

VOLUME LIX

NUMBER FOUR

# THE NATIONAL GEOGRAPHIC MAGAZINE

APRIL, 1931



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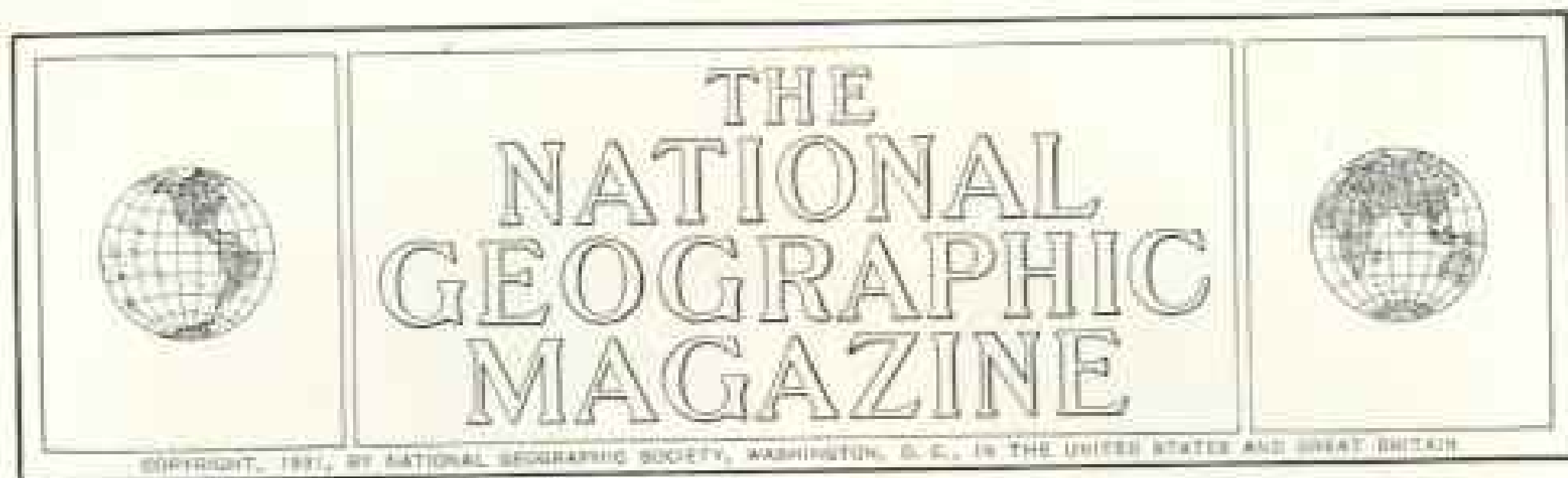
With 11 Illustrations

L. ELIZABETH LEWIS

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

\$3.50 A YEAR

50c THE COPY



## UNDER THE SOUTH AFRICAN UNION

BY MELVILLE CHATER

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AUTHOR OF "BRITISHING THE SHORES OF SWEDEN," "ALBANY, EUROPE'S NEWEST KINGDOM," "MICHIGAN, MYSTERS OF THE LAKES," ETC., ETC., IN THE NATIONAL GEOGRAPHIC MAGAZINE

### CAPE OF GOOD HOPE: THE FLORAL PROVINCE

**T**HE land smell! Luckless is the ocean-voyager who has missed that memorable hour when month-long briny breezes suddenly drop and there steals upon him from afar that indescribable earth odor, breathing of imminent shores and journey's end.

It greeted us and our ship one dazzling September morning. South Africa at last! We were nearing the continent which Pliny so intriguingly characterized as the source of "always something new."

To-day, apparently, the journalist's "something new" about South Africa lies in the not too widely recognized fact that it isn't all jungle, lions, elephants, and half-naked blacks, as the movies too often suggest, but instead a homelike land, where European-descended peoples have been implanting towns, industries, and institutions for two centuries.

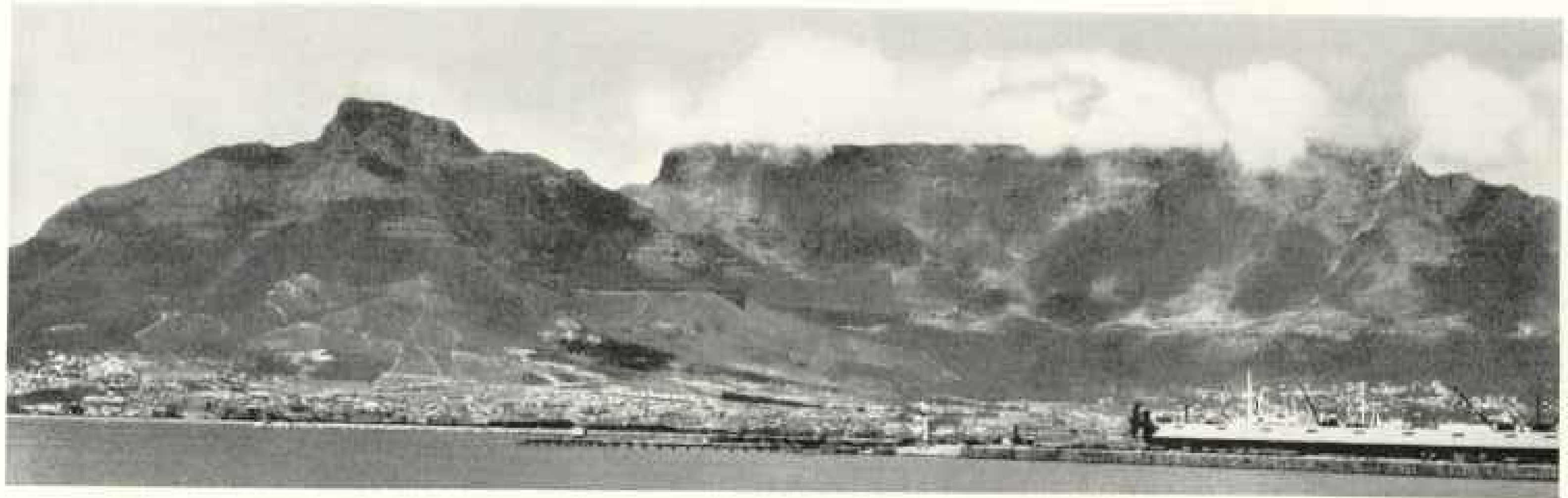
For instance, most of the going-away gifts we had received had taken, rather disquietingly, the form of succor to two intrepid explorers bound for perilous parts. Among those gifts we had found a loose card that read, "Hoping you'll use this *often* while in South Africa." But to which package did it refer? To that which contained a volume, "In Darkest Africa," accompanied, significantly, by an electric

torch? Or to the quinine tablets? Or to the first-aid kit? Or to the bottle of—? But no! We couldn't imagine any true friend actually "hoping" that we'd use that bottle of snake-bite serum "*often*."

"WHY NOT THE SUNNY CONTINENT?"

The ship's doctor had looked in on us and our gifts and had answered some questions: "Malaria? Stick to the main travel routes and you'll find none while you are in the Union of South Africa. Not but that the Union has a few comparatively small and outlying malarial regions which one must avoid between October and March. And what's this?" He picked up "In Darkest Africa," then chuckled: "The 'Dark Continent!' Well, as a matter of fact, Kimberley averages about three more hours daily of bright sunshine than New York, and between six and seven more hours than London. So why not the Sunny Continent?"

Apt enough we found his epithet when, under that dazzling September sunlight, there jutted up from the ocean's brilliant blue the vast mauve mass of Table Mountain. So completely do its colossal dimensions hide the hinterland that the Table, with its crowning "tablecloth" of cloud, appears at first sight as an ocean-girt island (see illustration, page 392).



