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THE NATIONAL GEOGRAPHIC MAGAZINE

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THE CITROËN TRANS-ASIATIC EXPEDITION REACHES KASHMIR

Scientific Party Led by Georges-Marie Haardt Successfully Crosses Syria, Iraq, Persia, and Afghanistan to Arrive at the Pamir

By MAYNARD OWEN WILLIAMS, LITT.D.

SPECIAL STAFF REPRESENTATIVE OF THE NATIONAL GEOGRAPHIC SOCIETY

With Illustrations from Photographs by the Author

MIDSUMMER in Srinagar. Under the bright flags of Kashmir, England, France, and the United States, in a delightful garden, the Citroën Trans-Asiatic Expedition rests, the first portion of its ambitious motor trek crowned with complete success.

Before us loom the Pamir, the trails thither cut by floods. Beyond the mountain barrier the China group of heavier, finer cars is toilsomely plowing its way across the deserts from Peiping toward the rendezvous at Kashgar, in the heart of Asia.

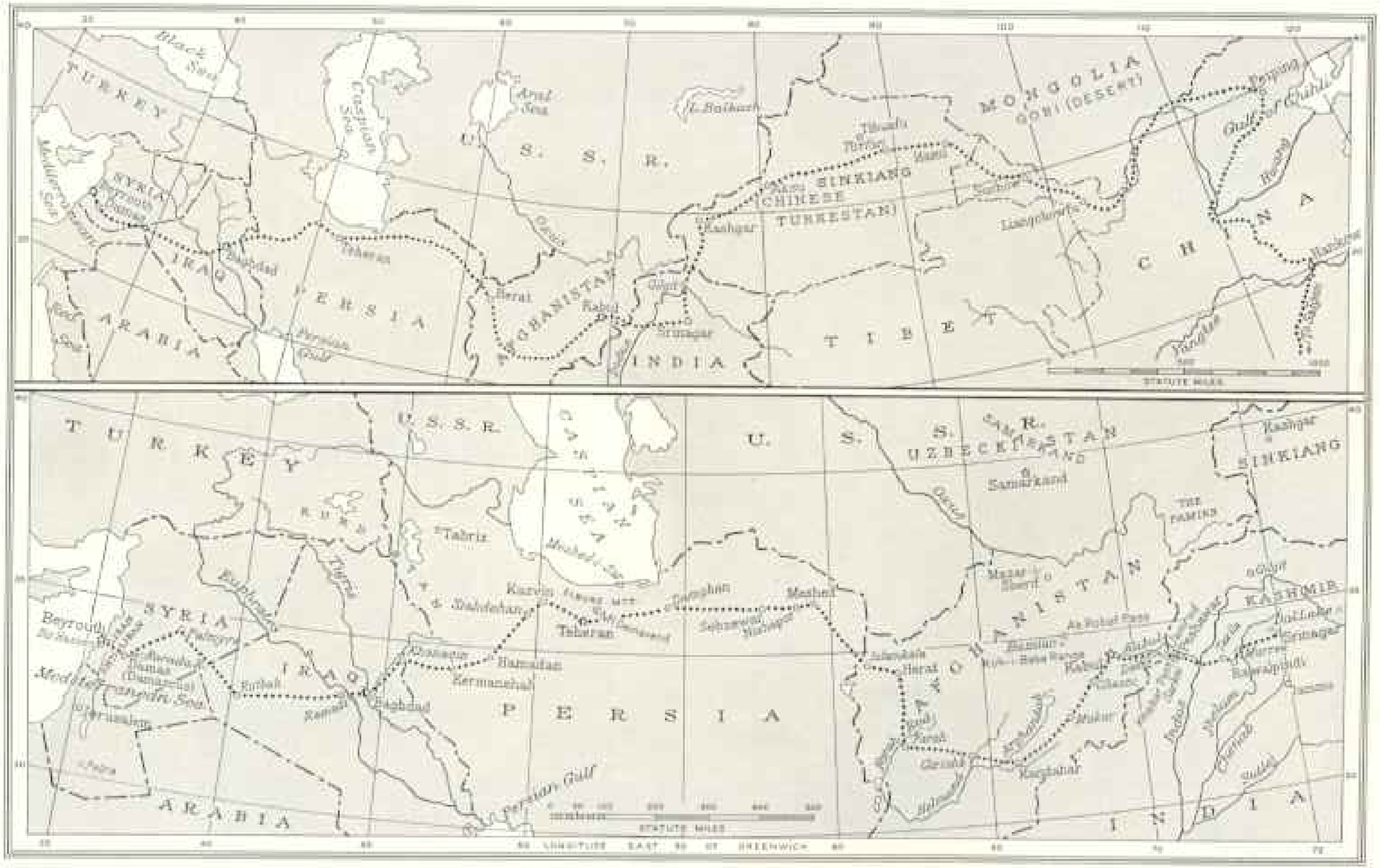
What is mystery to us will be fact to you long before this journal of our eastward marches can be published. Kashmir spreads its seductions before our eyes or tempts us forth to watch the Jhelum River lift the houseboats high above the surrounding countryside. The long, long trail ahead leads our thoughts across the roof of the world. But the present duty is to relate what has gone before.

. . . . . .

There come fond memories of those days before the start. My first thrilling interview in Paris with M. Georges-Marie Haardt, the leader of the Expedition, with all Asia spread before us in his treasure-trove of travel lore overlooking the Tuileries; the graciousness of President Doumergue toward the only representative of America in this French expedition; our chief patron, M. André Citroën, waving farewell to us at the Gare de Lyon; the *Mariette Pacha*, for the first time in her history, coming alongside the quay at Beyrouth, the Syrian seaport, so that our heavy cars can be landed rather than lightered ashore.* (See, also, page 389.)

Fond memories, too, of that oriental city to which I first came as a teacher twenty years ago. The cordial and repeated hospitality of the High Commissioner of France and Mme. Ponsot; the reception by the American Consul and Mrs. Keeley and President and Mrs. Dodge at the American University; the Expedition's equipment inspection in honor of the arrival of the Vice-President of the National Geographic Society on the red sands of Bir Hassen, with the Tricolor and the

* See "The Trans-Asiatic Expedition Starts," by Georges-Marie Haardt, in the NATIONAL GEOGRAPHIC MAGAZINE for June, 1931.



Drawn by A. H. Bumstead

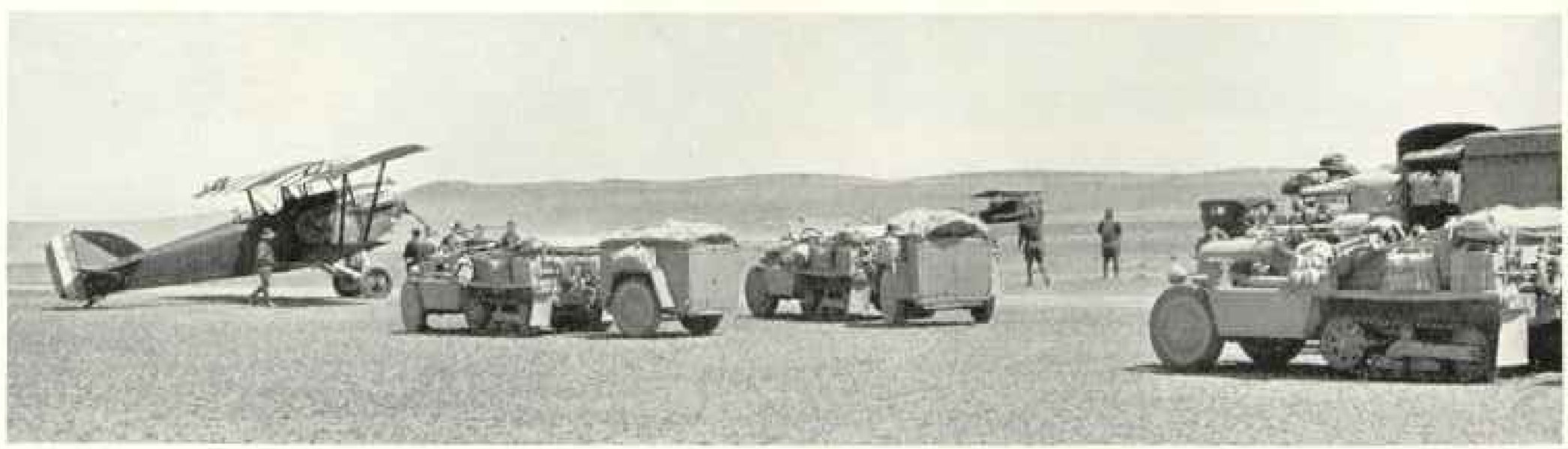
THE DETAILED ROUTE OF THE CITROËN TRANS-ASIATIC EXPEDITION FROM BEYROUTH TO SRINAGAR (LOWER), AND APPROXIMATE ROUTE FOR THE ENTIRE UNDERTAKING (ABOVE)

Having accomplished the first half of the crossing, the representative of the National Geographic Society with the Expedition bivouacked in the capital of Kashmir and wrote of incidents which occurred during the journey through Syria, Iraq, Persia, and Afghanistan, while the leader of the party, M. Haardt, prepared his tractor motor cars for the hazardous crossing of passes never before traversed by wheels. The Expedition reached Gilgit late in August. The group proceeding from the west is scheduled to meet the eastern, or China, group of cars in Kashgar, Chinese Turkestan.

THE "MARIETTE PACHA" (RIGHT) UNLOADING THE EXPEDITION'S TRACTORS AT BEYROUTH'S MILITARY QUAY

From Marseille the great liner brings cars and supplies to the starting point for the first crossing of Asia by motor transport (see text, page 387).

THROUGH DEEP SYRIAN SAND THE HEAVY TRACTORS PROVE THEIR WORTH AT THE OUTSET OF THE JOURNEY



A NOTED AËRIAL EXPLORER PAYS HIS RESPECTS IN MID-DESERT

Père Poidebard, famous in archeological annals for his discovery and exploration from the air of Roman ruins in the Syrian Desert, flies out from Damascus to call upon members of the Expedition and to accompany a fellow aviator who brings a consignment of films for the author (see text, page 393).

MEMBERS OF THE EXPEDITION REVIEW SYRIAN TROOPS ON THE OUTSKIRTS OF DAMASCUS

Wild-riding Spahis and Tcherkesses (Circassians), rushing like the wind, wove in and out between the tractors. Third from the left stands M. Haardt, leader of the Expedition. At the right of the group, in civilian clothes, is Dr. John Oliver La Gorce, Vice-President of the National Geographic Society, who went to Syria to bid the party an official "bon voyage."

PROGRESS THROUGH DAMASCUS SAVORED OF A TRIUMPHAL PROCESSION

Mounted Circassian troops served as an escort of honor for the column of sturdy, gray, Pamir cars, as they rolled slowly through the ancient city, in the early stages of their journey across mysterious Asia.

Stars and Stripes flying side by side above our sturdy tractors; the official farewell.

Then the start!

Moonlight gives way to clear dawn beside the Mediterranean. The camp camel bell sounds 4 o'clock. For a year and a half this relic of earlier caravans is to order our uprisings and our downsittings. To-day, April 4, 1931, it heralds the end of years of preparation, the beginning of great adventure.

To study this interesting old continent; to follow pilgrim and trade routes older than idols or money; to record the sights and sounds of the changing East by methods unavailable to former expeditions; to share our results with millions—this is no mere mechanical treadmill. Were this a motor dash, archeologist and paleontologist, naturalist and painter, photographer and cinema director would be left behind. But this experiment in human fellowship, this adventure in human geography, gains greatest significance when most widely shared. Only through the help of Kublai Khan could Marco Polo "see wonders." Only through Marco Polo did the shadow of "the lord of lords" reach to the Western World. The changing East has messages we cannot with impunity ignore.

BLAZING NEW TRAILS WITH TRACTORS

Across these cerulean waters Phœnician galleys pushed out to the Pillars of Hercules, blazing new trails. We swing out onto steep sand dunes, where our tractor motors, better brothers of those with which the First and Second Haardt-Audouin-Dubreuil Missions conquered the Sahara and the trackless wastes of Africa,* are in their element. Against the sky, between sea and mountain, passes a slowly moving string of camels.

We climb the Lebanon, age-old mountains of Biblical story and dramatic history. Our engines are new, our loads heavy. In deep sand they were admirable. On this asphalt highway Levantine chauffeurs dash by, casting dust and derision in our faces. A handsome patriarch utters

* See "The Conquest of the Sahara by Automobile" and "Through the Deserts and Jungles of Africa by Motor," in the NATIONAL GEOGRAPHIC MAGAZINE for January, 1924, and June, 1926, respectively.

that deathless oriental blessing, "Man Salaameh!" "Go in peace!"

Friends stop us on our way to wish us well. Airplanes sweep our crawling column with their friendly lenses.

FLASHING SPAHIS AS ESCORTS

We camp at Djeyde, in the Antilebanon, and sleep cold. Then down the valley of the swift Barada, Naaman's river, to a hot parade ground beside a road once known to Saul—the "Damascus Road" from Jerusalem and Galilee.

André Goerger, secretary general of the Expedition, is a man of many duties; but he and I found time to roam the bazaars, to gaze up at the newly revealed mosaics in the Omayyad Mosque, and to visit the tomb of one for whom all Franks should have respect—the gallant Saladin.

On the morning of our passing from city to desert, troops of Spahis flash their red-and-white burnooses before us, wild-riding Circassians weave in and out among our modest gray cars, and then rein in to escort these newest vehicles through the "oldest city in the world," their trim, dark uniforms powdered by the dust of our passing. Beyond the gardens of the city, M. Ponsot, in the name of France, wishes us Godspeed and a safe return.

As we crawled north on April 8, two planes swooped low and stopped to deliver to me some films. An ultra-modern Santa Claus in flying togs proved to be our friend, Père Poidebard (see page 390).

The world will know more about this remarkable man, because his aërial method for discovering, mapping, and measuring the ruins of second-century Roman walls is of intense interest. Forts with battlements, twenty feet high, once stretched from Damascus to the foothills of Kurdistan to protect the caravan routes.

Caravans have for ages plodded above these forgotten barriers. To such earth-bound folk as they were designed to stop, they don't exist to-day; but from the air Père Poidebard directs his workmen where to dig and their spades strike history!

A BLOOD-FEUD AMONG THE BEDOUINS

Among the Bedouins a stay-at-home woman doesn't amount to much; but if one is abducted it takes the lives of seven enemies to square the account. On our arrival at Palmyra powerful sheiks were awaiting the arbitration of such a blood-feud.

In the lobby of the Hotel Zenobia a phonograph flippantly played "I Kiss Your Hand, Madame." But, behind the thin door of the salon, desert chiefs, disgorged from shiny motor cars, sat together with cigarette and coffee cup, their real feelings hid behind studied, graceful gestures.

On the table, before a French officer, a question which might mean hordes of nomads in movement, thousands of camels herded along, dashing riders spying out the land, and women with tattooed chins turning from their looms or goatskin churns to break camp and move across the desert which belongs to him who can hold it.

The headcloth, the camel's-hair crown, the princely robes remain; but the modern sheik wears smoked goggles and has a car.

FRENCH ENGINEERS BUILD A NEW PALMYRA

The French have cleared the hovels from the Great Temple of Palmyra and have built a new town in the plain. Near its center is a glaring white mosque, but prayers were still being said in a twice-hallowed shrine of the ancient pagan temple.

At the corner of a rude quadrangle of cement, workmen were pushing a well shaft into the earth. At 65 feet they struck clay, and the captain in charge handed me a damp gob to reassure me—or himself—that abundant water will come to bless this lonely desert post of the Foreign Legion, only 10 per cent French in personnel, but every man a deserter or a Frenchman at the end of fifteen years.

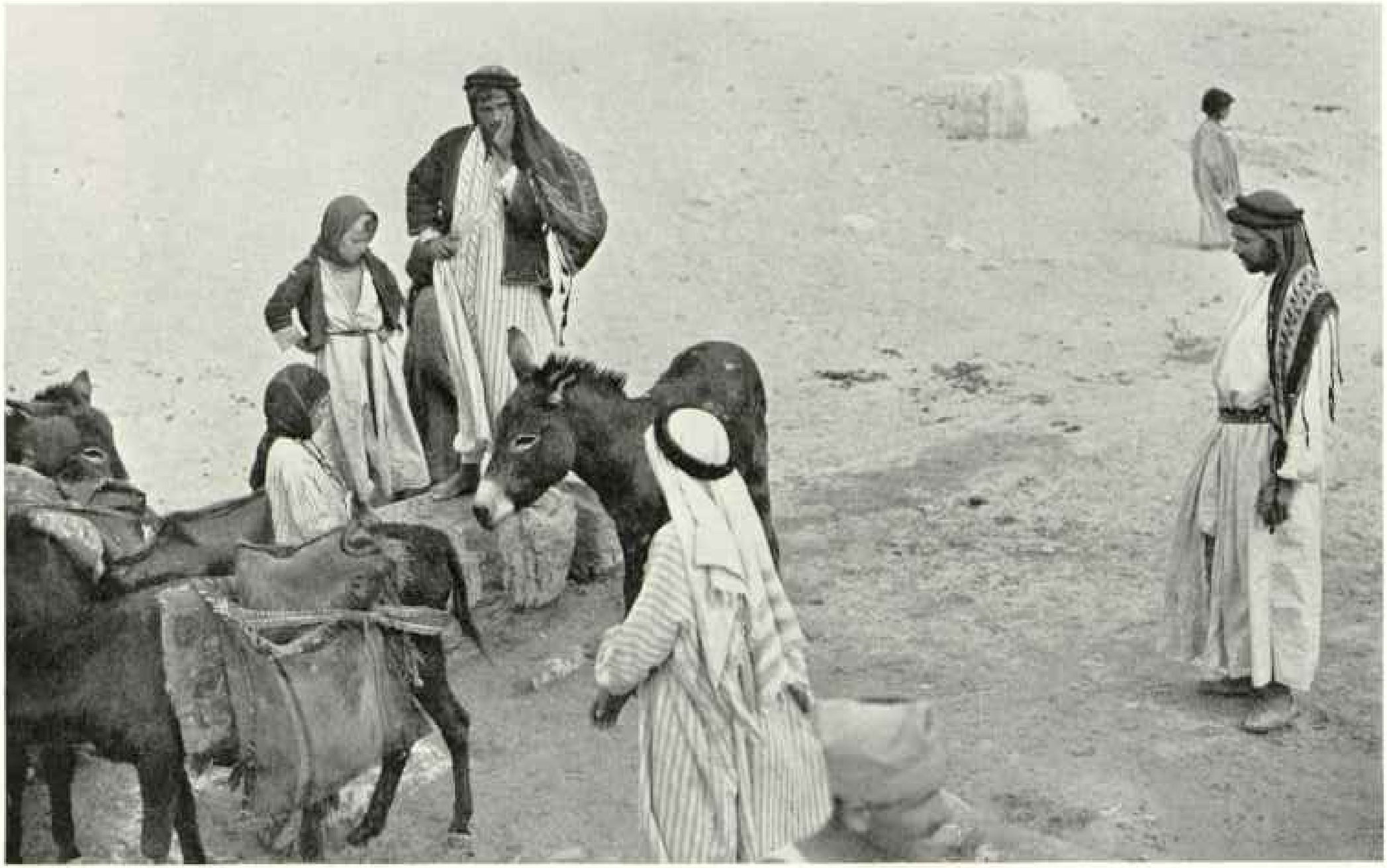
In the morning, as our cars swung into line and our hands swept to a mute "Vive la France!" the Légionnaires stiffened to "Present Arms." To the sound of a lone bugle, the Tricolor rose for the first time over this unfinished desert fort.

Two days later we halted at the aviation field outside the older fort, at Ruthah Wells. On the upper terrace Iraqi, with long hair and a bright star on their caps, either pace back and forth or shroud their bodies in blankets and sleep in the sun.

High above the walls tower the radio masts. Inside are the ageless wells, a post office, and a hotel run by Chaldean Christians. In spite of its barbed-wire barricade, Rutbah Fort is neat enough; but

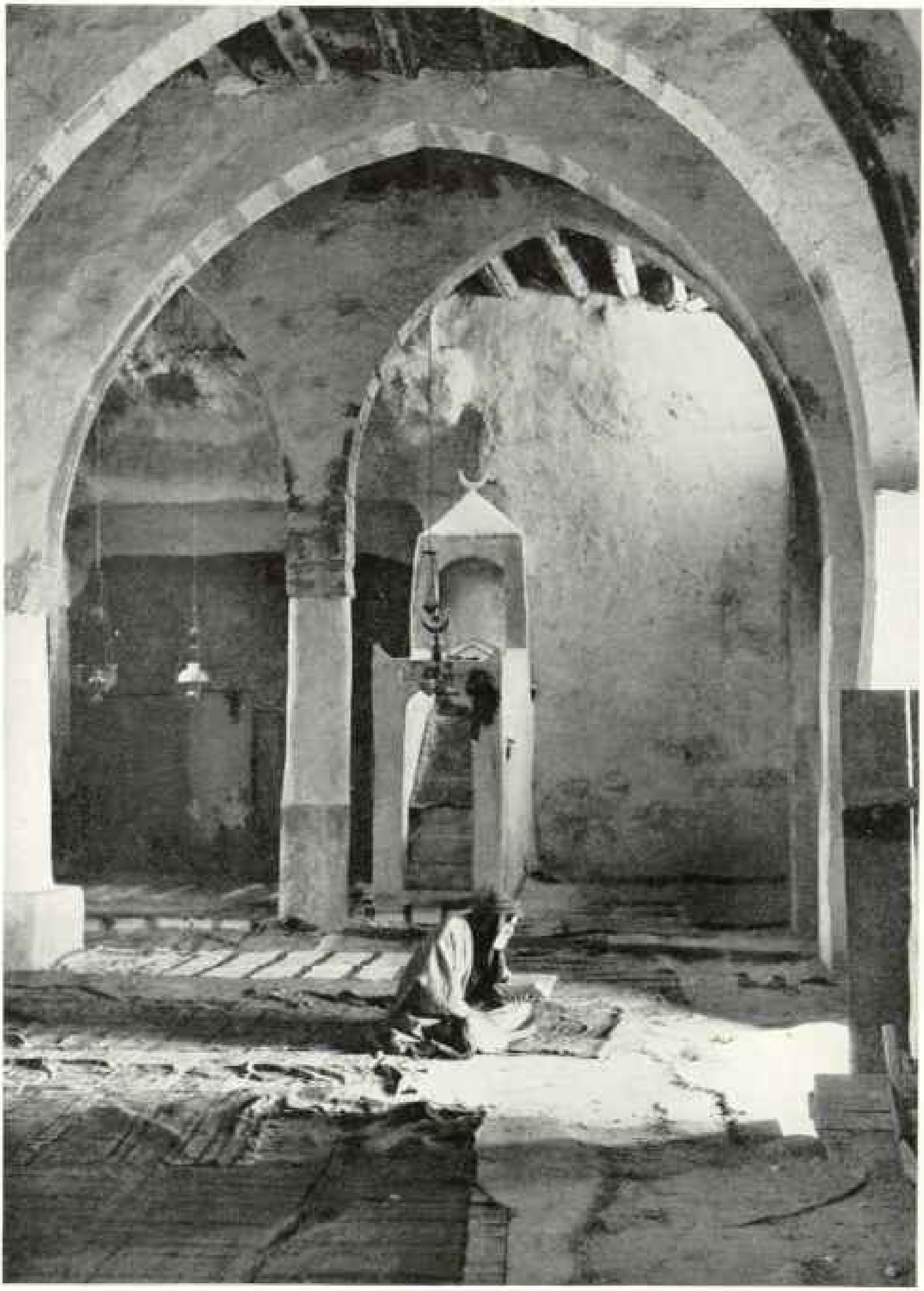
BENEATH THE WALLS OF THE GREAT CRUSADER CASTLE OF KALAT-EL-HUSN THE EXPEDITION PROCEEDED TOWARD IRAQ

For more than a hundred years this stronghold, in the hands of Knights Hospitalers, withstood Moslem attacks. Overlooking the fertile plain from one of the castle's towers, 90 miles north of Damascus (*see*, also, "Crusader Castles of the Near East," in the NATIONAL GEOGRAPHIC MAGAZINE for March, 1931).



AT PALMYRA, AS ELSEWHERE, THE "UNCHANGING EAST" IS IN A STATE OF RAPID FLUX

The headcloth of the desert dweller, his camel's-hair crown, and his flowing robes remain; but the modern sons of the white-clad sheiks who dashed on horseback through the pages of fiction and romance are more likely to sally forth into the sands wearing smoked goggles and driving a speedy automobile (see text, page 393). Note the forelock of the child.



A PRAYER TO ALLAH IN A TWICE-HALLOWED SHRINE

Though the French have built a new Palmyra, with a glaring white mosque in its center, at the time of the Expedition's visit prayers were still being said in a quiet, tumble-down mosque which for many years has occupied a site in the center of the Great Temple, pagan relic of a former day. The author photographed an old worshiper at the end of what was one of the last services to be held here.

outside the walls the oil can, raw material for scores of oriental utensils, is used to build fences. Around each slovenly tent, be it canvas or goat-hair, there is an ugly wall of rusting tin. The soft-tinted ridges, the barren wastes, and mesas take on rare dignity in comparison with this man-made rubbish heap outside the silent fort, halfway on the desert trail from Damascus to Baghdad.

THE COLD AND THE HEAT OF THE DESERT

The man who swore to be faithful "till the sands of the desert grow cold" was either a poor geographer or a philanderer. Touch the roof of the low tent with your bare shoulder at dawn and the condensed moisture feels like ice. But the days are hot.

On the lee side of each car, dust hangs in an unbelievable way. Every man's face tells in which direction he has come, for one cheek is hidden under a deep layer of dust. Bread dries while one holds it in one's hand. Its rough edges are harsh on cracked and bleeding lips.

Shaving is purgatorial. Starting out with a raw face and a layer of dust, against which the best-advertised soap seems unable to lather, one finally succeeds in producing a lather which dries while one reaches for a razor.

After the rigors of the desert, the air beside the Euphrates had a softness almost feminine. To the east of our green tents, white marl cliffs bulged up against the blue. A few hundred feet away, unusually verdant grain fields, with fleecy flocks nibbling along the edges and soft-voiced irrigation ditches pouring a stream of life-giving water over the thirsty land.

Eastward from Ramadi we had rolled swiftly along a road whose signboards seemed ironic, even to us who live in a mechanical world. In this land of camel and goat, of gowned horseman and nomad tent, that tarred trail in the tawny desert bore the warning "For Motors Only."

WE CROSS THE EUPHRATES

Talk about the camel nosing his way into the Arab's tent! The mechanical camel, in less than a decade, has shouldered the former ship of the desert off the most-traveled lanes. The historic home of nomad and husbandman has become a race-course for chauffeurs.

On April 16 the swift waters of the Euphrates swept the slanting hulls of an archaic ferry, and we crossed, almost without human effort, to Mesopotamia—the land between the rivers. A troop plane droned high overhead. The "Overland Mail" to Beyrouth rolled past.

My tent-mate, a prodigious worker, never loses the light touch. Seeing the fronded palm trees, Le Fèvre says, "Great is the wisdom of Allah! In such a dusty land He provides the dusters."

Beyond the Euphrates we met the semi-weekly desert convoy. Car after car, crammed with natives or travelers on whose baggage were the thought-stirring labels of "Baghdad," "Bombay," and "Rangoon." In front of three passengers in a back seat, there stood a black sheep which a desert woman slowly stuffed by hand, perhaps to fatten for a feast, while a chubby infant with bare thighs nursed at her breast.

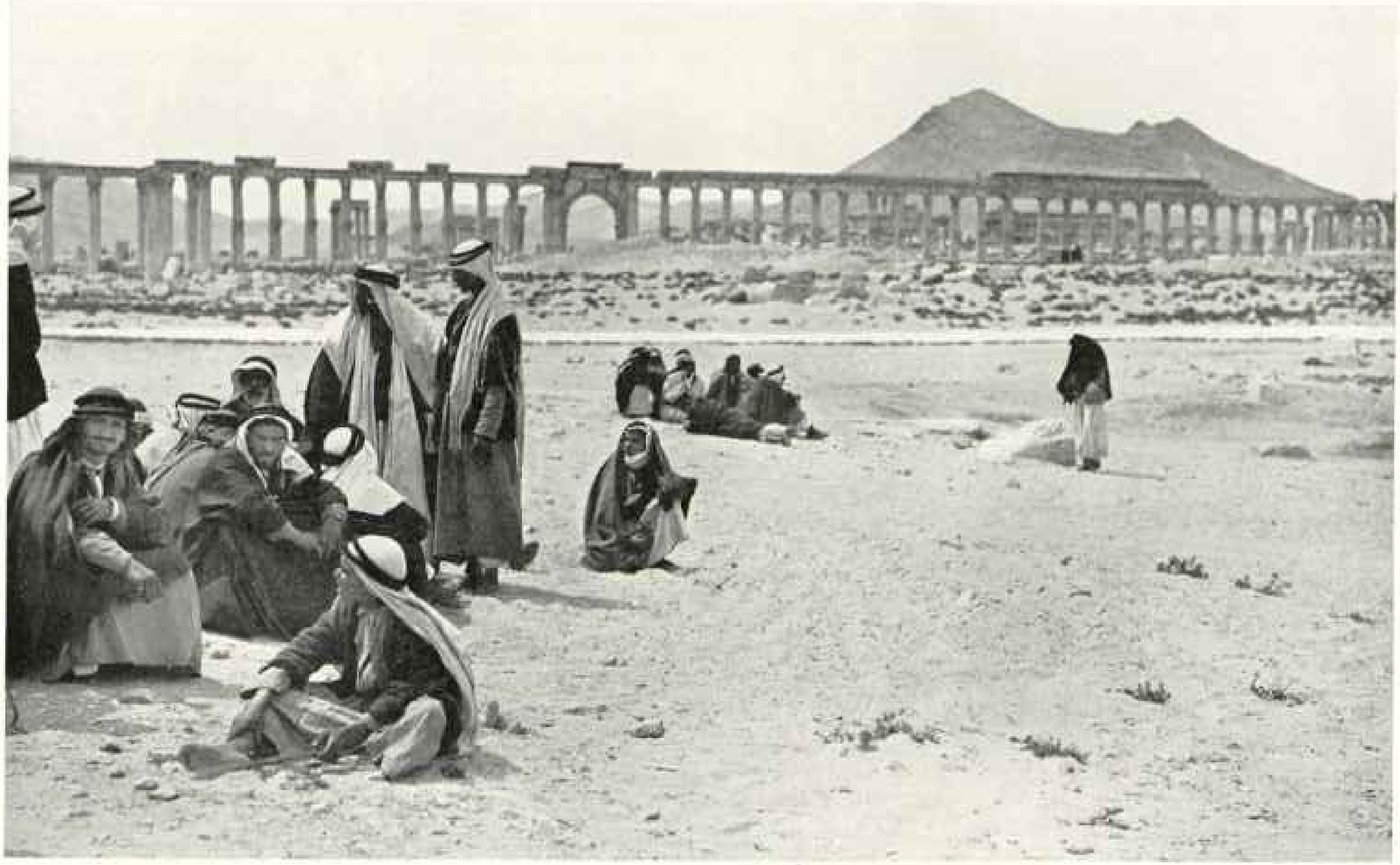
Two buses rolled up loaded with Iraqi Boy Scouts, some in the national headdress like the American overseas cap, others in small sun helmets, with scarves protecting the neck.

AN AUDIENCE WITH KING FEISAL

To one who lives in dreams, modern Baghdad, in spite of all twentieth-century improvements, spells disillusion. My body enjoyed my private bath; but my thoughts squatted with story-book characters around a marble pool. Those bubbles of radiance at the mosque of Kazimain stir the imagination, and in a bookstore without equal in the Near East one may find romance; but a dinner party with the French Chargé d'Affaires, in a garden beside the Tigris, was all the chaste reader of the "Arabian Nights" could ask, and we spent a delightful hour with King Feisal, the ruler of Iraq, at his country home, not far from the capital.

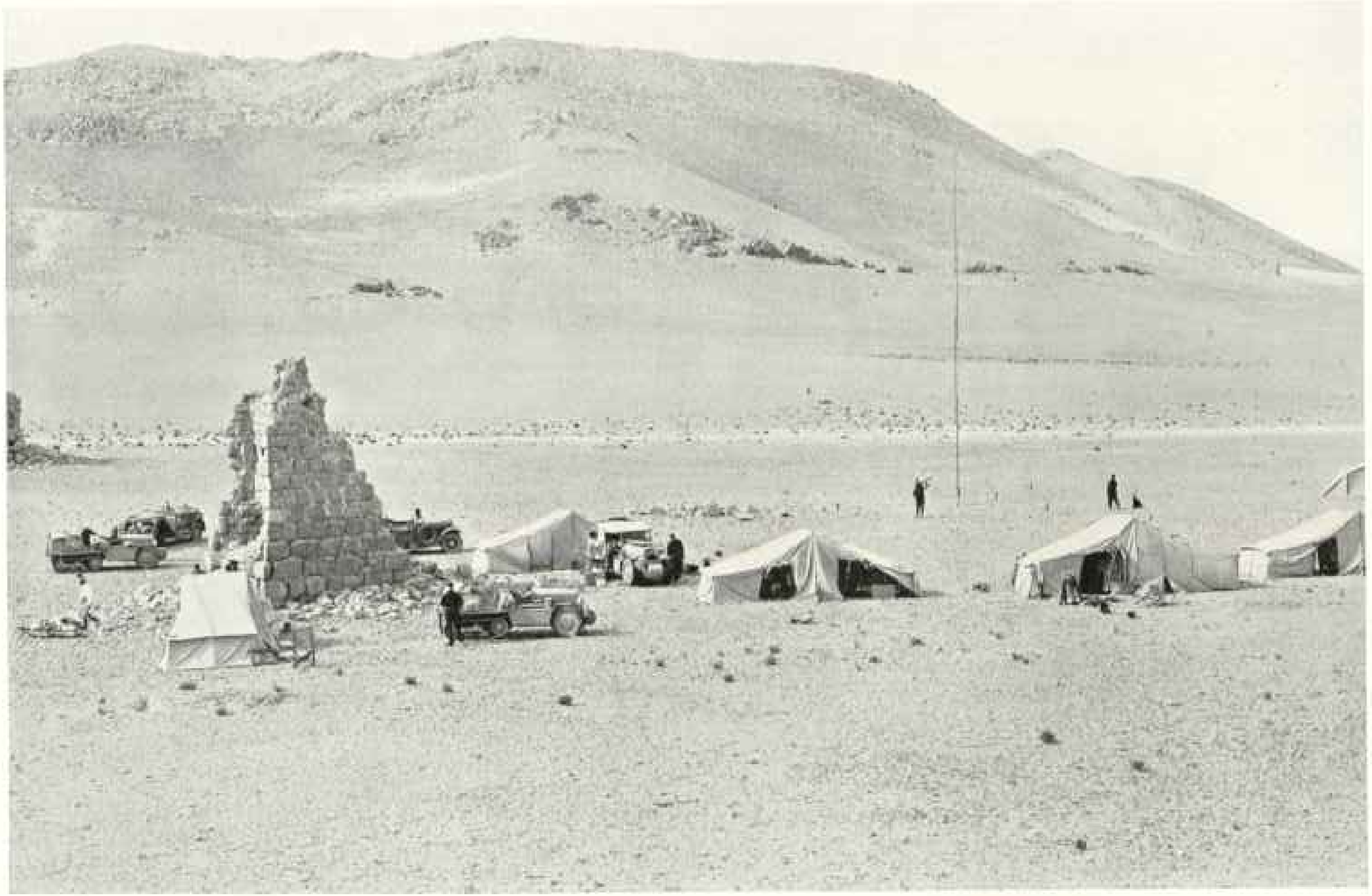
His Majesty received us most graciously, showed keen interest in our itinerary, and asked to inspect one of our cars. Audouin-Dubreuil, M. Haardt's companion and priceless associate in many a moving adventure, took Chief Mechanic Ferracci with him on the "Silver Crescent," the car of the second in command.

This pint-size Corsican is made for adventures. At our first camp beyond Baghdad he described his unconventional visit



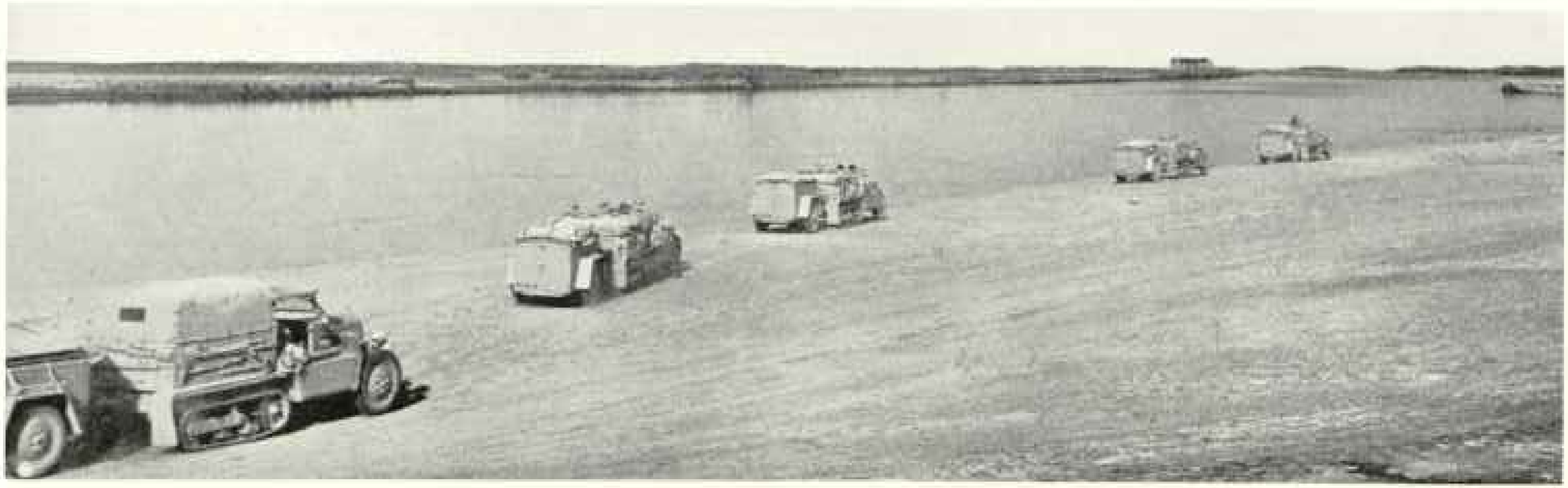
THE RUINS OF QUEEN ZENOBIA'S CAPITAL, SLEEP IN THE SCORCHING DESERT SUN

Temples and columns and portals, carved stonework, arches, and other majestic ruins, with inscriptions in Latin, Greek, and Palmyrene, attest to the glory that once was Palmyra's, when the city dominated two great trade routes of the ancient world, and when its beautiful queen ruled an empire which included Asia Minor, Syria, and Egypt.



MAKING CAMP AMONG THE FUNERARY TOWERS OF ANCIENT PALMYRA

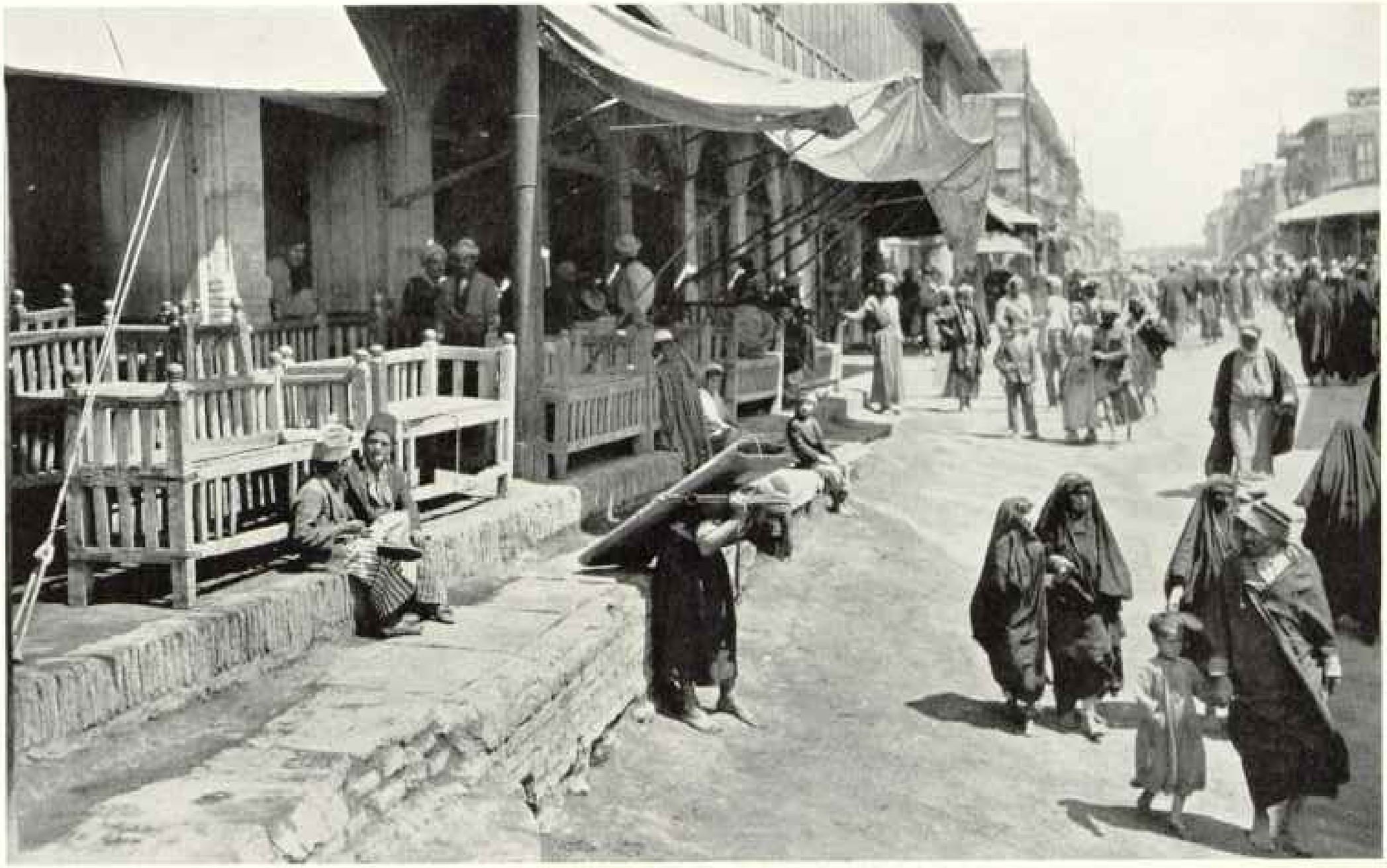
Scattered on the hillsides, in the city, and in the plain, these structures are now mostly in ruins. In the walls of their storied chambers, in *loculi*, or niches, the Palmyrenes sealed up the embalmed bodies of their wealthy and renowned dead. The Expedition's camp is more than a mile from the ruins of the city's Great Temple and Colonnades (see, also, illustrations, pages 396 and 398). In the right center rises the mast used for the portable radio set.



THE EXPEDITION FOLLOWS THE BANKS OF THE CURVING EUPHRATES ON THE WAY TO RAMADI

THE MOST ENJOYABLE OF DESERT CAMPING PLACES ALONG THE EUPHRATES

"To the east of us white marl cliffs humped up against a deep-blue sky. A few hundred feet away the slope on which we camped flattened out in unbelievably green fields of grain, with flocks nibbling along the edges. If green is the desert man's favorite color, who can blame him? Certainly no color seemed so restful to us that afternoon."



TRUE TO ORIENTAL FOLKWAYS, BAGHDAD STILL FINDS KEEN PLEASURE IN BAZAAR GOSSIP

The wooden benches, called "tuckets," fill up late each afternoon with turbaned traders in wool, rugs, dates, licorice roots, grain, and livestock. Here they sit, cross-legged, smoke water pipes, and talk trade and prices.

THE GUFA, OR CORACLE, HAS BEEN USED FOR CENTURIES IN PARTS OF THE NEAR EAST

One tradition says the infant Moses was set adrift in such a reed-woven, tar-caked craft. These Baghdad gufamen often improvise ludicrous songs about their passengers as they ferry them across the Tigris.

to the Royal Garden in the city of Harun-al-Rashid:

"How it was beautiful, after all that dust! We looked through that fence and it was Paradise. And a 'Tommie' at the gate. So I demands from the *cocher* if we can enter. Why not? For members of the Citroën Trans-Asiatic Mission nothing is forbidden. So in we go, and such a pleasure to be there!

"Eh bien; one can't stay in Paradise forever and still look after my *enfants*, the mechanics, and the coachman's bill rising all the time; so out we go. And at the gate an officer beside the Tommie. An' he is very polite to us, like he would say, 'These fellows don't know a Royal Garden from a public park.' But to that Tommie—! He speaks very low and fast, but that Tommie he look so, I am *vraiment* sorry for him. He simply give him hades. But we did see the Royal Garden."

Hurdling a rise in the desert, we suddenly saw Khanaqin, with a wide bridge crossing an unexpected river, with women in bright colors doing their laundry in the muddy water, and storks perched on little mud houses set among the slanting palms.

WE REACH THE FRONTIER OF CHANGING PERSIA

It was as if, at the rubbing of Aladdin's lamp, the hot desert had dissolved like a mirage and a humble, homey village taken its place. We rolled into a wire-fenced inclosure, where our thirsty motors were nourished from the ministering nipples of gas tank and grease gun. Since the days of Alexander, no such caravan had ever halted here on its way to distant Taxila and Kashmir.

