys the distinction of having cost less than the sum appropriated for it. When territorial government was established, July 4, 1300, Vincennes was the seat (p. 278). In 1813 the capital was removed to Corydon, in the southern part of the State; when it was finally moved to the new wilderness town of Indianapolis, a borse-drawn wagon lumbered along forest trails, hauling the few documents up from Corydon.

George Rogers Clark to make war in this wilderness,

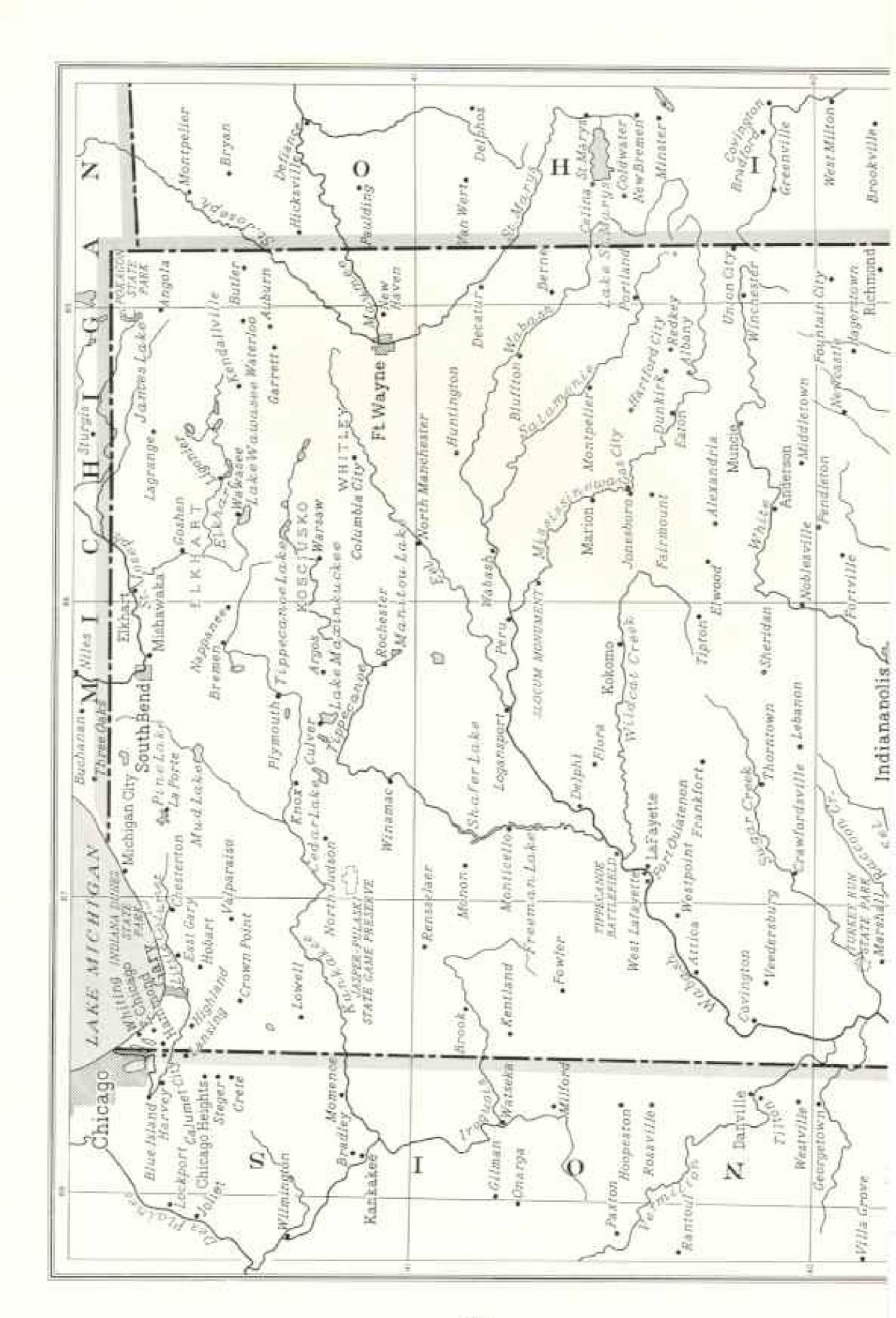
How Clark first took Kaskaskia and then marched through mud and floods to engage the British at Vincennes forms a classic in the annals of military exploits. That Clark tomahawked some of his Indian enemies and threw them into the Wabash shows the ruthless customs of that time and place.

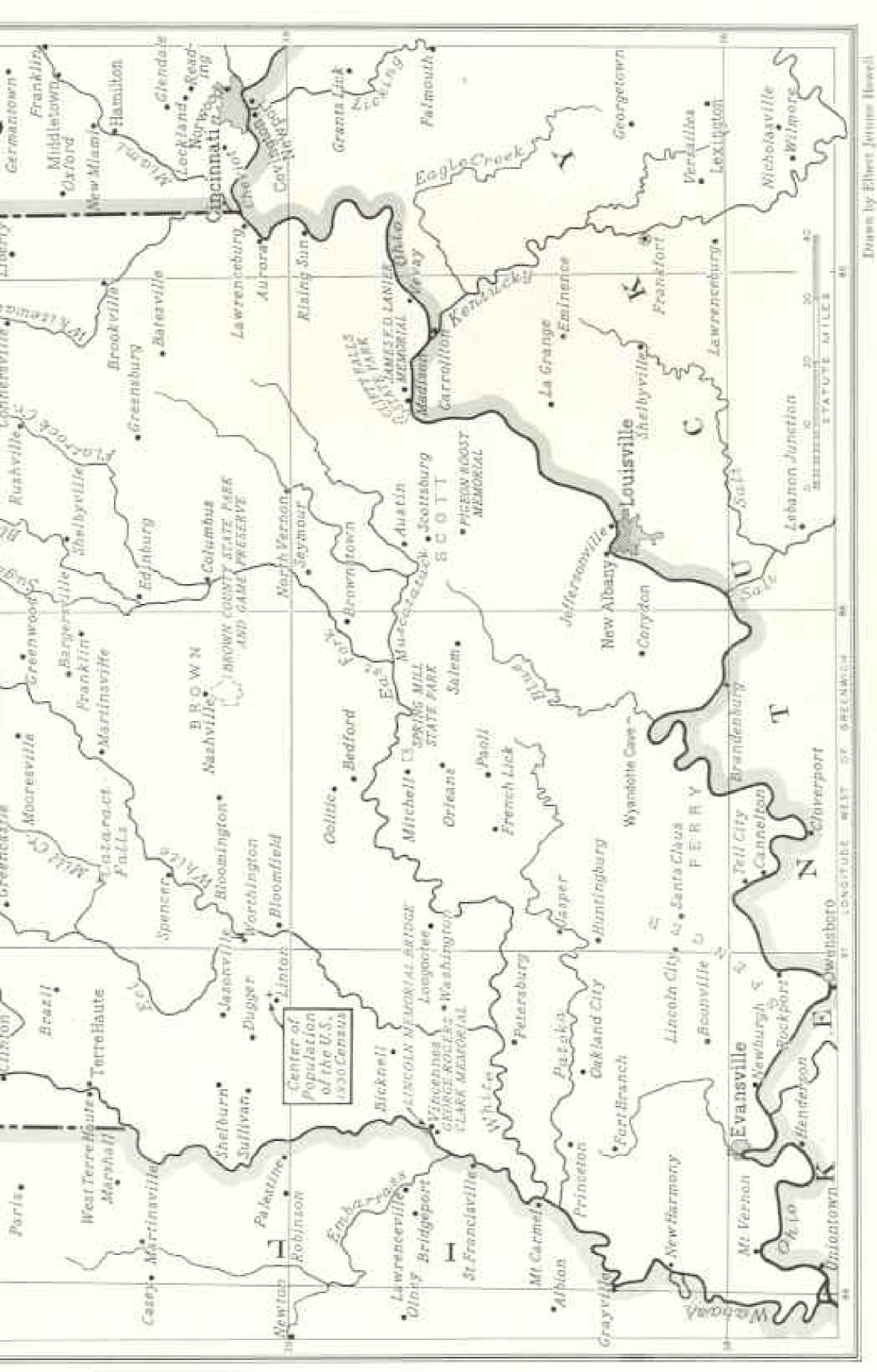
By Clark's daring our new Nation gained land from which were carved the States of Ohio, Indiana, Illinois, Michigan, Wisconsin, and much of Minnesota. This "Indiana Territory" had its capital at Vincennes. William Henry Harrison was the first governor. Think what a "territory" this became, when in 1803 President Jefferson made the Louisiana Purchase and added that to it! Tiny Vincennes ruled most of America from the Alleghenies to the Rockies—and from the Gulf of Mexico up to the Great Lakes (Plate II and page 278).

Lincoln used to read the Vincennes Western Sun. When he passed through here, moving with the family to Macon County, Illinois, he went to the humble home of the Sun to study a printing press in operation. It was the first he had ever seen. Reid's painting, "The First Meeting of Two Great Emancipators," shows a tall, ungainly youth standing beside the crude hand press.

Despite the bustle of modern Vincennes, with its mills and factories, you cannot view its historic shrines or browse among the pioneer bishop's books without feeling that its early French spirit survives.

From New Albany, on the Ohio, up through Vincennes, ran Indiana's first stagecoach line—an extension of the Wilderness Road in Kentucky. In one family of





THE VAST NORTHWEST TERRITORY, INDIANA HOLDS THE NATION'S POPULATION CHATER PIRST SETTLED BY THE PRENCH, LATER CARVED FROM



Photograph by Willand R. Culver

PICKING CUCUMBERS OUT OF THE AIR IN STEAM-HEATED, GLASS-ROOFED GARDENS

Imagine a 35-acre farm, completely roofed over with glass! Then miles and miles of cucumber vines, growing high overhead, the long green vegetables banging down like flocks of flying bologna. In this moist, tropical air bees are kept to pollinate the bloom, while perspiring girls reach up with tonglike tools and pick basketfuls of cucumbers. Wintry gales may how, or summer droughts blast open-air fields, but here in the Davis Gardens near Terre Haute crops mature the year around, and five or six carloads a day may be shipped to cities all over America.

Kentucky folk who settled and built their hut on this "Buffalo Trace," panthers one season killed first the father, then the son, and wounded the family horse.

We drove east along its old course to French Lick. Loaf around its mineral springs with the guests, and you can soon fit them into groups. The first is healthy, exuberant, obviously out for a good time; the second, more quiet and reserved, wants

only to be let alone, for rest. The third is sick, or thinks it is, and would like to talk about it. This last goes in for daring gulps of queer-smelling water; for tales of gastronomic disaster, and peculiar pains; for claims of improved conditions along the alimentary canal after yet more of the local water! (Color Plate II and page 301.)

French Lick makes you think of Wiesbaden, and the rheumatic Romans who haunted its baths and were rubbed down with the cocoa butter and witchhazel of those days. One spring here is named for Pluto, another for his wife, Proserpine.

Private cars parked on switches; private airplanes; shiny, silent-running motorcars and haughty chauffeurs; highspirited saddle horses; a hotel lobby vast as a

polo field, crowded with white ties and bare shoulders at the dinner hour; clubrooms where chips clink and little balls dance in turning wheels, presided over by wellgroomed watchful men who seem to know all the guests by name—such are aspects of French Lick; they identify it.

Northeast from French Lick, in a peaceful valley between wooded hills, you come suddenly on the pioneer village of Spring Mill, restored by the State. With a low rumble that shakes the whole mill, a big wheel gives power to grind corn and saw lumber.

An apothecary's shop, set with the same old bottles, books, scales, and furniture used a century ago; the old tavern, with crane and kettles; the general store-all are here. In the mill are shown primitive, home-made things, from bear traps and ox yokes to wooden dishes and crude farm implements. One hour here is a graphic lesson in pioneer Hoosier culture.

North we rode, into a scarined and mournful land—between Bedford and Bloomington from whence comes nearly all our cut building stone (page 297).

Fly over, and you look down upon a wounded world of deep, rectangular holes, from which oblitic

limestone is cut. Over the tumbled land are scattered blocks and broken stones, as if archeologists had dug up buried cities, or ancient workers had cut rocks for pyramids and Chinese walls.

In scores of structures in the United States, from the Empire State Building in New York to the Capitol of North Dakota, this stone has been used. It also has been employed in construction of many frater-



Photograph by Willard R. Culver

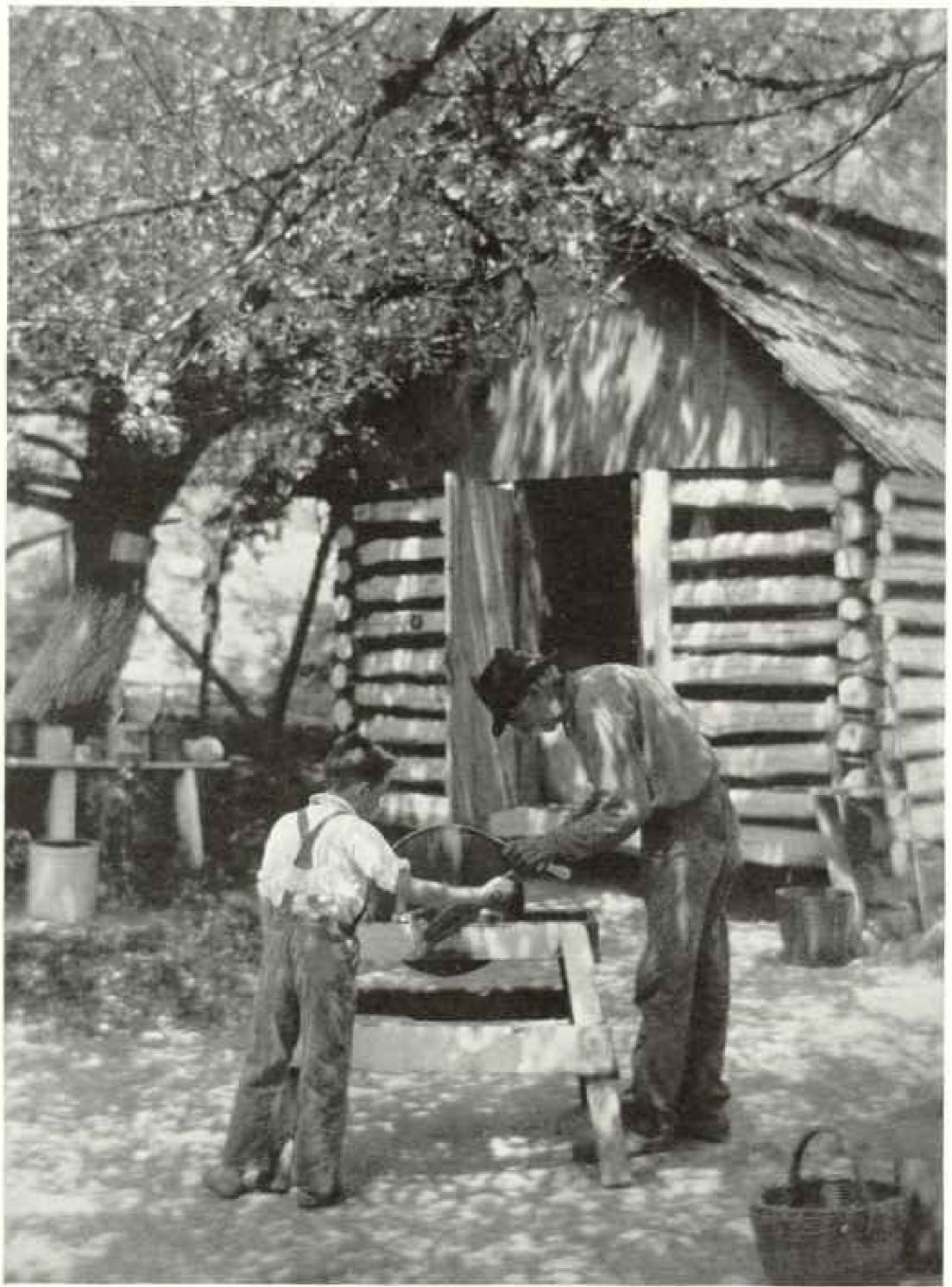
GEORGE ADE, BELOVED HOOSIER AUTHOR AND PLAYWRIGHT, WITH

About 35 years ago, Ade's first "Fables in Slang" gained such popularity as to influence the speech of college students all over America. Editors everywhere were swamped with offerings from young writers trying to imitate his style. In the long list of Ade's books and plays, none are better known than "The Sultan of Sulu," "The County Chairman," "The College Widow," and "Father and the Boys," Here he is at work in his home at Hazelden Farm, near Brook, Indiana.

nity houses in Bloomington and in the newer State University buildings there.

"I will study and get ready and then maybe the chance will come." You see these words of Lincoln inscribed on the wall of the bookshop in Union House, on the campus.

Bloomington shows much vitality. It makes trainloads of bedroom furniture. Four home-town boys rounded up a lot of



Photograph by Frank M. Habenberger

THIS BOY'S NOSE IS ON THE GRINDSTONE, BUT HIS MIND MAY BE ON FISH, BASEBALL, OR BULLIFROGS

Industry, character, self-reliance—farm life develops them all. Likewise, a kinship with nature which city boys may gain only at costly summer camps. No country boy needs camp talks on how to build fires or traps, handle a horse, track a rabbit, or identify a bird or tree!

stray dogs and trained them to do tricks; they added a few other animals and finally took the open road as "Gentry Brothers' Dog and Pony Show"—to delight children for a generation.

Twenty miles east are the "Sleepy Hollows" of Brown County; from some 100year-old log houses here you can see the smoke of Bloomington. Yet some old people here have never been to Bloomington!

IN BROWN COUNTY PIONEER HOOSIER CULTURE STILL PERSISTS

Kin Hubbard, Hoosier journalist-philosopher writing as "Abe Martin," made Brown County backwoods people known all over America. His crude sketches of such characters as Miss Tawney Apple, Ez Pash, and Fawn Lippincut, and his short, humorous epigrams of their imaginary remarks added to our fund of wit and wisdom.

Now a State park and game preserve is set amid these hills, with a lodge and cottages named in honor of Abe Martin and his renowned characters. One section is reserved for hunters—who may use only bows and arrows!

About the old village of Nashville an artists' colony is gathered, and a gallery there exhibits their paintings of the wild hill country and its fast vanishing ancients.

One lifelong resident is 83, and the whole county calls her Granny. "Weeds are taking my garden," she said. "I've hoed all forenoon. I'm glad you came. It gives me a chance to rest while we talk.

"Wild animals when I was a girl? Plenty! Mr. Hutchison, our neighbor, shot a panther right up the creek. They wouldn't let me see it, for fear there might be another one. . . . Once the dogs chased a bear past the house. . . . Yes, foxes still get my turkeys—and my young pigs, too. Our shepherd dog pays no attention to them—no more than if they were other dogs. It takes a hound to run foxes."

".... Did I ever see a horse-collar woven out of corn shucks? I helped my father make many a one. I molded bullets, too, and carded and spun wool, and I used to make all our candles. . . . But what are you asking about these old things for? It's so long ago!"

Her heroic type is almost gone. Picnic parties come in swarms; painters and snapshot fiends bound the borseshoe pitchers and other oldtimers; radio talk and tunes blare from cars parked up valleys where once only panthers growled, wild turkeys gobbled, and pioneer cowbells tinkled lonesomely.

On the way up to Indianapolis, with Mr. Culver, who illustrated this article, we saw a man and some boys setting out tomato plants (page 298).

"What do you want with our picture?"
asked the youngest, who rode on the planting machine.

"For The Geographic!"

"That's fine. Can you get an article about Indiana as good as that 'Washington, the Evergreen State?' . . . Send me the magazine with my picture in it!"

Farther along the same road was another boy, cultivating his mother's garden with a white goat hitched to a small push-plow.

"Sure, we broke the billy goat, my brother and me. Our father is a barber in Indianapolis, but we moved out here in the country, where we could all help. A man gave us this goat, and we make him help, too." (Page 292.)

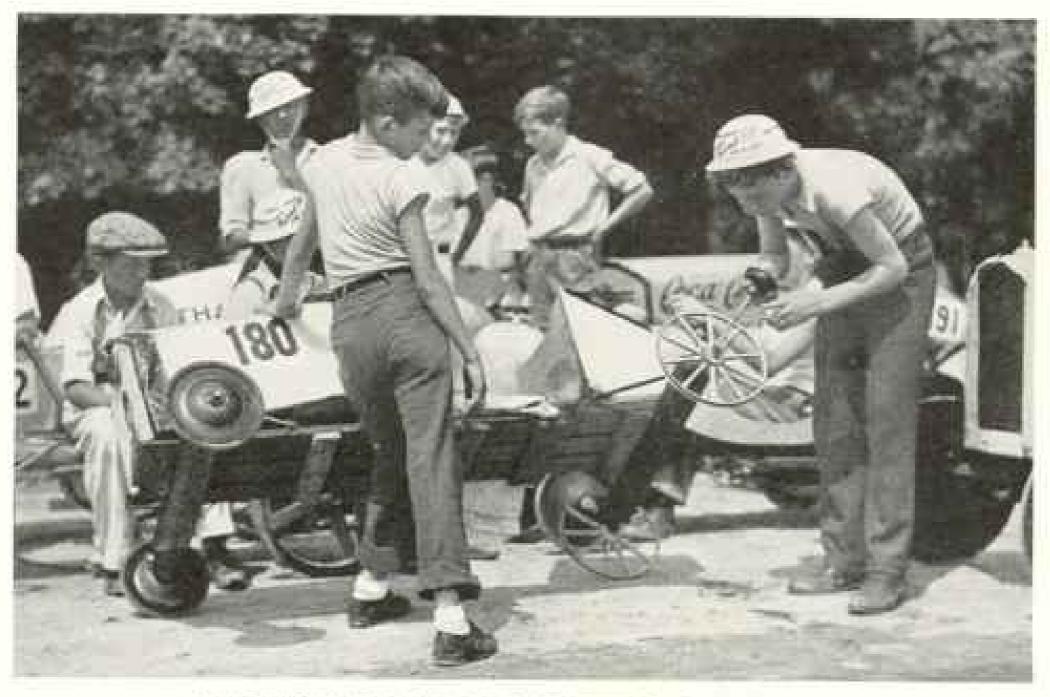
INDIANAPOLIS - THE CAPITAL

From atop a high building you see glittering Indianapolis spread over the prairie.
Nebuchadnezzar, who viewed Babylon
from his flat-roofed palace, would enjoy the
picture here, with all its temples, shrines,
monuments, and tree-lined avenues. Here
are restful parks and floral displays, quite
as satisfying, I am sure, as were the hanging gardens by the Euphrates; and here is
a war memorial as impressive as any temple raised by Babylonians (page 296).

No one great city dominates this State; Chicago pulls at it on the north, Cincinnati and Louisville on the south. Yet Indianapolis, its capital and nearly its geographic center, is the seat of Hoosier power.

In 1820 a small spot was cleared of forest here, and the capital later moved from Corydon, in the south. One wagon, two weeks on the wilderness trails, hauled all the young State's papers, furniture, books, and money. From the streams men seined fish in such quantities that wagonloads were fed to hogs.

Settlers increased; the National Road came through from the East, driving west toward the Missouri. West-bound "movers" multiplied. Some days saw hundreds pass in covered wagons, freighters, stagecoaches, often with women or girls driving



SPEED DEMONS OIL UP FOR LA PAYETTE'S SOAPBOX DERBY!

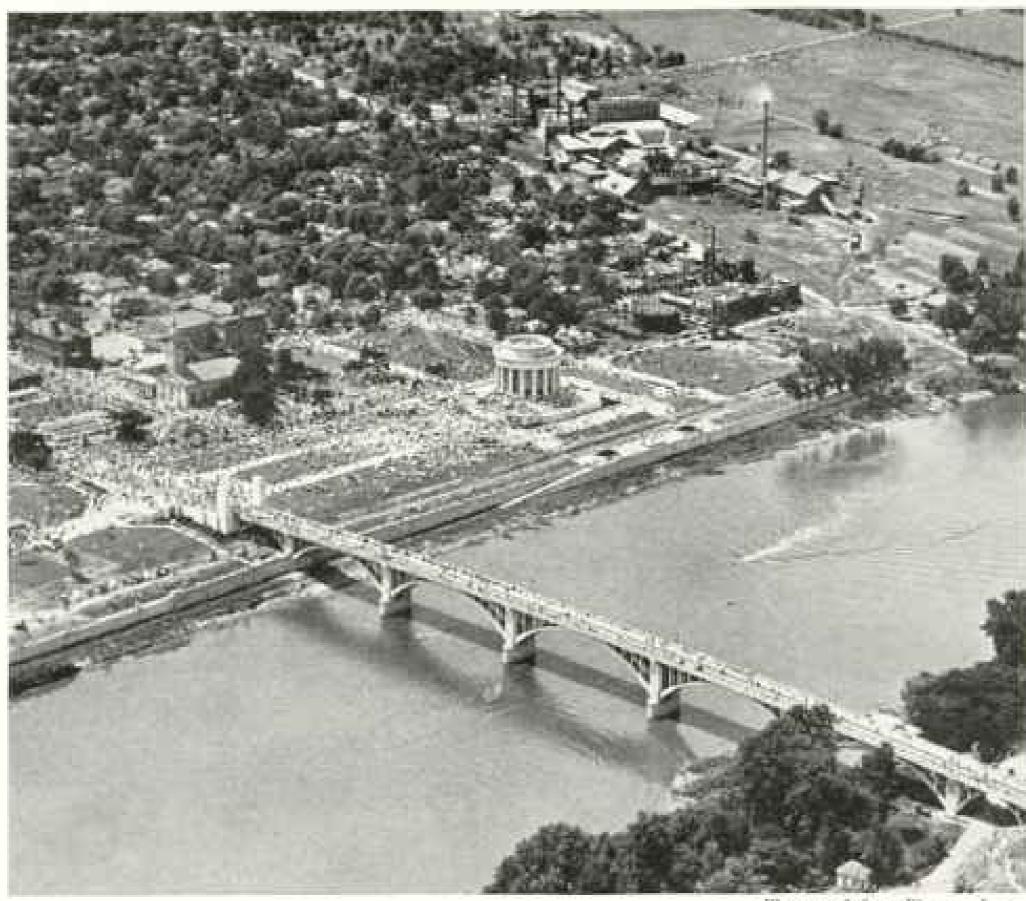
This is a downhill consting race among home-made toy cars—all commercially built vehicles are barred. Winners in a hundred or more local Indiana races compete in the annual national at Akron, Ohio.



Photographs by Willard R. Culver

ONCE THIS SMALL HOUSE AT VINCENNES WAS THE TERRITORIAL CAPITOL OF PRACTICALLY ALL THE MISSISSIPPI BASIN

When, in 1803, the Louisiana Purchase was added to the "Indiana," or Northwest Territory, the whole vast new domain from Ohio to the Rocky Mountains and from Canada to Louisiana was governed from this two-roomed house! William Henry Harrison was territorial governor. His old home, Grouseland, called "The White House of the West," also stands at Vincennes.



Photograph from Pictures. Inc.

A MEMORIAL TO GEORGE ROGERS CLARK NOW RISES WHERE FORT SACKVILLE STOOD WHEN BRITAIN BULED ALONG THE WABASH

The white circular monument, with columns, honors the American soldier who was sent by Governor Patrick Henry of Virginia, during the Revolution, to make war in this wilderness. His capture of Kaskaskia, his march through Indians, mud, and flood to victory at Fort Sack-ville—as Vincennes was then called—form a classic in the annals of military exploits (Plate II). This air view was made on June 14, 1956, when the President delivered an address. Because Lincoln's family, migrating to Illinois, crossed the river here, the bridge is named for him.

the teams while men and boys herded other animals after the wagons.

Today Indianapolis stands, a typical, well-balanced Midwestern city, intersected by four national highways used by threefourths of all transcontinental motorists (Color Plates III-V and pages 294, 296).

High above the city rises America's largest neon aviation beacon, usually visible from 75 miles away.

About the city runs the first belt-line railway built in America, and the seven-acre Union Station with elevated tracks accommodates 40 trains at once. Every 24 hours, 82 mails—by air, rail, and truck—reach the city; and it averages a convention a day—five days out of every week the year

round. One auditorium seats 10,000. What a change since Henry Ward Beecher preached here in his small church, and edited his farm paper!

Get up early, any morning, and you see some 500 trucks coming into town from all directions, hauling hogs, cattle, calves, and sheep to the largest stockyards east of Chicago. Among world grain markets the one here ranks sixth, and as a cash mart it leads in the United States.

Some 840 factories make many things, from insulin and inner tubes, automobiles and canned food, to birdcages and popcorn machines. One shop can make 5,500 bi-cycle tires every day. Another makes chains—chains that went with Admiral



Photograph by Willard R. Colver

A PAINTHRUSH ON WHEELS MARKS THE CENTER LINE OF INDIANA HIGHWAYS

To keep a straight course, the driver steers by the upright "sight" attached to the front bumper. Operated by two men, the machine paints a 4-inch ribbon on 20 miles of road a day. Six such machines have marked about 5,600 miles of road.

Byrd to the Antarctic; chains for the first Wright plane; for the dirigibles Macon and Shenandoak; for battleship hoists and elevators; chains for 40 foreign countries.

Doorbell ringers all over the Nation sell silk hosiery made here (Plate XII), while another product is advertised by a singing barber who fills the air with saponaceous rhapsody.

Armored cars for the Shah of Iran; trucks to haul pipes that carry oil from Mosul to the Mediterranean; hams and bacon for the world's breakfast—they originate here.

"Yours is a tough task," said an Indianapolis editor, "trying to write the story of
Indiana in one article! . . . Go and see
Laurance Chambers, head man at BobbsMerrill. . . . He wrote the best tabloid
history of our State. It's illustrated with
reproductions of Benton's murals. You
probably saw them in the Indiana exhibit
at the Century of Progress; they picture
Indiana from pioneer times."

If wastebaskets gave up their dead, what a place the Bobbs-Merrill publishing house would be to trace Indiana's literary career! It has bought and published many a manuscript which brought fame to a hitherto unknown writer. Not only Hoosiers, but writers from all over the Union have been launched by Bobbs-Merrill. Long ago it started Mary Roberts Rinehart, whose first work, "The Circular Staircase," other houses had ignored. Lately it published "Oil for the Lamps of China," which brought fame to Alice Tisdale Hobart.

Look over its lists, old and new, and you are astonished at the millions of books issued from this midwestern plant. Charles Major's "When Knighthood Was In Flower" sold more copies than did "Uncle Tom's Cabin." This firm, putting on what James Whitcomb Riley called "its literary overalls," published every book the famous Hoosier poet ever wrote, and all without ever a written contract! It introduced Harold MacGrath to the world



Photograph to Willand R. Culver

WITH KEEN EYE, THIS GIRL RAPIDLY INSPECTS NEWLY MADE GLASS JARS FOR POSSIBLE FAULTS

From Ball Brothers' colessal plant at Muncie flows an almost incredible volume of glassware. Fruit jury made here are used in homes from Muine to California, and in many foreign lands. Natural gas started Muncie on its distinguished industrial career (page 319).

"The House of a Thousand Candles."

Other titles are remindful of days gone by. Here Brand Whitlock brought "The Thirteenth District"; Emerson Hough his "Mississippi Bubble"; Anna Katharine Green, "The Filigree Ball"; George Randolph Chester, "Young Wallingford"; Zona Gale, "Romance Island"; George Ade, "The Slim Princess" (page 275); Earl Derr Biggers, "Seven Keys to Baldpate"; Ring Lardner, "Gullible's Travels"; and Irving Bacheller, "The Light in the Clearing."

Because of its early conspicuous success with fiction, fiction especially is associated in many minds with the Bobbs-Merrill Company. But its contribution in other lines, aside from its law and educational publications, shows scores of titles on subjects from "Backward Children" to "The Chinese"-too many to list here.

Carved on the stone front of the great

with "The Puppet Crown," and Meredith Lilly Laboratories at Indianapolis are the Nicholson with "The Main Chance" and same chemical symbols used by ancient alchemists—who took them from the Chaldean-who thought the earth's metals were related to the planets! Hence such old planetary names for drugs as lunar caustic and saturnine poison.

> DOCTORS ALL OVER THE WORLD USE MANY DRUGS AND SERUMS MADE HERE

> Yet look into this Lilly plant and see what incredible strides chemists have made since the dim, distant age of alchemy, quackery, and philosophers' stones!

In this temple of scientific research and in the giant production plant attached to it, where machines roll 500,000 pills a day and grind tons of strange things, from dandelions to bovine stomachs and livers, you meet a thinking brigade of chemists, pharmacists, bacteriologists, and medical investigators representing the best scientific brains of many lands, from England to China,

How to turn new ideas, theories, and discoveries about medicine into practical use is the business of this vast industry. It worked with the Toronto Insulin Committee and with the Harvard Pernicious Anemia Committee to put their drugs quickly into doctors' hands (page 292).

Here is not only pure research in many things, from toad poisons to Chinese herbs, but such mass-production problems as packing millions of doses of ground liver in

capsules instead of vials.

In plain English, here in Indiana is an astonishing example of how highly organized, efficient business takes up where science leaves off.

Jenner learned long ago how to vaccinate against smallpox, but it takes huge capital and infinite skill to make enough vaccine and supply it fresh to the whole world, when and where needed.

You can think of many such examples, from common disinfectants to diphtheria antitoxin.

PRICELESS BOONS OF SCIENCE ARE MADE AVAILABLE TO MILLIONS

But for such mass production of drugs, chemicals, and medicines, we could not check or control infectious disease and epidemics, despite the great discoveries of Koch, Pasteur, Lister, Sir Ronald Ross, Schaudinn, Von Wassermann, and Ehrlich.

Nor could mankind benefit from the findings of a Hopkins, a Mendel, or an Osborne as to vitamins, nutrition, and the prevention of nutritional disease, nor dare to hope in face of tetanus, diabetes, and anemia.

Look at all the live animals on which tests are made; look at all the strange weeds, plants, roots, that come to this busy place—and look at the endless barrels, boxes, jars, and bottles of mysterious mixtures that issue from it, and are shipped to drugstores, hospitals, armies, navies, and to doctors all over the world, and you walk out with this thought:

What good is any discovery in medicine

no matter how great its potential value—
unless some industry exists like this one,
able to make the new serum, vaccine, drug
or tissue product in big lots, and then send
it to places where people need it?

Not far from these scientists, I talked with country folk who insisted that marriage on Saturday brought bad luck. "My mother bit my nails off, when I was a baby, instead of cutting them, so I wouldn't grow up a thief," one woman said. That luck is affected by black cats, brooms, ladders, dishcloths, and crowing hens, or that dogs' tails may draw lightning in thunder storms are myths of Hoosier folklore, as in that of many other older States. But when I mentioned them to youngsters, they laughed.

It was spring. That wholesome, satisfying smell of soft coal smoke mixed with earthy odors of plowed fields came to us as we neared Richmond. Close behind the plowmen marched sedate, glistening blackbirds, picking up worms, clucking in contentment. Colts played among the dandelions: peacocks "called for rain"; lambs scampered; big red sows and their grunting broods wallowed in mudholes fringed with "smartweed," ragweed, Jimson, and dogfennel; excited cackles rose from every busy barnyard. Wild fowl make no such uproar. Why then should our hens, domesticated for centuries, show such hysteria over one more egg?

Acres of roses, grown under glass, appear just west of Richmond. Straight through town runs the historic National Road, its century-old traffic stream paced by street cars.

For decades pianos made here were exported to many far nooks and crannies of the world; now it is iceboxes, and other things. Here in 1807 Quakers built their first Indiana meeting house; here now is Earlham College, which the Friends set "beside the Great Road," a token of the service for which the college was to stand.

At Fountain City, near Richmond, is the Levi Coffin Home, "Union Depot of the Underground Railway" in slave times; it handled thousands of fugitives.

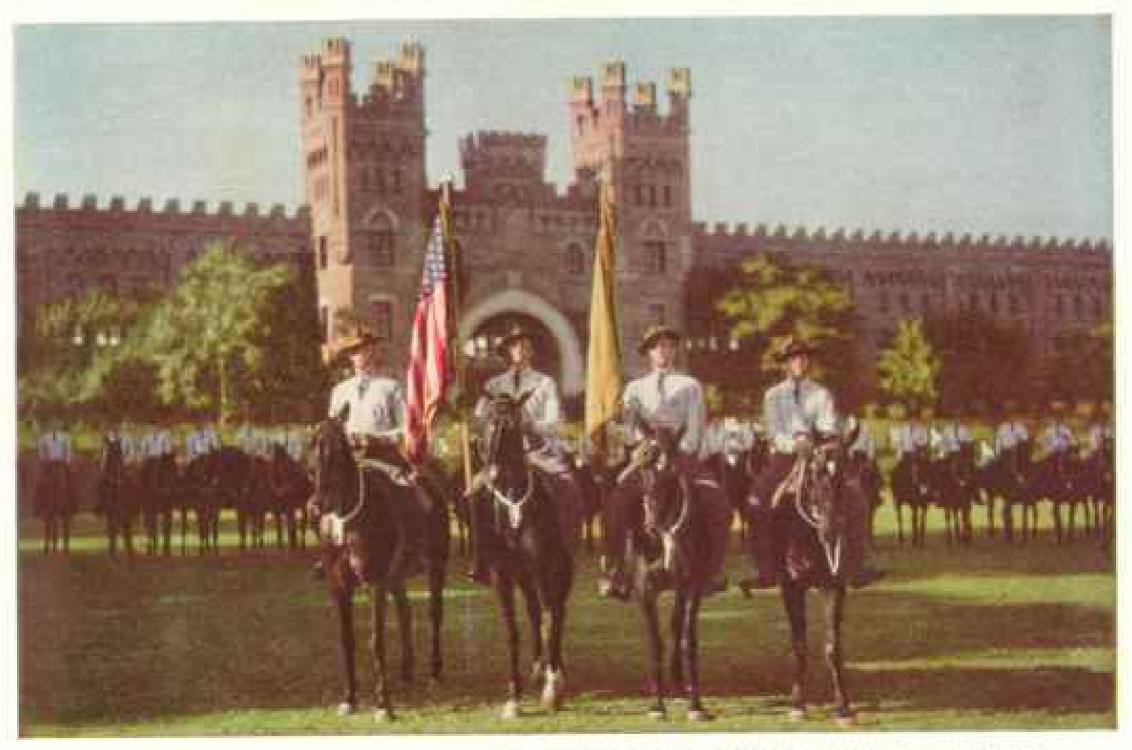
South, down the historic Whitewater Valley where many Carolinians settled after 1804, is Brookville. It lives, serene and

contented, with its romantic past.

Hereabouts was born Maurice Thompson, who wrote "Alice of Old Vincennes"; also Ida Husted Harper, early crusader for woman's rights, and Mary Louisa Chitwood, a gifted Hoosier poet. Booth Tarkington's grandfather was a Brookville preacher; in its heyday, the region had 17 distilleries, many grist, flour, and saw mills. Small as it was, this town produced an almost incredible number of men who were later to become governors and senators, or to gain national fame in other fields.

Well-known painters like J. Otis Adams, William Forsythe, Otto Stark, T. C. Steele, and others worked here, catching the scenic

HOOSIER HAUNTS AND HOLIDAYS



CULVER'S COLOR GUARD LINES UP BEFORE THE SUMMER SCHOOL CAVALRY

In the spacious riding hall beyond, these young men strive for the troop monogram, the reward for excellence in cure of horses and riding. They must qualify in "monkey drill"—that is, ride two horses at once, pyramid, do stunts bareback, and leap on running horses. Culver Military Academy is highly rated by the War Department, and cavalry officers are detailed as instructors.



© National Geographic Society

PURDUE BOYS BEAT THE BIG DRUM, WHILE THE DRUM MAJOR STRUTS BEFORE COEDS

The University's band, of 125 pieces, pioneered in the practice, now common in many colleges, of spelling out names by shifting formations.

THE NATIONAL GEOGRAPHIC MAGAZINE



WAITERS BALANCE TRAYS ON THEIR HEADS AT GAY FRENCH LICK RESORT, WHOSE MEDICINAL WATER IS GOOD FOR THOSE WHO CAN TAKE IT

About floral gardens runs a hedge, cleverly trimmed in the forms of animals. Each year, after the Kentucky Derby. French Lick is the rendezvous of many borse owners and turi devotees.



(2) National Geographic Society

Finlay Photographs by Willard R. Culver.

"SURRENDER OF FORT SACKVILLE TO GEORGE ROGERS CLARK," BY PREDERICK C. YOHN
Few events in American military annals equal Clark's exploit on February 25, 1779, depicted in this
painting that hangs in the State library at Indianapolis. The capture of the Wabash post helped bring
the vast Northwest Territory under the Stars and Stripes.

HOOSIER HAUNTS AND HOLIDAYS



Autochrome Lumière by Willard R. Culver HOOSIER INVENTIVE GENIUS WAS CONSPICUOUS IN THE EARLY DAYS OF THE AUTOMOTIVE INDUSTRY

At Kokomo, Elwood Haynes built and drove one of the first "horseless carriages." The Studebaker, Auburn, and Dusenberg are still made in the State. An Indianapolis home.

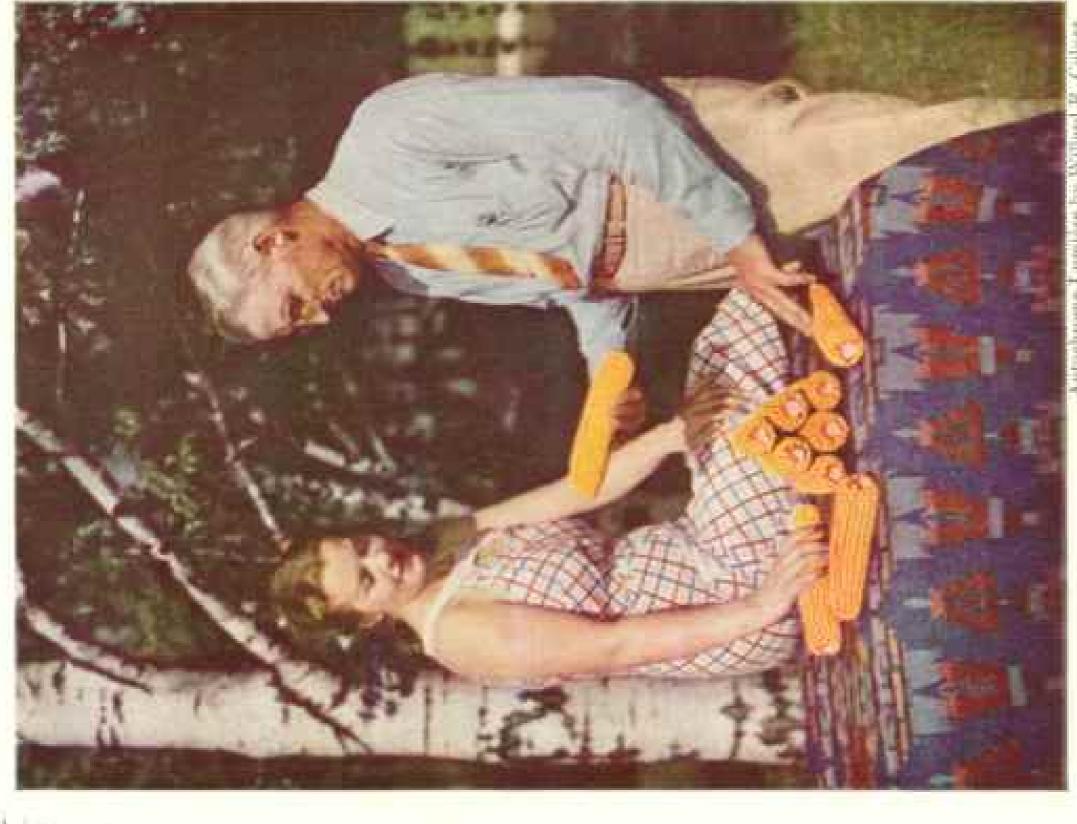


@ National Geographic Society

Finlay Photograph by Willand R. Culver

LITTLE WOMEN, GRAVE WITH DOMESTIC CARES, PLAY AT HOUSEKEEPING

This colonial nursery is preserved intact, being a room on the third floor of historic Lanier Home, now a State museum, at Madison on the Ohio River. Some of the dolls, cradles, and trundle beds are from 80 to 100 years old.



ONCE TWICE, THRICE, POUR TIMES, PETER LUX OF SHELBYVILLE. HAS WON PIRST PRIZE FOR THE HARET CORN CROWN IN AMERICA.

ADMIRE HIM AND HIS HOMELY POEMS IN JOHN HERRON ART ADMIRE HIM AND HIS HOMELY POEMS IN JOHN HERRON ART INSTITUTE, INDIANAPOLIS Finlay Photograph by

C National Geographic Society



DOWN FOUR GOLDEN KAGLES LOOK

A brotize plaque on the black cenotaph bears an inscription to the memory of James Bethel Gresham, of Evansville, Indiana, a corporal in Infantry, who was the first soldier in the American Expeditionary Forces to be killed in action in the World War. Facing the Plaza in the Indianapolis rises the graceful tower of the Scottish Rite Cathedral, At the right is the American Legion's National Headquarters Building.

THE NATIONAL GEOGRAPHIC MAGAZINE



JUST SUCH A ROLY-POLY LAMB MAY HAVE FOLLOWED MARY TO SCHOOL TO MAKE "THE CHILDREN LAUGH AND PLAY"

Flocks of fine sheep are frequent in central and northern Indiana. These tame lambs were photographed on the stock farm of Squire Jess Andrew, near Westpoint.



D National Geographic Society

Finlay Photographs by Willard R. Culver

IN A CHILDREN'S PET PARADE MARCHED TWO MAKE BELIEVE ZULES AND A "TIGER"

Entered from Mishawaka Orphans' Home, this brother and sister took first prize. Such annual processions, popular in Hoosier towns, bring out a veritable Noah's Ark of assorted creatures, from goats, birds, and lambs to anakes and turtles.

HOOSIER HAUNTS AND HOLIDAYS



Autochrome Lumière by Willard R. Culver-

DEADLY BOW AND ARROW SAVAGES SLEW MANY A WHITE IN THESE SAME WABASH WOODS WHERE SCHOOLGIRL ARCHERS NOW COUNT THEIR BULL'S EYES

These four tempting targets for yet another gallant little bow-and-arrow marksman are students at Saint Mary-of-the-Woods. This noted Catholic college is half hidden in forests near Terre Haute.



C National Geographic Society

Finlay Photograph by Willand R. Chilver

WITH THE CLEAR, CANDID EYES OF YOUTH, PURDUE COEDS SMILE ON THE LUCKY LENS

In 1931 Indiana chose the Zinnia as its official State flower. Here are some of the many varieties grown at West Lalayette by Purdue University, notable for its farm experimental work as well as its signal achievements in the field of engineering instruction (Color Plate I).

THE NATIONAL GEOGRAPHIC MAGAZINE



SANDY BOTTOMS AND SHADY BANKS MAKE COOL, CLEAR SUGAR CREEK A RESTFUL RESORT ON HOT SUMMER DAYS

Flow that old covered bridge used to echo to Dobbin's iron-shod hoofs! Many such bridges still survive in Indiana. This structure stands near Marshall, in the Turkey Run State Park.



O National Geographic Society

LOOK AT THESE CYCLING NYMPHS IN SHORTS AND REFLECT THAT NOT SO LONG AGO

EYEBROWS WERE RAISED AT BLOOMERS:

Besides its scenic drives. Turkey Run State Park, in western Indiana, has 30 miles of foot trails. Some lead through dense forests; others along bluffs, or through steep-walled canyons where sun never strikes.

VIII

charms as subjects for their pictures. Early-day roadways wind among hills and rich valleys; a water wheel runs a flour mill, and about an old, old church forgotten settlers sleep in nameless graves.

At night we took a side road to visit an old-fashioned square dance. Long before we reached the abandoned schoolhouse where it was held—set away back in the woods on a forking muddy road hard to follow—we could hear the shouts of the man who "called the measures," the spontaneous musical combustion of what they call down this way a "gully jumpers' band," and the heavy "stomp" of bucolic feet. Many of the boys were in shirtsleeves; of the forty or more girls not one smoked cigarettes between dances!

"How many measures can you call?" I asked the man, hourse from such cries as "Swing your partner," "Grand right and left," "Cage that bird," and "All prome-

made!

"Oh, I could call all night and never

repeat."

Sheep licking rock salt in the shade of white oaks; log barns hung with tobacco; barefoot boys fishing under a bridge, using poles cut from the brush with jackknives; a fence-jumping cow grazing in her clumsy yoke—all this country life flashed past next day as we rode down to the Ohio (p. 300).

James B. Eads, named by Lincoln to build ironclads in the Civil War, was born here in 1820, says a tablet at Lawrenceburg. He is better known for his bridge at St. Louis. Thousands of barrels are stacked here, and the morning air is strong with the breath of big distilleries.

To the memory of Col. Archibald Lochry and his command who were massacred here in 1781, notes another tablet near Aurora. And so on through the old, old town of Rising Sun, and along a winding river road.

OLD RIVER TOWNS HUG THE OHIO

Downstream puffed the packet boat, from Cincinnati for Louisville, crowded with Sunday excursionists. Women waved at us, and we heard music on the boat, and could see white-jacketed waiters sidling through the deck crowds, carrying trays.

In Vevay, where Swiss wine makers colonized in 1802, a hybrid European and

ante-bellum spirit survives.

"Yes, I spoke French to my parents till I was eight," said a young lady. "We still have a wooden clock and dishes that my ancestors brought from Europe." Edward Eggleston was born bere; they show you the house.

"Did his sketches of local characters in "The Hoosier Schoolmaster' offend people here?" I asked an old native.

"I never read it," she said.

"It went into many foreign languages, and on the stage," I parried.

"Maybe so—but I don't know anybody here that's read it."

Like the Rhine above Koblenz, the Ohio, passing Madison, winds through rolling green hills. Through glasses you can see people across the river, in Kentucky, going about their affairs.

LOST AT SEA: A LOCOMOTIVE!

When the State's first railroad was built north from here, the first locomotive, sent from Philadelphia, was lost at sea; the next got here, up the Mississippi and Ohio, but had to be dragged up the bluffs by oxen to the new railroad. . . . When Jenny Lind sang here, the only place in town large enough to hold the crowd was a pork-packing shed. . . . Mayor Sulzer showed me daguerreotypes of famous New Orleans packets, made 90 years ago. . . . "Grow old along with me; the best is yet to be," says a line on the rim of an old sundial.

For years Madison was a center of culture and aristocracy. Preserved now as a State memorial is the palatial home of James F. D. Lanier, who helped finance Indiana through the Civil War (Plate III).

Ginseng, goldenseal, mandrake, and some 250 other medicinal roots, barks, herbs, leaves, flowers, and seeds are bought from thousands of farmers by a pioneer drug firm here.

"Patent medicine makers are also heavy users," said the druggist. "I buy everything from Texas snakeroot, wahoo bark, and slippery elm to Carolina sassafras. Indians cured themselves with many barks and roots commonly used now by the great pharmaceutical factories. But Nature can no longer supply all the crude drugs the world needs; hence, many must be made synthetically."

Mints that supply most of the whole world's chewing gum and other needs come from Indiana (page 316). Hay is made from the weed, after the mint juice is pressed out; eating it, cows roll their eyes and nod their heads in obvious enjoyment.