"UNCLE AND THE DEVIL ARE SMOKING FAST TO-DAY"

So say Cape Town folk when the clouds known as the Tablecloth billow around the summit of Table Mountain (right). "Uncle" refers to Van Hunk, a Dutch pirate, who, according to the Malays, had a smoking contest with the Devil up on Devil's Peak, and the clouds are the smoke from their pipes.

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"THE MYSTERY OF THE HANSON CAB" MAY BE SOLVED IN CAPE TOWN

Photographs by Melville Chater

Apparently, when horseless carriages appeared in Piccadilly, the hansom cabby emigrated to Cape Town (see, also, text, page 395).



Photograph by Melville Chater

THE FINEST STREET IN SOUTH AFRICA'S OLDEST TOWN

Wednesday and Saturday mornings, in season, the curb flower market on Adderley Street is a wondrous sight. This handsome business thoroughfare was a fashionable promenade in the early days.



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WHEN IN HOLIDAY HUMOR, CAPE TOWN FOLK FREQUENT THE PROMENADE PIER

Here bather, fisherman, boater, music lover, beauty lover, and loungee find delights, for the pier ministers to them all. It consists of three parts: the approach from Adlerley Street (see illustration, page 393), the circus, with a statue of the city's founder, Van Riebeeck (see text, opposite page), presented by Cecil Rhodes, and the pier proper.

But why the table simile? For us, in fact, the mountain shaped itself into two much more appropriate emblems: a great South African elephant prone beside a towering South African ant hill. Yes, we agreed, those early skippers, who first called the Cape "The Tavern of the Seas," might well have added, "At the Sign of the Elephant and Ant Hill."

An hour later our weeks of bare sea and sky ended in the unforgettable spectacle of Cape Town's flower-clad subtropical springtide. Its setting was a soft, Neapolitanesque panorama of red roofs, embow-ering foliage, outflung beaches, bold head-

lands, with Table Mountain, gigantic and severe, towering behind and above it all.

#### THE CAPE OF MANY EPITHETS

And thus we came to that famous cape upon which men began bestowing epithets in the 15th century.

"Cabo Tormentoso" (Cape of Storms), reported Bartholomew Diaz, after having discovered it in 1488. "No, but rather Cabo da Boa Esperança" (Cape of Good Hope), responded his master, King John of Portugal, foreseeing in that discovery a new route to the East and a lion's share in the Indian trade.

"Famous and feared of all men," shuddered the first Englishman to double the Cape in 1579. "The fairest cape we saw in the whole circumference of the earth," declared Francis Drake, having sailed around the globe in 1580.

And in the 18th century, Cape wines having attained celebrity, witty Dick Sheridan must add his pun when the decanter ran dry: "Well, if we can't double the Cape, we must return to Madeira."

But epithet-bestowing proved easier than the colonizing of a seagirt wilderness, where aborigines wandered the shores, living on shellfish and burying their dead in dolmens adorned with colored drawings; where the hinterland was infested by "tygers and by Kafirs or Atheists, the accursed progeny of Cham." A century and a half after Diaz the Cape was still no more than a revictualing port for the East Indiamen. Unwanted, it remained a free-to-all "Tavern of the Seas" and a sort of maritime postal station whose letter-boxes were stones.

There are still to be seen at Cape Town those inscribed slabs under which early navigators "posted" letters for subsequent ships to carry Europe-ward. "John Roberts," for example, scratches on his slab that he, "Commander of the *Lester James*, ar. ye 8th Decem. (and) de. ye 26th, 1622. Look with this line for leteres."

#### FIRST SETTLERS WERE BLOOD BROTHERS OF MANHATTAN'S FOUNDERS

Finally, in 1652, the casual "tavern" received its first permanent sojourners. They were seventy colonists, sent out as "servants of the Dutch East India Company," under Commander Jan van Riebeeck.

"Shades of Father Knickerbocker, who is that?" we exclaimed, as, customs inspection over, our taxi whirled us into town. Indeed, the sturdy statue, in knee breeches, low shoes, broad-skirted coat, and shovel hat, might have stepped out of Washington Irving's pages. And, heightening the illusion, near the statue's pedestal there fluttered the Netherlands' orange-white-and-blue banner which in early days was adopted by New York.

A second glance showed the flag to be centered by the composite bearings of the Union of South Africa, while the statue, with that dogged, up-and-doing air, turned out to be Van Riebeeck himself.

From his pedestal he surveys the principal street of the town, which he and his fellow-colonists, together with the French Huguenot emigrants of 1687, founded in the unwanted African wilds. He stands almost within view of the fortress of those days, the old "Kasteel de Goede Hoop," with its gray archway enfrized with the arms of Dutch towns. He might still feel quite at home under more than one near-by roof that shelters collections of Dutch masters, stinkwood furniture, models of Dutch galleons, and kitchen utensils wherein of old were prepared *koekies*, *wafels*, or *pannekoek*.

But he would scarcely recognize in the municipality's lovely gardens the East India Company's vegetable patch, where European seeds were first planted in the colony. And a glance up Adderley Street, with its stately Parliament House, its busy shops, its curb market of dazzling Cape flowers, would amaze him; for the sound of the rattle watchmen of his days has been replaced by the explosive stammer of motor cycles, whereon silk-stockinged young ladies ride pillion. And the great sky-cutting background, blue Table Mountain, which formed the limiting barrier of his colony, is now nonchalantly scaled by anyone via aerial cable.

One might ramble for days in Cape Town's balcony-shaded streets—a feature, these balconies, of all Union cities—with the crapemyrtle peering gaudily over walls and the magnolia's breath abroad, while half imagining oneself to be in some gracious town, aromatic of the past, in the Southern States of America.

Yet one must except from the comparison the colorful presence of the Malays—the descendants, mainly, of slaves brought long ago from Holland's colonies—in whose civic quarter one sees the slim, dark-eyed girls, the grave, turbaned *babas*, the mosques and minarets, of what is a veritable bit of oriental life. When the muezzin's prayer call floats on high and the white-robed Faithful prostrate themselves within the shadowy mosque, you might be thousands of miles distant, in sun-smitten Persia or the snowy Caucasus.

Cape Town's suburbs beckoned us, so we took a hansom cab and— Yes, the reader may well stare; for all the Union's remarkably high per-capita proportion of automobiles, thoroughly motorized Cape



Photograph by Melville Chater

#### A FAITHFUL FRIEND OF MAN IS NOT FORGOTTEN

In the early days of the country fast travel was done on horseback or in the horse-drawn Cape cart. India used to value the small Cape horse as a racer, and Australia's first imported stock came from South Africa. The Horse Fountain at Port Elizabeth supplies water for the horseless rival, and commemorates the animals which died in the Anglo-Boer War.

Town still harbors the hansom. When the "horseless carriage" of the nineties appeared, what became of the London hansom cabby? Apparently he emigrated to Cape Town. And thus the "Mystery of the Hansom Cab" may be solved (p. 392).

#### A JAUNT THROUGH FLOWER-BRIGHTENED SUBURBS

And so, as I say, our ancient hansom cabby, his eyes adream of Piccadilly in the nineties, jaunted us out to the suburbs. There one may spend many delightful hours, whether along the cliff-skirting Victoria Drive, where the mesembryanthemum stretches its pink carpet high over an azure sea (see Color Plate XVII), or along the Cape Flats, where the land gleams with orchids and the ponds with blue waterlilies; or you may go Kirstenbosch-wards for a bewildering glimpse of the National Botanical Gardens, ablaze with floral varieties from all parts of the Union (see Color Plate XIX).