At the frontier we were met by Colonel Esfandiary and Lieutenant Djehanguiri, our official escorts across changing Persia. They put themselves to vast trouble to facilitate our journey and help us appreciate a land they loyally serve; but in their emphasis on the new, in a land whose past was so beautiful, they must sometimes have found us unappreciative.

A WELL-BALANCED MEAL FOR A FEW CENTS IS OFFERED BY PORTABLE BAZAAR LUNCH COUNTERS

The fragrant smell of cooking lingers always in Baghdad's narrow streets, where thousands patronize these wayside lunch-stands, which sell eggs, Arab flapjacks of barley, fish, mutton, and many fruits and vegetables.

Under the leadership of Reza Shah Pahlevi, a ruler of unquestioned energy, many diverse tribes are being united. A common headgear, the *pahlevi*, serves to break down tribal lines and give a unity of appearance and spirit. In our eyes, this visored cap does not enable the Persian to look his best; but the landscape retains a beauty which the most delicate Persian art only inadequately suggests. Great green valleys tucked in between barren hills, wide-reaching plains with purple rims, emerald pockets among tawny slopes—springtime Persia is a lovely land.

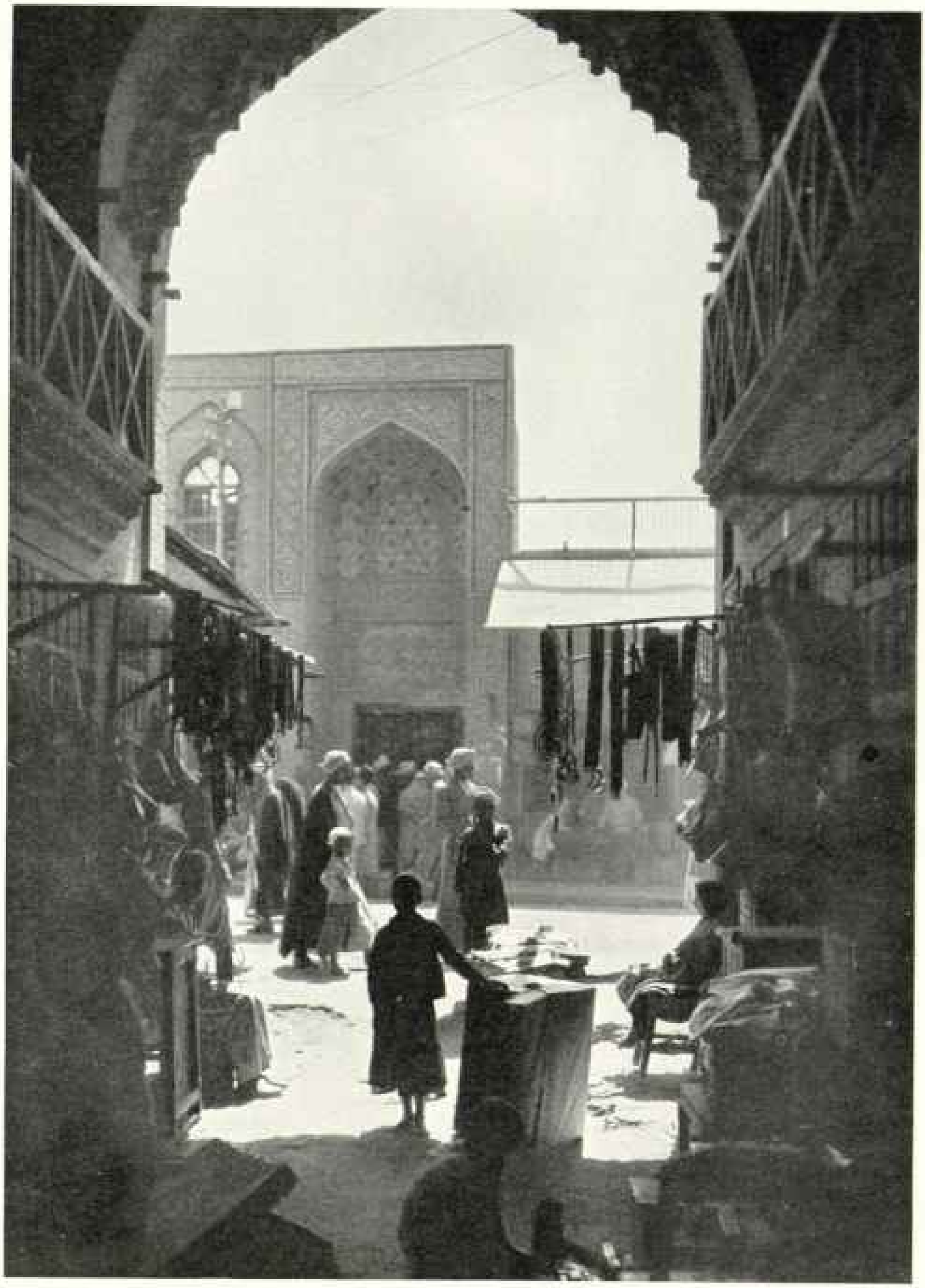
A GLIMPSE OF PERSIA'S ROSETTA STONE

From Kermanshah, with coveys of black-clad women with visored veils, sitting at the edge of the town, like a crow chorus awaiting a performance of "Chantecler," there is a charming view across the fertile plain to the barren mountain, from which pours forth a crystal stream.

From time immemorial that must have been a place for picnics. If so, the habit persists. And, behind the gay parties of men in their shirt sleeves and women with their veils thrown back, there are the famous rock carvings of Tak-i-Bostan, the Garden Grotto.

A hunting scene in bas-relief may picture what took place centuries ago between these sharp-peaked hills and the softly rolling site of Kermanshah. Perhaps this plain, deluged with water from this very source, was the site of Chosroes' hunt from boats, in which light-fingered ladies, playing the Persian lute, lured wild boars to their death (see pages 407 and 410).

Persia's Rosetta Stone is still in its original position, high on the cliffs beyond Kermanshah. To the vanity of its rulers we owe much of our knowledge of ancient history. And nowhere, perhaps, is there a carving more interesting than that which Sir Henry Rawlinson, because of its inaccessible position on the Bisitun, or Behistun, Rock, was forced to decipher with the aid of field glasses. A traveler never appreciates a site until he has proved it



A HARNESS SHOP ON MAIN STREET, BAGHDAD

Rows of tiny arched stalls, or booths, sometimes facing narrow streets roofed over to keep out the heat, house much of Baghdad's huge trade. This saddler can outfit horse, donkey, or camel.

with his legs as well as his eyes; so I scrambled up the rocks until I could go no farther (see page 411).

Hamadan was Ecbatana once. Memories of Esther and Mordecai still cluster around this center of the Persian carpet trade. But we had to hasten on.

Marco Polo went to Kazvin from Tabriz. At Siahdehan our path joined his. To this wayside village, set at the junction of the roads to Tabriz and Hamadan, two carloads of members and friends of the National Geographic Society came out to welcome us.

We passed through Kazvin in a drizzle, and had hardly reached our camping site outside Teheran, where a bundle of mail awaited us, before the rain came down in earnest. Letters became blotted with raindrops, as our men stood in the open, eagerly reading the news from home.

THE CAMEL SACRIFICE IN TEHERAN

The morning after our arrival a camel was sacrificed in the central square of Teheran. This ceremony goes back, by devious routes, to the time when God sent a ram to Abraham just in time to save him from the murder of Ishmael. We, however, say it was Isaac whose life was saved.

Stolid troops in long lines; natty officers on horseback; men and women spectators grouped separately, as in a theater; a Persian fife-and-drum corps shrilling barbaric, nostalgic music; guild leaders mounted on plumed horses; then the camel, gaily decorated, haughtily advancing to his doom.

There is the swift flash of a knife, the moment of tension is over, and the crowds begin to disperse. Portions of the sacrifice are borne away to the different guilds. The crowds, in holiday humor, flow into the streets. A long row of rainbow autobuses awaits the home-going throng. The camel is only an incident. This is light-hearted release from the stern duties of modern living.

Persia has seven thousand prophets. Each was born. Each died. That gave Persia a surfeit of holy days. But Reza Shah Pahlevi is indefatigable, and there are now fewer legal holidays in Persia than in some Western lands.

In this city of new, wide streets, cutting through fine old buildings whose beauty can never be replaced, of men in pahlavis and of motor buses honking at crossings, I sought to discover something that would relate this progress-pursuing capital to the Persia of art and literature, the Persia represented at the recent magnificent exhibition of Persian art in London. No city is built of dreams, though dreams may have built it; but I sought just one Persian miniature that would be true to fact and dreams as well.

Backed by Elburz and the towering cone of Demavend;* city of green gardens and fine palaces, now pushing, like Jerusalem, beyond its walls; in whose curio shops rare beauty and cheap counterfeit lie in the same dusty heap; where rich rugs, once spread beneath a lavish banquet or a more beautiful frugal meal, now hang for sale at the doors of grubby little shops—how can one picture Teheran, this changing city, to one who rests under the spell of its exotic name?

Soft light, a quiet pool amid high-reaching trees, shadowy figures from the East of music and laughter, a touch of that spirit world which poets suggest but no uniformed stranger may enter—I longed to capture that and share it.

One evening we inquired our way. Behind the shoulder of him who directed us there was the flash of merry eyes. As we rolled on, I regretted that something of this eager beauty could not be transmitted to those whose Persia is a spiritual thing and not a succession of cinemas and shops.

We dined on pilaf and kebabs, in an old palace to which Nasr-ed-Din Shah, fourscore years ago, came to confer with its owner, his premier. Around the walls stretches a series of paintings three generations old, with each personage bearing his name—historical documents of rare interest, with Gobineau, the Frenchman, among the rest. To enable me to photograph them for THE GEOGRAPHIC, the owner kindly had removed the heavy ceiling fans and closed the hall for several hours (see page 415).

This unusual restaurant, beside a willow-shaded pool, had come to be a friendly place, and this delicious Persian meal, eaten on a moon-lit balcony, was a relief.

* See, also, "Modern Persia and Its Capital; and an Account of an Ascent of Mount Demavend, the Persian Olympus," by F. L. Bird, in the NATIONAL GEOGRAPHIC MAGAZINE for April, 1921.

WOOD IS SO SCARCE IN IRAQ THAT EVEN SMALL POLES AND SWITCHES FIGURE IN DAILY TRADE

From such reeds, gufas, huts, fences, and cages are made. Much Baghdad wood is obtained by breaking up the rafts which bring pottery, fruit, and wool down the Tigris to this market.

after a day in which beauty had escaped my lens.

It was Costantini, a member of the Expedition, big-hearted, direct, full of bravado, who noticed that the man who had helped us on our way was at an adjoining table. Beside him the same merry eyes shone in the midst of a black *chuddar*. It was Costantini who told these sympathetic strangers that I had a request to make.

"I know the isolation of Persian women. It is possible, for money, to secure unworthy models; but I don't want such photographs. My models must be worthy of Persia at its best. He who helps me must do it from pride and friendliness."

"Perhaps I can arrange. I'll send word to your hotel."

PERSIAN FRIENDS DEFY CONVENTIONS

Enthusiasms are notoriously short-lived. When, after several days, I heard nothing, I thought I understood.

Then a knock at the door. My friend was there.

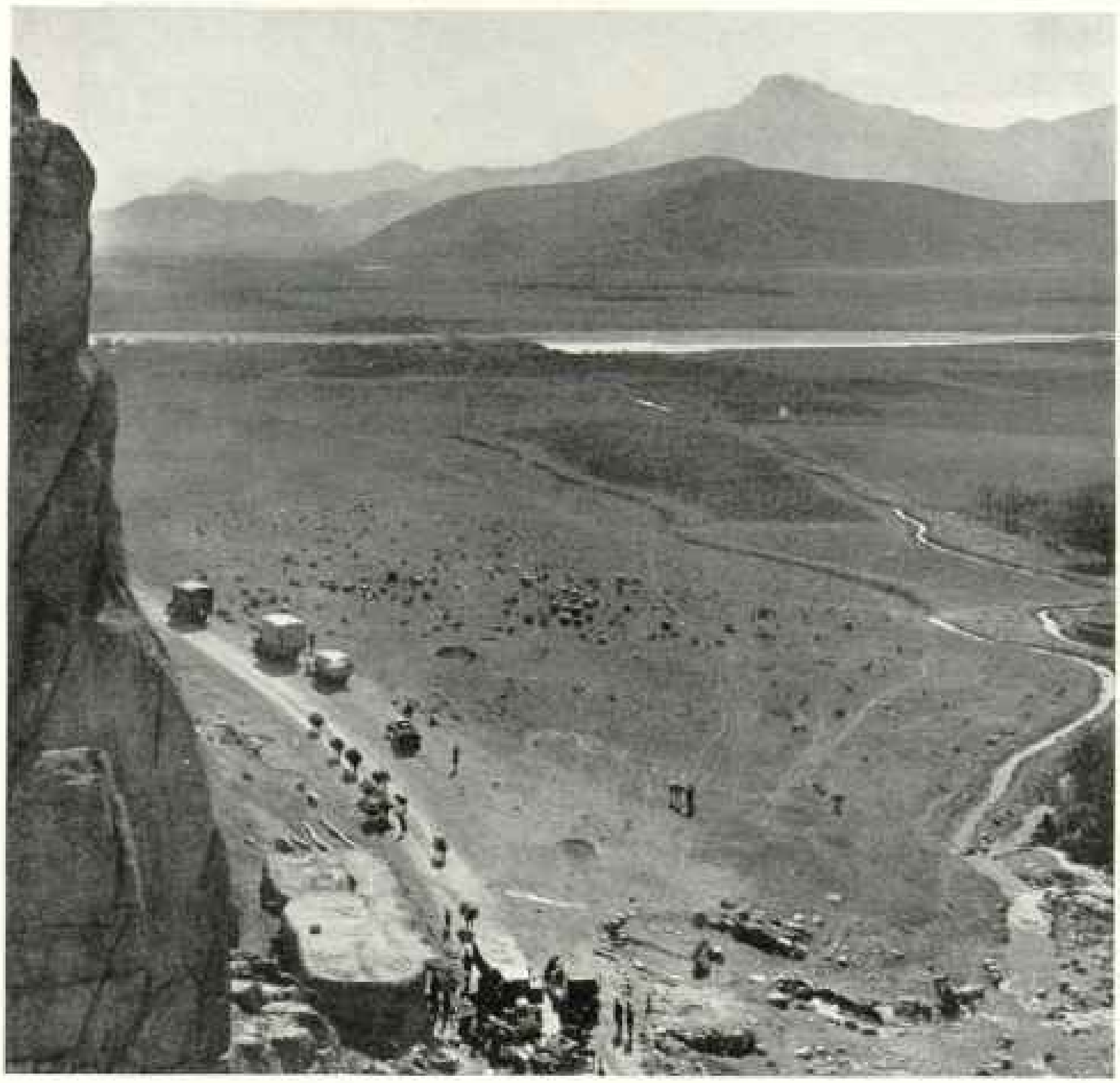
"I thought I had it all arranged for last Friday, my weekly holiday; but I was ill. If I wrote you, you would think me faithless. I have a little free time to-day. Can you come? My friends cannot be there, but my wife and mother will welcome you."

In the midst of a delightful lunch at the Teheran Club, once the American Legation, I excused myself to go to this unexpected rendezvous.

The midday light was unfavorable; but our imminent departure prevented later arrangements and such cordiality made technical defects negligible. I discovered the secret behind it all.

"During my work here I came to know Dr. Millspaugh and to have a great respect for him. I felt that in the Americans Persia had disinterested friends. My wife, for a time, attended the American College and there came in contact with American women. We both felt under a debt of gratitude to your country.

"Then we saw and spoke with you. What you want is unconventional; but in our hearts we see no objection. It is the best way we can show our appreciation. So we have decided to let you pass the gate into our private lives. We want you to feel that we are your friends."



MOTOR CARAVANS AND DONKEY TRAINS TRAVEL SIDE BY SIDE ON THE ROADS OF PERSIA

A view from the rocky heights at Tak-i-Bostan, a few miles northeast of Kermanshah (see, also, pages 408 to 410).

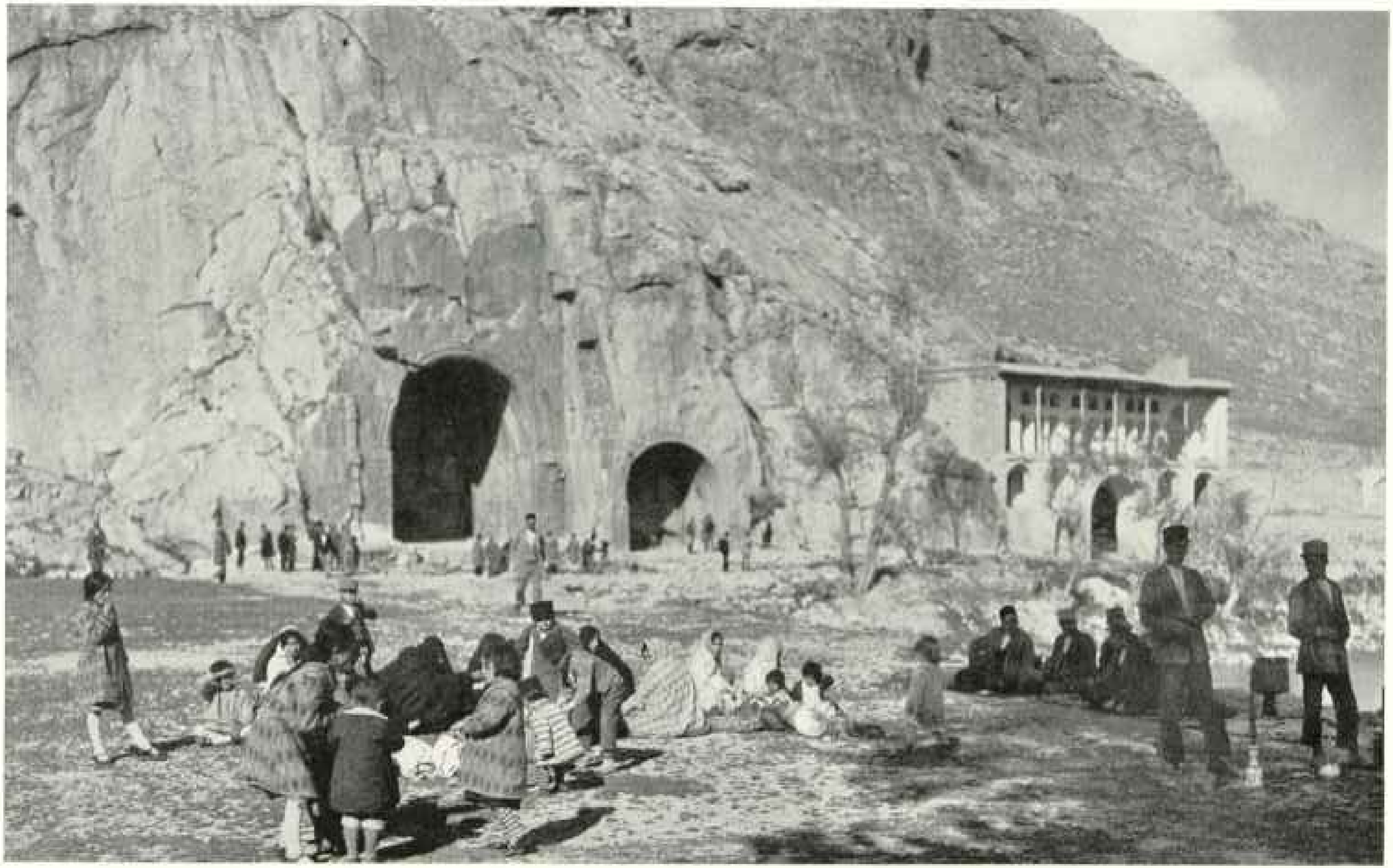
On a legation balcony, in that soft Persian twilight, I recalled this chance encounter. A jazz band played in the salon. Gay couples floated past the wide doorway on happy feet. A tiny fountain played in a quiet pool. Here *was* a Persian garden! Beside it that unconventional noonday rendezvous, more unusual, lacked mystery. But who among these guests, invited to do us honor, would dare as much for me as those friends into whose lives I passed for a moment and was gone?

Le Fèvre and I sit at breakfast in the Vale of Kashmir.

"Here we are," he says, "equipped with the most modern scientific devices. We record the sights and sounds around us, seeking to reveal the truth.

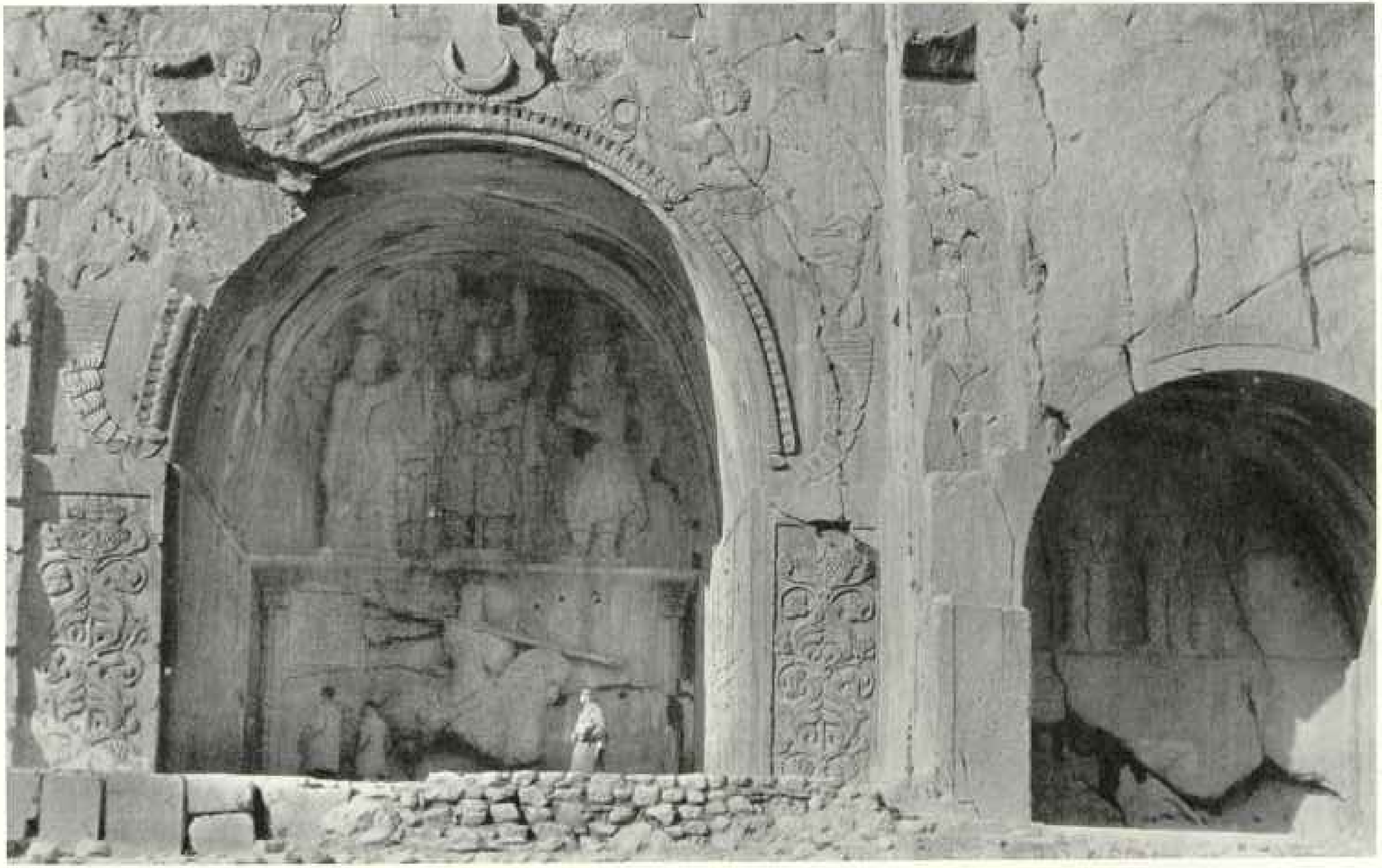
"But the truth always escapes our instruments because truth is a spiritual affair. Only after the journey is over, when big things have lost their tyranny and little things that mean more have assumed their true value, can a writer appraise his wanderings."

How seldom have we accomplished what we hoped to do—establish a personal, friendly contact between representatives of Orient and Occident? Teheran is far away, but across the miles I look back on those two friends who defied convention to share with me a moment in their personal



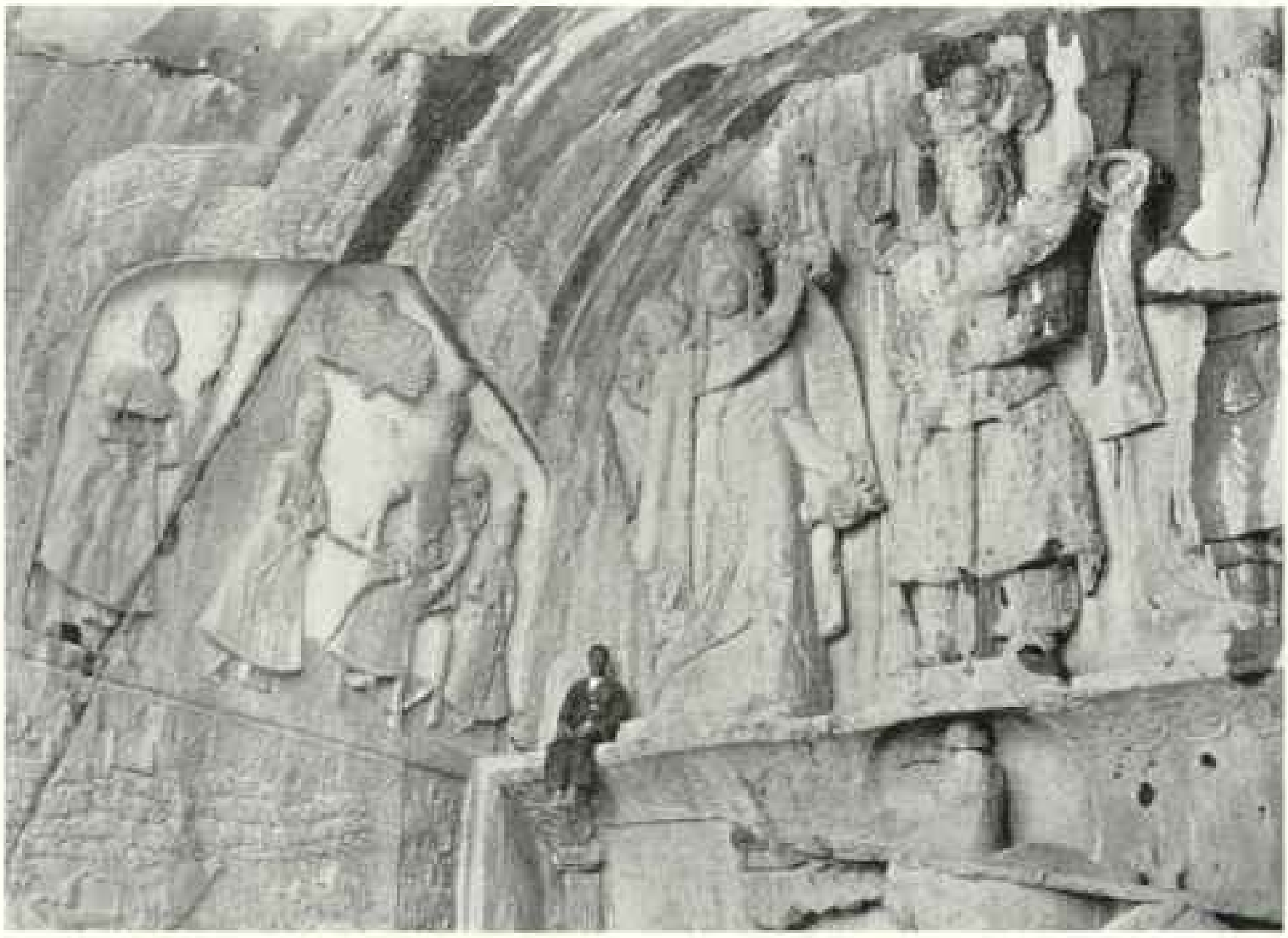
A PERSIAN PICNIC PARTY BEFORE THE LOFTY PORTALS CARVED BY SASSANIAN KINGS

Tak-i-Bostan, the Garden Grotto, is a favorite retreat for people of Kermanshah in holiday mood (see text, page 403).



FROM SCULPTURES AT TAK-I-BOSTAN ARCHEOLOGISTS HAVE RECONSTRUCTED MUCH OF PERSIA'S PAST

Chosroes II (A. D. 590-628) had these carvings made in the rock mountain to commemorate his great deeds. The figures in the upper panel of the recess at the left are of himself and his retainers. The lower panel represents the king on his famous war horse, "Black as Night." Winged victories and conventional floral designs adorn the entrance and reflect the influence of Greek and Roman artists (see, also, illustration, page 410).

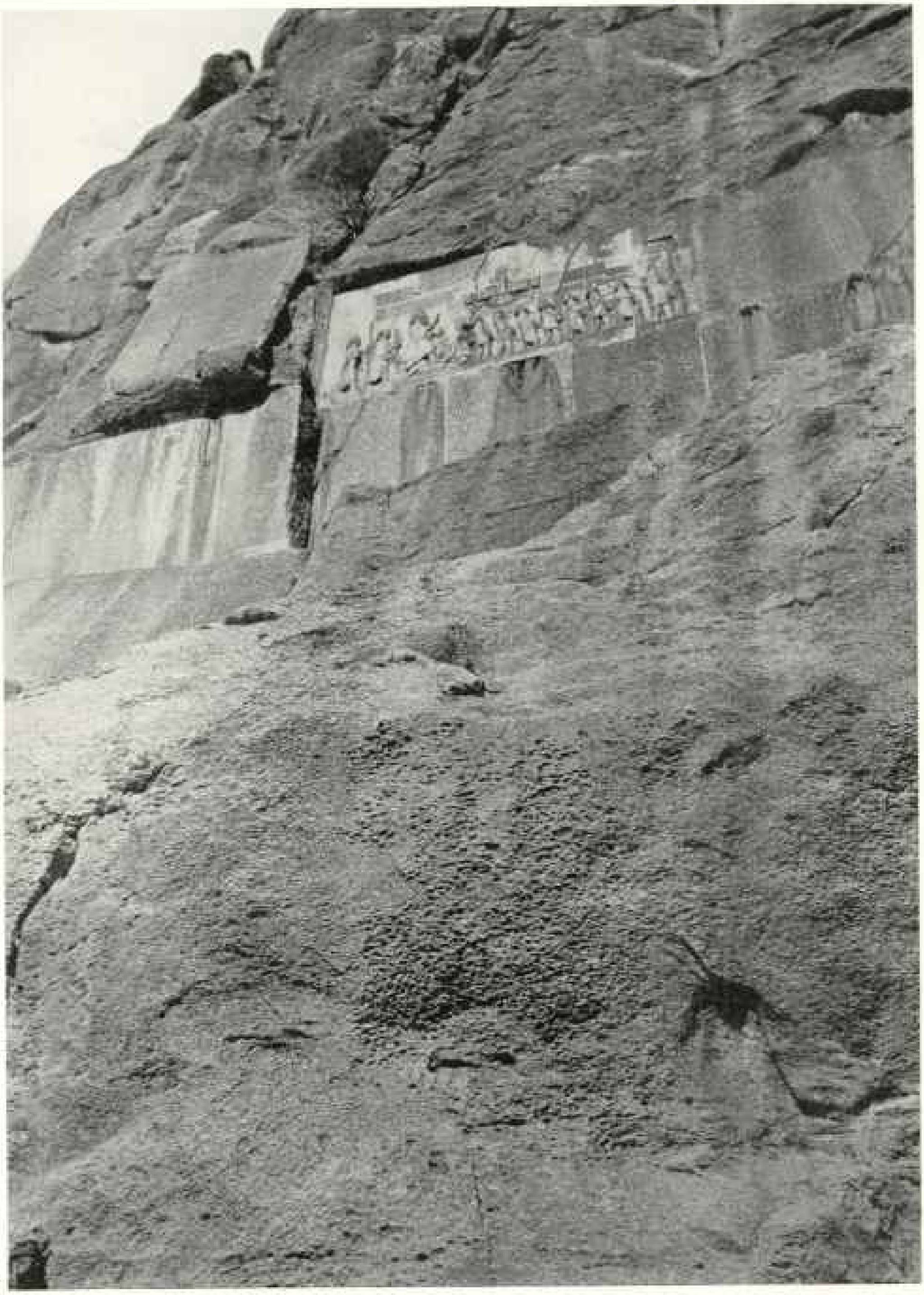


TAK-I-BUSTAN ARTISTS CARVED THESE RELIEFS THIRTEEN CENTURIES AGO

The central gigantic stone figure represents Chosroes II receiving a chaplet and garland.

A PERSIAN LUNCHEON PARTY AT SAHNE, BETWEEN KERMANSHAH AND HAMADAN

Rugs were spread beside a stream, and honey-sweetened milk curds, with flat sheets of bread (see page 413) on which to scoop them up, were set out. Before sitting down, the men removed their boots. From left to right: André Goerger, secretary general of the Expedition; Col. Esfandiary Noury, Saint Cyr graduate and escort of the Expedition through Persia; Audouin-Dubreuil, the Expedition's second in command; and M. Jacovleff, artist.



"THE ROSETTA STONE OF ASIA," ON THE BEHISTUN ROCK NEAR KERMANSHAH

This impressive monument of Darius the Great consists of four parts: the relief sculptures and the trilingual inscriptions. Almost a century has elapsed since the young English officer, Henry Rawlinson, climbed the dangerous cliff and, with the help of a plucky Kurdish boy, succeeded in obtaining copies of the inscriptions which proved to be the key to the lost language and history of Babylonia and Assyria (see, also, text, page 403).

THE BRILLIANT NORTH GATEWAY, ONE OF THE 12 PORTALS OF TEHERAN

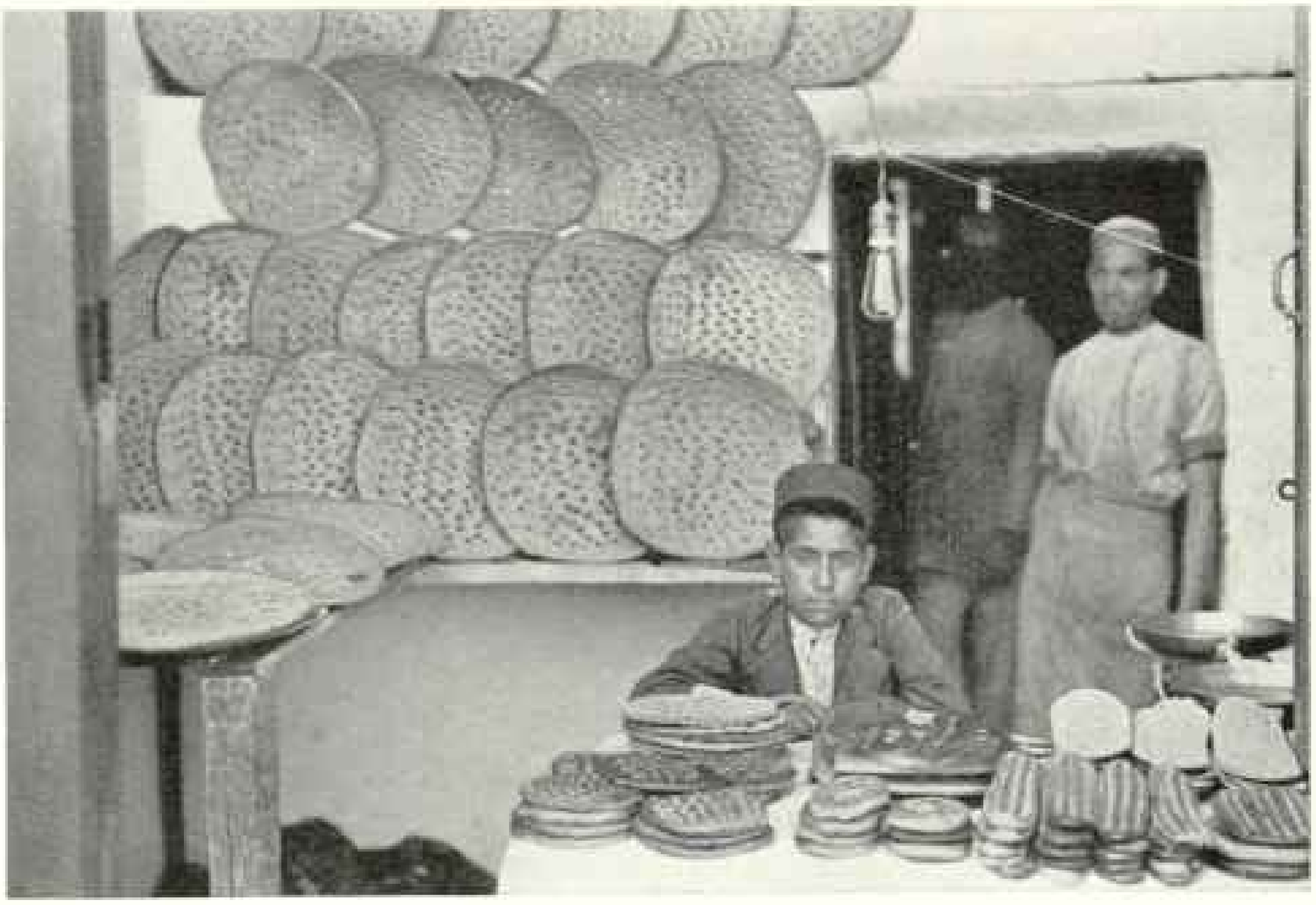
A stirring scene from Persian mythology is wrought in tiles of many colors over the gate proper. The flanking walls are niched with tiled and arched recesses.

A HALT FOR A SMILE IN A SIDE STREET OF TEHERAN

Though aviators and chauffeurs give an up-to-date touch to the Persian capital, camel caravans and droves of laden donkeys still play parts of importance in its life.

CHILDREN OF MESHED-I-SAR, ON THE SHORES OF THE CASPIAN

While the seven tractors of the Expedition crawled toward Meshed from Teheran, the author and several other members of the party made a hurried side trip to the Caspian Sea.



NEITHER SPONGES NOR CHAIR SEATS, BUT THIN, CRISP BREAD

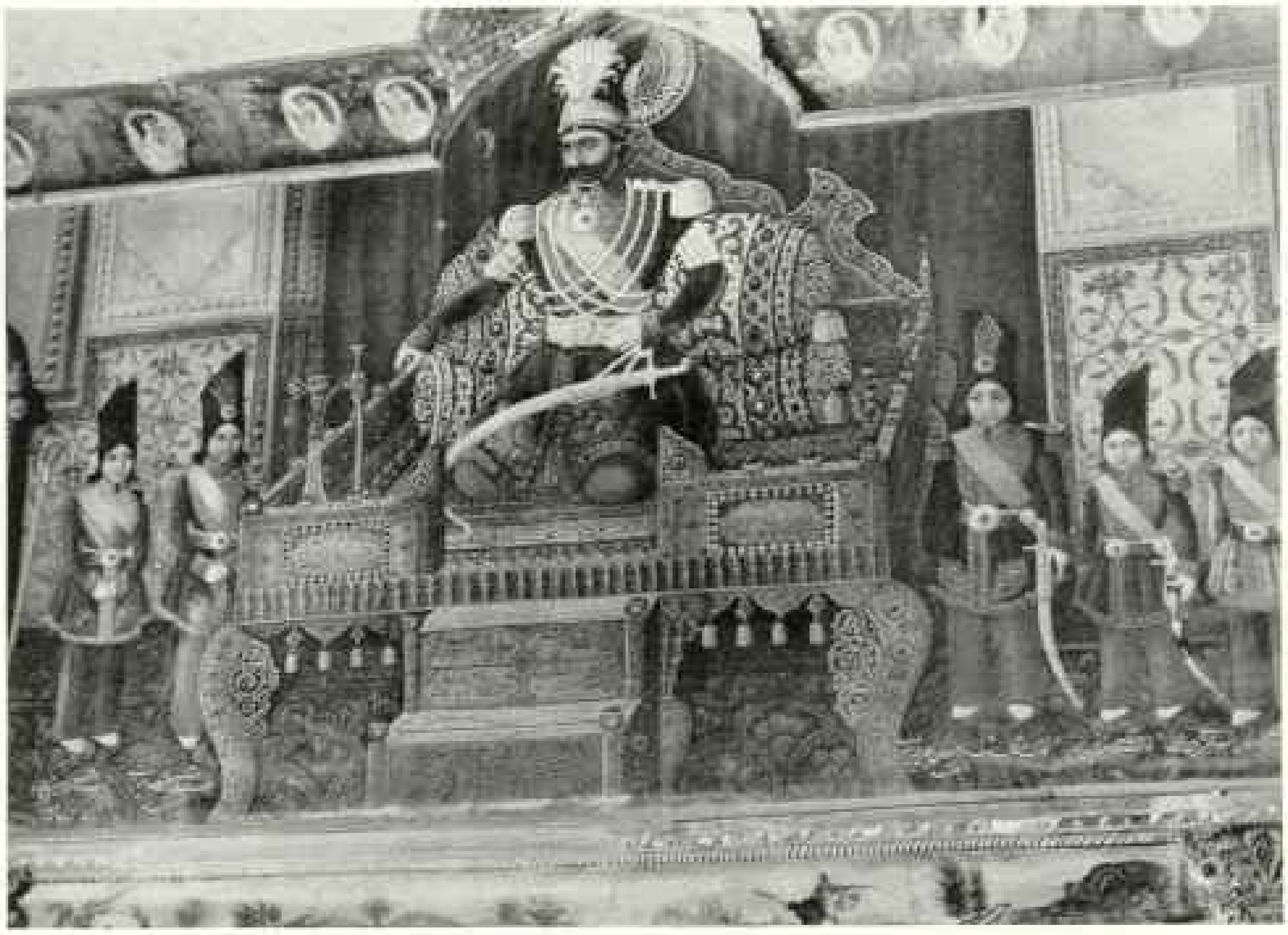
The bread is baked in large ovens, on mounds of red-hot pebbles. In former times profiteering bakers were browned in their own ovens.

THE CROWN PRINCE OF PERSIA VISITS THE EXPEDITION'S CAMP NORTH OF TEHERAN

During their journey through Persia, M. Haardt and his associates were the recipients of many courtesies from the nation's energetic ruler, Reza Shah Pahlevi.

A TEHERAN MOVIE HOUSE ANNOUNCES THE SHOWING OF "METROPOLIS"

The theater faces a newly widened street in the southwest section of the capital, where many lovely old buildings are being sacrificed before the march of modern influence (see text, page 405).



THE INTERIOR OF GULISTAN PALACE, NOW A RESTAURANT

The central mural is of Nasr-ed-Din Shah. On other walls are a series of portraits of celebrities three generations old. To enable the author to photograph the frescoes, the proprietor had the ceiling fans removed and the restaurant closed to the public for hours (see text, page 405).

lives and, as I departed, sent a bright bit of Kurdish embroidery "from one wife to another."

AS CARAVANSERAIS CRUMBLE, GARAGES RISE

Passing between extensive poppy fields, we came to Sebzewar and found rooms in a garage. This is not so bad as it sounds, for on the pilgrim route to Meshed the garages are excellent.

Persia once had 30,000 caravanserais. Then came the motor car, lengthening the stages, demanding other services. The old serais are crumbling to dust, but the garages are going concerns. In a garage courtyard, after the interlocking Chinese puzzle of human forms, pressed into a motor bus, has resolved itself into a company of pilgrims, one can see more phases of Persian life than he can in most city streets.

The complement of the modern garage is this veritable omni-bus, crowded with travelers, and with its sides decorated like a Christmas tree, with water bottles, ablution jugs, and all the other light paraphernalia which the pilgrims inside can't pile on their feet. Three or four men sit on the backboard, gathering dust. If the motor manufacturers saw the loads they carry and the roads they traverse, they'd have heart disease. An oriental truck driver is a perfect example of the proverb, "Where ignorance is bliss . . ."

THE CITY OF OMAR KHAYYAM

Through Nishapur, city of turquoises and Omar Khayyam, we dashed without stopping. As we descended toward the gold dome in Meshed, a "Canterbury Tales" procession of pilgrims rode down the winding road, mostly black-robed women on donkey-back, riding slowly along toward the sacred shrine of Hazrat Imam Reza, Eighth Apostle of Mohammed the Prophet, on whom be peace!

Around the courts of this famous shrine there are portals worthy of Samarkand. But no Christian may enter, though Christians have, and in 1911 the Russian sol-

THE FAMILY OF A PERSIAN GENTLEMAN IN THEIR PRIVATE GARDEN

When the young lady at the left leaves the privacy of her home she will don the traditional black veil (see illustration, opposite page). This photograph was made possible because the head of the household, as a gesture of friendship toward Americans whom he had known and admired, defied national convention (see text, page 406).

diers invaded the inner precincts of the Mosque of Gouher Shah.

Accompanied by a friendly and intelligent police officer, I roamed the roofs surrounding the holy area, trying to capture the colors of these lustrous tiles, these bulging domes in turquoise and gold.

One evening, when the radiant bubble floated in soft afterglow, I stopped outside the heaven-aspiring arch of the North Gate, atop which rises a vulgar, jig-saw clock-tower. An imaginary line here separates Believer from Unbeliever, and even before that mad month of Moharram gives fanaticism its day, one does not advance beyond this gate.

A Persian called that I must go no farther. We were behind a pillar at the time, so I drew him aside until we could see the bright dome, the radiant lance of the high minaret. And there we stood, side by side, religious differences forgotten, jealousy of rights and curiosity stilled by the glory of that sight (see page 424).