All these old river towns were born of river traffic. The oldest houses in any of



"Sure, we broke the billy goat, my brother and me," said Donald. "We make him help, too, here in the garden." Plowing peas on a farm near Bargersville.



Photographs by Willard R. Colver.

TO INSURE STERILITY, INSULIN VIALS ARE FILLED AND CAPPED IN A GLASS-ENCLOSED ROOM SUPPLIED WITH FILTERED AIR

Control of diabetes by injections of liquid insulin was announced in 1922 by Doctors Banting and Best of the University of Toronto, Canada. Now vast quantities are prepared from the pancreas of cattle and distributed wherever needed by Eli Lilly and Company of Inslianspolis (p. 281).

them are usually those that face the Ohio. Many are dilapidated now, given over to ragged wharf rats and shiftless fishermen. When the "floating palaces" of Mark Twain's gilded age plied between Indiana and New Orleans—crowded with wealthy planters, their families, and servants, with busy traders and card sharks—these river ports grew noisier and more opulent. That all faded when the steamers yielded to rail-roads.

More tonnage than ever rides the Ohio now, but it is mostly heavy through cargo from Pittsburgh, hauled on flocks of barges that ignore these pioneer Hoosier ports.

Old women with rakes and scythes were clearing weeds from graves when we got to Pigeon Roost Memorial. Here sleep women and children massacred long ago by Indians. Men named this mournful hill for myriad wild pigeons that used to roost here. My mother's father, who came to Indiana as a boy from the Isle of Man, used to tell how, with guns, long poles, and smoke, they killed these now extinct passenger pigeons for food, by the bushel, Trees often broke under the weight of thousands of roosting birds.

On a fine bridge we drove across to Louisville for dinner. Coming back to Jeffersonville, we noticed a sign on the Indiana side, "Marriage Parlor."

"That's where Louisville youngsters come to get married in a hurry," said a filling station worker. "Many couples that don't stop there hurry on to the dog races, or the crap games. . . . I remember when lots of Kentucky people came here to hunt. Now, it seems to me, most of 'em go to see the dogs run that toy rabbit."

After New Albany, with historic Hole Tavern where Daniel Webster, Henry Clay, and Andrew Jackson stopped, we came to Indiana's first state capital at Corydon, restored now, just as in 1816. A friendly town, Corydon; everybody you meet speaks to you—a quaint and pleasant custom.

Going west for Evansville, we saw Santa Claus—a town of less than 60 people, whose odd name has made it known to newspapers across the continent (p. 317).

WHERE LINCOLN SWUNG HIS AX

Farther west at Lincoln City is Abe Lincoln's boyhood home, where he lived from seven to twenty-one. Here is the monument to his mother, Nancy Hanks, and the site of the cabin where she died. I walked about some of the paths, and tried to imagine what Lincoln's thoughts were when this great American trod these lonely slopes, ax on shoulder, on his way to split rails.

Coal mines crowd right up to the edge of Evansville. Astonishing to visitors, too, is the unique Mesker zoo, some of whose animals are trained and give regular shows.

Think of elephants and chimpanzees doing circus tricks out in their own free habitat, with no bars in sight! That's the impression you get here, if you come suddenly, while a performance is under way, to this zoo where animals are restrained by hidden, unscalable moats.

More important to Evansville, of course, are its five railways, its 100,000-plus population, and its forests of factory chimneys. Baby food, steam shovels, auto trucks, gas engines, refrigerators—all are made here. Its new Mead Johnson Terminal is one of the largest inland transshipment ports on the Mississippi system. Daily, over the new five-mile, three-lane bridge that links this city with Henderson, Kentucky, flows a heavy travel stream. Here is the shopping center for western Kentucky, southeastern Illinois, and southwestern Indiana.

TINY NEW HARMONY'S MANY ADVENTURES

Odd is the tale of New Harmony.

Here is a big rock with bare footprints. They look human, but they were left there by the Angel Gabriel! So said George Rapp, a Nürnberg religious leader who colonized his German followers here in 1814.

In the form of a Greek cross, its pillars carved from giant trees, the Rappites raised a temple, at that time a vast structure for these parts. It is gone, but their loopholed fort and many other interesting old houses still stand. When the Rappites had built up a prosperous colony, they sold out in 1825 to Robert Owen, British reformer and philanthropist.

It was under Owen and his followers that the village was to gain fame here and in Europe.

To this day, with its 1,200 people, New Harmony gets more space in encyclopedias than many places fifty times its size.

To this obscure hamlet, Owen, by his social experiments and teachings, drew scholars from many lands. One such was William Maclure, founder and for thirty years president of the American Academy



Photograph by Willand R. Culver

HOOSIERS WHO DIED IN THE REVOLUTION, IN 1812, IN THE MEXICAN, CIVIL, AND SPANISH-AMERICAN WARS, ARE HONORED BY THIS MEMORIAL

Known as the Soldiers' and Sallors' Monument, and recognized as a musterpiece of the sculptor's art, it rises 284.5 feet above the street. Cascades of flowing water form pools at the foot of the tower, which dominates a circle in the business center of Indianapolis.

of Natural Sciences at Philadelphia; another was Thomas Say, "the Father of American Zoölogy," who is buried here. Josiah Warren brought the first printing press, inventing here the "perfecting press" which prints from a continuous roll of

рарет.

Owen's original plan failed, for many reasons; but New Harmony long remained an intellectual center of the West and is still a mecca for students of social history. Until 1856 it was headquarters of the U. S. Geological Survey, later moved to Washington, D. C. Here in 1859 was founded the first woman's club in America with a written constitution. It was named "The Minerva," and its original papers are still preserved here in the "Old Fauntleroy Home," owned now by the Indiana Federation of Women's Clubs.

The "Workingmen's Institute Library" and the Murphy Auditorium attract endless visitors. Think of a library of 26,000

volumes in a town of 1,200!

Get to New Harmony in spring, if you can, and see that amazing floral shower that falls from a strange tree here and literally covers the ground with yellow blossoms. The seeds of this tree came from China, where people call it "the tree of golden rain."

And don't miss the whimsical New Harmony Times, known to columnists all over the State. Its weekly reprints of items from the famous Disseminator of 100 years ago are graphic glimpses of Hoosier life when Indiana was young.

BUSY CITIES LURE THOUSANDS NORTH

Overstuffed with history, we turned north; like thousands who have quit these older counties in the last forty years, I wanted to get up where Indiana works

at higher speed, produces much.

"But be sure and stop at Austin, in Scott County," people urged. "It has a one-man miracle; his big cannery grew right through the depression." It was an eye opener: 85 big red trucks growling about a village, as if a circus were unloading. The whole town fairly smells of stewed tomatoes. For miles around everybody grows things for this one man to can—pork and beans, to-matoes, corn, carrots, things for soup. What a plant!

"My trucks run 165,000 miles a week," he said. "What they don't haul I ship by

rail, coast to coast."

To print can labels he keeps 21 presses running; to supply him alone the American Can Company built here a special factory, from whence shiny new tin cans clatter and cascade by the carload, the trainload. Such a business!

RAISING GOLDFISH, DIGGING COAL

Men were shooting hawks and herons, and killing snakes with sticks near Martinsville, where we stopped next. Signs here proclaimed it "The World's Largest Goldfish Hatchery."

"They'd soon eat all our fish—if we didn't kill 'em," said a sweaty man who at that instant was clubbing two writhing water snakes. "Already this spring I've killed 84 of these boys. . . . Sure, we feed the fish: cornmeal, hard-boiled eggs."

Late at night we watched men in rubber boots sorting fish—separating males from females. I couldn't tell the he's from the she's even when the tired workers, with an air of mixed pity and boredom, tried

to show me how.

Cruising leisurely through a region where carloads of rustic furniture are made from hickory saplings, pausing a while to watch a troupe of strolling players set up their tents for a one-night stand, we came to a wood astir with the sibilance of scenic Cataract Falls on Mill Creek. A spot of singular beauty this, good to look at after the open-pit mine scars that deface parts of western Indiana. To hide the ugliness where such "strip mining" has left its rough, naked ridges, the State in some spots is planting young trees.

"Did you dig that yourself?" I asked a farmer, who drove out of the low hills with

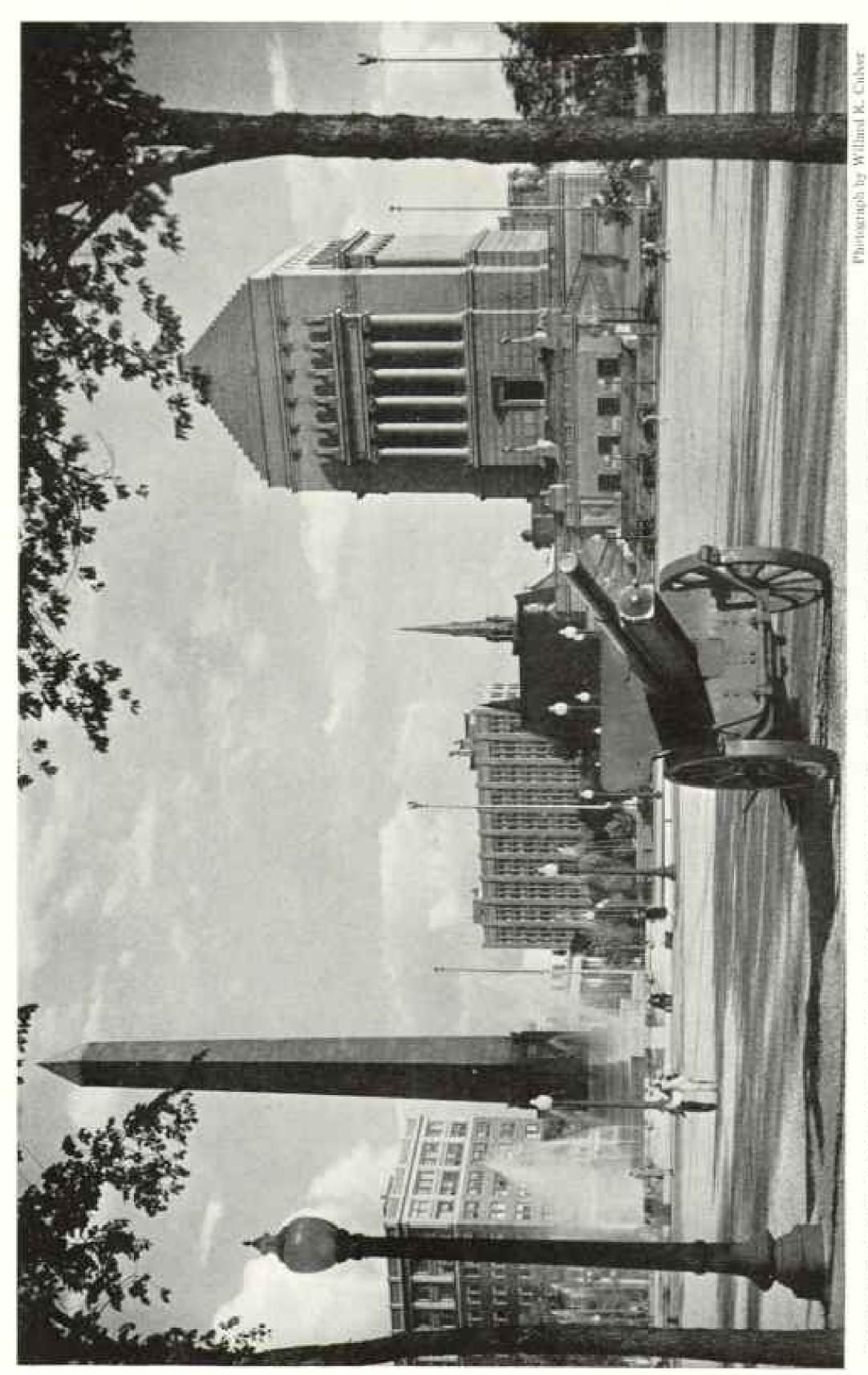
a load of coal.

"Yeh. Just a shirttailful, to get a little change."

Hundreds do this, peddling the coal at prices below what the city coal yards charge.

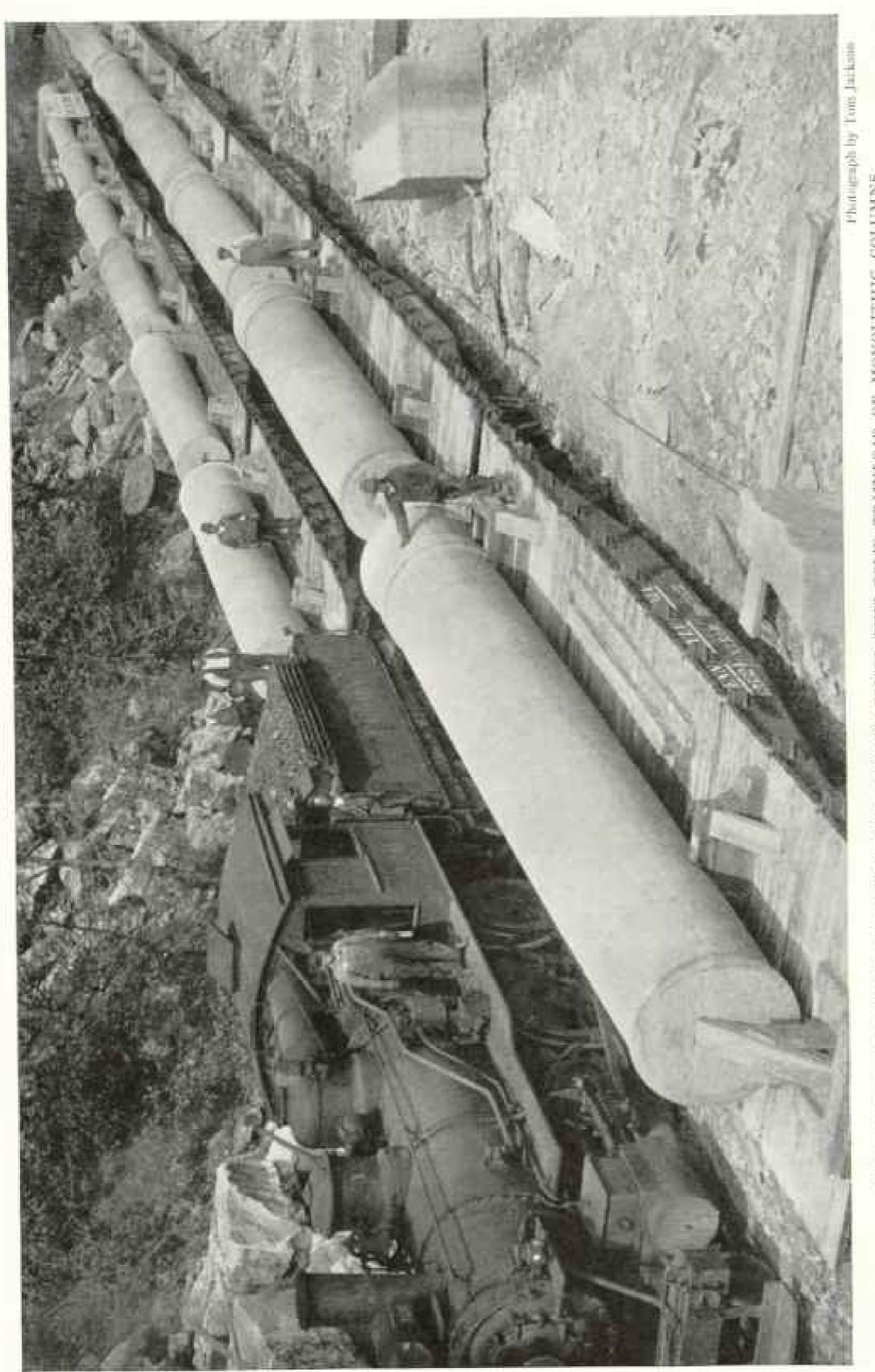
Along an abandoned interurban electric railway we rode over to Clinton, where I called on Harriet. It was hard, after 27 years, to say much that made sense. But I felt at peace, as one may with boyhood friends. After long separation, you see companions of your youth as through a veil; yet personality, gestures, quick flashes of expression, all are familiar, unchanged.

Clinton itself I hardly recognized; though it was hard hit in the depression, a generation has changed it from a sprawling,



INDIANA'S WORLD WAR MEMORIAL COVERS FIVE INDIANAPOLIS BLOCKS AND IS AN OPEN PLAZA SET WITH IMPOSING ARCHITECTURAL WORKS

In the right background stands the main shrine, of Indiana limestone, on whose sculptured walls are depicted World War scenes. Here, too, are famous flags and portraits of distinguished military leaders of the Allied countries. At the left then title-foot granite obelisk symbolic at the Nation's Memorial Plaza, but not shown here, also stands the American Legion's National Headquarters (Color Plate V).



S NEAR BELFORD COMES THIS SOLID TRAINLDAD OF MONOLITHIC COLUMNS FROM GREAT LIMESTONE OUAERIE

On powerful fathes are cut these Gazgantuan columns, each more than 35 feet long and nearly five feet in diameter. Ends are squared by buge saws whose the set with black diamonds. For use in the Mellon Institute at Phtsburgh, 61 such columns were turned. Two sphinxes before the Scottish Rite Temple in Washington, D. C., were carved from blocks of Bedford limestone weighing 100 tons carb. Other cuts have weighed up to 300 and 400 tons (page 275).

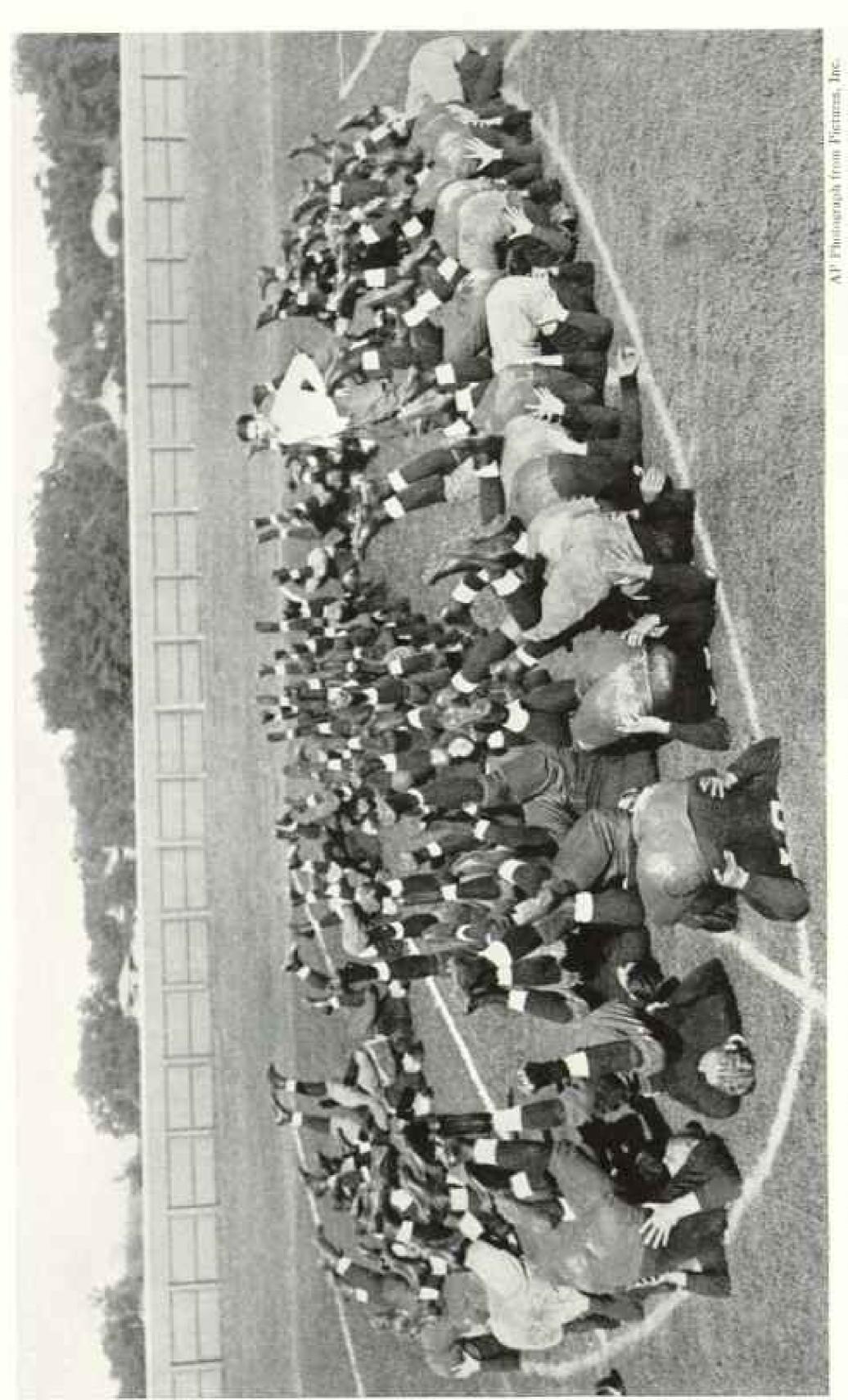


O MAKE A RAW CALESKIN IS SCRAPED CLEAN AND THIN I DRUMBERAD

About one-third of all Elkhart is busy, in one way or another, with the production of musical instruments (Color Plate IX and page 115). To make drumheads, bides are bought by the thousands from Chicago packers. These seraping. are cleaned, cured, soaked, and then atretched on frames for

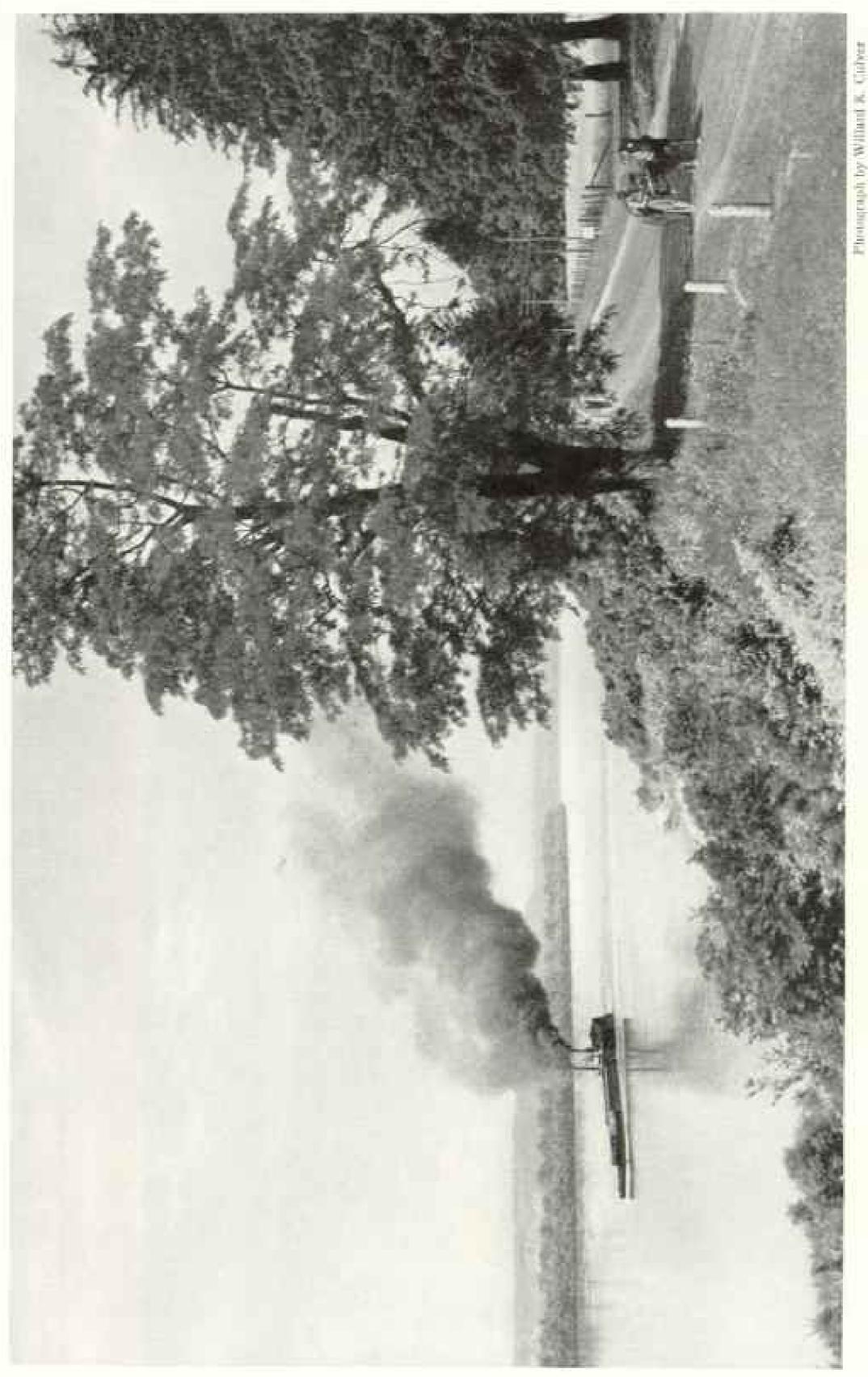
"We import young tomate plants from Georgia," said the driver of this not visible here, follows a few steps behind to straighten up any plant that is "This bests the old backbresking way," remarked the driver, phanting machine. This gives the Indiana crop an early start. Another boy not left upright.

SEND ME A COPY," URGED THE BOY



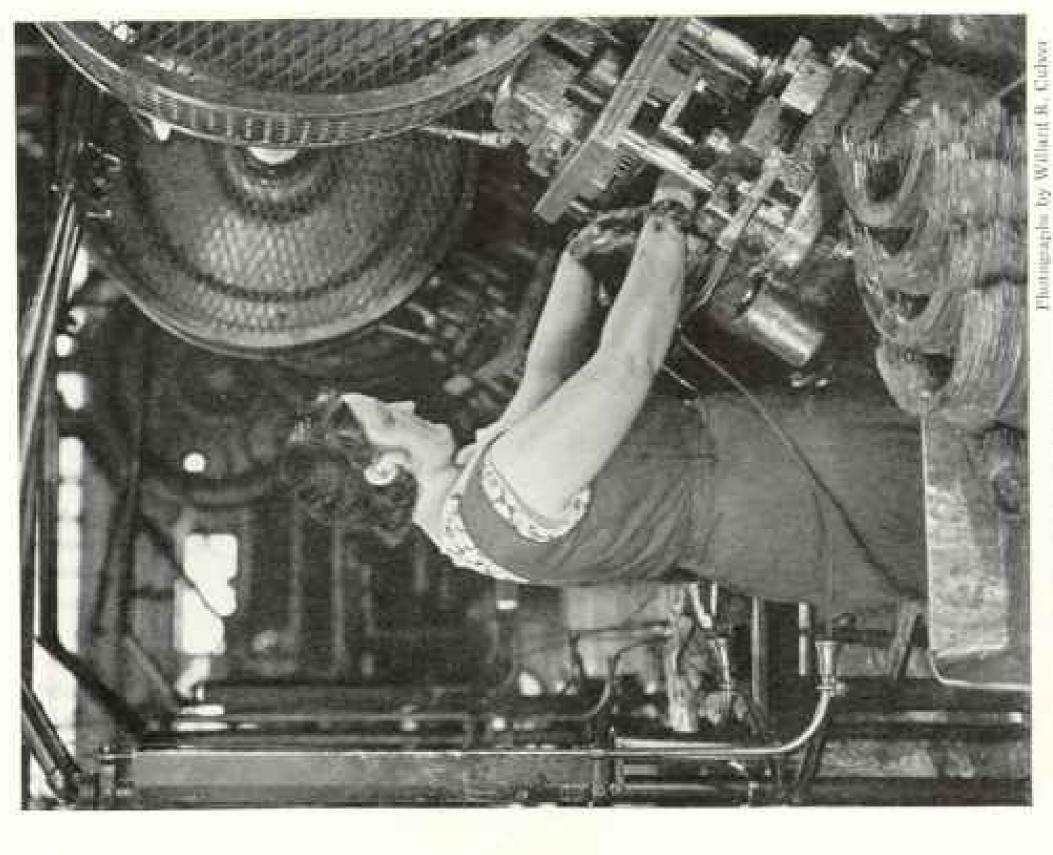
AT NOTRE DAME, KNOWN THE NATION OVER FOR ITS SUPERTIAMS IMBER UP SEVERAL TONS OF FOOTBALL TALENT I

In the midst of the sea of large cleated feet stands Coach Elmer Laydon. In Rockne's 13 years as hend coach, he turned Resting noncludantly on the back of your neck At this famed South Bond, Indiana, university, the tradition of the late Knute Rockne marches on and the athletes are drilled in the fast, thrilling "open game, with emphasis on apped and deception. Such callsthenics as this help to work out muscle kinks and develop fleetness. Resting nonchalantly on the back of your need from coast to coast, winning 103 games, tying five, and losing only a dozen times, backfield known as the "Four Horsemen of Notre Dame." If riding a bleycle upside down, you brace your hips with your hands and move your less as in his pluying days a member of the fast-galloping Rocking out five undefeated teams; his "South Bend Cyclone" roared



Today a single tow of barges SCENIC HIGHWAYS PARALLEL THE TREE-PRINCED OHID, NOISY WITH THE TOOTS AND PUPPS OF PUSHER-TYPE STRAMBOATS wilderness generations ago, the Ohio has been a busy waterway Since the first white settlers floated downstream to comquer a may earry more coal and steel from Pittsburgh than could have broral Indiana (page 118).

have been loaded on a hundred old-style stern-wheelers. Horse and buggy days have not passed from

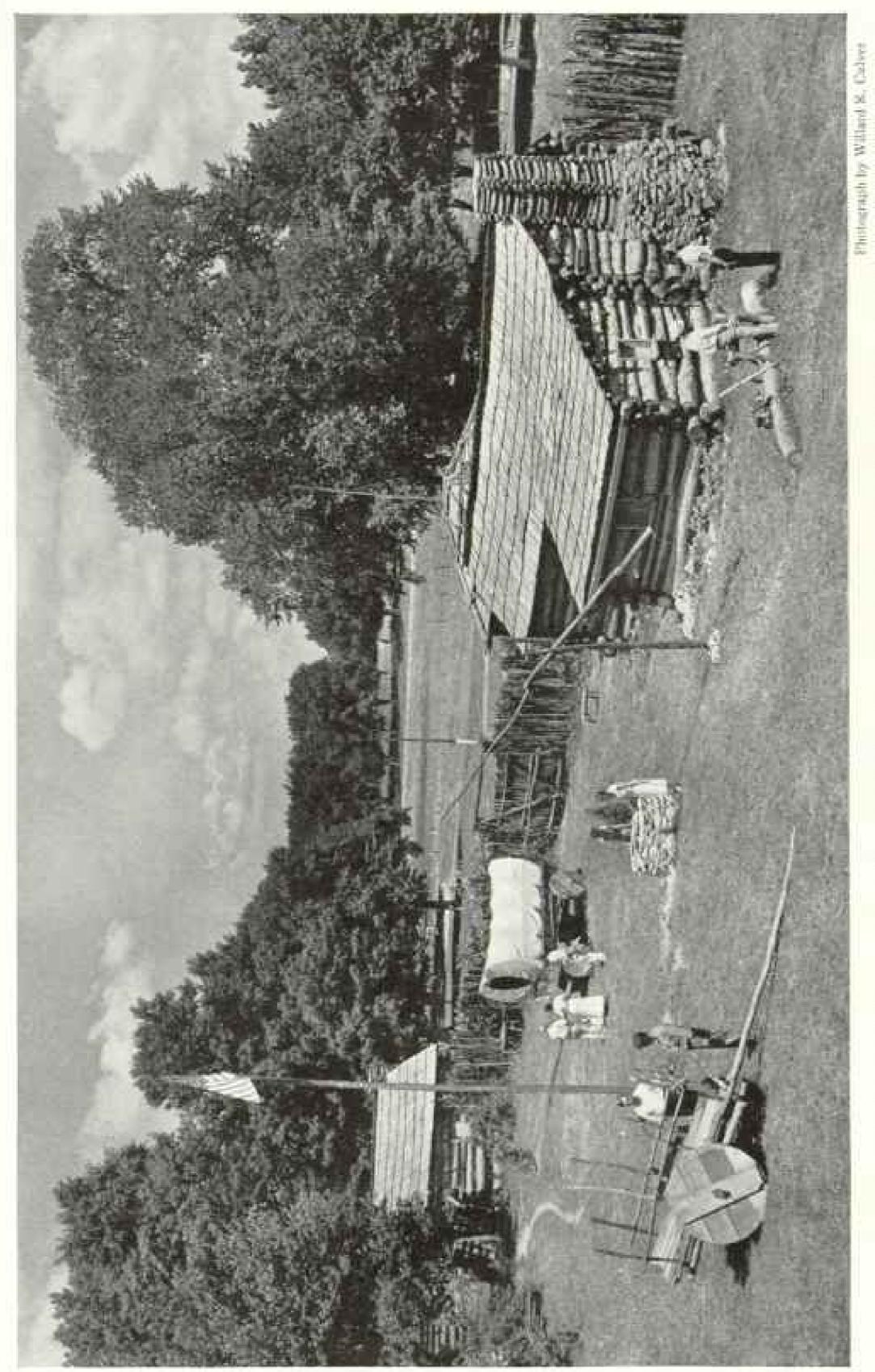




Pluto water flows up in this payillon in the landscaped gardens of French Lick Springs Hotel. Other aprings at the famous "cure" are the Bowles and Prosergine. Located in southern Indiana, this garden spot has long been popular as a health center. Besides the hotel, the resort maintains its own airport, country club, trapshooting range, and other facilities for sport.

HANDCUPPED TO HER JOB POR SAFETY'S SAKE

Operating a brake shoe machine in the South Bend plant of the Bendix Products Corporation, this girl wears "shuckles." By electric connection the cords instantly jerk the hands back to safety should she be a split second late in withdrawing them from under heavy descending hammers, knives, or other dangerous moving parts (page 30%).



AS RECONSTRUCTED IN THE CITY PARK AT ROCKPORT, ON THE DILLO THE "LINCOLN PRONERS VILLAGE

Lincoln fived Also there is the stockade, for Indian defense, and the open well with From the age of Observe the solid wooden wheels of the overart and the "mover wagon," Also there is the stockade, for Indian defense, for drawing water. Log huts and a chopping block in the right foreground complete this picture of early-day Hoosier life, in such a village in Spencer County.



TRON ORD TO THE CARNEGIS-BLINOBS STREET CORPORATION'S PLANT AT GARY CREAT LAKES VESSELS BRING MINNESOTA

Hage buckets attached to the ends of booms dive into the hold of the ship, scoop up the oce, and dump it into a trough from which "ore bridges" carry it to the storage yard paralleling the dock. Operators are stationed on the booms and down, manipulating the scoops. Mounted on wheels that travel along huge tracks, five or six machines may work simultaneously on a single ship, unfoading 10,000 tens in three or four hours (page 315).



Photograph by Willard R. Culver

GEN. LEW WALLACE'S SKYLIGHTED STUDY HOUSES MANY MEMENTOS OF HIS LIFE

Built at Crawfordsville after his return from the post of Minister to Turkey, this building shelters the original "Ben Hur" and other manuscripts. Here also are letters to Wallace from Abraham Lincoln, historic documents, and personal relics of the General's colorful career in the Mexican and Civil Wars and in diplomacy and literature.

ugly mining town to a neat, well-developed industrial center, with parks, playgrounds, and fine schools.

Through Turkey Run State Park, with its virgin forests, cool, glacier-scoured canyons between steep sandstone cliffs, and its crowds of Chicago vacationists, we went on to Crawfordsville, old home of Wabash College and General Lew Wallace (Color Plate VIII).

During the quiet afternoon I browsed in the studio where Wallace worked so long. Here are fascinating trophies of war, diplomacy, and literature—mementos of his curiously variegated and intensely active life. Among other letters and papers many of singular value to students and historians—are original manuscripts of some of his books, which included such historical romances as "The Fair God," "The Prince of India," and the widely popular "Ben Hur."

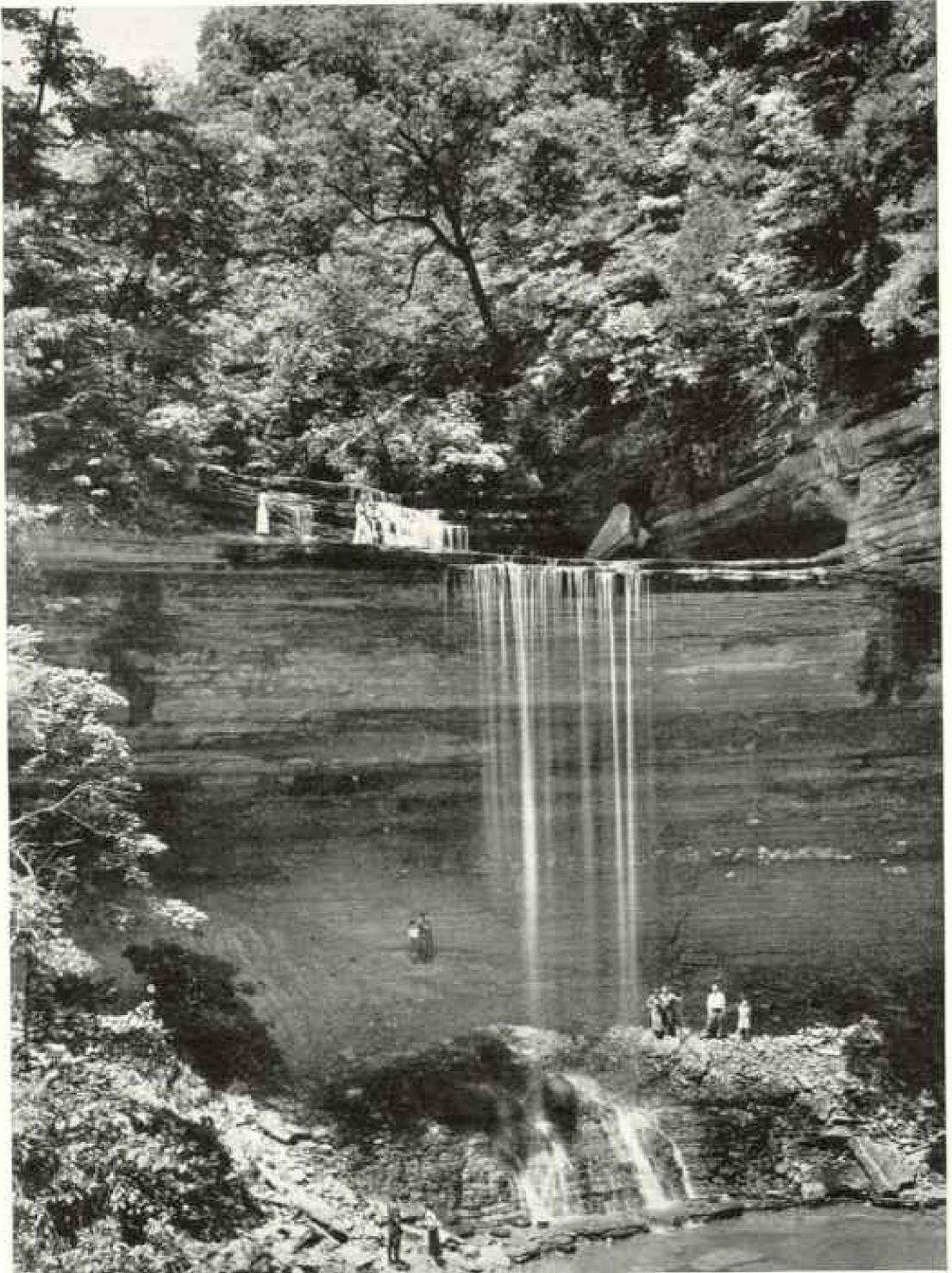
Past big red barns, owners' names proudly painted on their sides; past a sign that said, "Goose Eggs, 5 Cents"; past Holstein herds ruminating under friendly shade trees, we came to LaFayette. When yet a long way off we could see smoke from its packing plants, flour mills, and railroad shops. Here at West Lafayette is Purdue University (Color Plates I and VII).

Have you lunched lately with a horde of hungry college boys and girls? That was interesting, in Purdue's big cafeteria. All were laughing, chattering over plans and dates, skylarking and making current "wisecracks," with youth's audacity and apparent disregard for the Nation's hard problems that now keep their elders awake.

"OLD TIPPECANOE" FOUGHT HERE

Lapse of 125 years has healed bullet wounds made in trees on Tippecanoe Battlefield, near LaFayette, but the scars are still plain. Here William Henry Harrison—afterward dubbed "Old Tippecanoe" —beat back an Indian attack led by "The Prophet," brother of Tecunisch, the Shawnee chief, in 1811.

They show you the rock, at a safe distance from the battleground, where the Prophet sat and sang, and gave war whoops



Photograph by Willard R. Culver

BRIGHT AS LIQUID SILVER, THE DELICATE, SWAYING VEIL OF CLIFTY FALLS MURMURS AMONG THE LEAFY DELLS

Floods coar over this cliff only after heavy rains; normally the falls are but a lacy curtain. Clifty Falls State Park, on the Ohio River, is one of Indiana's many beauty spots. To Richard Lieber of Indianapolis, Hoosiers owe a debt for his early leadership in afforts to preserve such natural beauty spots as State parks for all the people.

to cheer his tribesmen, and assured them that his magic could make them safe from bullets of the "Big Knives," as Indians then called the whites.

With a long seine, men in hip boots dragged a shallow lake for carp as we came to the Jasper-Pulaski State Game Preserve. Putting the flopping, live fish into gunny sacks, they hauled them to what they call "the vermin cage," and fed them to weasels, minks, and foxes. Such varmints are usually shot, on the Preserve, but these were trapped and kept to show visitors.

"I trapped that mink," said a worker,
"the same one, I'm sure, that in one night

killed 160 pheasants."

INDIANA IS NOW DEEPLY AROUSED OVER RESTORING ITS WILD LIFE

Quail, pheasants, and rabbits are propagated here for distribution among the State's conservation clubs, and to individuals. We went first to see the rabbit farm; as we walked through it, droves of young rabbits scampered ahead of us, or crouched to hide, ears laid flat back, behind brush, weeds, or grass. Rabbits were everywhere. To an old hunter, it was like that familiar dream of finding money, with coins all over the ground. Two hired men sat around on stumps, holding loaded shotguns, shooting once or twice a week at hawks, which are gun-shy and keep out of range.

"What do quail eggs taste like?" I asked a foreman. He looked uneasy, and then said, "You'll have to ask somebody else;

I hear they're pretty fair."

A quail egg here is valued at about 40 cents; a pheasant egg is worth 18 cents. The Preserve distributes game-bird eggs, as well as young birds. Last year they used about 2,500 chicken hens to do the hatching; now they employ huge electric incubators, with thermostats and all. Each one will hold 9,600 pheasant eggs or 14,000 quail eggs, and it takes 23 days to hatch them.

I made some trips afield with Mr. C. R. Gutermuth, Director of Education in the State Conservation Department, and heard his lectures to various clubs. Boys, farmers, village clerks, professional men, all listened closely, asking many questions. They not only wanted to know how to get young fish—of which many millions are batched and sent out—but also how to get young game birds, or young trees, or where to raise wild rice.

After one debate a boy in gum boots and sweater got up and said, apropos of nothing, "I put out a 50-hook trotline this spring and caught 34 water puppies" (page 317).

That warmed the crowd up again to their favorite subject, hunting and fishing; and a warden got up to talk geese. "There's that open region of wheat and corn fields in Elkhart and Kosciusko Counties." he said, "where the Canada geese always light to feed. I saw five flocks in one day: I counted 126 in one flock, and there must have been 350 in another. They stay from late October till Christmas; but, boy, are they hard to sneak up on!"

That night we drove on to a little town called Plymouth. On the linoleum floor of a lunchroom, between cones and soft drinks, town boys and girls were dancing to the radio. You're told that 15 per cent of the people are on relief; yet I heard very few complaints about hard times, and food

everywhere seemed abundant.

In one village I had excellent chicken stew, a big piece of rhubarb pie (there they called it "pieplant") and a choice of milk, tea, or coffee for 15 cents. "We've got plenty to eat," said the landlady. "It's money that's scarce!" In city hotels, of course, prices are about the same as elsewhere in the Middle West.

A PLANT SO BIG THE OFFICE BOYS WEAR ROLLER SKATES

In the vast South Bend plant of Bendix Products Corporation office boys on rollers skate for miles. Practically every plane flying passengers over America carries a carburetor made here, and most of them use such things as "bank-and-turn" and "rate-of-climb" indicators, barometers, artificial horizons, thermometers, etc., made by one of Bendix's many subsidiaries. Wheels, brakes, landing gear, testing and repair machines, all are fabricated here and sent to many corners of the world (p. 301).

Carburetors are built with the precision of watches; you see every one tested with

gasoline.

"We don't dare work like head waiters, who come around asking. 'Is everything all right?' "said General Manager Maloney. "We have to know it's all right, before we let a flyer put one of our carburetors in a plane and take up a load of passengers."

Here the Studebakers founded what became the world's largest wagon works. Their stout vehicles were eventually used

HOOSIER HAUNTS AND HOLIDAYS.



All these big horns, little horns, long horns, short horns, straight and crooked horns, drums, and other instruments were made in Elkhart. Such brass-hand equipment is used by private musical organizations, and by armies, navies, and police in many parts of the world.

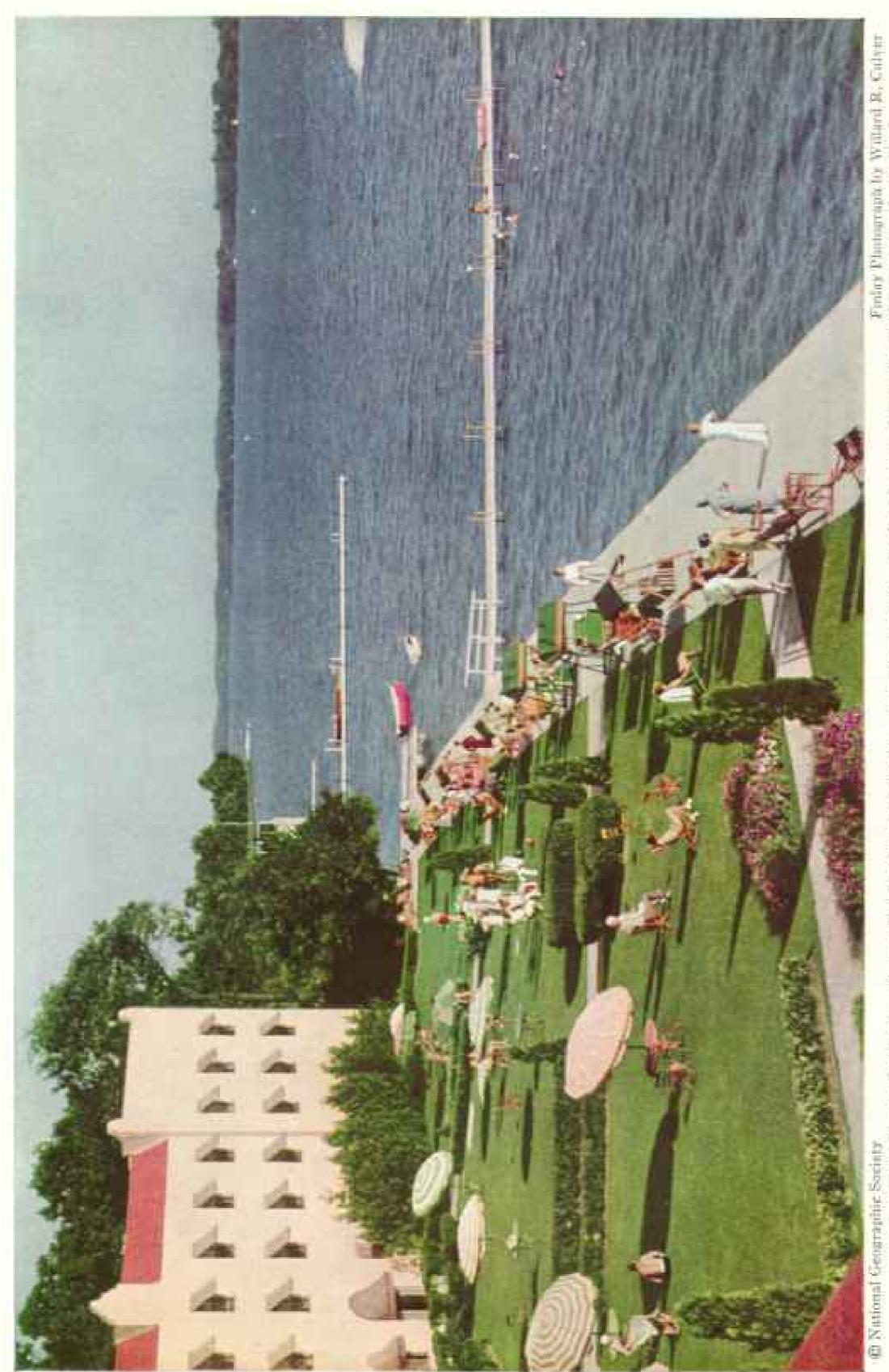


O National Geographic Security

TATHERS FROM LAKE MICHIGAN BEACHES EXPLORE THE WIND-BLOWN

DUNES THAT PARALLEL THE SHORE

Mystery pervades this shifting arboretum, where storms and flying sands play tag with obstinate pines, oaks, and bearberry brush. Strangest of all is a small cactus, wandered here from some far-away home.



Figures can best grasp the locations and frequency of these lakes, with their hotels, speedboats, and summer colonies. Rushing across the State by motor, few travelers catch even a glimpse of this blue water; many do not suspect the existence of such locally popular lakes as James, Freeman, Shafer, Manitan, Tippecanoe, and Maxinsuckee. COOL. REPRESHING SPINKWANEE RESORT BORDERS LAKE WAWASER, LARGEST OF INDIANA'S FRESH-WATER BODIES



Haff-naked children wade along the shallow shore of Lake Michigan. Elders wallow voluptuously in cool, wet sands, smooth as a Boor, or gorge on "hot dogs," pop, and beer. While running to catch the last excursion train back home, new-made friends shout agreement to meet here again next Sanday. Paralleling the take front are fofty ridges that suggest a great rampart guarding "Duncland." FLEEING CITY HEAT, TRAINLOADS OF CHICAGO PEOPLE SWARM OVER THE BEACHES OF INDIANA DUNES STATE PARK

XI

THE NATIONAL GEOGRAPHIC MAGAZINE



AN INSPECTOR LOCKS FOR FLAWS IN A WOMAN'S SILK STOCKING

Stretched over a moving form, the stocking is expanded by heavy pressure, and turned so the girl's trained eyes may catch any defect. Working in the Real Silk Hosiery Mills, at Indianapolis, this operator passes about 12 dozen an hour.



DAYDREAMING OF WEDDING RINGS WHILE THEY CUT RUBBER SEALING RINGS FOR FRUIT JARS

Moving along in an iron trough comes a rubber tube, from which a knife mechanically slices the rings. With clocklike precision women stack the rings, cut to fit millions of glass jars made at Muncie.