Then there is Groot Constantia, that old gabled homestead of Governor Simon van der Stel, with its stateliness of oak avenues without and its 17th-century appointments within. By now you will have grown familiar with the curved, bescrolled Cape gable and the curious, spiraled Cape chimney; but, should you want more of such historic architecture, you must drive out to leafy Stellenbosch, quiet haunt of thatched gables and many-paned windows, where magnificent oaks seem whispering of the past.

Under the flanks of Table Mountain the name of Rhodes looms large. Here is the estate of Groote Schuur, where the great Englishman built his home, and here rises the heroic Rhodes Memorial. Immeasurable was his influence on South African civilization, from politics to Nature preservation, from empire-building to education. Fittingly enough, Groote Schuur contains the new seat of Cape Town University. That institution is the historic outcome of



Photograph by Melville Chater

EXTERIOR OF THE BUNGA, THE BLACK MAN'S PARLIAMENT HOUSE AT UMTATA

Built with money supplied by natives, their representatives here sit in general council, debating the affairs of the Transkeian Territories (see, also, text, page 412).

the South African College, which inaugurated education in the subcontinent 102 years ago.

To-day, universities or their constituent colleges are found all over the land, from Pretoria to Cape Town. Technical schools, too, whether agricultural, commercial, or industrial, are scattered through the Four Provinces, while some 8,000 State and State-aided schools carry on lower-grade education.

IN THE HOME OF CECIL RHODES

Though Rhodes bequeathed his beautiful home as the residence of the Union's Prime Ministers, it still preserves the stamp of his character and tradition. Deep dreamer, impetuous doer! ("Yes, he *was* a bit impetuous," Rhodes's personal manservant at Groote Schuur told us, "especially if, when he was meditating, you ventured to suggest to him that his necktie was crooked.") His so characteristic library is crammed with volumes on men of action, while near it hangs a curious tricolor, perhaps his conception of a flag that

might one day rule from Cape to Cairo—the flag of a dream (see page 406).

The Memorial is a magnificently conceived pile, half Greek in effect, set under crags and amid surroundings that breathe the energy of primal nature; while, seen afar off, stretching wide as a great man's vision, lie two oceans, the Indian on one hand, the Atlantic on the other (p. 405).

"Ah, there was a great Finker!" ejaculated our ancient hansom cabby, flicking his whip toward the distant Memorial. "And wot made 'im so? 'Ansoms cabs, I say!"

Not perceiving the nexus between great thinking and hansom cabs, we begged an explanation. Our philosopher cabby replied, "Why, this 'ere Rhodes lived when gentlemen went in genteel 'orse 'ansoms and not like now, in these blighted locomotive-drivers' gasoline cabs de luxy. Many's the big pot—Gladstone, Salisbury, and the rest—as said to me, coming out of Parliament, 'Drive me for an hour anywhere you like, William, so's I can fink fings over!' Twig? 'Cause a man *could* fink in an





CAPE TOWN IS THE UNION'S LEGISLATIVE CAPITAL

The Houses of Parliament, with Table Mountain in the background. The legislature is composed of a Senate and a House of Assembly. The Senate consists of 32 elected members and eight nominated by the Governor General. Of the latter, four are selected mainly for their acquaintance with "the reasonable wants and wishes" of the colored races.

'ansom. Now, I arsk you, 'oo could fink nowadays in one of these blarsted 'ooting taxis, that gets you there so quick you 'aven't 'ad *time* to fink? That's why there ain't no finkers like Rhodes to-day. 'Ence I say, 'ansoms made 'im wot 'e was!"

No, he couldn't see much to the Gasoline Age, though upon our remonstrance he had to admit that touring the Union in a hansom cab would constitute a long business.

#### SOUTH AFRICA'S VARIOUS TERRITORIAL UNITS

To speak of visiting South Africa would be hardly less vague than to speak of "seeing" North America. Each has its manifold political divisions, its diverse peoples. Each has its striking antitheses, whether one journey from Florida's sands to Alas-

ka's snows, or from Cape Town's floral meads, agleam above tropic seas, to where Victoria Falls' eternal rainbow shimmers amid "*the smoke-that-thunders*."

Indeed, to speak only of South Africa's various territorial units within the British Empire would be to indicate an area no less than one-half that of the United States or some 17 times that of Great Britain. To cross those vast subequatorial spaces from south to north, one travels some 3,000 rail-miles, meanwhile reflecting that Cecil John Rhodes, who visioned consolidation of the whole—and, in fact, much more—verily dreamed in terms of continents.

Although the great imperialist's reach exceeded his grasp, subsequent historic events, by evoking in South Africa a compact block of States, variously governed,



Photograph by Melville Chayer

A FARM WITH ONE FOOT IN THE DESERT, THE OTHER IN AN ORCHARD

In those sections where irrigation brings life-giving water, the thirsty Karroo (see illustration, page 428) literally bursts forth with fruits, grains, and flowers. A low wire fence divides orchard trees and maize patches from blistering sands.

yet all "within the Empire," have realized one phase of his dream.

MANY PARTS UNDER ONE FLAG

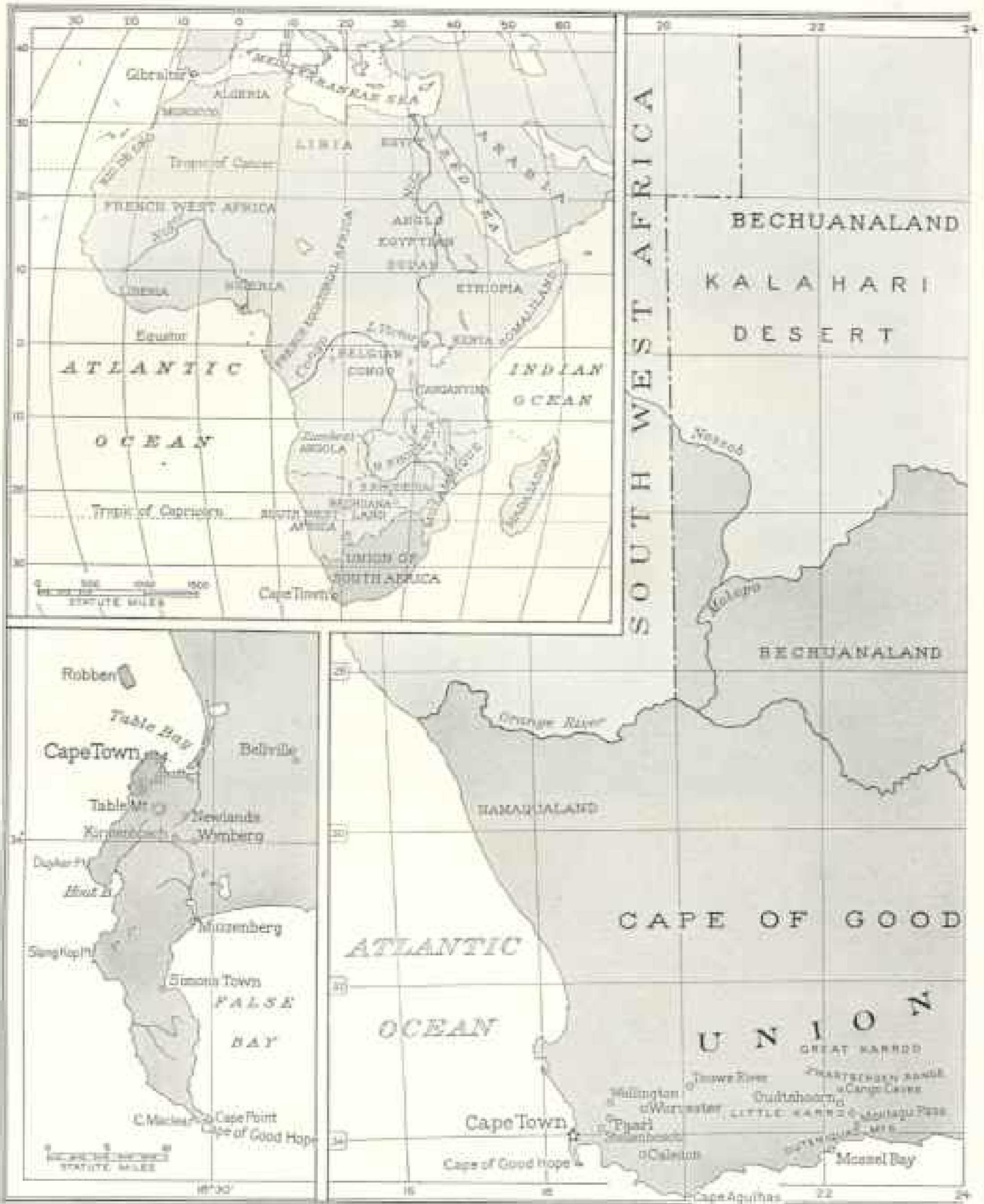
Of this compact block, which is populated by some 11,000,000 people, with but 1 European to every 5 Africans and Asiatics and 12 Europeans to every 10 square miles, two vast protectorates form its western and central portions.