The wonder is, not that I could pass no farther, but that I could stand there at all, for that noisy boulevard, lined with autobuses and fronted by new shops, occupies the site of the Astana, a graveyard which, because of its propinquity to the tomb of the Eighth Imam, was the final resting-place of the rich, who could pay 500 tomans ($240 to $600) for burial near the shrine.

Perhaps "resting-place" is not the word, for when space was needed the bones of a former tenant were removed and a new body took their place. To-day they have all been moved, the families recompensed, and these strangest of sidewalks in the holy city of Meshed are made of Moslem tombstones, their inscriptions slowly wearing away under the march of progress.

A VISIT WITH PERSIA'S GREATEST BIBLIOPHILE

One noon we went out between white poppy fields across a dusty plain to the little paradise which Persia's greatest bibliophile has made to grow among arid hills. A simple, humble man, Hadji Malek owns a library of 46,000 precious volumes, some unique. He expressed regret that in America it is Omar Khayyam—not Saïed, Firdausi, or Hafiz—who represents Persian poetry.

"Is your priceless collection protected from fire?" I asked; for, when rare treasures are massed together, one accident becomes catastrophe, as was the case when fire destroyed the old libraries on Mount Athos. Alas! Like the illuminated manuscripts at Mount Sinai, there is no adequate protection for one of Persia's chief treasures.

FRIENDLY EYES FRAMED BY A BLACK CHUDDAR

AFGHAN HOSPITALITY REACHES FAR

A salt-crusted stream bed cutting a mirage-filled plain marks the boundary between Persia and Afghanistan. A few miles farther on two fortlike serais and a ruin-topped mound. This is Islamkala, the first Afghan post. In a year five "Europeans" have passed this way, two of them Americans—our Minister to Persia and an engineer.

Afghan hospitality has an arm as long as that of the law. Chairs had been sent to Islamkala on the roof of an autobus. But Sauvage would not have them in his cinema record, so back they went to Herat—unused.

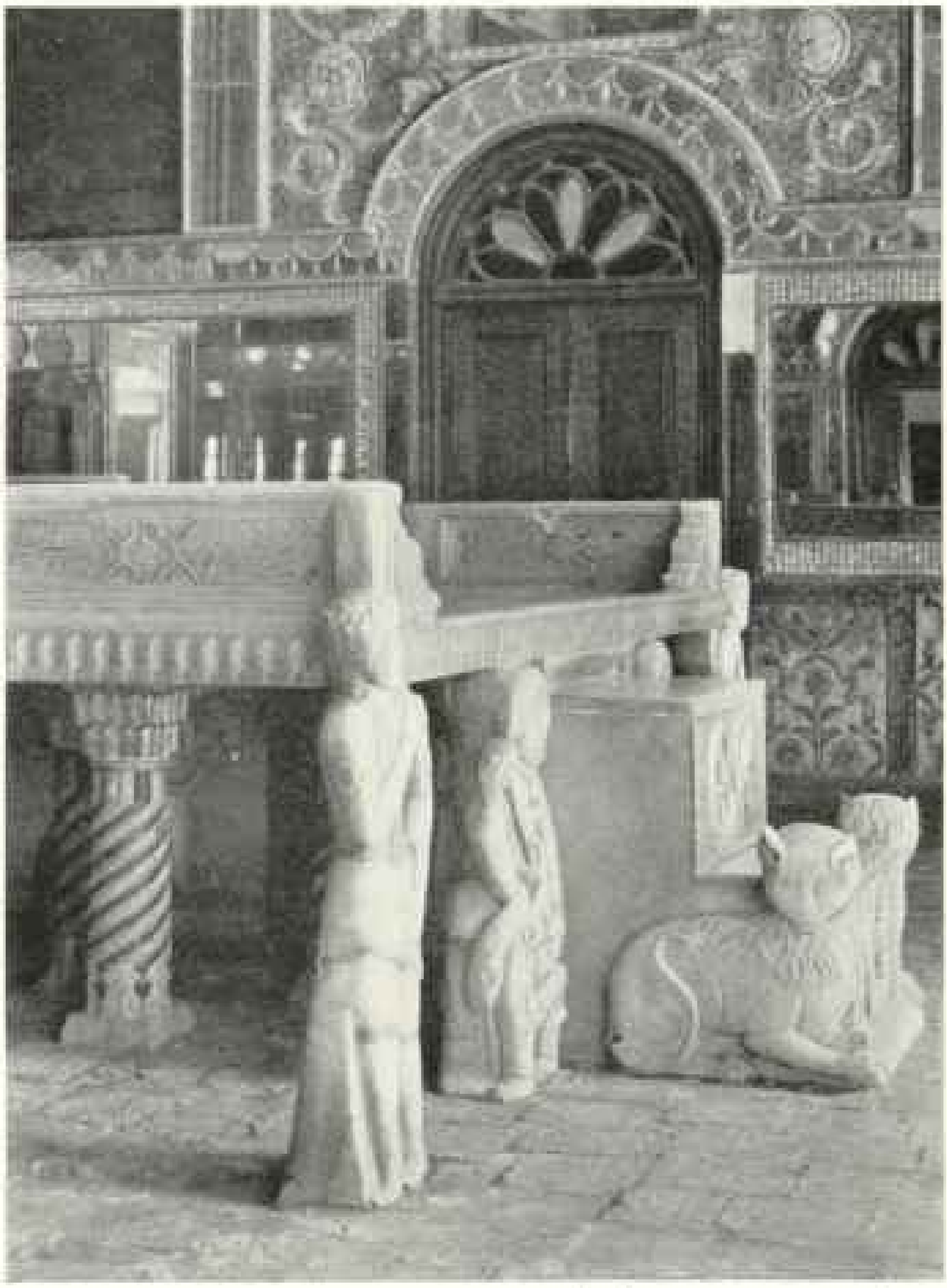
In this land, where liberty is more than patriotism and hospitality than comfort, if you come upon what seems to be a palace, walk in, for it is the local guest house. At Herat, at Girishk, Kandahar, Ghazni, and Kabul we were entertained in gardens of delight, in palaces such as the Afghan gentry do not know.

If we had a difficult river crossing to make under the hot sun, there was a fine tent, brought from afar and inviting us to refresh ourselves. If the hurry of our passing made an invitation to some distant office a burden, behold a friendly shelter pitched beside our path, with green tea and cardamom-flavored hot milk to refresh us.

Drink as many cups as you like. If the supply runs low, a half-cup will warn you. If hospitality outruns your appetite, turn your cup over on its saucer and the matter is settled, without argument or false politeness.

When you have had a hard, hot day and come to the freshness of a quiet garden, the table is bountifully spread, and some gentleman has chosen the honor of waiting on you; but your host, knowing that effusive generosity is a bore, has left his regrets that events prevent his attendance.

It is not the custom to wash the feet of one's guests, but the Afghans would do it, without ostentation or false modesty.



THE MARBLE THRONE OF PERSIA'S "KING OF KINGS"

This low platform of translucent marble, supported by caryatids and stone lions, is reputed to be a part of the enormous treasure brought back by the mighty Nadir Shah from his conquest of India in 1738.

The officials may have had reasons for treating us like royalty. Their King was heartily received and cared for in France. In M. Jean Hackin, archeologist, whose respect for the persons and customs of our hosts is flawless, both France and our Expedition had an Ambassador Extraordinary, whose knowledge of the country dates from 1924. Commandant Pecqueur, our geodesist, and M. Vassoigne, while making surveys, had made friends. Our reception at the hands of the Afghan officials was the result of years of friendly contacts.

Had their actions been belied by the actions of those humble folk to whom we were utter strangers, I would place no emphasis upon it. But in the twenty years since I first came to Asia — twenty years during which both politeness and hospitality have declined in the Near East — I have never experienced more genuine friendliness than in Herat.

CROSSING INTO THE UNSPOILED EAST

The passage of our seven strange motor cars through the bazaars of Herat can never be forgotten. From twenty miles away we saw four of the great minarets which rise like chimneys outside the mud-walled city. Passing between them and entering the long bazaar which runs from one gate to the other, we crossed the threshold into the unspoiled East.

No formal reception this. Our splendid mechanics, who are not overwhelmed with honors, felt it at once. Men squatted in their tiny cubicles or stood so close beside us that our cars almost brushed their breasts. Wonder was written large on every countenance. No forwardness, no facile welcome from these tall men in huge white turbans. Only one continuous double row of faces which broke into smiles, and hands which swept to head and heart in answer to our first show of friendliness.

Nor were these informal members of our welcoming committee a disappointment on further acquaintance. For two days I worked in the bazaar and along the walls under conditions which, had it not been for a genuine good will and innate politeness, would have been impossible. And these were the men whom our friends on both sides of them describe as savages!

We are as good as a circus. Our creeping cars command attention. Our dress is noticeable from afar. We provoke interest. When I use a large, shiny camera, perched on a tripod as high as my chin, and dodge in and out of a sheetlike focusing cloth, it is little wonder that folk who never saw such an instrument come running.

In a crowded bazaar this might prove disastrous to any attempt to take photographs, but my solution worked in Herat. With my boot I drew a line in the mud or dust and made it clear by signs that I would like to have the crowd leave that much free space. These Heratis are not angels. More than one photograph will show where curiosity got the better of them. But, with a crowd, often amounting to hundreds, looking on, I took exposures up to five seconds in length, in the busiest parts of the city.

There can be no excuse if those photographs turn out badly, although I attempted impossible shots; but if they turn out well they are testimonials to Afghan gentlemanliness. In Herat not one prospective model refused to let me take his photograph, not one feared that I would use it to prove him backward or inferior. That indicates spiritual poise.

There is nothing spiritless about the Afghan. I hope one will never become my enemy. When a donkey driver peeved a small group of seven-year-olds, who had been watching me as quietly as Raphael's cherubs, they made a concerted attack and nearly flopped the donkey over onto his bulging burden of clover.

A CHROMO SHOP IN TEHERAN

Until very recent times, practically no Persian woman appeared in public unveiled, and highly colored lithographs of professional beauties of other countries were popular among young Persians. The demand has only slightly diminished with the "new freedom."

These men feel quite lost without a gun and a forty-pound corset of cartridges. But they caress tame birds and fondle flowers. Where else on earth do wild-looking men play hide-and-seek with partridges? The story is that they debauch their pets with opium pellets. But it was no pipe dream at Bamian, where we saw an Afghan run races with his chattering playmate and, on being discovered behind a mud wall, had his bare legs pecked at, as a sign that he was "it."

OCCIDENTALS SHOCK THE AFGHANS

Between Herat and Kandahar, except in summer time, there are swift rivers,

A COQUETTE FROM CASPIAN SHORES

which form the chief obstacle to a motor tour from Beyrouth to Srinagar. We arrived so late beside the Farah Rud that the crossing—a hundred yards or so wide and thigh-deep, with swift water—had to be deferred till the morrow.

After our blistering ride we reveled in the cooling water and, had we known it, shocked the Afghans by our nudeness. An Afghan, swimming a stream with the help of gourds, slowly reefs his shirt as the water deepens, and then adds this relatively unimportant addition to his huge turban. As he leaves the water, three times the river's width downstream, he unfurls his shirt and emerges from the water respectably dressed. We stripped to the buff.

In the morning a long line of shouting men carried our snaky cable across to a pulley which Ferracci, having crossed pick-aback, had fixed on the far shore. While one car hauled away from the river, the repair car nosed down into the swift current and slowly went across.

After this test the six other cars forded the river under their own power; but it had been deemed wise to empty the trailers, and baggage, beds, spare wheels, and tractor hands came across on the heads of sure-footed Afghan helpers, who, had they desired, could have run away with most of the Expedition right there.

Then our accompanying trucks were towed across. Hundreds of picturesque figures watched from both banks (see page 433). At the edge of a marl cliff heroic figures were silhouetted against the blue. Spirited stallions pranced up and down, their harness bearing the British arms, with "Honi soit qui mal y pense."

The walls of Farah were pearly white when we at last took the road. A company of soldiers saluted as we passed into a roadside garden to drink tea with the Governor. We camped at the foot of chocolate-colored hills on a rise overlooking the distant city.

The next day we were met by M. Hackin and Commandant Pecqueur and moved on to Girishk, where they had been preparing for our passage over the swift, deep Helmand.

Like Khanaqin, Girishk came upon us as an agreeable surprise. We rolled over the edge of the plateau and there was the village, the low dwellings hid by a mass of trees and dominated by a ruined castle (see illustration, page 435).

M. HAARDT (CENTER) INSPECTS A PERSIAN POPPY FIELD

STUDENTS IN A PERSIAN GIRLS' SCHOOL

With the exception of their veils, these girls of Barfrush, near Meshed-i-Sar (see, also, illustration, page 413) look, dress, and act like American girls in an Italian district—an interesting sidelight on the New Persia.

BALUCHI TRIBESMEN IN AFGHANISTAN TAKE A KEEN INTEREST IN THE MOTION-PICTURE CAMERA

Villagers sat in a pretty little grove of trees. A boy with a water pipe passed here and there, letting one man after another take a deep puff or two, with his clenched fist as a mouthpiece. The owners of two fighting quails showed us how the game is played. After a brief bout they let their birds drink from their lips before putting them back into their beaded bags. In the streets these turbaned warriors look as if they were carrying their embroidery with them.

While our unwieldy mass of material was being ferried across the river, under a burning sun, we camped in a fruitful garden, where soft apricots dropped from the trees. At supper time a procession of dark-skinned servants came bearing large brass trays of fruit which they deposited like a golden necklace around our dining tent, to the delight of our poetic Le Fèvre and our gifted surgeon, Dr. Jourdan.

OLD MAN RIVER GOES INTO ACTION

Getting a seven-ton radio car across the Helmand was a ticklish task, shared by our mechanics and the rivermen. The latter, a special tribe, were led by a picturesque graybeard called "Baba Daria," the Father of the River. He, recognizing in Ferracci another man accustomed to command, promptly dubbed him "Baba Motor." Between them, Old Man River and the Father of Autos did the job.

There was enough picturesque cursing to make a play, but a mutual confidence reigned supreme, and the big car passed safely over from one improvised mud jetty to the other. Could M. Citroën have seen this risky performance, his thoughts would have oscillated between fear and pride. M. Haardt, to whom such crossings became common in Africa, was calm enough, but when Baba Daria came to shake hands in celebration of the passage, his thin forearm turned tense.

The technique was to bind two archaic barges together with automobile cable, frantically row across the swift current to a sand bar, ground on it sufficiently to break the force of the current, but not hard enough to pitch the car overboard, swing off, traverse another arm of the river, ground the barges again, then make the lower jetty before the current could sweep this improvised ferry downstream.

Cables were hurled ashore. Men up to their chins in water strained the awkward barge off bottom.

"May my spit cover your faces!" screams Baba Daria.

"What does he say?" asks Baba Motor.

"That the truck is heavier than you said," translates Varnet.

We spent three days in crossing this river. We were lucky. On both banks, at the regular ford, caravan-loads were piled high, waiting for weeks for a safe crossing.

We negotiated the Arghandab by ferry or cable not far from where Alexander's army crossed. From a high bank crowds watched the process of planting a pulley and hauling a car across. One minute flat was the best performance. The radio car took more than six.

A BIRD CHARMER OF HERAT

THE EXPEDITION ENTERTAINS A GOVERNOR

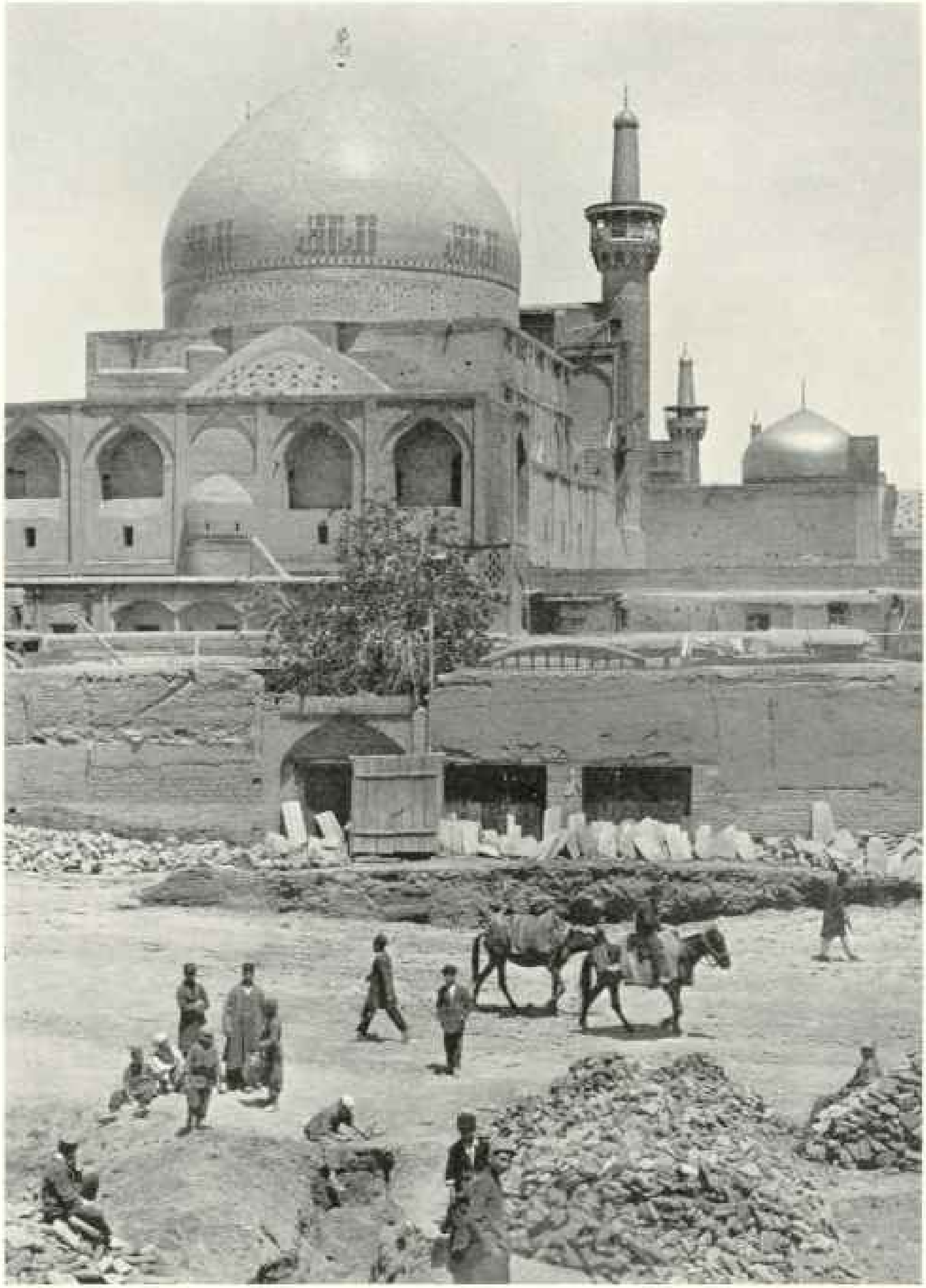
With the last bad river safely behind us, we pressed on to Kandahar, where our camp was set in a garden of dreams, and we entertained the Governor in his own guest house, with the aid of his own servants and his own crockery.

In that wide-spreading garden, with its reflecting pools, hollyhocks, laurel bushes, and apricot trees, Firouz, the pet monkey, lay in the shade with two wolf cubs, while a big-eyed gazelle, tied to the same bush, was nursed by a nanny-goat. Our garden seemed more of a paradise than ever. We might lack a lion and a lamb, but wolf cubs and a thin-legged gazelle seemed fair substitutes.

On a terrace above the intersection of the two main streets of mud-walled Kandahar we were received by the municipality. Although the speech of welcome was in Pushto, it carried conviction. Fruits, flowers, and cucumbers were united in decorating the most unusual refreshment table I ever saw. In Herat most of the supplies had been Russian. Here the candies, biscuits, and tea were English.

The Governor is much interested in developing the natural resources. Dried fruits, embroidery, and alabasterlike Kandahar stone had been brought, so that we could examine the choicest local products.

The city of Mahmoud of Ghazni rises above green gardens fenced by tall poplars. The tomb of Mahmoud is set in a secluded rose garden formerly closed to unbelievers; but we were welcomed, for M. Hackin had here made friends, and a white-robed pilgrim with the face of a saint posed in the doorway, which, in spite of the sincerest cordiality, we were not privileged to enter. In the forecourt are two marble lions and at a near-by village



THE GREAT MOSQUE AND TOMB OF HAZRAT IMAM REZA AT MESHED

Under this dome is the grave of the Eighth Apostle of Mohammed, the most sacred spot in all Persia. It is visited annually by more than 100,000 pilgrims. No Christian may enter here (see text, page 415). The shrine, "The Glory of the Shia World," took many years to build, and the tomb chamber, once the burial place of Harun-al-Rashid, is the oldest part.

THE MOTOR CARAVAN AWAKENS WONDER IN A PERSIAN MUD VILLAGE

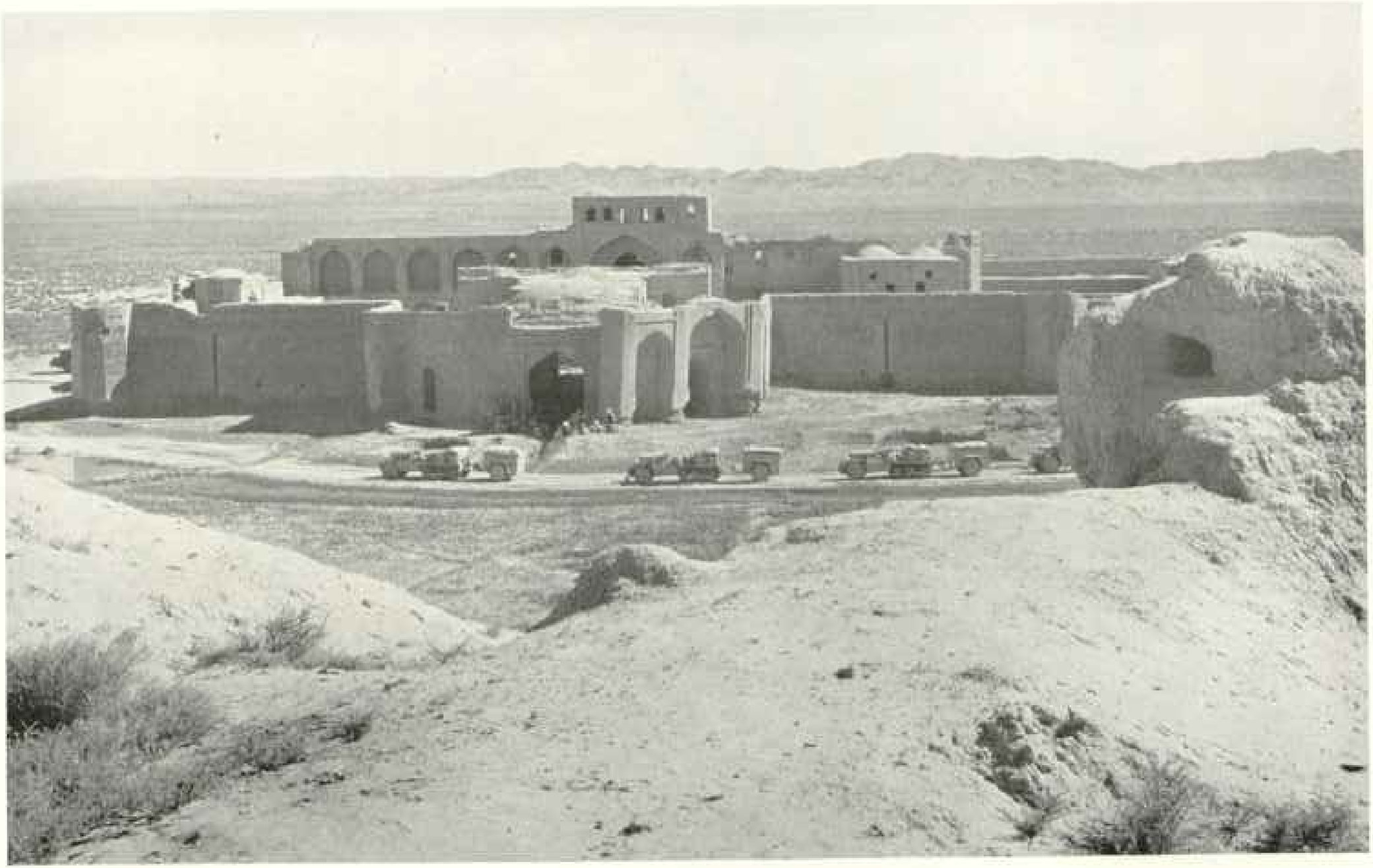
Turbat-Sheikh-Jam, near the Afghanistan border, on the route from Meshed to Herat, was the scene of a great battle between Persians and Uzbegs four centuries ago.

MILKING TIME IN A PERSIAN NOMAD CAMP

Both nomads and peasants raise flocks of sheep for the wool that goes into the famous rugs of the country. A scene along the trail to Herat, between Meshed and Turbat-Sheikh-Jam (see above). The sheep are tethered in long lines beside the black tents of the nomads.

BEFORE THE CRUMBLING MUD WALLS OF SERZEWAR

The garage sign in the foreground tells a story of changing conditions in the East. Persia once had 30,000 caravanserais, patronized chiefly by pilgrims, who required shelter each night on their slow progress afoot, by donkey, or camel caravan. To-day the automobile lengthens the stages of travel, and garages provide accommodations both for cars and passengers (see text, page 415). Note the result of erosion in the foreground.



THE EXPEDITION ARRIVES AT THE AFGHAN FRONTIER

At the border town of Islamkala a hearty welcome awaited the travelers from Afghan officials and from the Afghan populace as well (see text, page 417).

THE CITY WALL OF HERAT IS BUILT UPON A STUPENDOUS EARTHWORK

This feature distinguishes it from all other cities of the Orient. Inside the walls the streets are mere passageways, but outside the north wall a modern city, with broad streets flanked with modern shops, is growing up.

fountain the water pours from the mouth of a similar carving.

There is a steep rise from the river to the west gate of mud-walled Ghazni. In the afternoon the flow of human figures and donkeys climbing or descending the ramp is spirited and colorful.

A POPLAR-LINED AVENUE TO OLD KABUL

We entered Kabul after a drive past the new city which Amanullah, recently deposed Amir, built on a splendid site, separated from the old city by chocolate-colored hills, with a ruffle of crumbling battlements along their crests. Pretentious "New Kabul" proved to be a false dawn. The palaces and charming private houses are now deserted. But in all Asia, where is there a garden as splendid in plan and as perfect in maintenance as that around the imposing, but unfinished Palace of Parliament? (See page 439.)

From here to Old Kabul there runs a poplar-lined avenue, immaculately kept and more than three miles long, with side paths for camels and donkeys and the tracks of a two-car train which carries lovers of beauty out to this premature oasis of modern construction and garden planning (see page 438).

On a wind-swept hill commanding magnificent views of this fertile plain, we were entertained in a country home which now belongs to the municipality.

M. HACKIN INTERPRETS BAMIAN RUINS

Before we had come to know Kabul, some of us took light cars and went northward across fertile Kohistan and on to Bamian (Banniyan), first-century center of artistic and commercial influences reaching far into Iran, India, and Central Asia. As a key to the development of Central Asian art, Bamian is without rival.

The valley was described in English by Capt. M. G. Talbot, in the Journal of the Royal Asiatic Society, in 1886. America was credited with some of the shrewdest

M. HAARDT INTRODUCES HIS ASSOCIATES TO THE AFGHAN GOVERNOR GENERAL OF HERAT (SEE TEXT, PAGE 417)

A STREET SCENE IN HERAT

The women of Afghanistan are kept in more rigid seclusion and are more closely veiled than those of any other Moslem land. The desert women, the wives and daughters of the nomads, are permitted to go unveiled, but those of the towns complete their street dress with a loose garment covering the head and upper part of the body and containing a latticed insert, like a strip of mosquito bar, for the eyes to see through.

THE EXPEDITION LEAVES HERAT, METROPOLIS OF WESTERN AFGHANISTAN

conjectures concerning Sassanid influences in the murals, but Ch. Masson, long thought to be an American student, is now known as a deserter from a Bengal regiment.

Hsuang Tsang, the Chinese pilgrim, visited Bamian the year Mohammed died, and there is the suggestion that some of the designs in the grottoes remain unfinished, not because it is the nature of artists to leave unfinished sketches, but because Moslem iconoclasts killed the artists at their loving toil.

In collaboration with the Godards, under an agreement with the Government of Afghanistan, by which all archeological surveys are granted to French archeologists, M. Hackin has published one volume on the Antiquities of Bamian and another is on the press. His arrival gave us a chance to study the statues and murals with the help of the expert who excavated the site (see page 442).

The two colossal Buddhas, 175 and 116 feet high, are crude and lifeless. The plaster surface was held in place by a system of pegs and cords similar to the steel elements and wire mesh of cement construction, and as most of the polychrome decoration is gone and neither statue has a face, it takes imagination to think that these megalithic carvings ever rivaled those of Abu Simbel or Petra. Certainly they do not to-day.

The murals are much defaced by iconoclasts. In spite of their archeological value, because of the Iranian, Indian, and Chinese elements that can here be traced, they failed to move me. Climbing about in the interior of the cliffs, nudging around rock shoulders high above the ground, mounting the stairways that lead to the heads of the colossi, sitting under the muraled arches that shelter them—all this is a thrilling and unusual experience.

A VALLEY OF INDESCRIBABLE BEAUTY

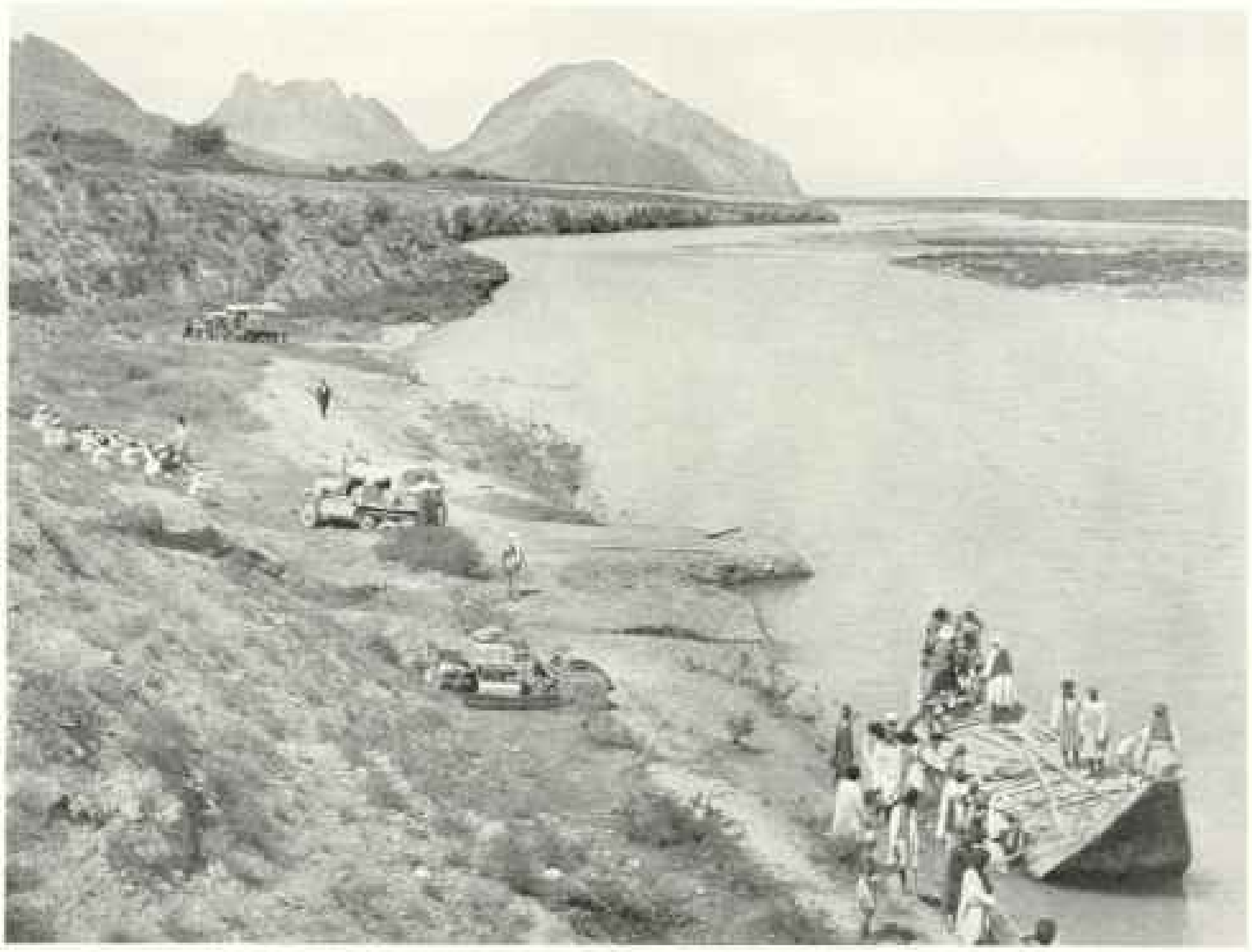
Bamian Valley is indescribably beautiful. Situated at an altitude of 9,000 feet and backed by the summits of Koh-i-Baba, nearly twice as high, it is worthy of world-wide fame. The view from the veranda of the guest house is incomparable. If one sits on the head of the Great Buddha, as Jacovleff did while copying the faded figures under the vault, and looks across

FORDING A SWIFT STREAM SOUTH OF HERAT

Once, when the supply truck was nearly swept away by the current, swarthy Afghan helpers plunged in, fifty strong, to rescue it.

TURKOMANS POSE FOR THE EXPEDITION'S ARTIST

Just as M. Jacovleff was about to start out for the bazaars of Herat in search of good models, these men rode up to offer their services. Though they are not representative of this part of Afghanistan, they made picturesque subjects.



ANCIENT FERRIES ARE PRESSED INTO SERVICE

The chief of the Afghan rivermen, known to his associates as Baba Daria (Father River), recognized in Ferracci, chief mechanician of the Expedition, a fellow spirit and immediately christened the Frenchman "Father Motor." Together they effected safe crossings for all the tractors and their trailers under most trying conditions (see text, page 422).

the green valley, framed by the arch of the grotto and dotted with fortlike manors that are almost tiny villages, he has both a view and a sensation of rare beauty. Not since leaving Beyrouth, our starting point, had we seen anything so fine.

We were fortunate also in the human elements that added to the interest of this historic valley. On this ancient pilgrim and caravan route modern migrations were taking place in the ancient manner. If motor buses seemed out of place at the very feet of the Great Buddha, the migration of Baluchi merchants going across the Ak Robat Pass to Mazar-i-Sherif and of Tarachi-Ghilzais headed for the hills helped us to picture this verdant valley as it was when a thousand monks, living in countless grottoes, levied tribute on the credulous, who bought small models of the Bamian statues, as did the worshipers at Ephesus, and carried them throughout the Buddhist world.

A few families still live in the caves. Over the edge of one shelf, thirty feet or so above the ground, I saw the bright eyes of a youngster just able to walk, but left there alone. Up from the valley three caryatid figures moved gracefully along under heavy jars of water. There was the flash of red trousers and a deep green scarf among the brown masses of rock that have fallen to the valley floor.

One afternoon in mid-June we felt it our duty to go down to where the rose-red ruins of Shahr-i-Zohak cut the sky atop a ruddy cliff. From across the river the place seemed as dead as it actually is. Then, to the left, I spied hundreds of men and donkeys making for the ford below the ruined battlements. Morizet, who thrills to beauty, works like a horse, and never complains, nearly went wild in his efforts to record the spirit of this migration of Baluchis. The lenses in his turret swung right and left, now subordinating the men

and animals to the beauty of their environment, now filling the field with one or two figures here triumphing over the obstacles that beset their route.

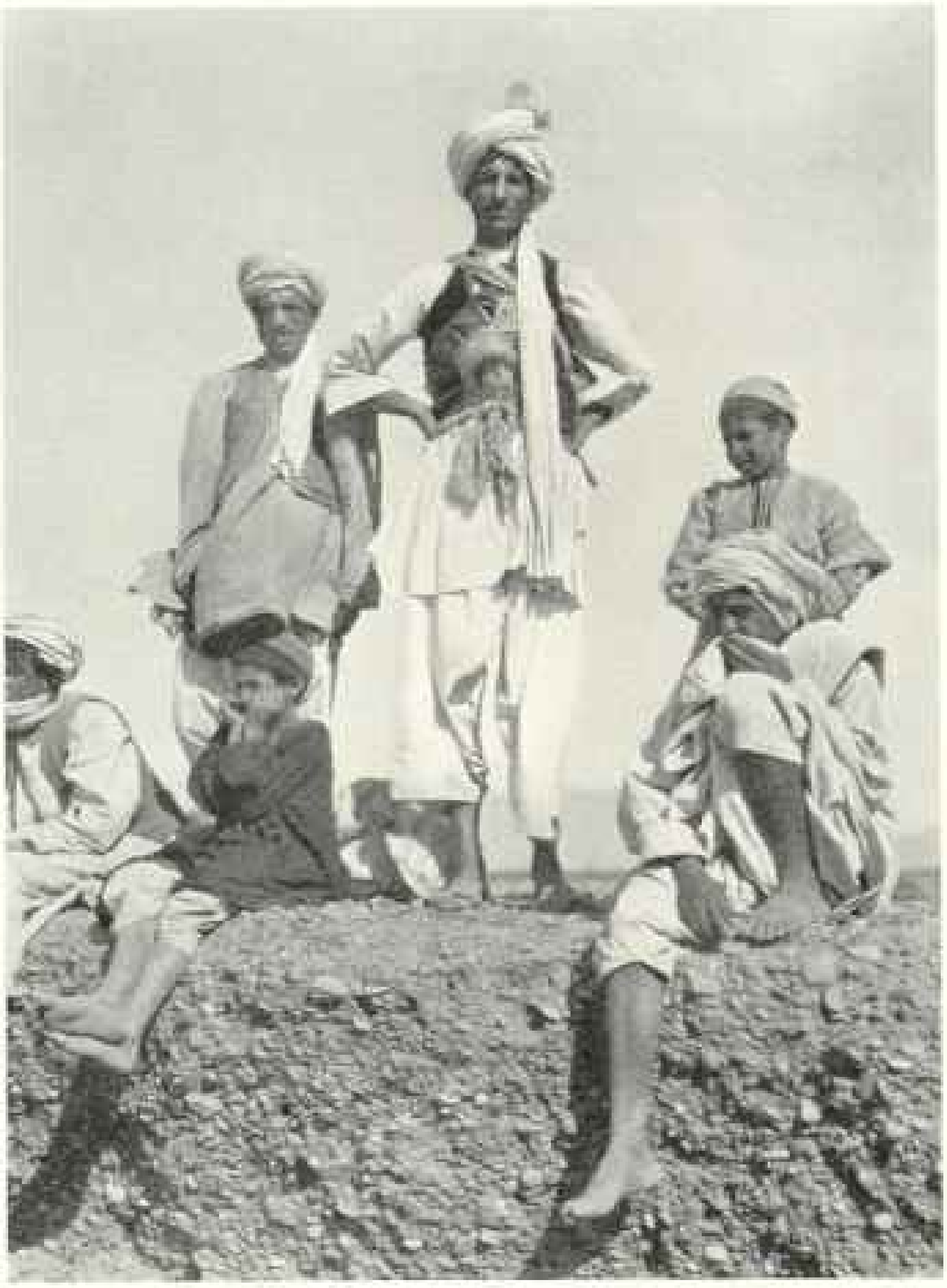
A TRIBAL CARAVAN IN MOTION

The morning we left Bamian a blessed puncture enabled me to set out on foot. Up an avenue of willows backed by the stern rock cliffs, there came, in the early morning light, a tribe in movement, their camels and donkeys stretching far along the valley road.

Here was an expedition! True, their tribal baggage was reduced to the bare essentials; but their efficiency as nomads was indisputable. New factors forever present new problems. Lambs and baby camels are born, camels and donkeys go lame, women and children not only accompany the caravan, but they are essential factors in its progress.

A little girl strides along with two lambs nuzzling her knees. Young boys, with coins dangling from their tight caps, ride on towering gray camels. A bearded old man, too old to walk, rides slowly along with a boy of two sheltered by his shrunken chest. The caravan moves on!

Most of the women are unattractive, but there are youthful favorites whose gowns are bright, whose ornaments are rich, and whose shy glances are coquettish. Since women don't exist under such conditions, we ignore their presence and exchange with the patriarchs that "Pax vobiscum" of the Moslem world, "Salaam aleikum."



HEROIC FIGURES WATCH THE CROSSING OF AFGHAN RIVERS

Deep and swift were the Afghanistan streams, which presented the most difficult problem of the 3,500-mile trek from Beyrouth to Srinagar; but generous and whole-hearted native coöperation enabled the Expedition to overcome such hazards without casualty to motor cars or personnel (see text, page 420).

At Kabul, Jacovleff had sketched the portrait of a tribal chieftain and his son, both of them old friends of M. Hackin. As we came tearing back from Bamian along a level, shady road in Kohistan, a figure in a coat of many colors stepped into our path. In his outstretched hand he held something round and white, like a signal disk.

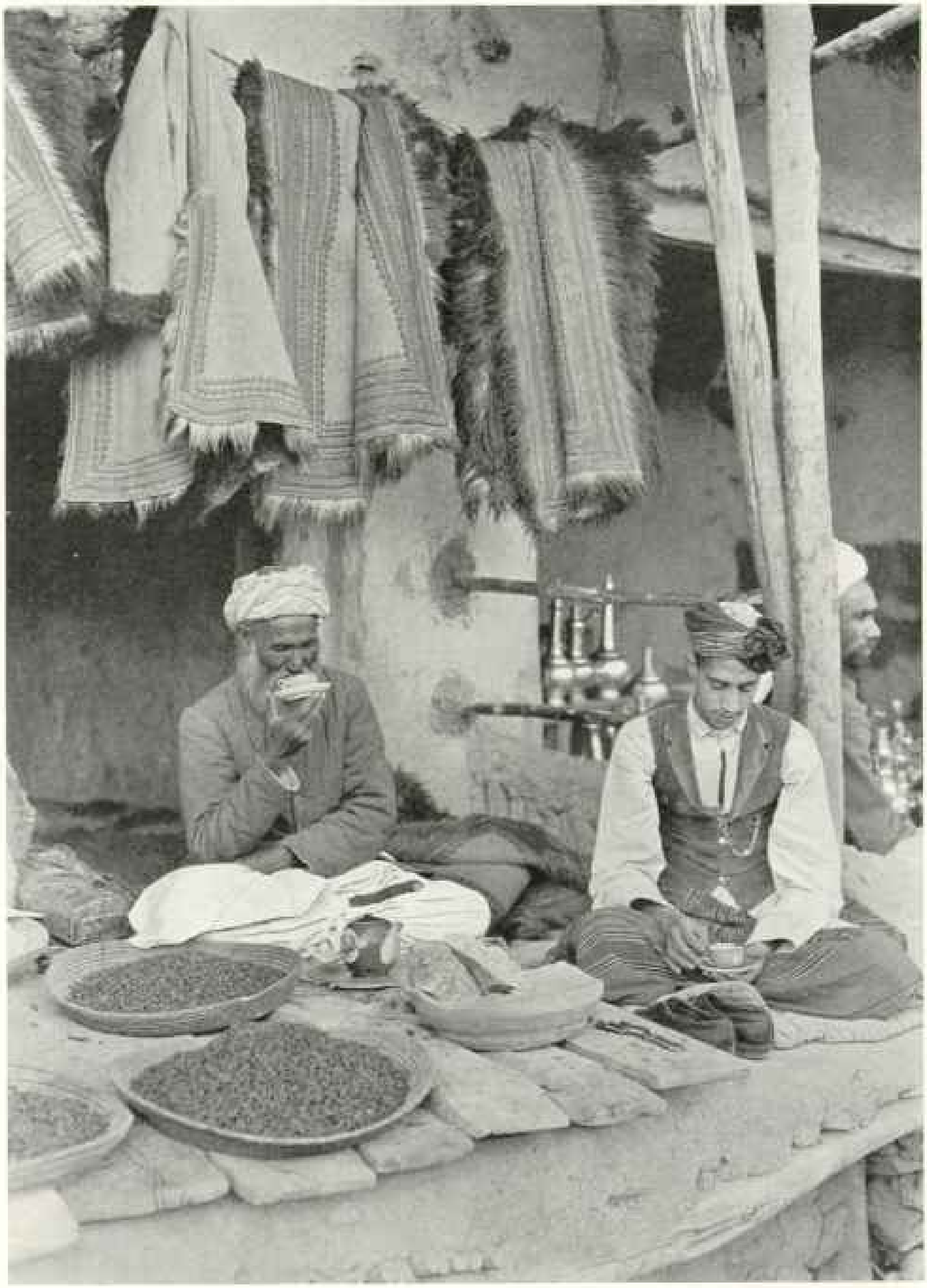
Strange traffic policeman for such a region! But the signal disk was a round, white cheese. The figure was the chieftain's son. For hours he had waited there, thus to make memorable his friend's journey

THE WALLS OF FARAH LOOM THROUGH A HAZE OF AFGHAN DUST

Here both troops and civilians turned out to welcome the Trans-Asiatic Expedition. Once a prosperous city, Farah felt the wrath of Ghengis Khan and of Persia's Nadir Shah. Now it has few inhabitants besides its garrison.