HOOSIER HAUNTS AND HOLIDAYS



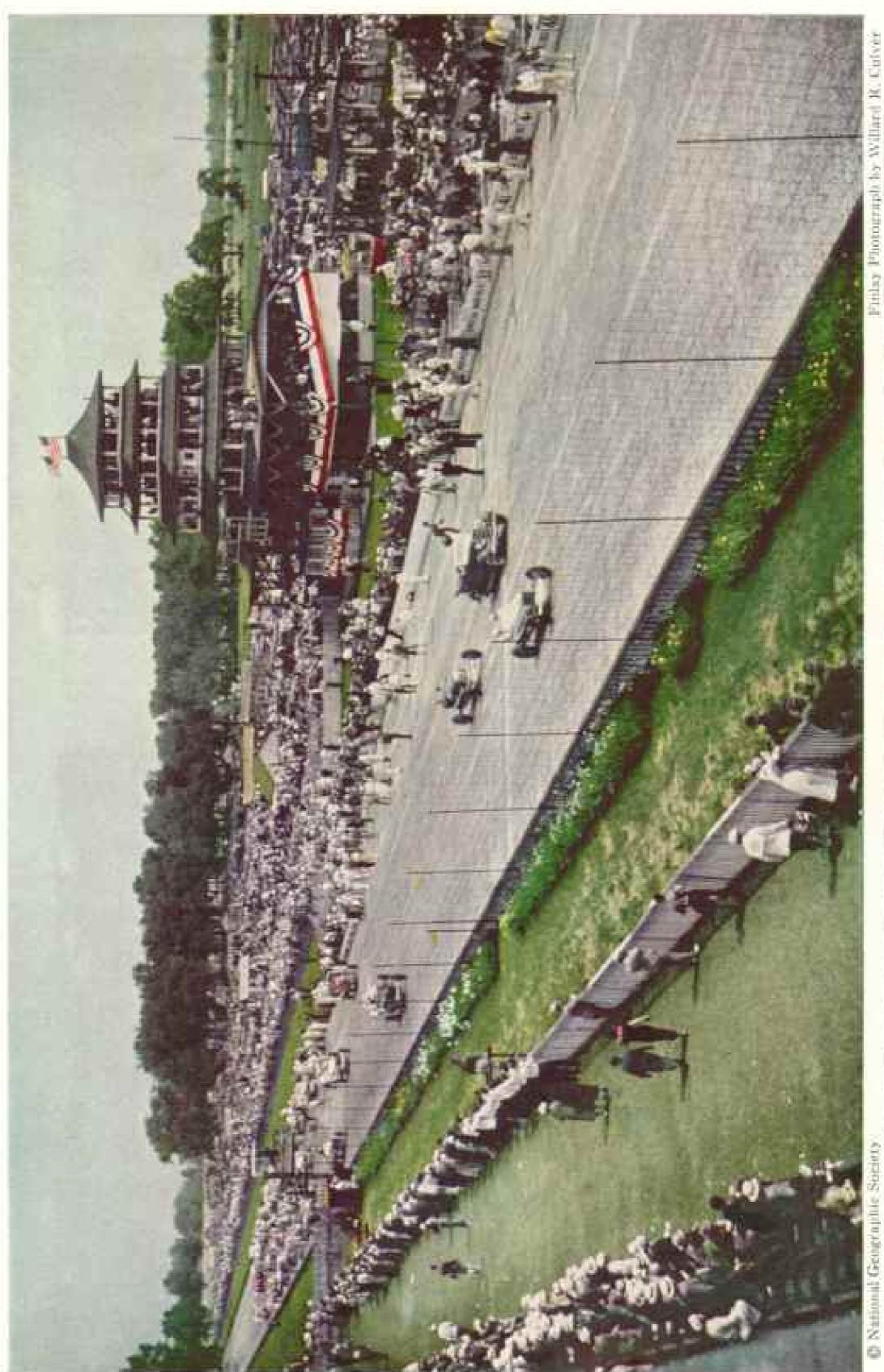
SHE FOOLS THE FISH BY PAINTING FROGS, MINNOWS, AND FLIES TO LOOK LIKE LIVE BAIT First, in this laboratory of the South Bend Bait Company, a careful study is made of the habits of different fish. Then the anatomy and color patterns of insects and small animals on which the fish feed are painstakingly imitated in this skillful manufacture of artificial bait.



O National Geographic Society

TO BE LIGHT, STRONG, AND YET ELEXEBLE, PISHING RODS ARE MADE OF BAMBOO WEAPPED WITH SILK AND VARNISHED

Country boys, cutting their own poles, may catch fish just as hig as any ever booked by city tolk on these tancy rods. But would country boys trade theirs for these shiny ones? Yes!

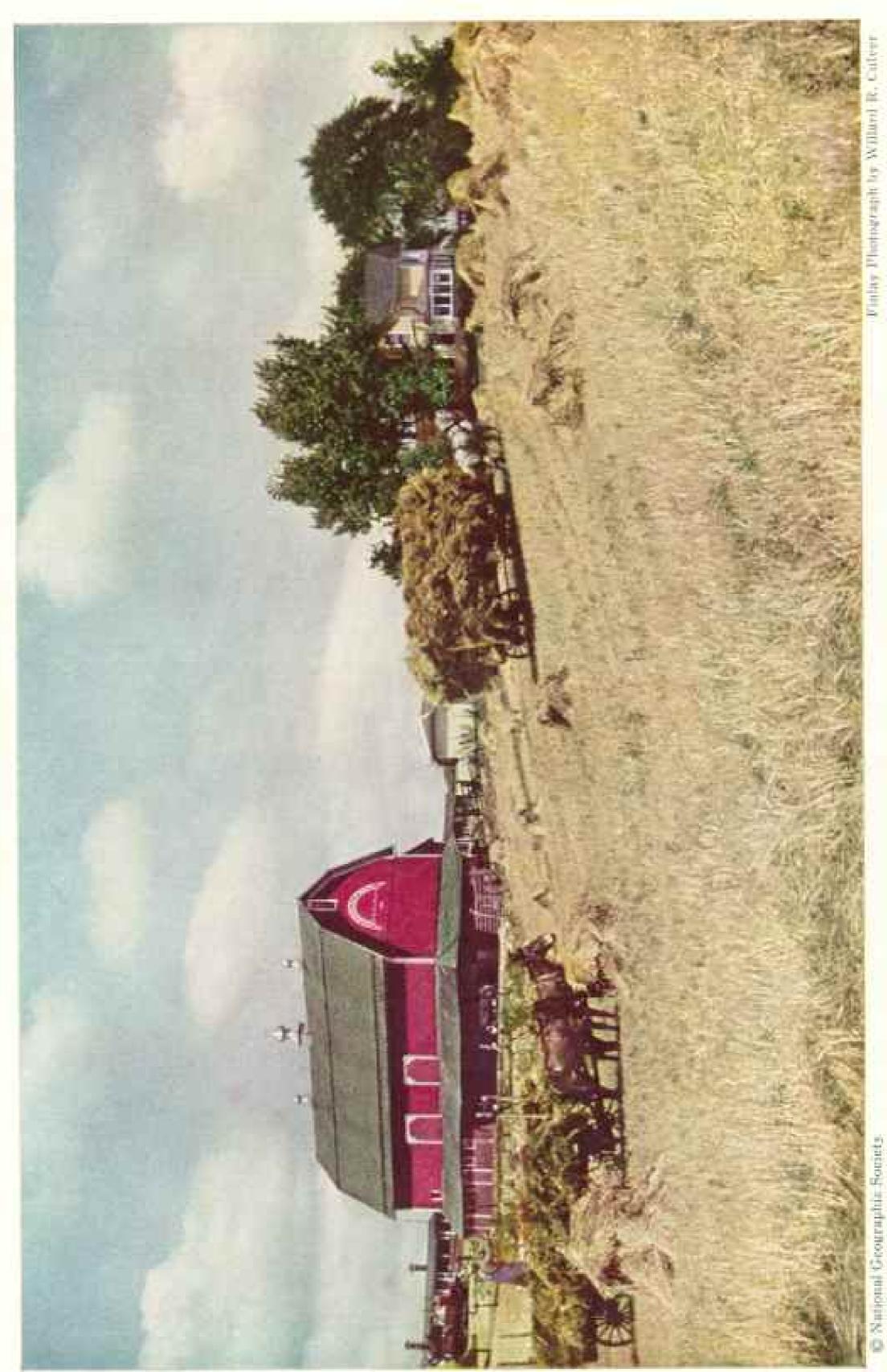


Entrants are massed behind the starting line. A touring car running with the nix, Year after year the two-and-a-half mile high-speed britch after the first lap. Oil smoke, the drone of high-speed motores, and excitement fill the air, Year after year the two-and-a-half mile high-speed britch and strength in automobile construction to motorear builders. Louis Meyer, of California, made a new lessons in safety and strength in automobile construction to motorear builders. Louis Meyer, of California, made a new lessons in safety and strength in automobile construction to motorear builders. Louis Meyer, of California, made a new lessons in safety and strength in automobile construction to motorear builders. Louis Meyer, of California, made a new lessons in safety and strength in automobile construction to motorear builders. AREDEVIL DRIVERS START A SCOMILE RACE ON FAMOUS INDIANAPOLIS SPEEDWAY THOUSANDS CHEIR AS MOTORS ROAR AND D

The original Speedway was constructed by Carl G. Fisher in 1909.

peed of 109,069 miles per hour,

track record last Memorial Day, achieving an average s



THIS PLEASANT FARM

The spacious tree-shaded bome with modern conveniences; the great ventilated burn, its owner's name painted on it; and the good outbuildings, stout work animals, vehicles, and a heavy grain crop indicate confortable living. SCENE, NEAR GOSHEN, IS TYPICAL OF NORTHERN INDIANA

THE NATIONAL GEOGRAPHIC MAGAZINE



PERCHED ON THIS MONSTER MOTORCAR, NORMAL HUMANS SUGGEST THE LITTLE PEOPLE ON SWIFT'S ISLE OF LILLIPUT

Were cars really so large, pedestrians might escape by merely stooping to let the Juggernant run over them! The mammoth stands on the South Bend proving grounds of the Studebaker Company.



O National Geographic Society

Astacolor Plate by Willard R. Calver
THOSE WHO CAN TAKE THEIR EYES FROM THE GIRLS A MOMENT WILL SEE GLADIOLUSES

Near Goshen, Indiana, A. E. Kunderd, who developed the rubbed and laciniated types of gladiolus, grows more than 100 acres of these flowers. He exports bulbs to New Zealand, Australia, the Philippines, and Hawaii.

all over the Western Hemisphere, in all our wars since 1850, and in the Boer War. Now the automobile of that name is built here in great numbers (Color Plate XVI).

In and about South Bend roost some 45,000 homing pigeons. Clubs sponsor races each summer; the longest is about a thousand miles, from Abilene, Texas, back to South Bend.

Many poor fish would be alive today, could fish but see and know the South Bend Bait Company. Wooden frogs, mice, and minnows; artificial flies, every tidbit to tempt piscatorial gluttony and fool a fish that man's genius can conjure up is made here. In one popular lure, the "buck tail," they use each year the tails of more than 10,000 deer. Somewhere, always, there is the hook! (Color Plate XIII.)

Amid smell of banana oil and paint, long rows of girls work at wrapping split bamboo poles and painting spots on frogs, or putting glassy eyes on phony little minnows. In the manager's office, two sculptured human hands falter far apart on a panel, measuring "The One That Got

Away."

THE MIRACLE OF GARY

The magic rise of Gary was like that of the made-to-order Manchurian town of Dalny (now Dairen) built by Imperial ukase. To Dalny, years ago, the Tsar sent not only men and materials to make a city, but goods for its new stores, and troops of players for its new theater—all by train across Siberia!

Gary rose just as instantaneously. It grew so fast that families moved into homes 24 hours after work started on them. To make lawns and gardens on the sand wastes, trainloads of black dirt were hauled in; grown trees were brought and planted. Steel mills rose; shiploads of ore came from up the Great Lakes. Indiana awoke to find steel her chief industry (page 303).

From the high, glassed-in shelter of a calm, alert operator who works giant machinery merely by pressing electric buttons, you can see three-and-four-hundred-ton, red-hot billets being hammered, shaped, and tossed about as a blacksmith might handle a horseshoe on his anvil.

Along with Hammond, East Chicago, and Whiting, Gary forms the "Calumet District," one of the Nation's chief industrial centers. Pipe lines from Texas, Wyoming, and other far-away fields bring crude oil here to our largest inland refineries.

East along Lake Michigan lie those oddlooking sand hills, the dunes (Plates IX and XI).*

"All this beach used to be so empty," said a retired artillery officer, "that we dragged our guns out on the hard sand and banged away. . . . Look at the crowds now! Sunday afternoon a red light may stop a line of cars five miles long."

Off Michigan City we saw a strange sight. Real estate men there had bought the "Colonial Village" from the Chicago Century of Progress, and were moving it—en masse—on barges, bringing it here and setting it up on the dunes. One house, on a bobbing barge, resembled Noah's Ark. But the bird that flew out of it was a gull, instead of a dove!

To Indiana Dunes State Park, Chicago pleasure seekers flock. So do Hoosiers; but various others play in and about the lakes fringed with summer hotels and cottages that dot northern Indiana (Color

Plate X). Everybody fishes.

"I dig worms in the fall, put them in buckets of dirt, and store them in the cellar," said one man. "Then in the spring I have good, strong worms handy when the fish begin to bite." A boy said, "I earned high-school expenses catching and selling crickets." One signboard on the way to Pokagon State Park reads, "Fish Worms and Ice Cream!" The park, with its rambling Pollawatomi Inn on James Lake and its herds of elk and buffalo, is a favorite resting place on this crowded travel lane across northern Indiana.

ALL AMERICA BLOWS ELKHART'S HORN AND POUNDS ITS DRUM!

Whether you play the piccolo, pound a drum, or moan on a saxophone, you can buy one in Elkhart. One-third of all its citizens make these things. At the Conn plant we saw them dressing calfskins at the rate of 1,000 a week for use as drumheads; shaping every kind of horn from trumpet to bass; carving hardwoods for the reeds.

Elkhart equips army, police, and other brass bands for many countries overseas. It sends cornets and trombones to missionaries in China, Africa, and the South Seas, who blow the tunes that lead native

* See "Indiana's Unrivaled Sand-Dunes." by Orpheus Moyer Schantz, NATIONAL GEOGRAPHIC MAGAZINE, May, 1919.



Photograph by Willand R. Culver

TAKING MINT PLANTS PROM A STILL AFTER THE OIL HAS BEEN EXTRACTED

Such oil gives chewing gum its smell and taste! In northern Indiana about 19,000 acres of "muck land" are devoted to mint culture, and upwards of 250,000 pounds of oil are recovered annually. Plant residue makes good stock feed. This still is near South Bend (page 291).



Photograph from Indiana State Conservation Dept.

HERE THE CROW IS PUBLIC ENEMY NUMBER ONE

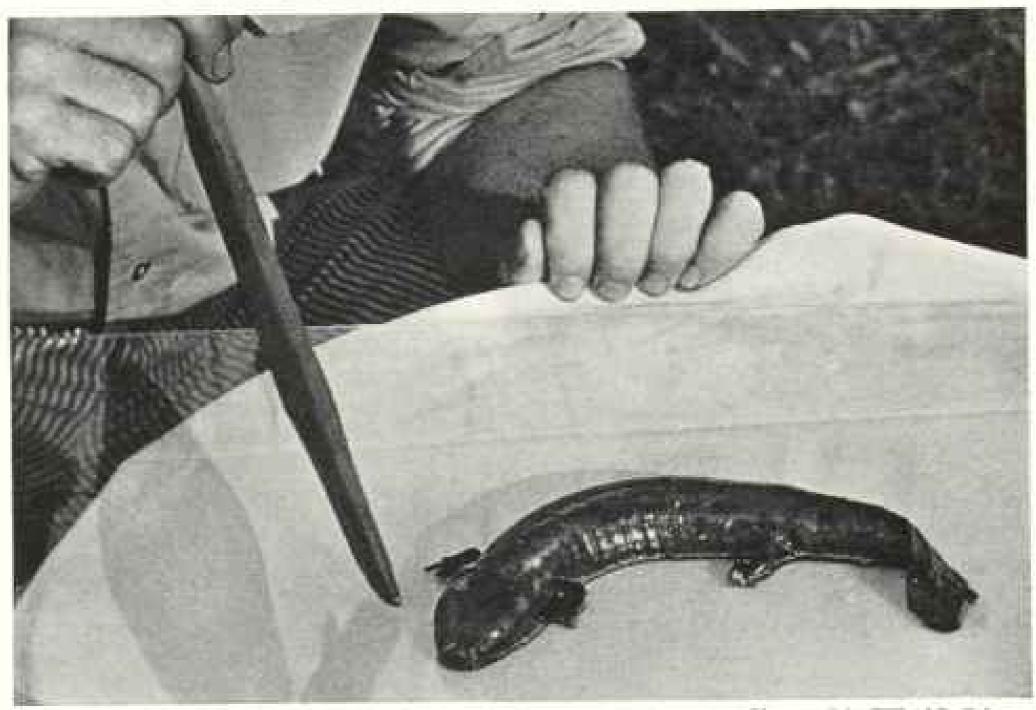
In a crow-control contest, this Evansville sportsman's club won first place. For crows' feet the State pays in cash or in live quail. From victims trapped, shot, and bombed, 126,000 crows' feet were turned in during one season.



Photograph by Willard R. Cuiver

OLD SAINT NICK'S EFFIGY ADORNS MAIN STREET IN SANTA CLAUS

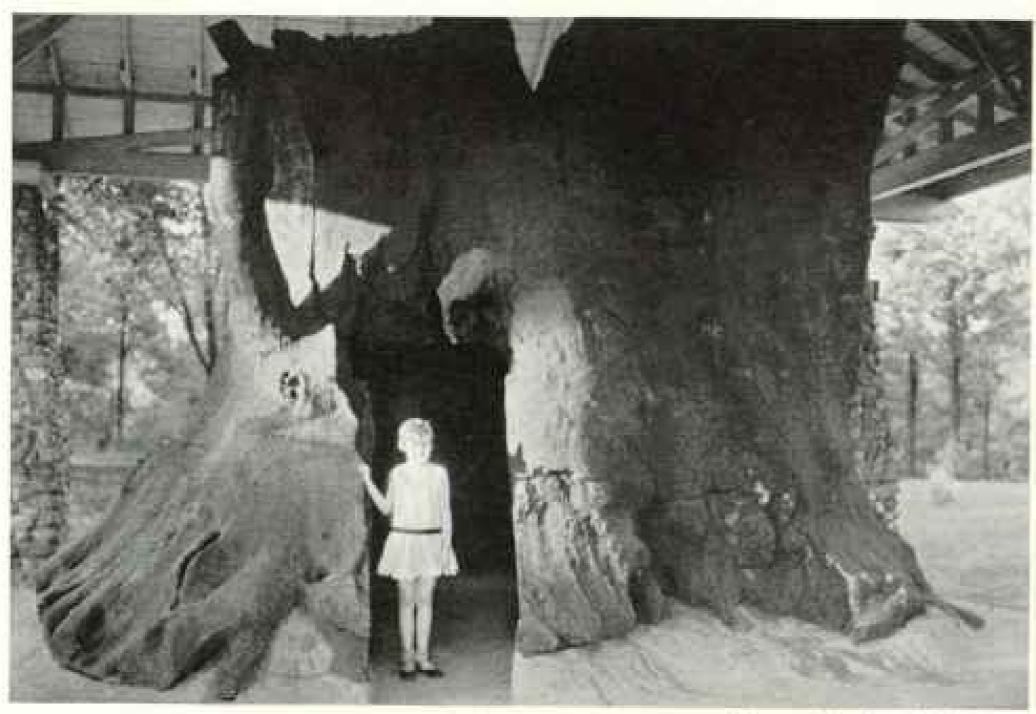
Inside the country store is the tiny post office, whose Christmas mail is so heavy that extra clerks are hired to open the flood of letters sent to "Santa Claus." The Post Office Department authorizes this, and kind people everywhere help meet children's appeals.



Photograph by Willard R. Culver.

EASILY CAUGHT ON HOOKS, "WATER DOGS" ARE A NUISANCE TO FISHERMEN

Known also as "water puppy," the salamander attains a length of 12 to 14 inches, and has a skin instead of scales. It inhabits muddy lake and river bottoms, and at mating time may crawl out on the banks. It eats fish eggs, small fish, worms, and insects,



Photograph by James A. G. Davey

THIS GIANT SYCAMORE, 56 FEET IN CIRCUMFERENCE AT THE BASE, STOOD IN LIFE NEAR KOKOMO, INDIANA

It was one of the largest broad-leafed decidnous trees on record; perhaps its huge size saved it from the woodman's ax. After death, this trunk was moved to Kokomo City Park, and a shelter built over it. Rich Indiana corn lands once grew magnificent hardwood forests. Pioneers wantonly burned these walnuts, oaks, bickories, and others to clear farms.

converts in singing hymns (Plate IX and page 298). In a roadside creek C. C. C. boys were spearing carp. . . . In the next village was

Set on clear, winding St. Joseph River. Elkhart is a cheerful, wholesome place of abundant hospitality.

Each autumn on Main Street, Elkhart children hold a pet parade. Every boy and girl in line must ride, drive, lead, carry, or drag some kind of pet—any living thing from pony, calf, dog, lamb, monkey, cat, or coon to birds, fish, turtles, and snakes.

On a tombstone is a simple and touching epitaph to one who through long, patient years of schoolroom toil helped Elkhart youngsters on the road to education: "School Is Out; Teacher Has Gone Home."

Riding south among scenic lakes and summer resorts, we saw this signboard: "Peru, I Mile. Hot-cha!" Here a circus winters. During a flood many animals escaped.

"Was I worried about my kids!" said a wag. "Billboard posters showed bears riding bicycles, 'What chance would my children have,' I thought, 'with runaway bears chasing them on wheels!" In a roadside creek C. C. C. boys were spearing carp. . . . In the next village was a harness shop, with a buggy-whip rack, from which shiny new whips hung by their crackers. Astride his harness maker's "horse," a man was stitching a new "tug."

"Do you sell buggy whips?" I queried.
"Sold 24 this spring, and over 50 sets
of new harness. Sold more harness this
spring than for years. Old Dobbin is coming back. Dozens of saddle clubs have
sprung up all over the State."

From the top floor of the cloud-scratching Keenan Hotel in Ft. Wayne you look out to where Frenchmen built huts in 1686. Named for Mad Anthony Wayne, standing where the St. Joseph and St. Marys Rivers join to form the Manmee, this is a smoky railway center, with car and repair shops. Once our largest Indian trading post, it sees thousands work now in a great General Electric plant, known locally as "The Lights." Others gain their livelihood in foundries, knitting, planing, sash-and-door, flour, and woodenware mills.

Buying some lunch to eat on the road, I saw a crate of whitish melons. "What are these?" I asked a clerk. "Just melons," he said, "from some foreign country; I don't know where. It says on the box." I stooped and read the name of a fruit-growing-concern in Chile.

The text was in Spanish. Suddenly three Mexicans in overalls stood beside me, also reading; and one said to another that these melons, too, had made a long voyage.

"Caramba!" I said. "How did you get so far from home?"

"We drove from Texas, in an old truck."

"But you speak another tongue—and many who live here are already idle. Can you find a job?"

"We got one, right away, in the sugar beets."

Land hereabouts is called Indiana's best. No abandoned farms; no dilapidated barns faintly painted with names of plug tobacco or liver pills that went off the market years ago; instead, fine houses, silos, big barns, fat stock. Down toward Bluffton, we talked with farmers who made fortunes in the oil boom, and with others who came here long ago, in the sensational early days of natural gas. Older people remember the excitement and the alarm of some who believed the burning wells meant the end of the world!

Muncie boomed when gas was struck. Gas was so cheap that people didn't bother to turn it off. You could heat and light a large house for one or two dollars a month. Industries flocked here, and Muncie became a world center of glassmaking. It still is (Color Plate XII and page 281).

Also, despite dire warnings that man's reckless waste of gas would ruin this whole region, nothing of the kind happened. It still hums with factories; in the gas belt certain boom-time industries folded up, but others have risen.

MOTOR "DERBY" DRAWS HUGE CROWDS

Indianapolis was choked with men, women, and automobiles when we got back. Throngs who couldn't find rooms walked the streets through the night, pushed their way into crowded cafes, or sat in parked cars. Few slept. Till dawn all hours echoed with shouts, songs, honking horns, radios, and the shrill "Extra" cries of newsboys. All this because next day, on a dangerous speedway, famous racing drivers

would contest the "Kentucky Derby" of the motor world (Color Plate XIV).

Squeezed among cars from Hollywood, from Maine and Mexico, we worked our slow way into the Speedway grounds hours ahead of race time, and I helped my photographer boost his heavy gear up to a grandstand roof. Other brethren of the lens were already perched in strategic spots. I saw one fall down a ladder, camera and all.

Passes to the "Press Pagoda" had been sent us. But long before the race was to start, this pagoda was so full of newspaper men and the "I-used-to-be-one-myself" group that we couldn't get seats. That didn't matter. Here were 157,000 excited people, sprinkled with world-famous sportsmen, flyers, and actors—plenty to see, photograph, and talk to.

500 MILES OF DESPERATE SPEED

First came a big parade, with a brass band of 1,200 pieces, and a long line of rumbling artillery. Then all the racing drivers posed for the camera.

Then bang! Not quite so soon, but

"Bang" anyway, and they're off!

What desperate hunger for fame and riches! Death beckons at every oil-soaked curve, yet with heavy foot they press for utmost speed over the blistering bricks.

Spinning about the course like marbles whirled in a dishpan, roaring past the cheering thousands with motors growling loud and hoarse as mammoths from another age, they run so fast it makes your eyes ache to watch them. Fleeting glimpses only you get of grim, dirty-faced men in steel "crash helmets" driving diabolically, the back wheels of the whizzing cars jumping up and down like pneumatic hammers. One man drives so fast that a part of his mechanic's shirt is torn away by the wind.

Crowds rise in their seats and cry out as two cars on the south turn go into skids; streaking along at 100 miles an bour, they slide clear across the track and up to the very top of the retaining wall, only to be skillfully righted and hurled back into the fray.

Then women scream again, at a different curve. Some faint, and groups of spectators quit their seats. Over the wall a car has vanished. Its driver is dead, and his mechanic's back is broken. Shrill sirens



Photograph by Willard R. Culver

"SCHOOL IS OUT . . TEACHER HAS CONE HOME"

So reads the simple epitaph on the modest tombetone of S. B. McCracken, long a teacher in Elkhart public schools, and much beloved by that city (page 318).

make way for police, doctors, an ambulance; signals to racing cars warn them to "slow down till the track is cleared." And then on; they know that in this game death takes few holidays.

An Italian from California wins. Starting with 33 others, he has taken those deadly curves 200 times, at an average speed of more than 106 miles an hour despite "slow" orders from rain and accidents.

Since Carl G. Fisher, James A. Allison, and others built this two-and-a-half-mile Speedway 25 years ago, it has seen many a man gamble with death and lose. On the other hand, many a mechanical refinement which now makes cars safer and easier to drive came into use from lessons learned here.

Observing this crowd of 157,000 for five hours was my best human-nature lesson in all Indiana. Rome, when it raced chariots or threw Christians to the lions, no doubt behaved much the same. Some shouted in frenzy, calling to favorite drivers by name as they flashed past. Others gorged themselves from baskets of cold chicken, ham, cake, and fruit—and then hunted a shady place for a nap. Some sat in automobiles, listening to radio news of distant ball games.

"I've not missed a race in 17 years," I heard a woman say. "All the people I know in Indiana come, and this is the only place I can see them all at once."

"If there must be accidents," said another, "I might as well see them."

Again, in the city that night, the crowds bought extras, and, after the manner of Americans, read about the race they had just seen. At the Athletic Club was a dinner dance for the Governor and distinguished visitors who had come to share this greatest of all Hoosier holidays. All over town, thousands were packing their bags into cars; outgoing travel jammed the roads. For me, too, it was the end of an Indiana Journey.

A MODERN DRAGON HUNT ON KOMODO

An English Yachting Party Traps and Photographs the Huge and Carnivorous Dragon Lizard of the Lesser Sundas

By Lady Broughton

With Illustrations from Photographs by the Author

ONE of the most prized inhabitants of the London Zoo had died—a dragon lizard from the island of Komodo.

As the zoo was eager to replace this interesting creature, rare in captivity, Lord Moyne, who had visited Komodo some years previously, agreed to revisit the island last year with the object of securing specimens. I had the good fortune to be one of Lord Moyne's guests on his yacht Rosaura and to have opportunity to take the accompanying photographs.

SURVIVORS FROM PREHISTORIC AGE

It was only in 1912 that the Komodo dragons (Varanus komodocusis) first became known to zoologists. These large carnivorous reptiles, of a kind that crawled the earth millions of years ago, have been hidden away for ages in remote islands of the Netherlands Indies.*

Although komodoensis is only one of the existing species of Varanus, it is by far the most spectacular, because of its great size and its general appearance which vividly suggests the fire-breathing dragon of legend. Perhaps such a reptile, with curling tail and long, forked, flamelike tongue, for thousands of years inspired Chinese artists in picturing the traditional dragon (pages 325-327 and 330).

The creatures are found at the western end of the large island of Flores in the Lesser Sundas, and on smaller islands of the same group, notably Komodo and Rintja, which lie between Flores and Soembawa. Strong currents rush northward through the straits, past the dragon islands, at a speed which in former times must have discouraged ships from attempting a landing.

We anchored in the great sweep of Telok

* See "Stalking the Dragon Lizard on the Island of Komodo," by W. Douglas Burden, National Geographic Magazine, August, 1927. Slawi, a bay off one of the two small villages of Komodo. The scenery is of extreme beauty. Steep, green slopes of fantastic shapes run up with many curves and contortions to the rocky saddles which divide up the island (page 328).

The Netherlands Resident of Timor, responsible for the government of these islands, kindly came to Komodo in his yacht with several of his officials while we were there, and our success in capturing the "dragons" was mainly due to the help of our obliging friends.

We spent about ten days on Komodo in our effort to catch the largest possible specimens. We secured seven, but, as we had permission to bring back only three, we released the smaller captives whenever we could replace them by larger ones.

We used a trap which was constructed for the purpose by the zoo. Ten feet from front to back, it was built up of panels of strong wire netting and was so devised that, when the quarry pulled at the meat at the inner end of the cage, a door would fall behind it.

TRAP IS SET NEAR A DRAGON LAIR

This device we erected about a mile inland, just where a valley began to narrow into the foothills, and carefully camouflaged it with branches of trees. A great rock stood on a slope near by, and beneath it were several holes with tracks at the entrances which proved them to be lairs of these reptiles.

Owing, no doubt, to the many tracks we had left on the ground, no dragons came to the trap during the first twenty-four hours. We afterwards found that, although so deaf as to be completely indifferent to the human voice or even the discharge of a gun, they are possessed of keen sight and scent.

Another reason for their absence during the first day was doubtless the fact that the meat had not begun to be odorous! Dragon lizards like it in a state of advanced putrefaction.

During the second day, however, we found the bait gone. The door had fallen without catching the dragon, although the creature had left plenty of evidence of

its visit inside the trap.

We were never able to explain this escape. The trap was so designed that, once the door had closed, a steel catch made it impossible to raise it from below. If the door had fallen on the tail of the visitor and been pushed up again, the reptile must indeed have been of monstrous size, as the door was far too heavy to be raised by anything so slender as the last three or four feet of a dragon's tail.

It is, of course, possible that two walked into the trap together and that, while one ate the bait and sprung the trap, the other received the door on its shoulders. In that case, the first one may have turned around and escaped through the opening while its companion was disengaging itself.

Disappointed with this initial trial of the trap, we thought it best to arrange for a watcher while we went off in search of other likely places where we could try our

luck with meat balts and nooses.

Finding lizard tracks on the beach at another part of the island, Lord Moyne shot two wild pigs, and three nooses were set in front of the carcasses. These snares were so arranged as to catch a mediumsized dragon lizard just behind the shoulders.

Returning later in the day, we surprised two small dragons feeding on the carcass. I was able to get a picture of one before

they made off.

Then, to our astonishment, we found a seven-foot crocodile lying strangled by one of the nooses. We were much surprised at this, as we had no idea that there were any crocodiles in the bay or that these reptiles would live entirely in salt water. It was March—the rainy season, so we were told —yet there were no running streams on the island.

DRAGONS LEAVE A "GRAPEVINE" TRAIL

Fascinating was the study of the tracks on the island's many beaches. We soon learned to distinguish between the spoor of the crocodiles, with the tail-groove centered between a straight line of footmarks, and the wavy tracks of the dragons, which remind one of the conventional decorative treatment of grapes and vine tendrils. Lizard footmarks in the sand are the clusters of grapes, while the curves made by the tail, sweeping from side to side, resemble the tendrils (page 329).

We soon discovered that the larger lizards are by no means restricted to the mountain tops, as some previous observers had suggested. Not only small ones but also the twelve-foot giants come right down to the

beach.

A FIGHTING CAPTIVE

It was an exciting moment when our trap watcher came to report a catch! On reaching the trap we found that the dragon was of only moderate size, but very fierce. As soon as anyone came near, it dashed itself against the wire sides of the trap, causing us extreme anxiety lest it should injure itself.

After a consultation as to the best method of getting it to the ship uninjured, we thought it best to collect a dozen natives and get the trap carried down to the sea on their shoulders (page 324). It would not be pleasant to be bitten or wounded by the powerful claws of these carrion-eating reptiles.

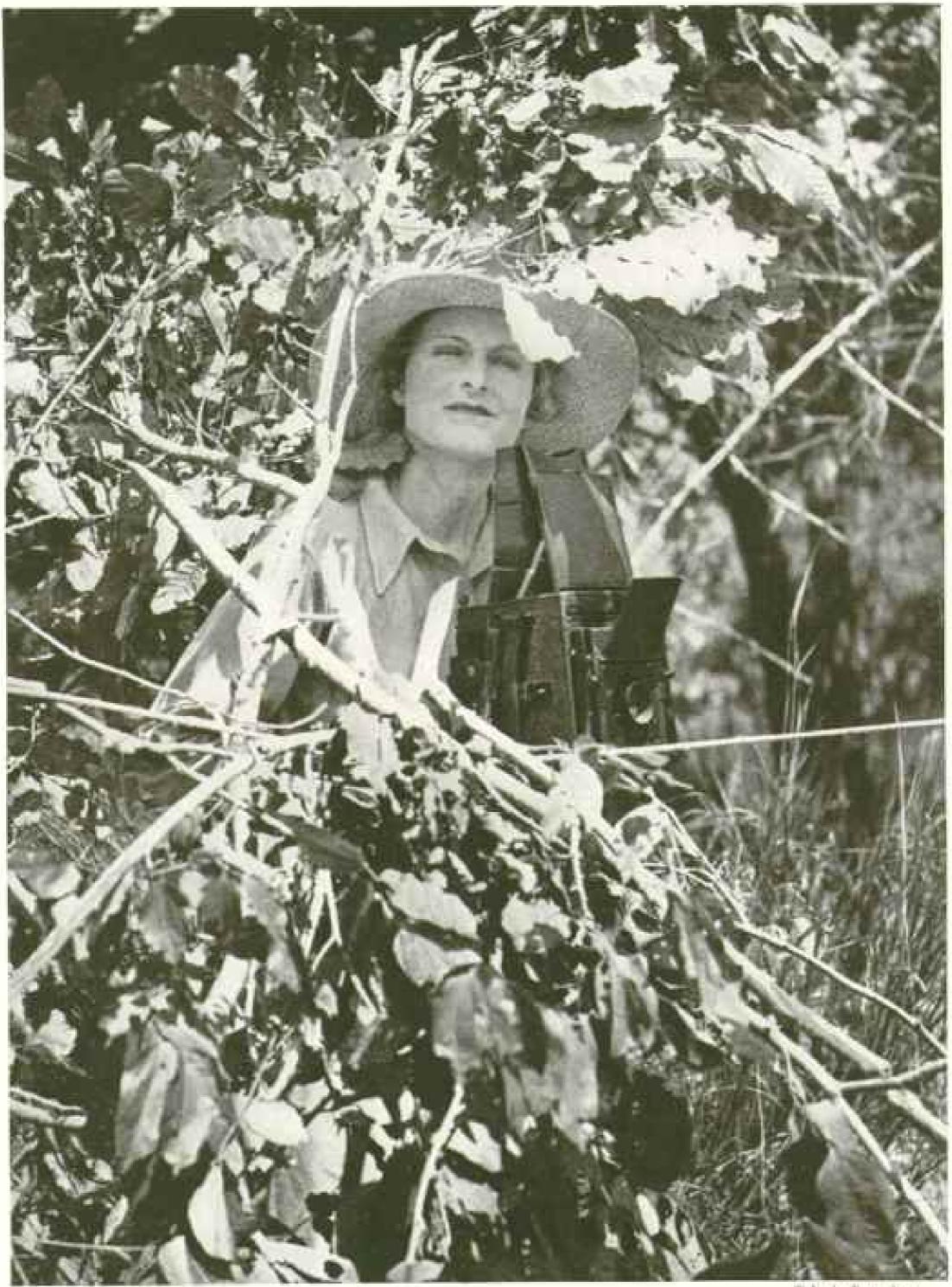
Fortunately, once on the ship, we found no difficulty in transferring them by attracting them from the darkened trap into the sunlit cage and quickly shutting the door between.

After this first capture, we established the trap near the beach where the lizards were being drawn by the lure of a putre-fying dead pig which we had placed just out of their reach in a tree. The attraction of the bait seemed to be increased by laying trails of linseed oil, and after this we were able to catch dragons as fast as we could make cages in which to keep them.

Since the trapping was well established, I was glad to be able to spend my time procuring a series of pictures. Near the rock where the trap had previously stood, we tied up a dead goat and prepared a cover of green canvas and branches, from behind which I could watch and photograph the reptiles without being seen by them (opposite page).

First of all, I found that dragon lizards love the sun. They would not emerge from their lairs before the sun was high in the heavens. Perspiration fairly poured off me.

The first day the lizards were suspicious



D Lady Broughton

THE EXPLORING PHOTOGRAPHER PEERS FROM HER BLIND, READY TO "SHOOT" GIANT LIZARDS

All day she waited here in sweltering heat before the ferocious but wary saurians approached a dead goat placed near by as bait (opposite page). Sportswoman and hig-game photographer, Lady Broughton landed with a vachting party on the remote island of Komodo, Netherlands Indies, to capture specimens of Varanas komodoensis for the London Zoo. Largest lizards in existence, the carmivorous "dragons" were unknown to scientists until 1912.



STRONG WIRE NETTING CONFINES A RAGING MONSTER

While carrying poles are being attached, the dragon claws the sides and lashes with its tail, trying to break out. Lured by putrid deer or boar meat in the trap, the lizard entered cautiously and was automatically imprisoned by a heavy door.



Phonurapha (f) Lady Benneliton

THE TRAP BECOMES A SEDAN CHAIR FOR CARRYING A LIZARD TO THE VACHT

Lady Broughton's party caught seven of the reptiles, but since the official limit was three, they released the smaller specimens. At sea, one of the captives burst its cage and jumped overboard (page 331).



DRAGONS APPETITES ARE RAVENOUS AND THEIR TABLE MANNERS ATROCIOUS

This brute rips chunks from the carrion bait, near the blind (page 323). Its buge red mouth, lined with sharp saw-edged teeth, can gulp the whole hindquarters of a boar, bones and all. When excited, the lizards disgorge their food.



Photographs @ Lady Broughton

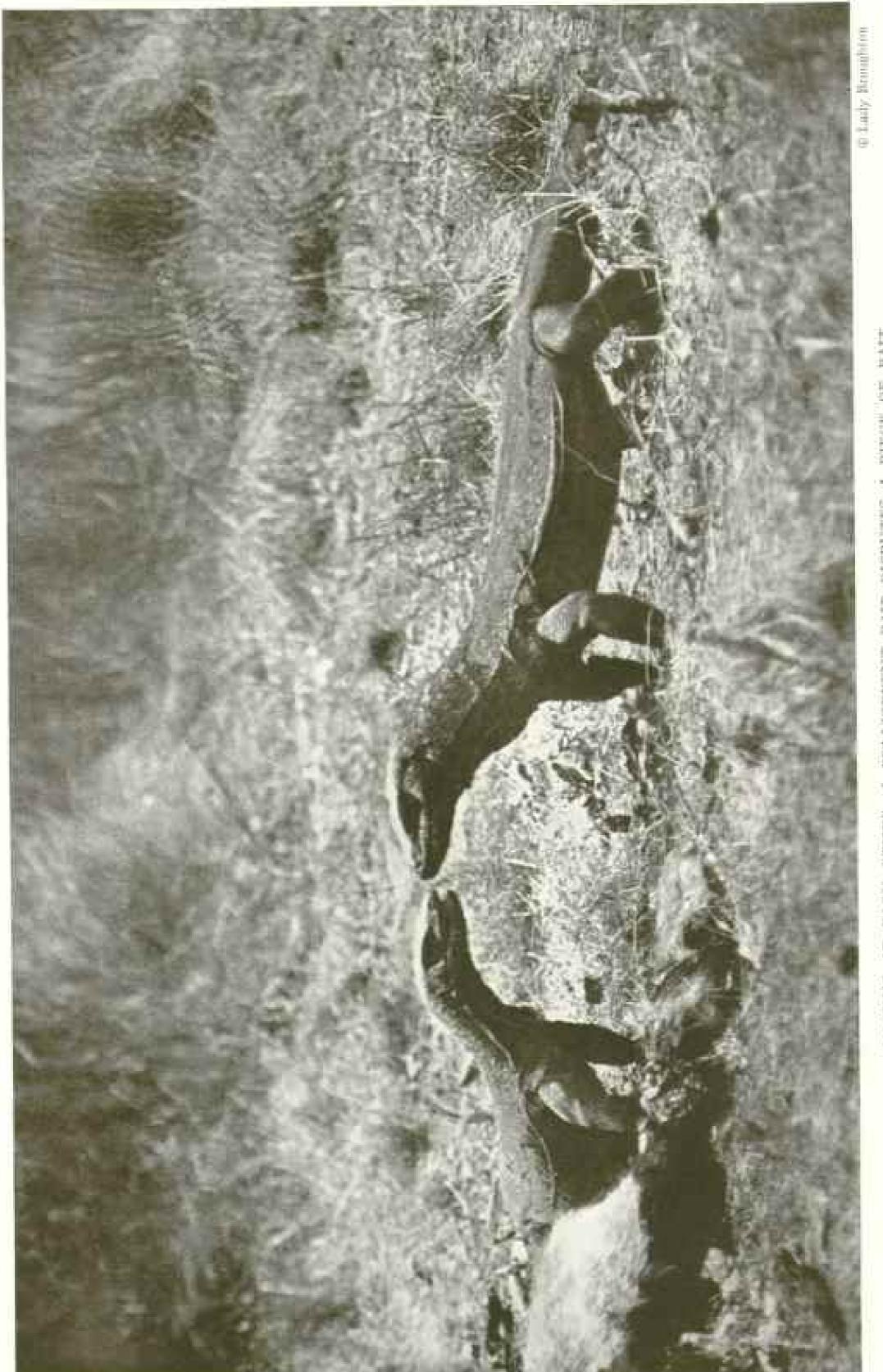
"STOP, LOOK, AND SMELL!" IS THE DRAGON LIZARDS' MOTTO

They may even rear up on their hind legs to see if the coast is clear before tackling the bait. Though keen of sight and scent, they seem deaf and were not disturbed when a shotgun was fired a few yards away.



OCHUNE RECORF, WHEN THE ANCESTOR OF THE ROMODO DRAGON FIRST APPEARED HERE MIGHT BE A SCENE PROM THE E

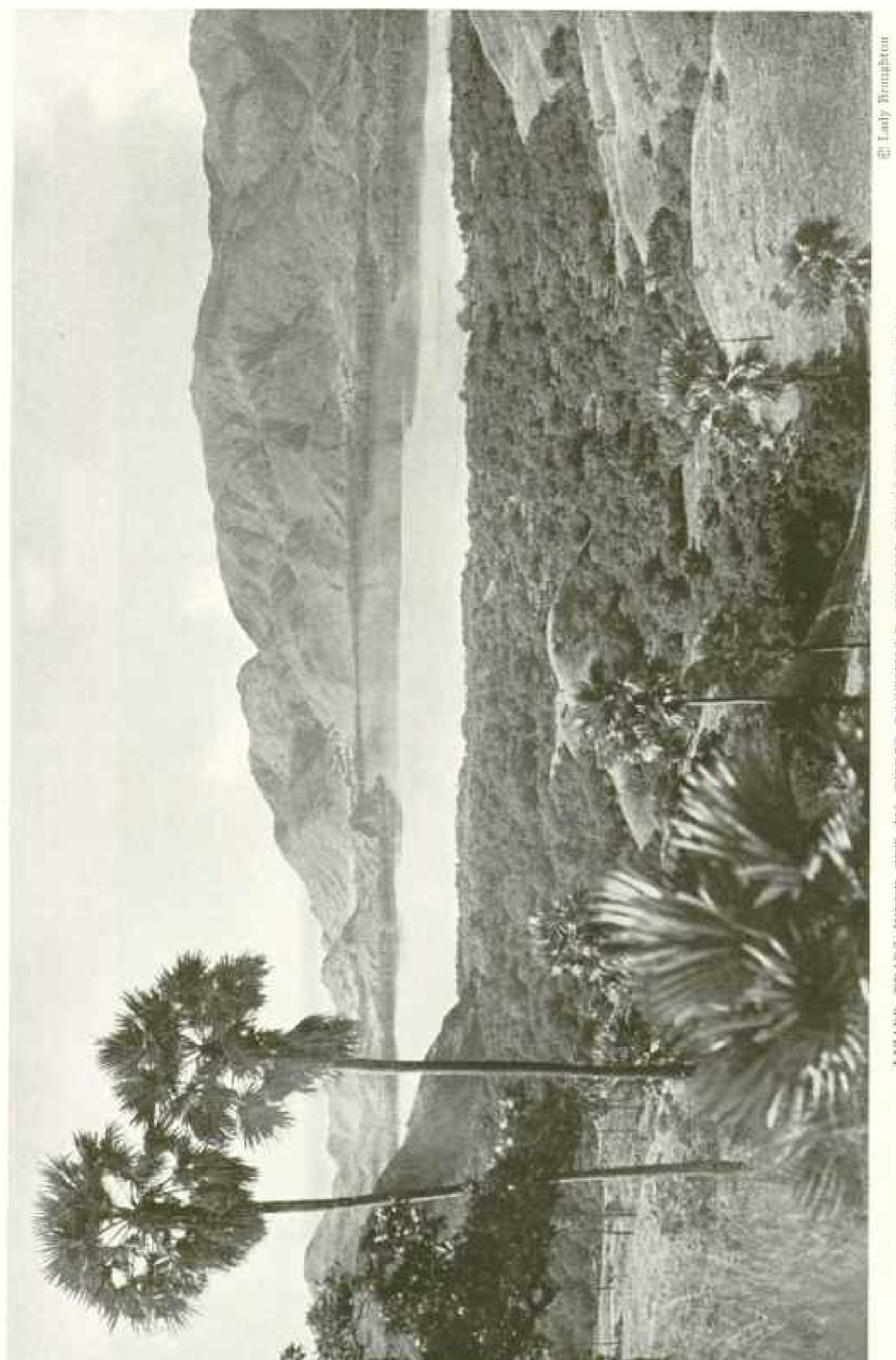
Sixty million years, more or less, have made little change in these oldest of liturds. Puzzling to scientists is the question of how they happen to live on Komodo, formed amparatively recent geologic times. They are found only on this island and a few neighboring ones in the Lesser Sunda group, between Java and Timor. Fourteen imparatively recent geologic times, They are found only on this bought to the United States in 1926 by the Douglas Burden Expectition. The earlies soon died, but a mounted group is on exhibition at the National Review in Washington, D. C., died this summer. specimens, two alive, were brought to the United States in American Museum of Natural History in New York In comparatively recent geologic times.



HAIT

A PITCH OF BELLIGERRENT PAIN DISPUTES +5 OTHER, HISSING AT EACH

Surprisingly agile for their bulk, they sometimes weigh 250 pounds and reach a longth of about 12 feet. At five-clawed feet. Giant lizards like these may have been the source of the dragon of oriental mythology, a be imperial hadge; the ruler was called the "Dragon Emperor" and his throne the "Dragon's Seat." A low effithant sound is the only noise deagons make. I night they hide in wide caverus excavated by the powerful favorite design in Chitasic art. The fabulous animal was the



LIZARD TRAPS WERE SET IN THESE POOTHILLS, WHICH OVERLOOK A QUIET BAY

Dragons roum from the volcanic island's jugged mountain tops down to its sandy beaches. Kentodo, 23 miles fong by 12 miles wide, was uninhabited till a few years ago, when the Raja of Soembawa exteblished a convict settlement here. Wild bear, water buffalo, man birds, and venomous reptiles such as cobras and vipers are plentiful. Existence of the dragon litards was first reported by pearl fishermen to a Netherlands scientist in Java.



SURPRISE PACKAGE! A LIVE YOUNG DRAGON IS PRESENTED TO THE EXPEDITION

The gay-shirted gift bearer caught the lizard with a noose and wrapped it in rushes for safelcerping; but the long tail dangles freely.

A TRAILING TAIL LEAVES ITS WAVY TRACK BETWEEN A

In this way, predistoric reptiles stamped their imprints in mud, which hardened and thus preserved the fewil records that scientists study today.



A DRAGON AT THE KILL

The distended throat shows that the lizard has just gulped a hig piece of meat. Dull-colored scales are small, but under each is a bony plate of armor that makes the monster invincible among its neighbors.



Photographs & Lady Broughton

A VELLOW PORKED TONGUE DARTS NERVOUSLY LIKE A SNAKE'S

Dragons of legend are often pictured with just such bifurcated, or two-forked, tongues. A lizard's heavy tail usually drags on the ground, but sometimes is carried aloft, the tapering end turned upward like a dog's. and no large ones came down to my bait, though several watched all day at what they considered a safe distance.

Every now and then I could spy a big head raised out of the long grass, and once or twice a dragon would come crawling down almost into the cleared space which I had carefully prepared for photography. But always at the last minute they would lose courage and make off to cover before I

could get a satisfactory picture,

However, the second day things were different. The goat carcass, by this time so nauseous to me, acted as a charm for them. The small dragons became fearless and seldom was the carcass without one gnawing at it. The big dragons, throwing all caution to the winds, rushed down with surprising agility and speed, tearing and dragging large pieces of the meat away from the carcass to be eaten at leisure out of sight in the long grass.

That dragon lizards have a keen sense of smell I had ample occasion to observe. In the valley where I watched them the wind was continually changing, and they used to pick up my scent at once even when they had their heads to leeward of the overpowering stench of the carrion. In an instant all of them would take fright and

All the time I kept myself carefully hidden from their sight, but, as other observers had reported that these lizards are stonedeaf, I did not trouble to keep quiet.

disappear.

UNDISTURBED BY A SHOTGUN'S ROAR

In fact, wishing to test this theory of deafness, I discharged a shotgun over their heads at a range of a dozen yards on more than one occasion. Neither this nor the rattling of platcholders nor the human voice seemed to make any impression on them, whereas they would notice any movement in an instant and make off.

That they are deaf to some sounds seems beyond dispute, but it is interesting to note that the specimens at the zoo very definitely hear the sound of the key turning in the lock of their cage. When the keeper goes to feed them, their attention is immediately arrested by this sound.