Among its frontiers along the Indian Ocean lie two Native Territories, homelands of the Basuto and Swazi peoples. Toward its north stretch the two Rhodesias, responsible governments of the colonial protectorate type, whose beginnings were laid in 1890 by a pioneer column that entered and occupied regions considerably larger than Texas and California combined.

The rest of this compact block, and incidentally its largest political division, consists of four of the subcontinent's older States—Cape of Good Hope, Natal, Orange Free State, and the Transvaal—that united in 1910 under the name of the Union of South Africa.

Within the Union, each of these four provinces has its own provincial capital and administration. The country as a whole is governed by two capitals, Cape Town being the legislative center, Pretoria the administrative. Representing the Crown is His Excellency the Governor General.

In point of size alone, the Union would satisfy the mileage ambitions of most travelers. To traverse it in all its parts would be comparable, in terms of area, to traversing the whole of Great Britain five times over.

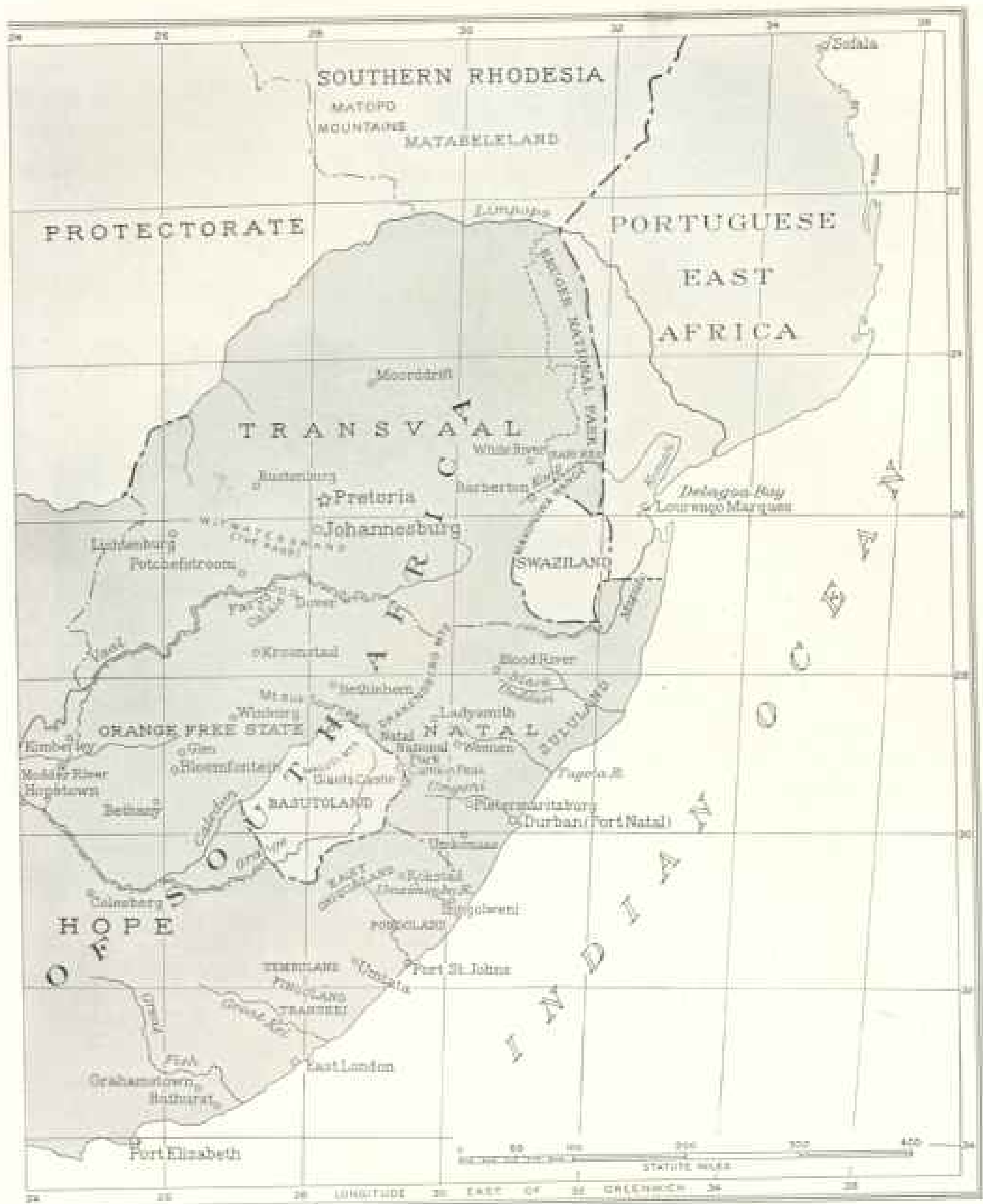


FOUR PROVINCES CONSTITUTE THE SELF-GOVERNING UNION OF SOUTH AFRICA:

On the inset map of Africa is shown the geographical relation of the Union of South Africa to other South African political units—the former German colony of South West Africa, now administered as an integral part of the Union under a mandate from the League of Nations; the colonies of Southern and Northern Rhodesia, the Protectorate of Bechuanaland, the Native Territories of Basutoland and Swaziland, which are all under the British flag, and the Portuguese territory of Mozambique.