GIRISHK PROVED AN AGREEABLE SURPRISE

After a hard, hot day, the Afghan village provided a fruitful garden as a resting place for the members of the Expedition (see text, page 420). The partly ruined castle in the background is still garrisoned.



BUSINESS MEN OF GHAZNI ARE NEVER TOO BUSY TO ENJOY A CUP OF TEA

The people of Afghanistan drink great quantities of very sweet green tea and are most adept at handling cup and saucer as a unit. The bazaars of Ghazni deal chiefly in corn, fruit, madder, and sheep's wool and camel's-hair cloth.

past the place where a part of his tribe was camped.

AN AUDIENCE WITH THE AFGHAN KING

It was such occasions that gave us our happiest memories of unspoiled Afghan hospitality. Formal receptions could furnish no such sense of disinterested friendliness. Yet our audience with His Majesty Nadir Shah came to have this same sincere simplicity.

Between snowy syringa bushes we came to the palace. The lower hall, with its imitation marble columns, its lifeless elevator tucked into one corner, and its Chinese and Japanese vases, did not promise well. The conventional wait in the reception room, lined with paintings, suggested those diplomatic delays designed to impress—and humble—the honored guest.

When we entered the simple chamber, decorated with photographs and furnished with a simple desk, the leader of the Third Haardt Mission presented each of us in turn. The King, his gray-edged brown beard marking the line between neat gray suit and tie and the brown of eyes, spectacle frames, and Astrakhan *kola*, seemed like a genial professor.

Although both His Majesty and M. Haardt speak English fluently, the Foreign Minister acted as interpreter. But it soon became evident that court formalities did not suit the occasion. The King was genuinely grateful for the kind treatment he received in France. We had countless reasons for gratitude to our Afghan hosts.

A TOWER OF VICTORY AT GHAZNI

This ornate structure of intricate brickwork was erected in the eleventh century by Sultan Mahmoud. A companion tower, near by, was built by Masoud III, Mahmoud's great-grandson, in the twelfth century. Towers built centuries later, in Persia and Turkey, were modeled after this design.

There was no danger that either would betray himself through letting thought stick its rude framework through the soft cushion of polite phraseology. Circumstances favored sincerity. Leader of nation and leader of caravan could talk without restraint, as man to man, which is just what they did.

As he always does in introducing me, M. Haardt emphasized his pleasure in the coöperation of the National Geographic Society, and His Majesty spoke enthusiastically about America:

"I hope many Americans will visit Afghanistan, where they will be made most

DOWN A POPLAR-LINED AVENUE TO THE CAPITAL OF AFGHANISTAN

Entering Kabul via "New Kabul," begun by Amanullah but never finished. The new city is now deserted. It is connected with Old Kabul by this broad thoroughfare, more than three miles long, ending in the garden of the former Italian Legation in the old city (see page 428).

welcome. It is a pleasure to learn of the great influence of your Society. I hope Americans will be our friends, and that before long we can exchange diplomatic representatives with your great nation."

THE DREADED KHAIBAR PASS IS REACHED

Although the reception by the Governor of Dakka was the one bright feature in a day when the hills shot heat waves at us until long after sunset and sand flies made sleep impossible, the hour we spent with the King of Afghanistan was the climax of a month's uninterrupted hospitality.

For months we had dreaded the Khaibar (Khyber). The morning of our start from Dakka, our men, in spite of a sleepless night, had that nobility of spirit that good men assume when they expect to be put to the test. Late June is no time for a pleasure trip through the North Gate to India.

From the time the Gurkhas at a post at the border turned to bronze statues in our honor until Fort Jamrud sank to a mere battleship turret in the Northwest Frontier plain, the British tried to outdo one another in honoring and entertaining us. One day more in the Khaibar and our wine-drinking mechanics would have sacrificed a lifetime habit to an inordinate liking for pale beer, and a lemon squash six inches high would temper the heat of Abednego's furnace.

The Sikhs were reviewed by their brigadier and M. Haardt, the Gordon Highlander bagpipers strutted their stuff in immaculate uniform, and the bass drummer, draped in a leopard skin, waved his sticks about in front of our movie camera.

Then the serious hospitality around dark old tables polished by a long succession of hands. As we sat at the officers' mess, I half expected that some one would deposit before us a heap of rags and tired flesh that would evolve into "The Man Who Was."

In response to a challenge by General Sandeman, the "Silver Crescent" blazed a virgin trail to a towering blockhouse, and we went on to tea around the silver model of the Arch of Ctesiphon in the mess of the Rajputana Rifles at Sarkai. Nor would

THE UNCOMPLETED PARLIAMENT HOUSE IN NEW KABUL

The recently deposed Amir had almost finished this building before his visit to the United States, in 1928. It stands on a splendid site on the outskirts of Old Kabul, but the palaces and charming private houses are now empty.

the officers at Jamrud listen to a "No," though darkness threatened to shut the gates of Peshawar in our faces.

And so we passed Taxila and Rawalpindi and came to Srinagar,* 3,445 miles, 53 stages, and 81 days from Beyrouth.

DAYS OF PREPARATION IN SRINAGAR

Posters for permanent waves and pyorrhea cures decorate the bund of the capital of Kashmir. Boatmen, tailors, tonga drivers, barbers, and other pests pester the visitor. Dealers in papier-mâché, woodcarving, ring shawls, and silverware flourish sheaves of testimonials signed by otherwise worthy men.

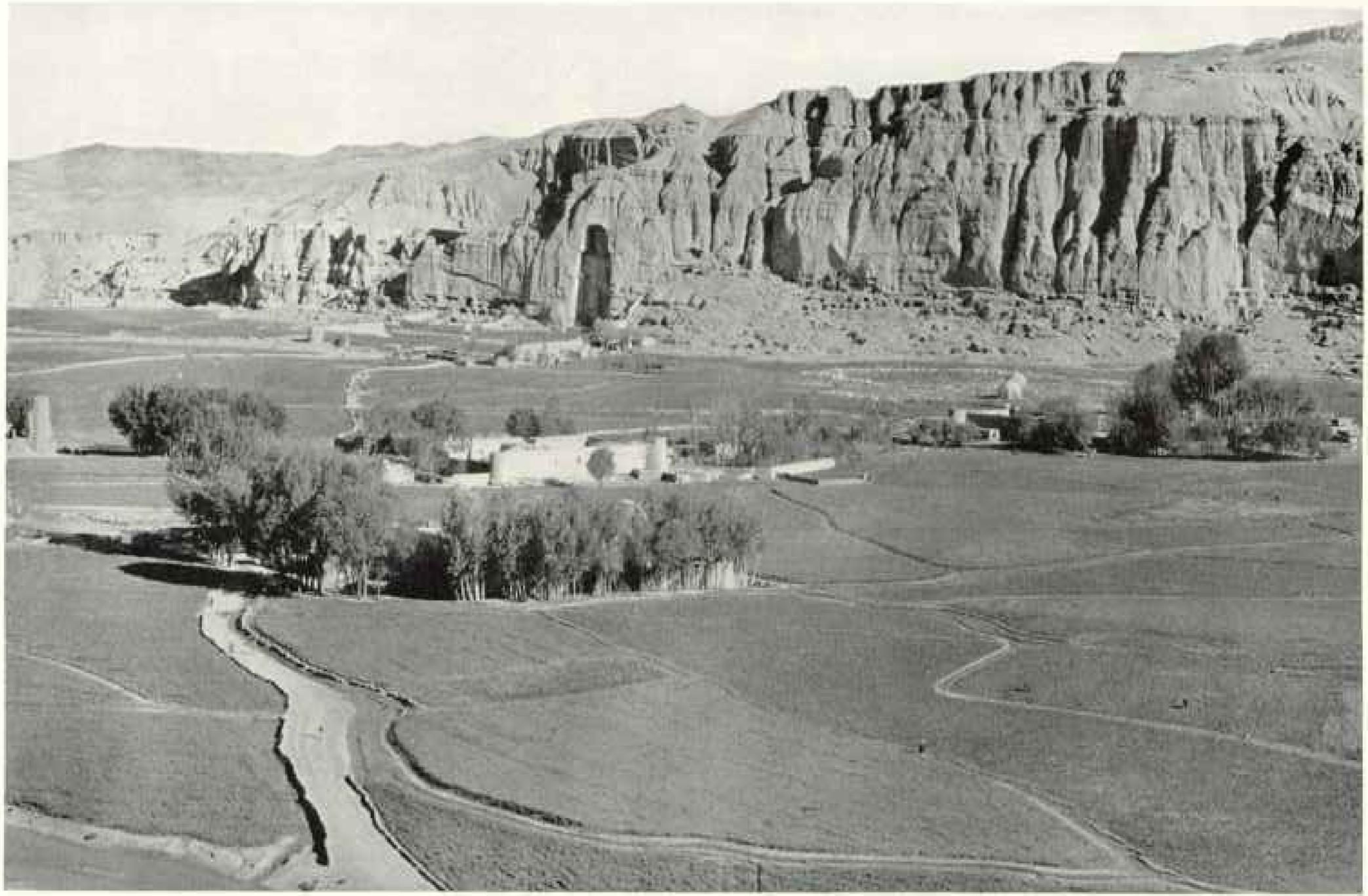
An immaculate polo field gives the Maharaja and his officers a splendid playground at the foot of Takht-i-Suleiman. His Highness's red-and-orange motor cars add color to colorful streets. Shady canals, bowered in beauty, lead between floating gardens, and the full moon looks down on Dal Lake, such scenes as only dreamers know in less-favored climes.

As I write, makers of leather-covered boxes and cashmere-lined Gilgit boots wander in and out. My bearer, Sultan Mohammed, comes to clear away the breakfast things and turn my stockings, as if he were a lady's maid.

Ugly little ponies are being herded together for our crossing of the Pamir. Mechanics are girding up the loins of the "Golden Scarab," the leader's car, and the "Silver Crescent" for a journey which all experts say is doomed to failure.

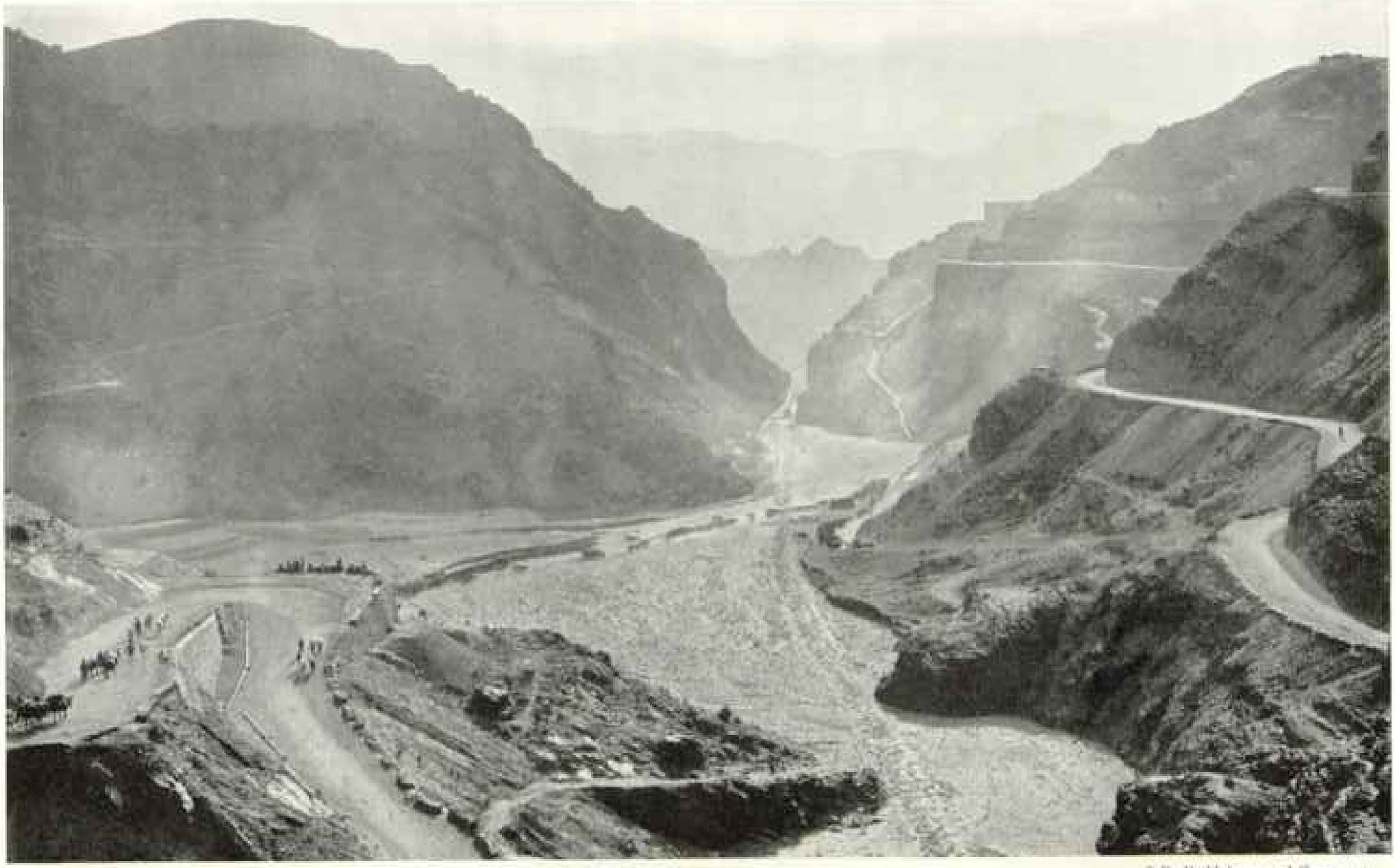
We lunch under towering chenar trees, as guests of the Maharaja of Jammu and Kashmir, and mingle with his friends at a special showing of "The Black Journey," the Haardt Mission's motion-picture record of the crossing of Africa by motor. Night after night we dine in one of his houseboats. We are rowed through the reflected beauty of lake and mountain by silent Kashmiris wielding paddles shaped like hearts. With a young American woman traveling in Kashmir and Le

* See "Outwitting the Water Demons of Kashmir" and "Houseboat Days in the Vale of Kashmir," in the NATIONAL GEOGRAPHIC MAGAZINE for November, 1921, and October, 1929, respectively.



BAMIAN'S VALLEY IS BOTH BEAUTIFUL AND HISTORIC

"If one sits on the head of the Great Buddha and looks across the green valley, framed by the arch of the grotto and dotted with fortlike manors that are almost tiny villages, he has a view and sensation of rare beauty." In the cliffs in the background, left center, and extreme right are the famous colossi of Buddha (see, also, illustration, page 442).



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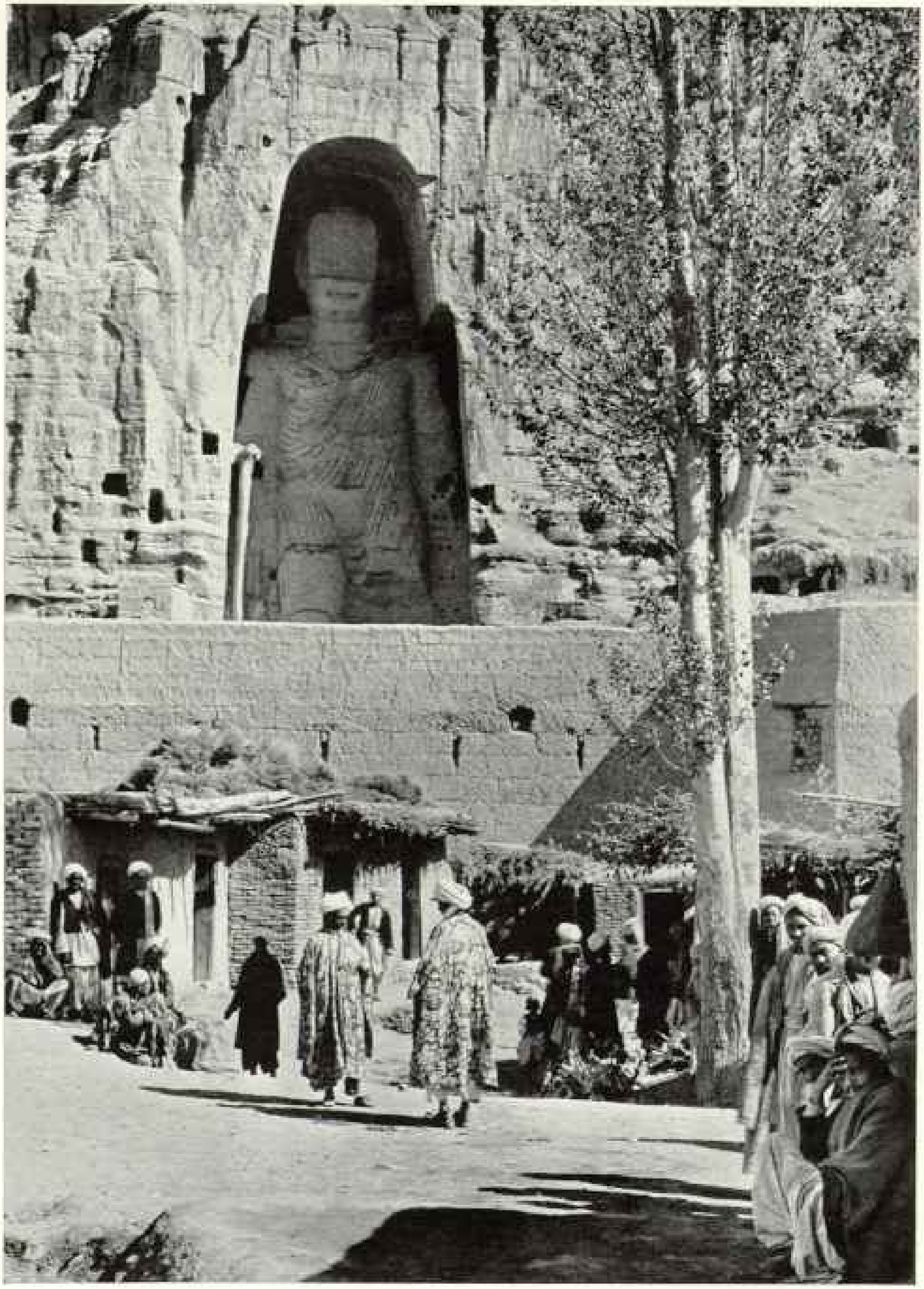
ONCE LITERALLY A PASS OF DEATH, THE FAMOUS KHAIBAR IS NOW A MIGHTY TRAFFIC ARTERY

Fine roads traverse its whole length, and the only delays which the members of the Expedition experienced were those occasioned by the demands of hospitality. They were accorded a royal reception by the British guardians of this northern gateway to India (see text, page 438).



THE GREAT BUDDHA IS THE LARGEST OF THE COLOSSI OF BAMIAN

There are two of these crude, lifeless statues—one 175 feet, the other 116 feet high—carved in the cliffs on the north side of the valley. Hsuang Tsang, the Chinese pilgrim who saw them in all their glory early in the seventh century, said of the larger figure, that "its golden hues sparkle on every side," so it is probable that it was covered with gilt. Neither statue has a face now. Staircases lead to a chamber near the head (see, also, text, page 428).

A KABUL DEALER IN EMBROIDERIES

Fèvre, I visit an old Brahman with the face of a saint, and later, when we bring flowers and sugar for the mountain-side temple of Siva and fruit for that man, whose radiant face has haunted us, find that he has found release.

Mechanics and leaders forget their cracked and bleeding lips, their hot noons and cold dawns, and enjoy a peaceful interlude. No such felicities for our companions in the China group, as they toil onward toward Kashgar. Their arduous route must soon be ours. We press on to the rendezvous.

What if Central and Eastern Asia welcome us as have Syria, Iraq, Persia, Afghanistan, and India? What if, prepared for hardships, we again become the pampered guests of friends? What if the dread of the unknown gives way to happy memories of friendly relationships?

So let it be! If this vast, mysterious Asia, abode of demons, must become for us a guest house, what is tragic in that? Our aim is not to suffer, but to learn; not to court danger, but to court friendships. If our hosts turn the stern geography of desert and mountain into the human geography of cordial relationships, we'll try to grin and bear—and share—it.

Photograph by William H. Roberts

THE ANANDA RISES LIKE A STRUCTURE OF FOAM AT PAGÂN

Some 1,500 plaques of tile, arranged in bands around the exterior walls of the four terraces of this matchless temple, depict scenes connected with Buddhist ceremonial (see, also, illustration, page 447).

Photograph by D. A. Ahuja

THE REMAINS OF ONE OF THE GRAND GATEWAYS OF PAGÂN

From the ninth to the thirteenth century Old Pagân was the capital of the Pagân kings, and was guarded by four concentric brick walls, each with twelve gates. A moat gave further protection on the north, south, and east sides, while the Irrawaddy ran to the west.

THE FIVE THOUSAND TEMPLES OF PAGĀN

Burma's Sacred City Is a Place of Enchantment in the Midst of Ruins

By William H. Roberts

FOR four hot, wearisome hours the crowded little steamer puffs and strains between Myingyan and Nyaungu. Then, as the heat of the day begins to diminish, one passes from the twentieth century to the precincts of an almost unknown past, a past full of gorgeous colors and wild legend.

By a subtle alchemy the sun has transmuted the muddy waters of the Irrawaddy into sparkling silver. From behind the palms on the river's bank rise the solemn and majestic shrines of an ancient and vanished Burmese civilization. In the soft glow of the evening it seems as if something from the splendor of centuries gone still lingered upon the desolate ruins, as if dim troops of worshipers could almost be heard intoning their litanies before the image of the Blessed One.

Ahead are the blue Tangyi hills, crowned with white pagodas. Pagān is solemnity and mystery; about it is enchantment.

From the landing place a vague path leads up a moderately steep incline to the site of a once imperial capital, 90 miles southwest of Mandalay.

As soon as one has surmounted the slope, he finds himself in the midst of a veritable forest of temples and pagodas, large and small, nearly perfect or almost unrecognizable because of decay. Before their vast bulks the traveler becomes painfully conscious of his littleness and insignificance. His mere presence seems an impertinence. The crumbling walls, the fallen pinnacles, and the desolation are eloquent of the vanity of fame, the hollowness of glory, and the futility of human effort.

A Trinity of Temple Beauty

Of the five thousand or more temples that are still to be seen, the Ananda, the Thatbyinnyu, and Gawdawpalin, standing all three within a circle of a quarter of a mile radius, are surpassingly beautiful and majestic.

The Ananda rises like a structure of foam (see pages 444 and 447). On its summit, like the flame upon some altar, a slender, golden spire gathers the radiance of the sun and flings it forth again to every quarter. It is the first of all the temples to command the traveler's attention; it is the last upon which he gazes as the swift steamer bears him away.

The Thatbyinnyu has suffered more from time and neglect than has the Ananda. Its walls are blackened and much of the detail of its ornamentation has fallen away. It is hardly beautiful; it is majestic. About it is a suggestion of enormous solidity and a noble loftiness of conception.

The third temple has neither the exquisite beauty of the Ananda nor the sublimity of the Thatbyinnyu; yet in the perfect harmony of its proportions, the refinement of every detail, it has a charm of its own. It contributes with the others to the spell which Pagān casts over even the most careless visitor.

Past the Gawdawpalin the path leads on to the circuit house. At every step is revealed some new grouping of effects, some new harmonies of proportion or felicities of detail, and from the spacious veranda of the resthouse the view is one never to be forgotten. Westward the river and the hills, silver and gold and blue in the sunset; near at hand the Gawdawpalin, with orange light and soft purple shadows mingling and shifting over its huge battlements; farther away the Ananda and the Thatbyinnyu, now indistinct in the twilight; and all around, the half-seen outlines of pagodas.

As night draws on, the lamps in the house are lighted, and swift, white-clad servants move noiselessly about, preparing the evening meal. After dinner the company gathers upon the veranda; and there, in the darkness, the story of Burma is retold, its problems are discussed, or wild fancies are woven into circumstantial tales. The old city teems again with life. Mighty kings and emperors pass, with all their ancient pomp and splendor; puissant nats

Photograph by William H. Roberts

THE NUMBER OF TEMPLES WHICH MAY BE VISITED AT PAGÂN DEPENDS UPON ONE'S LEISURE

"Jerusalem, Rome, Kieff, Benares, none of the sacred cities of the world, can boast the multitude of temples and the lavishness of design and ornament that make marvelous the deserted capital on the Irrawaddy. . . . For eight miles along the river bank and extending to a depth of two miles inland, the whole space is thickly studded with pagodas of all sizes and shapes, and the very ground is so thickly covered with the crumbling remnants of ancient shrines that, according to the popular saying, it is impossible to move hand or foot without touching a sacred thing."—*Sir George Scott, K. C. I. E.*

© Herbert G. Ponting

NINE CENTURIES HAVE DEALT KINDLY WITH ANANDA PAGODA, CHIEF OF THE GREAT TEMPLES OF PAGÃN

"The square mass of the building is surmounted by six successive diminishing terraces, the last of which forms a base for the square mitrelike spire, which itself upholds, like a jewel in its cusps, the typical pinnacle of the Burmese pagoda. There is an exquisite harmony of design in this building, combined with enormous solidity and fine workmanship, which seem destined to preserve it for many centuries to come."—*V. C. Scott O'Connor.* (See, also, illustrations, pages 444 and 453, and text, page 453.)

Photograph by Rev. George D. Judd

ALONG THE LOWER IRRAWADDY RIVER

The small sampans in the foreground are manned almost exclusively by Indians (natives of India proper, not Burmans); the small cargo vessels sailing before the breeze are taking loads of rice down to Rangoon. To the left are old-time native Burmese craft, with ornamental work on their sterns; the larger boat has a gilded peacock, the national bird of Burma, carved on its stern.

leave their celestial abodes and mingle with men working wondrous prodigies.

Heroic achievement, the basest villainy, successful subtlety—all these are mingled in the history of this ruined city.

PAGÃN'S GREATNESS BEGAN WITH ITS CHIEF PAGODA BUILDER

The greatness of Pagãn, and with it reliable Burmese history, dates from the accession of Anawrata, about A. D. 1017. This truly remarkable monarch won by the sword a splendid empire and established a dynasty that continued in power for more than 200 years. At the beginning of his reign he devoted himself to the moral and religious uplift of his people. A corrupt and degrading "Naga-worship," or obedience to devils, in the form of serpents, had come through Assam from northern India.

Soon after Anawrata ascended the throne Buddhist missionaries arrived at Pagãn from the country of the Talaings, a people dwelling to the south and, as a result of the frequent and easy communication with India by sea, highly civilized. These Talaing missionaries found the king a zealous convert. He expelled the priests of the abominable cult that for so many years had debauched his people, strictly proscribed the Naga worship, and did everything in his power to further the efforts of the preachers.

His fervor had, however, one lamentable result. Hearing that there were in Thaton, the Talaing capital, copies of the Buddhist Sacred Books and several precious relics, he sent a noble envoy to beg for such portions as might be spared. His reasonable request was refused in a singularly insolent and shortsighted manner.

With characteristic energy Anawrata assembled an army and a fleet and moved against Thaton. He was completely successful, and as the spoils of victory he carried back to Pagãn not only the books and the priceless relics but the king and queen

Photograph by D. A. Ahuja

THE GAWDAWPALIN PAGODA, A MONUMENT TO GRATITUDE

Proud King Narapatisithu Min was stricken blind when he exalted himself above his ancestors, but when he became penitent his sight was restored and the happy monarch built this great temple (see text, page 454).

of the fallen city, together with the principal nobles, rich treasure, 32 white elephants, and a host of 30,000 artificers and scholars.

This signal success only fanned the flame of Anawrata's zeal. A fresh field for enterprise was found in Ceylon. There was in that island a most sacred relic, nothing less than a tooth of Gautama. Such a trophy was beyond price and its possession by Pagân would sanctify and ennoble the king's name. Accordingly, with four trusty captains, mounted on matchless steeds, Anawrata hastened to the seashore and embarked for Ceylon at nightfall.

But unseen hands were fighting on the side of the sovereign of Ceylon and the sacred tooth. The ship sped swiftly on through the night. Yet when the travelers awoke it was to find themselves anchored a little below Pagân!

Baffled but not defeated, Anawrata sent an envoy to Sangabodhi, the king, an envoy who bore many costly presents and who was instructed to demand the tooth of Gautama in return.

Sangabodhi, unwilling to surrender his most precious possession, yet fearful of arousing the ire of so dreadful a monarch as the king of Pagân, was in sore straits. In his distress he expressed the wish that he might have two such teeth. No sooner had he given utterance to this desire than the tooth produced a fellow exactly resembling itself! In fact, the two were indistinguishable until the original declared itself by rising into the air and performing miracles.

The duplicate was placed in a casket of gold and delivered to the envoy, who carried it back with great pomp to Pagân.

A WHITE ELEPHANT SELECTS THE TEMPLE FOR THE RELIC

To solve the difficulty of choosing a site for the enshrinement of the prize, the casket was placed on the back of a white elephant, and it was announced that wher-

Photograph by Bourne and Shepherd

A MONASTERY IN FRONT OF A PAGÃN PAGODA

The monks, novices, and scholars who reside in these monasteries depend upon the proceeds of the begging bowl for their food. In orderly procession, with their abbot at their head, the inmates set forth each morning to receive the donations of the charitable who desire thus to acquire merit. It is the giver, not the receiver, who is thankful.

ever the animal halted there should be the resting place of the tooth.

Much to the disappointment of all, the elephant bearing his precious burden crossed the river and knelt down near the Tangyi hills. This was very far from the palace, and the king expressed his regret that *he* had not two sacred teeth. Here again the wish was father to the miracle. Immediately there *were* two teeth instead of one! The duplicate was placed on the elephant's back and the beast was bidden to move on.

Five times the elephant halted before reaching the neighborhood of the palace, and at each place the tooth was miraculously multiplied, until at last the site of the Lokananda was reached and the king professed himself satisfied. At each stop a shrine was built, and at the last was reared the pile which still remains as one of the monuments to Anawrata's greatness.

Anawrata's further exploits would make a long tale. In the records of his reign indisputable facts have been strangely intermingled with wild fancies and grotesque imaginings. He is said to have built 43 cities and to have dug canals and reservoirs for the benefit of his people. Under his efficient and energetic administration the petty kingdom of Pagân became an empire stretching from the Malacca Islands and Siam to Bengal and the frontiers of China. Thus was inaugurated the most glorious period in Burmese history.

PAGÃN'S GREATEST MONARCH DESTROYED BY A NAT

Anawrata's end was tragic. One day, as he was riding through the forest on an elephant, he struck his head against the

branch of a tree in which dwelt two nats—Teinbin and his wife, Leinbin. In a fit of rage the monarch dragged Leinbin down from the tree and beat her mercilessly.

Teinbin, in his turn, enraged at the king's cruelty, lay in wait for Anawrata in the depths of the jungle. Taking the form of a huge white buffalo, he furiously charged the unhappy monarch and succeeded in impaling him upon one of his horns. The body was never found.

For more than two centuries the successors of Anawrata more or less worthily maintained the dignity and prestige of Pagan. But in the north was developing a power that was soon to engulf not Pagan only, but almost the entire continent of Asia. Kublai Khan in 1254 conquered what is now Yunnan, and the Chinese were thus brought into contact with Burma. To the resulting conflict there could be but one issue. In 1286 Pagan fell before invaders from the north, never again to attain historical significance. Of the great battle between the two armies on the plain of Vociam, Marco Polo gives a graphic and spirited account.

"THE KING WHO RAN AWAY"

Though, under the circumstances, the fall of Pagan was inevitable, the last king of that unfortunate capital stands in pitiful contrast to the great Anawrata. Known to history as Tayokpyemin, the King Who Ran Away From The Chinese, he was utterly unworthy of his noble office. In the Mingalazedi is an inscription which commemorates his achievements at the table. Here it is recorded that he never dined off fewer than three hundred dishes!

While the Chinese host was yet a long way from the city, the cowardly king fled down the river to Bassein. When the cooks whom he had taken with him were able to produce only a hundred and fifty dishes, the full horror of his position dawned upon the unhappy monarch. He burst into childish tears and exclaimed, "Now I am poor indeed!"

When the invaders had taken their toll of Pagan and retired, he thought of returning. At Prome, however, he was met by one of his sons, who offered him poisoned food. For a time the weakling hesitated. At last, convinced that it was better to die so than by the sword, he yielded and met a fate that few writers have avoided the temptation to remark was singularly appropriate to his character.

As this wild drama of glory and shame is unfolded to the traveler and the moon floods the majestic ruins and all the landscape with quivering, silvery radiance, the throbbing melody of sweet-toned gongs is borne on the cool night air. Presently all sounds die away. Distant lights disappear. Over the dead city night and sleep hold imperial sway.

In the morning "the sunlight streams in at the ruined porches, bathing the lotus thrones and the feet of the Buddhas in rising waves of gold." While the day is yet cool, it is well to visit the more distant temples. The number to be seen depends only upon the leisure, the enthusiasm, or the physical strength of the traveler.

REMOVAL OF PLASTERED WALLS IS HALTED

In many ways one of the most interesting shrines is the Kubyauk Gyi. Its plastered walls are covered with thousands of tiny paintings representing scenes in the life of the Buddha. On each is a title in the ancient square character.

Here the student may find material for the study of historical Burmese grammar, for the spellings as well as the curious letters speak of usages long lost. Nearly half have been removed, and the story connected therewith is not the least interesting of those that cluster about Pagan. From Europe there came a learned professor. With him were men whom he had specially trained for the task before them. They covered the paintings with sheets of newspapers, carefully pasted. Then, with specially hardened saws, they made long vertical and horizontal cuts in the plaster. It was then a simple matter to remove large squares at a time and to pack them away.

The work was interrupted. Evidence of this is plain; for everywhere are the long, accurate cuts of the saws and the disfiguring papers. Whether the frescoes ever reached the European museum for which they were intended or whether, in order to escape detection, the learned gentleman was obliged to destroy all that he had taken, is beyond the knowledge of the writer.

Returning, one passes the Tilominlo. Smaller than some of the other temples, it is elegantly proportioned, and the strange

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THE GREAT STATUE OF BUDDHA IN THE THATBYINNYU PAGODA

Thatbyinnyu, rising to a height of 200 feet, is the loftiest temple in Pagân. The colossal image is enshrined on the third terrace, 70 feet above the ground. The pagoda was built in 1142 by Alaungsithu, great-grandson of Anawrata, the Augustus Cæsar of Pagân's Golden Age.

story of its builder lends it interest. *Ti* means umbrella and *min* is the word for king. Thus the temple is named for the Umbrella King. And the story is as follows:

Prince Oksana (reigned 1211-1234), though the youngest, was the favorite son of his father. One day the aged king assembled his five sons. Seating them in a circle, he placed in the center a white umbrella, the symbol of royalty.

"The son before whom this umbrella falls," said he, "shall be my successor." He had artfully arranged that Oksana should be the lucky claimant. Everything occurred as planned and the youngest son was declared heir to the throne. Through all his life he bore the nickname Tilominlo, The King Whom The Umbrella Placed on The Throne. Be it noted, also, that he was a pious, just, and able ruler, and that his brothers loyally supported his authority.

Across the road is a tiny Buddhist hall of ordination dating from the time of Anawrata. Its interior is adorned with elaborate frescoes. On the ceilings are intricate geometrical designs. On the walls are representations of kings and elephants or scenes in the life of the Buddha. In all of these, brilliant reds and blues and greens are mingled in picturesque riot. In conception and execution alike, this ancient work is far superior to anything in Burma of more recent date.

In the fierce heat of the afternoon even the most energetic of travelers feels little inclination to make his way over the arid, sandy wastes amid which Pagân was built. Near at hand the three great temples—the Ananda, the Thatbyinnyu, and the Caw-dawpalin—promise cool, profitable, and delightful hours. Through their massive walls and into their somber galleries the direst heat is powerless to penetrate.

A MAGIC SPEAR SAVED ONE OF BURMA'S LEGENDARY HEROES

The builder of the beautiful Ananda is, like his royal father, Anawrata, one of the heroes of Burmese legend. Many tales are told of his marvelous strength and daring, but the one which the poets and historians

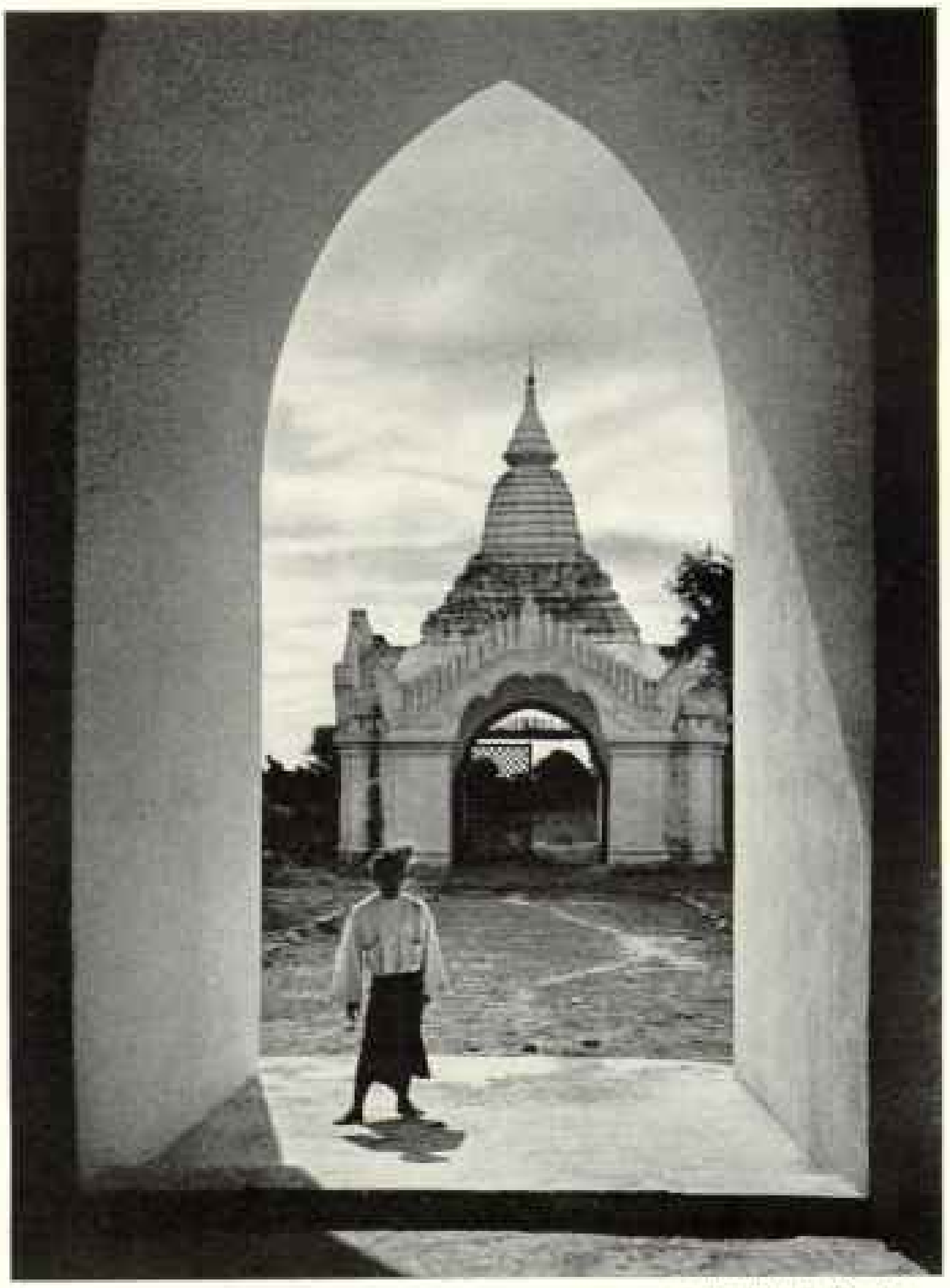
never tire of repeating is of his banishment and flight from the capital. The young prince, Kyansittha, had grievously offended his father. An order was issued for his instant execution, but at the earnest solicitation of a revered priest this was modified into a sentence of banishment.

No sooner had the prince left the city than Anawrata, false to his word, sent after him four swift and mighty Indian warriors. Though they pursued him with almost miraculous speed, they could not come up with him. When night overtook both parties in the jungle, Kyansittha was not far ahead. Planting his spear in the ground beside him, he prepared to rest.

Watchful nats were guarding him. Twice the spear was plucked from the ground and allowed to fall. Knowing that this was a warning, the prince arose. Grasping his weapon, he hurled it into the air, bidding it find out his enemies. Borne on its way by the hands of the nats, it reached the spot where the four pursuers lay asleep, slew them all at one blow, and returned.

The prince fled on till he reached the village of Singaing. Here he found a refuge and here he lived unknown for many years. At length a period of anarchy in Pagān recalled him to the capital, and from scenes of disorder and tragedy he emerged as king.

His reign was short (he died in 1093) and, with the exception of the building of the Ananda, the events that made him famous occurred before his accession.



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TWILIGHT IN PAGÃN

One of the pinnacles of the great Ananda Pagoda (see, also, pages 444 and 447) silhouetted against the sunset sky. The lofty arch in the foreground suggests some kinship to the Gothic arches of medieval Europe, but a relationship has never been traced (see text, page 454).

The central portion of the Ananda is nearly 200 feet square. On all four sides project large vestibules, and these convert the whole ground plan into a perfect Greek cross. Above, six diminishing terraces sustain "the square, bulging, mitrelike pyramid adapted from the temples of India." To crown all is the slender golden spire that reaches to a height of 168 feet above the ground (see pages 444 and 447).

COLOSSAL STATUES DECORATE THE INTERIOR

The building has suffered little from time. Through the centuries diligent guardians have watched over it. To-day

it is dazzlingly white and in its perfect beauty is suggestive of eternal joy and youth.

The interior of the Ananda consists of two concentric galleries surrounding the central block. The walls are cut at intervals into niches in which are sculptured representations of scenes in the life of the Buddha Gautama.

Standing against the central portion and facing each of the entrances are four colossal gilded statues of the four Buddhas—Kaukathan, Gawnagon, Kathaba, and Gautama. From above, through openings in the roof, the light falls upon them, bringing into clear relief their calm and noble features. Before each may be seen a group of worshipers.

Ever and again comes the sound of the Burmese gongs—a strange, lingering, vibrant sweetness, filling all the temple. At night, when the wonderful moonlight of Burma floods all the space without, when the candles cast weird shadows within, the effect is overpowering. To the harassed in body and soul come thoughts of peace and rest.

Near the Ananda is the Gawdawpalin. Of it a strange story is told. Its builder, Narapatisithu Min (1174-1211), is almost as great a hero to the Burmese as Anawrata. He is the great traveler of Burmese history. Possessed of a wonderful raft, he could sail whithersoever he wished, for by merely pointing with his finger he was able to convert land into water.

Among the cities he built were Rangoon, Hanthawaddy, and Bassein, and in time he became so proud of his exploits that one day he boastfully declared, "I am the greatest of all kings who ever sat upon the throne of Pagān." Retribution followed swiftly upon the rash words. In a moment the king was stricken stone blind. When his physicians could not aid him, he confessed to his ministers that he had placed himself in speech above his ancestors. "You have insulted your forefathers," they replied; "therefore you must make images of them and bow down before them to do them homage."

The king speedily ordered that images of Anawrata, Kyansittha, and Alaungsithu be made, and when they were completed he humbly prostrated himself and begged forgiveness for his presumptuous words. In a moment his sight was restored, and to express his gratitude he built the great Gawdawpalin Pagoda (see page 449).

The last of the three great temples, Thatbyinnyu, is in some respects the most remarkable. The ground on which it stands is high and the pinnacle, more than 200 feet above the base, is a conspicuous object for a great distance. The temple is modeled on those in northern India and contains five stories. The third is a massive cubical donjon of 50 feet to the side and contains the usual huge figure of the Buddha (see illustration, page 452). The lower stories were used as residences by monks, while those above served for a library and a storehouse for sacred relics.

As one wanders through the galleries of this vast edifice, he is overwhelmed by its colossal proportions. Windows here and there reveal the enormous thickness and solidity of the walls. There are no frescoes, no carvings, no ornamentation of any sort to relieve the almost brutal severity. All the galleries are crowned with arches of perfect Gothic design.

As one ascends, these arches become more and more pointed, and the impression grows that these temples and the great cathedrals of Europe cannot be entirely without connection. But what connection can there be? All through Pagān are to be seen these arches, and they are one of the mysteries of oriental archeology.

MYSTERY AND INSPIRATION

The three great temples of Pagān one might study for weeks. There is ever more to learn and ever more that delights. They represent, too, three great conceptions; and these are expressed not only in the names they bear but in their design.

Ananda means Endless Bliss, and the marvelous temple which bears the name is in its every line eloquent of abounding joy.

Thatbyinnyu signifies Omniscience, and in the stern majesty and lofty sublimity of the noble structure this great conception is fittingly expressed.

The Gawdawpalin is the Throne Where Pardon Was Begged. Here we have grace and harmony of proportion.

As the swift steamer of modern science bears one away from this scene of vanished glory, solemn and lofty feelings come crowding upon the heart.

Pagān is mystery; it is magic and enchantment; it is more. It is inspiration.

© National Geographic Society Natural-Color Photograph by W. Robert Moore

KAW "SUB DEBS" SHYLY DISPLAY THEIR PET PARRAKEETS

Here is a novel idea for "swagger sticks." The only difficulty is to teach the birds to stay on the perches. These children are attired like their mothers, save that instead of the tribal-badge headdresses (see Color Plate II) they wear close-fitting bonnets. The older, emulating the grown-ups, carries at her waist a basket of cotton to twist into thread when her hands are free. The leggings are for protection against leeches.