The baby dragons were highly inquisitive. One, measuring about three to four feet, came through my covering hedge of branches and sat staring at me at an arm's length for some time. Another climbed a

tree close by and, stretching itself along a branch, lay watching me for many hours.

Dragon lizards appear to make no sound other than a low hissing at each other when in competition for the meat spoils. When drawn to a carcass by the powerful odor, they seem to be almost licking their lips in anticipation, owing to their curious habit of shooting in and out their long forked tongues.

REPTILES NEVER VENTURED TO ATTACK

In their wild state they are said to be dangerous, but I cannot support this statement. I spent days watching, at close range, dragons of all sizes up to about twelve feet in length. I had no protection other than the small hedge of cut branches and leaves. At no time did the creatures show any signs of attacking me.

It is difficult to say how many dragons I saw, but they are undoubtedly very numerous on Komodo. I have a few feet of cinema showing four large ones on the carcass at the same time, and many photo-

graphs showing three.

We had no opportunity of seeing the reptiles killing or eating their natural food. Our only evidence as to their ordinary diet was obtained when one, which had been caught in a trap, in its excitement regurgitated first the chunks of rotten meat it had swallowed and then a large unbroken turtle egg:

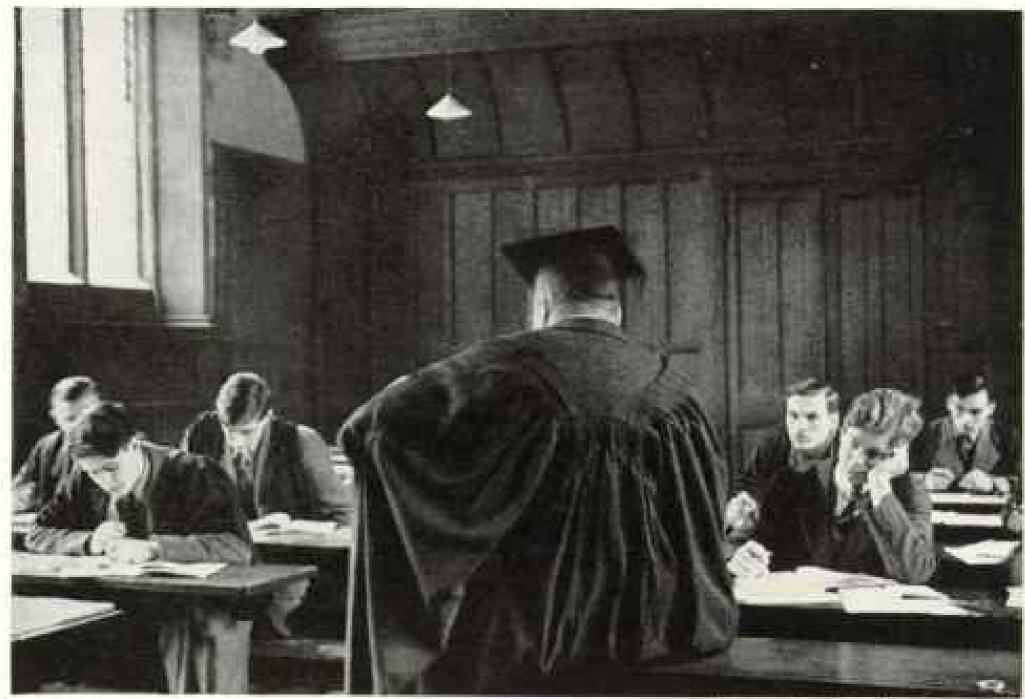
Wild pigs and deer are plentiful on Komodo, and we had no reason to doubt the report that the dragon lizards catch the small ones.

The natives would not go near the haunts of the dragons after dark and seemed in considerable fear of them even in daylight.

For the homeward journey we put our specimens in strong crates with beveled slats on one face. Unfortunately, our carpenter sought to lighten the lids by in-

serting a panel of wire netting.

When the yacht was some days out on the homeward journey, one of the dragons burst its way through the netting, and, as no trace of it was ever found on the ship, presumably it jumped overboard. The other two were safely delivered to the zoo and, in addition, our cameras had captured numerous others that are still free to partake of their odoriferous banquets on the hills and beaches of Komodo.



The don lectures in academic dress; undergraduates wear dark gowns, frequently tattered (p. 334).



Photograph from General Photographic Agency, Ltd.,
A GIRTON COLLEGE "UNDERGRADUETTE" CHATS WITH HER TUTOR
Cambridge has two colleges for women, established more than sixty years ago (opposite page).

WITHIN THE HALLS OF CAMBRIDGE

BY PHILIP BROAD

TULTITUDES of American college men, old and young, find odd contrasts between university life in the United States and that of ancient Cambridge, where I took my degree. These differences are plain in discipline, in daily life, in the relations between faculty and undergraduates (never "students" at Cambridge), and in certain customs peculiar to this venerable seat of learning.

When I left the train at Cambridge, after a short but tedious ride from London, there was little about the dingy railroad station to suggest that somewhere hereabouts stood

a great university town,

Nor did the policeman of whom I asked my way to "The University" offer any help; he couldn't, simply because there are so many colleges here, each in itself a little university. However, after driving into town along a wide thoroughfare which my taxi man told me had been in ancient times a highway used by Roman soldiers, I finally arrived at St. John's College which I was to enter.

JOHN HARVARD'S ALMA MATER

Because John Harvard, principal founder of the famous American center of learning which bears his name, was educated at Cambridge, this university holds a special interest for people in the United States.

John Harvard entered Emmanuel College in 1627. In an old leather book there you see his signature, and a notation that he paid a ten-shilling matriculation fee.

Now a tablet is set up in the Chapel at Emmanuel to his memory; and this year Cambridge in England observes with sympathetic interest the movement in Cambridge, Massachusetts, to celebrate the 300th anniversary of the founding of Harvard College (page 334).

Each Cambridge college is a separate entity. Each has its own chapel, lecture rooms and assembly hall, but most of the space is devoted to residential quarters.

This independence has been characteristic of Cambridge from its earliest days. It dates from the foundations established by religious orders, such as the Dominicans and the Carmelites, most of which belong to the first part of the 13th century. It continued with the foundation of the colleges, the first of which was Peterhouse, established in 1284. The majority of the others followed in the 14th, 15th, and 16th centuries, though Selwyn was founded as recently as 1882.

Cambridge long held out against the admission of women students, and, though it was obliged at last to surrender and welcome the two girls' colleges. Newnham and Girton, more than sixty years ago, it still, unlike Oxford, does not allow women to take actual degrees.*

"UNDERGRADUETTES" INSTEAD OF COEDS

The "undergraduettes" attend lectures, both university and college, with the undergraduates, and take the same "honors" examinations (they are not allowed to take the easier "pass" examinations), but if successful their reward is merely a "title to a degree" (pages 332, 335, and 337).

Every college has its own staff of tutors and its own endowments which, together with the fees from its student members, provide for its upkeep. In many cases the colleges have acquired much landed

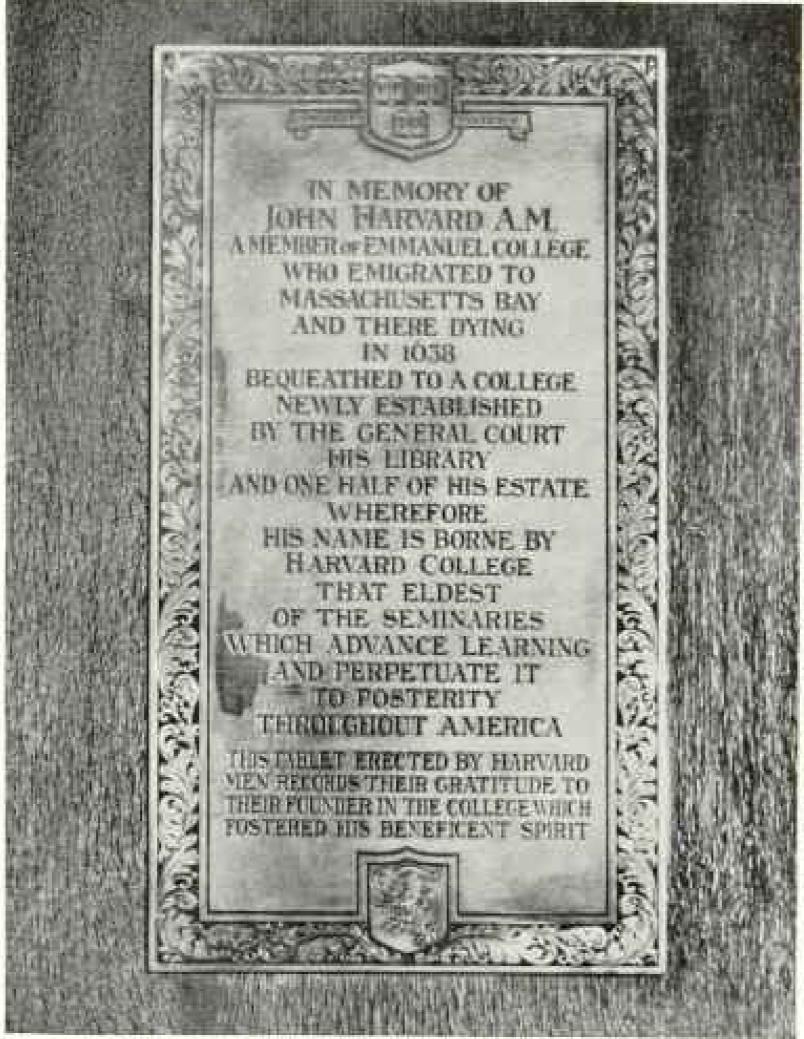
property.

From the beginning it was impressed on me that the loyalty of the individual is first to his college. It is by no means uncommon for the members of a family to send their sons to one particular college, generation after generation. But in the background there always remains the Alma Mater, the University itself. To the initiated it is my college that I mention first; to the stranger, if asked, I announce myself as a Cambridge man.

The University, like a college, is a corporate body with its own endowments supplemented by contributions from the colleges and the Government. It also has its own lecture halls and research laboratories and it alone appoints the professors, who are the elite among the "dons," or faculty members.

While the ultimate governing authority is the Senate, which consists of those who have taken the degree of Master of Arts, the executive authority is vested in the Chancellor, elected by the Senate, who is now always a prominent national figure. The office at present is held by Prime Min-

* See "Oxford, Mother of Anglo-Saxon Learning," by E. John Long, National Geographic Magazine, November, 1929.



Photograph by Clifton Adams

TO HARVARD'S PRINCIPAL FOUNDER IS DEDICATED THIS TABLET IN HIS ALMA MATER'S CHAPEL

At Emmanuel College, where John Harvard studied, a suite of rooms named in his honor is occupied each year by a student from the famed American university that bears his name (page 333). Another Harvard memorial is his mother's old home in Stratford-on-Ayon.

ister Stanley Baldwin. In practice, however, his duties are performed by the resident Vice Chancellor, who is invariably the head of one of the colleges.

TATTERED GOWNS FASHIONABLE

This division of the University's life into colleges is seen in the differences in the gowns, which all undergraduates must possess. These are curiously abbreviated garments, a survival of the clerks' uniform of the Middle Ages; but the forms of each college have distinctive features, such as the three small velves chevrons on the sleeves of those of St. John's.

Normally the gowns are black. but those of Caius (pronounced "Keys") are blue with black facings, those of Trinity a darker blue. They, and their accompanying square mortarboard caps, are often in the most decrepit state. since a tattered gown or a crushed cap is regarded as a sign of seniority; hence, "freshers," as the first-year undergraduates are called, frequently indulge in an orgy of near-destruction to acquire this outward mark of seniority. I must admit from experience that this procedure can prove expensive. It may involve the purchase of an entire new outfit to secure the approval of outraged authority.

Gowns are worn when attending lectures, or when dining in college hall, which is the one occasion when the members of a college meet together a certain number of nights each week, whether they wish to or not.

Gowns must also be worn on the streets after dusk, and woe betide the unfortunate undergraduate who encounters a proctor when not in this garb. It is an equally heinous sin if he be found smoking in the streets, even when he is properly attired. These are two of the offenses against the dignity of the University for which the

proctors, who have charge of University discipline, are on the lookout,

IN THE TOILS OF THE PROCTOR

A proctor, to the undergraduate, is an impressive and fear-inspiring being, not only because of the moral weight of the authority behind him but also because he is always supported by two "bulldogs" or "bullers." These robust college porters, in spite of silk hats and formal black suits which they are obliged to wear, are often surprisingly, agile in their pursuit of a delinquent undergraduate as I learned by dire experience. But when a capture is effected, proper formalities must be observed.

"Sir," said the buller, polite but puffing, "the

Proctor would like to speak to you for a moment."

And when I was brought before the majesty of authority, the conversation was equally courteous.

"Sir, I regret to see that you are not properly dressed; I should be glad if you would call on me in the morning."

My name was noted in a book, and when in a spirit of due repentance the visit was made the next day, six shillings and eightpence was the fine (about \$1.70). Had I been a Bachelor of Arts it would have been double this sum, for surely years of discretion, accompanied by the right to wear a



@ Paul Pepper from European

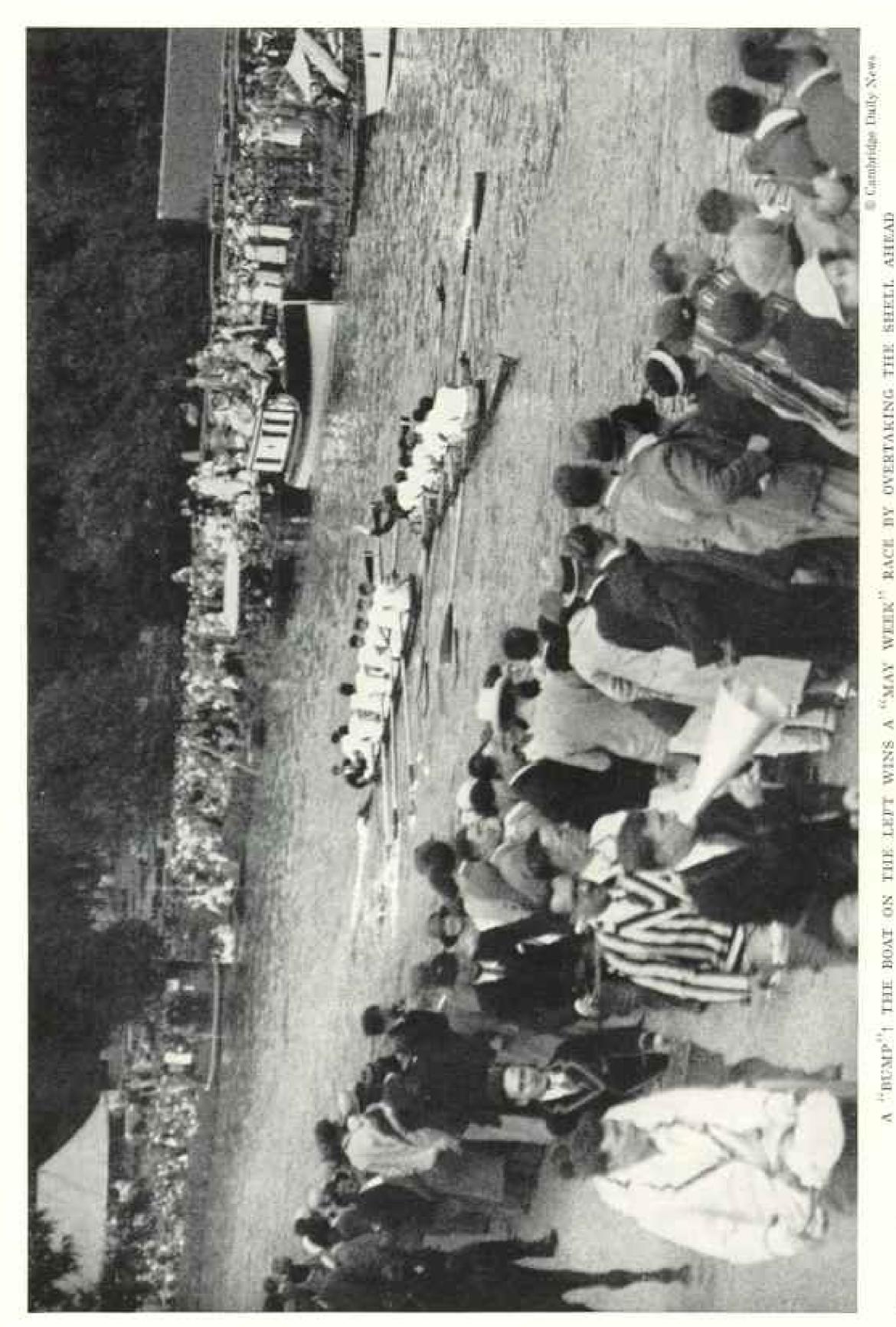
EVEN CRICKET IS NO LONGER A MALE MONOPOLY AT CAMBRIDGE

The wind-blown player in white helps the next batsman don her gloves, while sister undergraduates of Newnham College watch from the sidelines. Both girls wear pads on their legs as protection against swift balls.

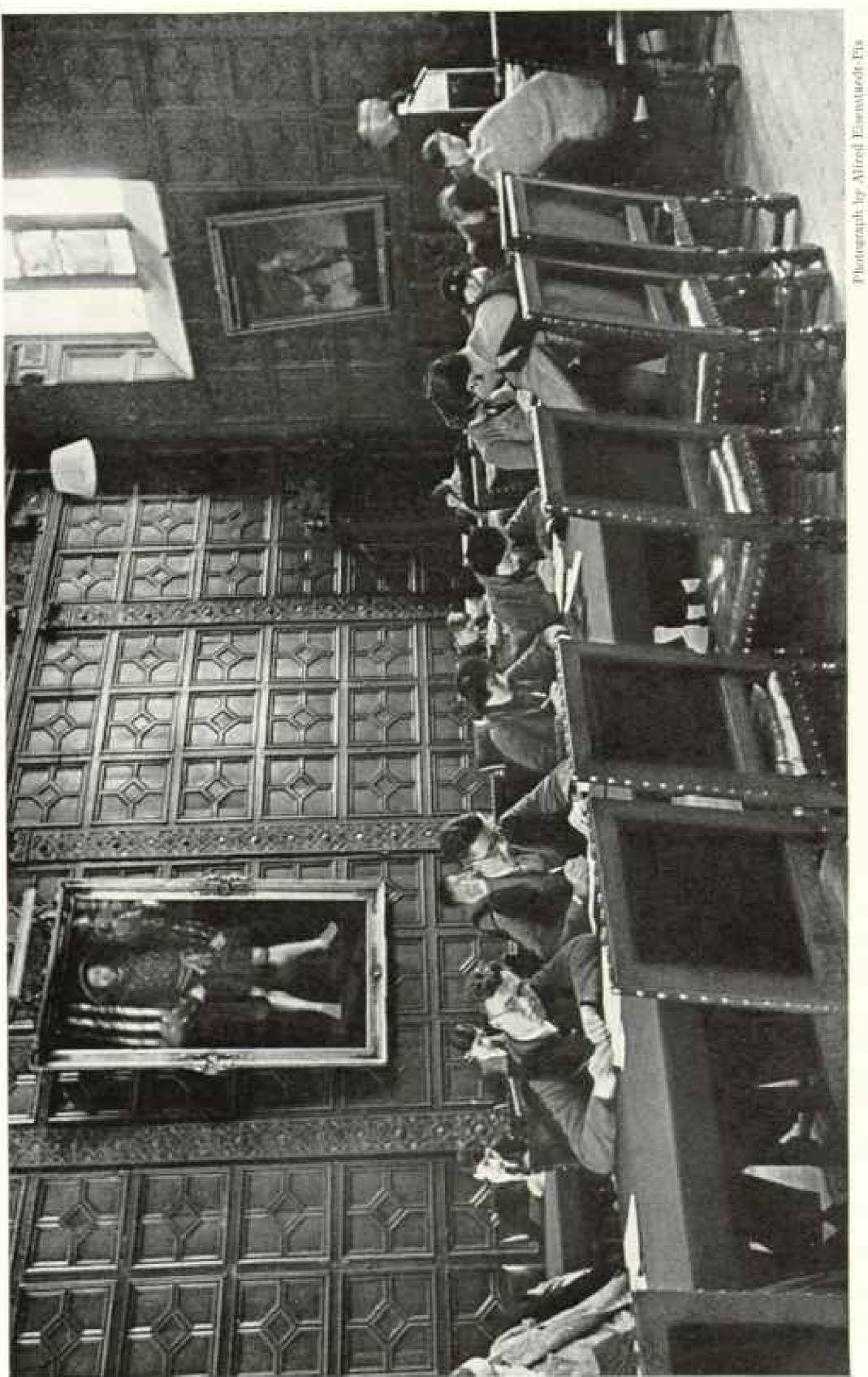
longer gown and a proper tassel on the cap, must be expected to bring a proper respect for the laws of the University. Offenses committed on Sunday also involve a double penalty. No offender escapes. It is on record that King Edward's brother, the Duke of York, smoked what was probably the most expensive cigarette of his life during his undergraduate days at Cambridge.

"BLUES" AND "HALF-BLUES"

Friendly rivalry among the colleges is shown in the wide variety of sports jackets, or "blazers" (Plate I). They appear in all colors and combinations of colors, and may



The conswain's upraised hand quickly acknowledges defeat; otherwise the victor's sharp prow might injure someone. Starting 130 feet apart, each boat tries to bump the one in front and thus gain the latter's position for the next day's contest. Conches and undergraduates cycle along the bank, shouting to their crews (p. 338),



AT WORK IN THE COLLIGE HE FOUNDED BLUFF KING HAL'S PORTRAIT LORDS IT OVER UNDERGRADUATES

The girls, though not Unlike most American Henry VIII would probably be astounded to find women being examined side by side with men in the punched hall of Trinity (Color Plate I), metabers of this college, may use its facilities for research. Trinity men went gowns of dark blue, instead of black as at King's (page 332). I universities, Cambridge requires students to be inside their college gates after 10 p. m.; late-comets must pay a small fine.

denote not only membership in some particular college but also some athletic achievement, such as membership in the cricket eleven or the Rugby football team.

Most coveted is the pale blue blazer which only those who have represented the University in athletics are entitled to wear. For the remainder of their lives these fortunate ones will be remembered as Cambridge "blues," There are "half-blues" for the less arduous sports, such as shooting or even chess!

"Blazers" owe their very name to Cambridge, for this was the term quite naturally applied to the scarlet coats which the Lady Margaret Boat Club, of St. John's College,

adopted as its uniform.

Sports in general hold a high place in life at Cambridge. Rugby and Association football-known as "rugger" and "soccer" -are popular in the winter, while in summer cricket and tennis take their turn. But the sport of sports at Cambridge is rowing (page 536).

The races are rowed on a section of the River Cam below the actual town. stream is so narrow even there that it is impossible to row abreast, so here, as at Oxford, a system of "bumping" races has

developed.

From the spectators' point of view this is perhaps an advantage, for they can watch the spectacle of a straining procession of eight-oared boats chasing each other at intervals of 150 feet. Some "bumps" are mere touches; others are really violent blows. I well remember rowing in a boat which was hit so hard it sank outright in the middle of the river, whereupon our discomfitted crew had to swim and wade ashore as best they could.

"THROWING AWAY A RACE"

There is also the well-known Cambridge rowing story, perhaps apocryphal, of the excited coxswain who almost literally

"threw away a race."

The atmosphere was electric. Eight oars were poised, ready to be dipped like a flash at the boom of the gun; eight pairs of eyes were concentrated on the coxswain who was counting feverishly the seconds before the start. In his left hand he held the stop watch; in his right the wooden bobbin of the spacing chain which keeps each boat at its correct distance from the others.

The great moment arrived, the shot echoed across the river, and with a dramatic gesture he cast the watch into the water and clung to the anchored chain. Need I add that his boat failed to score a bump that day?

The last day of the races is celebrated by "bump suppers" in each college, ending often in a wild dance around a huge bonfire in the grounds of the college that has won, or kept the "Head of the River," Four bumps entitle a man to keep his oar

as a trophy.

I would not recommend for weak digestions the breakfasts found necessary in the strenuous training for both the Lent and May Week races. They are no mild meals of grapefruit and coffee, but, starting with fish and bacon and eggs, they continue with large portions of rare steak. The toast and marmalade that followed was often difficult to face.

The "May" races are the principal event, coming as they do after the examinations at the end of the scholastic year when all Cambridge goes gay and celebrates a social season of its own. Both banks of the river offer then a bright picture. They are crowded with friends and relatives of the crews and the whole scene is animated by undergraduates in bright blazers cycling or running along the tow-path to shout encouragement to the boats of their colleges (page 336).

Automobiles are forbidden to undergraduates in their first year, and this is a blessing to those who do own cars, since the narrow streets of the town are already

crowded by innumerable bicycles.

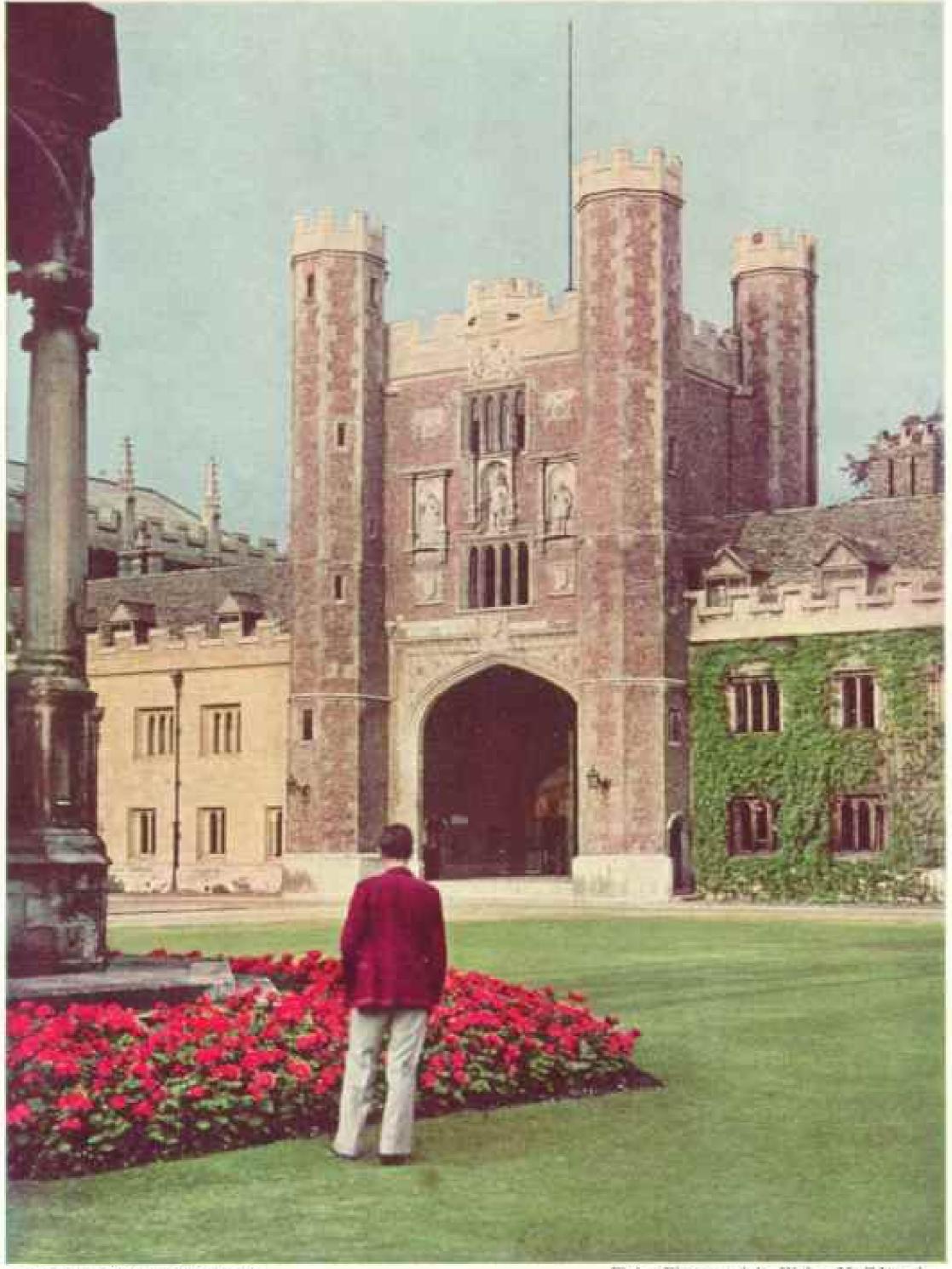
I soon found that this was the most convenient form of transport to and from lectures. Indeed, the popularity of individual lectures can be accurately gauged at a glance by the number of bicycles parked outside. The absence of hills makes this a cyclist's paradise. Cambridge in no place rises more than fifty feet above sea-level, and even the oddly-named Gog and Magog outside the town hardly deserve the name of hills.*

From time to time the monotony of study is relieved by "rags" organized by the undergraduates.

The fun is usually harmless, and entered into in good spirits by participants and onlookers alike. I recall one night when field guns awarded to Jesus College as

* See "A Tour in the English Fenland," by Christopher Marlowe, NATIONAL GEOGRAPHIC MAGAZINE, May, 1929.

WHERE THE WINDING CAM MIRRORS CAMBRIDGE SPIRES

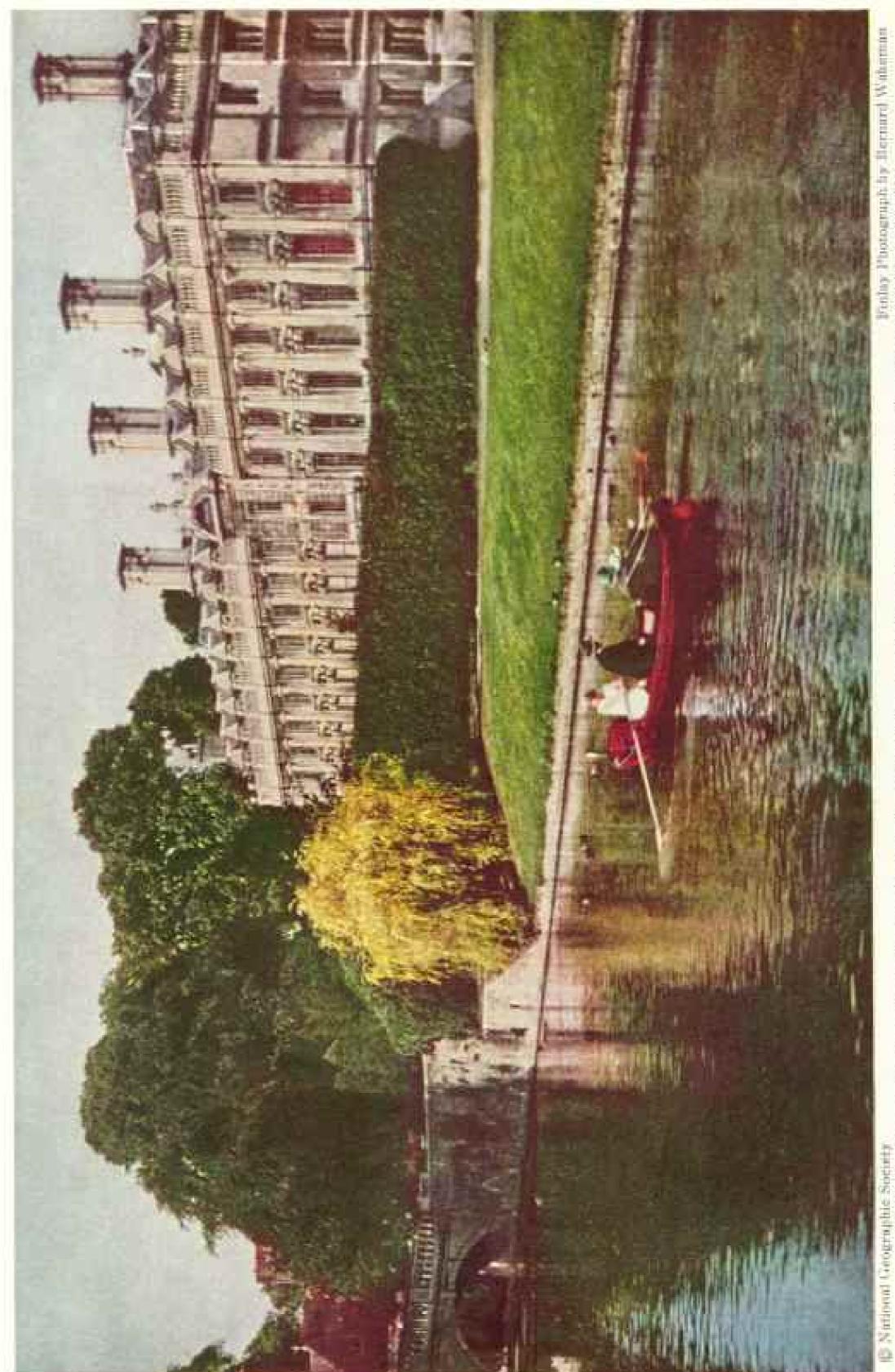


© National Geographic Society

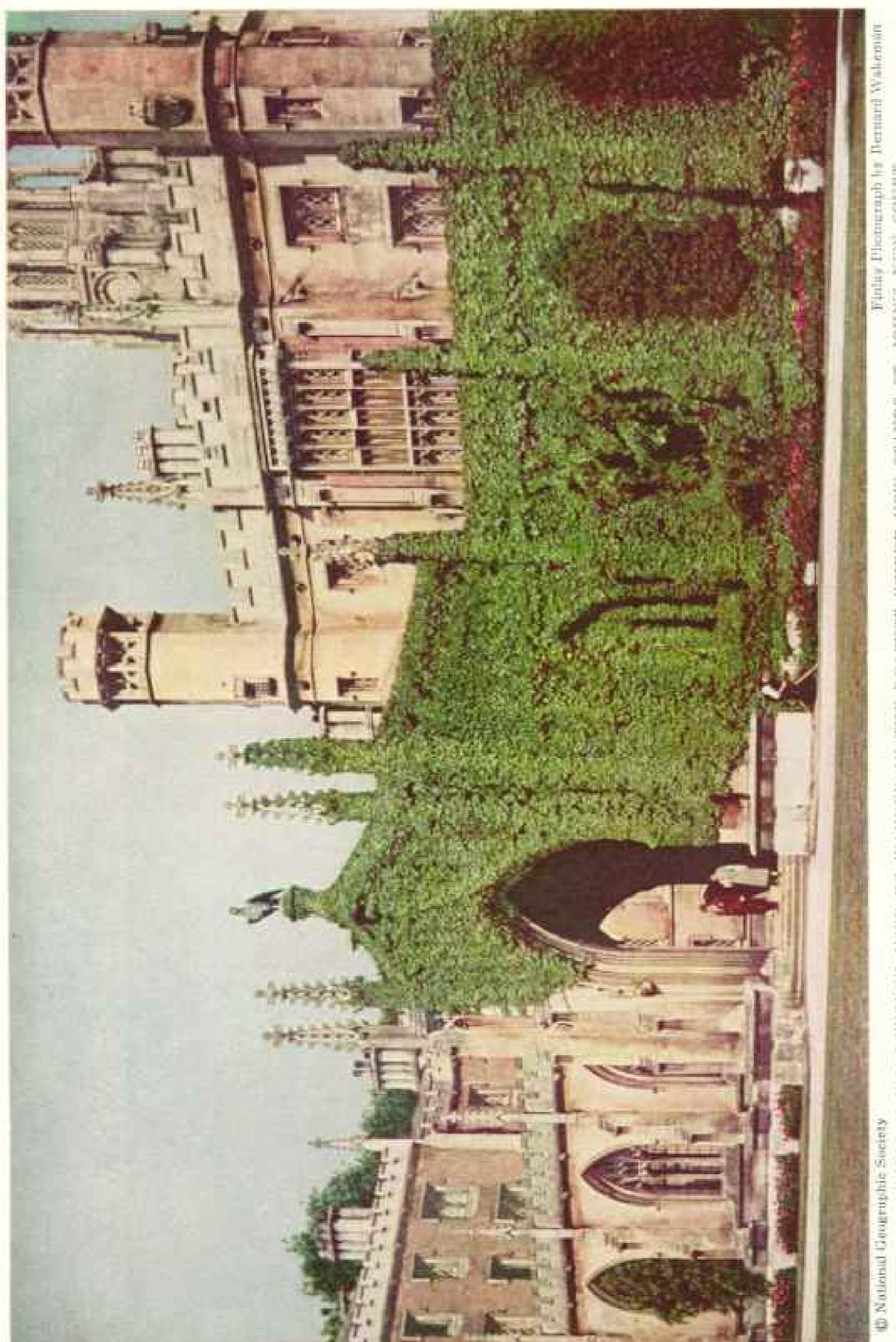
Finley Photograph by Walter M. Edwards

FOUNDED BY HENRY VIII, TRINITY IS CAMBRIDGE UNIVERSITY'S LARGEST COLLEGE

Among its famous sons was Sir Isaac Newton, who had an observatory atop the Great Gate (above). To the left of the portal roomed Thackeray and Macaulay. Like Oxford, Cambridge consists of about a score of colleges. Two are for women. For more than seven centuries this university. 50 miles north of London, has been a center of learning. The undergraduate near the geranium-bordered fountain, in Trinity's Great Court, wears the blazer of the Corpus Christi College rowing crew.

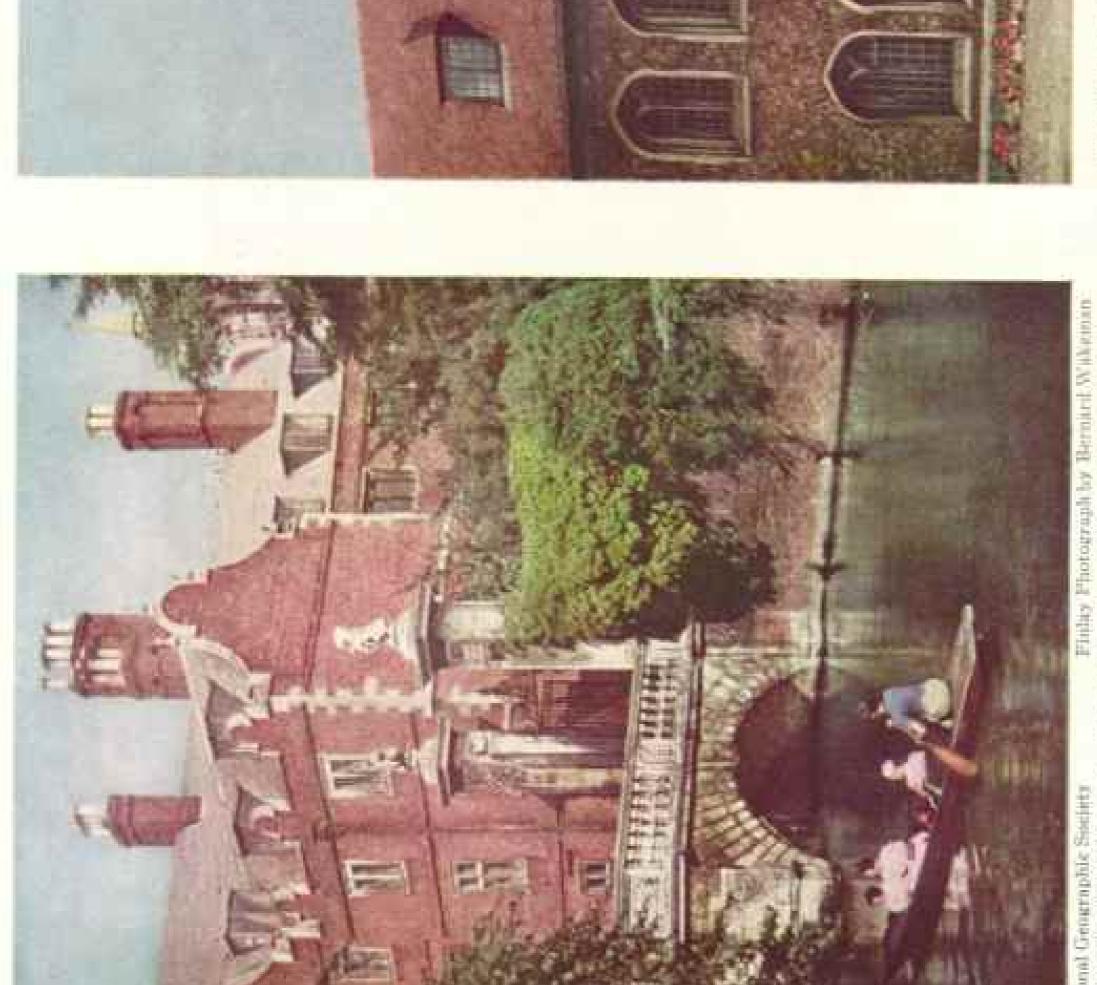


Distinctive of Cambridge are the tree-shaded lawns and gardens, particularly the spacious "backs" across the river from the college buildings. The River Cam, oddly enough, is named for the town. Cambridge has a special interest for Americans. Alumni who came to the New World as colonists christened Cambridge, Massachusetts, in honor of their aims mater; and our oldest university was named for a Cambridge graduate, John Harvard. BEFORE PALACHLINE CLARK COLLEGE A GOLDEN WILLOW TREE "SMOOTH CAM'S SILENT WATERS" MEFLECT



WANDER IN THE "BACKS" WHERE NOW STANDS ST, JOHN'S NEW COURT WILLIAM WORDSWORTH USED TO

talk at morning bours; drifted on the Cam's west bank books,? New Court, with its fvy-clad cloisters, stands in the "backs" on the Cam' lost live in colleges, but many take lodgings in town during their three-year course. We sanntered, played, or rioted; we talked unprofitable The post describes undergraduate life of 150 years about along the streets and walks, read laxily in trivial Cambridge University has more than 5,000 students. N



A PAVORITH VISTA ON THE CAM-ST. JOHN'S OLD BRINGE C National Generaphic Society

Paddling under its graceful arches, bouting parties look downstream toward the "Bridge of Sighs," which leads to New Court (Plate 11f). Each college has its own dining hall, and numerous servants known as "gyps." Students may attend lectures at other colleges besides their own.



The tutor wears shorts, the undergraduate a rowing blazer. At chapel Finday Plantagraph by Walter M. Edwards AND STUDENT CHAT BENEATH OCHENS OLD BUNDLAE *NOO.

black or blue grawns are the undergraduate dress. Formerly the chapel for Queens' College, this mellow brick building is now a fecture half.

Jollege, this mellow brick building is now a fecture half



WILL PONDS OF GRANTCHESTER WERE "OLD SWIMMING HOLDS" FOR CAMBRIDGE MEN

At Byron's Pool, near here, the poet often bathed during his undergraduate days at Trimity College. About a century later Rupert Brooke, a young poet eastally of the World War, lived not far from these old houses and later sing the hamlet's praises in "Grantchester," one of his finest poems. When it was proposed to build an express highway across the pastoral meadows between Cambridge and Grantchester a few years ago, an American fund purchased the construction rights and thus preserved the fund retreat.

THE NATIONAL GEOGRAPHIC MAGAZINE



A BAREFOOT GIRL PUNTS PICNICKERS UP THE CAM TO BATHING PLACES NEAR GRANTCHESTER

The trick in punting is not to get left behind clinging to your pole when it sticks in the mind! Cambridgeshire has numerous tens or marshes where skating races are held in winter.



Nutional Geographic Society

Finlay Photographs by Bernard Wakeman

ONCE A CONVENT, JESUS COLLEGE PRESERVES ORIGINAL MONASTIC BUILDINGS

. The Priory of St. Radegund was already more than 300 years old when the Bishop of Ely suppressed it in 1496 and replaced nuns with students. Thomas Cranmer, famed Archbishop of Canterbury, entered college here at the age of 14.

WHERE THE WINDING CAM MIRRORS CAMBRIDGE SPIRES



COTTAGES WITH THICKLY THATCHED DORMER WINDOWS SUGGEST PRIM OLD LADIES IN PORE BONNETS

Green gas lamps are still used on "Main Street" in Trumpington, about two miles south of Cambridge on the London road. A sign near the scarlet truck proclaims an inn, the Coach and Horses.



D National Geographic Society

Finlay Photographs by Bernard Wakeman

THESE VILLAGERS "ROUGED" THEIR HOUSE WITH RED OTHER

Shepherds sometimes mark their sheep with this brilliant pigment, which countryfolk call "raddle" or "raddle." Green trimmings and blue window curtains heighten the colorful effect of this cottage at Bottisham, about six miles northeast of Cambridge.

THE NATIONAL GEOGRAPHIC MAGAZINE



ANGLING THE CAM IS GOOD FUN, THOUGH THE FISH ARE FEW AND TINY.

The river has lost its former commercial importance, but it is a joy to schoolchildren, boatmen, and picnickers. Flowing northeastward to join the Ouse, it provides a direct waterway to the North Sea.



C National Geographic Society

Finfay Photographs by Bernard Wakeman.

IN CAMBRIDGE, EVEN A PROSABL LOCK IS DRESSED UP WITH A GAY FLOWER RED

Like many other small English rivers, the Cam is made navigable by a series of locks. Above here the stream flows between colleges and "backs." Below is the long stretch devoted to rowing. The chief boat races are held during "May Week," which is actually in June !

trophies of the World War were stealthily removed and hidden. Another "rag" was a mock naval battle in which a tug, skill-fully disguised as a warship and navigated with some difficulty up the shallow river, was attacked by fleets of smaller craft, the engagement ending in general duckings in the stream.

Then there was the club whose members calmly sat out in the street before King's to the entire dislocation of traffic; and the unveiling of Tutankhamen in the Market Square (a favorite scene for "rags"). The proctors, of course, were much in evidence on these occasions, but they were not resented, and the ever-patient Cambridge police, known affectionately as "Roberts," looked on with their usual tactful tolerance.

"MAY WEEK" COMES IN JUNE

"May Week," which, paradoxically enough, is always celebrated in June and lasts more than a week, sees a merry concentration of social activities.

Most popular among its parties are the famous college balls, where dancing, either on specially-laid floors in the halls or in huge marquees in the grounds, continues well into the morning. The culminating feature is a breakfast-time group photograph of the stalwart if somewhat white-faced dancers and their partners who have been strong enough to see the night through.

On these occasions the grounds, lit with lanterns, and the fleets of illuminated punts on the river present a fairylike spectacle among the silhouettes of the ancient buildings. It is a dangerous time for the sentimentally inclined.

May Week is a lighthearted period because by then most of the year's examinations are over. An examination for an "honors degree" is called a "tripos" because of the three-legged stool which was formerly used during ceremonies at degree time. For the less energetic undergraduates a "pass degree" is also provided.

DINNER JACKETS FOR MORNING WEAR

At the end of May Week comes the formal awarding of degrees, which takes place in the Senate House. It is also on the steps of this building that by ancient right graduates may entertain themselves with games of marbles!

For the graduation ceremony the candidates must dress themselves in a garb rather curious for the morning hour—a dinner jacket and dress shirt, over which is worn the shortly to be discarded undergraduate gown. Four at a time, a praelector leads in the candidates, each holding
precariously to one of his fingers. A Latin
formula is read, each candidate signs his
name in full in a bulky volume, pays the appropriate fee in cash (no checks accepted!),
and emerges as a full-grown Bachelor.

Immediately opposite the Senate House is the church of Great St. Mary's. Here the University sermon is preached each Sunday. I used to watch the Proctor, in cap and gown, on his way to attend this service, escorted on each side by his inevitable "bulldogs." Legend has it that an undergraduate may at his pleasure stop this procession and demand the reading of any chapter he may choose from the weighty Bible supposed to be carried by the Proctor or one of the attendants.

But the tale is told that on at least one occasion when this right was exercised the bag in which the Bible should have reposed proved empty! The Proctor himself once confessed that in plain fact his volume is not a Bible, but a mere collection of old statutes, one of which enjoins that no grammar be taught outside Jesus College.

"Why should Jesus College be condemned to the monopoly of this sad subject?" he enquired.

CHURCH BELL RINGS OUT THE DATE

Calendars are redundant in Cambridge, for each evening the bell in the tower of Great St. Mary's tolls out the date of the month.

The year at Cambridge is divided into three terms: Michaelmas, from early October to mid-December; Lent, from early January to the middle of March; and Easter, from the middle of April to the middle of June,

The undergraduate "goes up" at the beginning of the term, and "goes down" at the end; should be be the victim of serious disciplinary action, he is "sent down," to cool his heels for a term or so, or perhaps even never to be readmitted.

Every evening during term-time the great gateways of the colleges are closed punctually at ten. So are the doors of the many lodging-houses — called "digs" — in which most of the undergraduates live, for the growth of the University has made it impossible for more than about one-third to find rooms in the colleges.

After 10 p. m. no visitors are admitted. Residents arriving later must ring the bell, and have their names carefully entered in a book. Those who too often come home late face a punishment known as "gating," which means enforced confinement within college or boarding-house walls during evening hours.

To return after midnight is a much more serious offense. I must confess I used to find myself, in the company of other undergraduates, breathlessly running in an anxious attempt to obtain admittance before the fatal midnight stroke of the clocks.

Many are the devices resorted to by ingenious undergraduates to escape that unpleasant interview with their tutor, which they know is one price of being tardy. One such means of escape can be seen in the window above the left-hand gatepost of St. John's (Color Plate IV).

By tradition, the occupant of the room into which that window leads leaves it open, however cold the weather, "for fear of accidents." The undergraduate caught out after midnight, if sufficiently stout-hearted and acrobatic, may then get in unobserved by scrambling up the wrought-iron gateway and perilously leaning over the edge of the stonework until he can grasp the iron framework of this window.

ALPINE CLUB'S NOCTURNAL EXPLOITS

To the initiated, there are not many college buildings in Cambridge that cannot be quietly entered in some such manner when darkness has fallen. But the pitfalls are many.

Cambridge, though a city of the plain, had once an active Alpine Club, and many are the brave stories told of the nocturnal exploits of its members.

Not mountains, but steep roofs, were the objects of this Club's attacks. After all, they offer obstacles of a kind to challenge the courage of the most intrepid. Cambridge roofs, old and crumbling, are often no less precarious than Alpine slopes, and the old mountaineering device of roping is useful in scaling turrets, spires, and pinnacles. No "blues" have as yet been awarded to members of this Club!

The motto of the Club—"Though there's doorway behind thee and window before, go straight at the wall"—was printed in a solemn little illustrated guidebook, which cautioned members above all things to avoid disturbing the Dean.

The Dean is a redoubtable individual, responsible for the general discipline of each college. Although he is often a popular figure, he is the natural victim of practical jokes. Our own Dean once suffered the indignity of being photographed in his bed by flashlight by intrepid undergraduates. The expression on his face was worth all the trouble involved. Pursuit of the culprits was rendered impossible for him by the swift screwing up of the outer door to his rooms, the "oak" as it is called at Cambridge,

This "oak" is as solid as its name implies, and studious undergraduates, by "sporting their oak," or closing this door, announce to all and sundry their intention not to be disturbed.

"GYPS" AND "BEDDERS"

Usually each set of undergraduate rooms consists of a sitting-room, bedroom, and "gyp-room," or pantry. The latter is the happy hunting-ground of the "gyps" or "bedders," as the college servants are known; bedders are of the fair sex, though I fear that in appearance they do not always deserve this adjective.