Or, to shift the comparison, the Union's area approximates the aggregate of the twelve States lying south of Pennsylvania

and of the Ohio River and east of the Mississippi. Of those twelve, Virginia, West Virginia, and Kentucky, if taken to-

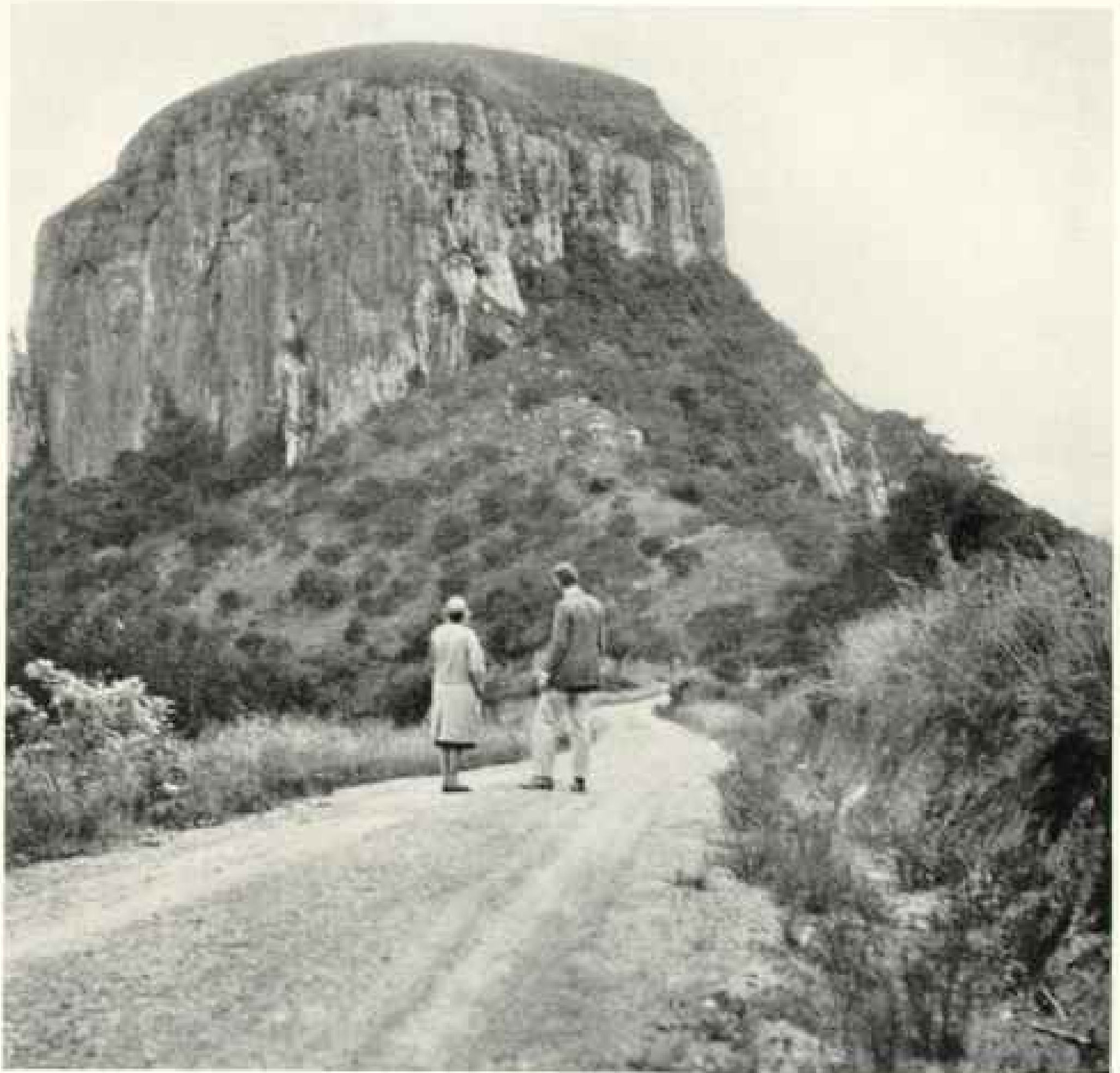


CAPE OF GOOD HOPE, NATAL, THE TRANSVAAL, AND THE ORANGE FREE STATE

Pretoria, in the Transvaal, is the administrative capital and Cape Town, in the Cape of Good Hope Province, is the legislative capital. There are two official languages—English and Afrikaans. The latter is a distinctive South African language developed from the Dutch of Holland. The political status of the Union is similar to that of Canada—a fully autonomous Dominion within the British Commonwealth of Nations.

gether, would still be somewhat less in area than the Transvaal. North Carolina is slightly larger than the Orange Free State

and South Carolina is slightly smaller than Natal. As for Cape Province, a combination of Florida, Alabama, Mississippi,



Photograph by Melville Chater

#### THE TARPEIAN ROCK OF THE BANTU TRIBES

In former times cowardice and rebellion were punished by hurling the malefactors from Mien-gana Rock, which rises between Port St. Johns and Umtata. Tradition says that on one occasion the Zulu Napoleon, Chaka (see page 450), commanded an entire *impi* (regiment) of warriors to hurl themselves from such a rock, and they obeyed unhesitatingly.

Tennessee, and Georgia would be considerably exceeded in area by that vast seaboard state.

Even a Texan couldn't complain of a lack of space in Cape Province, which is more than 10,000 square miles larger than the Lone Star State. So we started off through that province with the comfortable sensation that we wouldn't feel in any way—well, er—cramped.

#### TREKKING THROUGH CAPE PROVINCE IN THE SPRING

Our road to Caledon led away between the vividly green grainfields of the Cape's

September springtide. (We were later to experience the strange, upside-down feeling of a South African Christmas in mid-summer and of its winter in July.) Everywhere along billowing hillsides spring was being rung in by Caledon's long-stalked bluebells, gaily adance like the Wordsworthian daffodils.

But, for once, spring indoors eclipsed the pageant of the hills. Caledon's exhibition hall was kaleidoscopic with fragile marvels. There were massed pyramids of proteas and heaths; there were groups of Afrikanders, of orange-hued gladioli, of winter-touched bracken peering amid the



Photograph by De Cou from Galloway

A BEAUTIFUL DRIVE LEADING TO THE RHODES MEMORIAL (SEE PAGE 405)

The site of the Memorial adjoins the spot which the "dreamer devout" loved so much that he built a 3½-mile carriage road to it, leading through the grounds of the estate of Groot Schuur (see, also, illustration, page 494).

floral tints of early spring; and there were the tall, white arum lilies, known as "pig lilies" in several Cape regions, where they grow so profusely that stock animals feed on their roots.

The floral floats included a "Graf Zepelin," a blindfold "Hope" harping atop her globe, and a great gray spider enmeshing a green fly. All were made of heath, or protea-fluff, or other type of "everlasting," and represented months of patient labor (see pages 408 and 410).

AMERICAN MACHINERY IN OPERATION

On we went through green valleys where, edging the illimitable, semiarid Little, or

Southern, Karroo, townlets like Wellington, Worcester, and Paarl nestle amid vineyards and peach orchards. Here you may see American machinery and American methods operating in fruit-drying factories. You may glimpse quaint Huguenot homesteads, or that of "*Welvenpas*," where Piet Retief, of *Voortrekker* (Pioneer) fame, was born. Or, in what was once called the Wagon Makers' Valley, you may still watch abuilding the "prairie-schooner" type of vehicle that served Retief and his Voortrekkers during their northward exodus in 1833 and thereafter.

But trekking had begun as far back as Van Riebeeek's days; for, about the time



Photograph by Melville Chater

GROOTE SCHUUR WAS THE RESIDENCE OF CECIL JOHN RHODES

The empire builder reconstructed this handsome mansion upon the granary of the Dutch East India Company, and later bequeathed it as the residence of the Prime Minister of United South Africa. It nestles under Table Mountain (see illustration, page 392), in Cape Town's environs.

that Swift was rhyming of "Afric maps" where cartographers "place elephants for want of towns," the Cape colonists began deserting the Company. Adventure was in the air. Hadn't little Eva, a Hottentot with a Haggardesque imagination, quite eclipsed the old Portuguese legends concerning a Golden Ophir at Sofala and an Empire of Monomotapa somewhere up the Zambezi? Eva reported a trans-Drakenstein civilization where white-skinned magnificoes went loaded with gold and gems and—well, almost—played marbles with pearls!

"Forth and put over the Drakenstein!" cried the adventurous Dutchmen. And they did so, but found nothing worth recording. It was, in fact, innocent-eyed little Eva that had "put one over." Yet the gateway was now open, and for a century there ensued the settling of Cape Colony's hinterland.