© National Geographic Society

KAW WOMEN OF THE SHAN STATES WEAR GAY PLUMAGE

Short skirts and vivid color combinations are not a fad with these people, but traditional wear. The headdresses, composed of tufts of dyed monkey or dog fur, fiber tassels, seeds, buttons, beads and coins, serve as badges of the tribe.

Natural-Color Photographs by W. Robert Moore

LAHU NAS DRESS MORE CONSERVATIVELY

This man and his wife have come to market with produce in back-pack baskets and side-slung carrying bags. The woman's ankle-length skirt, long coat, and breast ornament of beads and large silver disks are in the characteristic tribal mode.

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EVEN THE CHIEF LEAVES FANCY DRESS TO HIS WIFE

Though he carries his *kan*, a unique musical instrument made of gourds, the Lahu Shi leader wears no distinctive attire.

Natural-Color Photographs by W. Robert Moore

SOME OF THE NATIVES HAVE BECOME CHRISTIANS

Italian missionaries are working extensively in the Shan States, and this Kaw man and woman are among their converts.

© National Geographic Society

BUDDHISTS SEEK MERIT BY SHOOTING FIREWORKS

Here a Shan man and two priests are preparing to send up petition-bearing skyrockets equipped with bamboo pipes that will whistle shrilly in flight. They are performing the rite in the rain as part of a four-day New Year celebration.

Natural-Color Photographs by W. Robert Moore

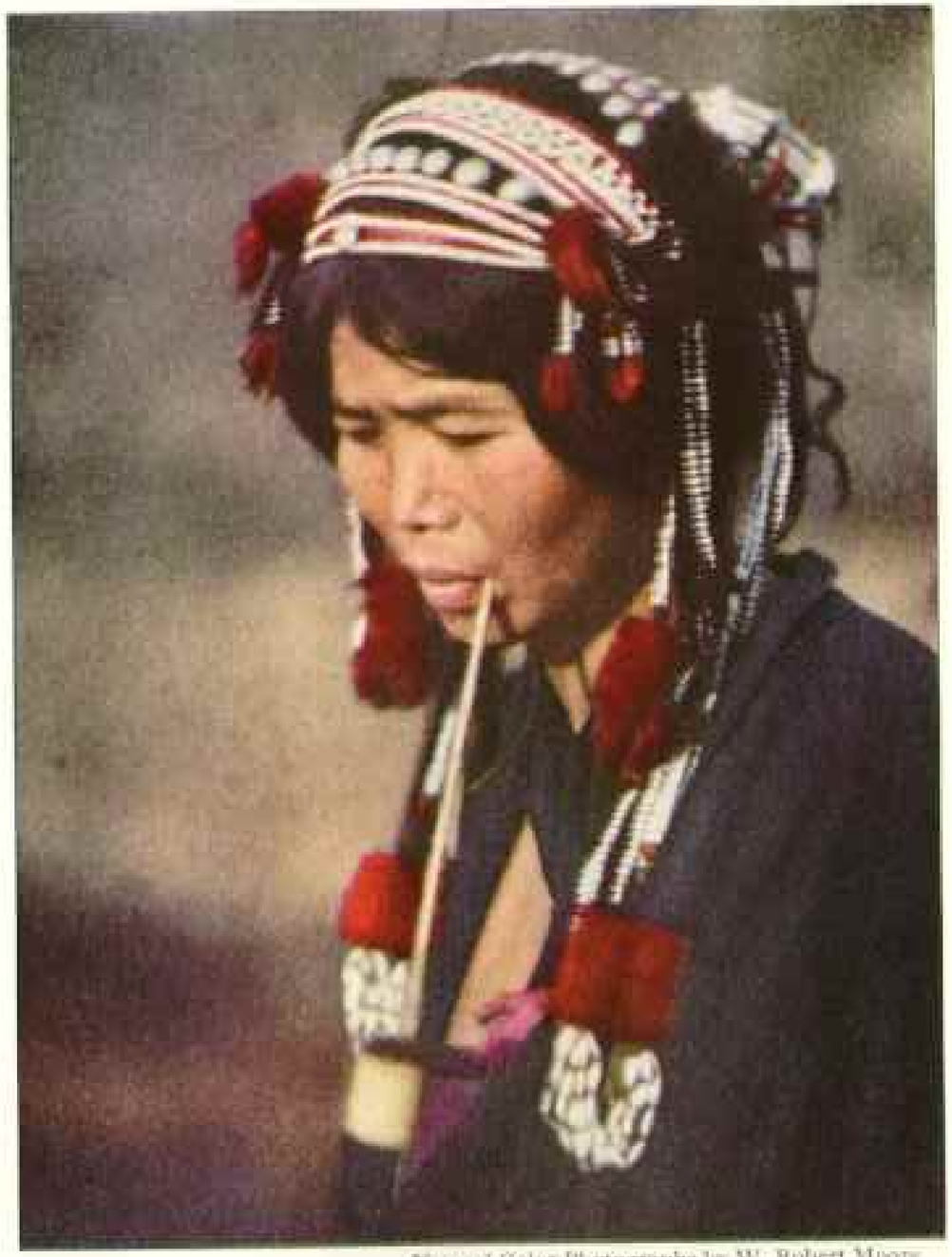
WHEN SHOPPING, THE KHUN WOMAN WEARS TWO HATS

Perched atop the high tribal turban, which is never laid off in public, the huge palm-leaf creation makes an admirable parasol and leaves her hands free for picking over the articles she wishes to select from the market booths.

© National Geographic Society

ON NARROW TRAILS TATTOOED SHANS CARRY THEIR LOADS

He seems undersized but he can tramp for hours with a heavily-laden pack basket over ground too uneven for bullock carts or pony caravans.



Natural-Color Photographs by W. Robert Moore

NO "WHACKIN' WHITE CHEROOT" FOR THE KAW WOMAN

She prefers a bamboo pipe only slightly smaller than the wooden or silver ones used by the men. Her headdress is less elaborate than those shown in Color Plate II.

BUDDHIST NOVICES STROLL ALONG VILLAGE ROADWAYS

Their faith has many temples and attracts a large following in the Shan settlements. Most of the hill people, however, are animists.

© National Geographic Society Natural-Color Photographs by W. Robert Moore

KHUN SUN HATS CAN HARDLY ESCAPE NOTICE

Set at all manner of rakish angles on the massive turbans, they attract attention as surely as the ornate Kaw headdresses. Women of this tribe carry arm baskets instead of the commoner back packs.

SHAN MEN AT REST SIT LIKE POWWOWING AMERICAN INDIANS

Tattooing covers the legs as well as the upper bodies, for there is a superstition that such decoration wards off injury and disease.

© National Geographic Society

Natural-Color Photographs by W. Robert Moore

COSTUMES AT KENG TUNG MARKET IDENTIFY WOMEN OF DIFFERENT TRIBES

The two Wa women, left, are recognizable by their bead belts, striped skirts, short-sleeved jackets, and turbans. Uncovered bobbed hair, long sleeves, and waist bands of rattan hoops distinguish the unmarried Kang girls at the right.

MOST KAW MEN WEAR BLUE TURBANS, BUT THIS VILLAGE CHIEF LIKES MORE COLOR

© National Geographic Society Natural-Color Photographs by W. Robert Moore

KAW MEN OFTEN TOWER HEAD AND SHOULDERS ABOVE THE WOMEN

Compared to the boy and two young matrons of average stature, the crossbowman at the left appears gigantic. However, though very tall, he is not an unusual type among his tribe.

THE LAND OF SAWDUST AND SPANGLES—A WORLD IN MINIATURE

By Francis Beverly Kelley

THOSE of us who still cling to the belief that Noah's Ark best illustrates man's ingenious combination of geography and space economy overlook the fact that right under our noses for the last five decades has moved a complete world in miniature, exhibiting its geographical wonders within the confines of a vacant lot, loading itself upon its own railroad caravan, and building a new home in a new town every day.

The magic rumble of red wagons and the footsteps of circusdom's spangled battalions have echoed down the corridors of many summers; yet few really know the phantom white city, a nomadic world of sawdust and spangles, a geographical marvel and a mystery from beginning to end. In this age of ultrarealism the circus is a last frontier.

There is more actual geography within the narrow borders of Spangleland than in any similar space on the face of the earth. From the shores of the seven seas come its citizens, their faces turned toward the open road where lies the winding trail of the big tops.

Dainty equestriennes from France and handsome Russians from the steppes; pink-cheeked athletes from Great Britain and Scandinavia; flashing brunettes from Italy, Argentina, Mexico, and sunny Spain; blond Germans with iron bodies; suave, charming Austrians; almond-eyed maids from Yokohama, Tokyo, and Nagasaki and from the seething Land of the Dragon; sun-tanned sheiks from the shifting sands of Araby; whip-crackers from Australia and hard-riding cowboys from the Western Plains; clowns, acrobats, aërialists, riders, staff executives and laborers from every State in the Union—all owe allegiance to the transient country of tents.

Here ever "the twain shall meet"

A game of checkers in the circus "back yard" between a genial young Japanese tumbler, heir to half a million dollars, and an old clown who ran away from his home in the Middle West long ago, lured by the spangled Pied Piper and his steel-throated calliope, shows how the big top draws together the ends of the earth.

Such is the population of Spangleland, where people from nearly every country under the sun are fed into the hopper of a highly organized machine to emerge firmly woven into the brilliant mosaic of a fast-moving performance, subscribing without reservation to the one supreme law of the trouper—"The show must go on."

The circus is organized socially, but a trouper's geographical background has nothing to do with his qualification for membership in the circus golf club, baseball team, clown society, women's clubs, or circus chapter of the American Red Cross. Above all else, the population of this nomadic melting pot learns tolerance, and it's what a person is rather than where he came from that counts most.

The circus has its aristocracy

Yet the circus has its aristocracy. There are performers who literally have been "born to the show," cradled in the top tray of a trouper's trunk; lulled to slumber by a discordant symphony of snarling jungle beasts, blaring bands, and rain beating a soft tattoo on circus canvas. With the circus are persons descended from royalty, university graduates, staff members who spend their winters in their own pecan and orange groves, work for newspapers, or return to school-teaching and to retail business establishments when the season ends. The band plays "Auld Lang Syne" at the closing performance and the vast circus company flies apart like a punctured balloon. But the siren call of the big tops is all-powerful and each spring finds them following the trail of the red wagons again.

Circus people receive a geographical education that might well be the envy of every one interested in broadening his mental horizon. The big show covers thousands of miles in a single season, visiting dozens of States and frequently foreign cities. Historical and geographical America is an open book to more than one circus trouper whose actual schooling terminated with the eighth grade.

Photograph by Clifton Adams

ONE OF THE LAST OF THE STREET PAGEANTS

With Indians and cowboys bedecked in the gay trappings of circus paraphernalia, a "Wild West Show" staged a parade through the residential streets of the National Capital in the summer of 1931. It attracted wide attention as a curtailed revival of a formerly familiar sight in the busy thoroughfares of every American city on "circus day" (see illustration, opposite page).

In the performers' back yard, where the private dressing tents and wagons are corralled, can be found men and women of many nationalities who have devoted their lives to learning how to do one thing well.

Circusdom has been a springboard from which men have vaulted to prominence in other fields. Will Rogers was the "Cherokee Kid" with Wirth's Circus in 1904. Al. G. Fields, the minstrel king, started trouping as a Shakespearean clown. Fred Stone wore spangles before the footlights claimed him, and some of his best antics were born back in "Clown Alley" during his circus days. Billie Burke, the stage star, bears the name of her father, a famous clown, and the fondest boyhood recollections of David Belasco concerned his youthful career as a bareback rider in a small circus.

JUNGLE CATS CAN BE TRAINED; BUT TAMED—PERHAPS

Many persons still look upon circus trouping as something akin to robbing a bank, which accounts for the interesting fact that many present-day circus stars had to run away from home to join. Take Mabel Stark, for example. Her relatives virtually disowned her when she laid aside the crisp, white uniform of the trained nurse to expose herself to the mauling of "big striped tomcats," as she affectionately refers to her tigers. But the call of the calliope and the magic of the midway were in her ears and she immigrated to Spangleland, there to become the only woman in the world who breaks, trains, and works tigers. She has more scars on her body than a giraffe has spots, and her exciting career has fed newspaper columns for years (see pages 494, 495, and 515).

Like all up-to-date wild animal trainers, Mabel Stark employs methods of kindness and extreme patience in training her cats; but she knows there's no such thing as a tamed wild animal. You can train them, but you never can be certain that they are tamed. Trainers who have trusted their jungle charges too far have been left behind in a horizontal position while the long show trains thundered away to the next town.

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THE MOTOR AGE HAS DRIVEN THE PARADE OFF TRAFFIC-CONGESTED STREETS

Circusdom's greatest advertisement, the long procession of mysterious, brightly painted wagons, with blaring band, gaily caparisoned riders, and all the panoply of the country that moves by night, is a thing of the past (see text, page 488). The steam calliope (above) brought up the rear in former days.

At this juncture it may be said that the circus has taken sides on a question that has been debated for centuries. The folk of the sawdust ring and the menagerie vote for the tiger rather than the majestic lion as king of beasts—at least so far as strength is concerned.

If the lion has any claim to royal lineage, he probably is king of boasts. While no coward, once engaged in mortal combat, particularly in the protection of his young, Leo finds the odds against him when he gets into an argument with a tiger. The tiger fights with both front feet; the lion fights with but one, using the other for balancing. Occasionally, however, the tiger allows his claws to become tangled in the lion's huge mane and loses the battle.

The Siberian tiger, larger but no more savage than his Bengal or Sumatra brother, boasts a shaggy coat in his native regions, but after he has been a few years in captivity his long fur disappears. In India alone some thousands of natives are killed every year by jungle beasts, and the tiger contributes in a large way to this homicidal record. The fact that tigers are not found in Ceylon has led naturalists to conclude that perhaps his striped highness is not by origin a tropical animal.

Because circus wild animal trainers and keepers virtually live with the big cats, they learn to know their every mood and manner; yet it is improbable that the tiger can be nominated for the king of beasts' title without arousing opposition from a few big-game hunters who have brought down charging lions in Africa. There are no tigers in Africa. Hunters who have stalked both lions and tigers are, for the most part, inclined to agree with the circus folk on this argument about cat supremacy, and they will add that if the leopard were twice as large as he is, there'd be another bid for the jungle crown. The leopard is a spotted Satan, more savage by nature than all others of his kind.

CIRCUS ANIMALS NEED EXTRAORDINARY CARE

The almost unlimited geographical aspects of the circus are nowhere more in

Photograph by H. A. Atwell

CHILDREN MEAN PEANUTS TO JUMBO, WHEREVER HE GOES

Stories circulated about the tenacious memory of elephants have been grossly exaggerated, but it is safe to say they never forget how and from whom to beg titbits. The great animals require specially constructed cars for their transportation. In early days they frequently caused derailments of circus trains.

evidence than in the wild-animal menagerie. To this traveling college of *zoölogy* belong animals from every continent, each a splendid physical specimen, receiving the utmost care from the animal attendants. Zoölogical experts from leading universities never cease to marvel at the exceptionally fine condition of the circus animals, despite the fact that they are moved from city to city almost every day. Variation in climate in different sections of the country presents a serious problem for circus animal attendants, who often pass hours in a cage with a sick jungle charge, so fond are they of their animals. Seldom does a beast die while the circus is on the road.

Under a single spread of canvas are gathered hundreds of animals and birds—tigers from Bengal, Sumatra, and Siberia; lions and leopards from Africa's tangled jungles; tall, silent giraffes from the open stretches of Ethiopia; nilgai, black buck, aoudad, tapir, and gemsbok antelope. In the same circus colony are Russian brown bears, huge black fellows from Alaska, and polar bears from Greenland's icy slopes. The polar bear suffers less from the extreme heat than do the cat animals.

To the experienced keeper of animals, each beast differs from the others in facial expression—that is, all except polar bears. They all have "poker" faces, looking so much alike that a trainer once painted spots of different colors on his bears to enable him to tell them apart during the early stages of training. Later, the individual habits of each animal made it possible to distinguish one from the other with comparative ease.

THE MENAGERIE REGISTER READS LIKE A WORLD GAZETTEER

But the circus animal population does not end here. There are hippopotamuses from north of the Transvaal; orangutans from Borneo; tiny rhesus monkeys with pathetic faces, affectionate dispositions, and delicate lungs; llamas from the mountains of Peru; pumas from North and South America; macaws from Mexico;

sea-lions from California; a sea-elephant from the Antarctic wastes; wise, friendly elephants and a curious armored rhinoceros from India; the more familiar rhino from Africa, together with hyenas, dromedaries, zebras, and water buffaloes. Australia contributes the kangaroo.

The rhinoceros, despite his perpetual grouch and his amazing ugliness, is one of the most valuable beasts in the circus, costing about $10,000 by the time he has been purchased from an exporter and raised to maturity. While the more impressive rhino hails from India, a dwindling species, the African, is a formidable fellow of steamroller disposition. Rhinoceros, elephant, or water buffalo can whip a tiger or at least discourage him in most instances. In contrast to the evil-tempered pachyderm, with the deadly horn and the tiny, piglike eyes, is the good-natured hippopotamus, as genial as he is fat.

Photograph by Orrin R. Loosley

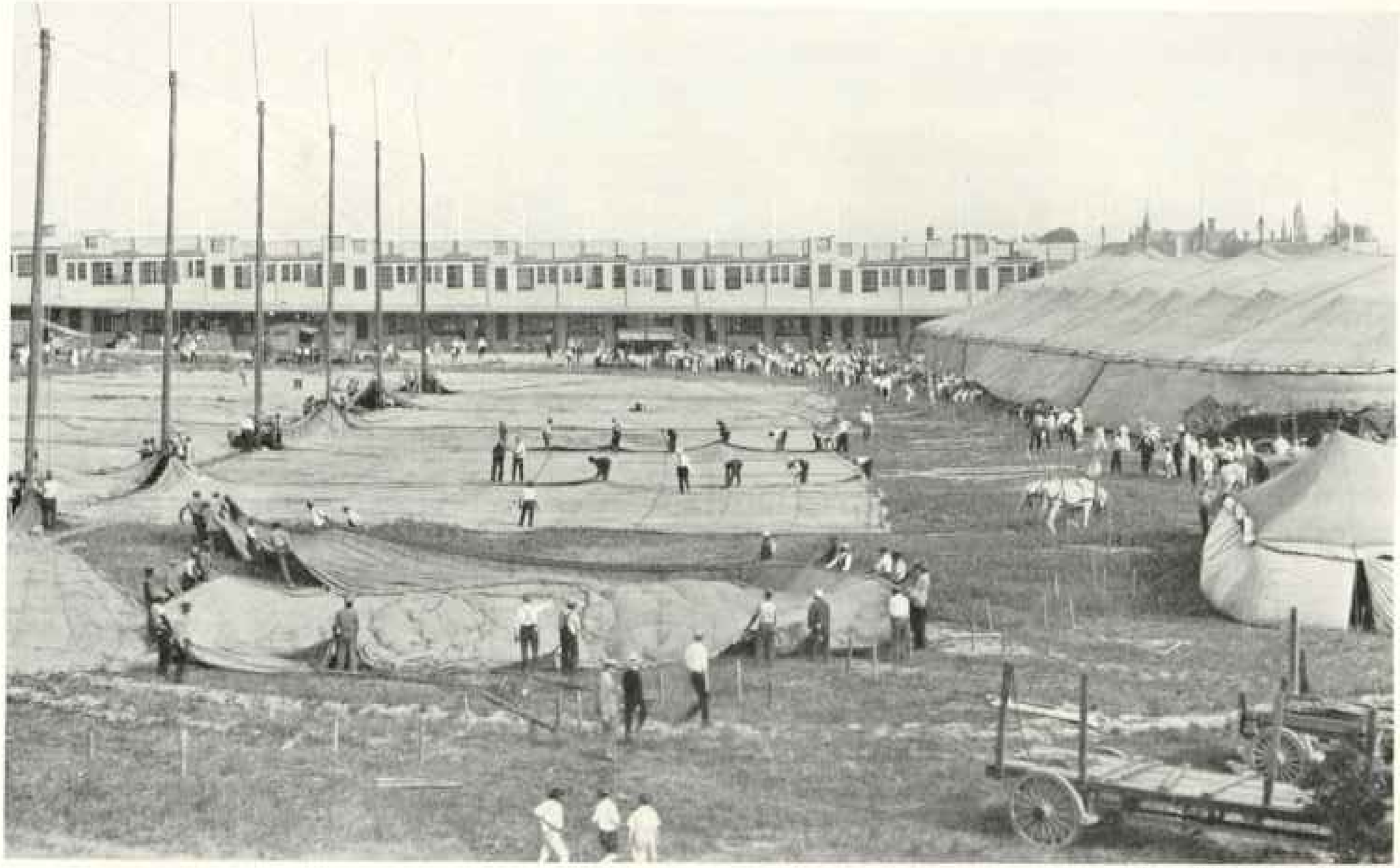
A VACANT LOT BECOMES FAIRYLAND

The boy who has not crept out of bed in the gray before dawn to see the circus come in has missed one of the precious thrills of childhood. These youngsters are experiencing the supreme joy of watching the "big top" go up (see illustrations, pages 468, 469, and 470).

Circusdom procures some of its camels from Arabia; others are born in captivity. A number of the Ringling-Barnum herd are World War veterans, having served with the British in Palestine, where they were branded with the still visible "Service of Supply" mark. Africa contributes her "sassiest" circus subject in the zebra, who thinks with his hind legs and learns the simplest tricks with extreme reluctance. The animal keepers call the zebras "convicts," and a question yet to be settled is whether a zebra is white with black stripes or black with white stripes.

Circus elephants, almost without exception, come from India. Their African cousins, though larger, are much harder to handle and have proved pretty generally useless in circuses except for display purposes. Jumbo was an African and he was stubborn, like the rest of his four-footed countrymen. One night years ago, in St. Thomas, Ontario, Jumbo got into an argument with a freight train on the wrong track, with the result that his funeral was held the following morning.

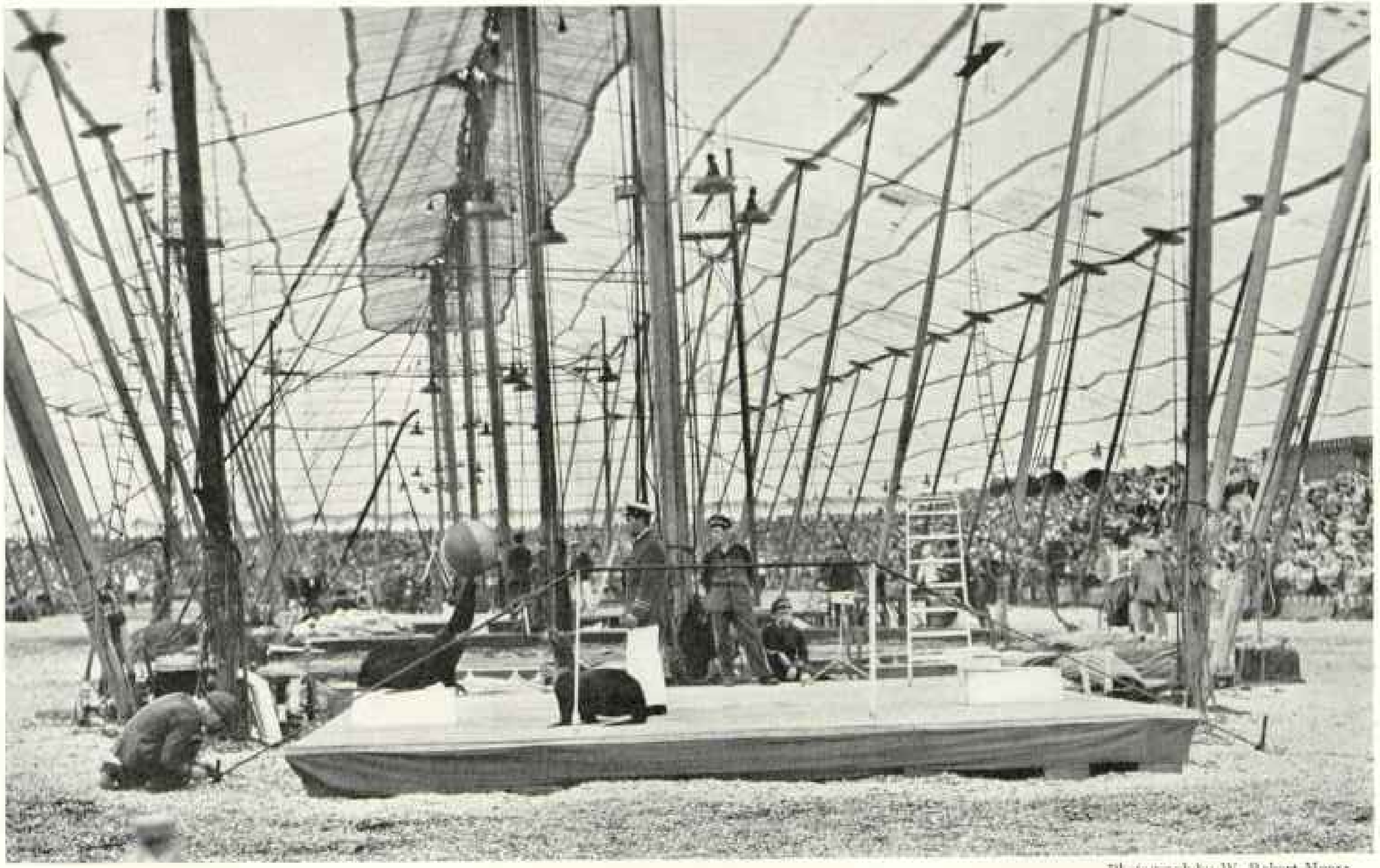
Indian elephants are natural actors and enjoy doing tricks in the big show. They are quick to learn, once they realize what



Photograph by Orren R. Louden

LAID IN PLACE, THE MAIN CANVAS WAITS FOR ELEPHANTS TO HOIST IT BY PULLEYS TO THE PEAKS OF THE POLES

If the vagabond of auditoriums had a voice, it might say, "Warm summer sunshine bathes me; cold, driving rains descend to drench me and to triple my great weight. Gray morning sees me unpacked, laced together like a giant's shirt and hoisted on tall spars and guyed to earth. At dusk, I am an anchored dirigible, shadowy, with soft light leaking through. Midnight sees my titan ribs removed and finds me billowing to earth. And there I lie like some great mushroom, waiting to be loaded into circus wagons rumbling on an endless cycle from show ground to trains and back again. I am the Big Top."



Photograph by W. Robert Moore

WONDER WAKES UNDER THE BIG TOP

"I am a canvas skyscraper within whose confines troops a world in miniature. I am a temple of eternal joy, where men who cannot read or write rub elbows with kings and behold art. Here, within the borders of a vacant lot, live people from strange lands who speak in foreign tongues, but who know one first loyalty, and that to Spangleland. Beneath me gods of mirth and laughter brew a draught to dispel sorrow. And sometimes death flies side by side with those who thrill the crowd. I am the Big Top."

Photograph by Fairchild Aërial Surveys, Inc.

MAGIC BEFORE DAWN CONVERTS A PROSAIC VACANT LOT INTO WONDERLAND

On the right of the midway, in the foreground, the side show displays its banners; on the left the main entrance leads into the menagerie, vestibule of the big top beyond. Behind the main canvas are the dressing room (right), the huge dining tent, kitchen and supply tents (left), and the three stables for ring and work horses in the distance.

is expected of them, and their ears are tuned to applause like those of a born trouper. Most of them are surprisingly good-natured, and they are so anxious about a firm footing that in most cases they will not voluntarily step on a man.

Each of the rubber-colored giants has a mass of muscles in his trunk. Cuvier, the great French naturalist, tried to count them. After counting 20,000 he quit; he was not half through! The fingerlike end of the trunk is so clever that many pachyderms can even untie knots with it. The cautious gray mountains sleep with this "finger" shut to prevent insects and rodents from getting into the trunk.

Elephants in a herd never all lie down to sleep at one time. They seem to have retained a jungle instinct that tells them to leave a few sentries standing guard to spread the alarm in case of attack from some unforeseen source. Like people, they fear what they do not understand, and the keepers ever are on the lookout to prevent anything from frightening the herd. Sometimes the big creatures are led into the open during severe storms, because the canvas, flapping phantomlike in the wind, seems to have dire significance for an elephant.

It is not true that they never forget, although elephants do have good memories;

Photograph by Acme

WHO CAN BLAME THE URCHINS FOR "SIDE-WALLING"?

Probably, while the guard is catching this group, others are sneaking into the circus just around the turn of the big top, and as soon as his back is turned his present captives will try again.

also, they do not live to a phenomenal age. The elephant's span of years is about that of a man. Some of them live to exceed the century mark.

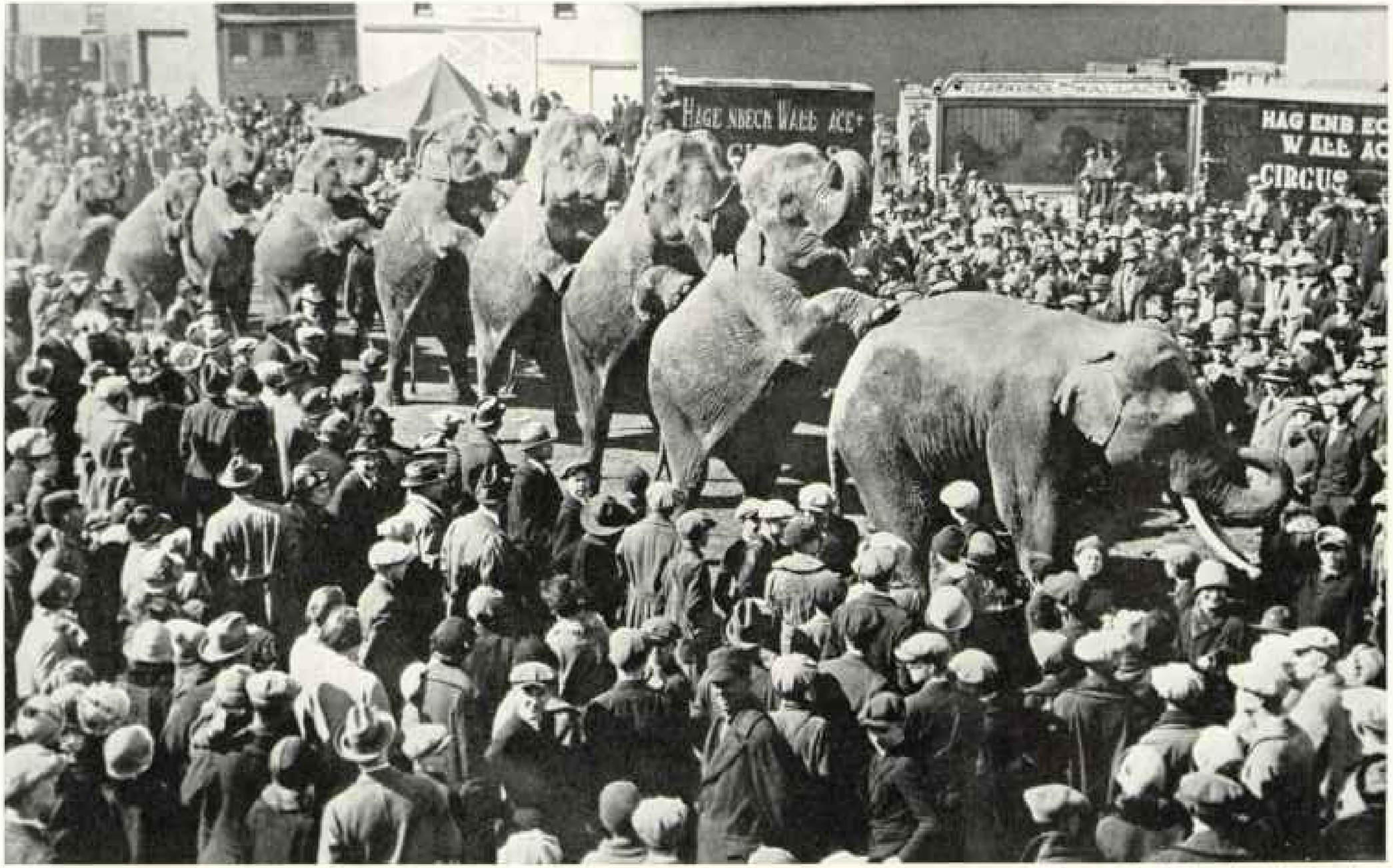
For the most part, elephants are not born in captivity. Only a few have been born in this country within the last hundred years. They are brought direct from their native India or from the Hagenbeck Zoölogical farms in Germany, where jungle-born elephants are acclimated and schooled in initial circus requirements. There is an impression abroad that the females carry their young for several years. The period of gestation is 19 to 21 months.

Giraffes are captured by means of a lasso, and often an African-born giraffe will be seen to have about two inches of hair missing from his stubby mane—evidence that the lasso was instrumental in his capture. Giraffes breed in captivity, but all of them are extremely delicate. They are worth ten to twelve thousand dollars each.

The big circus cats, unless born on the show, are captured in the jungle regions with traps and pits covered with jungle foliage and baited with young goats. A new method of capturing wild beasts alive involves shooting them with a gas bullet that puts the animal to sleep without pain. When the creature wakes up he finds himself a prisoner. These recently perfected gas bullets are said to be capable of bringing down a lion or a tiger at a distance of 200 feet.

But circus animals from the four corners of the earth are imported for a far more interesting purpose than mere exhibition. Many of them are educated. In the circus "classrooms" the natural enemies of the jungles are taught to tolerate one another. One youthful wild-animal trainer presents a mixed group of 32 lions, tigers, leopards, and pumas in a steel arena at one time. Trainers usually prefer to work with jungle-bred cats. Circus "kittens" often are petted and spoiled for future training, and not infrequently become more ferocious than jungle-bred animals.

Wild animals have a distinct advantage in the circus performing arenas, because the trainers are not concerned with killing or injuring them. Their revolvers contain



Photograph by Underwood and Underwood

ELEPHANTS JOIN IN THE CIRCUS DANCE OF SPRING

In May each year, when the transient worlds of sawdust and spangles leave winter quarters for the road, even the animals feel the thrill of action. New or refurbished equipment gleams resplendently and it is good to be alive.

Photograph by H. A. Atwell

EQUINE ROYALTY RECEIVES EXPERT CARE IN THE STABLE TENTS

The ring stock, or performing horses, are kept in this unit of the canvas city (see page 470). Work animals have equally comfortable quarters.

Photograph by Underwood and Underwood

RIDING A WALTZING HORSE REQUIRES SKILL AND COURAGE

A slip would mean injury, as the dancing beauty gyrates. So graceful is this performance that spectators do not sense its difficulty. Each step appears to be taken in time to the music, but actually the band sets its rhythm to the series of movements taught the equine actor by trainers (see, also, Color Plate XIV).

only blanks, to drive off a murder-bent cat, not to harm it. If the beasts become addicted to the playful little practice of killing the men and women who attempt to train them, they are relegated to exhibition dens or sent to foolproof zoölogical-garden pens. Many trainers contend that the big cats seldom attack except from fright or confusion, and they hold themselves responsible for accidents.

TRAINERS AVOID CRUEL METHODS

In giving lions and tigers their initial instructions in the fascinating school of the steel arena, trainers often enter the den armed only with a small whip and an ordinary kitchen chair. This is in marked contrast to the methods of another generation, when wild animals frequently were beaten into submission. To the Germans goes a large share of the credit for inaugurating the modern, humane methods of wild-animal breaking and training. To-day the beasts are taught to understand rather than to fear their trainers.

Often the noisiest lions and tigers, like barking dogs, are the least dangerous, while death lurks in the soft, padded feet and the saberlike teeth of a sullen, quiet, apparently harmless cat. The animals never are doped to render them stupid, and trainers do not hypnotize their tawny charges by staring them in the eyes. Still, countless thousands believe otherwise; all of which goes to prove that the real facts about the circus remain shrouded in mystery.

Not long ago I had occasion to show "the other side of the circus" to an eminent Hoosier author. Meredith Nicholson inspected the circus "back yard" and chatted with the "Joeys" in "Clown Alley." He stretched out in a comfortable canvas chair beneath the gay-striped awning of a star performer's private dressing top and talked with troupers who had been living in the canvas country for years and years. Many of them had read his books; dozens were natives of his own Indiana—cradle and winter camping ground of three large cir-

cuses: Sells-Floto, John Robinson's, and Hagenbeck-Wallace, for years operated by Edward Ballard.

He visited the spotless cook and dining tent, where 5,000 meals are served each day. He wandered through the big circus menagerie, talking to skilled attendants about their beasts. They told him that the lion in his native haunts is a ventriloquist, roaring with his shaggy head to the ground, so that his prey cannot tell from which direction the sound is coming. They explained that polar bears have hair on the *bottoms* of their feet, a nonskid protection for the icy Arctic.

He learned that elephants do a great deal of perspiring between the toes of their huge feet, and that they like to have their nails manicured. The keepers explained that zebras at birth have legs almost as long as they will ever be, and that giraffes have no vocal cords and therefore make no sound.

Photograph by Underwood and Underwood

MR. HIPPO HOLDS THE BROAD-GRIN RECORD

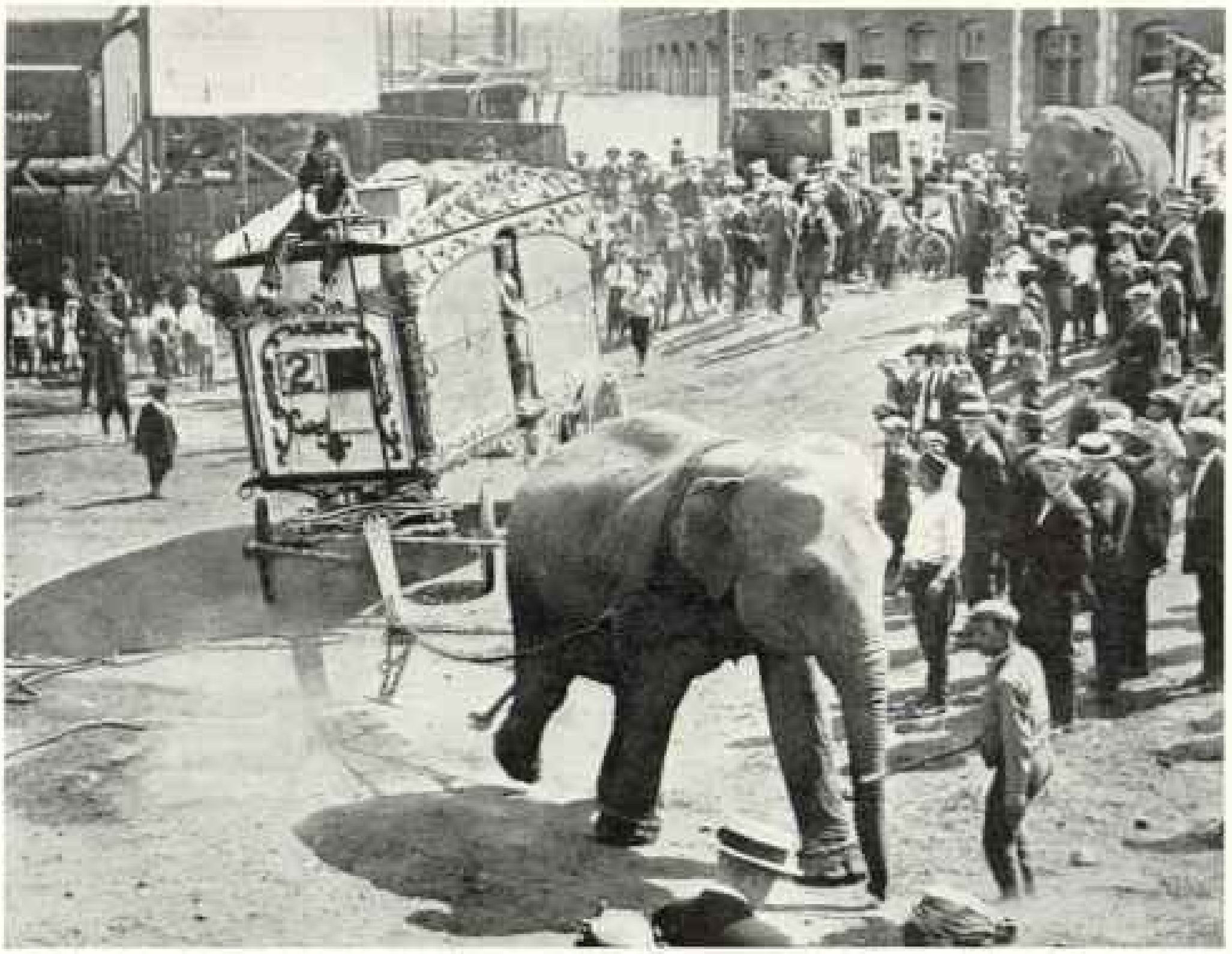
Though his opened mouth looks formidable, he is one of the best-natured animals in the menagerie. He is no meat eater, but devours enormous quantities of aquatic plants and grass.

Mr. Nicholson made friends with an aged elephant whose circus career dates from the time when Jenny Lind rode in Barnum's carriage to her first American triumph in Battery Park. We passed half an hour in the marquee through which 2,000,000 people pour annually. Then we saw the performance, kaleidoscopic panorama of glittering pageantry, whirling acrobats, dancing wire artists, somersaulting bareback Apollos, clowns, educated beasts, Roman chariot races—thrills upon thrills.

Late at night we stood on a street corner near the lot. The big top had been a fat, translucent cucumber. Now the lights were out, side wall and quarter poles removed. High and clear came the stentorian voice of the boss canvasman, "Let 'er go!"

Silently 11 tons of canvas billowed to earth like an expiring gray ghost. The staccato clatter of a hundred hoofs and the deep rumble of heavy wagons were in the air, as sturdy teams and sleepy drivers followed the flaming beacons placed on street corners to guide them to the railroad runs. More horses and wagons than the Hoosier capital had seen in thirty years—an ambassador from the dim, romantic past.

Then the famous writer turned to me and said in a voice almost reverent, "You



Photograph by Wide World

ELEPHANTS EARN THEIR KEEP BEFORE AND AFTER THE PERFORMANCE

Hauling the heavy cages from the train to the circus lot is only one of the duties entrusted to them. They pull the ropes that raise the big top, lift bogged wagons out of the mire, and generally make themselves useful.

know, I think the circus is the only really mysterious thing left in civilization."

Much of the mystery of circusdom lies in the moving of this miniature cosmos, with its citizenry of animals and people from every clime, and in the pitching of the tents that compose the canvas city. The largest circus carries its own doctor, lawyers, detectives, barber shop, blacksmith shop, fire department, chefs, business experts, and postal service, and it travels on 100 railroad cars in four sections. There are long, steel flat cars for the wagons and other vehicles; huge box cars for the hundreds of horses, elephants, camels, llamas, zebras; commodious sleeping cars for the performers, staff, and laborers.

That the moving of the show may be expedited, cook and dining equipment is packed up at 5:30 in the afternoon, and is sent ahead aboard the Flying Squadron, along with the wild animal cages and the menagerie tent, which is loaded immediately after the start of the night performance.

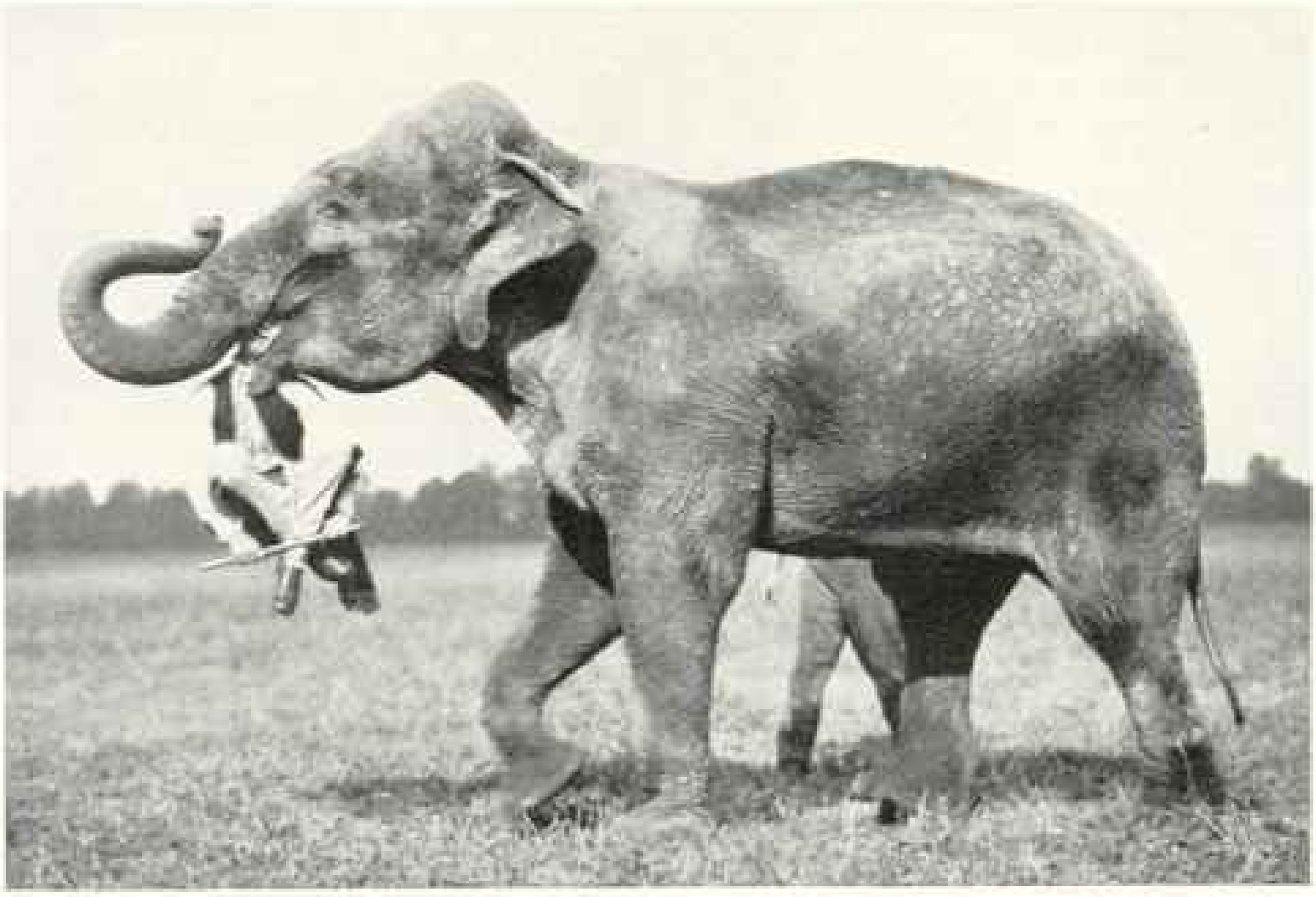
The land of the white top remains static for just about six hours—between the time the last wagon moves upon the lot, in the late morning, until loading begins again, in the late afternoon. But if there is a late arrival, the time between unloading and packing up again is shorter still. Of course, when the circus arrives on Sunday or when it remains in a city for more than one day, as it does in a few very large cities, this schedule is not followed. The longest run made by a circus in 1931 was the Ringling-Barnum jump from Springfield, Massachusetts, to Montreal, Canada, a Sunday trip of 335 miles. The shortest run was 12 miles, from Philadelphia to West Philadelphia.