I often took my meals in my own room, tea being a particular ceremony. For some reason, which I have never been able to fathom, it is quite out of the question to make use of the innocent instrument known as sugar-tongs; this is one of the most definite prohibitions laid down in the pamphlet of "Freshers' Don'ts," the guide which every new undergraduate is encouraged to purchase. Cups and saucers and the characteristic plates of toasted scones and cakes are by custom laid out upon the floor and each guest may help himself as he feels inclined.

FLOTILLAS OF BOATS SUGGEST VENICE

Looking out from the windows of my rooms in the New Court of St. John's, I had an almost Venetian view of the stream below. In summer this part of the river was crowded with the ever-popular punts, square-ended boats propelled with a long pole from a precarious standing position in the stern (Plates III and VI).

For the expert this is a graceful motion; but the novice may find his pole sticking, as I did, in the stiff mud of the river bottom! That may mean being jerked out of the punt, and thrown with a splash into the water.



Photograph by Clifton Adams

THE "MILTON MULBERRY" IS SOME THREE CENTURIES OLD

The author of "Paradise Lost" is supposed to have placed the tree in the gardens of Christ's College during his undergraduate days here; but, according to a more matter-of-fact account, it was planted in the very year of Milton's birth at the request of King James I, to encourage the silkworm industry.

Punting is popular on this section of the River Cam, which is too narrow and winding for the oarsmen; and its popularity is natural enough, for here the river traverses the famous "backs" which are perhaps the most beautiful feature of Cambridge (Color Plate II). Here are the many bridges, the spacious, well-groomed lawns, the rows of ancient elms, limes, and chestnuts about which so many poets have sung.

PUNTING TO GRANTCHESTER

This part of the river, by moonlight, holds infinite opportunities for romance. But punting is even more popular on the reaches of the river above the town, where the old name, "Granta," is still used in preference to "Cam."

Here one can gently wander in idyllic surroundings as far as Grantchester, which is near Byron's Pool (Plate V), and the meadows where Rupert Brooke tells us a man can lie and "flower-fulled in sleepy grass, hear the cool lapse of hours pass, until the centuries blend and blur in Grantchester. . . ."

The many poets whom Cambridge has produced may perhaps give the impression that the University does not concern itself with the more practical side of life. This is far from being the case, for wherever one goes Cambridge men are to be found occupying the highest positions of trust and importance.

Poets and princes, scientists and statesmen, law-givers, clergymen, and teachers these and many more have studied here as old Cambridge has gone on through the centuries, molding the minds of men who helped make Britain great.





Photograph from Pictures, Inc.

FEET FLY IN A SOCCER MATCH AT ROME BETWEEN ITALY AND CZECHOSLOVAKIA.

The player in the act of taking a tumble wears the Italian coat of arms. All Italy is becoming sport conscious, and both sexes engage in state-organized athletics (pages 363, 377, and 383).



Photograph from Wide World

"SONS OF THE WOLF" PARADE IN HONOR OF ITALY'S ENTRY INTO THE WORLD WAR

Children from six to eight are enrolled in this organization, which takes its name from the legendary she-wolf which suckled Romains, traditional founder of Rome. The youngsters' white shoulder straps are fastened with a metal clasp in the form of Mussolini's initial. Women instructors will be replaced by men when the boys become Balillas (page 383).

SOJOURNING IN THE ITALY OF TODAY

By Mrs. Kenneth Roberts

INE years ago we went to Italy to find a quiet and detached place in which my husband could write a series of American novels without interruption. We found it by remodeling a hilltop farm near Orbetello that was used by a relative as a summer home, but stood empty during the winter months.

We knew, from the chilblain cures exposed for sale in the local drugstore, that the hilltop was not a tropical retreat, but it held no terrors for people who had been born in, grown up with, and weathered successfully the rigorous winter climate of New

England.

The house, a severely simple two-story rectangular farmhouse, stands on a hilltop four hundred and fifty feet above the water, facing the Tyrrhenian Sea, the Island of Elba, and the far-off island of Corsica. To the right, across the mouth of one of Italy's finest harbors, the mainland stretches away to Genoa and the north (map, page 353).

AN OLD WALLED TOWN BECOMES A MODERN SEAPLANE BASE

Orbetello is an old walled town surrounded by water on three sides. Today it is Italy's best-known naval aviation station. In our time it has grown from a few insignificant buildings and a few small seaplanes to many large barracks, officers houses built in the modernistic manner, and a large flotilla of the most modern and fastest airships. It was from Orbetello that Balbo started on his flights to South America and to Chicago (page 354).

The greatest difficulty in building in Italy comes from the well-grounded Italian idea that the customer is always wrong. To counteract this, orders must be given with firmness and no argument permitted. The slightest weakening on the part of the orderer lets loose a flood of counter-pro-

posals

In rural Italy the carpenter's field in housebuilding is limited. He makes the roof supports, the door and window shutters, and the door and window frames. All else is in the hands of masons, even to the final plastering and tinting of wall surfaces, within and without, and the laying of tiled floors.

The living room plans called for one double glass door, and beside it a stationary French window of the same dimensions. The carpenter came, took careful measurements for the door and window, and retired to his cavelike shop in the village to construct them. In the course of time he emerged from his lair, loaded the results of his labor on donkeys, and escorted them up the hill.

Whether or not the carpenter had lost his measurements and worked from memory was never known, but the door and window were a foot longer and wider than the yawning cavities waiting to receive them.

To the carpenter, this error was a bagatelle. With a happy smile he instantly offered a solution for the difficulty. All he needed, he said, was the loan of two masons. Assisted by them, he would demolish enough of the two-foot-thick walls so that his monstrous mistakes might be inserted. His ingenuous smile changed to a look of incredulity and disgust when we made it clear that his work must be made to fit the house, not the house altered to fit his work.

With lightninglike speed he evolved another idea. The glass door and window should be placed against the open side of the loggia to afford shelter to passers-by who might unexpectedly be caught by a shower.

Since we were inhospitable, stubborn, impatient Americans, we found ourselves unable to accept his fertile schemes; but since we were not blessed with the gift of tongues, he was spared the distress of knowing what we thought of his blunders.

COUNTRYSIDE COMBED FOR FIREWOOD

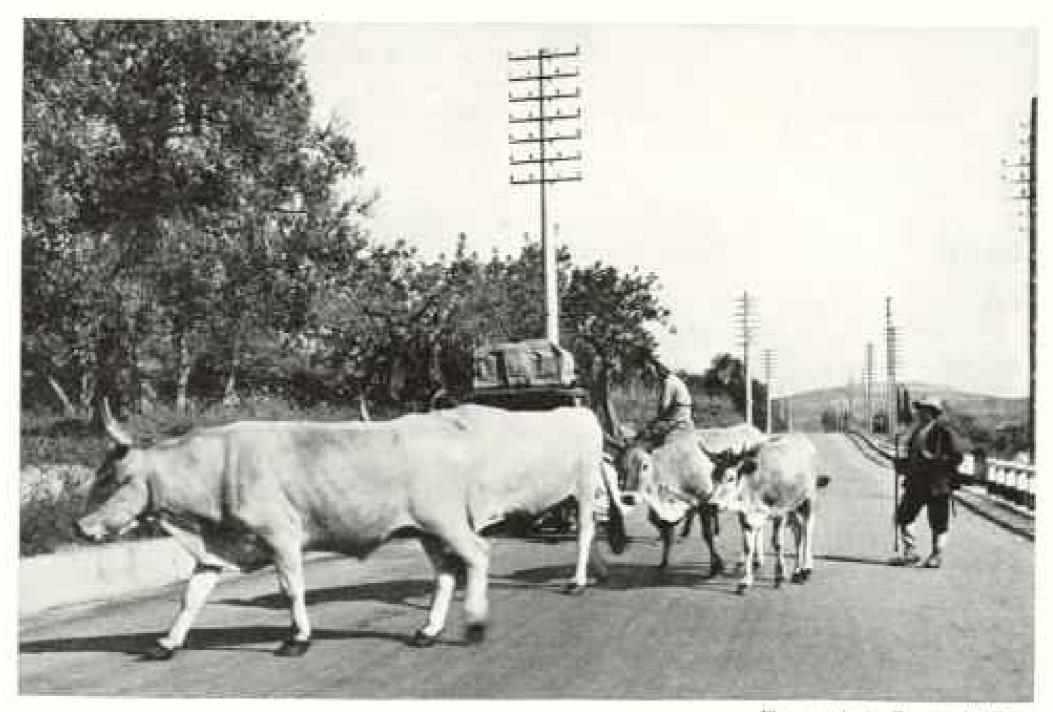
When one begins housekeeping in Italy with a vocabulary of fifty disconnected words and a dictionary, daily problems remain problems for some time. A major one was how to get sufficient wood to feed two terra-cotta stoves and a fireplace. All our cooking was done with charcoal. The promontory and the mainland for many miles in both directions yield a scrub growth suitable for making brush brooms but for little else.

At first the farmer would make a tour of the promontory, find someone who owned a dead fig tree, buy it, chop it down, and bring it home. Unfortunately a fig tree, whether young or old, is good only for shade and bearing figs. When placed on a



NO DRIVER CAN SAY HE FAILED TO SEE THE "ALT," OR STOP SIGN!

This is an autostrado, a high-speed automobile toll road. The huge tires on posts on either side are for advertising purposes. Here between Stress and Milan, as all across the Nation, rough, dusty roads have been transformed into modern truffic arteries (pages 362 and 373).



Photographs by Bramson De.Cou-

CATTLE, NOT ROMAN LEGIONS, NOW TRAMP THE APPIAN WAY

But automobiles and rumbling trucks are far more frequent on this ancient military road, now a modern motor highway (page 375). Linking Rome and Capua, and later extended to Brindisi, the historic thoroughfare was about 15 feet wide and was paved with huge blocks of basaltic lava, some of which are still in good condition.



Drawn by Elbert Jecome Howell

RUGGED MOUNTAINS, DOMINATING THE MAP OF ITALY, MAKE FARMING DIFFICULT OR IMPOSSIBLE OVER WIDE AREAS

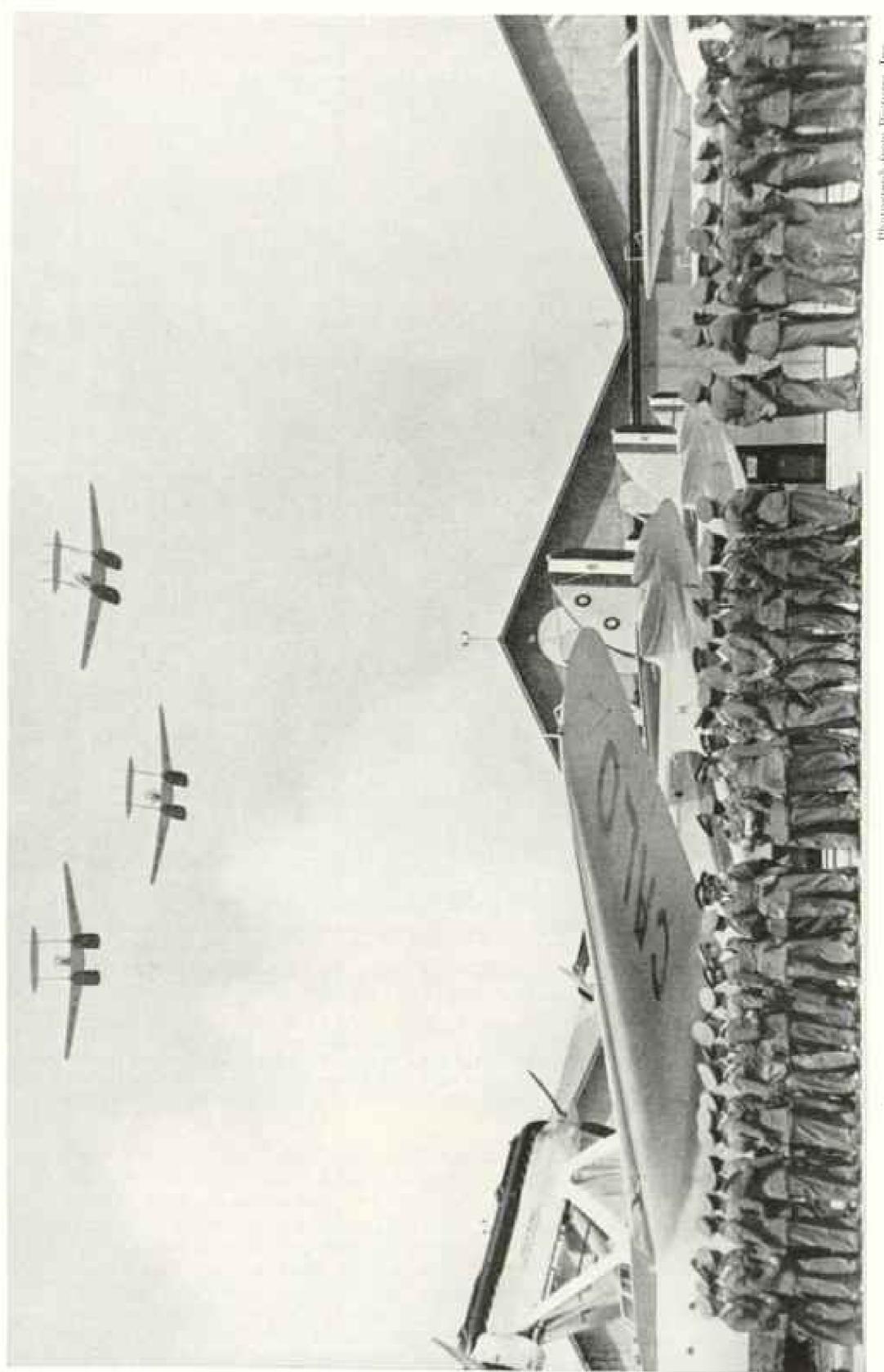
At the same time they provide the Nation with two of its chief resources—scenery and water power (page 388). From Carrara in the Apennines comes world-famed white Italian marble. To the north rise the Alps, with the lake district and those strange limestone formations, the Dolomites (page 358). Crowded between the two ranges rests the fertile valley of the Po, with its farms and cities. At Orbetello, across the Tyrrhenian Sea from Corsica, the author makes her winter home (page 351).

fire, it smolders like a bale of woolen goods. We soon learned to reject fig trees and demand almond or olive trees.

The first year that we went to Italy in search of peace and quiet, we left the Paris-Rome express at Grosseto, the county seat, twenty-five miles away. That was the train's nearest stop on its way to Rome. As we wandered the streets looking for what we could pick up, we were stirred at

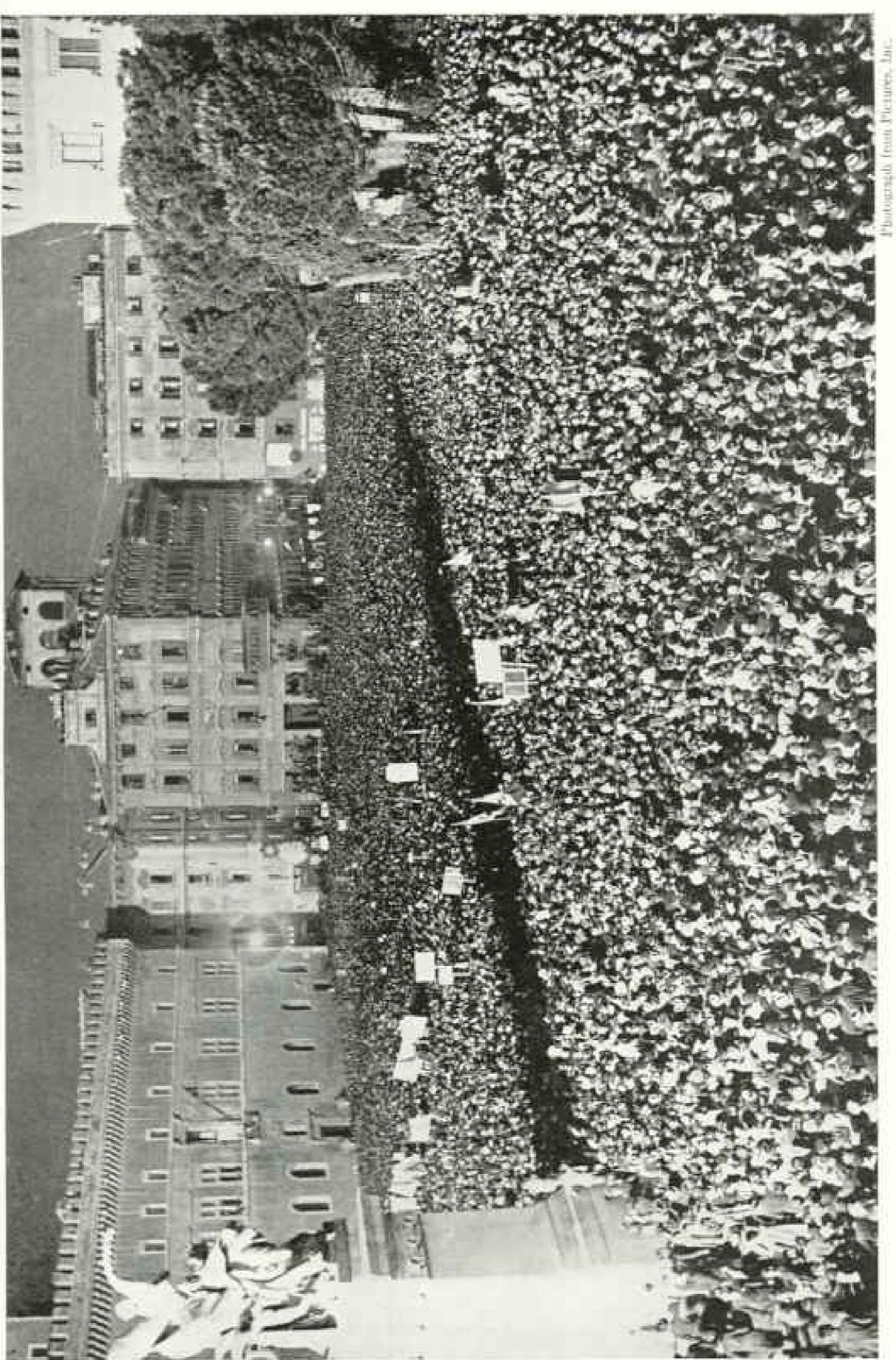
the sight of mallards, teal, woodcock, sparrows, and other "wild" game hanging before the doorways of the markets. Goodsized wild ducks were priced at forty cents apiece, sparrows at five cents each.

Excited by these bargains, we bought freely, and during the winter had more sent us from time to time, to the distress of the cook, who feared that a steady diet of game would affect our livers unfavorably.

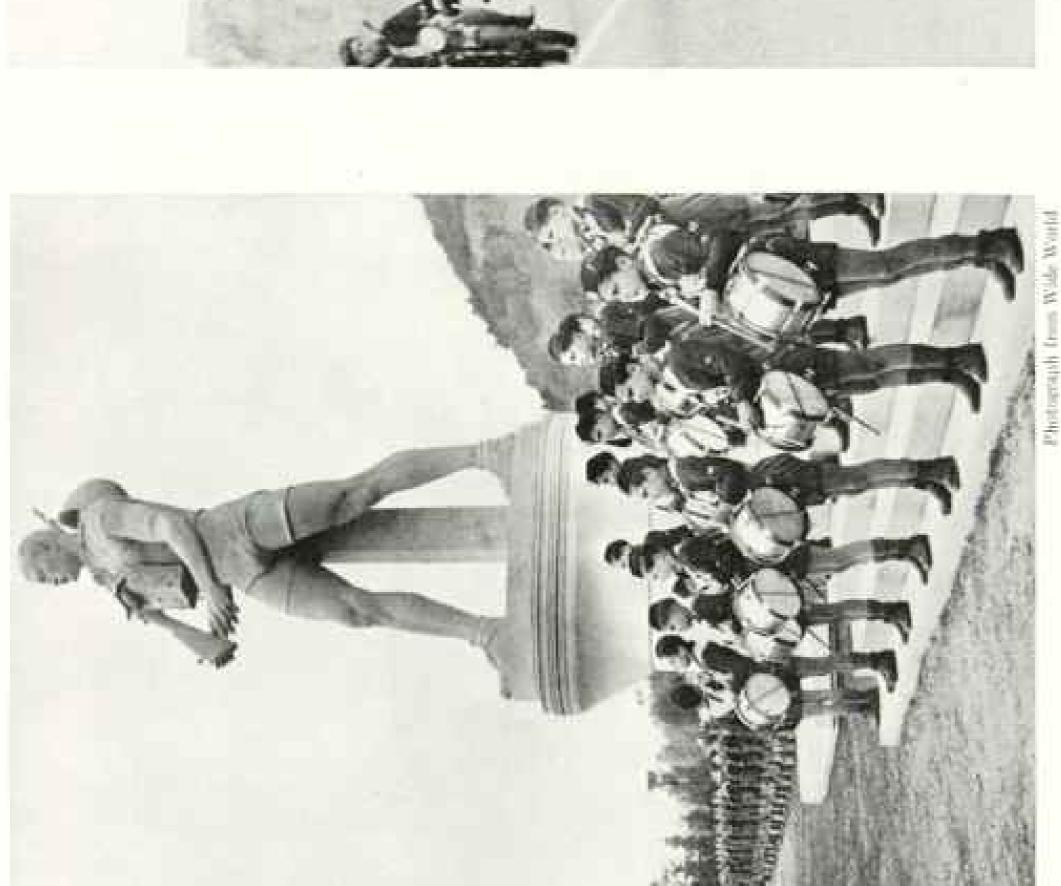


Photograph from Pictures, Inc. GENERAL ITALO BALDO'S FLYING FLEET BEING DRILLED FOR THE 12,000-MILE TRIF TO THE CHICAGO "CENTURY OF PROGRESS"

Some of the crew here learn tricks of the trade by watching comrades manitiver in the sir. From this large navid sviiition at Orbetello, Ralbo's expedition began its flucts to both North and South America (page 151). RETURN IN 1933



gathered on the night of May 5, 1936, before the balcony of the Puluzzo Vericrit, left, where NEWS THAT THE ETHICPIAN WAR IS OVER A huge throng—estimated by Italian newspapers at half a million people—gathered on the night of May 5, 1936, before the foundation of the second of the seco WILDLY CHEERING ROMANS HEAR IL DUCE BROADCAST THE



HALILLA DRUMMERS STAND AT ATTENTION DURING DRILLS IN THE

The massive statue represents a young Italian equipped with rifle, gas mask, and helmet. Boys between 8 and 14 belong to the Balilla organization (p. 383).

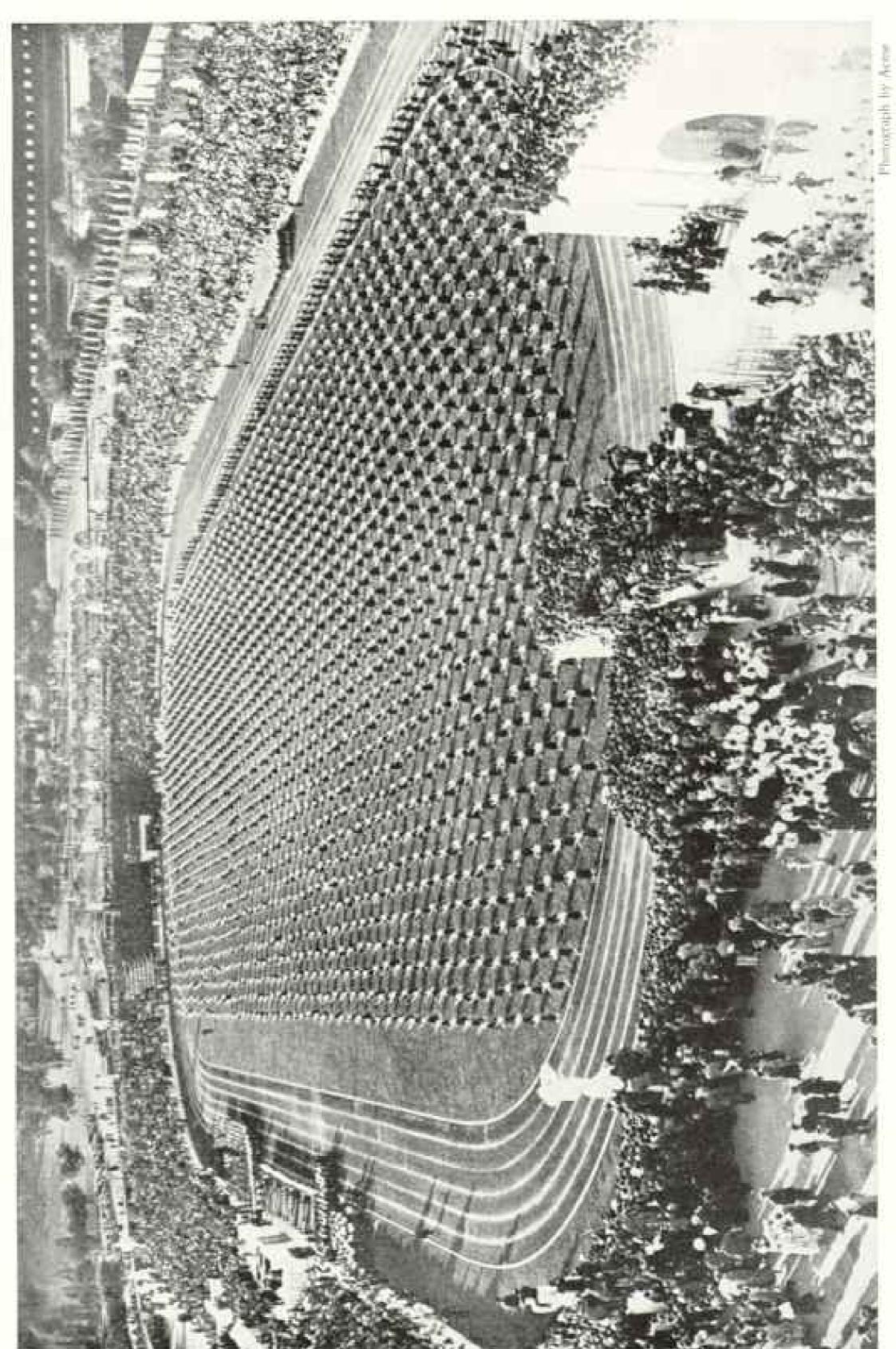
MUSSGLINI FORUM



YOUNG ROMAN MOTORCYCLISTS PASS IN REVIEW ON THE TENTH ANNIVERSARY OF THE POUNDENG OF BALILLA

Premier Mussolini himself is an ardent motorcycle fan, and encourages the use of

these light, one-cylinder machines by people who cannot afford automabiles.



THAN 2,000 CHELS LINE UP IN BOME'S NEW MUSSOLINI FORCE FOR IS DURING A MASS DISPLAY OF SPORTS WHITE HEOUSES GLEANING IN THE SUN



"TOO STEEP," THINKS THE MULE, HALTING ON AN UPGRADE BESIDE THE LAKE OF GARDA

Flat carts like this, in northern Italy, usually have smaller wheels than those in Rome and to the south. The road was built for automobile traffic, but farm women use it to carry their produce to market in big hand-woven baskets.



Photographs by Bramon De Cou

RUGGED ROCKS OF FANTASTIC SHAPES ARE THE DOLOMITES

Streaked veins of striking colors run through some of these snow-fringed limestone peaks, which often turn a glowing pink at dawn and sunset. This car is a long way from home. The "NA" on the license shows that it comes from Naples, hundreds of miles to the south (map, page 353).

A picture of our first night as housekeepers will never leave my mind. For some reason or other I went into the kitchen at midnight. There sat the cook, who had arrived that day, plucking ducks by the light of a single candle. If a cook comes with the intention of staying, nothing discourages her.

Now we have eschewed all game. After nine years we think we have learned about everything that can be found in the village. This has been a hard struggle, for Italian cooks seem to have an aversion to making suggestions. Information must be ferreted from them. In the past, if any dish was ordered three times, it was taken for granted that the dish was a passion with us. In reality it was ordered because we could think of nothing else to order. The cook, not sensing the situation, would have forced it on us indefinitely unless forcibly restrained.

BANDANNA SERVES AS MARKET BASKET

Each morning after the cook has had her breakfast, she picks up her list of orders for the day and her yard-square bandanna handkerchief in which she carries home the provisions, and descends to the village to do the marketing and get the mail.

All Italy is on a cash-and-carry, day-today basis. This is true of life in the cities or in the country. Each item purchased by a servant is entered in an account book which is shown to the mistress when more money is needed.

Last winter, for the first time, some staples were laid in in bulk to last through the senson. This was because prices were repeatedly increasing on account of the war in Ethiopia. Therefore, soon after our arrival, the farmer went to the village with the donkey and loaded him with \$12 worth of laundry soap, \$25 worth of coffee, a \$12 segment of rocklike Parmesan cheese to serve grated on almost everything, as well as rice, salt, and sugar.

This was the only way the war touched us. Coffee has always been expensive in Italy, and the war caused it to double and treble in price. Tea is an affectation with a few Italians, but coffee is universally enjoyed and desired. Ethiopia raises some of the finest coffee in the world and Italy plans on profiting from the coffee crops while searching for hidden minerals and oil wells.

One problem that it took us nine years

to solve was the wine question. All small town cantings, or barrooms, are supplied with wine made by the farmers of the locality. The cook takes an empty two-quart flask, or flasco, to her favorite cantina and has it filled. If it suits your taste, you at first think how fortunate you are to have such good wine. It is a sensation comparable to eating your own home-grown vegetables.

A few nights or a few weeks later you take a sip and something strange has happened. It may have become sickeningly sweet or distressingly sour. The servants are summoned and requested to state the reason for this singular chemical change. Their answer is invariably the same. "It is nothing, signora. The other wine is finished and this is what Beppina brought home this morning."

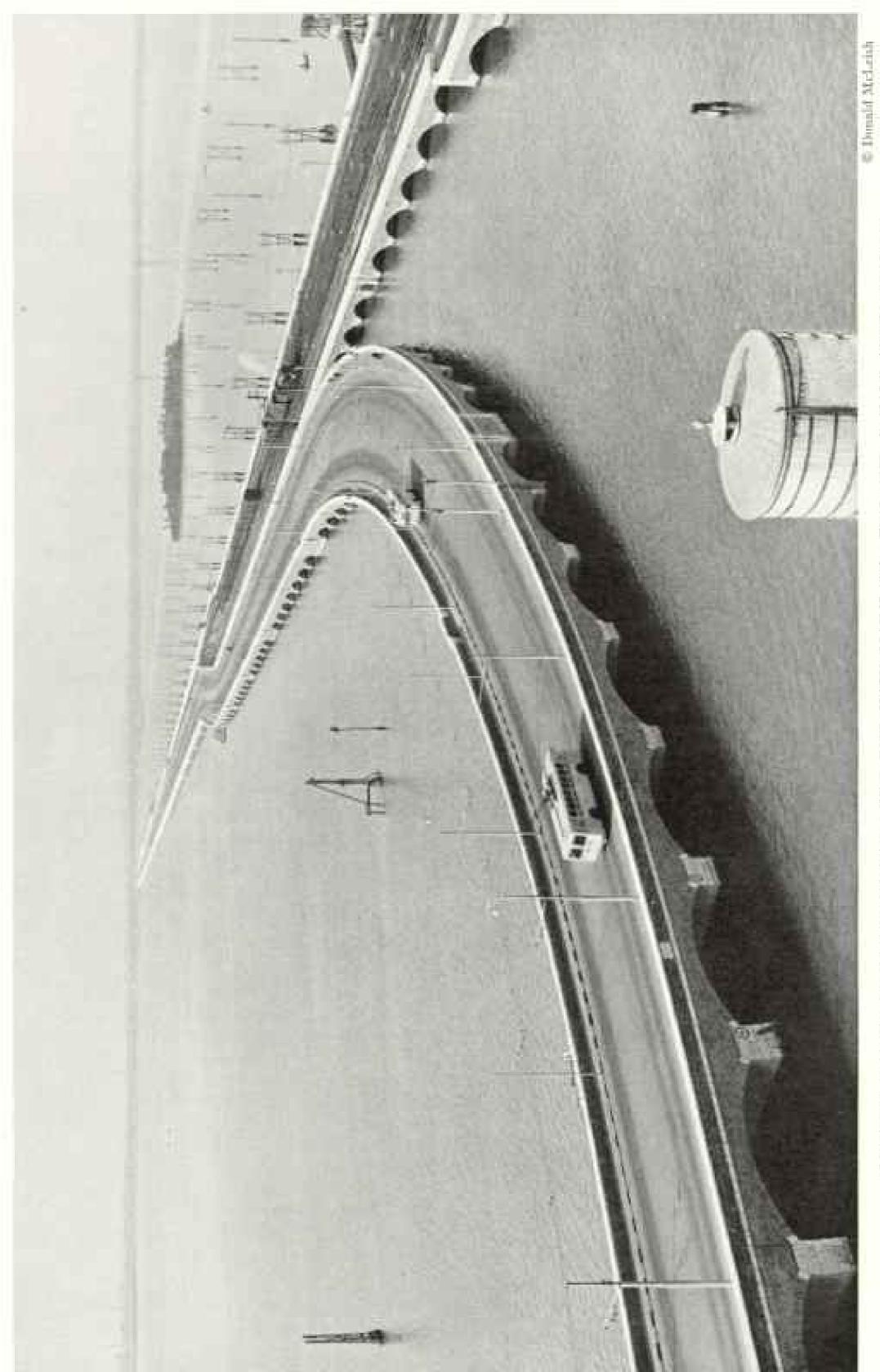
We asked if there wasn't someone who had really superior wine. We were told there was vino scelto, "choice wine," which cost a little more. That was sent for post-haste and we hoped our problems were solved. But what they brought us proved to be a heavy, sweet, dessert wine.

After this disappointment seven flasks were brought out, washed, and a label pasted on each. Beppina was instructed to visit seven cantinas, fill a bottle at each, and write the name of the cantina on the label. Then there was a sampling, and a supply of the most satisfactory sample was ordered.

Usually a cantina refuses to sell more than ten quarts of wine, on the ground that if it sells too much it won't have enough left for its customers. Consequently, our wine-buying was attended with indifferent success for eight years.

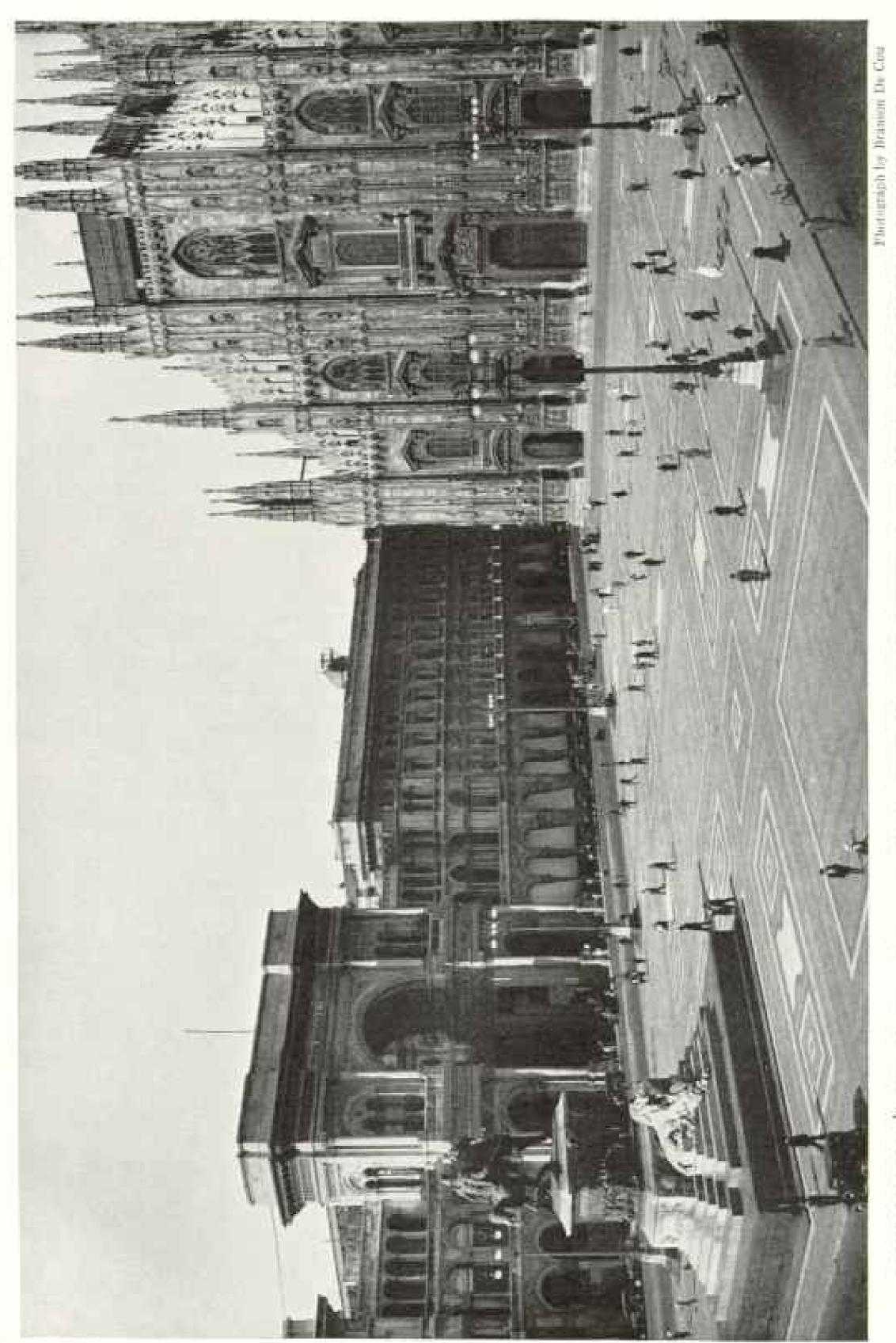
There is something romantically appealing, as a rule, in the tales recounted by those
who live at small expense in out-of-the-way
places. Such people invariably—to hear
them tell it—have servants who look like
English butlers and French maids, and converse quaintly in proverbs similar to those
in Bartlett's "Familiar Quotations."

Picturesque native costumes are not worn in our part of the country. The men wear overalls patched with pallid relics of longgone garments. The women wear dresses vaguely reminiscent of well-worn cotton umbrellas. Nevertheless, at first we felt our two sturdily built helpers would add an air to the place if they were decked out in a bit of Old World quaintness.



LITTORIO BRIDGE CONNECTS VENICE WITH THE HAZY MAINLAND, TWO AND A HALF MILES DISTANT

The wide, new structure, curving out from Venice, parallels the older railway trestle. Trackless trolleys ply back and forth on the bridge, which has special lanes for cyclists and pedestrians. Motorists arriving from the mainland park their cars in an enormous new garage in the city's outskirts and go into town by gondola, small steamer, for street cars and busses. Dotting the shallow lagoon are numerous islands like the one near the bridge. or the more expensive gasoline specificats, Venetian substitutes



The English poet Shelley described this church as being "cut into pinnacles of immense height, and the utmost delicacy of workmanship, and loaded with sculpture."

Ing onto the Pinzes, left, is the Galleria Vittorio Emanuele II (page 325). POCUS OF MILAN'S LIFE IS THE PLAZZA DEL DUOMO, WITH ITS HUGE CATHEDRAL AND STATUE OF KING VICTOR EMMANUEL II

In the spring of 1935 the prospective war in Ethiopia was viewed unemotionally by the mass of Italians. Little was known about the country, except that it was a place where bananas grew. Bananas, to the mind of a resident Italian, are perhaps the most desirable of all fruits. He regards them as a truly regal dish, just as some people regard caviar. He has almost the same feeling toward them that colored people are supposed to have toward fried chicken.

At that time two young soldiers, on their way to a training camp, were engaged in conversation by an Italian woman who shared their compartment in the train. She wanted to know if they weren't thrilled at being called for the campaign in Africa.*

They were not only unthrilled, but had given the matter little thought. They were not married and felt they might as well go there as anywhere.

"But," she said, "you will have all the bananas you want! You will be allowed to help yourselves, just as we permit people to enjoy our grapes!"

The young soldiers remained unmoved, Possibly they came from families that, like most Italian families, kept their grapes for themselves.

At the same time, however, Italian men of property felt the step must be taken and Italy's acreage increased, but the wives of these same men were loath to think of their sons being called to the colors.

With the imposing of sanctions the sentiment, particularly in cities, changed completely. The thought that many countries should tell Italy what she might or might not do, and coerce her into obeying their dictates, aroused a feeling of passionate nationalism and a grim determination to die rather than to submit to foreign domination,

After witnessing some of the new enthusiasm in Naples and Rome, we felt it must be universal. On our arrival at our outof-the-way hilltop we found the farmer's son at home and expressed pleasure that he had not been summoned to Africa. "How has it happened?" we asked. He shrugged. "It's a miracle," he admitted.

We found that while young men in country towns were quick to parade and sing in celebration of victories, they were not averse to remaining at home, working in

See "Traveling in the Highlands of Ethiopia,"
"With the Italians in Eritrea," and "Hunting
Castles in Italy," in the NATIONAL GEOGRAPHIC
MAGAZINE, September, 1935.

the vineyards or at their jobs as masons, plumbers, painters, and carpenters.

In times like these, people in other countries are filled with amazement and apprehension for those who venture into a country at war, even though the actual fighting is three thousand miles away. However, persons living or traveling in a warring nation are often untouched by the war until they venture within about twenty miles of the front-line trenches.

The feeling in Italy for a few months was bitter and hostile toward England, and a few anti-English demonstrations took place. But it has always been a simple matter for any foreigner, English or otherwise, to travel freely and with the utmost safety in Italy at any time, provided he takes the trouble to behave like a Bostonian on a Boston-New York train, who keeps his gloves on and speaks to no one.

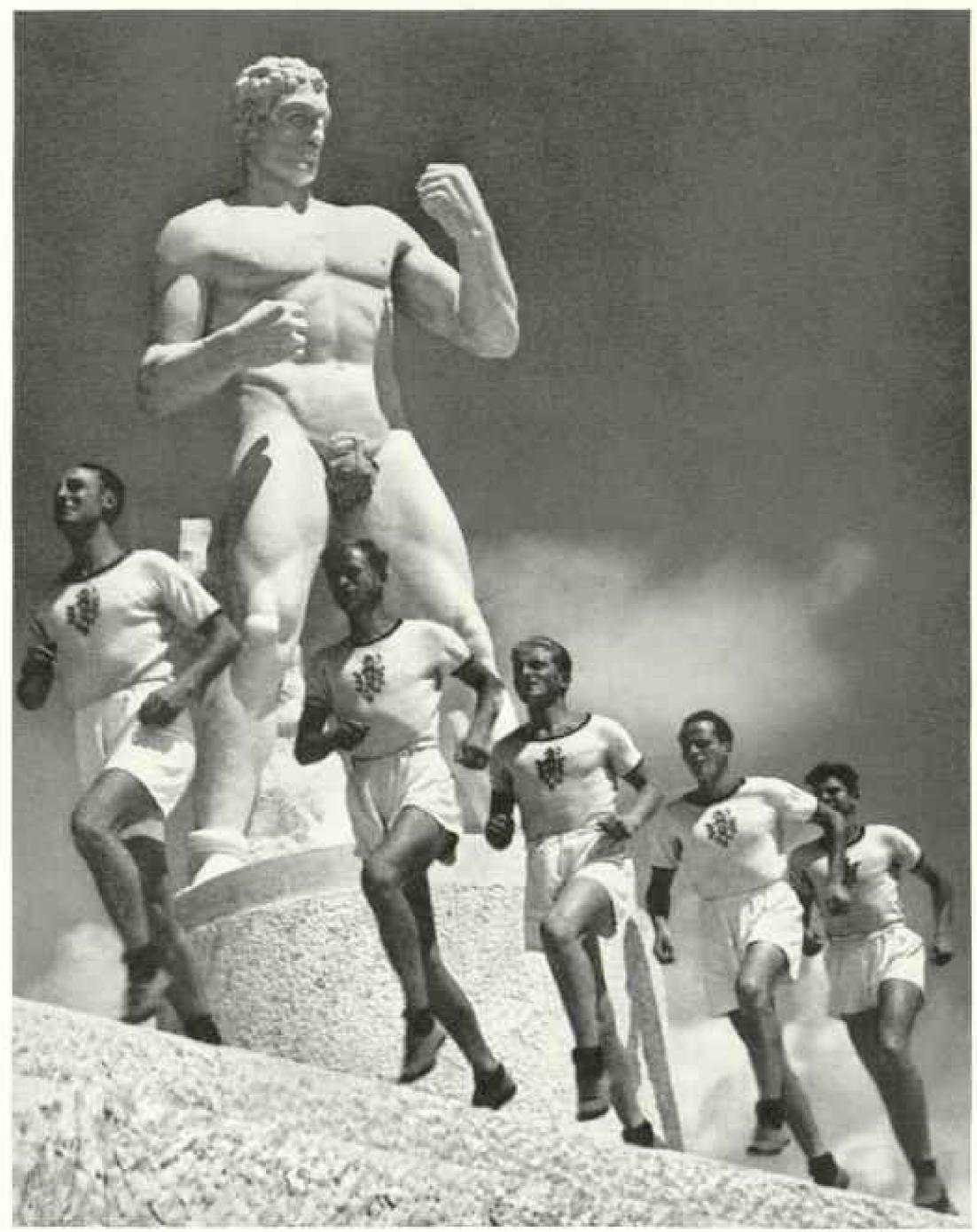
HIGH-SPEED HIGHWAYS CRISSCROSS THE NATION

Travel conditions improved slowly in Italy before the Fascist regime. Since the Fascists came into power, roads and railways have advanced by leaps and bounds.

In 1928, when we first motored from Naples to Orbetello, the main road was a succession of potholes, ankle-deep in pallid dust. An automobile progressing over that road had the appearance of a comet—a small object followed by a billowing tail of gray powder. Every main road in Italy was the same.

In 1933 we made a swing by motor up the west coast road from Naples to Genoa, across the north of the country, through the valley of the Po and Padua to Venice; down the east coast road to Ferrara, Rimini, and the picture postcard Republic of San Marino; then across the mountains to Florence, on roads not sufficiently important to be listed on the map we carried. Every road on which we traveled was a hard-surfaced road, as smooth as a boulevard and practically free of dust. This miracle of road building was accomplished in less than five years.

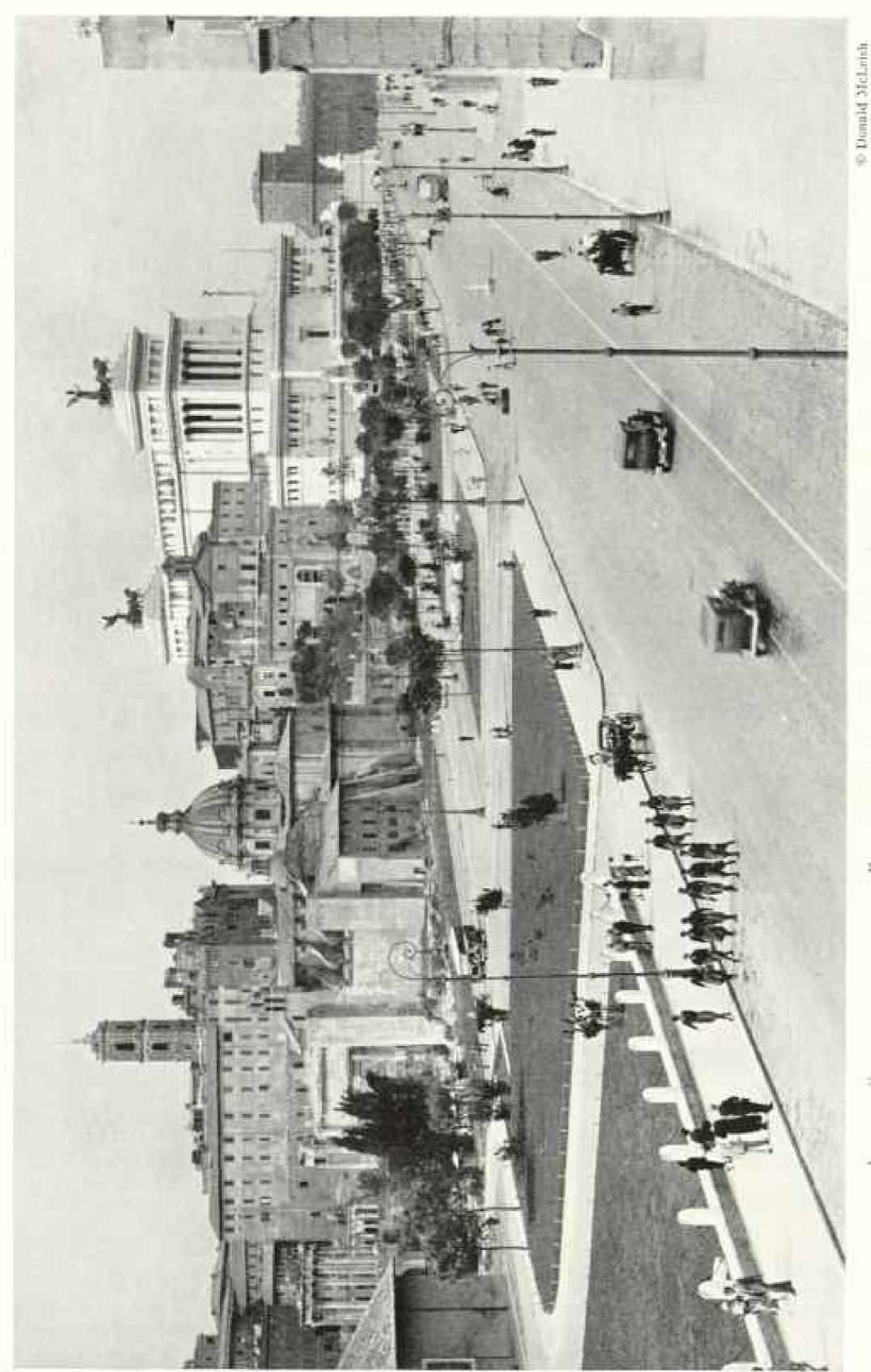
The trains have become more up-to-date and successfully live up to the Nation's boast that they always arrive on time. Some of this improvement has been achieved by scheduling long waits in railway stations. A train which is permitted to take out several minutes at one station can afford to dawdle a little along the way.



Charlet by Bluenerardt

BRONZED ATHLETES, LIKE STATUES COME TO LIFE, JOG PAST A MIGHTY MARBLE BONER IN THE MUSSOLINI STADIUM.

The runners are future gymnasium teachers studying at the Fascist Academy of Physical Culture at Rome. In perfect unison they trot around the upper rim of the arena in the vast sports center begun in 1931 north of the city beside the Tiber River (page 357). The statue towering above them is one of about 60 figures, representing different athletic types, which were presented by Italy's provinces. In addition to this stadium, scating some 20,000 spectators, the Forum has well-equipped playing fields for the many kinds of sport encouraged by It Duce's Government.