That these Dutch pioneers of 1700-1795 developed striking characteristics was inevitable. Great spaces and unhampered

liberty breed individual men. Though their transitory republics, inspired by the American colonies and aiming at severance from the Dutch East India Company, passed away, there resulted the development of a new people.

This pastoral folk, the Boers—that is, "farmers"—led a free existence on a limitless veld, wanting neither taxation nor representation, but simply to be left alone. Gun, horse, Bible, and black slaves, for they held that the Old Testament justified slavery, quite sufficed this patriarchal breed of "men who can shoot and ride."

DESERT TRANSFORMED INTO VAST PINK PLAIN

"You must sample this peach brandy," said our host in one of the Karroo-fringing towns, "then we'll see the mesembry-anthemums."

Presently we stood on the verge of the Little Karroo. Its usually nude soil had been carpeted, literally overnight, by one vast, flat expanse of pink mesembryanthe-



Photograph by Melville Chater

SOUTH AFRICA'S MONUMENT TO THE MAN "WHO DREAMED IN CONTINENTS"

The Rhodes Memorial tops an eminence in the grounds of Groote Schuur (see illustration, opposite page) and was unveiled in 1912. The mounted figure in the foreground represents "Physical Energy." Its face is turned toward Rhodesia. The temple in the background enshrines a bust inscribed: "To the spirit and life work of Cecil John Rhodes, who loved and served South Africa."

mums—a sun-emblazoned, dazzling spectacle (see Color Plate III).

"For as long as seven years of drought," said our host, "the seeds of those millions of flowers will remain dormant. Then, with one heavy rain, the whole veld blossoms suddenly into what you see."

I broke my prolonged stare across that pink veld to glance down the red earth road that bordered it; and then I stared indeed, for that earth road had suddenly turned green!

"Powerful peach brandy, that of yours!" I ejaculated. "What color is that road, anyway?" Then the others stared at the road and exclaimed, "Green!" And it was some seconds before our pink-impressioned retinas cleared, and what was really red became red once more.

Add to the Little Karroo that other semi-desert, the Great Karroo (see Color Plate II), and you have more than 100,000 square miles of what is in drought times a desolation of parched water gullies, of starved plains on whose ironstone *kopjes*

(isolated hills) the heat shimmers like a mirage. But again we were in luck; for, upon arriving in the Great Karroo, we found that long-hoped-for rains had transformed it overnight into a fairyland of color. Across ten flat miles the mesembryanthemum carpet blazed, while even the forbidding *kopjes'* bases were bordered with a faint green.

Yet the Karroo plateaus, where rain is sometimes a seven years' wonder, support one of the world's great wool-raising industries. Irrigation, the Karroo bush, and boreholes where steel windmills whirl, combine to sustain millions of sheep. Once solve the water problems attendant on the Union's forty-two million sheep—merinos, karakul, and the Cape variety—and many an area in South Africa would rival Australia's average sheep-farming districts (see page 429).

Only second in marvelousness to the fabled Greek herb, moly, is that humble-looking, aromatic growth, the Karroo bush. Through droughty years, when all other





Photograph by Melville Chater

#### THE FLAG OF A DREAM

The man is Rhodes's old body servant. The flag which adorns the wall in the empire builder's home (see page 404) was evidently an invention of Rhodes to symbolize some African imperialistic scheme. It may have been Rhodesia plus Portuguese East Africa, but more likely, on account of the Moslem insignia, it had to do with a far wider scheme.

forms of vegetable life have perished, flocks will thrive on that extraordinary plant even when it has been sun-scorched beyond recognition.

#### SMALL TOWNS WITH CITY WAYS

"No, we haven't 4,000 people; only about half that," was the kind of answer so often given to our questions. And then we would wonder at the town's broad, tree-shaded, electric-lit streets; its memorial-centered square; its hospitable club; its tennis courts and public swimming baths; its golf links; its shaven bowling greens.

And, if anyone wonders at our wonderment, let him envisage that these little towns are scattered, sometimes a hundred miles apart, through a wide country that contains in all but 1,750,000 people of European descent.

Indeed, considering the Union's total population—that is, 7,500,000 people, with the Bantus and Asiatics exceeding the Europeans by almost three and a half to one—it will be seen that, per square mile, the United States is two and a half times and Great Britain almost thirty times as densely populated. That, in a busy land of outspreading railways and prosperous cities, there should be only four white people per square mile is the predominant fact for those who would understand the Union's achievements.

Thus far the charm and softness of the Cape Province—its balmy air, blue skies, brilliant flowers—had caressed us. Even the Karroo had proved to be a floral fairyland.

What! In all South Africa, wasn't there left one touch of the primitive, the perilous? Had civilization's muffler quite stilled the call of the wild?

But the sought-for thrill was attained one morning when, as we sat at breakfast in a small hotel, L. C. exclaimed, looking up startled from her menu, "Jungle cats! It's certainly down here as the first course!"

Incredible as it seems, there it was, plainly typed. Morbid curiosity prompted us to ask the East Indian waiter how one ate them. "With sugar and milk," he replied impassively.

Forgoing the wild-cats, we reinvestigated the menu. The very next thing our eyes encountered was the item, "Lion chops, sauce piquante." Really, to reduce the monarch of the forest to chops and piquancy was a bit too much! We felt we ought to lodge a protest with some society for the protection of wild life. But just then appeared an angry-faced hotel proprietor who was berating a flustered typist. Hastily the misspelled menus were replaced by corrected ones. "Jungle cats" turned out to be "Jungle oats," The snack of forest monarch resolved itself into "loin chops"; and the last remote suggestion of four-footed wild life on the menu, where pawpaw was rendered "paw paw," proved to be a slice of that popular South African fruit.

#### STRUTTING OSTRICHES AGAINST A TOBACCO- FIELD BACKGROUND

A hundred miles southward from our stopping point in the Great Karroo, and across the saw-toothed peaks of the Zwartbergen Range, lies Oudtshoorn. We found it a scene of strutting ostriches, tobacco fields, and proudly waving lucerne; for the long drought had been broken and the farmers were exclaiming, as of a miracle, "My fodder crops are so tall that the children can hide in them!"

Even admitting that the automobile killed high thinking, we weren't prepared to learn that it had injured ostrich farming. Nevertheless, "It's a waning trade," so a local citizen informed us. "When the motor car came in, the ladies put on those potty



Photograph by Melville Chater

#### A HALT ON THE OUT TREK

Like the Dutch pioneers, with their ox-drawn wagons, a Kafir woodcutter and his family have "outspanned" (halted, unharnessed) here for the night.

little windproof hats and that finished the ostrich-feather fashion" (p. 428).

The Zwartbergen, or Black Mountain Range, seemed oddly misnamed, as our car ascended its flanks, yellow with gorse, purple and pink with heather. And when, at the summit of 5,000 feet, we turned from our birdman's-eye view of valley panorama and descended into a superb gorge, "Zwartbergen" seemed yet more inappropriate. Had the Titans once strode across from Greece and splashed the gorge from Gargantuan paint pots? For the sheer, flat-faced cliffs flamed red against the blue sky, while across the red there ran stripes and patches of bright green.



Photograph by Melville Chater

## FLOWER PUPPETS IN A MINIATURE CRICKET MATCH

"Say it with flowers" is not a new slogan here, for long-stalked bluebells, red perines, flowering heaths, and other fragile marvels grow profusely, and quantities of everlasting and other wild flowers find ready sale. An exhibit at the Caledon flower show (see text, page 402).

The Zwartbergen Range has the added distinction of containing the Congo stalactite caves. Our road thither led us past avenues of mammoth cactus and through rocky remotenesses where bloomed the *klapperbos*, or Chinese lantern tree (see Color Plate XXIV).