It is a common belief among the uninformed that circuses sometimes divide, exhibiting in more than one place at the

Photograph by Richard H. Stewart

IN THE DINING TENT OF THE LARGEST CIRCUS 5,000 MEALS ARE SERVED DAILY

Representatives of the commissary departments of many armies have studied the circus mess system (see text, page 494). The food is excellent and well cooked.



Photograph by Linta Brothers

THE TRAINER RISKS HIS LIFE EVERY TIME HE PERFORMS THIS TRICK

If Jumbo became frightened, the powerful jaws might close. The animal first learns to hold thus gingerly a ball the size of a human skull. Then gradually enough weight is added to duplicate that of a man. Finally the performer substitutes his head for the dummy.

same time; but there is no record of a real circus ever having done this. When one considers that a circus would be obliged to carry two of everything—at least in the way of equipment—if it were to be divided, the thing is ridiculous to contemplate. Possibly this fallacious impression exists because all big railroad shows, with the exception of Ringling Brothers and Barnum & Bailey, travel on a single train of from 25 to 35 cars. The public is reluctant to believe that a really big circus can be loaded on two dozen cars. "They didn't bring the whole show!" is the cry frequently heard, as the magic caravan thunders out of the cool, gray mists into the railroad yards at dawn.

THE CIRCUS IS ALMOST AS OLD AS THE UNITED STATES

Circus exhibition in the United States had its beginning in 1785 and President Washington attended Ricketts Circus in Philadelphia in 1793. The circus of those early days was a puny ancestor of the present-day show. Indeed, it had no elephant! The first pachyderm to set foot in the United States arrived several years later, aboard a sailing vessel called *America*. The crew included the father of Nathaniel Hawthorne, and he wrote of the incident in his seaman's diary, saying that the beast had been purchased in Bengal by Captain Crowninshield and first touched American soil at Salem in 1796. The animal was fond of spirits and could remove corks from bottles with the "finger" end of its trunk.

Circuses were not presented under canvas until 1826, and the combination of performance and wild animal menagerie did not enter the picture until 1851. In its cradle days, the circus was presented in a crude ring, fashioned on village green, if possible, and included tumbling, riding, and ancient clown antics. Spectators often brought their own beacons to the night show, and everyone sat on the ground or stood up as close to the ring as possible. Canvas inclosure or side wall served to hide the circus from those who had not paid admission.

In the spring of 1856 Spaulding and Rogers claimed to be the first company to place on the railroads their own cars, which were switched off at the different places of performance. However, rapid development of the circus as a complete traveling community with geographical significance really dates from about 1872, when W. C. Coup ordered special railroad cars to transport the old Barnum show. With the placing of this circus on rails, Spangleland went ahead by leaps and bounds and soon became a veritable world within a world, traveling on definite schedule and covering large sections of the country in the course of a single season.

Most of this progress, however, was limited to North America. Even to-day nearly all European circuses and those of other continents present their programs in a single ring and travel overland, clinging to the traditions of another generation. While the circus in this country always has recruited much of its fine talent from Asiatic and European soil, the energy that nursed it to its present proportions came largely from this side of the Atlantic.

When the Ringling Brothers put out their first real circus from Baraboo, Wisconsin, they owned 11 wagons, 20 horses, and a wild animal menagerie consisting of one lonesome hyena. That was in 1884. To-day the wildest fantasy of the Arabian Nights has no miracle to compare with this canvas country that steals into town at the crack of dawn, erects a city of tents, including a big top large enough to accommodate 15,000 spectators at one time, displays its wares to hordes of wide-eyed children and parents (many of them using the youngsters as an excuse to attend); then, while the city sleeps, folds its tents and vanishes into the night, because to-morrow always is another circus day, and the show goes on.

Even aside from its nomadic character, the circus is a geographical marvel. It has agencies in Berlin, Hamburg, Paris, London, Melbourne, Constantinople, Peiping, and Johannesburg. It has trapping and hunting expeditions that travel out of four cities in Africa and from three remote points in South America. Its agents sail the seven seas in search of new animals and strange people to augment an institution already so colossal that nobody can see all of it in half a dozen visits.

THE SIDE SHOW IS A SEPARATE KINGDOM

Spangleland scarcely could lay claim to being a complete world in miniature were it not for the fact that within its boundaries can be seen the freak as well as the normal

© National Geographic Society Natural Color Photograph by Richard H. Stewart

THE HEIGHT OF BUFFOONERY OVERTOPS THE SIDE POLES

Stilts, once used by armies in the Low Countries for marching across flooded areas, have become an important adjunct of modern clowning. The taller of these lanky fun makers must stoop when he passes through the performers' entrance to the "big top" behind him.

© National Geographic Society

National Color Photograph by W. Robert Moore

WHO ENTERS HERE LEAVES AGE AND CARE BEHIND

Overnight a vacant lot has become a mysterious country for children young and old. Along this midway, between the world congress of freaks and the ticket and concession wagons, 2,000,000 persons annually pass. The huge menagerie tent, modern Noah's ark, is little more than half as large as the "big top" outside the picture at the left. The main canvas weighs 11 tons dry, three times as much wet. There are 30 separate units in the white city; and all the cloth is new each year, that left from the preceding season being carried for emergency use only.

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Natural Color Photographs by W. Robert Moore

CIRCUS FOLK FROM LOWLIEST TO HIGHEST TAKE PART IN THE GRAND ENTRY

The barbaric-looking warriors in the howdah are canvasmen relieved from toil for a few minutes at the beginning of each performance to revel in splendor such as chiefs of their ancestral African tribes may have known. The girl riding as an oriental princess on the camel is a star of the high trapeze and the Roman rings. A world-famous aërialist, master of the triple somersault, stands at the left. The elephants' toenails are filed and polished once a week and whitewashed daily.

FINERY FROM MANY LANDS BRIGHTENS THE PAGEANT

Most circus girls appear in numerous different costumes at each performance. This group, from several countries, includes acrobats, Wild-West and bareback riders, and aërialists.

© National Geographic Society Natural Color Photographs by Richard H. Stewart

PANTOMIME IS THE UNIVERSAL LANGUAGE OF HUMOR

Clowns must tell their jokes by pantomime, for their voices cannot be heard throughout the huge tent. At the center are the originators of burlesque boxing. A member of a famous circus family referees. The female impersonator provokes laughter by tumbling from high-piled tables.

Natural Color Photograph by Richard H. Stewart

OFFSTAGE, AS IN THE TENT, FELIX DELIGHTS CHILDREN

He is telling them about his pet pig, Pork Chops, which follows him all around the hippodrome track and drinks from a bottle like a baby.

© National Geographic Society

Natural Color Photograph by W. Robert Moore

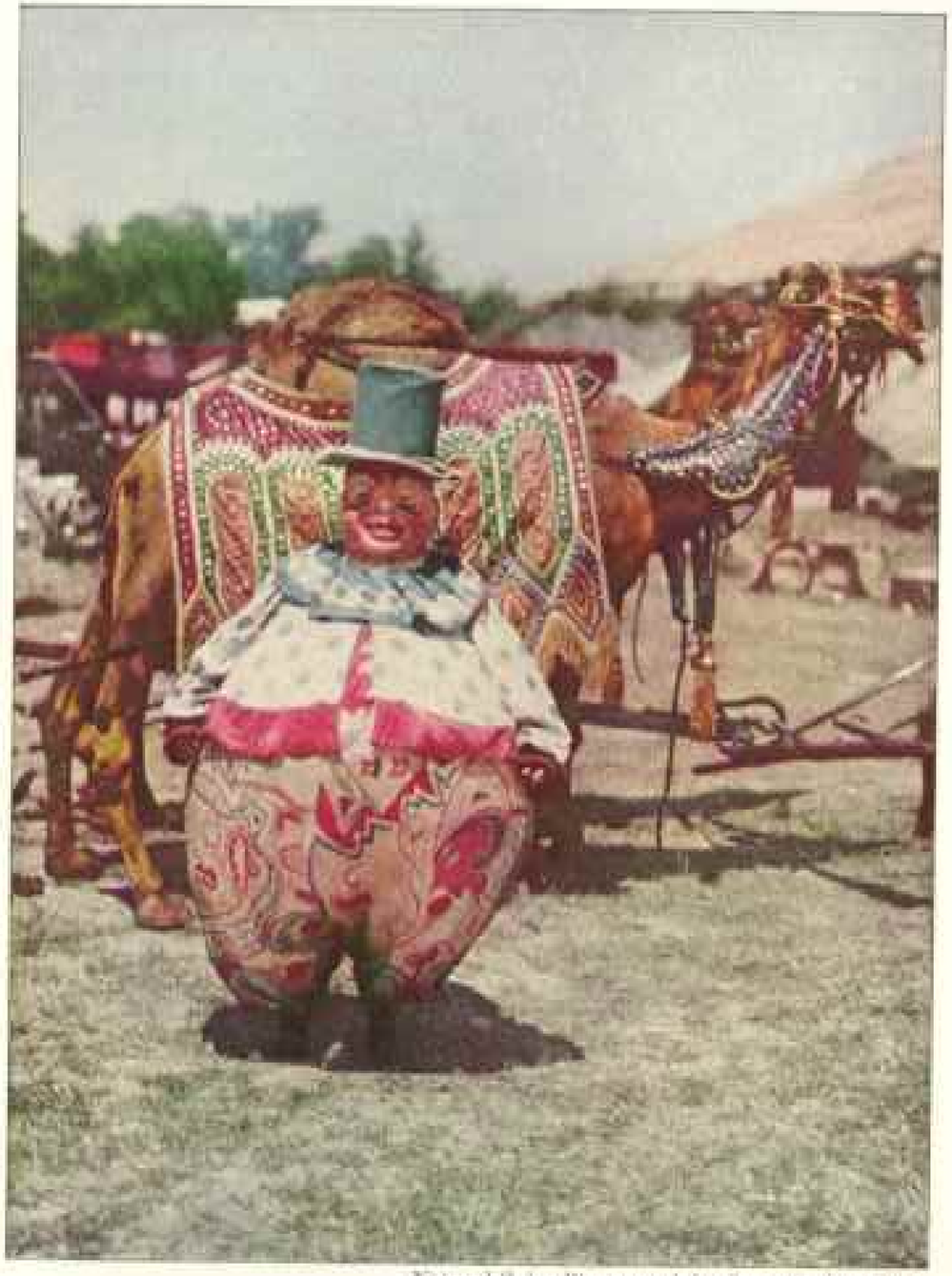
THE CIRCUS GLITTERS IN THE GRAND ENTRY PROCESSION

These mounted Scotch drummers lead the march. From the costumes of women in the pageant sparkle nearly 100,000 rhinestones. The spectacle, lasting 10 minutes, represents an outlay of $50,000. All costumes are made in the winter shops at Sarasota, Florida.

© National Geographic Society Natural Color Photograph by Richard H. Stewart

ARE SUCH THINGS REALLY TRUE?

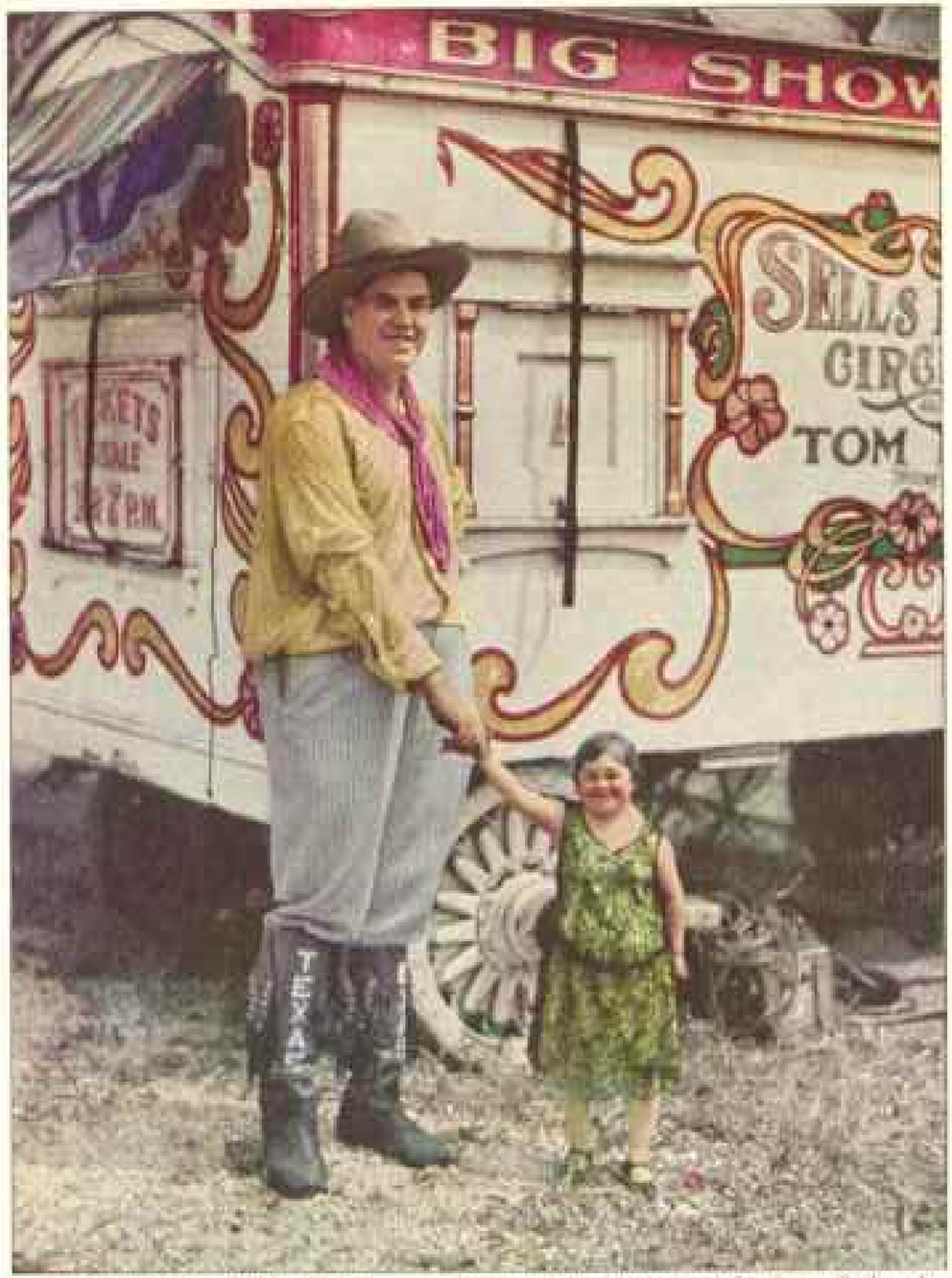
Side-show wonders exert a strange fascination on children, who line the midway before each performance to gaze at the glaring posters. Perhaps for this reason this part of the circus has been nicknamed the "kid show."



Natural Color Photograph by Otto R. Lindeb

DROMEDARIES SCORN FRIVOLITY

Not a glance does the fat clown draw from these surly chariot pullers. Whether one- or two-humped, members of the camel family have double-barreled tempers, swivel joints permitting kicking in any direction, and no sense of humor.



© National Geographic Society Natural Color Photograph by Otto R. Louden

Natural Color Photograph by Richard H. Stewart

CIRCUS LIFE BRINGS TOGETHER AN ODD ASSORTMENT OF PEOPLE

Towering giant and doll-like midget, dainty equestrienne and grotesque clown may come from opposite ends of the earth. Offstage they fraternize like a happy family. Many of them have friends outside the show, but those who marry usually find mates among their fellow performers.

Natural Color Photograph by W. Robert Moore

MOTORS MAY REPLACE THE HORSE EVERYWHERE SAVE IN THE CIRCUS

The four-footed trouper is as essential in the land of sawdust as the pretty equestrienne who works with him. He goes through his paces heedless of distractions and seemingly with an ear as keenly attuned to applause as that of his rider.

© National Geographic Society

Natural Color Photograph by Richard H. Stewart

MAJESTY GOES INTO THE PARADE LED BY BUFFOONERY

Even these ridiculous grooms cannot destroy the age-old dignity of the stately dromedaries, and the girl riders laugh at the contrast. No two clowns look exactly alike. Once a man "makes up" in a peculiar manner, he has a moral copyright on that type of appearance.

handiwork of Nature. The side show is a separate and distinct kingdom. There, people so tiny that they appear to have stepped from the pages of a fairy tale, giants, bearded ladies, wild men, armless wonders, sword-swallowers, human skeletons, and women who give a brand-new significance to the word "fat" live harmoniously behind the blatant banners that scream their wonders along the brilliant midway. Probably more human-interest stories lurk in the lives of the "strrrange peepul" than anywhere else in the circus. Here fire-eaters from India, midgets from Germany, Punch and Judy experts from the British Isles, bushmen from Africa, a giant from southwestern United States, and a three-legged man from Italy enjoy life together within the little kingdom as fantastic as a miracle from Aladdin's magic lamp.

Perhaps you have seen the midget motion-picture star who played with the late Lon Chaney. He is one of eight children in a German family, and four of the children are midgets. The other four are men and women of normal height, and the parents, too, are normal in stature. Midgets differ from dwarfs in that they are perfectly formed. The smallest man on exhibition anywhere is Major Mite, and he does credit to his stage name. His height is less than 30 inches and he weighs about 25 pounds. He has a brother who is six feet tall, and his parents were normal in height.

Major Mite's particular pal beneath the side-show top is "Sky-High," a giant lad from El Paso, Texas (see Plate XIV). This human skyscraper was going to junior college when the circus discovered him and induced him to travel with it. His height exceeds eight feet and he is inches taller than was Chang, the Chinese titan whom Barnum employed for his museum years ago.

Most circus side-show freaks prove the doctrine of heterogenesis, for they not only are born from apparently normal families, but themselves often marry and boast normal offspring.

Genuine freaks occupy the platforms of most big circus side shows to-day, but in certain sections of the country a showman can *just try* to convince his customers that his freaks are genuine. The circus was playing a town in the corn belt. A spectator dragged a small boy past a side-show attraction that intrigued the lad.

"Come on, son; it's all a fake!" the man said.

The attraction that had captured the boy's attention was Cliko, genuine African savage from the Kalihari Desert. His statue is in the Museum of Natural History, New York City, and that institution has stamped him as being more than one hundred years old.

DICKENS NAMED THE "WHAT IS IT?"

When shrewd showmen have a queer-looking specimen of humanity that represents nothing in particular, they simply hang a weird name on him and let him excite curiosity. Such a freak was "Old Zip," who was advertised as "What Is It?" He was a pin-headed Negro who trouped continuously from 1865 until 1926, when he died in a New York hospital at the age of 81. Charles Dickens unconsciously nicknamed the freak while visiting Barnum's Museum in 1867. The Englishman of letters took one long look at Old Zip, turned to Barnum, and asked, "What is it?" And Barnum, even at that early date an alert showman, answered, "That's what it is!"

There is a saying that time changes all things except circuses, meaning, of course, the performance. Most showmen gladly will subscribe to this accusation—if it is one. Circuses have been enlarged and improved, but the general routine of the show remains for the most part unaltered. Even the human cannon ball that recently captured the imagination of the show-going public had a counterpart in Madam Zazel, a performer who was propelled from the mouth of a cannon as a circus drawing card 50 years ago. The bold lady of the eighties did not fly quite the distance negotiated by the twentieth-century projectile, nor did she match his speed, but the idea was there.

Why change a circus program anyhow? No small portion of the circus appeal can be accredited to the fact that the trend of the times leaves but a faint impression upon the land of the big tents. The circus is the most democratic of amusements and its appeal knows no climatic or geographical limits. One great circus crossed the ocean several years ago, and the same performance that had thrilled the populace of Boston, Kokomo, and New Orleans excited the citizens of European countries. The

Photograph by Oreen R. Louden

CLOWNS CATER TO THE POPULAR FANCY

Circus funny men are quick to sense the trend of public interest and produce take-offs of current attractions. The proprietors of this freak car forgot to cut off their engine when they alighted after their ride around the hippodrome, and the taxi chased the National Geographic staff photographer with his camera into a wagon.

Kaiser copied circus methods of feeding and loading, applying them to his army; consequently Americans who went to war in 1917 fought an organization fashioned in some ways after one of their own institutions. Officials of the United States military departments, too, have visited the big circuses in recent years and put some of the showmen's methods into practical use for the Army.

DEMOCRACY FLOWERS AT THE CIRCUS

During the Madison Square Garden opening of the Ringling-Barnum show each spring, dress suits and evening gowns of New York's élite rub shoulders with the clothing of people who cannot read or write. Even a totally deaf person can enjoy a circus performance. Human beings who walked the earth when Daniel was in the lions' den might sit side by side with 1931 intelligentsia, and all would enjoy the spectacle equally.

Of course, certain conditions in the outside world have altered circusdom's practice of clinging to tried and tested policies. Crowded traffic conditions ran the parade off the streets of the big cities, until to-day no circus of any consequence gives a street procession as a part of its daily routine. But while automobiles have eliminated the greatest single ballyhoo the circus ever had, they have at the same time greatly increased the size of the territory from which the show can attract patrons. In many parts of the country, farmers and residents of small towns think nothing of driving a hundred miles to see a big circus.

At least a dozen small shows and one rather large one in the United States have taken advantage of good roads and now transport their equipment, wild-animal menagerie, and personnel on trucks. The cost of operating a "mud show," as the motorized organizations are dubbed, is much less than the expense incurred by a railroad circus of equal size.

The truck circuses often can play towns in remote sections of the country, where there are no railroads and where no circus has visited since the days of the old wagon caravans. But the success of the motor-

Photograph by H. A. Atwell

THE PERFORMER MUST KNOW WHERE THE REAR STEED WILL BE

Bareback horses are taught to maintain a never-varying pace in the regulation 45-foot ring, and the equestrian who does a complete somersault from one animal to the other times his leap to coincide exactly with the rhythm.

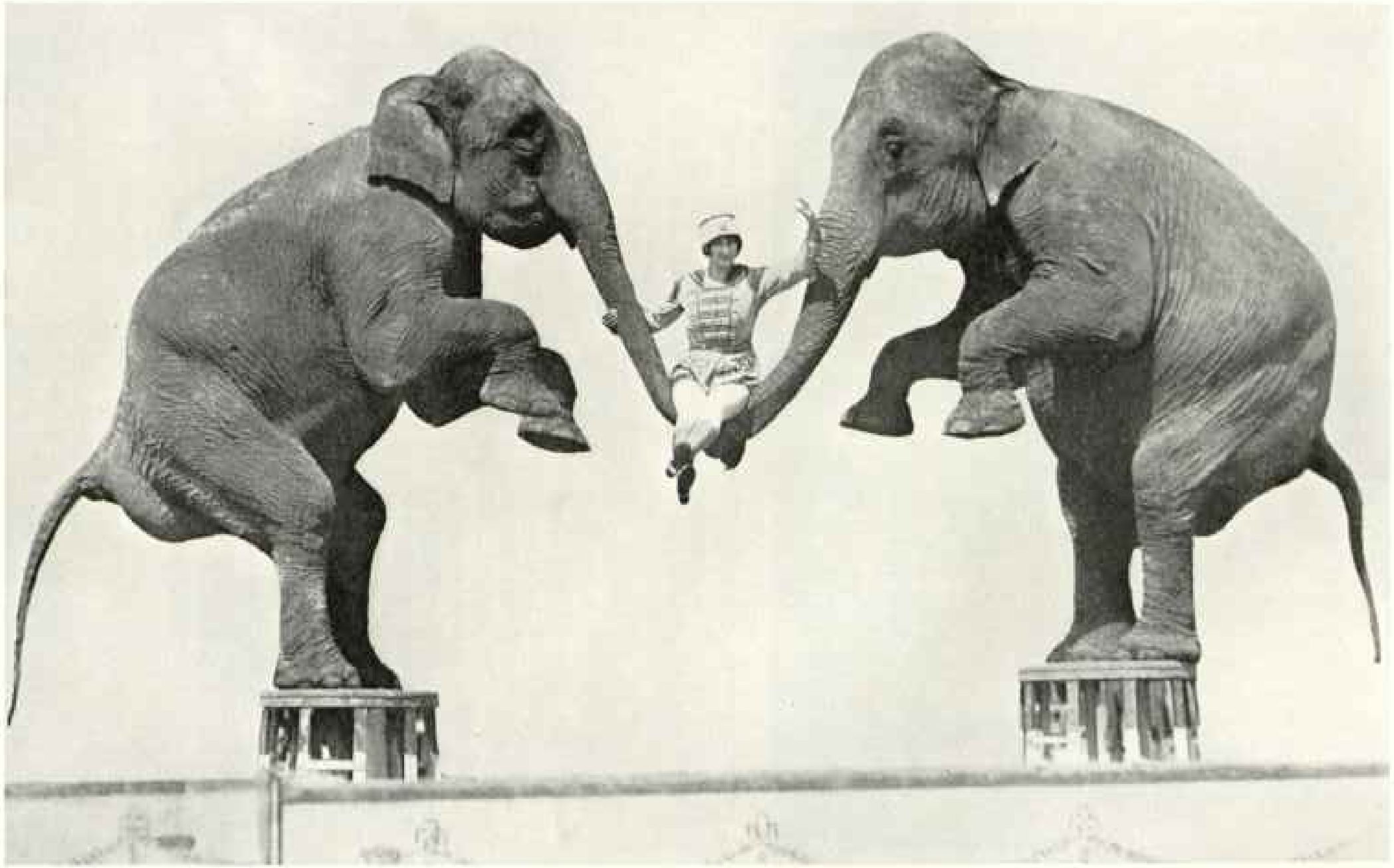
ized circus has proved unusual in only one instance—Downie Brothers' Circus. The show-goers are reluctant to let the hum of gasoline motors drown out the entrancing rumble of heavy wagons and the clatter of horses' feet.

In many places to-day a horse is as much a novelty as an elephant, and a circus without a large number of splendid steeds lacks vitality, in the opinion of many circus fans. The motorized circus idea has spread to Europe and to other continents, and probably will continue to find favor with owners of small shows, but the country of wonders and make-believe cannot surrender to the machine-age methods of to-day without losing much of its lure. As it is, the last big field of real in-the-flesh entertainment is under the big tops.

CIRCUSES HAVE BROUGHT THE WORLD TO MEN'S DOORS

Geographically, the circus has been a great educator. Long before automobiles, motion pictures, and radios broke down the barriers between isolated regions of the United States and the advancing world outside, the circus was taking its artists, its comedy, its music, and its nomadic college of zoölogy into almost every State and Territory. The world's largest circus might even advertise that it carries the original New York cast, because it takes on tour precisely the same show that opens in Madison Square Garden.

Whatever else the peripatetic amusement venture is or is not, the fact remains that it is real. There are no circus "doubles" to perform the difficult feats, and there are no substitutes for those who may not feel "up" to the ordeal of two shows a day, "rain or shine." Years ago leaders in this field of entertainment learned that the formula for permanent survival included a whole-hearted attempt to give the public something it never had beheld before, surrounding it with a dazzling array of sustaining attractions. This hard-and-fast rule has persisted through the years, amid a procession of magic names: Jumbo, Tom Thumb; Chang, the Chinese titan; Zachinni, human cannon



Photograph by H. A. Atwell

SUCH A SWING WOULD THRILL THE MOST BLASÉ

Elephants have amazing intelligence and learn intricate tricks, but they are subject to temperament. Sometimes those ordinarily most tractable become recalcitrant, refuse to perform, and have to be used only for work on the lot (see page 476) and exhibition in the menagerie, or sold to zoos.

Photograph from Beverly Kelley

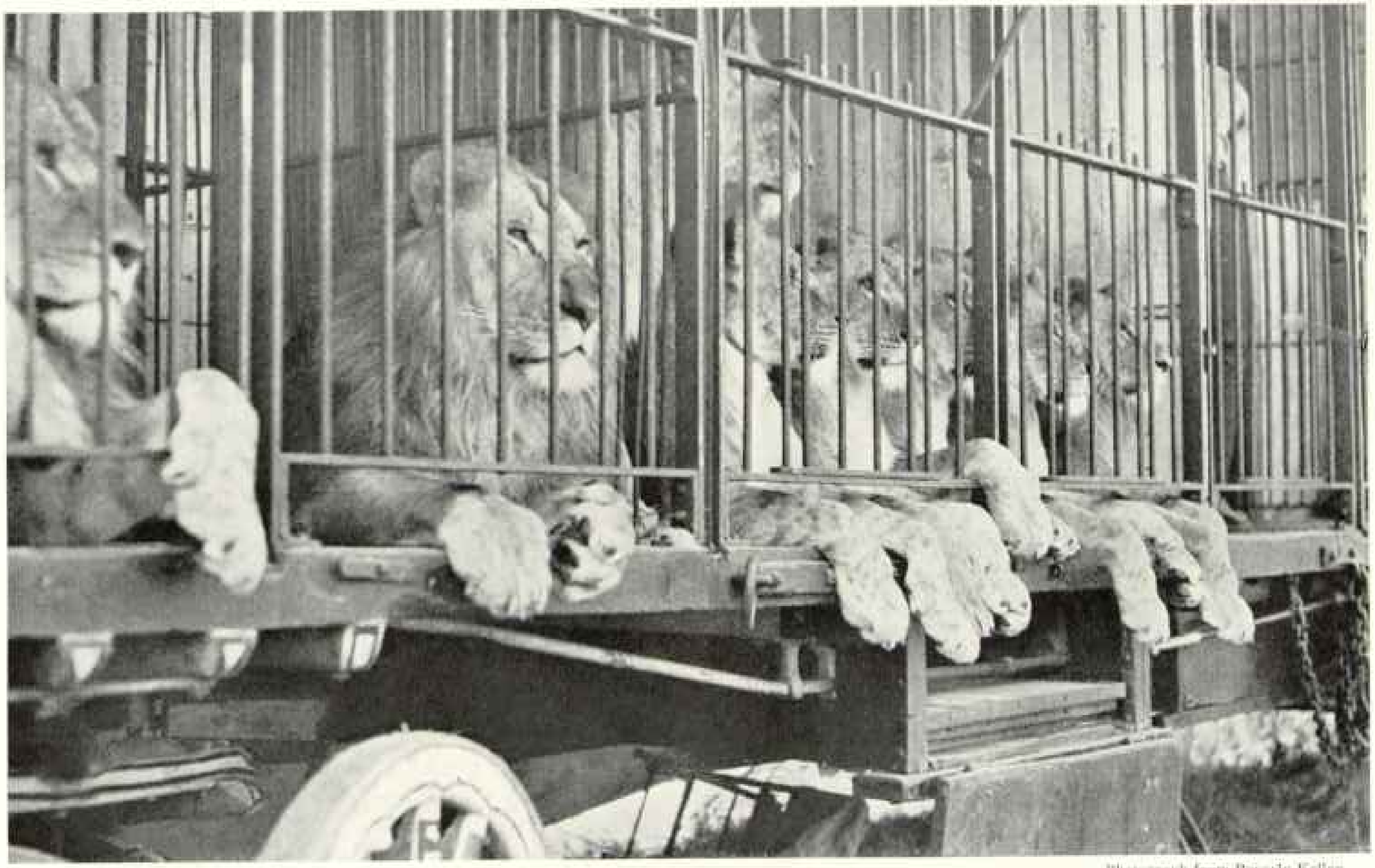
THE MIXED ANIMAL ACT RESEMBLES A JUNGLE NIGHTMARE

Natural enemies in the kingdom of beasts present a special problem to the trainer, who must keep them at peace with one another and himself, as well as present the act. Contrary to popular belief, neither hypnotic spells nor drugs are used to render the wild creatures tractable (see text, page 474).

Photograph by Acme

THE CIRCUS NEVER FORGETS THE CHILDREN

Trained elephants, clowns, and tumblers give a special performance for crippled youngsters who cannot visit the big top (see text, page 516).



Photograph from Beverly Kelley

VELVET PAWS IN REPOSE: LIONS REST IN CROWDED QUARTERS WHILE THEIR CAGES ARE CLEANED

After herding the occupants into their neighbors' section, an animal attendant sweeps out the compartment at the right and covers the floor with fresh straw. The work must be done between performances each day.

Photograph from Beverly Kelley

SHE DISCARDED A NURSE'S UNIFORM FOR THE GARB OF THE ARENA

Mabel Stark finds the handling of tigers in the same inclosure with their cousin and natural enemy, the black panther—supreme test of a trainer's courage and resourcefulness (see illustration, page 491)—less prosaic than the hospital work which she left to follow the circus (see text, page 464). Her body bears more scars than her "tomcats," as she calls them, have stripes.

ball; Tom Mix, whose Rough Riders carry the spirit of the old West to every State in the Union; Goliath, monster sea-elephant; Ubangi savages from Darkest Africa.

Because the circus is nomadic in its quest for business, it always has been of necessity a fighting institution. Therein lies one of its major bids for fame. Like a gay explorer who finds each day's journey a fresh problem to tackle, the circus struggles against a perfect maze of daily entanglements that threaten to ensnare it like a colossal Gulliver. The circus has battled the weather and it has fought grafting officials, who threaten to dig up some excuse for fining or tying up the show unless complimentary tickets fly thick and fast.

The managements for years have fought the argument that they take too much money out of town. People overlook the fact that every big circus spends a large sum in every city in which it plays. The daily overhead of the largest circus is in excess of $15,000, and a considerable share of it is spent locally for lot and license, straw, lumber, ice cream, soft drinks, billing locations, and food for 600 horses, 36 elephants, four herds of camels, hippopotamuses, and other large appetites in the menagerie, as well as for the three meals a day of the show personnel, whose gastronomic requirements would stagger the chefs of a huge hotel. The commissary uses daily 250 pounds of butter, 200 pounds of coffee, 25 bags of table salt, almost a ton of fresh meat, 200 gallons of milk, 1,500 loaves of bread, 200 dozen eggs, half a ton of vegetables, a barrel of sugar, 50 pounds of lard, etc., etc.

CIRCUS BUSINESS BLOOMS IN THE SUN

Mud is by all odds the outdoor showman's worst enemy. It sucks at the wheels of his wagons until elephants must be pressed into service to extricate them, and it dampens the spirits of his prospective customers. Wet weather is bad for monkeys, apes, giraffes, and cat animals,

© Photograph courtesy Field and Stream Magazine

PERIL LURKS IN THE TIGER'S MOST PLAYFUL MOOD

The woman trainer's ankle is a hostage to her confidence in her teaching. Though Rajah has been taught to wrestle like a true sportsman, he may forget his art at any moment and revert to jungle savagery. Wild beasts may be trained, but seldom, if ever, tamed (see text, page 464).

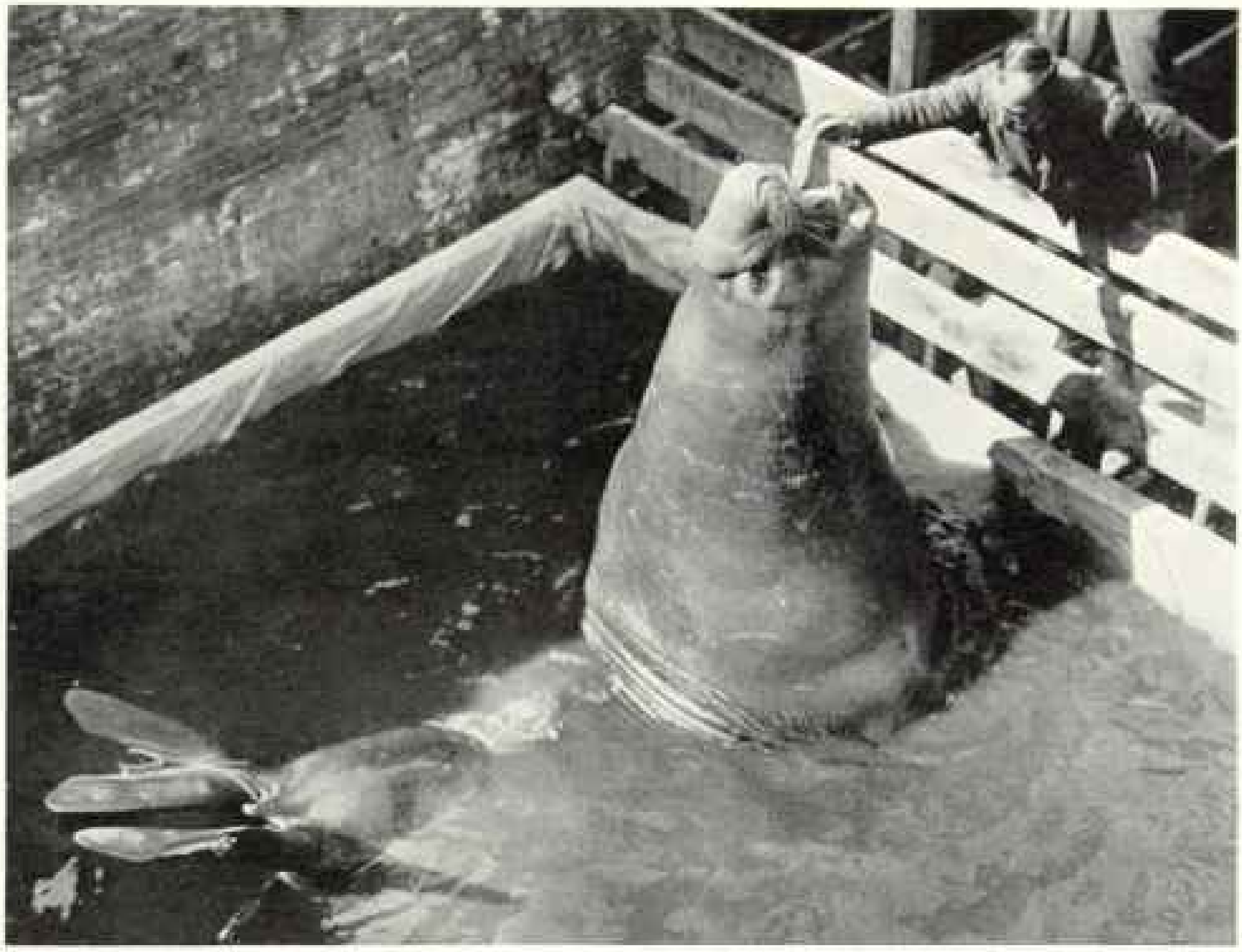
which are subject to throat and lung congestion. Add to this the fact that canvas triples its weight when wet. Conquest of the Golden Fleece could be little more difficult than the task that confronts a circus manager who must drag his nomadic city from the clutches of the mire in time to play a matinée performance in a town a hundred miles away.

In the old days, before movement by railroad was general, traveling was much worse. Springtime found country roads impassable. Fourteen horses were needed to pull a hippopotamus den when circuses traveled overland in wagons. Circus laborers still shout "China!" occasionally when the train roars into the city of exhibition. This is a circus term of another generation. When a driver, seated atop the first wagon in the caravan, sighted the show's destination, he called "China" to indicate that after an all-night struggle they literally had dug their way through.

Previous to 1929 most of the big circus units battled with one another up and down the country from Maine to California and from Canada to the Gulf. Sometimes they employed the most vitriolic phrases in characterizing rival circuses as worthless. When electricity first was used to illuminate a circus tent, competitors solemnly warned the public to stay away from that show "because electric lights are known to be extremely dangerous and blinding to the eyes!"

Most interesting were the "paper wars" conducted by the big and little shows prior to the late summer of 1929. The big circuses often bought advertising space on barns and buildings in the dead of winter, so that the location would not be snapped up by rival concerns. Some of the shows had a playful little habit of covering each other's posters when two shows saw fit to play the same city on the same day or a few days apart.

One of these paper wars became so intense when two circuses chose to book a California city within a few days of each other that the barns and billboards of the surrounding countryside were plastered with a covering of circus pictures 28 sheets



Photograph by Acme

FISH DINNERS MAKE THE SEA-ELEPHANT FEEL AT HOME IN THE CIRCUS

Transportation of these gigantic Antarctic creatures is a real problem. One once decided to turn over in his railway carriage on a night run, and the shift of his weight derailed the car.

deep. The opposition brigade of circus number one went out each morning to cover the advertisements of the rival show. The brigade of circus number two went out every evening to recover with its own billing. They watched each other so closely, these tireless advance men, that each knew when the other's crew left town to cover paper in the country.

At last one of them played a master stroke. Two nights before the first show was due to arrive, the brigade hired a hearse, climbed inside with posters, paste, and brushes, and quietly left town to do their work without attracting the attention of their competitors.

The advance advertising cars of the big shows carry large crews of ambitious workers who often average a posting of 10,000 to 12,000 sheets of circus lithographs a day. A crew of 30 men can bill a large city in a single day, so well do they understand their work.

The flaming circus lithographs that herald the approach of the spangled caravan must be printed in several different languages in a number of places: Posters with Hebrew lettering in New York City's Jewish districts, Italian in both New York City and Chicago, French in parts of Montreal and Quebec, and Spanish in certain Southwestern cities.

FAKE WONDERS SOMETIMES OUTDRAW REAL

Sometimes the tented enterprises tried to duplicate their rival's ace attractions. Barnum once imported a sacred white elephant from Siam. It wasn't pure white, but rather a cream color, and it cost a lot of money and trouble. Adam Forepaugh, then Barnum's leading competitor, copied the Siamese albino by applying a generous coating of white paint to unclothed parts of a gray pachyderm. His elephant was so much whiter than Barnum's that the public decided Forepaugh had the real

Photograph by H. A. Atwell

AFTER THE TIGER LEARNS THE LEAP, THE TRAINER ADDS EMBELLISHMENTS

Once in the air between two pedestals, the giant cat does not notice the man standing beneath him, but if his spring falls short trouble ensues. Some of these educated animals have been taught to jump 14 feet.

article—until one day during a street parade in Philadelphia, when a cloudburst exposed the imposture.

Even then skeptical show-goers refused to believe that Barnum's white elephant was any more genuine than the one they had seen exposed. Somebody asked Barnum what he was billing as his chief attraction that season. He smiled and replied, "I've got a white elephant." Then and there he supplied a distinctly American angle to the age-old white-elephant allusion that to this day is used to describe something expensive which cannot be disposed of to any advantage.

The big shows fought each other until the summer of 1929, when a great consolidation was effected. Now six of the largest tent shows, all Ringling-owned, contend for patronage in friendly rivalry and try to keep out of one another's way.

Most outsiders think that every circus picks its complete route at the beginning of each season. In reality, they are routed only about six weeks in advance. Agents must study crop and factory conditions, epidemics of disease, and proximity of rival attractions, and must arrange to send the circus where there is a probability of doing good business. Routing a circus is a business science, and the success or failure of an entire season sometimes depends almost solely upon it.

Business men in progressive cities usually are glad to see a circus billed for a visit to their community. It is a barometer of prosperity, this nomadic canvas city with its tremendous overhead, because it cannot afford to visit cities which are in the throes of financial depression.