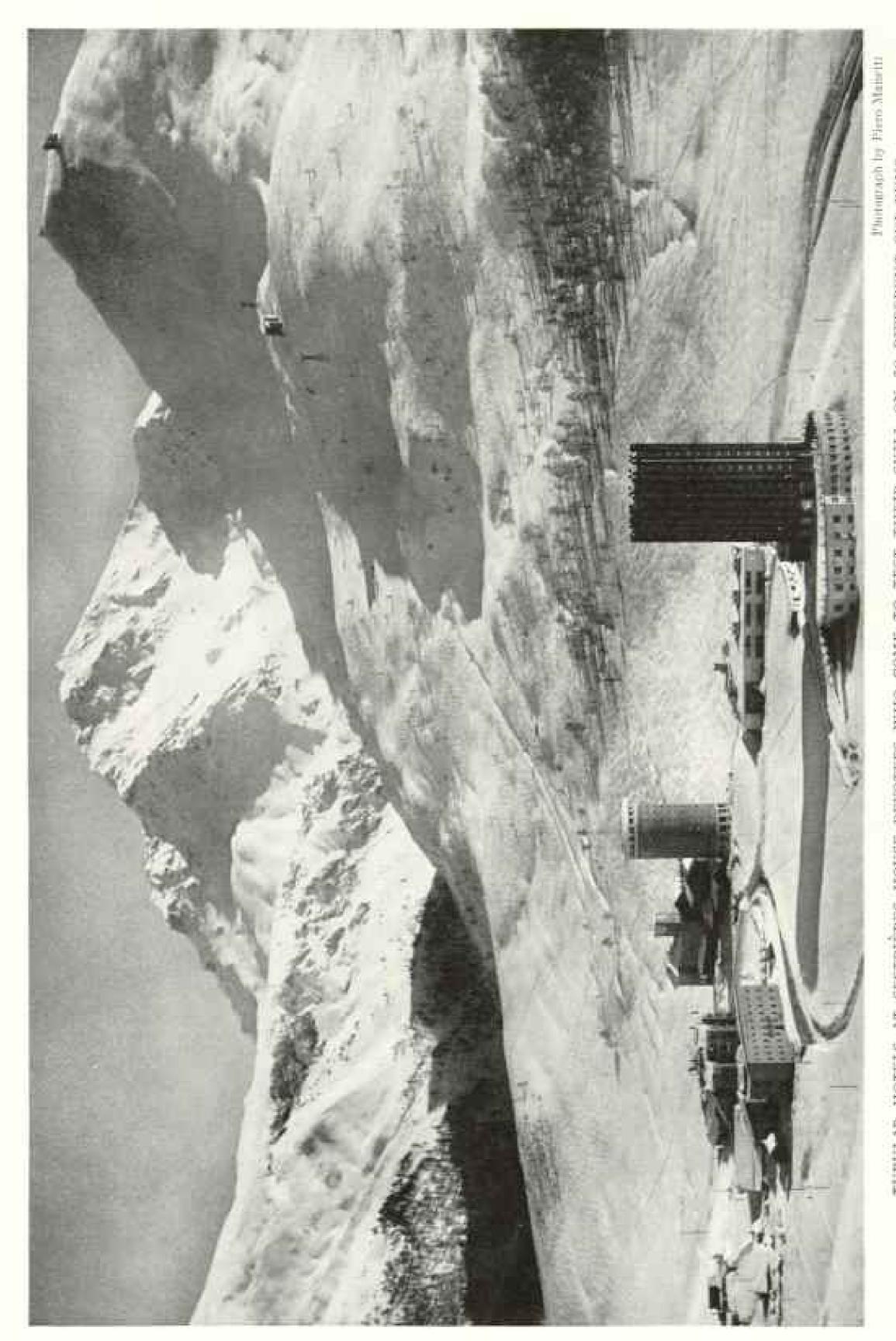
RUNS ARROW-LIKE PAST HISTORIC RUINS TOWARD MUSSOLINI'S OFFICES ROME'S NEW "ROAD OF THE EMPTRE

Follow the white line and you come to the balcony of the Palazzo Venezia, where Il Duce addresses the populace (page 355). If an old-time Caesar could come to life and gaze from the Colineum near here (page 379), he might recognize some of the ancient pillared structures on the left, but he probably would rub his eyes at the gistening white mass of the National Monument, crowned by winged statues driving chariots. A group of young blackshirts strolls along the Via dell' Impera, where horse-drawn cardages are surprisingly common.

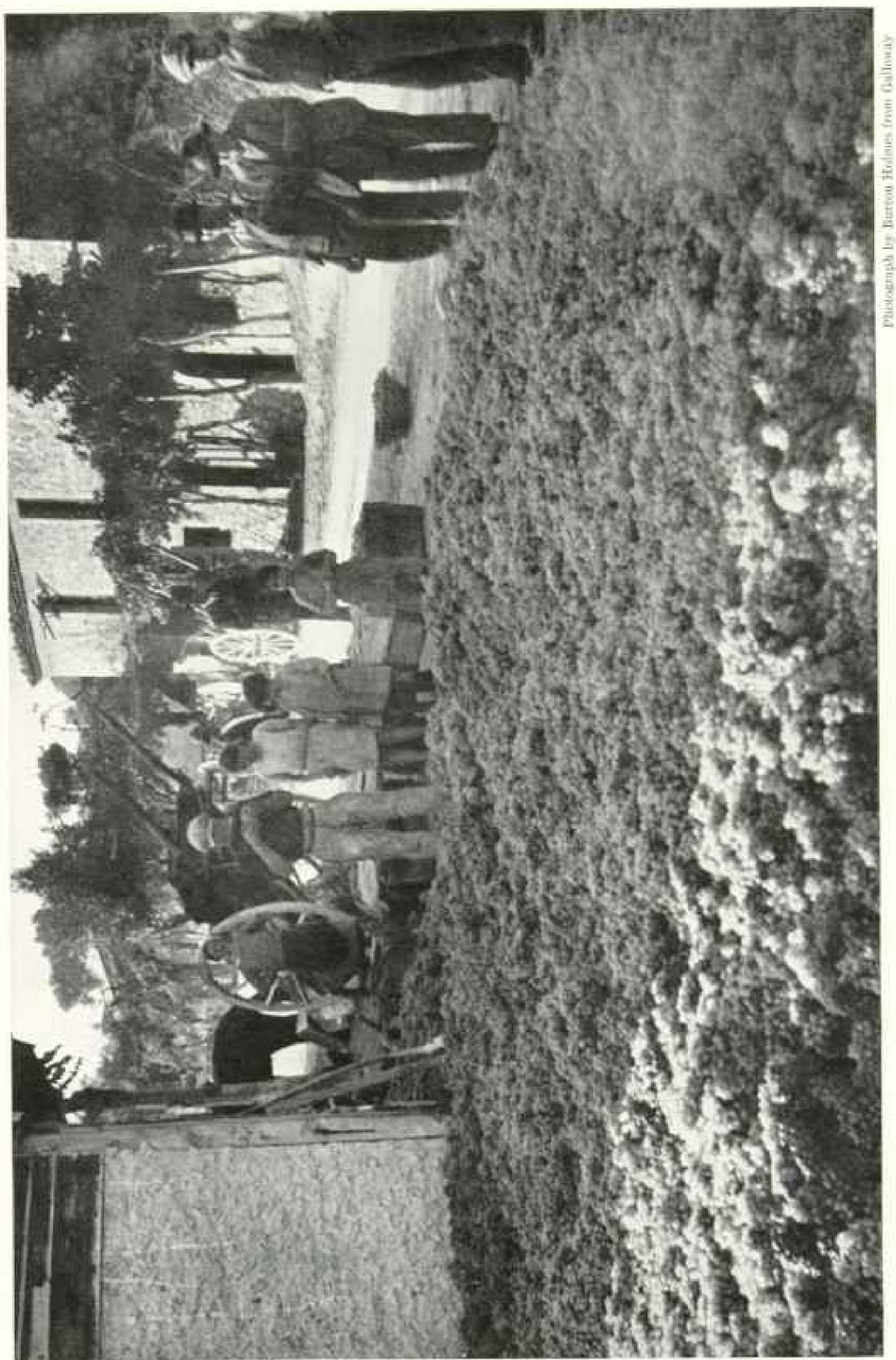


SWAMP LANDS! TOWS FOR THE PORMICA

t, malarial Pontine Marshes between Rome and Naples have been transformed by a mare of drainage ditches on of the Pontine Marshes," National Geographic Marshes, August, 1934). Capital of the region is four-use; the family occupies the two-story section, and the adjoining wing, with arched entrance, is the stable. Virtually depopulated for more than 3,000 years, the vast, malarial Pontine Into a model agricultural treat see page 368, and "Redemption of the Pontine Syear-old Littoria. On the outskirts is this tile-roofed farmhouse; the family of Most of the houses are painted light blue, a color supposed to keep files away.

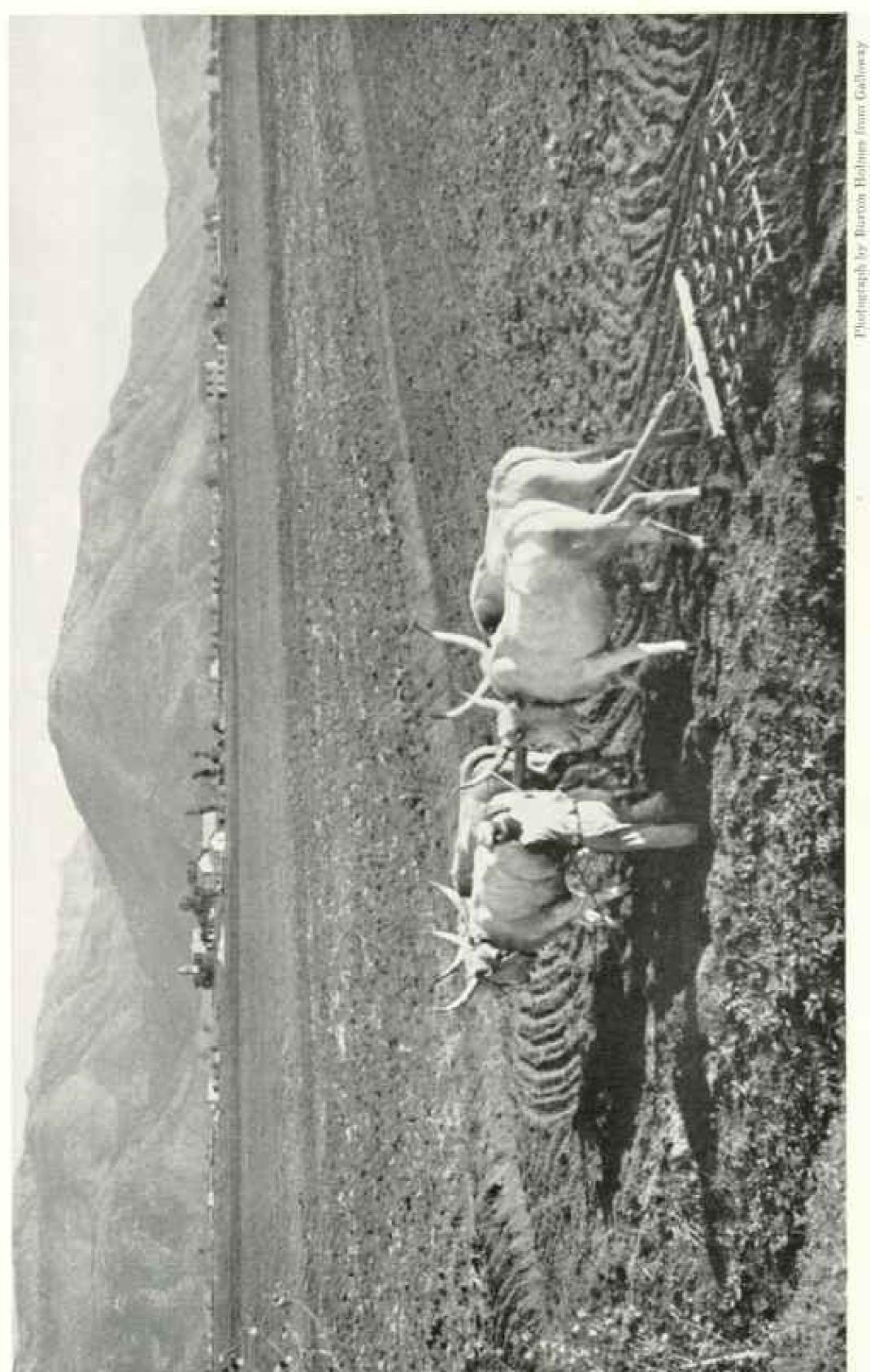


The unusual hotel conextreme left. Thus skiers enjoy swift downhill runs with a minimum of exertion. The unuse a broad panorama of the Cottian Alps which surround this resort, 37 miles west of Turin. TUBULAR HOTELS AT SESTRICKES HOUSE DEVOTEES WHO COME TO TEST THEIR SKILL ON 70 DIPPERRY SKI HUNS Cableways take parties up Mt. Sises, right, and Mt. Banchetta, struction gives each guest an outside room, with



HARVEST PAVES THIS WINERY STORAGE YARD IN THE ABRUZZI STNGLE DAY'S GRAPE

children—survey the heap of ripe, htselous bunches, only part of their annual crop. Italy ranks second only 's wine-producing nations, and consumes a large percentage of her output. to France among the world With noticeable satisfaction, the pickers-men, women, and



MAN, TILL RICH BLACK FIELDS TO AUGMENT ROME'S FOOD SUPPLY LONG-HORNED OXEN, TALL

Just ahead of the slock team runs one of the ditches that drain the former Pentine Marshen. Here, under Government supervision, a family may purchase a plot of about 10 acres for small annual payments. By Dicember, 1934, about 60,000 ex-service men and settled in this reclaimed area, cultivating some 100,000 acres of grain and vegetable crops. Most of the colonists have come from overpopulated central and northern Italy (page 165). 170



Such carrescelle, often with patched tops, line up at stations to Blankets protect the burses, which kind-hearted Italian drivers regard as friends and business partners.



A TINY PASCIST SITS ENTHRONED ON HIS MOTHER'S ARM

In four or five years he will be eligible to don the uniform of the "Sons of the Wolf" (page 350). A case with the family pet hangs on the wall of this home in a roadside village between Florence and Bologna.



Photographs by Bramon De Cou

HE MIGHT BE "GOD OF THE RAILWAY," IF THIS WERE ANCIENT ROME

Latins of old had deities for nearly every phase of life; but this grotesque head is merely a fountain on Milan's new railway station, one of the largest in Europe.

In a first-class compartment on a train the foot must not be placed on the seats until the plush has been well protected by

a paper or some extra garment.

If a thoughtless traveler neglects this precaution, a guard, endowed with second sight, is at once at the compartment door and sternly makes him realize he is fortunate to be permitted to end his days in possession of the offending foot. Not many are thoughtless a second time. However, should you be traveling with a small dog, you buy a ticket for the dog for a nominal sum, and the pet is allowed to sit on the plush, feet and all!

ONE-WAY SIDEWALKS IN ROME

There is another regulation that high and low must observe. The large cities have strips marked off in their busy streets which pedestrians are to use for crossing. In such places jaywalking is not allowed and traffic officers are at hand to shoo absent-minded people inside the strips.

Rome has one-way sidewalks on some of her narrow streets-the popular Corso Umberto, for example. If you leave a shop and want to walk against traffic to get to another shop a few doors farther along, the stern eye of the law is at once upon you. Sometimes it is lenient and

sometimes not.

One of the first things the Fascist government did was to begin the building of ocean liners. From the beginning they were comfortable and popular boats. They continued to build, always better, bigger, and more luxurious vessels, keeping the newest for the New York route and substituting the earlier ones for the South American trade. Today they have splendid services to South Africa, India, and the Far East as well (page 373).

The Italian Line boats which now ply between New York and Italy are equal to the finest afloat. The cheerful, friendly atmosphere is not surpassed on any other ships that sail the seas. Perfect service is a matter of training, but friendly, cheerful

service is a matter of disposition.

Every member of the ship's personnel seems to wish to make the crossing agreeable to each passenger. If you cross several times on the same boat, or meet a former steward on another of the Italian ships, he greets you with real pleasure.

For several years we have taken a wirehaired terrier to Italy with us. Stewards on Italian liners have repeatedly recognized the dog and called it by name-an attention hard to equal.

Italians are passionately devoted to children, and the stewardesses make life on shipboard easy for mothers who travel with-

out nurses.

The halcyon days have passed when foreigners, who were content to rest quietly in a place for a while, could enjoy the amenities of life for a dollar a day. Those tales make pleasant bedtime reading, but have passed into the soft blue haze of forgotten things, along with penny candy, winter underwear, and the exhibaration of a trolley ride.

Today a person travels in Italy as economically or as expensively as he wishes. The new hotel coupons and travelers checks issued abroad to foreigners at a more favorable rate of exchange make his sojourn more economical.

GASOLINE AT \$1,24 A GALLON

Motoring, however, is another matter. Italy has to import gasoline and oil. Motoring is a joy if money is no object. If it is an object, the beauty of the countryside or of a picturesque hill town is somewhat dimmed by computations, on the backs of old envelopes, of the staggering costs of a full gasoline tank.

As long ago as 1930 an American, accustomed to groaning at State taxes which obliged him to pay 20 cents a gallon, was horror-struck in Italy when forced to pay

40 cents a gallon.

In 1935 and 1936 up to the time this is written, however, 40-cent gasoline in Italy would have been considered a gift. The American dollar had depreciated in value, and the war in Africa had sent prices skyrocketing. The price of gasoline was greatly increased in order to conserve every drop for the air force and the motorized units. Ordinary gasoline cost \$1.24 a gallon. Ethyl gasoline was \$1.36 a gallon.

The result was that for economic and patriotic reasons many automobile owners

put up their cars.

Although this brought idleness and short rations to all garage and auto repair men, the Government refused to permit proprietors to close their shops and lay off employees. In many cases this had to be done willy-nilly, which in turn was hard on the owners of the buildings and so on all down the line.



Photograph by Branson De Con-

"WANT TO BUY A CRICKETS"

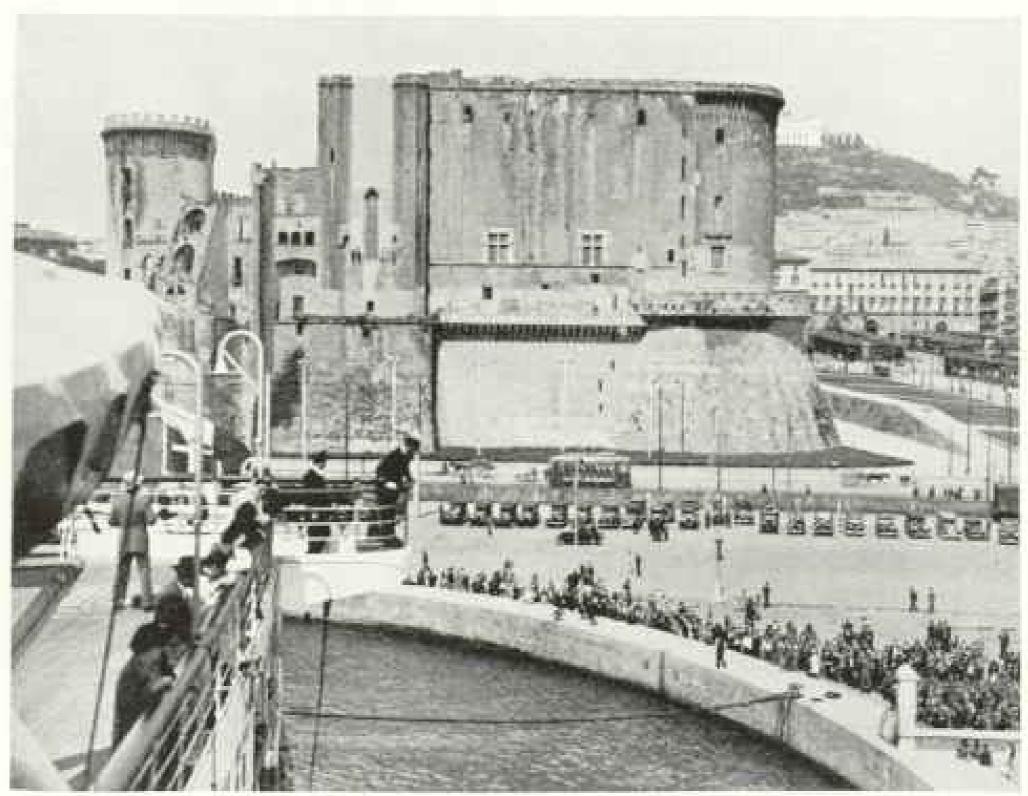
On the annual "Cricket Day" in Florence, the chirping insects are sold in wooden cages as household pets.



Photograph by Vitulia

"NO. 74" COMES TO A BRIEF HALT DURING THE ANNUAL THOUSAND-MILE RACE

Charcoal gas provided fuel for this machine in experiments with gasoline substitutes during the 1936 Mille Miglia. Run on a Sunday, when spectators are free to mass themselves in knots at dangerous curves, the race begins at Brescia, proceeds southward to the outskirts of Rome, eastward to the Adriatic, and back to the starting point (page 384).



Photograph by Branson De Cou.

JUST IN FROM NEW YORK, THE "CONTE DI SAVOIA" DOCKS AT NAPLES

Welcoming crowds line the water front before the massive Castel Nuovo, former residence of the House of Anjou. The castle was more than two centuries old when the Italian sailor Columbus discovered the New World. Today Italy's ships are among the finest affout (p. 371).

We had found from bitter experience that the mental stress of motoring was lessened if an emergency two-gallon can of gasoline was carried in the car. In November of 1935, when we landed in Italy for our annual stay, we asked to have this can filled at the first gasoline tank at which we stopped,

"Non é possibile," we were told. Gasoline was forbidden by law to be put anywhere but in the tank. Not another drop could be carried away without written permission from a certain ministry.

If a motorist in Europe runs out of gas there is no country where, as in America, one can coast to the next filling station. This is particularly true in Italy, where it is not unusual to draw thirstily up to a lone tank and find the proprietor has gone to the country to tie up his grapevines, and taken the key with him.

If you can bring yourself to forget your pocketbook, there are few countries in Europe where motoring is more enjoyable than in Italy. Not only have perfectly surfaced roads been built the length and breadth of the country, but more are constantly being made, narrow bridges are being replaced by wider ones, and, where possible, dangerous curves are being eliminated.

By-passes circle many of the towns, so that one must look sharp unless he wishes to miss the unimportant-looking road leading to the quaint, narrow streets with their tall, ancient buildings, the piazza, colorful with its market crowds, the beautiful churches, fountains, and all the rest that one has come to Italy to see.

Many main highways, as well as secondary roads, have been planted with endless regiments of umbrella pines, cypresses, eucalyptus, and other varieties of trees. In another ten years they will make motoring in midsummer almost as comfortable as in the spring and far more beautiful than before. Roadsides are edged with narrow strips of grass. Men armed with sickles and hand shears keep them closely trimmed.



Photograph by Branson De Cou-

ROME'S CENTURIES OLD RAG FAIR DRAWS THRIFTY SHOPPERS

Gaily colored shawls, pottery, antiques, and other wares are displayed at low prices every Wednesday at open-air stands in the Campo del Fiori. Italy is trying to perfect cotton substitutes in order to become independent of foreign growers.

In several parts of Italy there are special motor highways, autostrade (page 352). On them motorists must diverge to the right or left to reach adjacent towns, for no road crosses an autostrada. All crossroads are on an overhead level.

In the olden days it was a long, dusty carriage drive from Naples to Pompeii, and a full and exhausting day was required to go there, see the ruins, and return. Today steamer passengers who have only a few hours in port step into a car at the dock, are whisked over the autostrada to Pompeii in about half an hour, step smartly through the narrow streets with their well-worn chariot ruts, see the principal sights, and are back again on the steamer no more fatigued than by a dozen circuits of the deck.

In the last half-dozen years Rome has undergone great changes. Some few people mourn the widening of streets and the tearing down of small, squalid buildings which gave the city an older look. The majority agree that all that has been done is a vast improvement (page 379).

NEW DELIGHTS IN THE ETERNAL CITY

The tearing down of these buildings, built a hundred or two hundred years ago and housing the poorest of the city's population in dark, airless, unhealthful quarters, has now disclosed to view many of the glories of ancient Rome. At the same time the former inhabitants of these buildings have been moved into airy, modern apartment houses on the outskirts of the city.

The change that most forcibly strikes the returning traveler begins at the Piazza Venezia. This large public square at the



ANCIENT BOME'S APPIAN WAY BECOMES A MODERN MOTOR ROAD

Shorting uphill beneath a frowning old castle in the village of Itri, a big truck rumbles along the repayed "queen of roads," built by Appius Claudius Caecus in 312 B. C.



Photographs by Brunson De Cou-

UNIFORMED GUARDS STAND WATCH AT THE PALAZZO DEL SENATORE AS GUESTS ARRIVE FOR AN OFFICIAL FUNCTION

In this building on Capitoline Hill are the offices of Rome's "Governatore." The man with plumed hat resembles an admiral or field marshal in full dress, but actually he is only one of several thousand similarly costumed gendarmes.



Photograph synthesy ENIT

SKI ENTHUSIASTS HEAD FOR THE DOLOMITES THAT ENCIRCLE CORTINA IF AMPEZZO

A younger sportsman rides on a sled past buildings bedecked with Italian flags. Behind the Concordia Hotel a ridge of the Alps towers over the resort, which is popular in summer as well as winter (pages 358 and 384).

end of the Corso is bounded on one side by the beautiful Palazzo Venezia, where Mussolini carries on the business of government and from the balcony of which he addresses the thousands upon thousands of ardently devoted Italians who crowd shoulder to shoulder to hear his impassioned speeches (page 355).

The end of the piazza facing the Corso is filled with the buge monument to Victor Emmanuel II, built in the style of the Caesars, and the resting place of Italy's Unknown Soldier. Esthetes claim to find this white marble structure, glittering with gilded statuary, too gaudy, too garish. Yet to me it seems no more so than were the great buildings of ancient Rome.

Until a few years ago a narrow street led out of the Piazza Venezia on either side of the monument, and countless small, dark buildings nestled against the sides and back of the gleaming white structure. Now, as you face the monument, the hovels have given way to two broad avenues, the Via dell' Impero on the left (page 364) and the Via del Mare on the right.

The Via dell' Impero, hordered on both sides by the ruins of the times of the emperors and now unobstructed by buildings of more recent date, sweeps with an unbroken vista to the Coliseum. At night the Coliseum is floodlighted and presents a spectacle that would have caused Nero to drop his fiddle and gape with amazement.

Along the Via dell' Impero are the three colossal arches of the Basilica of Constantine, erected by Maxentius (p. 384). Under these arches on warm, moonlit summer evenings the foremost symphony leaders conduct open-air concerts. The fee for a chair is a few lire. Those who stand may enjoy the concerts for nothing.

The Via del Mare, to the right of the monument, leads past the Theater of Marcellus, which has been cleared of its encroaching buildings and the small shops within its arches, and on to Ostia by the sea.



Photograph by Branson De Con

EXCAVATIONS SHOW HOW ROME'S STREET LEVEL HAS RISEN THROUGH THE AGES

Accumulated dust of centuries buried the ancient city of the Caesars, which the Government is now uncovering. The worn column in front of the big sculptured head is encircled by iron bands to prevent the stone from cracking.

Ostia has become the seaside playground of the Romans. It is connected with Rome by a perfect motor road 14 miles in extent, while fast electric trains carry unnumbered thousands to the sea for a few cents.

STATE-ORGANIZED ATHLETICS FOR ALL

Just north of Rome stands the Mussolini Forum, built beside the Tiber with the green hills of Monte Mario as a background. The top of the low stadium is adorned with statues representing the various provinces, each depicting some form of physical prowess. In this modern forum are swimming pools, fields for every form of sport, and terra cotta colored houses where Fascist physical instructors are trained (page 363).

In former days Italian gentlemen fenced and rowed, while the peasants indulged in games of bowls in tavern yards or streets. No sport is a closed book to the young Italians who are growing up today; at the same time participation in these sports is compulsory. A striking feature of the Mussolini Forum is the colossal monolith of white Carrara marble. This was bewn from the famous quarries at Carrara as a labor of love for Il Duce, was transported by sea free of charge, and borne up the Tiber on barges amid the playing of bands and the joyous acclaim of the populace.

A few years ago no growing Italian girl was permitted to wander far from her mother's side. Her chief diversion was sewing. Today she participates in athletics as freely as her brother.

After a strenuous afternoon at the Mussolini Forum groups of girls leave the field singing lustily. Trolley cars that carry them to and from their sports are crammed to overflowing with young girls filled with exuberance and giggles—overflowing, as the French so euphemistically remark, with joie de vivre.

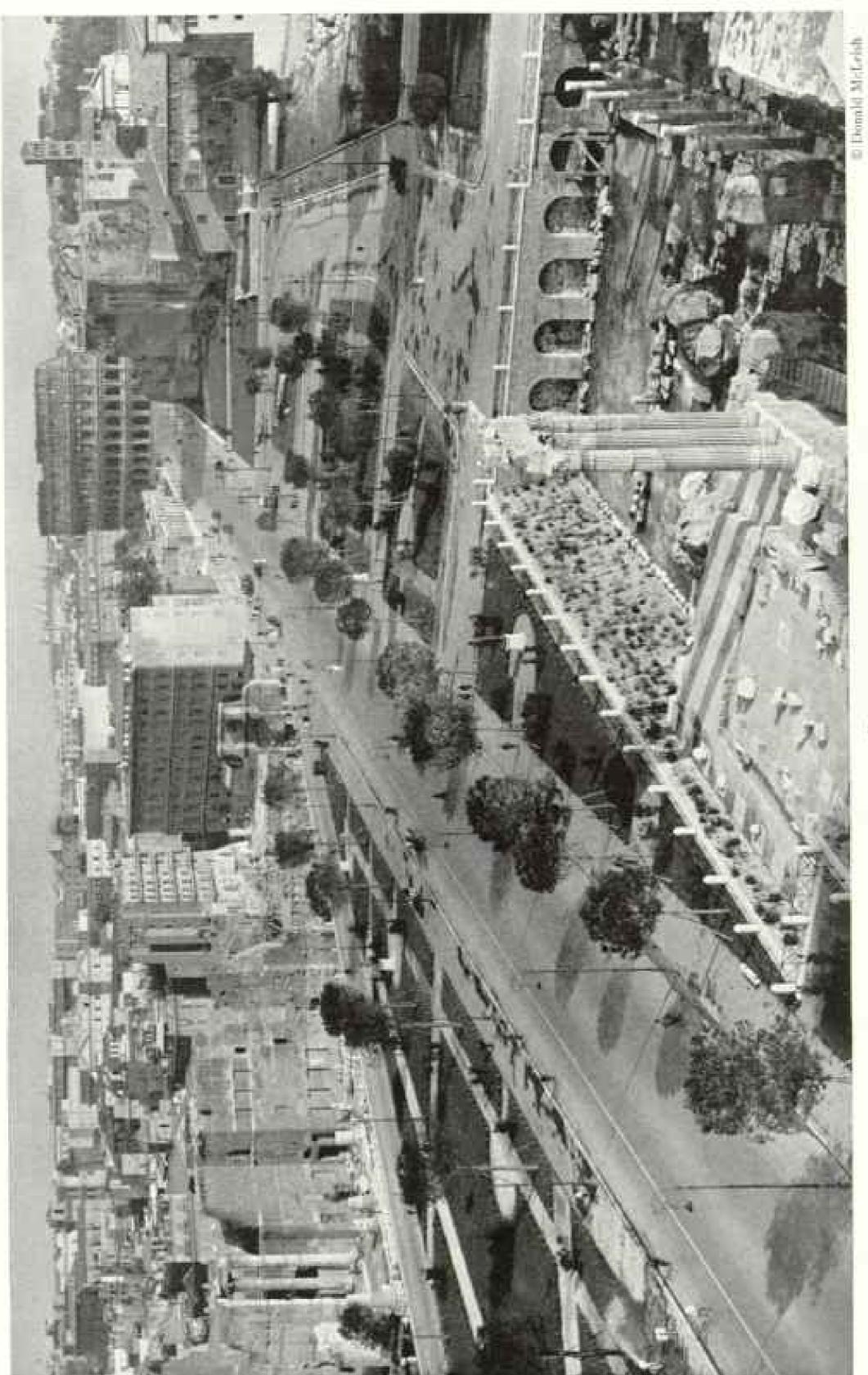
Another major change in the life of the young is partly responsible for the present ebullient spirits. In the old days children



Other structures crossing the muddy stream are all more recent than this, which was rebailt in its present form nearly six centuries ago, The tile-roufed with barred windows, connects two buildings bousing celebrated art collections: the Palazzo degli Uffizi, right, and the Falazzo Pitti. Oarsmen are often seen on the river, which, flowing from the mountains, is heavily silt-taden in the rainy season. BACK WINDOWS OF JEWHILDS' SHOPS PROJECT OVER THE ARNO RIVER PROM THE PONTE VECCHIO, "OLD BRIDGE" OF PLORENCE

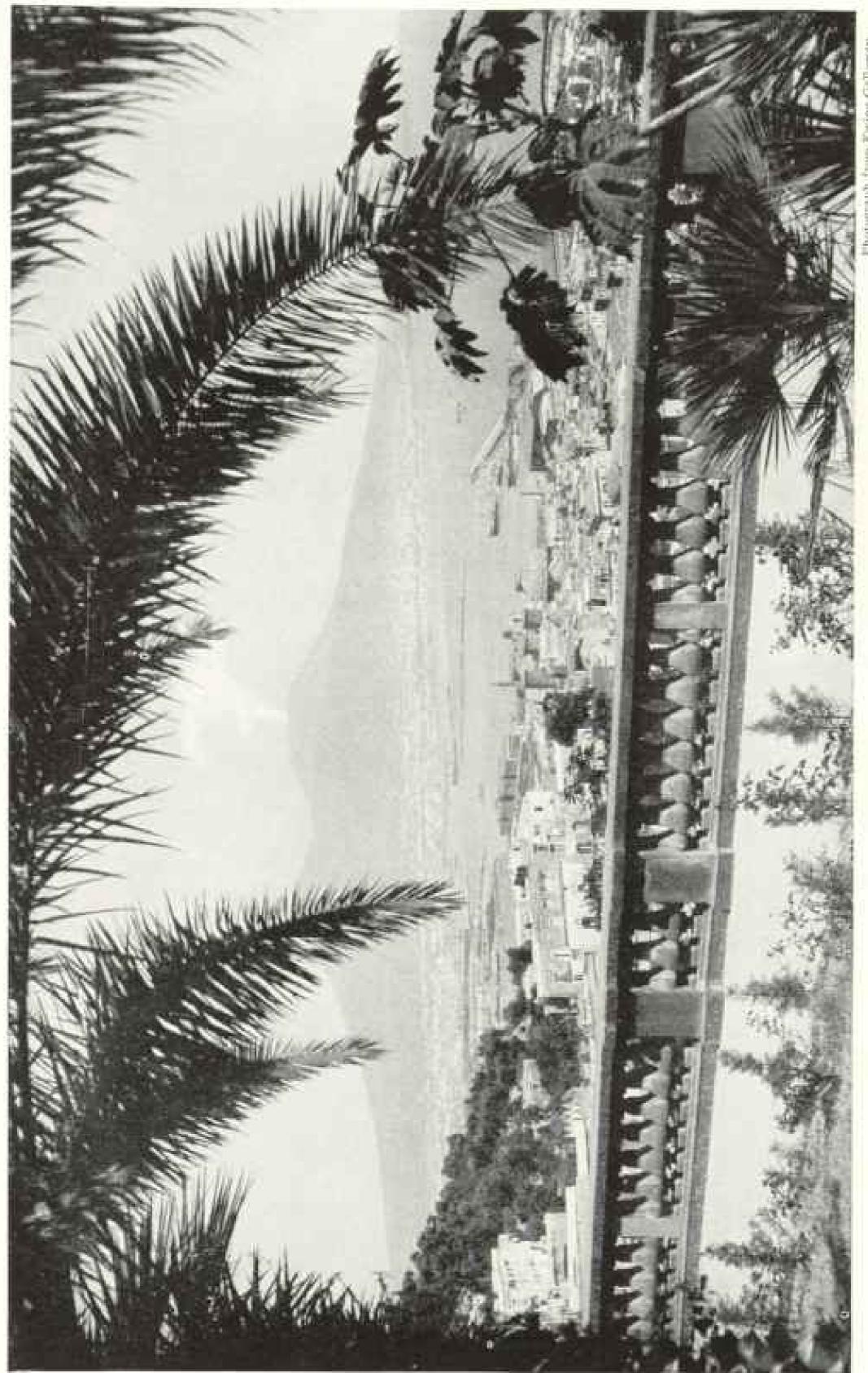
sculling.

378



ROME" IS BROUGHT TO LIGHT AS RUINS ARE UNRABITIED SOME OF "THE CRANDEUR I

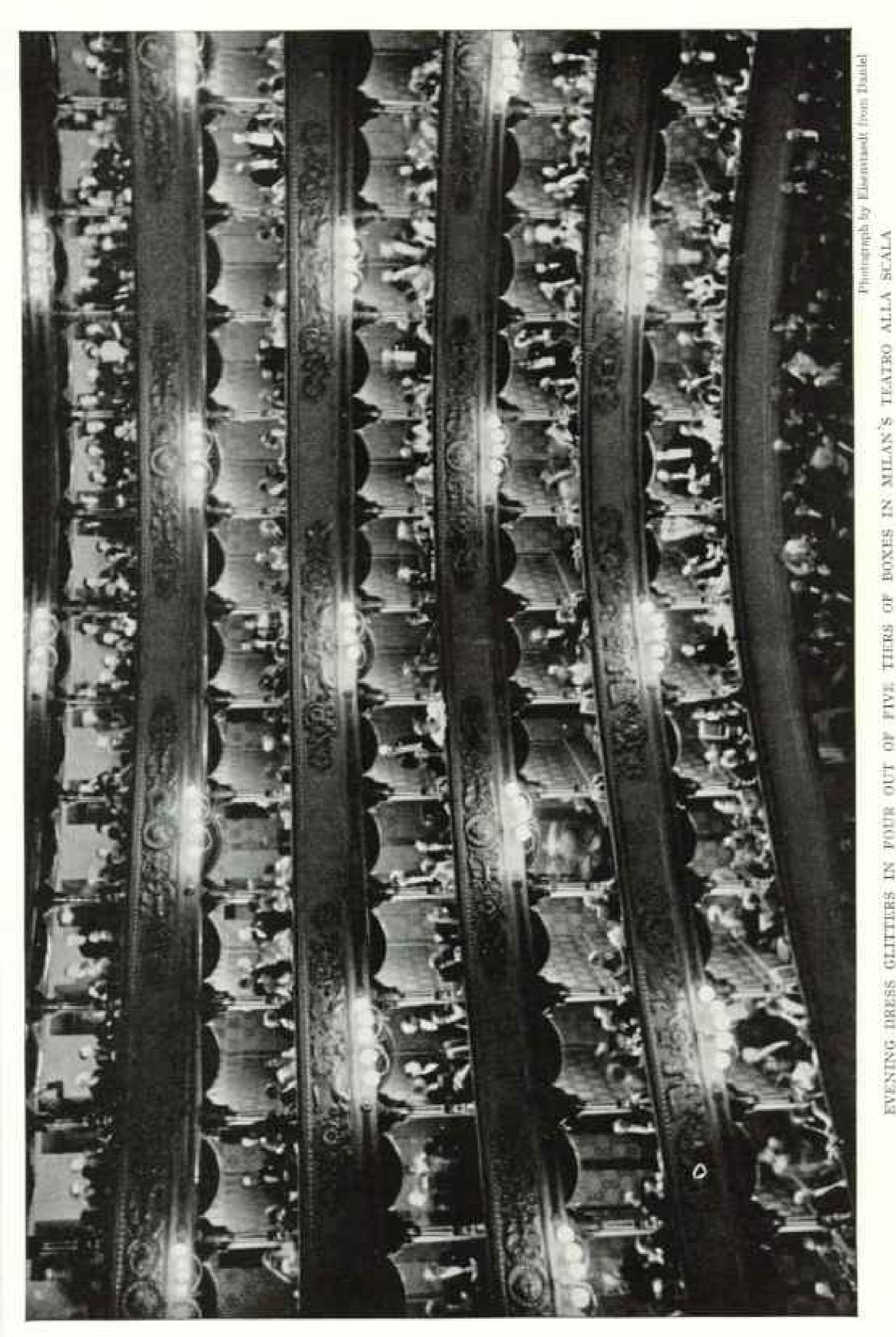
Looking from the National Monument (page 304) abong the new Via dell' Impero toward the Collecum, one gazes down on relies of the ancient city's public square and market place. Across the avenue is a forum, left, built by the Emperor Augustas. Historic edifices which once were pillaged by the Goths and Vandab must now be guarded to keep out souvenir-hunters!



The Milk of Tioth Ewing Sasteres

THE BRIGHT BUCK BAY OF SMOKE PLUMES FROM VESUVIUS, MICHTY BACKDROP FOR

Across the hay The three round towers in the center are part of the Castel Nuovo (page 373 Herculaneum and Pompeil, buried A.D. 79 by an eruption of the volcano. Italy's third city, Naples, spreads out along the curving and to the right in the distance are sphurbs and the sites of ancient towns, showing exactly how the people lived nearly.



Only in the bighest rows are spectators ordinarily admitted without formal attire. Built in 1778, the buge theater has long been noted as an opera center. EVENING DRESS GLITTERS IN



MODERN ARCHITECTURE TRANSFORMS A PIAZZA IN ANCIENT BRESCIA

The new building with alternate blocks of light and dark stone is the Post and Telegraph office. Known to the Romans as Brixia, this thriving town at the foot of the Alps, between Milan and Verona, manufactures arms and automobiles.



Photographs by Branson De Cou-

DOGS, CATS, PIGEONS, CHICKENS—TAKE YOUR PICK AT THIS PERAMBULATING PET SHOP

Like a Noah's Ark on wheels, the noisy establishment is pushed by its coatless proprietor through the streets of Bologna.

were kept perpetually at their studies. Now, no home lessons are permitted over the week-end. Saturday and Sunday are given up to stateorganized sports, with time taken out on Sunday morning for Mass.

SIX-YEAR-OLDS IN UNIFORM

On these days all ages participate in sports and outdoor life of some sort. The youngest Italian sportsmen are the Figli della Lupa, or Sons of the Wolf. They are from six to eight years old (page 350).

In the first big parade held in Rome after the termination of the war in Africa, colored African troops marched with Italian army units, while a detachment of Figli della Lupa also participated,

mounted on Sardinian donkeys which seemed little larger than a good-sized dog.

The girls from 6 to 14 are known as Piccole Italiane and wear a sort of white middy blouse, black skirt, and a black cap. At the ripe age of 14 they become Giovani Italiane, but retain the same costume.

When a boy outgrows the Figli della Lupa he becomes a Balilla until the age of 14 (page 356). From 14 to 18 he is a member of the Avanguardisti. In his eighteenth year, on April 21st-the day on which is celebrated the Natale di Roma, or birth of Rome—the Avanguardisti exchange their toy guns for real muskets and become Giovani Fascisti until they are 21,



□ Domild McLeish

A FAIR GRAPE-PICKER AND HER MOTHER KNEEL BEFORE LOADED VINES

This hillside vineyard near Rome is on a patrician family's estate, one of the model agricultural establishments under Government supervision. Whole families toil in the fields at harvest time (page 307).

> Italy, due to governmental encouragement, has become excessively sport conscious. The different cities have professional soccer football teams whose audiences vie with the English in faithful and enthusiastic attendance at games (p. 350).

> One day in a Turin hotel room from which I could see nothing but a quiet side street, I heard a deafening uproar. To an ignorant foreigner it sounded as though half the population of Turin were receiving the castor-oil treatment from the other half. Investigation revealed that the tumult was occasioned by the victorious Turin football team arriving at the station and being greeted by the exuberant citizens.



Photograph by Branson De Cou

ONLY THREE ARCHES OF ROME'S BASILICA OF CONSTANTINE STILL STAND

Visitors seeking out this shady retreat on warm days find vagrant red poppies blooming among the ruins. Completed by Constantine the Great, the structure originally was more than 300 feet long and richly decorated. Eight Corinthian pillars once supported the roof of the nave, but the last of these was removed more than 300 years ago.

Skiing and all winter sports have captured the Italian mind, and Italy is drawing many visitors to her mountain resorts.

The ski enthusiasts are legion, and old, young, fat, and thin seize every opportunity to get to the mountains in the winter to glide and fall over their steep slopes. The Government does all in its power to stimulate this sport by offering greatly reduced train fares to the ski centers, while the Fascist gymnasiums have classes to teach young Italians the fundamentals of skiing and the art of falling down an alp without breaking a leg.

When the ski season is on, hundreds gather every Sunday morning, long before daybreak, in the candle-lit church of Santa Maria degli Angeli, which is in the Baths of Diocletian near the central railway station of Rome. There they assemble, skis on their shoulders, and hear Mass before departing for the near-by mountains of the Abruzzi.

These excursions are generally for the day only, as hotels in the Abruzzi are still of the simple type, and Italian snows are sometimes undependable—so much so that if skiers waited in hotels for snow to fall, they might wait a month.

Sestrières, in the Piedmont, 37 miles west of Turin, is one of the smart places for winter sports. Features of Sestrières are the new and modernistic hotels, tubular in shape (page 366).

One of the most popular resorts for foreigners as well as Italians is Cortina d'Ampezzo, encircled by some of the most spectacular peaks of the Dolomites. At other seasons of the year this is a mecca for mountain climbers. Within a short radius are mountain peaks of varying heights and inaccessibility sufficient to keep a tireless climber busy over a long period (p. 376).

Every spring Italian hearts are gladdened by a big automobile race—the Mille Miglia, or Thousand Mile. It begins at



Photograph by Bernard F. Rogers, Jr.

A GLASS-ROOFED ARCADE FOR SHOPPERS AND DINERS IN MILAN

Fine stores and cases, with tables under awnings, line the Galleria Vittorio Emanuele II, a popular rendezvous. At one end the arcade leads to the Piazza della Scala, where stands the famous theater (p. 381); at the other to the Piazza del Duomo (p. 361).

Brescia in the north, goes south to the outskirts of Rome, across to the Adriatic, and finishes again at Brescia (map, page 353).

This is always run on a Sunday, rain or shine, up and down mountain passes and around right-angle turns which make the ordinary motorist on an ordinary day keep his finger on the horn and crawl around at a cautious pace.

If I remember rightly, the winning car in 1936 did the course in seventeen hours. Even if I am an hour wrong in my remembering, it was still a terrific speed (p. 372).

CROSSES MARK THE FATAL SPOTS

The thickest knots of spectators mass themselves at the worst corners, where they are in constant danger—if the slightest thing goes wrong—of witnessing their last race. The most desirable locations are embellished by crosses erected to defunct racers who made slight miscalculations at those particular spots.

The crosses, in addition to bearing the names of the unfortunates, state that they paid the supreme sacrifice in the Mille Miglia. To die charging an enemy machine-gun nest is no more glorious a finish, to the Italian mind, than to die in the Mille Miglia. The Italians overlook the fact that the fundamental reason for such races is to advertise tires, spark plugs, and motor oils.

The Italian newspapers, which are of modest size, carry scraps of world news, Government-dictated reports of what is happening nationally, columns about football, tennis, fencing, and other sporting events, and the endless activities of the Balillas and the other black-shirt organizations.

When it comes to writing up a motor race, such as the Mille Miglia, the correspondents give free rein to their emotions. The patriotic screaming of the American eagle is the soft, throaty, throbbing sound of a dove beside the symbolic bird of Italy. Everything is superlative, rhapsodic the roads, the scenery, the superiority of this race over any other motor race in any part of the world; the magnificence of the participating Italian cars, which have been improved with each passing year to attain perfection in spite of the "iniquitous sanctions"; their intrepid drivers; the unbounded enthusiasm of the spectators, which has reached heights never before witnessed in the history of man, all in spite of the "iniquitous sanctions."

Several cars were trying out a newly invented gasoline substitute, something of paramount importance in these days of the "iniquitous sanctions." Yet, in the final account of the race, I saw no mention of

the use of the new fuel.

"HURRAH FOR MR. WAR"

The Italian enthusiasm for racing leads enthusiasts to daub the names of their favorite competitors on walls, on houses, on anything daubable. Thus, from south to north, one finds smeared the words viva guerra. Hurrah for War. Popeyed tourists view these words with silent distress, then return to their homes to report that all Italy is bursting with the war spirit.

Guerra, however, is a popular cyclist. The Italians were cheering for Mr. Guerra, not war!

During the American Revolution the Baroness Riedesel, traveling with her husband to defeat at Saratoga, reported that the Indians were shouting for war. What they were actually saying was "Waugh!" It sometimes pays to live in a country for a while before passing judgment on it.

A few years ago we began a motor trip at Rapallo, the beautiful coast resort a few miles east of Genoa, whose hilly, wooded terrain is thickly dotted with large hotels, villas, and pensions. Padua was the first night's objective on our way to Venice.

Distances on the map seem nothing; but wherever there are mountains the road becomes so circuitous that you soon feel like a person climbing an icy hill and slipping back a step for each two steps forward.

The progress of the first few hours was negligible owing to a mountain detour in order to avoid a landslide on the regular route. When we finally got back to the main road at Chiavari, we hastened to cross the square to draw up at a cafe for a pickme-up of Fernet Branca. Fernet Branca is a roan-colored liquid, which tastes to the uninitiated like one part mahogany juice and one part quinine. At a second trial it seems to be almost ninety per cent quinine and ten per cent hair tonic. On the third and subsequent trials it tastes like what the doctor ordered.

As we started to cross the square, several men waved us back. Since there seemed to be no reason for this officiousness, we decided to ignore it. Just as we were about to carry our point, a car dashed past like a shot from a gun. We had unwittingly chosen the route of the Mille Miglia for our first day's outing!

When it was safe to approach the cafe, we were in no state to question the taste of the Fernet Branca, and its medicinal qualities were doubly needed. For some hours afterward we proceeded at a cautious pace, looking backward more often than forward, always on the alert for another racer; and the corners were negotiated at the extreme right-hand edge of the

road, with every finger crossed.

As we entered Padua, it appeared that all the Paduans were taking the air in the Piazza and the neighboring streets. The car was surrounded by them and we made signs to a man to draw closer to tell us where our botel might be. He looked amuzed, but drew no nearer. Just in time we realized that our motion to "come here" is the Italian sign for "good-bye." However, you can get a long way with the sign language, barring a few exceptions.

ZIGZAGGING OVER THE APENNINES

The following day we crossed what seemed like all the Apennines in the country. As the road zigzagged before us, ever upward and upward, we knew that when we reached the top we would be ravished by the sight of the lush, verdant lowlands below. From such a height the dim distance would reveal Venice and possibly the snow-covered peaks of the far-off Dolomites (page 358).

Instead, we saw more and more mountains, nothing but mountains, and it seemed more than probable that the road we were on was going the length of them instead of

across where we wished to go.

No car ever passed us in either direction, nor was there any sign of life until, at the top, the rocky peaks turned into a group of small stone residences, huddled one against another, with an isolated stone building standing bleakly aloof. This was the cafe and general store.

The one other customer was undoubtedly the traveled Beau Brummell of the Apennines. He was dressed in a bright reddish-brown striped suit with several watch chains strung across his vest, and he increased his standing with the proprietor by addressing us in English. He knew Americans when he saw them and could speak their language.

"You want veesky? Americans — veesky? Veesky—gin?"

This, repeated several times, quite stupefied the proprietor, who had command of only his own language. Even that, seemingly, had left him for the nonce. As for the Americans, they may have wanted veesky, but what they got was vermouth!