The cactus's moist pulp, when the spines have been burned off, means combined food and drink for cattle during droughts. As for the little fairylike tree, its branches loaded with pendent pink-and-white seed pods, it would be difficult to choose between its two names, respectively suggestive of tolling bells and of swaying lanterns.

The caves proved an interminable succession of fantastic chambers wherein one glimpsed ghostly stalactite formations resembling organ pipes, gargoyles, carved pulpits, angels' wings, Cleopatra's needles, and throne rooms fit for some king of the underworld. Mysterious drafts, indicating, perhaps, some second yet-undiscovered entrance, called to mind Rider Haggard's heroes, who, following a fresh-air current by the last gleam of their ultimate

match, staggered out of King Solomon's mines.

Through the gravid silence, the semi-gloom, one hears the unearthly cheeping of bats and the eternal drip of lime-impregnated water, augmenting "Cleopatra's Needle" at the computed rate of half an inch per century. And then, gazing at some 10-foot stalactite, one marvels to reflect that its beginnings, according to this computation, antedated Egypt of the Pharaohs by thousands of years.

## A DEVOUT BOER'S THANKSGIVING MEMORIAL

Returning to Oudtshoorn via a circuitous route, we crossed a railway track near which stood what looked like a tombstone; but it wasn't either that or one of those grimly humorous warnings to reckless motorists. It was, in fact, a thanksgiving memorial, and concerning it our guide told us the following tale of the Boer and the Level Crossing:

One day in early times old Oom Piet—that name will do—neared this railway



CAPE TOWN'S CITY HALL FRONTS THE HISTORIC PARADE

Above the handsome building, which contains a grand hall, with a seating capacity of 2,000 and a fine organ, rises a campanile with a carillon of 37 bells. The Parade Ground, nearly a fourth of a mile long, was laid out in 1699, and here, on Wednesdays and Saturdays, auctioneers set up their stalls.

crossing in his ox-drawn wagon. He had heard of railways, but scorned them, seeing that they weren't mentioned in the Bible. So when he heard the train approaching he obstinately determined to ignore the *verdompt* thing. But getting 16 span of oxen across the track proved so slow that—well, the engine ripped off the back end of the wagon and Oom Piet just escaped sudden and violent death.

And now, his pride thus humbled by the Lord, the old Dutchman proved just as stubborn about his thanksgivings as he had been about the train. Despite the railroad's right of way and after successive oustings of his tablet and his successive replantings of it, Oom Piet's slightly pestering piety prevailed. Placed upon the spot of his deliverance, the tablet reads:

"Hitherto hath the Lord helped us. Praise and thanks are given to His glorious name."

From Oudtshoorn our train snaked up and over the Outeniquas to where Montagu Pass opens upon a wide coastal view, seen far below, with the Indian Ocean

beating white upon many a rocky headland or crescent beach. Then, between protea-clad slopes (see Color Plate XVIII), yellow as with scattered mustard, we descended the gorge where, in the days when men called it Cradock's Pass, the crack of the trek whip was heard as the wagons, their wheels temporarily detached, dry-sledged down the mountain.

We had thus regained the Cape's southern coastline. Along our 300-mile shore route, from Mossel Bay to East London, were woodland and seaside resorts aplenty. At those two ports, as at Port Elizabeth, pleasure and commerce combine, for they are not only the gateways of the hinterland's wool industry, but also Meccas for sea-hungry vacationists from the interior.

As for Port Elizabeth's famous Snake Park, we had already heard of it from a naturalist whom we had met elsewhere. Upon being presented to this lady across an afternoon tea table, she had produced a cardboard box and observed beamingly, as if to fellow savants, "Let me welcome you to Africa with this trifling token—a snake



Photograph by Melville Chater

#### CALEDON USHERS IN THE SPRING WITH A FLOWER SHOW

Such floats, representing months of patient labor, are made of heath, protea-fluff, and other kinds of everlasting (see, also, illustration, page 408).

egg. I'm not a snake person myself, but I *think* it's cobra."

But we were not "snake persons" either, and how we gingerly bore the dreadful object home and tried to foist it off on successive people, and "accidentally" left it on a tram (the conductor returned it to us, bowing), and finally gave it to a museum curator and fled, would make humorous reading—of a sort.

As many as 2,000 reptilian residents at a time have been chaperoned in the park by big, black, snakeskin-bedecked Johannes, who will toy with 11-foot pythons or extract puff-adder venom while you wait. I imagine that the only time Johannes really hated snakes was when, having marvelously escaped death by a puff-adder's fangs, he was fined ten shillings for his carelessness in being bitten (see p. 424).

#### THE YOUTHFUL "SNAKE STEALERS' SYNDICATE"

The director will tell you of hunger-striking snakes who, refusing food while in captivity, are coaxed to eat by being placed in surroundings suggestive of their

native habitat; or of the deadly black mamba, who can outspeed a man, and whose bite means death within the hour; or of the considerable success of blended snake venom as a cure for malaria and epilepsy.

Or he will relate, with a twinkle in his eye, the escapade of the "Snake Stealers' Syndicate." This consisted of three Port Elizabeth kids who lacked pocket money for sundaes and eskimo pies. Nightly these bare-legged youngsters would scale the Snake Park's walls, corral deadly adders and cobras in pillowcases, and sell them back to the director next day as new specimens. When caught red-handed they were given reformatory sentences, but some folks thought they ought to have received the Victoria Cross instead.

On the way northeastward from Port Elizabeth lie two pleasant towns, Bathurst and Grahamstown, which share with the first named a historical association—the arrival of the Cape's English settlers of 1820, subsequent to the conquest of Cape Colony by Great Britain. Bathurst, their first administrative headquarters, is to-day the heart of a big pineapple



Photograph by A. H. J. Sievanilink

#### GATHERING PINEAPPLES NEAR GRAHAMSTOWN

Introduced into South Africa around 1860, the "pines" grow perfectly in several sections, particularly in the Albany District of the Cape (see, also, illustration, page 422).

industry. Grahamstown, nowadays an educational center that numbers the Rhodes University College among its institutions, formed the settlers' rallying point against Kafir attacks.

#### WHERE THE BUSHMEN LEFT THEIR PAINTINGS

North of East London we crossed the Great Kei River. Its waters give a boundary and a name to the Transkeian Territories, while its caves contain one of the world's most interesting art collections.

Without invoking the moot question of "What is art?" these Bushman rock paintings may truly be described as "primitives." Scattered widely throughout South Africa are these naïve representations of animals or matchlike men, either cut in the rock or executed thereon in whites, blues, reds, and yellows. Indubitably it was prehistoric man who created somewhat similar art galleries in France and Spain; yet the crux of determining whether a Bushman painting be prehistoric or not lies in the striking fact that his ancient art was practiced down to a century ago.

Odd little African anomaly, at once a contemporary of the rock painting and the televisioned portrait! Picture him in the Kalahari Desert to-day—a small, lean, ungainly figure, of dirty yellow skin, with thick lips, receding chin, prominent cheekbones, and slant eyes. Imagine him as one of an aboriginal, untribalized pack of the hunting, indiscriminately mating Masarwa. Conceive him, armed with his venom-tipped arrows, as eating the remains of some sated lion's kill, or devouring ants and lice, or planting the sand dunes with cuplike ostrich shells that he may drink of the rarely falling rains.

For centuries driven hither and yon by successive Bantu tribes, he has made his final stand in a desert, where, there being no rocks to paint, he mopes like some outcast child who has lost its only toy.

Poor little unadapted, dying Bushman! Yet, in his day, did not even he humbly evolve, by feather brush and horn paint pot, from Bushman into—say, Brushman? For his squat brow has known the brain sweat of creation, which lifts a man above the beasts (see illustration, page 467).