FINANCIAL UPS AND DOWNS ARE BALANCED

The history of the circus is the history of a battle to beat the Emersonian doctrine of compensation, the theory that, in the long run, good and bad fortune stack up

Photograph by Richard H. Stewart

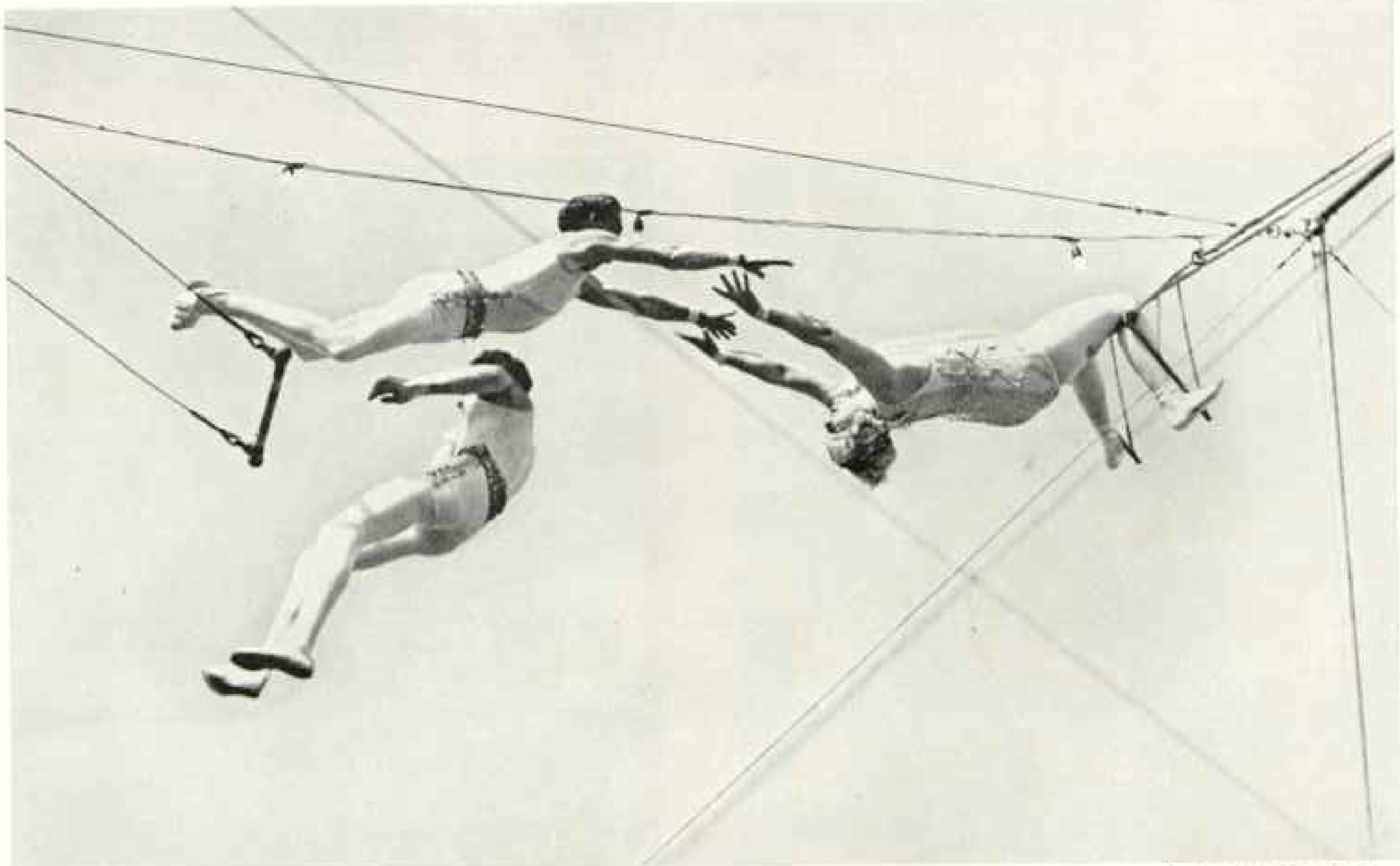
STRENGTH AND ENDURANCE DISPLAYED ALOFT

Forty feet above the crowd the daring woman aërialist holds herself in a seemingly impossible position between the Roman rings, while the man on the ladder swings on a rope looped around her waist.

Photograph by H. A. Atwell

PRECISE TIMING KEEPS THE AËRIALIST FROM DISASTER

The flying star of the trapeze, who performs a triple somersault, must know when he launches himself into space that the bar or hands he is to catch will be at the proper place at exactly the right instant.



Photograph by H. A. Atwell

RHYTHM ACCOMPLISHES THE SEEMINGLY IMPOSSIBLE IN THE FLYING TRAPEZE ACT

The woman "catcher" has just released one "leaper" to catch a second, the first man returning to the swing which the other is leaving. She uses the "cradle," or brace for the feet. Masculine performers dispense with this, entwining their legs in the cable. In such feats all movements must be perfectly synchronized.

A PYTHON MAKES A SHUDDERY NECKLACE

Every side show must have its woman snake charmer. The exhibit is a part of circus tradition. Many of the members of the congress of freaks owe their livelihood to deformities that would be insurmountable handicaps in ordinary pursuits (see text, page 487, and Color Plates VII, XI, and XIV).

ONE OF THE BRIGHTEST STARS OF THE BIG TOP

On Friday, February 13, 1931, Lillian Leitzel, the charming aërialist who for many seasons held crowds breathless by performing more than a hundred successive vertical swings of her body while hanging by one hand from a rope at the top of the tent, fell and was killed. The accident occurred in Denmark (see text, page 516).

Photographs by Richard H. Stewart

Photograph by Keystone

THE BIRTH OF AN AMATEUR CIRCUS ACT

What a cool, refreshing drink for these tiny, upstanding bear cubs, as they happily imbibe from small bottles of milk, fed them by Richard Crowe, of Wayne, New Jersey, who owns them. These Alaskan cubs, three months old, with their delightful tricks, attract many visitors.

about evenly. Because the enterprise is a game of sudden disaster and decided ups and downs, circuses sometimes have proved excellent places to put money—and waive it good-bye. A few large fortunes have been amassed by circus owners; dozens have been lost through incompetent management, competition, and conditions outside the control of the owners. In 1917 a bank in a mid-western city closed its doors because of the failure of a circus in which it had invested large sums. One creditor committed suicide.

CIRCUS CARAVAN AND FARMING HAVE MUCH IN COMMON

The red-wagon caravan has a lot in common with farming. No matter how expert the management, how industrious the labor, or how sound the business outlook of the country, the weather often is the deciding factor, and it has to be conquered anew each year. While mud is a nightmare to circuses, rain is not always undesirable. Often a light, steady rain prevents farmers from working in their fields and gives them an opportunity to swell the circus coffers at the matinée performance.

It is commonly thought that hot, sunny weather is the answer to a circus manager's prayer, but such is not always the case. Either extreme means bad business in most instances. When a circus visited Peoria in 1930, the mercury simmered at 108 degrees and business was light. By contrast, another circus unloaded in Chicago during a snowstorm in the spring of the same year for its indoor engagement at the Coliseum. People decided that it just was not circus weather and stayed away. On the other hand, a circus exhibited in Brooklyn during a cold spell in May, 1931, and the crowds came despite the near-freezing weather.

Blowdowns, fires, railroad wrecks, and the death of costly animals reap a heavy harvest, but they occur infrequently. If a giraffe or a rhino dies, a large sum is lost. Elephants are very expensive, and money paid for big jungle cats runs into three figures. John Daniels, an almost-human gorilla, brought to America in the spring of 1921, is said to have cost more than $10,000. He had been raised like a child, in an English apartment, and had difficulty in standing the trip across the ocean. That, together with the loneliness he experienced away from his mistress, brought about his death before the circus ever got on the road.

The oft-repeated question, "How can a circus keep going year after year without any apparent intermission?", finds its best answer in the circus winter quarters. There a process of swift rejuvenation takes place. New animals must be trained, new wagons built, cages repaired, a hundred tent poles and stakes made new, wagon tongues renewed, bleachers and grandstand chairs made to order, display floats fashioned from wood and metal and colored glass, dozens of uniforms and expensive costumes replaced, berths built into new sleeping cars.

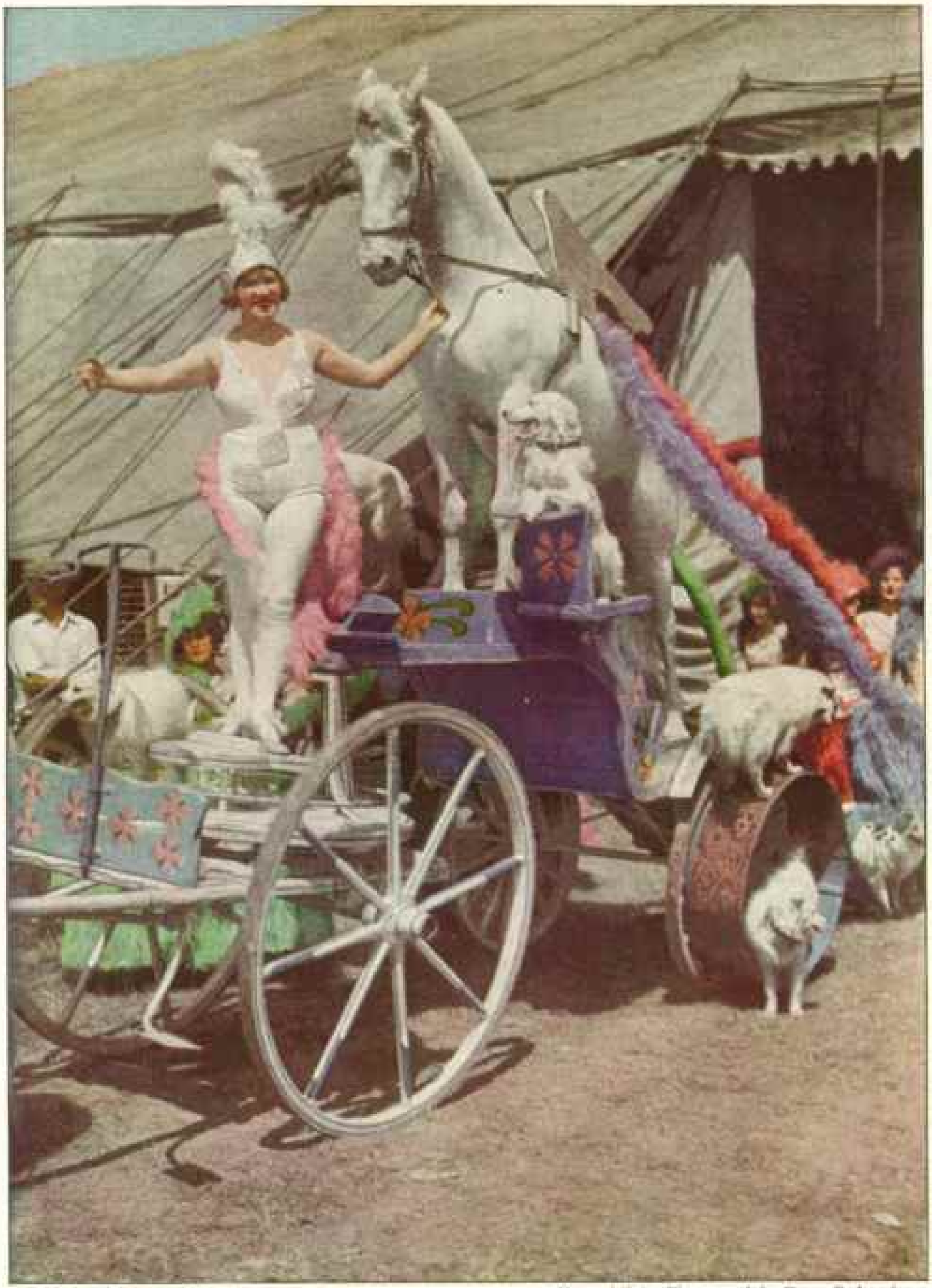
INVENTIVE GENIUS HELPS THE CIRCUS

There are a hundred and one jobs to keep the circus shops running from the hour the weary caravans come rumbling home until early spring, when they blossom out in a gorgeous rainbow of brilliantly painted wagons, shimmering spangles, and fresh, gaudy banners. Materials from many lands find their way to the winter quarters to be used by dressmakers, skilled mechanics, artists, blacksmiths, wheelwrights, sailmakers, and carpenters.

Naturally, the kingdom of spangles has its inventors, whose genius facilitates the moving of the gigantic community and reduces its hazards to a minimum. A "Thomas Edison" of circusdom is Jack Snellen, who allows scarcely a season to slip past without an important invention to mark his devotion to the Ringling-Barnum show.

His first invention, years ago, was the grandstand; his second a mechanical stake-driver, which nobody thought would work. After it had received almost as many jibes as greeted Fulton's steamboat, the inventor tried it out—and it worked perfectly, saving both men and time. William Curtis, another genius of the big tops, recently built a triple stake-driver that on a test in Utica, New York, drove 312 stakes in 54 minutes.

Snellen next invented eaves for his big top, so that rain no longer leaked in on spectators seated on the top rows. Because people in the tornado country were terrified by the possibility of a blowdown during a performance, Snellen went to



© National Geographic Society Natural Color Photograph by Orren R. Louden

HER PETS SMILE WITH THE LADY OF THE EDUCATED ANIMAL CHARIOT

The little dogs laugh because their performance is sport, and even big white Pegasus wears a pleased expression. Like the human members of the circus family, they love the petite trainer. She and her husband, who directs equestrian acts, are among the brightest personalities under the "big top."

© National Geographic Society Natural Color Photograph by Richard H. Stewart

ALICE FOUND NO GREATER FUN IN WONDERLAND

The merry old clown, who loves children and is popular with them wherever he goes, enjoys giving a tiny visitor a special treat. He knows stories of famous performers who were born in the circus, cradled in trunk tills, and reared under the big top.

Natural Color Photograph by W. Robert Moore

ARISTOCRATS OF SKILL AND BIRTH

This caballero, heralded as the only person in the world who can do a forward somersault from feet to feet on the tight wire, comes from a famous Spanish family of circus performers. His wife is the niece of an English nobleman.

© National Geographic Society Natural Color Photograph by Ozren B. Loudon

ENGLAND, HUNGARY, AND GERMANY SMILE TOGETHER

The circus grand entry is a veritable pageant of nations, with representatives of scores of countries uniting to make the spectacle attractive. Close friendships develop among performers of different lands and tongues.

Natural Color Photograph by Richard H. Stewart

MAORI ART FINDS A PLACE IN THE SIDE SHOW

But unlike the Polynesians, who developed to a high degree this form of indelible decoration, the circus tattooed lady has left her face, neck, and hands unmarked. Her skin pictures were produced by electrical process. Maoris prick theirs on with thorns.

ELEPHANTS LIKE LITTLE GIRLS—ESPECIALLY THOSE CARRYING PEANUTS

This old fellow from India had to be taught to dance, but he learned for himself the art of begging titbits with his trunk. His larger African cousin, whose ancestors marched with Hannibal against Rome, is seldom trained for the circus, being considered less intelligent.

© National Geographic Society Natural Color Photographs by Richard H. Stewart

CLOWNS KEEP ABREAST OF THE MACHINE AGE

The patent hair grower is only one of numerous ingenious "props" used by the funny men to lampoon modern customs and inventions.

A WALK AROUND THE MENAGERIE TENT AFFORDS A WORLD ZOÖLOGICAL TOUR

Giraffes, the only animals foreign exporters do not guarantee to deliver safe, must be carried in padded wagons, for they cost $10,000 each and are delicate. Camels, dromedaries, and zebras are "led stock," brought from train to show ground on foot.

© National Geographic Society Natural Color Photographs by W. Robert Moore

SIBERIA FURNISHES THE GIANTS OF THE CAT FAMILY

Bengal and Sumatra tigers are fully as savage but smaller. Circus folk consider these striped demons much more dangerous than lions.

© National Geographic Society

THE TALLEST MAN AND THE TINIEST ARE PALS

Among side-show people the attraction of opposites is clearly defined. Giant Jack measures eight and a half feet in height, his closest friend less than 30 inches. Both are from otherwise normal families.

Natural Color Photographs by Richard H. Stewart

HORSES LEARN TO DANCE WITHOUT MUSIC

The bandmaster watches the animals go through a series of intricate steps taught them by the trainers; then chooses a composition to match the rhythm. At bidding of his dainty rider the "high school" mount curtsies.

© National Geographic Society Natural Color Photograph by Orren R. Lindsley

EVERY BOY KNOWS THE COWBOY STAR

Football player with an Army team, Roughrider in the Spanish-American War, motion-picture idol — the famous Western actor has returned to his first love, the big top. He is the highest-salaried performer in the circus world.

Natural Color Photograph by Richard H. Stewart

THE JEWEL LADY LEARNED TO RIDE IN RUSSIA

Driving this float in the grand entry is a star from the Ural Mountains, region of superb horsemanship. She performs in a bareback equestrian act in which her mother, two sisters, a brother, and the husband of one of the girls also take part.

© National Geographic Society — Natural Color Photograph by Jacob Gayer

THE CIRCUS IS COMING!

Spangleland knows no boundaries; but the home of its heart lies in the small town, where anticipation created by the billposters' flaming lithographs makes its coming the event of the season.

© National Geographic Society — Natural Color Photograph by Richard H. Stewart

ASK ANY SMALL BOY WHICH OF THE THREE POSERS WILL DOMINATE THE PICTURE

Clowns, known as "Joeys" since the days of Joseph Grimaldi, whose biography, edited by Dickens, outsold that author's "Oliver Twist," are the first of three prime essentials in every circus. The other two are pretty girl performers and horses.

work on his greatest invention, a system of guying that in one simple operation tightens the big top like a huge drum and renders it nearly invulnerable to wind. The colored boys who first saw this invention called it a "funny rope," and "funny rope" it remains to this day.

In 1910 a fire destroyed the big top. Nobody was hurt, but the heavy center poles crashed to earth, and Snellen saw that only a miracle had kept death out of the picture that day. He then devised a system of cable guys for the heavy poles and eliminated the greatest hazard in a circus fire; also he fireproofed the canvas side wall. The tents are new each season, and the canvas of the preceding year is carried for emergency.

NO HOMER SINGS THE CIRCUS ODYSSEY

Often the land of sawdust and spangles performs some valuable service in the world outside. On a sizzling July day not long ago a lumber yard caught fire a short distance from a circus. While the flame-colored trucks of the city department were hurrying to the scene, the circus fire department rushed its two trucks to the burning lumber yard and put out the conflagration.

In 1930 circuses played many cities in drought-stricken areas. There is a popular superstition that elephants bring rain, and of course pessimistic folk always expect a downpour on circus day anyhow. In a mid-western town where no rain had fallen for five weeks, circus day dawned cloudy and farmers smiled expectantly. By noon a steady rain was drenching parched ground, and the whole countryside was hilarious with joy. The circus did capacity business that day, and the mayor of the town offered prayer for the show, which to all appearances and beliefs had brought the rain!

Continuing its bid for fame as a unique world in miniature, Spangleland has its own music, its own art, and a language all its own; but for literature it has been obliged to rely upon the pulsating prose of its press agents. The average writer who selects the circus as a subject portrays it about as accurately as the average motion picture portrays college life; yet Charles Dickens and his father edited the memoirs of Joseph Grimaldi, famous clown, and it sold faster in the first edition than did "Oliver Twist." The land of the white tops has had no poet laureate. Joyce Kilmer insisted that this loss was poetry's, not the circus's.

But what the spangled cosmos lacks in literature it makes up in art and music. The pageants of the big tops have dazzled millions of wide-eyed onlookers since the early fifties, when Robinson and Eldrid first produced "Cinderella." In the same year Welsh & Delavan's Circus presented "St. George and the Golden Dragon." In the summers that followed, there appeared dozens of circus spectacles, including "Jack the Giant Killer," "Mazeppa," and "Custer's Last Charge."

Twentieth-century circusdom has its creator of spectacles in the person of Rex de Rosselli, who produces pageants for the big shows. His "Cleopatra" and the equally elaborate "Golden Orient" involve hundreds of participants, costly raiment, colossal props. Some of the costumes worn in the pageants and the grand entries cost several hundred dollars, and each costume is fashioned in the winter quarters shops. Artistic blending of colors must be combined with the selection of materials that will stand the wear and tear of seven months of outdoor trouping.

The biggest circus has spent more than $50,000 on a grand entry that lasts less than 10 minutes. An order was sent to France for some 600 yards of tapestry for the horses. Ninety thousand rhinestones sparkle from the coats of 72 women. Chinese mandarin coats are worn by the riders in the oriental section of the big-top parade, and genuine Chinese rugs adorn the "ponderous pachyderms." Plumes on the heads of smaller elephants number 300 to each crown. Circus dressmakers constantly study new-style magazines and attend theatrical extravaganzas in their search for novel ideas.

The big-top band is the vital, glittering loom upon which the circus pattern is woven. The furious tempo of circus music adds an unmistakable flavor to the performance, and none but trained musicians can hope to belong to a good circus band. A musician aspiring to a chair under billowing white tents must be able to run the musical gantlet from the most difficult classical overtures to the latest jazz. He must know how to play circus gallops at break-neck speed and be capable of play-

Photograph by Richard H. Stewart

THERE ARE EASIER WAYS THAN THIS OF SLIDING DOWN A TIGHT WIRE

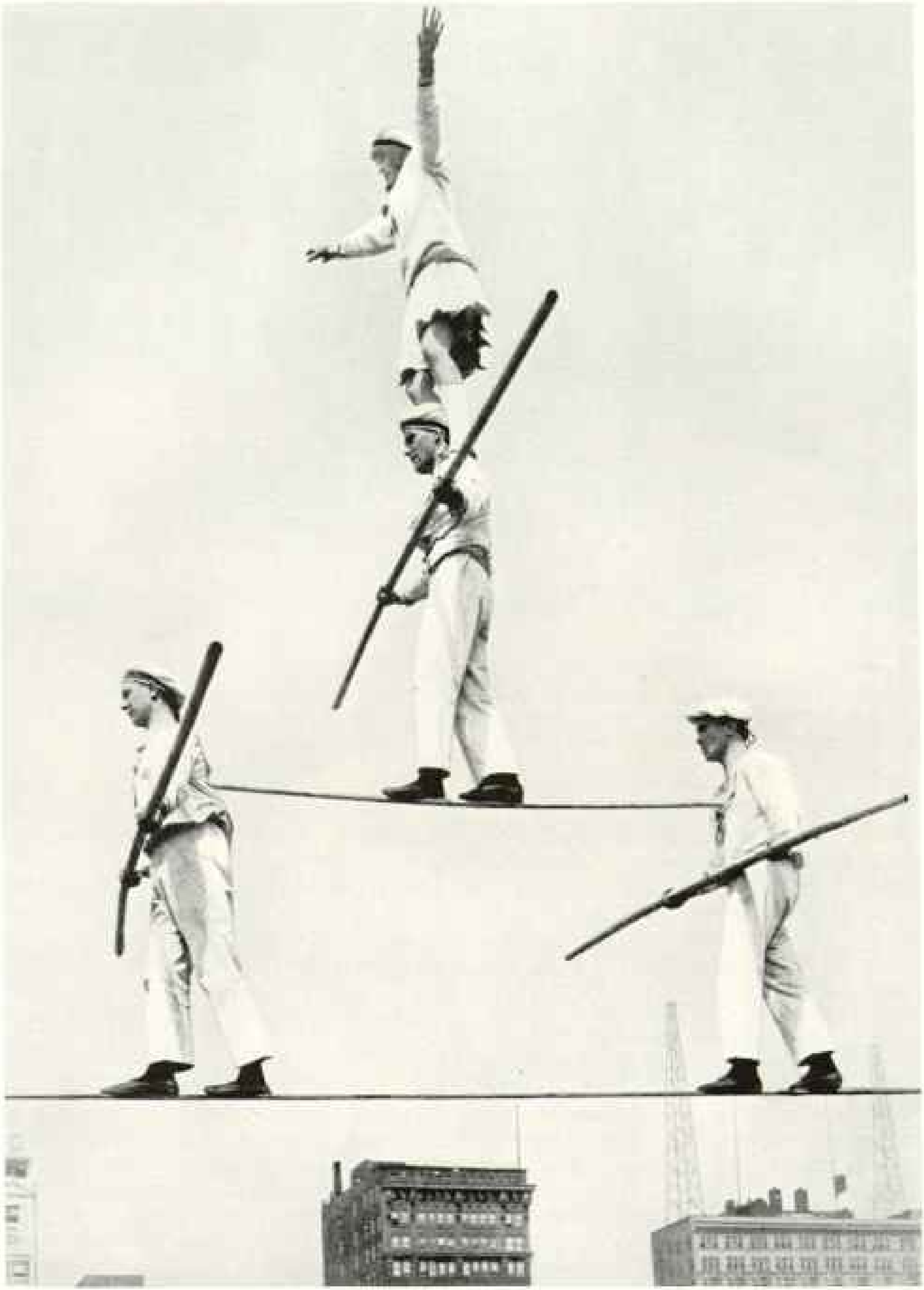
The performer lost his balance and fell off before he had completed the feat, but postponed trying again until the next performance. High-wire and trapeze artists are often called upon to work in almost unendurable heat in midsummer. It is frequently 20 degrees hotter directly under the canvas top than on the ground.

ing more than a hundred and fifty cues a performance. Before the street parade was discarded, 10 years ago, the life of a circus musician was farther from the proverbial bed of roses than it is to-day. It was not unusual for a circus band to play 50 marches in the course of a long procession.

THE TRANSIENT COUNTRY HAS ITS OWN LANGUAGE

Music from many lands is heard at the circus, but the typical circus marches and gallops are penned by composers of the white tops whose ears are tuned to roaring lions, rumbling wagons, and pounding hoofs, and in whose blood races the romance of the ring, the high trapeze, and the hippodrome track.

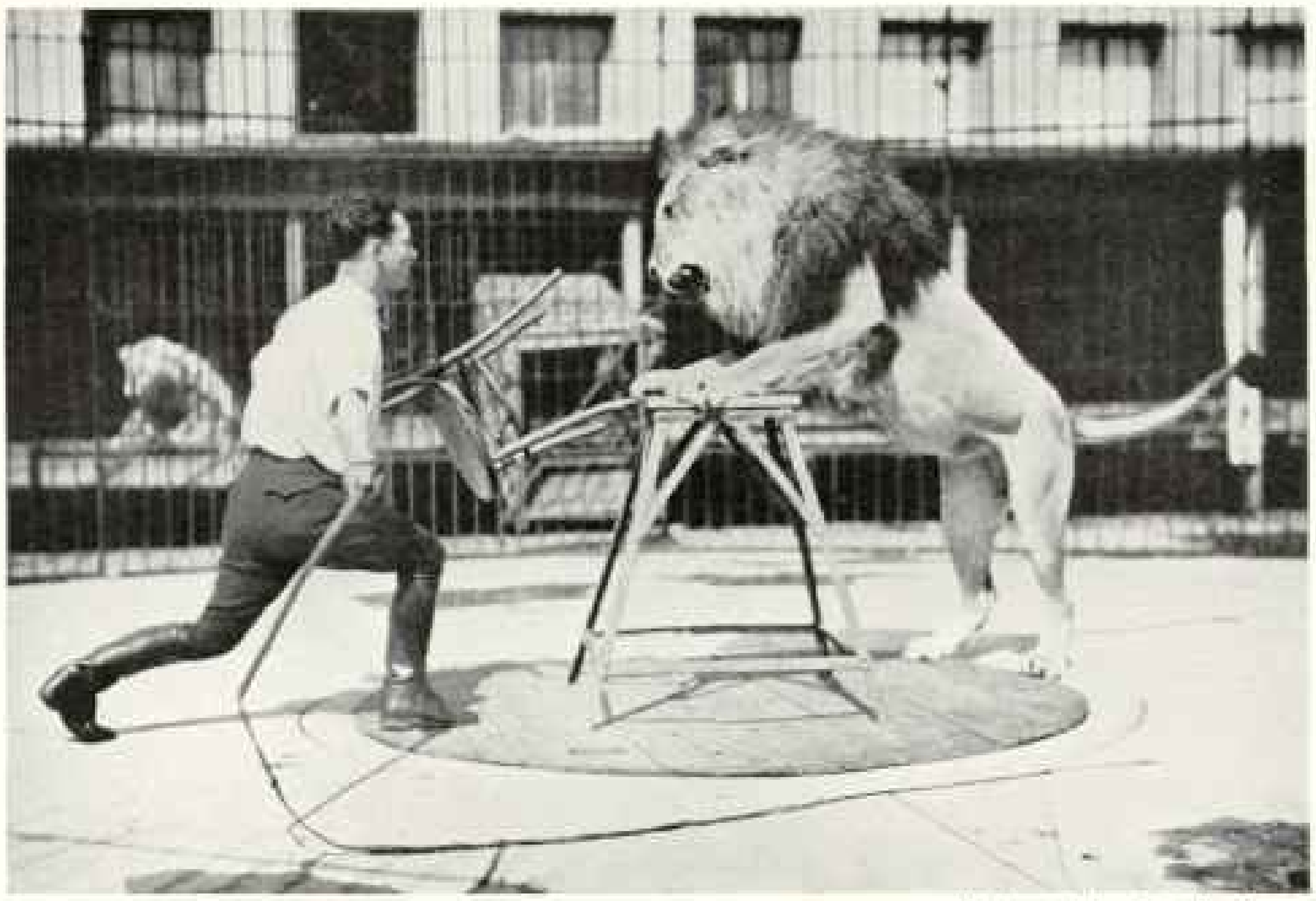
As circusdom creates its own art and music, so it makes its own language—a tongue replete with terms more confusing than a Bostonian accent in Kankakee. A *yard* is one hundred dollars, a *kinker* a big-top performer, a *punk* a youthful circus attaché or a baby animal. *Lot lice* are persons who loaf around the show, but do not buy tickets. *Jawn Moore* is a call used to speed up the show. *Star backs* are bleachers with hinged backs and upon



Photograph by H. A. Atwell

GERMANY CONTRIBUTES A SPECTACULAR HIGH-WIRE ACT

These masters of balance, shown here in an outdoor exhibition reminiscent of circus tradition—the free show outside to attract the crowd—perform their feats twice daily, 35 feet above the ground, under the big top. Showmen constantly search the world for "something different" to thrill their patrons.



Photograph by Linte Brothers

THOUGH PRINCE APPEARS SAVAGE, HE LOVES HIS MASTER

Fighting wild animals are often the least dangerous in the arena. This lion once saved his trainer from death or serious injury by attacking a tiger which had leapt on the man, who had slipped and fallen while presenting the act.

which the inevitable circus star is painted. *Blues* are the cheapest seats in the big top. *Shanty* is a nickname for the chief electrician (probably a derivative of chandelier man). *Reader* is a nickname for the license, *holligan* a tent occupied by the Wild West contingent, and the *bug man* the vender of live chameleons. The *bag guy* is the balloon seller; the *blow-off* the final night performance in the side-show tent. *Grinder* applies to the announcer in front of the side-show ballyhoo line. A *First-of-May* is an amateur or a first seasoner. *Pup opera* refers to the dog corral, and *pup tents* are overshoes. *Main stem* is a town's principal street. *Kid show* is a nickname for the annex, or congress of freaks. Contortionists are dubbed *frogs*. *Side-walling* is the act of trying to sneak in under the tent. A *crazy act* is a clown number, and *paper* applies to complimentary tickets. One of the most interesting of circus terms is the nickname for passes—"Annie Oakleys." It is the name of a famous markswoman who could shoot the spots out of a playing card, so expert was her aim. Because circus passes usually have holes punched in them, they are dubbed "Annie Oakleys." The term has spread to the theatrical world.

Each circus maintains its own post office, where hundreds of letters from all over the world arrive daily. What a job for a stamp collector! The postman for the world's largest circus handles on an average of 1,500 letters and parcels every day.

THE CIRCUS DOCTOR HAS A HETEROGENEOUS PRACTICE

During the long trek, circuses carry a large staff of skilled repairmen in all departments; also, there must be somebody to repair the circus people themselves. Enter, the circus doctor—a main cog in the dynamic circus wheel and additional evidence that Spangleland is a complete world in itself.

The hospital tent flies a green and white flag. There you'll find the most eminent of circus physicians. He would rather talk about the days when he sang in the glee club at Dartmouth than about his fascinat-

© Photograph courtesy Field and Stream Magazine

WRESTLING WITH A TIGER AFFORDS ROUGH SPORT AT BEST

Though the uniform the woman trainer wears is of leather, it is not thick enough to prevent scratches from the sharp claws, particularly if the big cat becomes careless or angry (see, also, pages 494 and 495).

ing field of service; but, if you can prevail upon him to talk circus, you may hear some hair-raising tales of life and death in circusdom's virile domain.

Most people would treat a bite from a monkey, for example, as a minor injury. But not a circus doctor! He knows that a tiny wound from the needlelike tooth of a monkey often causes serious infection. A circus doctor would never cauterize a wound from a lion or a tiger, particularly if it were deep. Deadly infection lurks in the claws and dental equipment of carnivorous beasts, and a wet dressing must be applied to draw the poison from its base.

Curiously enough, physicians with the tented cities have comparatively few patients among the circus performers, but large numbers from the ranks of the labor divisions. The men who handle heavy circus equipment can get hurt in a hundred different ways every day, while the big-top artists, even though they risk their lives in breath-taking feats of strength

and endurance, have reduced their chances of accident by subscribing to a strict schedule of rehearsal, right living, and sound physical training. It is like visiting a geographical clinic to hear a circus physician tell about the various maladies that attack his clientele in different sections of the country—sore throats and head colds on the East coast, intestinal and stomach disorders in the Middle West during the hot spells, colds again on the Gulf, and so on over the map.

Byron wrote, "He who joy would win must share it; happiness was born a twin."

Circus people know this, and no one puts it into more consistent practice than does the clown, or "Joey," as he is dubbed, after the famous English buffoon, Joseph Grimaldi. It would be difficult to estimate how many children and grown-ups annually rock with laughter at the antics of these mimers, and almost any day you can expect to find them loaded into automobiles, on their way to a children's hospital for a charity performance.

FEW CLOWNS "LAUGH FOR THE PAIN THAT IS GNAWING THEIR HEARTS"

There is not half so much tragedy behind the funny make-ups of clowns as people like to believe. By and large, they are a happy lot; but here is a little story to illustrate the eternal drollery of the circus buffoon: Johnny Patterson, famous Irish clown, lay dying in a dressing tent. The physician who attended him tried to cheer him up and, upon leaving, said, "Good night, Patterson. I will see you in the morning."

A smile flickered across the old clown's face. "I know you will, doctor," he replied, "but will I see you?"

In the present-day circus the clown is but one comical spot in a fast-moving picture. These ambassadors of mirth must compete with all sorts of counter-attractions going on in the rings, in the air, and on the hippodrome oval. The dull jokes and songs of the old talking clowns would send twentieth-century audiences from the big top in droves.

The next time you attend a circus, notice that no two clowns have their faces painted alike. That is because, once a Joey decorates his face according to an original design, he is conceded to have a sort of moral copyright on the make-up, and no colleague copies it. All in all, the clown's is a noble calling. The world is full of tears, and man by nature is a sorrowing creature. It requires infinitely more to send us into gales of laughter than it does to make us cry. Barnum is said to have remarked that clowns are pegs used to hang circuses on.

TRAGEDY SOMETIMES STALKS IN THE RING

Romance and tragedy ride side by side under the big top. Three years ago a circus romance of long standing culminated in the marriage of Lillian Leitzel and Alfredo Codona. Millions had watched the petite Leitzel do her sensational death whirl 40 feet above the crowd—a spinning flash of pink and silver in a shining shaft of light; and the triple aërial somersaults and pirouettes of the intrepid Codona still are the wonder of three continents.

On Friday, February 13, disaster caught up with the brave little queen of the air. She was performing at a winter indoor circus in Copenhagen, Denmark, when part of her trapeze rigging gave way and she was hurled to the sawdust ring from which she had rocketed to fame.

But the circus plays a stubborn hand against the trumps of Fate. In the home of Lillian Leitzel's brother, director of the Milwaukee Art Institute, there lives a child who bears the name of her famous aunt and who aspires to a circus career. So the spangled legions of the big tops go on and on, like a sawdust ring with a forgotten beginning and no end.

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

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

THE Society also had the honor of subscribing a substantial sum to the expedition of Admiral Peary, who discovered the North Pole, and contributed $35,000 to Admiral Byrd's Antarctic Expedition.

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

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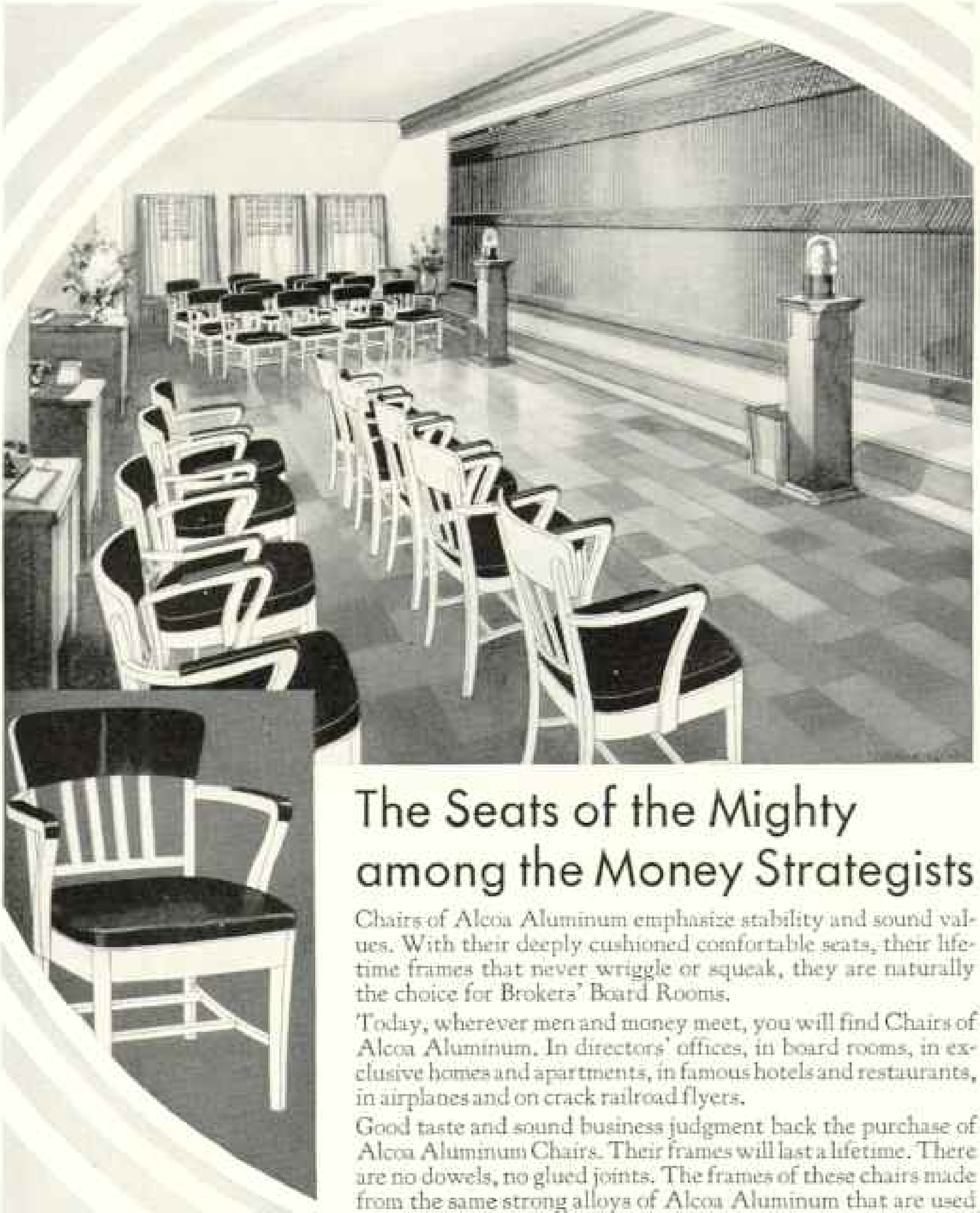

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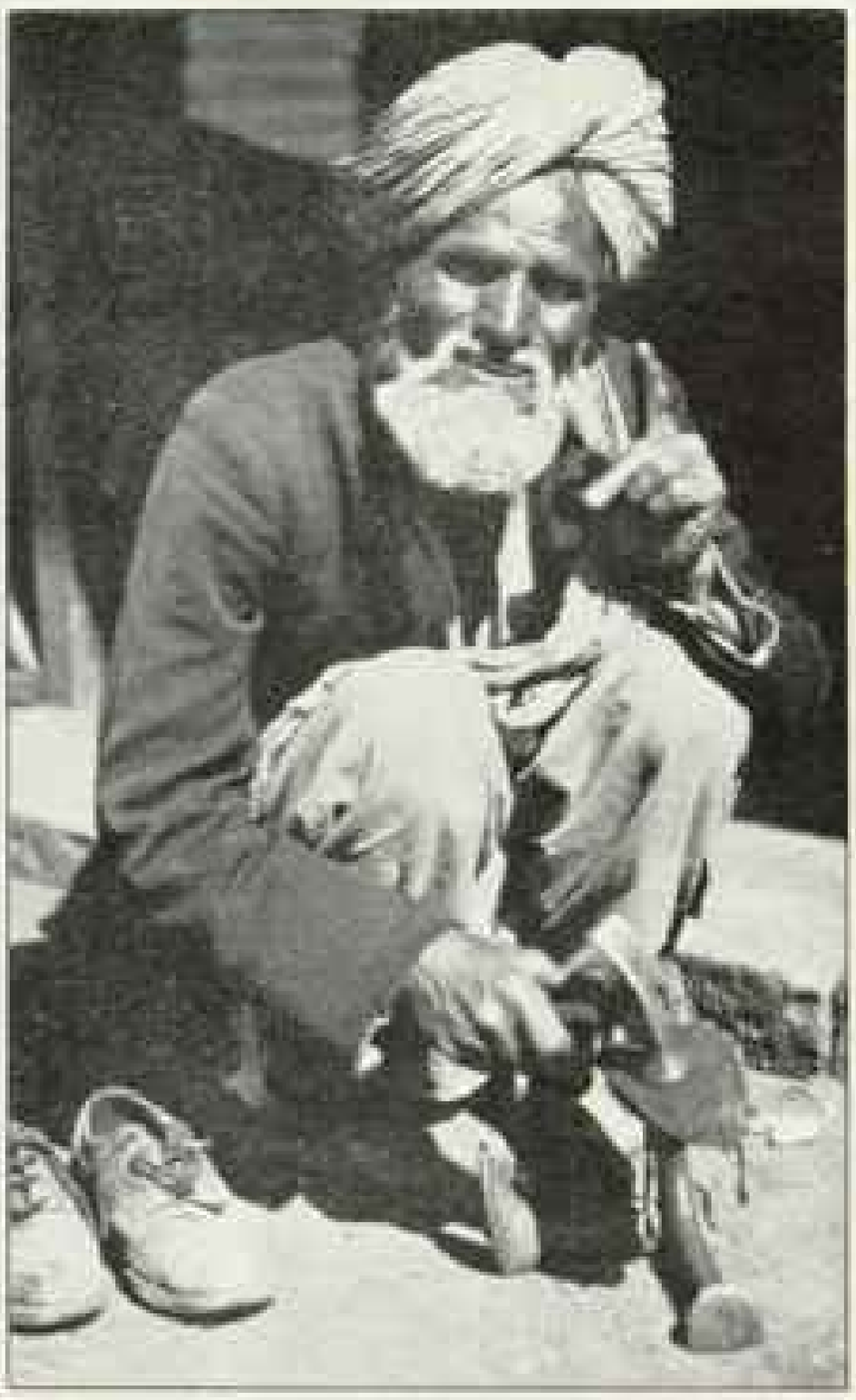

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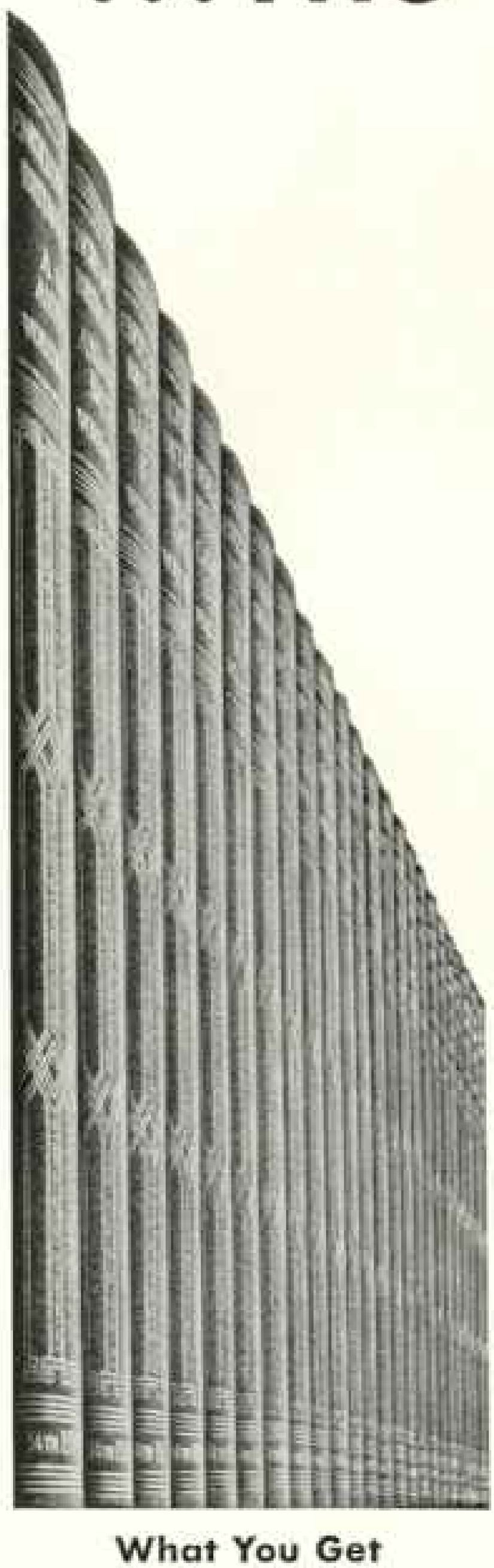

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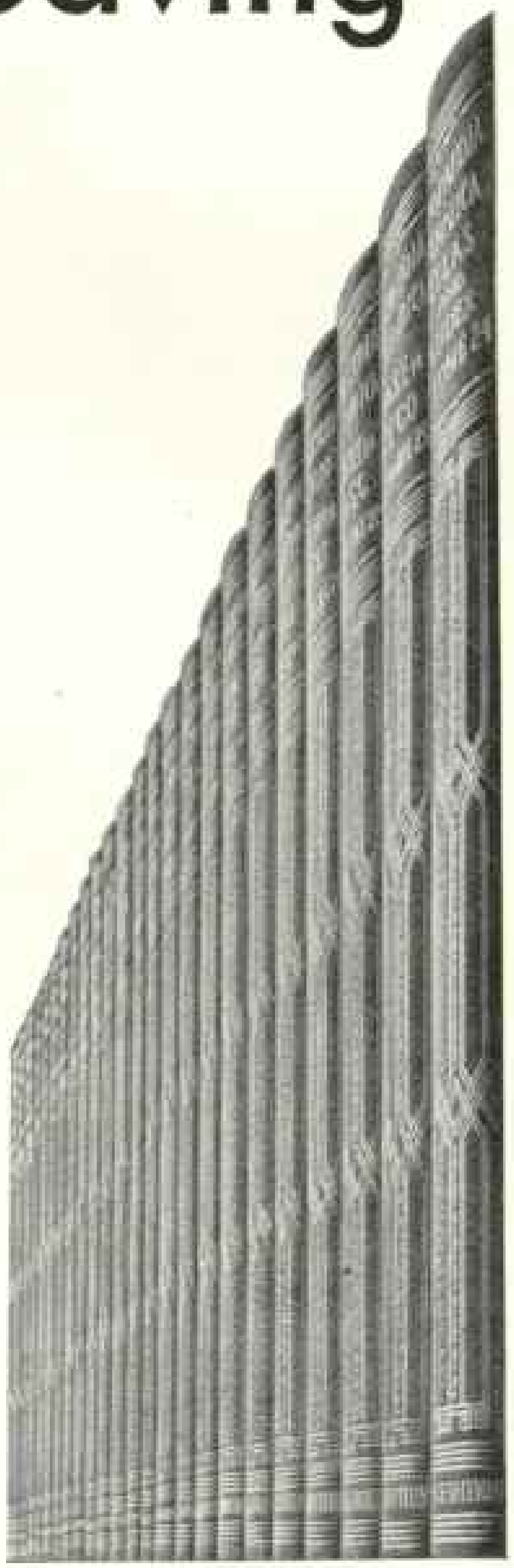

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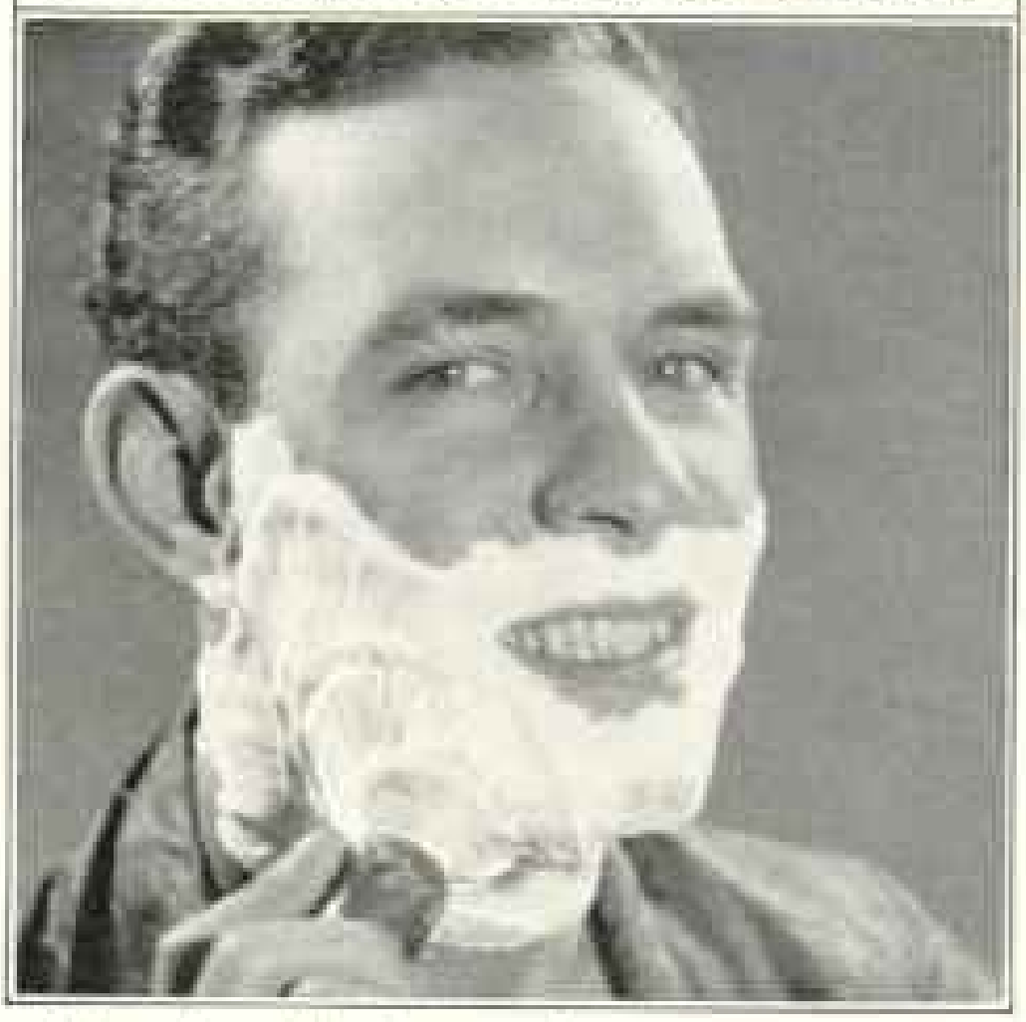

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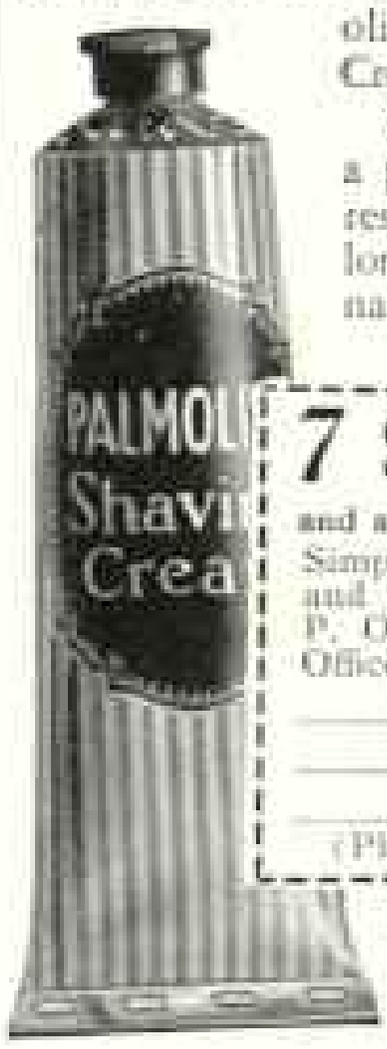

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Perhaps you will say, "I get enough exercise and I haven't the slightest desire to have big, bulgy muscles." Bulgy muscles are not essential to good health. Occasional week-end games will not develop the physical tone that comes only from regulated daily exercise the year round.