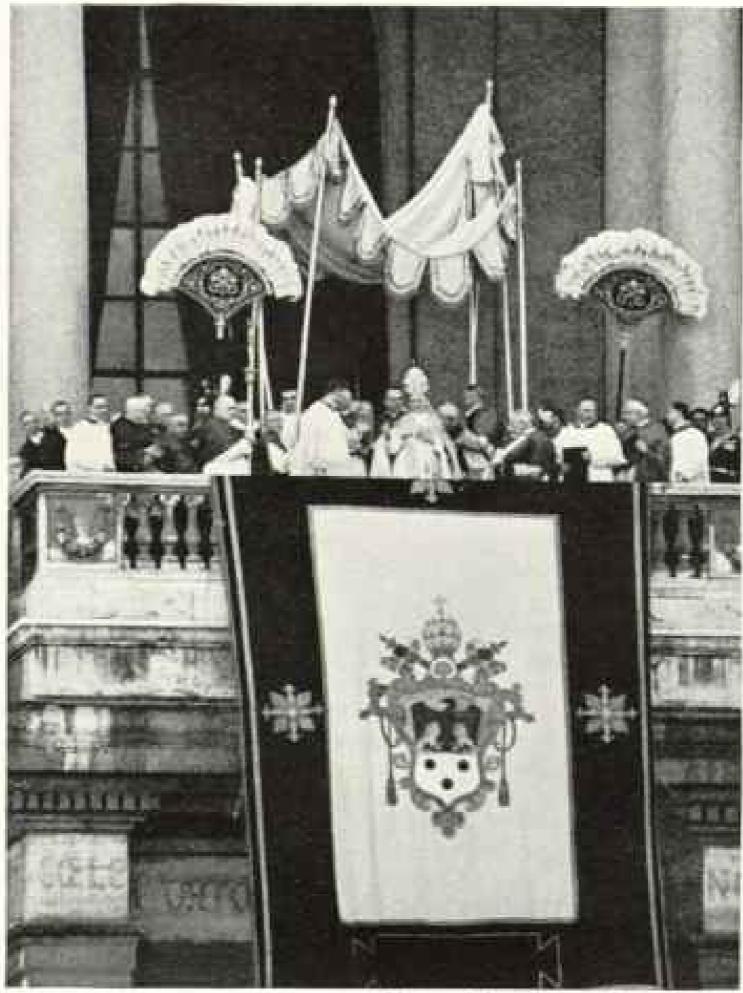
When the last of the Apennines was finally topped, the long-looked-for

plains stretched temptingly below us and we zigzagged down into what Oman, the historian of our high-school days, called the soft warm haze of an early Italian summer.

A FREEZING FOG IN "SUNNY ITALY"

A section of Italy that motorists learn to shun is the valley of the Po in the winter. We left Trieste at noon on a warm, brilliantly sunny day late in December, intending to spend the night in Bologna. Around four in the afternoon we reached Rovigo, a mere 50 miles from Bologna (map, p. 353).

As we began to look forward to a comfortable room and a good dinner in an excellent hotel, a misty dampness swept past



Photograph from European Picture Service

POPE PIUS XI BLESSES THE MULTITUDE ATTENDING MASS AT THE LATERAN CHURCH, ROME

The tapestry in the foreground is displayed when the present head of the Catholic Church speaks in public. The tiars and crossed keys are the papal emblems, but the shield displays the personal arms of Pius XI.

the windshield. The sky overhead was the famed Italian blue, only a little blemished by low-lying filmy wisps of fog. The wisps flowed together to become a veil, the blue of the sky turned gray, and in a few minutes we traveled in a cottony dusk.

Teams, pedestrians, and bicyclists were undiscernible until we were upon them. At one side of the road the lighted upper windows of a house appeared to swim in mist like a head without a body. The only way to be sure we were following the road was to follow the tail-light of another car. The one drawback to this was that the car might be heading for some place that would have no interest for us.

After twenty miles of this, we reached Ferrara and it was deemed advisable to stop for the night unless we wished to stop permanently in an Italian ditch. There we learned that such fogs as that through which we had passed are almost perpetual in the valley of the Po during the winter months.

The next morning, when we went on, the fog was like lemon sherbet. It froze on the windshield and had to be scraped off with a knife. Not until we lowered the windshield could we see to drive, and not until we emerged from the valley of the Po onto the high land near Bologna were we free of this clinging, penetrating, woolly, icy fog. Why all the inhabitants are not twisted with rheumatism, racked by tuberculosis, and covered with moss is an unsolved mystery.

Christmas Day, two days later, was sunny and warm in Florence-a day to dream about. The streets were black with Florentines strolling leisurely up and down, exchanging Christmas greetings, and filling the cafes for their noonday aperitif. A favorite aperitif of Florentines is known as an "Americano." It is blood red in color and made from a noxious, bitter-sweet vermouth known as "Bitter Campari," diluted with soda water.

At any time during the past ten years, when you engaged an Italian in conversation about his native land, his first comment usually was that Italy is a poor country. It has only limited natural resources, he says: much coal, iron, and oil must be imported.

For some years after the World War, reparations coal came from Germany. That supply is now exhausted. With the imposition of sanctions and the imperative need of conserving every lira for the purchase of war materials for the Army, the price of coal became prohibitive.

WINE TURNED INTO ALCOHOL FOR MOTOR FUEL

As so seldom happens in such conditions, Italy enjoyed the mildest winter in many years. This was interpreted by the Italians as a sign that God was watching over them and their empty coal bins.

Among Italy's exports, which made possible her imports, were wine, olive oil, and emigrants. Prohibition in America, coupled with world-wide depression, raised havoc with her wine trade. Wine from the Island of Elba is a case in point. The price for a liter, or about a quart, fell from four lire to fifty centesimi-from 32 cents to 4 cents.

Hopes raised by a thirstier and slightly more prosperous America were abruptly offset by the cessation of revenue from the sanctionist countries, England in particular.

The alternative was to turn the wine into alcohol with which to dilute the gasoline. Italian gasoline, in the spring of 1936, was 48 per cent alcohol.

The United States immigration laws diminished the flow of vast sums which poured into Italy yearly from her sons who made a good living in America. Some needed only a fraction of their earnings for their living needs and so sent the rest home; others saved and in many cases returned to the homeland to live in comfort on their ancestral acre.

Three of Italy's resources which cannot be taken from her are water power, scenery, and art. About the only people who can keep warm, clothed, and nourished on art are a few guides, and the guards of the museums. The last few years their pickings have been meager, but if Europe remains calm their prospects look rosier than in many another occupation,

The accredited guide works as hard as many a man who is working for his Ph.D., and when he has once become a guide his labors are by no means over. Each year he must pass a severe examination proving that he is completely up on his subjects. These he must be able to expound clearly, intelligently, and in detail in three languages at least.

A young guide in Naples who knew everything, past, present, and future, that was to be known about Pompeii and Herculaneum is obliged this year to become as well versed in everything that pertains to the ruins of Cumae. He had spent two years in England, spoke English with ease, and was equally at home in German.

Owing to the unlimited supply of water power, the majority of romantic-looking but miserable villages have electrically lighted streets and electric lights in the homes. Electrically propelled trains now run through many of the long and per-

petually recurring tunnels.

Italy has successfully inaugurated a boon to mankind which other countries are attempting to duplicate. This is the complete cessation of the blowing of motor horns within the limits of some Italian cities. For two years, as far as horns are concerned, these cities have been enveloped in a deathlike hush.



Photograph by Bennson De Cou-

BOLOGNA'S LEANING TOWERS HAVE BEEN HER "TRADE-MARK" FOR MORE THAN 825 YEARS

Dante compared the stooping giant Antaeus (Inferno, XXXI, 136) with the 163-foot Torre Garisenda, left, which slants 10 feet out of the perpendicular. The Torre degli Asinelli, 320 feet high but tilting only four feet, has steps leading to the top. Some say that the brick structures were built to lean; others believe that the soil subsided.

The Excelsior Hotel in Naples is a familiar landmark situated on the corner of the large water-front boulevard facing ever-smoking Vesuvius. Bedrooms have balconies from which can be seen ocean liners coming in to tie up at their piers or passing out through the breakwater on their way to the four corners of the world, tireless Neapolitan fishermen dipping their nets close to shore for the seafood so popular in Italy, and the coast line curving out to Sorrento. A stream of motors was constantly passing and honking. This was well enough in the daytime, but it was destructive to a night's rest.

Until two years ago the Italians, like the French, seemed unable to drive an automobile unless one hand was squeezing the horn. Now one sleeps at the Excelsior as well as in the heart of the country. It is claimed that there are fewer accidents than formerly. At first it is nerve-racking for a foreigner to drive under these conditions, and visitors are not rebuked for gently tapping their horns. The licenses on their cars show very plainly that they are paying guests in the country and slight infringements are overlooked.

There is a horrid fascination in watching noiseless motor traffic. A motor glides silently up behind several sauntering, absent-minded pedestrians. The pedestrians continue to saunter, the car slows up and is finally on their very heels. Not until they feel the warm breath of the engine on their necks do they glance around and step to one side.

It is a pleasure to walk in the Corso and in the other narrow streets in Rome, where nerves are no longer frazzled by the former bedlam and where conversation is now possible instead of being a pain in the throat.

Italy's scenery, like her art, is a resource



Photograph by Bramon De Con from Galloway

NO FEUDAL CASTLE, BUT A MODERN HYDROELECTRIC PLANT ON THE LAKE OF GARDA

From the Lake of Ledro, high above, water rushes through twin penstocks down the steep hillside to turn dynamos capable of generating 20,000 horsepower. Behind the rowboats are some of the two-masted fishing and cargo craft that ply this largest Italian lake.

that is as enduring as the ages and the former is as varied and soul-satisfying as the latter. Both are always at hand.

People arriving in Italy from the north gaze in awe at the bemazing beauty of the Milan Cathedral with its countless pinnacles and lacelike fretwork (p. 361), see Leonardo's movingly tragic "Last Supper," and in a short space of time find themselves at Como, the gateway to those gems of the Italian lakes—Como, Lugano, and Maggiore.

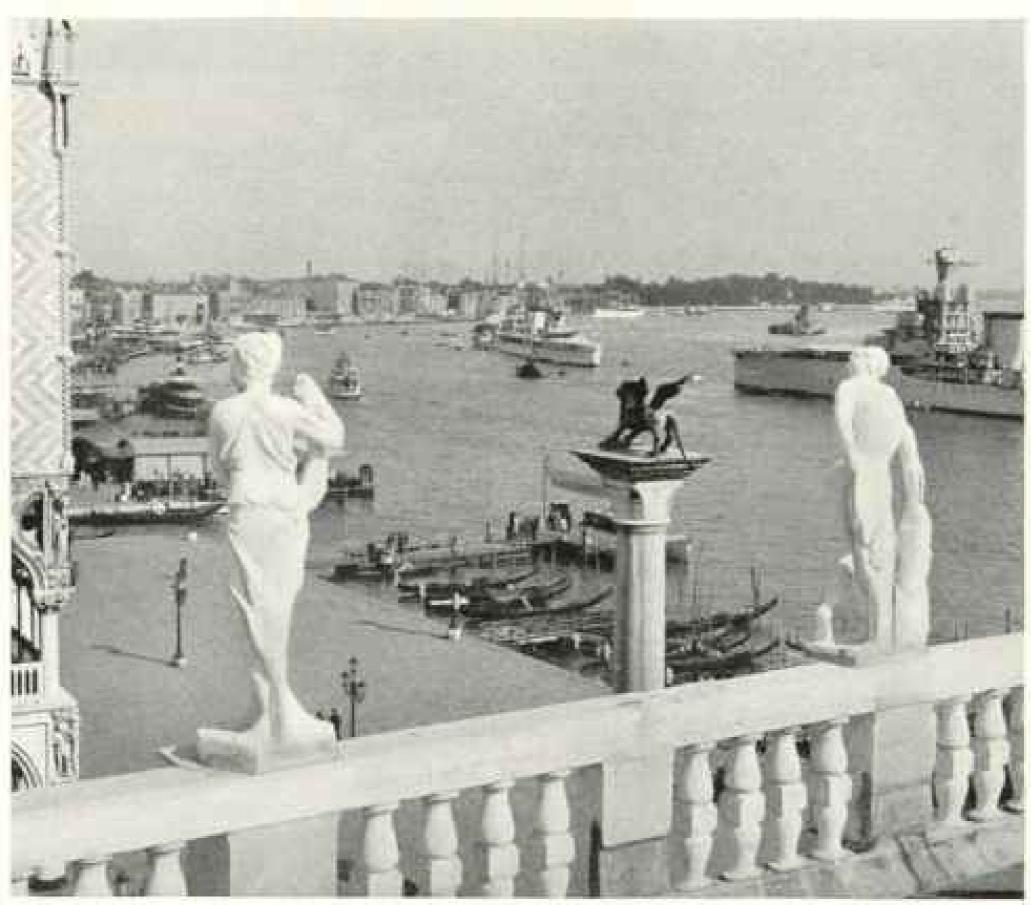
The cares of the world are left irrevocably behind as one wanders beside their beautiful shores. They are close together. After a sail on Como, a few miles by train takes one to Lugano, and in the same way one continues on to Lake Maggiore.

Most people spend only a few days among

these scenic glories, and wherever they linger longest that place remains forever in their minds as the beauty spot of the entire region. For that reason, for me, Lugano has no peer. It is the smallest and most exquisite of these three lakes, its smallness accentuated by the towering mountains that encircle it.

Each and every place has its loyal and ardent adherents. Como was the choice of Scotti whenever he had time to rest from his arduous duties with the Metropolitan Opera Company; and when he retired it was there that he went to live.

Lake of Garda, the largest of all the Italian lakes, offers more diversified scenery wild and rugged in the north, changing in the south to pleasant hills with vineyards, olive, lemon, and orange groves. It is at



© Donald McLeith

VENICE'S WINGED LION OF ST. MARK PERCHES ON A COLUMN OVERLOOKING CONDOLAS AND WARSHIPS

The bronze image may be of ancient Assyrian origin, but the wings are modern. Napoleon took the lion and the four bronze horses of St. Mark's Cathedral (page 393) to Paris, the treasures being returned after the Battle of Waterloo in 1815. Near this terrace of the Old Library is a corner of the Doges' Palace, left.

Lake of Garda that D'Annunzio, Italy's gifted son and occasional thorn in the flesh, lives in royal and capricious isolation on a large estate which he acquired after the war.

SMALL FARMER IS BACKBONE OF ITALY

It is apparent to anyone who has traveled over even a quarter of Italy why the mass of the population must toil from sunup to sundown to wrest from the earth a bare subsistence. Thousands of miles are taken up by imposing mountain ranges, grandiose, magnificent to the eye, but many of them treeless, barren, and good only for winter sports.

If it were not for the rapidly increasing population, the American immigration laws of a few years ago which closed the door to many Italians, and the present government policy forbidding Italians to leave the country except for the best of reasons, the lot of the peasant would be perfectly endurable according to his lights. This would be a standard of life unthinkable to most Americans.

The Italian peasant, backbone of Italy, sees few newspapers and no magazines, barring an occasional seed catalogue. What Italian magazines there may be would only make his sleep the sounder. They would be almost devoid of the advertisements which fill American magazines and show that life cannot be lived without an automobile, an electric ice chest, an electric egg beater, an electric razor, and a thousand and one other things.

A radio not only is not a necessity to these people, but a radio at a public fountain, where forty or fifty women gather to do their family washing, would interfere with retailing of gossip, of which there is an inexhaustible supply. The movies and the lovelife of movie actors and actresses mean little to them.

Unless prevented by the weather, the men work on their pieces of land. Their day usually begins shortly after sunrise. At nine they knock off for breakfast, which may consist of a piece of bread with a wedge of cheese, or a chunk of raw bacon, or some freshly pulled garlic. If you are passing by at this time, you will probably receive a cheery good morning and the offer to share their repast.

Some farmers add a touch of sport to the day's work by carrying a gun with them. Game is plentiful, although extraordinarily wary, but if a hunter bags a tordo, the European robin, or a few sparrows, his evening meal is pleasantly varied. No bird, be it quail, lark, or thrush, is safe if his aim is good.

LIFE OF LABOR BEGINS EARLY

The life of the family is of paramount interest and all the children, boys and girls alike, assist their parents in the home or on the land as soon as they are old enough to do so.

The farmer who has charge of our Italian home needed assistance last winter. He hired the son of our neighbor, Romeo, for 8 lire a day (about 63 cents). The hoy was a skinny child, 11 years old. He swung a full-sized two-pronged Italian mattock eight hours a day for five days and turned up a field and six terraces—a total of two acres—to the depth of a foot. We saw him doing a similar stint on his father's property a few days later.

Five-year-old Italian children toddle out to the vineyards with their fathers and phlegmatically swing toy mattocks for amusement.

The duty of caring for a younger brother or sister begins at a tender age. In many peasant homes baby carriages are unknown. Little girls, small enough themselves to be carried across a muddy street, hold and carry smaller children hour on end. These are their dolls.

The little girls love to jump rope. Two girls will swing a long rope for others to jump and it is no uncommon sight to see a child of eight or ten, with a baby clasped tightly in her arms, run under the swinging rope and jump as blithely as those who are unencumbered.

Thriftiness is a national virtue as well as a necessity. The parents rejoice in a large family and save money diligently for the day when the children will marry. The whim of a moment does not at once culminate in marriage. The parents of the participating parties give the matter serious thought, for neither party can come emptyhanded.

Early in life the girls begin to accumulate their linen, much of which is elaborately embroidered. As a rule, the man provides the furniture, the chief item being the bedroom set. If you should call upon a newly married couple you would be astonished by the completeness of this room.

Most important of its furnishings is the letto matrimoniale, or nuptial bed, shiny, huge, and imposing, which before long will accommodate three people at least. This is always flanked by two night tables, and in addition there is a large armadio, or cupboard—instead of closets, which are nonexistent in Italian houses—a bureau, and several chairs. These are the vital articles which endure for a lifetime.

Those who can afford it may have a dining room in addition to the kitchen, the all-important article being a china cabinet.

We called on a bride and groom who had set up housekeeping in a tiny three-roomed cottage high up on a hillside. They were the proud possessors of a bedroom, dining room, and kitchen. The place was spotlessly clean, yet every drop of water had to be brought in picturesque copper jugs from a picturesque fountain a distance of three hundred unpicturesque yards down the hill.

A former cook of ours became engaged. Her wages had made her the moneyed member of her family. Over a period of years she had accumulated the necessary linen, but it was considered her privilege and duty to supply the mattress for the new home. This was a matter that loomed large, for a mattress cost two hundred lire, at that time the equivalent of ten dollars.

The wedding day is a big occasion, as it should be, since the memory of this festive event will be the brightest and most carefree moment that the young couple will ever experience.

This begins in the morning with the



@ Domald McLeish

TRADITION SAYS MARK THE EVANGELIST, PATRON OF VENICE, RESTS IN THE CATHEDRAL BEARING HIS NAME

Passers-by feed pigeons in the spacious Piazza below a statue of Diana standing on the Old Library terrace. The celebrated bronze horses are above the main entrance of the lavishly ornamented 11th-century Cathedral. In the Doges' Palace, right, lived the rulers of the old Republic of Venice.

church wedding. The mother of the bride is seldom present. She is busy at home preparing the wedding banquet.

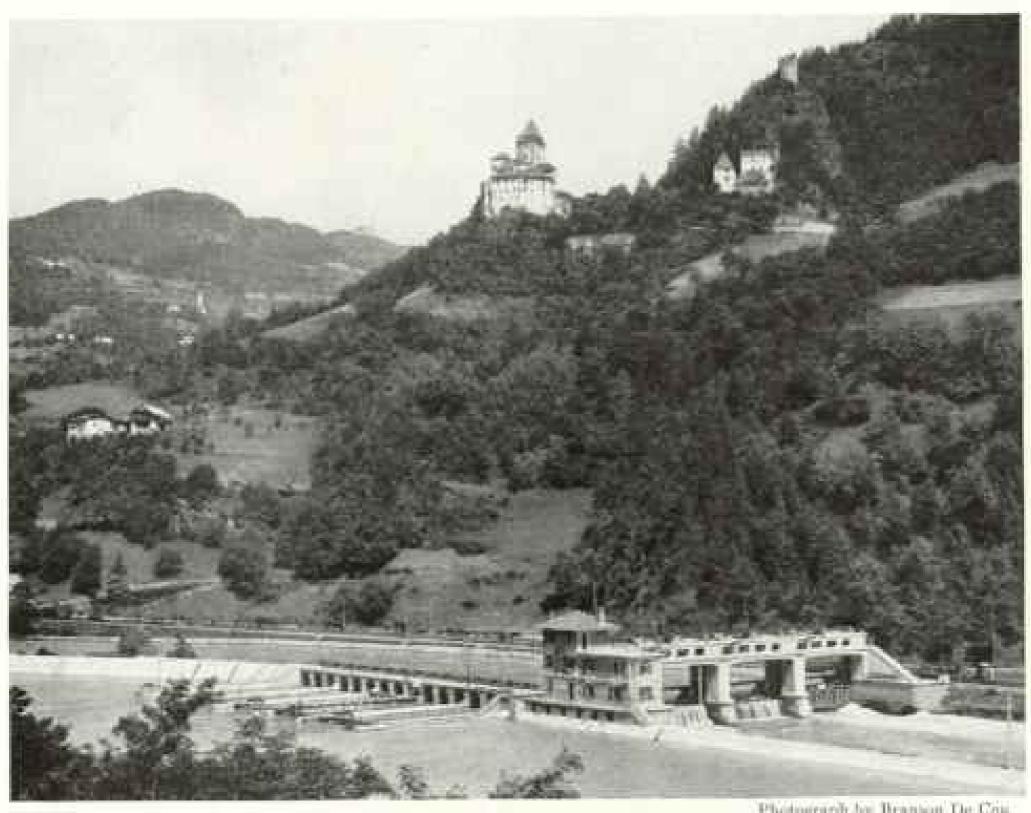
Every room but the kitchen is stripped of furniture, chairs line the walls, and before them long boards are placed on trestles as tables. These are dressed in their best, and after the ceremony all repair to the bride's home for a glass of wine and some very light refreshment. Then the bride and groom and all their friends go for a walk while the tables are cleared and freshened and the serious business of preparing them for the wedding feast gets under way.

No celebration is complete without the throwing of confetti. Italian confetti consists of varicolored, candied almonds, exactly the same candied almonds that are sold in candy shops in America, delightful for eating, but almost as dangerous for throwing purposes as the dread Irish confetti!

The customary wedding journey is to the new home. In recent years some have availed themselves of a trip to Rome, for the Government offers railway fares at a reduction of 80 per cent to all brides and grooms who wish to honeymoon in the Eternal City.

The layette for the first baby is no less elaborate and complete than the supply of linen which the bride has brought to her new home. The reason for this is that one layette does for all future progeny.

Italian babies are still bound in fascie as were the Luca della Robbia babies of



Photograph by Branson De Con-

LACKING COAL AND FUEL OILS, ITALY HAS ABUNDANT "WHITE COAL"

Here a modern power plant on a tributary of the Adige River, in the Alps, contrasts with a turreted castle that dominates the hillside. Italian industry depends heavily upon water-generated electric power, distributed over wide areas by a network of high-tension wires (pages 388 and 390).

old. A fascia is a stout piece of grosgrain material a foot wide and three yards long. The child is wrapped tightly in this from its underarms down, as in a cocoon, and is unwound two or three times a day. This simplifies the carrying of a baby, for there can be no wriggling. Only the head and arms are free, which minimizes the dangers resultant from being dropped by the subadolescent nursemaids.

The only article in a baby's layette which needs replenishing for subsequent children is a knitted jacket. This is not necessary for the child's well-being, but for the mother's gratification when she walks with the child for pleasure. The jacket presents a bella figura—a good impression.

"CHARGE IT" SELDOM HEARD IN ITALY

Husbands with extravagant wives would heartily endorse a practically universal custom in Italy-the absence of charge accounts. What is bought is paid for on the spot or on delivery.

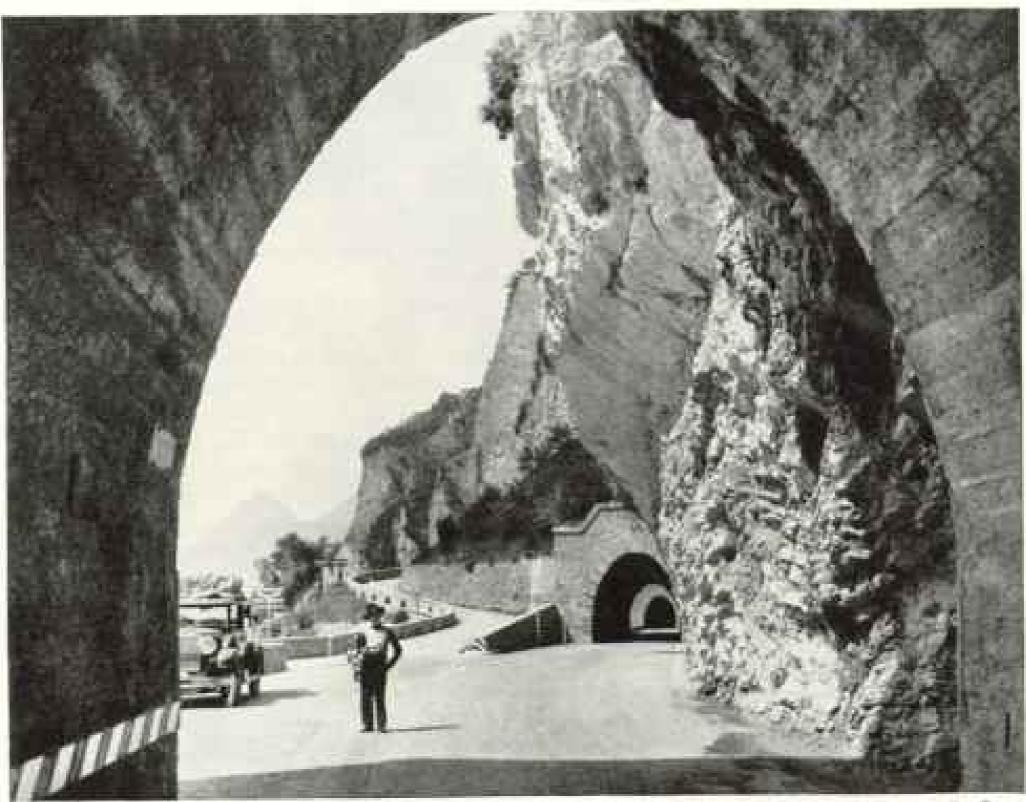
After a transaction is closed, it will cause only grief if you should change your mind. It might be possible to change the article for something of like value, but to return the article in the hopes of getting your money back would be out of the question.

Any money that has entered the till is considered a sacred trust by the average Italian shopkeeper. He is perfectly willing to wave his arms and work himself into a verbal frenzy of argument; but all arguments are useless. Never a soldo is permitted to leave the cash drawer.

Patients who are taking protracted cures or treatments receive bills. All office calls are supposed to be paid for before leaving.

There is one trying trait displayed toward foreigners by Italian servants and workmen. You may want someone to do something for you, some slight accommodation that requires only a little labor.

Foreigners are expected, naturally, to pay for all favors; but when they ask how much they owe, the answer is generally, "Ah,



Photograph by Bramon De Cou

IN AND OUT OF TUNNELS WEAVES THE NEW HIGHWAY ALONG THE LAKE OF GARDA

A lemon vender nonchalantly blocks the road where it emerges after winding through what was once solid rock rising from the lake shore. This murvel of engineering suggests the Columbia River Highway, in Oregon.

what you wish, madam!" The unfortunate outcome is that the person who has done the favor is often paid too little or too much; there is a great deal of unnecessary conversation, and someone is usually left with an unpleasant taste in his mouth.

Another Italian trait, even more widespread than thriftiness, is patience. This has been acquired from time immemorial because of the utter futility of giving way to impatience. Impatience, Italians have discovered, results in nothing but indigestion.

SOLDIERS GUARD THE ROUTE OF THE ROYAL TRAIN

One beautiful spring morning we left our winter home to go by motor to Rome, about a hundred miles distant, where we had reservations on the noon train for Naples. The boat for America was sailing the following day. We had allowed ourselves ample time in the hope of seeing the new Via dell' Impero and other recent changes in Rome before settling ourselves in the train.

A few miles from our home, where the highway crosses the main line of the railroad, we found the gates down. Soldiers were stationed at the crossing and along the tracks, with their backs to the rails and facing the countryside, and with rifles on their shoulders. A few carts, bicyclists, and pedestrians had gathered at the gates.

After waiting a few minutes and seeing empty tracks in both directions, we made inquiries and were told that the Royal train was on its way south.

The train was still twenty-five minutes away. We protested to the guard who was facing us. Nothing could be simpler or more harmless than to raise the gates and let us pass! We had a train to catch in Rome! It was ridiculous not to let us through!

He was adamant and said that had the crossing not been equipped with gates, still we could not have been permitted to proceed. In due time the Royal train shot by, all windows closely curtained. Thirty-five miles farther along is the city of Civitavecchia, where the road again crosses the railroad. There we waited another fifteen minutes for the same reason. When the Royal train had once more thundered by, our ample time allowance had become scarcely adequate, all hope of seeing the Via dell' Impero was ended, and our one desire was to make the train. This we did with three minutes to spare. One must allow for more than punctured tires and acts of God when traveling in Italy.

Another time American tempers were sorely tried. We had decided to see if we could find in the Civitavecchia markets a few delicacies that our small town could not supply. As we approached the picturesque town of Montalto di Castro, we saw the road curving up a steep hill. A soldier waved a red flag at us, making signs that we were to remain at the bottom. We could see that half the road was torn up, but that was all we could see.

After cooling the engine for fifteen minutes, the American gentleman chauffeur was convinced that we were being detained for a mere whim and, red flag or no red flag, started up the hill. When we reached the bend we saw a truck blocking the entire road while it dumped rocks and earth into the part under construction.

We slipped back to our former place and waited another fifteen minutes. At the end of that time, the sputterings again grew violent. In America, for a fraction of that time, the annoyed traffic would have made life hideous with its horns!

I looked behind us. In half an hour Italy's No. I highway had become choked with one truck and one donkey cart!

When we reached home and our purchases were unpacked, one article was a fish, though fishing is the main industry of our village; another was a vegetable unknown to us, which promised a pleasing change. The cook said, "But, signora, this is growing in our own garden!"

THE RISE OF IL DUCE

The first few years after the March on Rome in 1922, Mussolini was acclaimed as the Nation's savior. His was an iron hand in a glove of steel, but all classes felt he had saved them from things that might have been worse. A few years later there were rumblings of discontent, but these rumblings rumbled only in sympathetic surroundings. Then the names "Mr. Smith" and "Our Uncle" came into use if one wished to refer to Il Duce. A year later one could not be in a retired corner with a certain class of Italians without having an endless stream of anecdotes about Mr. Smith, Our Uncle, and Our Uncle's Satellites poured into one's ears, exactly like the outpouring of Ford jokes that filled the United States at one time.

Many men of standing, in the beginning, never wore the Fascist insignia. Though they were members of the Fascist organization, they felt their reputation as admirable members of Italian society for generations was self-evident and the wearing of a pin was not necessary to prove it. With the passing of time the steely glove became steelier and the pins were put on. Today the lesser officials and many others of that class would be mistaken in America for popular high-school students.

REGIME STRENGTHENED BY AFRICAN WAR

Since the Fascist regime came into power, something spectacular happening from time to time has kept the people excited and enthused over the returning greatness of Italy—kept them from brooding over increased taxation. When Balbo and his armada of seaplanes made the successful flight to South America and back, the country went wild (page 354).

Balbo's flight to the Chicago "Century of Progress," the winning of the blue ribbon for the fastest crossing of the Atlantic by the Rex, the draining of the Pontine Marshes and transforming them into farms and towns, kept enthusiasm going at a slower rate, while taxation continued increasing.

The war in Ethiopia, it is said, was for Mussolini a case of sink or swim. The Italian victories would have assured him a warm and loyal place in the Italian hearts; but when those Italian victories were achieved in the face of bitter opposition from the League of Nations—which to Italy means England, the first power in the world—Mussolini, in Italian eyes, became almost a god. Never in the early days had his popularity compared to what it was at the end of the African war (p. 355).

When celebrations were held for Marshal Badoglio, the hero of the war, there would have been no heart burnings if they had continued indefinitely; for Il Duce's star was supreme.

NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC ADMINISTRATION BUILDINGS

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

GILBERT GROSVENOR, President ROBERT V. FLEMING, Treasurer HERBERT A. POOLE, Assistant Treasurer

R. President
JOHN OLIVER LA GORCE, Vice-President
GEO. W. HUTCHISON: Secretary
Assistant Treasurer
THOMAS W. McKNEW, Assistant Secretary
FREDERICK V. COVILLE, Chairman Committee on Research

EXECUTIVE STAFF OF THE NATIONAL GEOGRAPHIC MAGAZINE

GILBERT GROSVENOR, EDITOR

JOHN OLIVER LA GORCE, Associate Editor

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

PREDERICK SIMPICH Assistant Editor

ALBERT H. SUMSTEAD Chief Cartographer

> E. JOHN LONG Editorial Staff

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

BOARD OF TRUSTEES

ROBERT V. FLEMING President and Chairman of the Board, Riggs National Bank

WALTER S. GIFFORD
President American Telephone and
Telegraph Co.

DAVID FARICHILD Special Agricultural Explorer, U. 5. Department of Agriculture

C. HART MERRIAM Member National Academy of Sciences

LVMAN J. BRIGGS Director National Bureau of Standards

GEORGE R. PUTNAM Commissioner of Lighthouses, Retired

THEODORE W. NOVES Editor of The Evening Star

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

WILLIAM V. PRATT Rear Admiral U. S. Navy, Retired

RAVMOND S. PATTON Director U. S. Coast and Geodetic Survey

ALEXANDER WETMORE Assistant Secretary, Smithsonian Institution

GILBERT GROSVENOR

Editor of National Geographic

Magazine

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

FREDERICK V. COVILLE Botunist, U. S. Department of Agriculture JOHN J. PERSHING General of the Armies of the United States

GEORGE OTIS SMITH Formerly Director U. S. Geological Survey

O. H. TITTMANN
Formerly Superintendent U. S.
Coast and Geodetic Survey

JOHN OLIVER LA GORCE Amocinte Editor of the National Geographic Magazine

Formerly Vice-President of the United States

GEORGE SHIRAS, 3p Formerly Member U. S. Congress, Faunal Naturalist and Wild-Game Photographer

Maj. Gen. GSCAR WESTOVER Chief, U. S. Army Air Corps

ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

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

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

Immediately after the terrific emption of the world's largest crater. Mt. Kutmar, 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 variety an eighth wander of the world was discovered and explored—"The Valley of Ten Thousand Smoker," a vast area of steaming, spouting fissures. As a result of The Society's discoveries this area has been created a National Manament by proclamation of the President of the United Status.

The Society cooperated with Dr. William Beshe in a deep-sea exploration of underseas life off Bermuda, during which a world record depth of 3,028 feet was attained August 15, 1934, enabling observations of hitherto unknown submarine creatures. The Society also had the honor of subscribing a substantial sum to the expedition of Admiral Peary, who discovered the North Pole, and contributed \$100,000 to Admiral Rynd's Antarctic Expeditions.

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 sequola trees in the Giant Forest of Sequola National Park 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 Calambas excessed the Atlantic. By during the ruins of the wast communal dwellings in that region. The Society's researches have solved secrets that have purpled historians for three hundred wars. The Society is apparenting an emithedogical survey of Venezuela.

On November 11, 1935, in a flight sponsored jointly by the National Geographic Society and the Li. S. Army Air Corps, the world's isrgest ballown, Explorer 11, anended to an officially recognized altitude record of 72,393 feet. Capt. Albert W. Stevens and Capt. Orvil A. Anderson took aloft in the gondols nearly a ton of scientific instruments, which obtained results of extraordinary value. -Send \$100 FOR THIS BIG BARGAIN

PEOPLE from all over the world send to Peru, Indiana, for this famous note paper. It is correct for all manner of everyday notes and letters -properly serving 90% of all your writing needs. The

450 PACKAGE 300 NOTE SHEETS 150 ENVELOPES

Printed With Your Name and Address

FINE RAG CONTENT PAPER

Finer paper is used in the "450" Pack-

stationery. It doesn't "blot," it doesn't "scratch."

It is pure white, rag content bond paper—and
the best papers are made from rag! Each sheet
and envelope is neatly printed with your name
and address—the smart and logical way to have
your stationery finished. Try a pack-

age, Send \$1.00 (west of Denver, Colo., and outside of the U.S., \$1.10). Satisfaction guaranteed or your money promptly refunded.

For years, American Printed Stationery has been a favorite among col-

lege men and women. There is no other writing paper you can buy that will give you such great satisfaction at such little cost. If you're getting ready for school, order your "450" Package now, while you think of it. All packages are printed and mailed within 3 days of receipt of order,

THE AMERICAN STATIONERY CO.



READY as Amer

SAFETY FIRST-friendliness too!

PIONEERING STILL GOES ON!

If all the research activities carried on by the American rellroads were concentrated in con bugg inburatory it would require an institution bottsing thousands of then and providing millions of square feet of finer space. Six railroads, two universities and ten supply companies alone, for example, maintain a permanent research personnel of about 1,000 people, engaged in such projects as Equipment Design. Metal Alloys, General Equip ment Efficiency, Design and Performance of Signal Apparatus Production Methods, Wood Decay, Metal Corrollon, Softening, Out of this phonesting endoavor come such devices na this track recorder, used to detect and chart track irregularities. In a cur traveling 50 miles an hour, it records such

uneful information as: Iou joints, variations in gage, car body inclination, cut body bounce—providing a constant check on safety and pointing the way to greater constart.



ica goes forward!

IT IS certainly no news that America has been passing through a depression.

The railroads, like every other business in the land, have had their problems, and plenty of them.

And like every other enterprising American business, the railroads have faced those problems with honesty and patience, with resourcefulness, most of all with determination to go ahead.

A vast range and variety of betterments in railroad practice and equipment is the result - such betterments as air-conditioning, for example, which makes a railroad passenger car today the cleanest, quietest, most comfortable way to travel.

Conspicuous also is the notable

step-up in passenger schedules, to a point where many limited trains now average mile-a-minute speed. And freight transport also has been speeded up - an average of 43%.

But the real story of railroad enterprise is scarcely told by these figures, for it is a story of speed with safety unmatched by any other transportation in the world!

In its details it is, perhaps, an undramatic story-of light rails replaced by heavier ones - of roadbeds improved - of brakes and couplings bettered-of locomotives increased in power-of courageous investment matched by constant thrift in order that service might be maintained and even improved in the face of reduced revenues.

> The big fact, however, stands clear: the American railroads today are ready as America goes aheadready to provide that indispensable reliability combined with adequate means and men to move tremendous tonnage, which a recovering nation demands.

EDGAR L. VAIL, executive, New York:

"When I step on a train, I know I'm going to get there, and in 99% of the cases I will

be on time to the minute."

EARL L CARMODY, salesman, New York: "I've traveled a bit in the fact five years, so I really had a chance to appreciate the progress railroads have made when I recently took a long trip. There's no comparison between train travel today and train travel five years adu."

MRS. BEATRICE MITCHELL,

mother, Tulsa: "Railroad men are so courtebus and thoughtful that fravel with children is no trouble at all these days.



MME. ERNESTINE SCHUMANN HEINK, upera singer: "The only reason I am able to travel so often and so extensively in that the railroads are so comfortable. With room to move about at will you feel completely relaxed at the end of the journey."



MARICANI BANTIRONDE ASSOCIATION



Parachute cords are tested to support FIVE TONS. Yet Pennzoil provides a greater ratio of protection than these cords give the lives of stunt jumpers.

ins of precaution

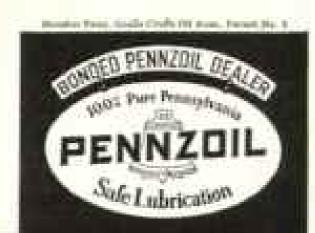
But Less Margin of Safety Than Pennzoil Gives Motors!

Do you put oil in your car and forget about it? Then don't take chances. Get Pennzoil, an oil you can trust!

An exclusive refining process gives Pennzoil its amazing Tough Film, many times stronger than your motor ever needs. Result: Up to 50% savings on oil — an extra mile or two per gallon of gas — and as much as 90%

less valve and piston ring trouble!

Get the same oil from your independent Pennzoil dealer, and cut driving costs three important ways.



MORE MILES OF SAFE LUBRICATION



ITS THE Wrinkle

THAT ENDS SKID SWERVES

AND TAIL SPINS!

Stops quicker at 60 <u>in the rain</u> than ordinary tires stop at 50 <u>in dry weather</u>*

DON'T FORGET this import-ant fact: brakes stop your wheels but your tires stop your car. A set of new General Dual 10s on your car puts at your command the maximum efficiency of your brakes. There is no dangerous side swerve or tail spin to throw you into trouble. Dual 10s will not only stop your car quicker but always straight in its tracks. The entirely new principle of soft, flexible ribbons of rubber provides quiet, easy riding contact with the road. The minimum of road resistance assures you of General's famous long mileage. Don't miss riding on Dual 10s.

"Band on standards set by the Nutional Safety Council for stopping on dry pavements.

GET DUAL 10s ON YOUR NEW CAR

It's easy to have your new car delivered on Dual 10s. Your car dealer or the General Tire Dealer can equip your new car at slight additional cost.



Copyright 1956, General Tire. & Rubber Co., Altron. Chia

THE NEW

GENERAL Dual 10

Practical HOME CONDITIONING at your price

Heating alone is not enough. Today you can have modern conditioning, too. American Radiator Company now manufactures the most practical, most advanced, most economical home conditioning system ever created. Yet new American Radiator Conditioning Systems are priced at your price, whether your home is large or small, new or old. These wonderful systems add new factors to home comfort never before possible. Here's what you get and it's exactly what you need.

CONDITIONED AIR—As fresh and sweet as a spring day, cleaned of dirt and dust and then silently circulated throughout your house. In winter, proper moisture is added for maximum comfort.

RADIANT HEAT—Sun-like radiant heat—as only radiators provide—insures healthful warmth regardless of the weather outside. New controls and special valves guarantee even beat distribution, room by room, from cellar to garret.

HOT WATER—Year 'round domestic hot water, a special feature of these great systems, provides bot water for baths and general cleanliness, winter and summer.

Everything can be automatic; any fuel—coal, oil, coke or gas—can be used. Send coupon today for the complete story.

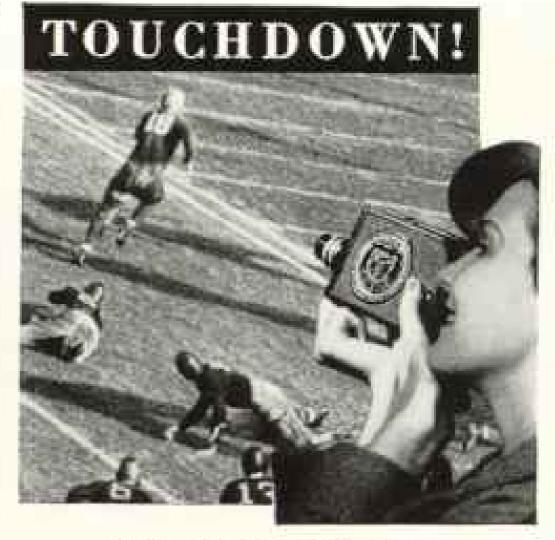
MERICAN RADIATOR CONDITIONING SYSTEMS

Bring In fresh air

Add humidity
Clean the air

Give sun-like rodiant heat
Warm every room evenly
Supply year round domestic hat water

	SANDRED SANDRED CORPORATION
45 West 40th Stre Send your tree back. Building a new home. Just Name.	et, New York, N. Y. "This New Comfert." [] Modernizing an old home. interested.
City or Town. © A. B. Co. 1934	State N.O9



Get every play in

COLOR MOVIES

with your

Every spectacular play is yours to capture in full color movies when you take a Filmo 121 along. Instant magazine loading. Light weight, very compact — only 5½ inches long

7im 121

—makes 16 mm, color or black-and-white movies of the highest perfection. Built-in exposure guide, both eye- and waist-level viewfinders, interchangeable lenses. Complete with F 1.5 lens—fastest offered in any amateur movie camera—only \$117.50. With

THE REAL PROPERTY OF THE PARTY OF THE PARTY

F 2.7 lens, \$72.50. Mail coupon for full information on Bell & Howell equipment for the amateur movie maker.

 Films Double 8—compact, pocket size, ones low cost 0 mm, film, Takes color movies, too, \$75.

BELL & HOWELL COMPANY CHICAGO . NEW YORK . HOLLYWOOD . LONDON

Nince 1907, morld's largest manufactures of precision squipment for motion picture studios of Hollywood and the model

in	510	16	١
-60	order.	3/1	l
2		3	ı
14	43	3	ı
	4		ļ

BELL & HOWELL COMPANY 1804 Larelment Ave., Chicago

Please send me full information on Hell & Howell □ 16 mm. □ 8 mm. smateur movie equipment.

Name			

Address

City State 10.00



THINK of yourself ten years from now! Will your present productive years grant you security for yourself and those about you? Regardless of your other plans for financial independence, would not a Government check reaching you every month for a term of years add to your security?

United States Savings Bonds, which mature in ten years, afford a safe means of obtaining additional cash reserves. They protect and increase your savings, adding in ten years one-third to the amount invested. Savings Bonds may be redeemed in cash at any time after 60 days from issue date, in whole or in part.

In addition to creating cash reserves for future years, Savings Bonds will provide funds for the education of children, for the care of dependents, for travel and recreation and for expenses of illness and accident. To help remind you to set aside regular amounts for these purposes, Regular Purchase Plan forms will be sent to you upon receipt of the coupon below or upon request. By considering today the ways in which you hope to utilize savings ten years from now, you can construct a savings plan to meet them. Then purchase the Savings Bonds which fit your program.



Write a check each month for the future as you pay the usual bills. Invest in United States Savings Bonds. Held for 10 years, your investment will increase 331/356.

UNITED STATES SAVINGS BONDS

THE BASIS OF A SECURE FUTURE

The face values of United States Savings Bonds, bought at regular intervals and not redeemed prior to maturity, will be payable at the same intervals as the purchases, ien years from the respective issue dates.

For example, a \$25 denomination bond (present price \$10.75) putchased each month for \$20 successive months will result, if each bond is held to maturity, in an ownership of \$3,000, maturity value, of these bonds, payable during the following ten years by the United States Government on the first day of each month at the rate of \$25 per month. Likewise—

Amount you invest each month for 120 months	Mamirity value in 120 months	Fayable to for 120 starting i	nonths months a 10 years
\$37.50	\$6,000	\$50 pe	r month
75.00	12,000	100 "	2000 ag 2250.
93.75	15,000	125	
187.50	30,000	250 "	100
375.00	60,000	500 "	100

TO ORDER BY MAIL

TREASURER OF THE UNITED STATES, DEPARTMENT 906, WASHINGTON, D. C.

- ☐ Please send me without obligation your Regular Purchase Plan and forms for my consideration and optional use.
- Send me she following bonds for which I enclose check, draft, or money order.

\$25 U.S. Savings Bonds at \$18.75 \$..... \$50 U.S. Savings Bonds at \$37.50 \$..... \$100 U.S. Savings Bonds at \$75.00 \$..... \$500 U.S. Savings Bonds at \$375.00 \$..... \$1000 U.S. Savings Bonds at \$750.00 \$..... Total \$.....

Regimer in Street Address
and send to City. State.

Make all checks payable to the Tressurer of the United States.

YOU MAY PURCHASE AT POST OFFICES OR ORDER DIRECT BY MAIL





 with regrets to the many who could not be accommodated in June or July

September sees top hats come out in all the capitals of Europe. It's the beginning of the gay season that too few tourists know. Then, Londoners and Parisians come back from beach and mountains. Shops are brilliant with new Fall displays. Theatres re-open. Restaurants and night-clubs, aboard your Cunard White Star Liner as well as abroad, are resplendent with a show of fashion that summertime ignores. So take your oue from those connoisseurs of Europe who have always "traveled late". If your favorite A-deck suite was not available in June, book it now for September. at the lower Fall rate, too' Your local agent will arrange it. or Cunard White Star Line, 25 Broadway and 638 Fifth Avenue, New York.

The British tradition distinguishes
Cunard White Star



UNEQUALLED

Speed-Luxury to

SOUTH AFRICA

FROM New York to Capetown in as little as 19 days! The fastest service to South Africa . . . with brilliant Lido life all the way. On the superliners "Rex" or "Conte di Savoia" speed to Cabraltar over the smooth Southern route. Thence to colorful South African potts via the swift white express liners, "Duilio" or "Giulio Cesare", especially equipped for tropical climates. And every minute of the voyage, enjoy famous Italian Line service, courtesy and seamanship. Direct connections for Dakar, Capetown, Port Elimbeth, East London, Port Natal.

Special Low-Cost Inclusive Tours to the

EMPIRE EXHIBITION

Johannesburg Sept. 15, 1936 to Jan. 15, 1937

TALIAN LINE

Apply to local Travel Agent, or 624 Fifth Ave., New York. Offices in Principal Cities.

YOU MISS

most of South america if you miss the EAST COAST



You miss an unforgetiable Travel Experience if you miss FURNESS. Can you afford not to see "Rio" and its incredible barbor? Or Santos, Montevideo, Buenos Aires? To miss these jewel cities... with their tangoes, recetracks, polo matches and smart Continental pleasures... would be like missing Paris itself on a trip to France! Especially when you remember that famous pumpas or tropical jungles, with their picturesque native life and customs, are a short step away.

And few would care to miss the sea pleasures of the Furness voyage on one of the four magnificent motorships. "Southern Prince." "Northern Prince." "Eastern Prince." "Western Prince" all built recently to Furness standards. Especially on a long voyage like this, Furness traditions count heavily . . . the delicious meals, the courteous British stewards, the deck life, the delightful shiploard atmosphere—and Furness scammuship.

FURNESS Prince LINE

Sailings every fortnight from New York, with sail at Principal on settern nayage. Reservations and literature at wather land tourist agents or FURNESS PRINCE LINE, 21Whitehall No. or the Pifth Ase., New York City.

Sail any week Stopover anywhere

ROUND THE WORLD

as you please for \$854 First Class



Most people will agree: no other trip in all the world can equal a trip Round the World. And Dollar Steamship Lines' great fleet of regular world-cruising President Liners let you make it in a fascinating, unique way... at almost unbelievably low cost!

To begin with, you may sail whatever week you choose from New York, Los Angeles or San Francisco, via the Sanshine Route. Take 104 days to visit abroad in Havana and Panama, Hawaii, Japan, China, the Philippines, Malaya, India, Egypt, Italy and France. Or take up to two full years, stopping over as you choose at 21 ports in 14 different countries, making sidetrips... continuing on the next or another President Liner.

Each of these famous American ships has pleasant lounges and broad decks, and an outdoor swimming pool. Each has every stateroom outside. Each has the same splendid food, and friendly atmosphere.

And President Liner Round the World fares begin at just \$854 First Class, With sightseeing and guides abroad included, \$1033 First Class.

Get all the thrilling details now from your own Travel Agent, or from us at 604 Fifth Ave., New York; 110 South Dearborn St., Chicago; or 311 California St., San Francisco. Offices in other principal cities.