The muscles you use each day are not the ones which need exercise. Those you do *not* use need it. If you will begin stretching them this autumn, you will soon enjoy a sense of mental and physical well-being and be better fit to meet changing seasons.

Will you try a few experiments in order to find out how many of your muscles are very much in need of exercise? Give yourself fifteen minutes of intelligent muscle stretching in your own room. Within twenty-four hours you will know which important muscles have been neglected.

Where vacuum cleaners and electric washing machines have replaced brooms and washboards, and automobiles have made long walks unusual, many a good muscle has gone soft. Muscles intended to be used in chopping wood, pumping water, digging, planting, rowing and swimming are likely to be forgotten by those who burn gas or fuel oil, turn faucets, have no gardens and seat themselves comfortably in power boats or motor cars.

Wake up the little-used muscles which need exercise. Your heart is a muscle and the walls of your blood-vessels, stomach and intestines are largely muscle. If your diaphragm—a muscle—is not exercised, your lungs can do only part of their work and the abdominal organs will become sluggish because they lack the stimulating massage which an active diaphragm gives.

No one who has any organic weakness should exercise without the advice of a competent physician. Misdirected or too violent exercise may be harmful. Proper and intelligently directed exercise promotes health for young and old and enables them to get more joy out of life.

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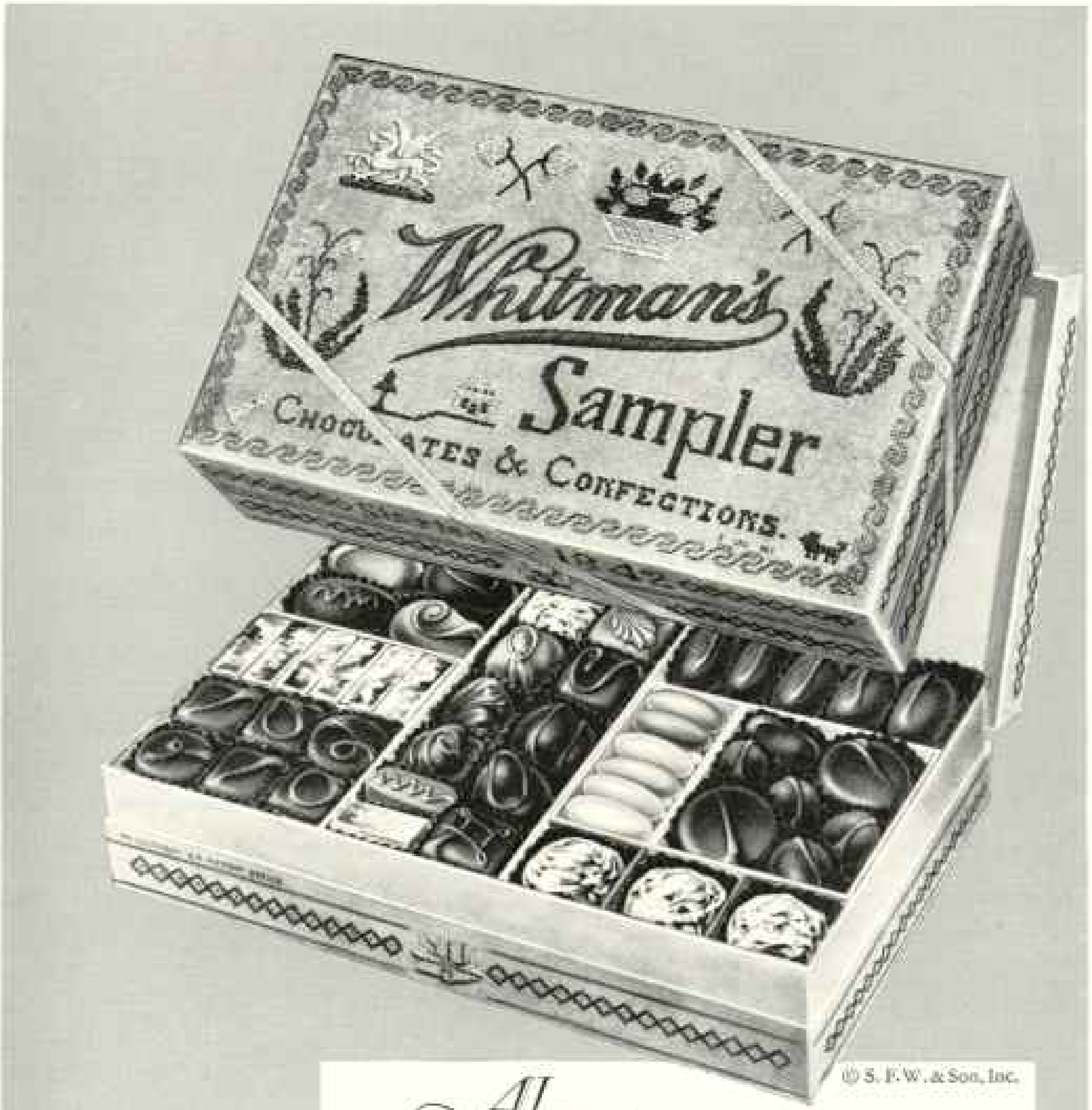

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Alone

Said Mark Twain: *"Be good, and you will be lonesome."*

The Sampler is not the only good candy, but it is alone in its particular place in the affections of candy lovers.

If you are one of the few who do not personally know the charm of the Sampler, now is the time to get acquainted.

Whitman's Sampler

The Hallowe'en Sampler

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Send Whitman's by wire . . . See Classified Telephone Directory.

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Rarely indeed do you experience the sensation of a flavor so exciting to your sense of taste, so exhilarating to your mood as Campbell's Tomato Soup. You instantly welcome it to the select company of your few real favorites. It's irresistible!

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11 Cents a Can—Look for the Red-and-White Label

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PUT this new Telalarm in your bedroom. You'll never have to crawl out of the covers to make sure it's wound —or oversleep because you forgot to.

You'll never lie awake on a restless night with a loud, tinny tick beating into your brain. Telalarm is as silent as moonlight!

You'll never need to stare through the darkness and guess at the time. Telalarm's dial is lighted by a tiny Mazda lamp that burns bright or dim as you wish it!

You'll never complain again about an alarm clock disrupting the decorative effect of your room. Telalarm's handsome "Dura-silver-alloy" case is fresh and modern in design. Gracefully it becomes a part of any color scheme!

Telalarm is self-starting, too. Most other electric clocks stop at the briefest current interruption and must be started again by hand. Telalarm runs blithely on its way and wakes you next morning!

There are many other Telechron models, designed to direct your waking hours. For wall or mantel, desk or stair. Some with mellow chimes and hour strikes. All built with beauty and precision. A Telechron dealer near you is listed in the classified telephone directory.

Telechron prices range reasonably from $9.75 to $55. The Revere Clock Company, of Cincinnati, Ohio, manufactures strike and chime clocks with Telechron motors, priced from $22.75 to $650.

Telechron is the trade-mark, registered in the U. S. Patent Office, of the Warren Telechron Company.

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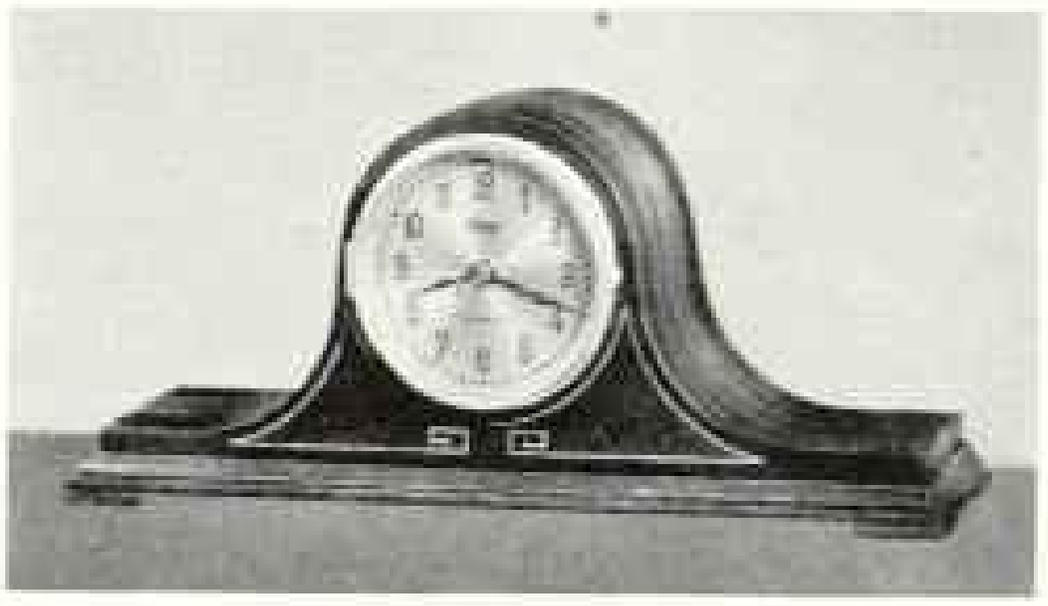

No. R-809—Mahogany case. Westminster chimes, $39. Same pattern with hour and half-hour strike, $30

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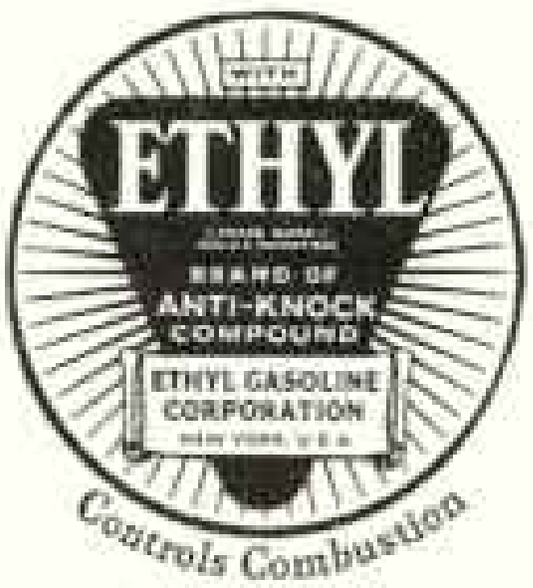

The Ethyl emblem on any pump stands for tested gasoline of Ethyl quality. Constant inspection of gasoline from Ethyl pumps throughout the country guards this standard. Ethyl Gasoline is always colored red. © E. G. C. 1928.

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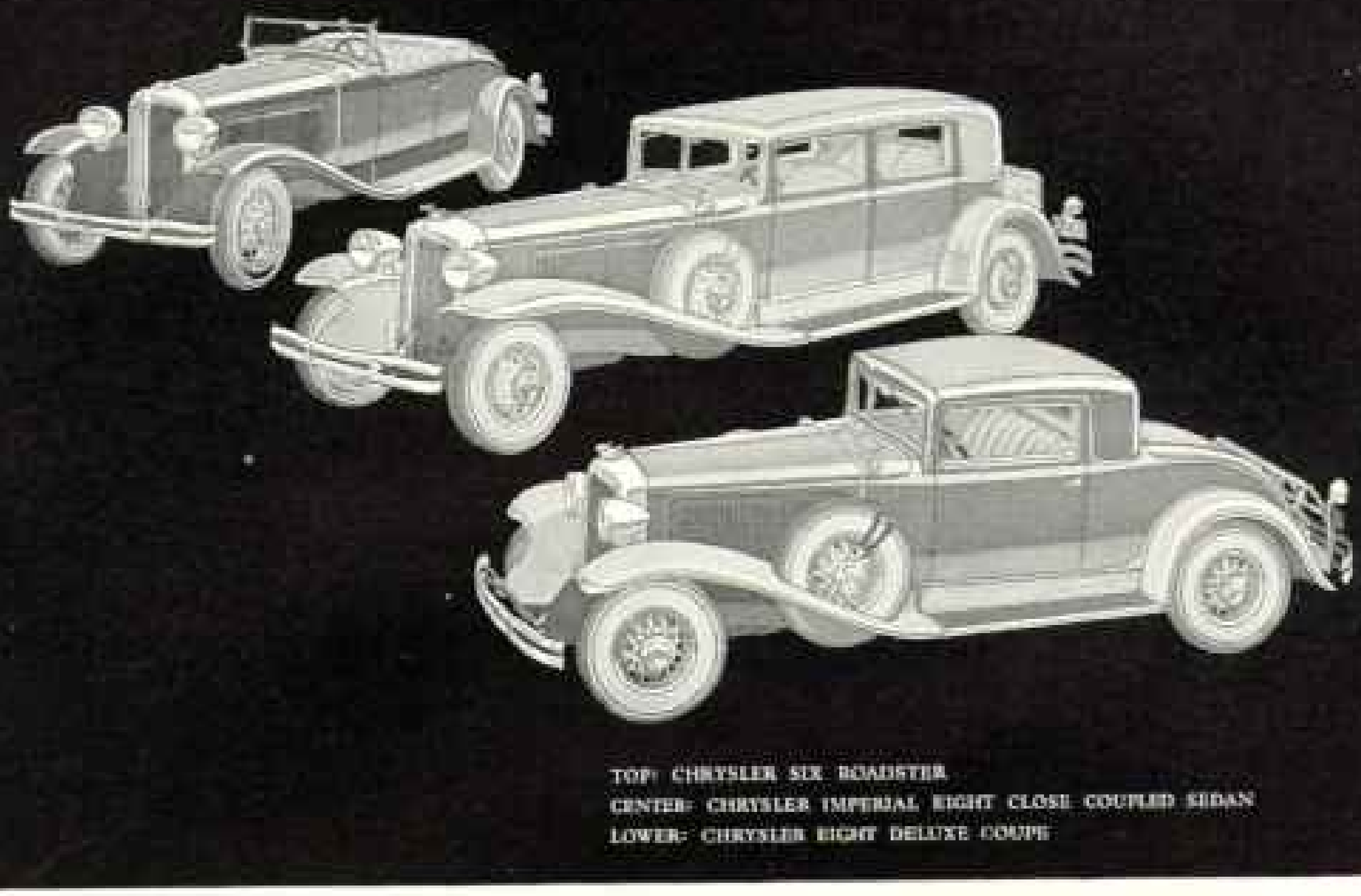

TOP: CHRYSLER SIX ROADSTER
CENTER: CHRYSLER IMPERIAL EIGHT CLOSE COUPLED SEDAN
LOWER: CHRYSLER EIGHT DELUXE COUPE

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At $885 to $935, there is the Chrysler Six in a choice of four body types—a beautiful car and an outstanding value. A fine, big Six of 116-inch wheelbase; with a staunch double-drop frame and low center of gravity; with a very quiet 78-horsepower engine; with safety bodies of steel—steel all around, rigidly welded into one piece; with self-equalizing internal hydraulic brakes—and perfected Free Wheeling optional at slight extra cost.

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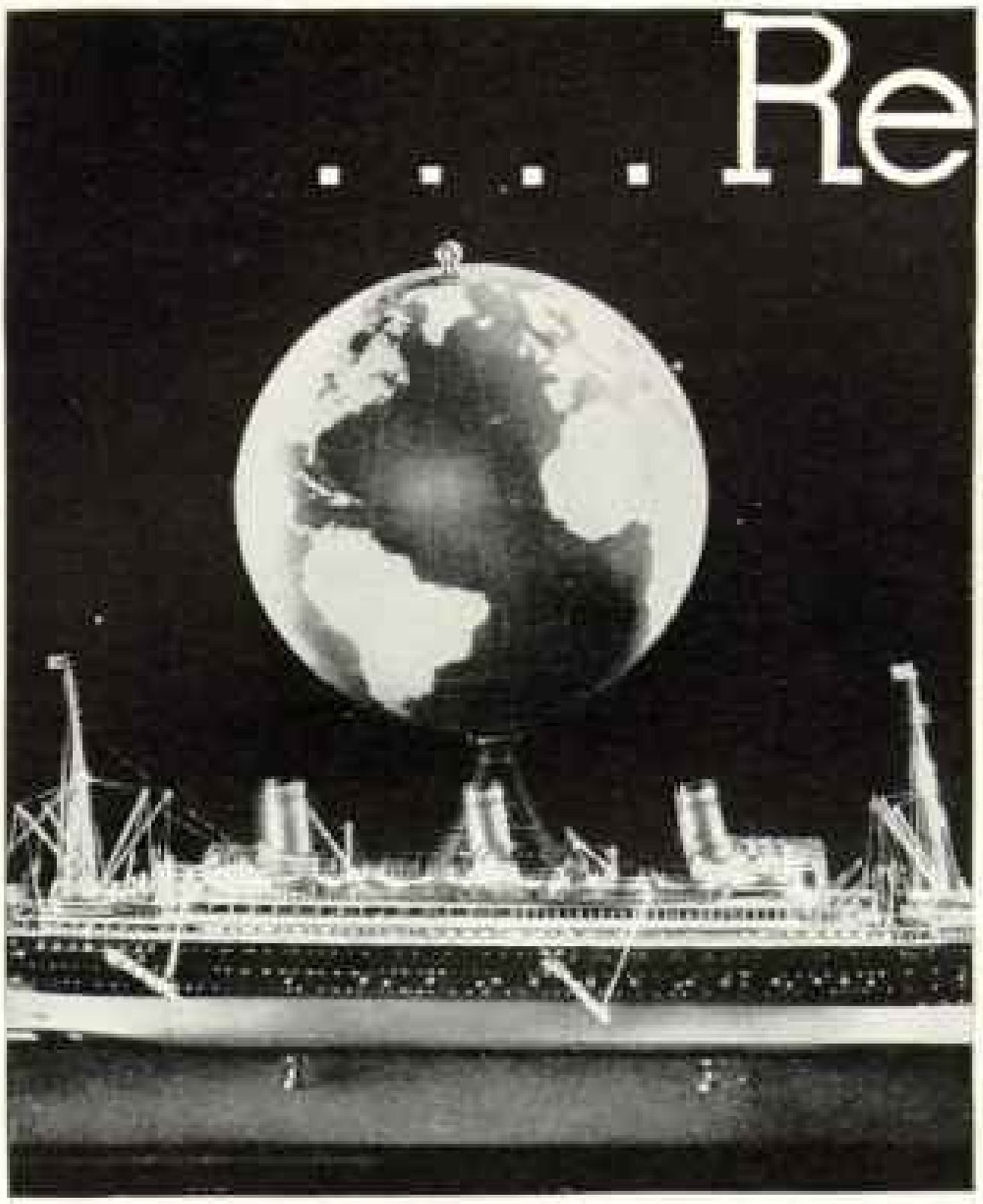

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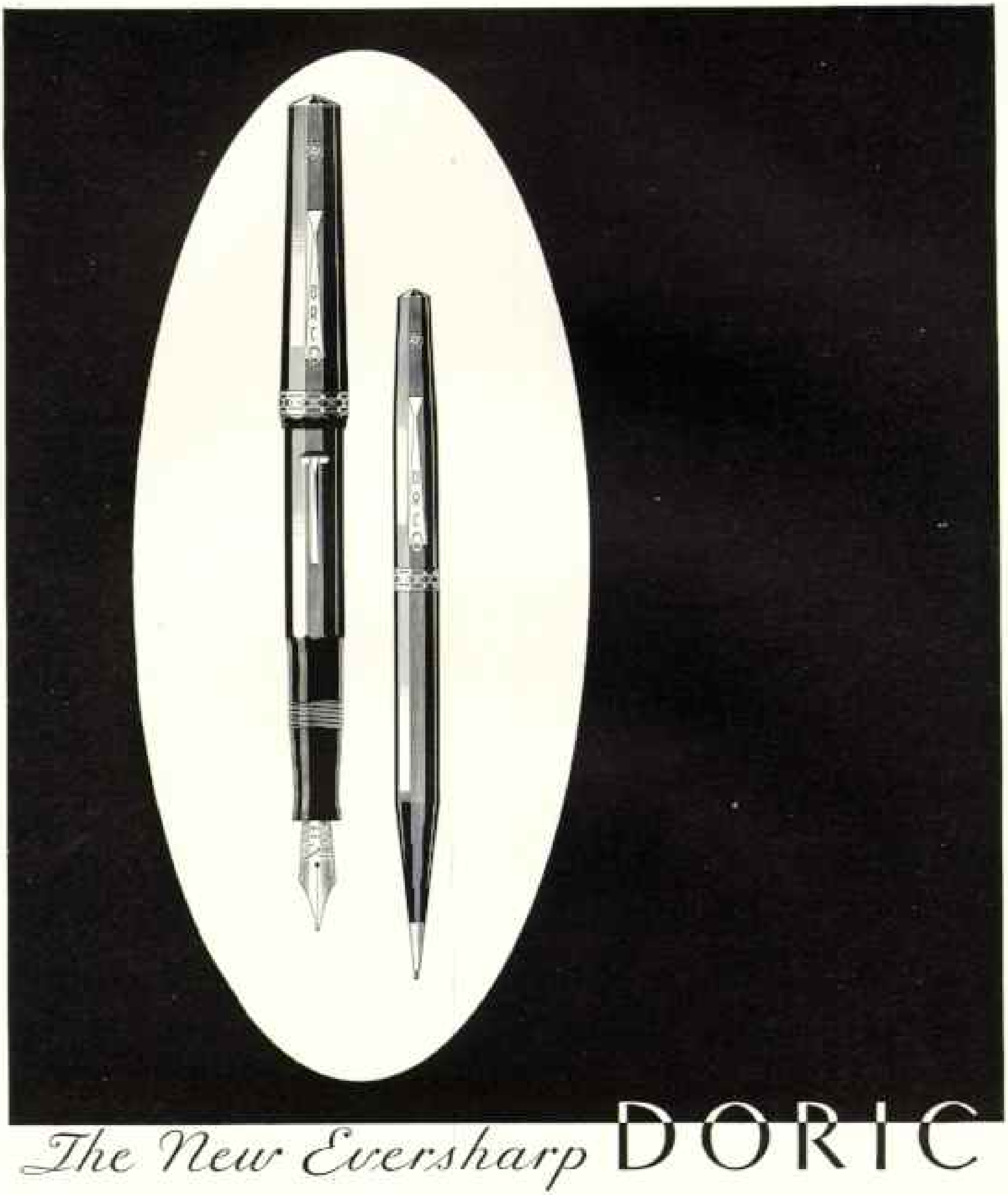

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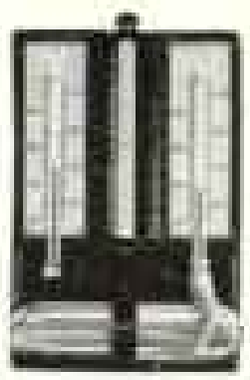

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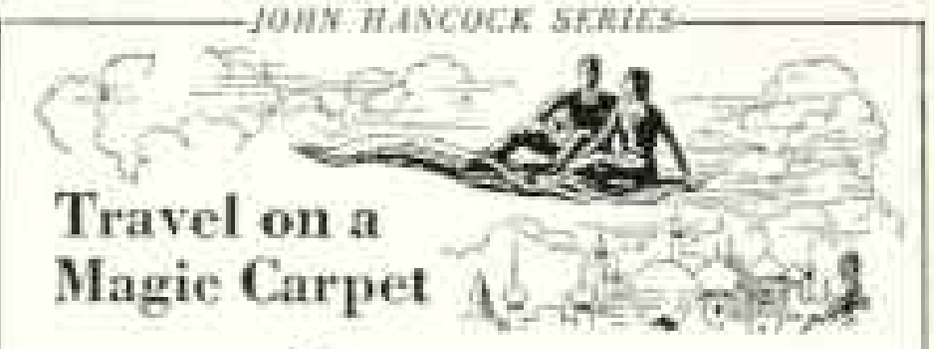

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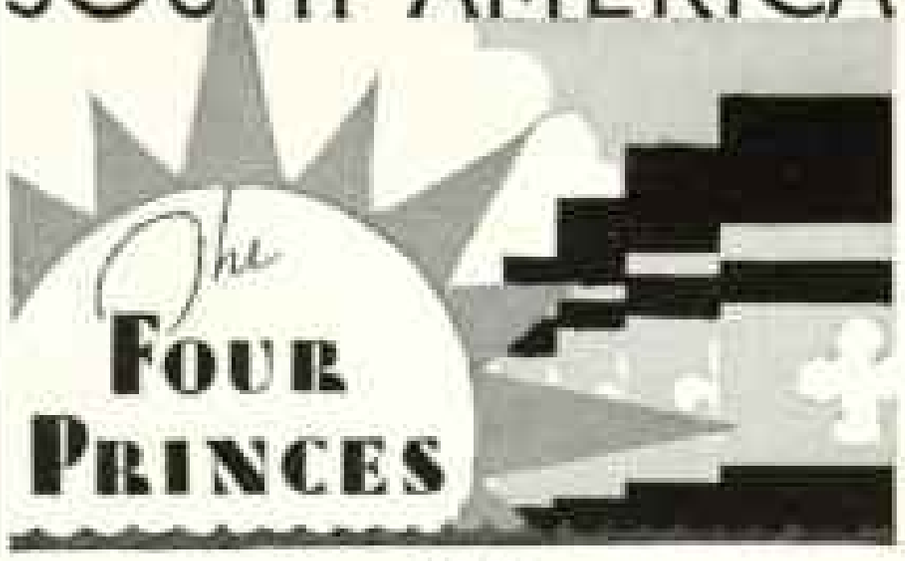

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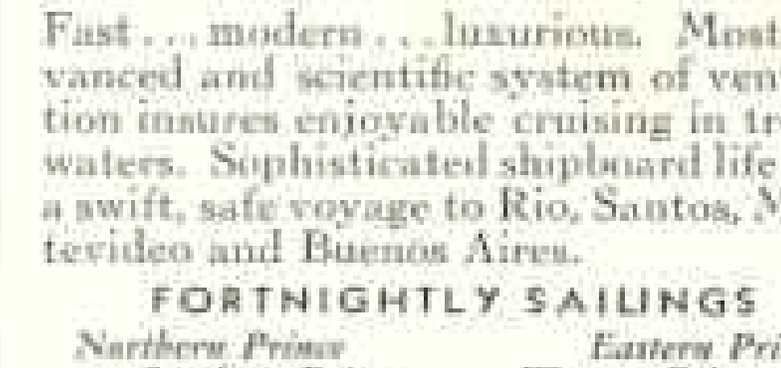

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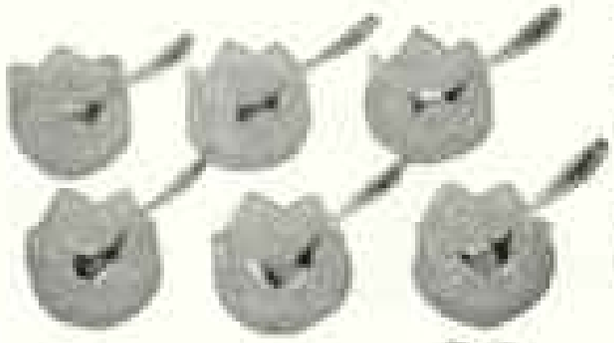

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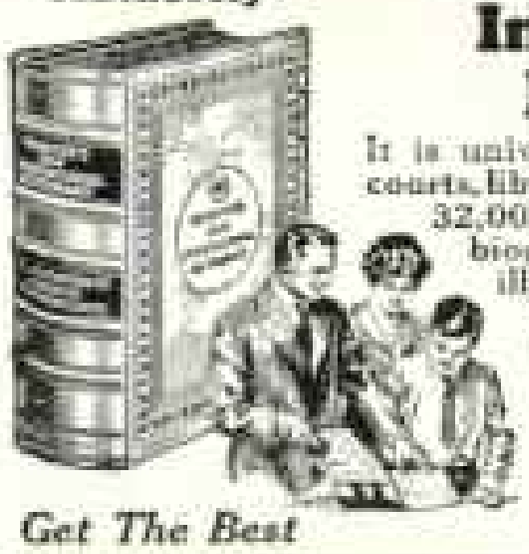

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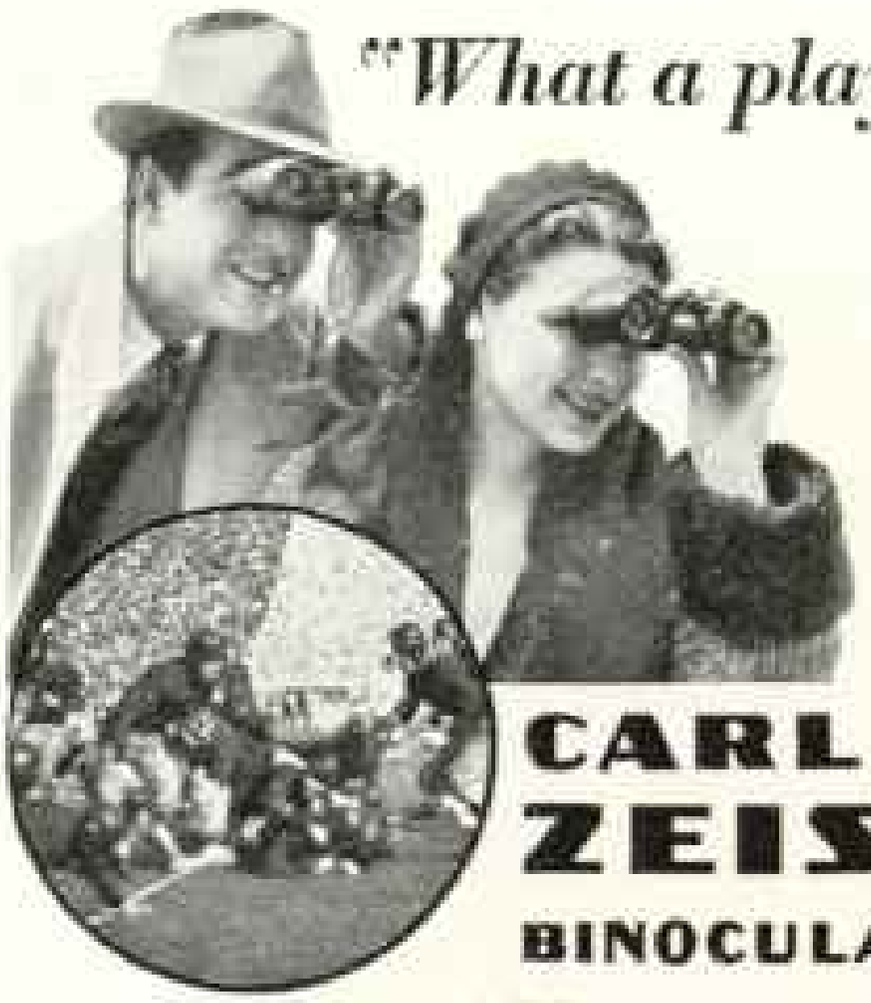

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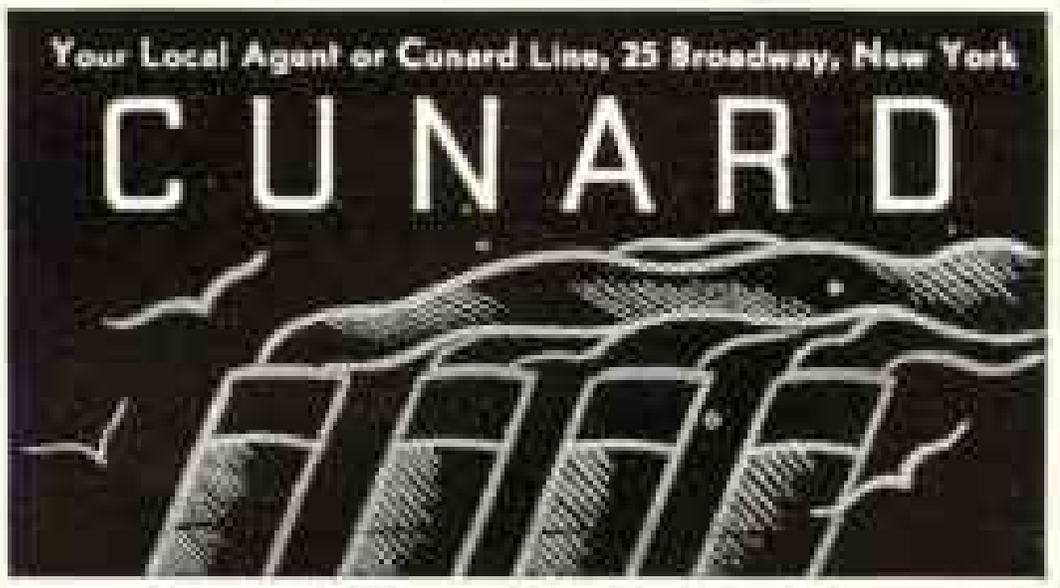

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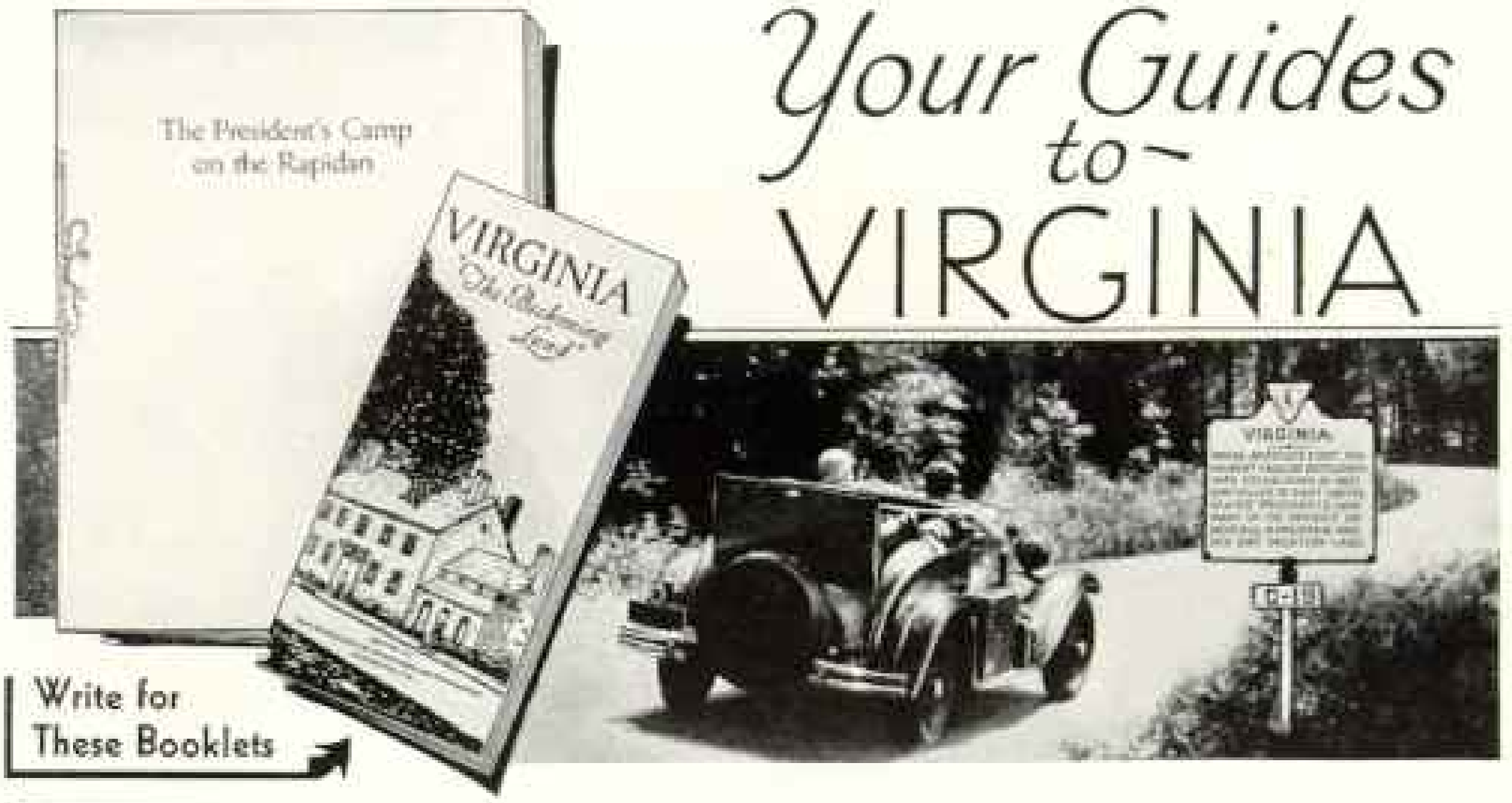
10-31

Your Guides to VIRGINIA

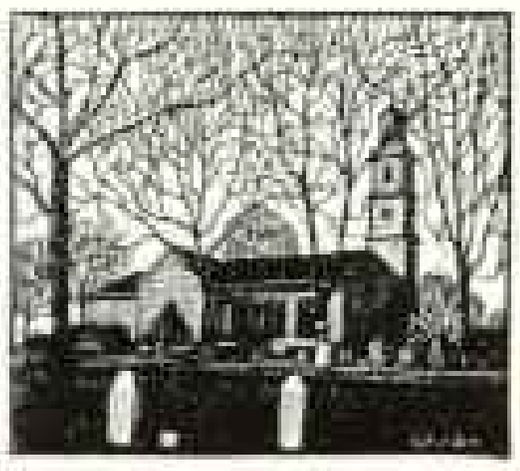


Write for These Booklets

"White House of the Confederacy," Richmond

University of Virginia, Charlottesville

Mary Washington House, Fredericksburg



Old St. John's Church, Richmond

THE STATE OF VIRGINIA has done much to aid the visitor. Four thousand five hundred miles of perfect road await the motorist. Along these highways, the State has erected more than 900 markers, like the one illustrated above, to point out for you places of greatest interest.

Profusely illustrated booklets have been prepared to help you plan your trip and get greatest enjoyment from it. There is no finer time to visit Virginia than in early Fall, when the mountains are being flecked with gold and crimson, when the heady scent of apples greets you in the valleys and when the first faint haze of Autumn drifts up the wide lazy rivers that reach up arms from the sea.

Modern roads bring you comfortably to the ancient places that are of interest to all America. Here, the spot where the first Colonists landed . . . yonder Cornwallis laid down his sword . . . there Jackson "stood like a stone wall" . . . down this road Sheridan galloped . . . within the mellow walls of this university that Jefferson built, visit the rooms of Edgar Allan Poe and Woodrow Wilson.

In addition to historic spots, Virginia has world-famed natural wonders . . . Caverns with vaulted rooms and gleaming walls of fantastic shapes; Hot Springs; the renowned Natural Bridge.

Ask for a copy of the book, "Virginia, the Beckoning Land." This official state publication describes and illustrates all places of interest. It contains maps locating Natural Wonders, Parks, Recreation Centers, Battlefields, Historic Homes, etc. Another publication that will interest you is the historical story and illustrated booklet on "The President's Camp on the Rapidan." These will gladly be sent you without cost.

STATE COMMISSION ON
CONSERVATION AND DEVELOPMENT
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VIRGINIA

YORKTOWN SESQUICENTENNIAL
OCTOBER 16TH-19TH

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