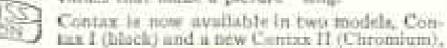
> DOLLAR Steamship Lines



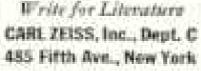
The Candid Camera of Unlimited Scope

QUICK as a flash, and under the most trying conditions, Contax will enable you to take such pictures as you never took before!—Candid, true-to-life photos full of character and human interest, fast-action, sport-shots, portraits, close-ups of hirds, etc.—Any picture, anywhere, any time—indoors or out, in daylight or ordinary artificial light.

Zeiss Leroses and automatic range-finder-focusing produce needle-sharp negatives with all the detail and tone values that make a picture "sing."



which at slightly higher price offers new feutures and advantages. At leading dealers.



725 So. Hill St., Lux Angeles



FEATURE FOR FEATURE, WITH ANY
RADIO ON THE MARKET.

*AUTO-EXPRESSIONATOR

Brings butk the expression necessarily taken out in the studio to transmitting the program,

* MYSTIC HAND

(A. F. C.) Accountically tomo set sharply without use of motor tuning or other garden.

MAGNA CERAMIC DIAL

+ VIBRACOUSTIC SOUNDING BOARD

METAL TUBES

and 8 other CROSLEY FEATURES

Prices slightly higher in Harky Mountain States and west,



CROSLEY stambs, always, as a warranty of the highest value in radio. It is only natural that the 1607 models am Cruday's greatest achievaments. Beautiful . . . as now perfection as science can attain . . . and priced for you who demand the best at prices you've pleased to gee, for your Crudely dealer today . . . you will hear radio good to never heart before.

THE CROSLEY RADIO CORPORATION Cincinnati, O. Powel Crosley, Jr., Pres.



SWEET and LOW

You can compare a bowl of Kellogg's Corn Flakes to a lullaby. These crisp, delicious flakes are an excellent sleepinducer these warm evenings. They're satisfying and easily digested. Result you sleep sweetly and arise cheerfully.

Try a bowl of Kellogg's after that late party. They're sold every place where you can buy food.

Nothing takes the place of

Kelloggis

CORN FLAKES



"Through Wonderland with Webster"

G. & C. MERRIAM CO.

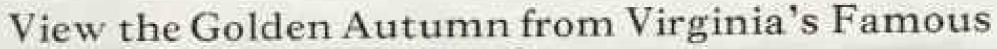
Merriam-Webster with the same unprecedented thoroughness, 600,000 en-

tries-122,000 more than in any other dictionary, 3,350 pages. Edited by 207

authorities. See it at your bookdealer's,

G. & C. MERRIAM CO.
Dept. 677 Springfield, Mass.

The Supreme Authority—A New Creation
WEBSTER'S NEW INTERNATIONAL
DICTIONARY Second Edition



bulline Miles and miles of broad paved highway on the crest of the Blue Ridge Mountains . . . thrilling views of the newly opened Shenandouh National Park. Then down through the brilliant woodlands into the Shenandoah Valley . . . lovely caverns and awe-inspiring Natural Bridge. A vacation in Virginia unfolds one interesting experience after another. Ramble through the forests and around the lakes of Virginia's State Parks. Visit some of the many places of fascinating historical interest.

STATE COMMISSION ON CONSERVATION AND DEVELOPMENT Department 13, 914 Capitol Street, Richmond, Virginia

Stop at famous resorts for golf and other sports. Everywhere, good roads . . . and a warm welcome! Write for free booklet.



The Only Spa in America

MMICH OFFERS ALL IMESE HEALTH AND PLEASURE BENEFITS

FRENCH LICK SPRINGS

 Nestled at the foothills of the beautiful Cumberland Mountains—in Southern Indiana—lies French Lick Springs, internationally famous Spa. For years leaders of industry, society and tired business men have come to French Lick twice yearly for the beneficial effects of the famous Pluto Waters and Pluto Baths, And have left here brimming with health and energy. In addition to the health benefits of this famous Spa, there is recreation and pleasure in every form. Including golf, riding, tennis, skeet and trap shooting - and walks along beautifully wooded trails, Plan a "Health Holiday" at French Lick Springs now, Or, write for a beautifully illustrated booklet showing what French Lick alone has to offer you.

FRENCH HOTEL SPRINGS

T. D. Taggart, President French Lick, Indiana



The National Geographic Directory of Colleges, Schools and Camps



Colleges FOR WOMEN

BEAVER COLLEGE Brancham spear college. Liberal arts, science. Variational courses: bindergarten, masse, fine arts, hume economics, hunth education, metallaryahly. Trachers' restricted Suburb of Phila. Moderato rates. Calulag. W. B. Greenway, D.D., LL.D., Press, Box N. Jenkintown, Pa.

MARY BALDWIN COLLEGE

For Weener, Stringrantida (coltary and scholarskip, Arcredited; andower, A.B. singree, Massic, Act, Dramatics, Secretarial, Edgestionally efficient, socially selective, spiritually sincers, Ending, sports, Cutalog, L. Wilson Jarman, Pres., Box J. Strunton, Va.

MARYLAND COLLEGE WOMEN

Sacuration degrees, certificates, Journalism, House Loonomies, Music, Kindergarten Frainteg, Speech, Secretarial, Flux Arts, Financt social life, Sports, Riding, New Haltimore, Write for Cutalog, Box N, Lutherville, Maryland.

Girls' Schools

THE ANNA HEAD SCHOOL

Ear. 1987. Accredited College-geoparatory and Lower School, fewimming, hockey, riding, tennis, the year round. Cimpfortable femous und garden in milegetown. Address Mary E. Wilson, M.L., L.H.D., Prin., 2540 Channing Way, Berkeley, Collifornia.

ARLINGTON HALL Justims Contacts and 4-year high school. Strong Academic work. Excellent music and other depts. Virginia tills. 15 minutes from White House. Modern buildings. 105-acre wooded comput. All spects—riding. Corrie Sutberlin, M.A., Press, Ben Franklin Sta., Box N. Washington, D. C.

BIRMINGHAM For Gines, Beautifully mountains. Accredited college propagation, general courses. Art, music, surreturial, denmatics. 200 serve for sking, skating, bockey, tecnic, Eding, Sym. post. Sird yr. Catalog. T. C. Grier, Director, Bax 49, Birmingham, Pa.

THE BISHOP'S SCHOOL

Errocoval bearding and day asboal. Preparatory to all Colleges. Also Intermediate Grades. Art. Marie. Dramatics. Modern squipment. Outdoor sports. Caroline Seety Cummins, M.A., Vassar, Hondmistress. Box 40, La Jella, Calif.

THE ERSKINE SCHOOL

Collected receives for graduates of premaratory schools. City adventages in the Arts, Dramaties, Social Service, and Secretarial Science, Miss Euphemia E. McClistons, Director, 129 Secon Street, Boston, Mass.

FERRY HALL

THOROTHE High School and Junior College training. Accredited. On Lake Michtgast, Br miles from Chicago, School Courses. Music, art, dramatics, Home Economics, Riding, Not forprofit, Shryear. Catalog. Eloise H. Tremain, Prin., Box 3, Lake Forest, Ht.

GARDNER SCHOOL

Ma Easy form Samper, New York. Resident and day setted for girls. Accordited, Elementary, College Preparations. Servetarial and Junior Collegiate scores. Music. Art. Demantics. All Athletics. 72th Year. Elizabeth M. Musland, Principal.

HILLCREST For Grans. Agen 6 to 14. Quarter successful experience with Junior girls. Accredited preparation for high school or academy. Homelike. Music. Denving. Dramatics. Sports. Convenient to Chicago. Cotsion. Sarah M. Davison, Bez N. Beover Dam, Wis.

JOKAKE School, for Girts. On the southern slope of Camelinek Mt. in the Arisons Desert. Callege preparatory and general courses with murie, art, dramatice, densing. Stimulating satisfies life includes riding, swimming, and peck type. Mass Lilies E. Bill, Hendmistress; George E. Ashforth, Dir., Johake, Ariz. (near Phoenix.)

KINGSWOOD—CRANBROOK

GRADER 7-12, postgraduate. College proparatory and general courses. So acres on lake near lietroit. Unusual opportunities in arts, hundierafts, rejerces, Music, dramatim, sports. Secretary, 156 Cranbrook Road, Bloomfield Hills, Mich.

Girls' Schools

LASELL JUNIOR COLLEGE

This will his from Renton. Two-pear courses for Fligh School graduates. Academic, Servitarial Home Economics, Music, Art. College Preparatory. Separate Junior School. Catalogs. Quy M. Winslow, Ph.D., 123 Woodland Road, Auturnitate, Mass.

LINDEN HALL Jitwoon Callege and Scinnel for Girls, Cultural and Vigmational, Music, Home Economics, Secretarial, Pice and Communical Art, Special Interesting Assisting, All sports, Proparatory and General Courses, Humriful Comput. Riding. Swimming Prod. Moderate Testion. F. W. Stenger, O.D., Box 69, Littz, Ps.

National Park Seminary Washington Out-

iego and preparatory school for girls. Distinguished patronsige. Unparalleled equipment. Terminal courses and preparation for advanced structure is inversities. If buildings on wooded 300 scree. Sports. Catalog. James E. Ament, A.M., Ph.D., LL.D., Hox 996, Forest Glos, Md.

OAK GROVE A FRIENDS SCHOOL

Emphasters Preparation for College and Gracious Leving, Music. Art. Drumstim. Graduate Course See. Science. Exper and Lower Schools. Journal Outdoor Life. Edding. Mr. and Mrs. Robert Owen, Sox 140, Vaccalbore, Maine.

OGONTZ

Thousecon college preparatory, general and elective courses. Junior College, with academic and vocational majors; serreturial, home-making, dramatics, music and urt. Hydal Hall, separate Junior School. Abby A. Sutherland, Ogontz School P. O., Pa.

ST. MARGARET'S SCHOOL

Extraction preparation for the healing colleges. General course with music, dramatics, art, secretains work, and homemaking. Country estate, frequent building. Sports. Inc. 1825. Atherts C. Edell, A.M., Box N., Waterbury, Connecticut.

WARRENTON COUNTRY WashSCHOOL ington. College proparationy, cultury
SCHOOL Al courses. French the impage of
the house. Teaches girls how to study, brings them
noter miture, insulating ideas of order and removing.
Mile. Les M. Bushigny, flux N. Warrenton, Va.

MARY C. WHEELER SCHOOL

Monerus in spirit, methods, equipment, rich in traditions. College preparatory, general. Art, Music, Dramatics, Dunning, for all. Sports on 310-Acre Furm. Riding. Junior Residence for girls 8-13. Mary Helens Day, M. A., Prin. Providence, R. L.

Boys' Schools

AUGUSTA MILITARY ACADEMY

Continue preparators, Modern gram and pool. All spects, lockeding ruting. 200 acres. Graduates in all colleges. Het year. Heasonable rutes. For outsing sinitrees Box 14, Cat. T. J. Roller or Maj. C. S. Roller, Jr., Fort Definece, Ve.

CLARK 5CHOOL

College Preparations. Write for the Clark Plan, "It's Different." Classes average five, twelve instructure. All spects. Also Junior College Business Course. Frank N. Morgan, Handwer, N. H.

CRANBROOK SCHOOL

Districtive endowed boys' school, grades 7-13 and postgraduate course. Arts, sciences, addedies, bethles. Non-rallitary, Single rooms. Near Detroit For cutsing, address: Registrar, 3240 Lone Pine Road, Blacesfield Hills, Michigan.

CULVER MILITARY ACADEMY

un Lake Muninkuchen - Sirentites the schole has Propured for all colleges. Junior Colleges work. 455 graduates in 165 colleges. 1000-acre sampos. All spects. Infantry. Cavalry, Artillery, Band. Moderate Cost. Catalog. 911 Peruhing Way, Culver, Ind.

Boys' Schools

FISHBURNE MILITARY SCHOOL

E739 pane. A preparationy school of highest anadomic rating. B. O. T. C. Equinous courses. Individual attention by able instructors. All spaces. Fublic speaking. Frequent social events. Visitors welcome. Contrlog. Col. M. H. Hudgins, Box N. Waynesboro, Va.



THE HUN SCHOOLS Countries for seeilings preparation under exceptional famility. Separate sumpus and famility for sounger began with optional 6-day plan. All sports; pole and crew. Summer Session: Aug. 80-Sept. 26. John G. Hun, Ph.D., Headmaster, 112 Stockton St., Princeton, N. J.

MILFORD Navional, I patturined preparatory action. Small charges. Individual needs unalyzed and met. Character-building. Stimulating instructors. Hemsilke atmosphere. Sports. Catalog. Dr. Paul D. Shofer, Handmaster, Milford, Conn.

PEDDIE Sericializates in preparing beye for relileger. We graduates in last flee years have entered college. Mo serns. 25 modern buildings. Junior school. All sports for all—golf. Summer sersion. Het year. Cotalng. Withour E. Saundern, Box 9-N. Hightotown, N. J.

ROXBURY

A CHILDREE Frequentory Behoof for boys, grounded in tradition, progressive in noticels. Every student un individual, thoughtfully studied. Flexible Curriculum. Large Campus. Junior Department. A. U. Sheritt, Headmanter, Chapter, Cun.

ST. JOHN'S MILITARY Reserves of the preparation ACADEMY for college. Paculty of "boy specialists." Thorough scholastic and military training. 16 buildings on 100 acres. Gym. All sparts, swimming, skating, riding, guif, rowing, Ernd pt. Colining, 1396 DeKnean Hull, Detailed, Wis.

SAN DIEGO ARMY AND NAVY
ACADEMY "West Pourt of the West."
International patronage. Exceptional faculty. Fully accredited. Unrivalled
recreational facilities and climate. Beyo 6 to 20.
Cetalogues. Bex 7, Pacific Beach, California.

STAUNTON MILITARY Date of America's ACADEMY distinguished insilitary actionis. Properse boys (38-20) for all enlarges, universities. Annapolis, West Frient, Able faculty, excellent equipment. Reparate Junior School, Supt., Bus D-9, Rabbe Station, Staunton, Va.

STUYVESANT PREPARES for all colleges. Intensive teaching in small classes. Footbills of the Blue Ridge. An hour from Washington. Interesting trips. Gym, sports, polf, busts, riding. 100 acres. Junior Dept. Cotsley. E. B. King, M.A., Headmaster, Bex N., Warrenton, Virginia.

WESTERN MILITARY ACADEMY

Jennon, Siemor High Schmit; Graduate Courses, 58th year. Progressive Methods—Common School Branches. Competitive Athletics for all. Modern Steproof buildings. Near St. Loois. For entalog address: Colonel H. L. Inckenn, Box N-9, Alton, H.

Coseducational

DEAN ACADEMY Computer transfer preparation in bemalike atmosphere for enlage, technical schools or heatmass. Avt. mosic, secretarial, home secondaries. Lywer intensive rankes. All sports, Sindowed, 1600 rate, 70th year. Carning. Earle S., Wallace, Headmaster, Box N. Franklin, Mans,



The National Geographic Directory of Colleges, Schools and Camps



Vocational

ALVIENE SCHOOL THEATRE

Qui YEAR, Graduntes - Fred Astaire, Lew Trace. Une Merkel, Pressy Stanton, 2rts January, etc. Stage, Screen, Essie, Stack Theatre training. Appearances: N. Y. Debuta. Write Sec'y Landi for Catalog 4. 66 West 85th 5t., New York.

AMERICAN ACADEMY OF DRAMATIC ARTS Franklin H. Sargrat.

The furnment institution for Dramatic Training Fall Term Begins October 20th, Catalog from Socretary, Roum 271-1, Carnegie Hall, N. Y.

CHICAGO A CADEMY OF FINE Figureout for two generations. Draw-

ARTS ing, Painting, Design, Industrial and Stage Arts, Draws Arts, Interior Description, Cartouning, School-Art Methods, Commercial Art, Blistration. 18 South Michigan Accous-

MISS CONKLIN'S SECRETARIAL SCHOOL Formers 18W. Secretarial and Executive training. Students from leading Colleges and Schools. Midtown Location. Entrance at any time. Individual Advancement. Request Booklet. 106 West 40th St., New York.

KATHARINE GIBBS SCHOOL

SECRETARIAL Essentive Academic One and Two year moreus for Proparatory and High School gradnotes. Special course for college wamers. Carated. Ass't Doon, 230 Park Ave., New York: 90 Mariboro St., Boston; 155 Angell St., Previdence.

Vocational

GRAND CENTRAL SCHOOL

DUDYZDUAL talent developed by sur-OF ART comful modern arrists. Drawing Painting, Sculpture, Illustration, Advertising, Appiled Arts, and Interior Denoration. Caralog. 7010 Grand Central Terminal, New York City.

INSTITUTE OF MUSICAL ART

OF THE JUILLIARD SCHOOL OF MUSIC Elexant Rescussors, Deant Owner Wagner, Avsistant Deals. All branches of music. For students of ability and ourloon portions. Carning, 120 Clara-mont Ave., New York, N. Y.

LEWIS HOTEL TRAINING WHAT SCHOOLS ington. Qualify in a mantis for ment Service from of entra charge. New day classes start Sept., Oct. Catalog Free Lewis Hotel Training Schools, Div. RMP-1188, Weshington, D. C.

NEW YORK INSTITUTE OF

PHOTOGRAPHY COMMERCIAL NAMES. Fleture Photography. Instruction by noted experts. Personal Attandance of Home Study. Free Boundet. 10 West 33 St. (Dept. 44) New York City.

NEW YORK SCHOOL OF INTERIOR DECORATION

PRACTICAL training courses. Full term commences Oct. S. Send for Carning 17R. Home Study Course. Cottning ITC. 515 Madison Ave., New York.

Vocational

SARGENT COLLEGE OF PHYSICAL EDUCATION

(Physical Therapy) of Bestes University, fifth year, A pases high school required. 4-year nourse leads to R. S. In Physical Education: Unqual camp butzuction. Ask for Catalog. Erent Hormson, Dean, 50 Everett St., Combridge, Mass.

C. F. YOUNG SCHOOL

Gings taught individually to be expert secretaries. No chance. Employers community enqueint quality of graduates, Estah, 1884, Elsi year, Moderate cate. Di min. fram Woll St. Booklet, (MAin s-stift), Box N. 24 Sidney Place, Breeklyn Heights, N. Y. C.

Home Study COURSE

CALVERT SCHOOL

Offers your shild a superior education from Kin-

dergorten to High School. If your shift is not bear a good action . . . smart make up lost time . . . requires individual attention most travel with you ... ean progress factor

Home Indrustion Courses. Write today for the new Calvert Catalog. Her how actions has been made easier and happier for more than 50,000 children.

Calvart School Mrs. G. S. Rhoads, Dir. of Home Instruction, 39 Tuscany Road, Baltimore, Md.

Children go for Corona as joyfully as ducks take to water home should be without in C.

that you can buy a Corona for as little as \$1.00 a week, and pay for it as you use it.

Useful with children's home-work, at all ages . . . almost indispensable in high school and college . . . and thereafter through life.

New models, exclusive features, modest prices.

C SMITH & CORONA TYPEWRITERS INC Desk 9, 103 Almond Street, Syracuse, New York. Please send me free copy of bookles Cl All Corons

CORONA PORTABLE TYPEWRITERS



The Baltimore Mail gives you more solid travel confort for your travel dollars - the year 'round. Staterooms are larger than ordinary, all outside on upper decks. All have but and cold running water, 60% have private baths. Spariousness and spotless cleanliness

everywhere. Fine fond, varied menus, good service,

Workly Smilings to and Jrim Europe

Weekly how fialtingue to Maduli to Hambury and Landon To. Marie alternate weaks amouste. Returning on Have in Southwayner See your times years, any U.S. Lines office or write belowing

BSA II II MA (DES-II-

a COVERED WAGON . . . for Fall and Winter Travel Comfort

A Covered Wagon is no perfectly appointed and fitted, so staumsly built and confortable for all weather use that it justifies every reason for ownership-Convenience, Livability, Performance and Economy. Complately equipped for cross continent travel and year -round variationing. Write for new literature on three beautiful models. Travel by Covered Wagon - and Sare!

Master, \$395 Deluxe, \$785 Custom, \$1185, Detroit WHEE Simulated



COVERED WAGON COMPANY 441 Cass Avenue, Detroit, Michigan

ON THE ROAD TO

Mandalay

Come to Burma, land of leisure and laughter. Study ancient rituals and pageants, Marvel at paneramas of pagodas, gilt spires zooming to the sky. Plan to come this Winter . . . via Europe, or the Orient, Costs in India are among the cheapest in the world. Travel First Class, or at half the cost by comfortable Second Class, Get further details from India State Railways, Delhi House, 38 E. 57th St., New York ... or better travel agents.

INDIA STATE BAILWAYS







FOR SALE...40 years of successful prefabrication!

 Forty years of building houses has taught us how to eliminate any weak spots; know the best materials; the most durable construction.

You may find the very Hedgson House you need in our particlio. Any of the plans can be revised to suit your partic-

ular requirements. Or we'll design exactly what you want. Local labor will erect the prefabricated sections. Shipments made anywhere, Hodgson Houses are efficiently insulated; rot-proof, termite-proof

wood where necessary. Visit the Rodgson Colonies INDOORS in New York or Boston. Or write for NEW Cutulog FH-9.



HODGSON HOUSES

E. F. Hodgson Co., 1103 Commonwealth Ave., Boston . 730 Fifth Ave., New York

How Good Are Your Child's Eyes?



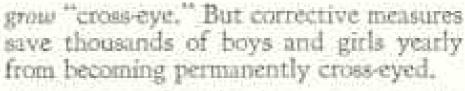
Children think of it as a good game and readily respond when asked to show which way the legs of the "funny little E' animal" point. Up, down or sidewise go their arms. In this way, how and girls, before they know their letters, indicate fairly accurately how well they can see.

SCHOOL work means years of hard use for young eyes. Backwardness in school is frequently the result of defective eyesight. Before children go to school make sure their eyes are fit for study.

Modern eyesight tests are of great importance in demonstrating whether a child's eyes are fit to assume this strain. Many kindergartens are using the "E" Chart supplied by the National Society for the Prevention of Blindness to discover gross defects of vision.

Eye troubles are usually due to faults in the structure of the eye, to disease either in the eye or in other parts of the body, to some deficiency in the diet, to strain, or to improper use of the eyes. Eyes need special attention during and following serious illness.

Some visual defects may grow progressively worse if nothing is done to correct them. It is no use hoping that children will out-



Astigmatism, farsightedness, or nearsightedness can usually be corrected by glasses. Diseases of the eyes require special medical treatment.

Food plays an essential part in keeping eyes healthy. Of special importance to the health of the eyes are foods which contain Vitamin A, such as cream, butter, milk and fish oils.

Take no chances with vision by trying to fit your child with glasses, or by relying on home treatment. Eyes are too precious. Consult a specialist. Attention to the eyes should always be a part of regular health examinations.

The Metropolitan will be glad to send you, free, a booklet, "Care of the Eyes". It contains valuable information that you should have. Address Booklet Department 936-N.



Keep Healthy-Be Examined Regularly

METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER ~ ONE MADISON AVENUE, NEW YORK, N. Y. ~ LEROY A. LINCOLN Chairman of the Board President



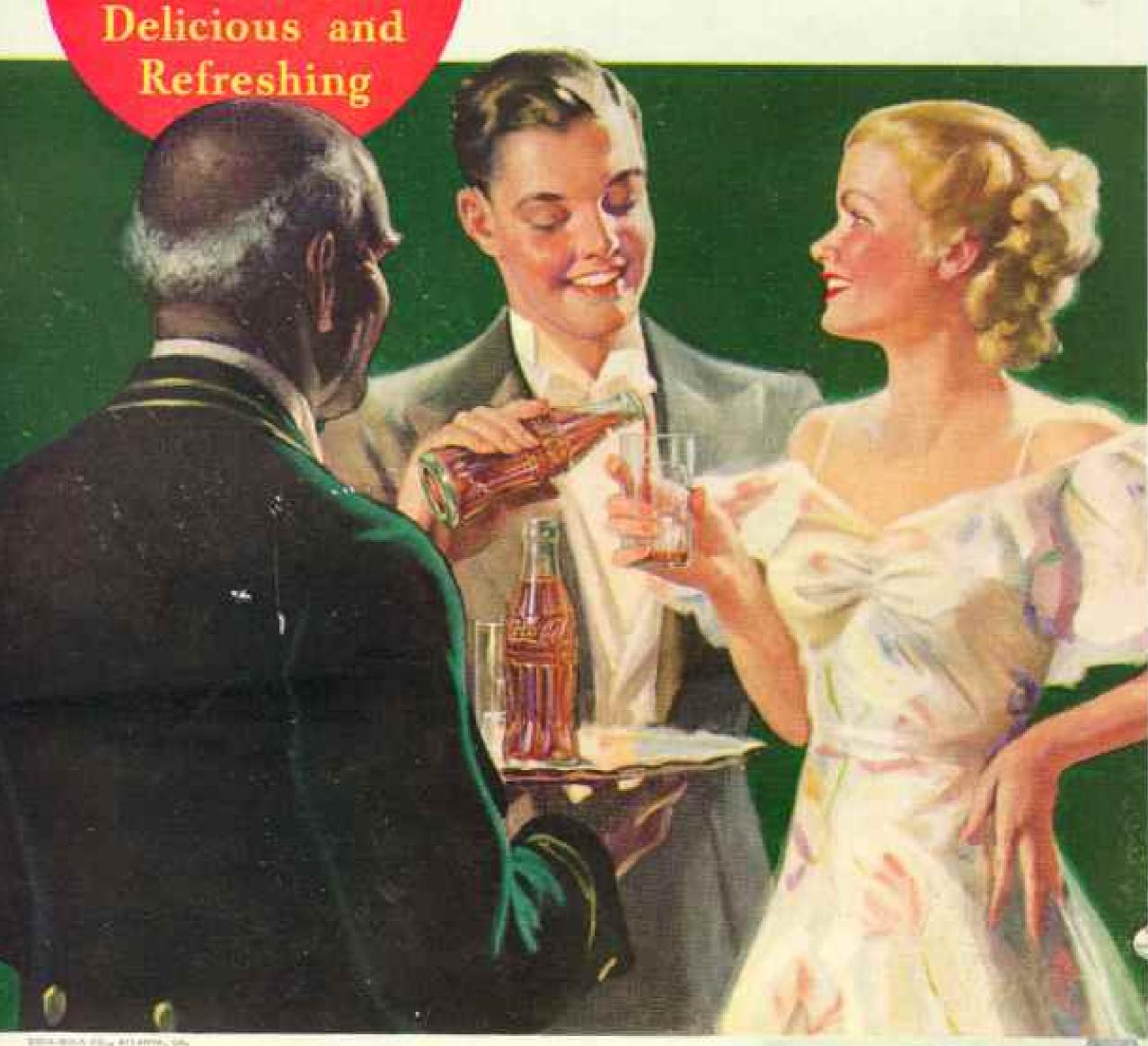
PASSENGER PIGEONS

A century ago the great naturalist, James Audubon, observed this species in such abundance that he did not believe its numbers would ever be greatly diminished. Yet the last passenger pigeon vanished twenty years ago.

If the fate of an entire species is unpredictable, how much more so are the fortunes of an individual. That is why the wise man, no matter how abundant his fortunes today, prepares for adversities that may befall temorrow.

Momi: Insure in The Travelers, All forms of insurance. The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, Hartford, Connecticut.

"It's the refreshing to do"



Youth's delight in "swing music" brings a faster step. The pause that refreshes with ice-cold Coca-Cola is a step in the right direction for a fresh start.

p. s. It's the refreshing thing to do... because Coca-Cola is what refreshment ought to be,... pure, wholesome, delicious, ice-cold.



Luxuries have no place in this college girl's budget

... but she can afford a movie record of her undergraduate days

THERE are so many neces-sities that claim college money . . . she has to plan carefully to make her allowance last out the month.

But she can afford a hobby that is great fun now, a lasting thrill for the years to comehome movies. They're so inexpensive now, thanks to a new type camera and film.

Ciné-Kodak Eight lets people with modest incomes in on the fascinating sport of home movies. Now-exciting action records cost but a few cents a scene. And they're as easy to make as snapshots.

See the Eight and the pictures it makes, at your dealer's today. It's the camera you've been waiting for.

Gargeous full-color Kadachrome for Ciná-Kodak Eight

Just load your Eight with Kodnehrome, and "shoot," Color movies are as easy to make as black-and-white. No extraequipment is needed for all ordinary shots. The color is in the film . . . Eastman Kodak Company, Rochester, N. Y.

 A new type camera . . . u special film - - - make home movies possible at the lowest cost over. A swenty-five foot roll of Cine-Kodak Eight Film roms as long on the screen as 100 feet. of amateur standard home movie film. The Eight makes 20 to 30 blackand-white movie "shots"-each as long us the average scene in the newsreels-on a roll of film costing \$2.25, finished, ready to shop. Ciné-Koduk Eight is small, sturdy and thoroughly reliable—costs but \$34.50.

Ciné-Kodak Eight ... home movies at less than 10¢ a

less than 10¢ a "shot"

In Hallowed Observance

Make this YOUR season of commemoration

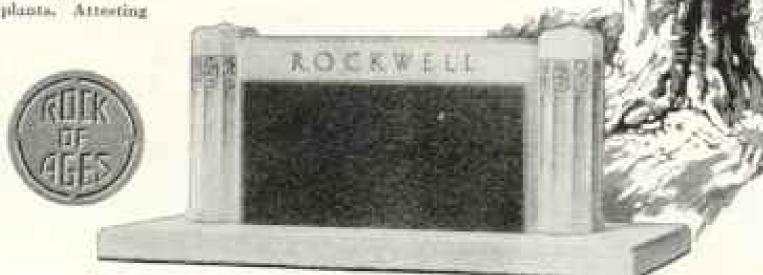
With approaching natures days of national commensuration and religious observance, your consciousmess of a family obligation may be activityingly and completely fulfilled.

Loving memory LIVES imperishably in a Rock of Ages Memorial. Fashioned from the famed, deep-dured grunite of the Rick of Ages deposit in Barre, Vermont, each Memorial is executed to exquisite perfection by master craftsmen employing exclusive.

parented processes in the Back of Ages plants. Attesting

flawless material and workmanship is the Rock of Ages Seal, etcland in the stome for your protection.

The gennineness and enduring beauty of each Rock of Ages Memorial is further evidenced by the makers' Certificate and Bonded Guarenty of National Surety Corp., through Authorized Book of Ages Dealers everywhere.





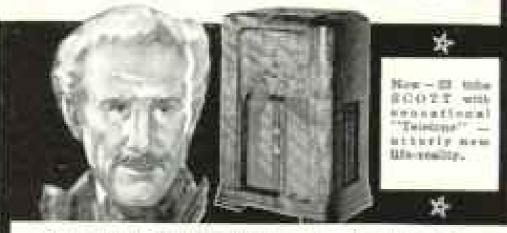
"HOW TO CHOOSE A MEMORIAL"

Sent free on request, this lutes trevised booklet gives important memorial facts and design sugpustions, Send today.



ROCK OF AGES CORPORATION, Dept. D-9, BARRE, VERMONT

HEAR the RADIO TOSCANINI CHOSE



MARKETHO Arture Toscartini has thrilled countless thousands of music lovers, and is known in every part of excitted world as probably foremost interpreter of symphonic music. Destalled in his Milan home is a SCOTT Custonibuilt Sadio. The letter expressing his opinion will always be one of our most treasured possessions:

"Never would I have believed such marvelons reproduc-tion possible. To you belongs the credit of having pro-duced a mirarie of perfection. What satisfies me really very much is the quality of tone which is elear, boughful and not confined as in many other receivers."

BCOTT enatominalt receivers have won the nearwhelming prefevence among the weeld's forement smallclans. . . . And they bring in England, Spain, Germany and scurse of foreign stations, with more thrilling volume and cincity. Moderately priced. 10 days trial, (in U.S.A. anly). Send now for this unparalleled intainer,

NEW YORK, LOS ANGELES, CHICAGO

----CLIP HERE----

E. H. Scott Radio Laboratories, Inc., 418) Harsenswood Ave., Dept. 1Pt, Chicago, Dis.

Semil "PROOF" of from search healthurguerar DX performance of At miss mooth.

Nome

Address.

City:___

State

Told In A Nutshell



How to provide yourself with a retirement income the John Hancock way, told in a slim, unpretentious little booklet. which you can read in less than ten minutes. Your copy will be sent on receipt of coupon.

FE INSURANCE COMPANY OF BOOTHING MARRACHURETTE

JOHN HANCOCK INQUISY BUREAU 197 Clarendon Street, Buston, Mass.

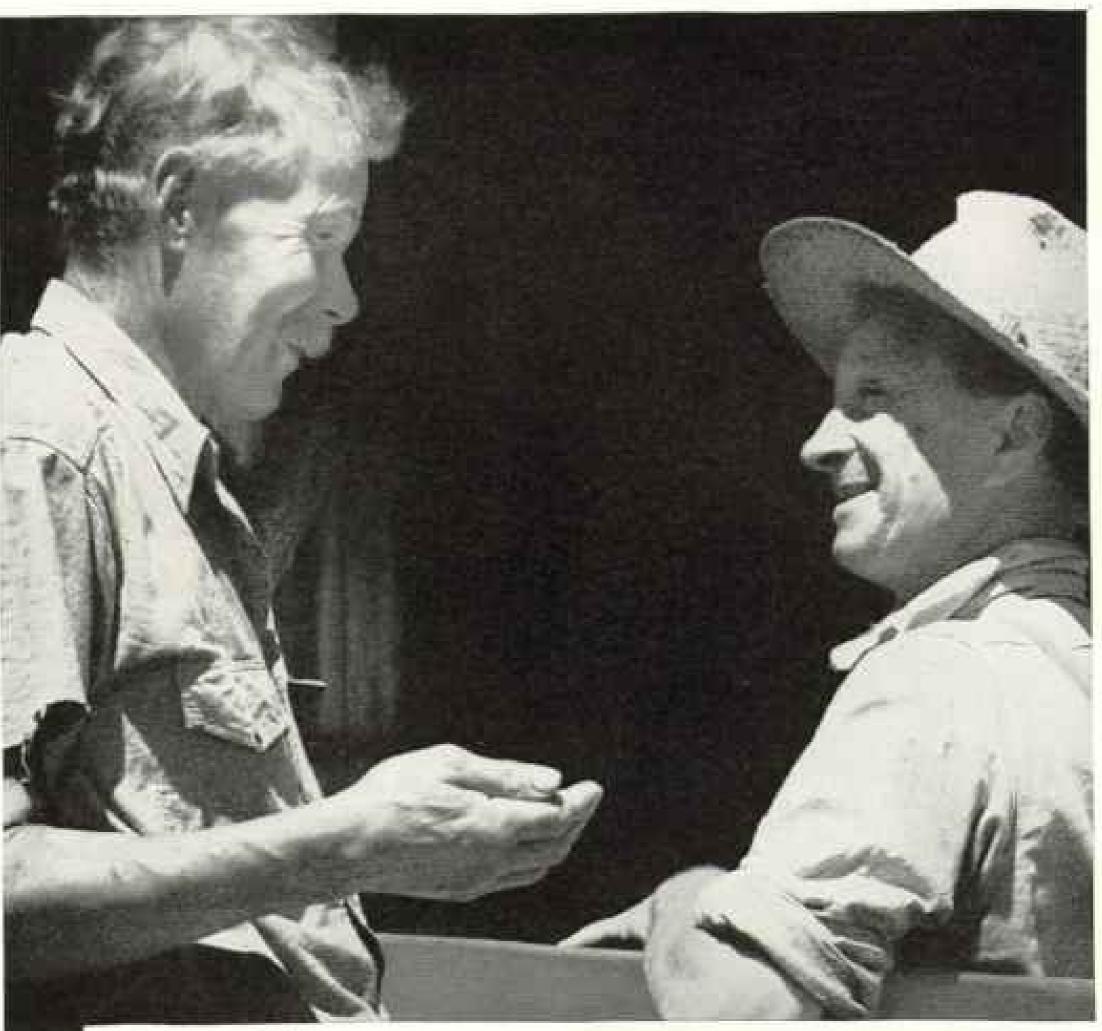
Please send me your bouklet, "Money for All Your Tomorranz

Street and No.

Giry.

State

N.S. 21-24



"Fine thing, the Telephone"

"HELPS TO KEEP PEOPLE CLOSE AND FRIENDLY"

"I put through a call for my son down East.
Must be three hundred miles.

""Hold the line," the operator said. And next thing you knew, there he was. Sounded just like he was right here. It wasn't like that when I was a young fellow."

This countray has the best telephone service in the world. And it's still getting better—quicker, clearer, more useful to more people. Each year brings improve-

ments in equipment and operating efficiency. Operating errors on local calls always a small percentage of the millions handled daily—have decreased 40% in the past six years.

Since 1929, the average time required for long distance connections has been reduced from 2.8 to 1.4 minutes and 92% of these calls are now handled while you remain at the telephone.

Time has proved the value of Bell System operation.

BELL TELEPHONE SYSTEM



Probing the Mystery of Pre-Eskimo Man

The National Geographic Society and the Smithsonian Institution, Co-sponsors of an Archeological Expedition to the Bering Sea Region in Alaska, Promote Researches to Trace America's First Human Beings

MPELLED by the weight of indirect evidence that the earliest people in the Americas may have come from Asia by crossing the Bering Strait to Alaska, an expedition of archeologists, sponsored by the National Geographic Society and the Smithsonian Institution, left in May of this year for the Bering Sea

toric village sites and "kitchen middens"
to gather factual evidence bearing on the
life of the ancient settlers in the dim past.

First Official Account Will Come
to Members of The Society

region to search for proofs of these mys-

terious "first settlers" in the New World.

Under the leadership of Henry B. Collins.

Jr., the expedition will search for prehis-

The expedition's story of its findings and experiences will come to you through many photographs and revealing narrative in your NATIONAL GEOGRAPHIC MAGAZINE.

Through the cooperation of its members, The Society is able to sponsor many scientific researches, explorations, and far-reaching educational activities. As a member, you can help extend this work, and help The Society make for you an increasingly better and brighter Magazine, by nominating your friends for membership. Your nominees and the officers of your Society will appreciate your thoughtfulness. No financial obligation is involved.

1936



ESKING DESCENDANT OF ANCIENT MAN

(DETACH HERE-OR NOMINATERY LETTER IF YOU PREPRE NOT TO CUT THIS PAGE)

Nominations for Membership

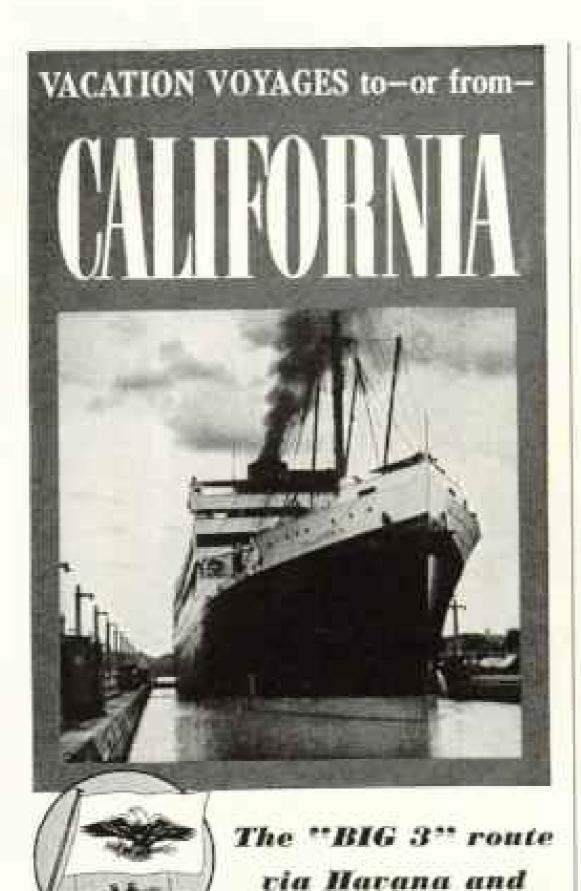
Secretary, National Geographic Society, Sixteenth and M Streets, N.W., Washington, D. C.

I nominate for membership in the National Geographic Society:

DUES: Annual membership in U. S., \$3.00; Gamain, \$2.50; abroad, \$4.00; life membership, \$100. Please make remittances payable to the National Geographic Society. Please reent by check, draft, postal or express stder.... The memberchip fee includes annual subscription to The National Geographic Magazins.

Name and Address of Nominating Member:

(1) Name		
Addres≡		
	(Occupation)	
(2) NameAddress		
Address		
	(Occupation)	
(3) Name		
Address		
	(Occupation)	



Coast to Coast, First Class from \$199 (from \$215 at certain seasons). Tourist Cabin from \$125. All rooms are ourside rooms. 25% reduction on round trip. Sailings fortnightly throughout the year.

the Panama Canal

- ★ Circle Tours, one way by sea, one way by rail or air.

 Special home-town to home-town combination rates. Stopover privileges on both steamer and rail tickets. And a new tour adds MEXICO, connecting with Eastbound "Big 3" Liners at Acapulco.
- ★ 9-Day Havana All-Expense Cruise Tours from New York from \$140 for everything aboard ship; room, both and meals for 3 days in Havana and sightseeing.
- ★ 16-17 Day Cruise Tours to the Caribbean, Panama, South America, \$255 up. Wide choice of itineraries. Sailings all year round. Folder upon request.
- ★ 3 Weeks Panama Vacation from San Francisco (or Los Angeles). Inclusive rates for all expenses ashore and affost. Also Havana round trip and connections for Florida and Mexico.

See your tracel agent for further details. He will help you plan a trip to suit your time and pocketbook.

The "Big 3"

S. S. CALIFORNIA

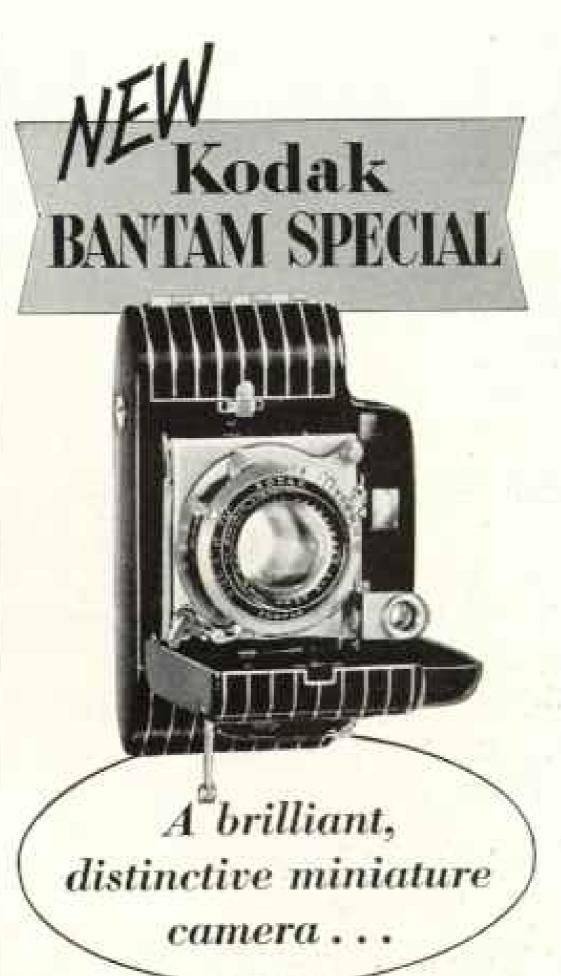
S. S. VIRGINIA

S. S. PENNSYLVANIA

(33,000 tons each)

Panama Pacific Line

International Mercantile Marine Company, 1 Broadway and 601 Fifth Ave., New York. Offices in principal cities.



An entirely new conception in mininture camera design, with the looks, "feel," and balance of a choice, exquisitely made instrument.

Eastman's new super lens—Kodak Anastigmat EKTAR J.2. 1/500 Compur-Rapid shutter, Military-type, split-field range finder, coupled with focusing mechanism. Stainless steel fittings. Brilliant die-cast, machined aluminum body, offering complete protection to operating parts when closed.

Makes needle-sharp negatives on Kodak Panatomic or Kodak Super X Film that yield excellent enlargements, the standard, low-cost size being 2% x 4 inches.

Kodak Bantam Special is a remarkable camera from every viewpoint. Price \$110. At your dealer's . . . Eastman Kodak Co., Rochester, N. Y. NATIONAL GEOGRAPHIC MAGAZINES HOTEL SECTION

ARIZONA

LitchReld Park

The Wigwam. Distinguished this and attractive bungslaws in glorious desurt setting near Photein. Golf., ride, relex. Ratse from \$5. Amer. Plan. Bidt.

lucson

Pioneer Hotel, Swithern Arizona's Frant. De Records with inth: Enrop. Coffee Steep. Dining Room Roof Garden. Sun Deck. Republic Rates. Bestlet.

CALIFORNIA

Los Angeles

The Ambanasder, Twenty-two nere Playercond to beart of City. All Eports, Planes, Reach, Lido. Concernit Grove for Duncing. Encopean, 55.00 up.

COLORADO

Colorado Springs

The Grantmoor at foot of Piles Peak. Aristoernt of report hotels—sender of social and sports activities in the West. Booklet on requests

DISTRICT OF COLUMBIA Washington

The Dodge Hatel on Capital Hill, Manand warmen travellers enjoy the "No Tipping" service in all de-partments. Noted cuisine. El-E., single; 14-38, double.

Hay-Adams House, Acress from the White Hoose at 16th and H. The less in accommodations and smart surrangelings. European, \$1.50 up.

Hotel Martinique—lith Street at M. Directly accuse from National Geographic Security. New and Modern. Every room with bath. European. From S.

The Rafeigh Hotel. Annes Penn, Ave. from new Cost. Blelge Denney recom nir conditioned. Horme with tab and chower, 33-35 one, is 50-21 two. E. U.

ILLINOIS

Chicago

LuSalle Hotel, Florement in Friendlinese, Neur everything Laffulls at Madison St. You'll like the siano, bright rooms good food reasonable rutes.

MARYLAND

Baltimore

The Belvidere. Dublie the luminous district. yet convenient to all the city's activitue. Every modern comfort and luxury. Bates legth at it is

Boston

The Copley-Pings from heartiful Cooley Signary. Situate reems from \$1.00; doubly from \$1.00; Scottee from \$10.00, Arthur L. Race, Managing Democrat.

MINNESOTA

Minneapolis

Curtis Hotel, Cantiguous to Minnesota's 10,000 Lakes region. Largest Rotel in the Northwest. Soft-water buttle throughout. Enter IC to M.

NEW HAMPSHIRE

Hanover

Hanavar Inn at Durtmouth College, Superb gulf, tennia, recreation. Central for White Mountains, Green Magninius, Open all year. Disastrated bosselet.

White Mountains-Whitefield

Mountain View House, 2020 acre private estate. All spects including poles, go'f. Highest standards; distinguished clientais. W. F. Dudge & Son, Prope.

NEW JERSEY

Atlantic City

The Ambanaudur, Brighton Andrew and the Boardwalk. American and European plans. William Hamilton, Managing Director,

Chalfants-Haddon Hall. Dn the Athenie City Hearthealk, 1600 rmms, Oreun Docks, Modern health baths. American and European plans.

Ocean City

The Flanders, Dispetty on howydwalk, American plant. I see winter estimates pools. Bill rooms with hother June 20 to Sept. 20. J. Heward Siecom, Mgr.

Princeton

The Princeton Inn. Faring gulf ourse and Gradmake College, Amer. plan, 136 rum. Fireproof. "Has-pitality as in days of old." J. Heward Steelin, Mgr.

NEW MEXICO

Santa Fe

Haciende de Les Carres, Picturesque guest canch neur Indian puebble, sieff-deuler ruins, qualut Spanish villages. Open all year. Beskiet.

La Fonda Old world churm, city suphisticution, the End of the Trail in Old Santa Fe. Cool sum-mers, mild winters. Horvey Management.

OREGON

Portland

Multinemah - Oregon's largest, 400 rooms, From E.50. There to four blocks so leading source and minks. Three enter. Famous food.

PENNSYLVANIA

Philadelphia

The Warwick. Festures the famous minister of amount. Controlly Beauted, just off Hittenheuse Square, From 54 single, 89 disable.

Canada QUEBEC

Montreal

The Hitz Carlton . . . Turned for its service, entries and distinctive electric. Location unenrounsed.

YORK

Albany

Do Witt Cliebes, A Knott Hotel, New, well appointed. Fixes Capital Purk, Spieredid meals; attentive service. Come, we'll lunks you happy.

New York City

Berbisan-Plaza, New akyerrsper betel overlook-ing Central Fark at 6th Ave. Tower rooms from 12 single, 25 double, Continental breakfast included.

The Plaza, New York, Fifth Avenue, faring Central Park, Single Rooms from Mr Double from Ht Suties from 112. Happy A. Rost, President.



The Waldorf-Astoria

Parentis scene of New York social and business activities . . . convenient to the City's Important and Interesting centura . . . single rooms 25, 24, 37 double \$8, \$9, \$10. Various restaurants with comprehensive range of prious and types of service. Park Avenue, 49th to 50th Street, New York,

WEST VIRGINIA

White Sulphur Springs



The Greenbrier

World-famous spa and resort affording year round recreation and relaxation to the discriminating. 7000 acre estate high up in the Alleghanies. Golf (3) courses), riding, tennis and skeet. Finest facilities for "the cure." Fall reservatiens new. Tariff and information upon request to L. R. Johnston General Manager.

THIS MAGAZINE IS FROM OUR PRESSES

JUDD & DETWEILER, INC. Master Printers

ECHINGTON PLACE AND FEDRIDA AVENUE WASHINGTON, D. C.

Be Sure the Clothes You Take Away are Marked with CASH'S NAMES

Wherever you as CASB'S WOVEN NAMES save laundry homes, positively identify you and your belongings. Easily attached with thread or Canh's NO-SO Cement. Order NOW from your dealer or us. !

SH'S Chestnut St., So. Norwalk, Conn., or 6211 So. Gramercy Place, Las Angeles, Cal., or 56 Gray St., Bolleville, Ont.

3 doz.\$100 6 doz.\$2. NO-SO

CHAMPION-INTERNATIONAL COMPANY

MANUFACTURERS OF

National Geographic Paper

and other high-grade coated paper

LAWRENCE, MASS.

distilled oil

WILL NOT FORM INJURIOUS HARD CARBON



You do not want carbon in your engine. Carbon from Havoline is slight, soft and fluffy; it blows right out the exhaust.

Havoline keeps your engine clean because it is wholly distilled.

Many premium-priced oils are only partly distilled. They can leave flint-hard carbon.

Ask Your Dealer, "Is it Wholly Distilled?"

If you are using a premium oil make sure you are getting one that is wholly distilled. Ask for Havoline. It is 100% distilled from rich paraffin crudes and is made Tarfree and Waxfree.

It is the modern oil for the modern automobile. Through 100% distillation, harmful impurities are left behind. Havoline keeps your engine clean—protected to the last mile.

You can purchase Havoline at Texaco dealers in all forty-eight states. They have the correct grade for your particular year and make of car. Next time you drain or add a

quart, ask for Havoline—it is a 100% distilled premium oil, Indian Refining Company, Indianapolis, Affiliated with The Texas Company.

KEEPS YOUR ENGINE CLEAN