With Umtata as a starting point, we made a 300-mile circuit, thus catching a glimpse of the Transkeian Territories' area of 16,000 square miles. Surely, for the Bantu tribes, whose names are discernible in "Fingoland," "Galekaland," "Tembuland," "Pondoland," and "Griqualand East," there was reserved one of South Africa's loveliest corners, when those various native areas were consolidated under Cape Colony's government.

Sometimes we passed through a hundred miles of verdant, undulating prairie, dotted with grazing herds, sky-reflecting pools, hillocks topped with stately trees, and those little circles of wattle-and-daub huts that constitute the kraal of a Pondo brave and—felicitous arrangement!—his several, separately housed wives. Now we ascended to some lofty "top-of-the-world" plateau, where a tonic breeze sang, where natives' flocks nibbled along the hillside, while overhead marvelous cloud formations massed themselves like huddled sheep.

#### THE BANTU'S ADVANCE FROM SAVAGERY TO SELF-GOVERNMENT

Now we paused where the Drakensberg's great, outflung barrier rose sharp against a low and rayless sun that looked like a red wafer pasted upon a mauve sky. And now, heading eastward, we gained some wildly primitive gorge, beyond which gleamed the Indian Ocean's foam-fringed blue.

A wide and gracious homeland, this, for its more than a million natives and their more than a million sheep, for the work of its numerous agricultural schools and for its grammar schools, whose mission-trained native teachers instruct some 77,000 pupils! Yes, it is truly the Transkeian natives' own homeland, as witness Umtata's *bunga*, or Parliament House, under whose dome "Jim Fish" (which is Afrikaner for "Jim Crow") sits among his gaily blanketed fellow councilors, debating territorial questions (see page 397).

For instance, how exterminate the corn-stalk-borer? Why not pay native policemen well, just as the watch-dog gets a full food-bowl? What about compensation for deserted husbands? And why not a law against native wives contracting debts without their husbands' knowledge?

It was all very interesting, this retention of the Bantu in his traditional kraal life

while teaching him representative government; but I don't think we fully realized his remarkable progress until, near Umtata, we encountered the great, isolated Mlangana Rock and learned its history. Time was when, at some chieftain's whim, victims were hurled to death from its summit. Yet to-day the great-grandsons of those who witnessed such sights are debating, according to parliamentary law, not thirty miles from that Tarpeian Rock of tribal savagery (see page 402).

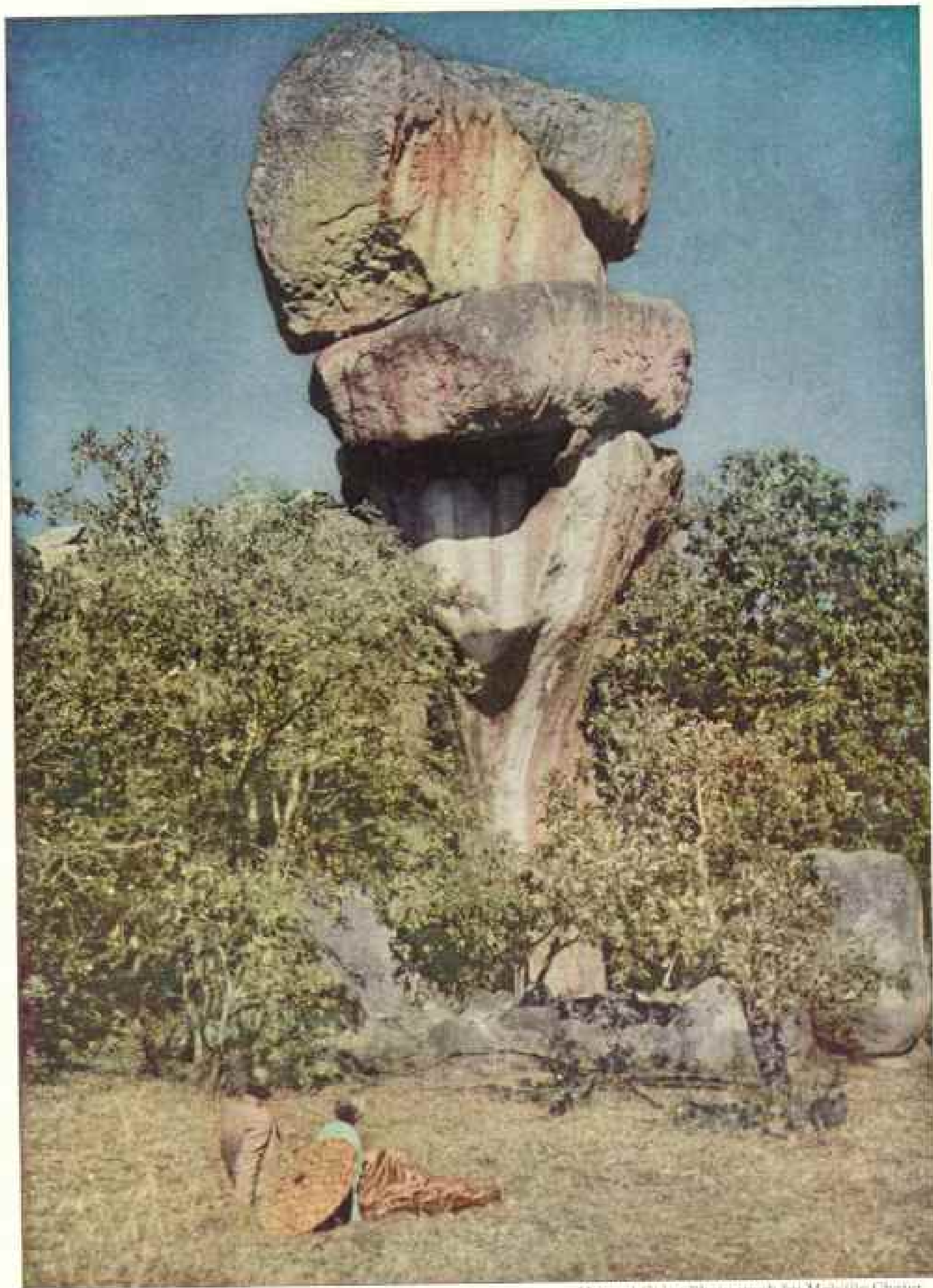
While crossing Pondoland we had our first glimpse of a Transkeian trading store. Their home and bargain counter combined, the European trader and his family may be a day's horseback ride from their nearest white neighbors. Yet cheerily the group carries on, bartering saddles, piece goods, and blankets for native produce under circumstances which make the occasional arrival of the post bus, with gossip from the outer world, as much of an event as was, when the West was young, the arrival of the Deadwood coach.

One afternoon the mercury registered some fantastic figure. Deserted alike were veld paths and village streets, for everyone was panting indoors, while awaiting the sudden coolness of the South African dusk. The Southern Cross was solitarily agleam in twilit skies when, descending coastward over headlong roads, we were confronted by a memorable sight. Before us swirled a tidal river to an unseen ocean which lay hidden behind two monster cliffs that rose sheer, like a tremendous portal, from the banks of the Umzimvubu's rushing waters.

Such is the gateway to ocean-set Port St. Johns, which is as tiny as its approach is titanic. To imagine a section of the Palisades of the Hudson set amid solitary wildness and rising over a hemmed-in river to twice their actual height is to grasp in outline the majestic approach to Port St. Johns.

#### DIAMONDS AT THE END OF THE RAINBOW

There we were greeted by a South African downpour. It continued for eight days, turning dry stream beds into torrents and marooning us behind a ford whose waters had risen from two to ten feet. But at last—emblem of release—a great double rainbow dawned over earth. We jumped into our car and headed westward through the shimmering arc.



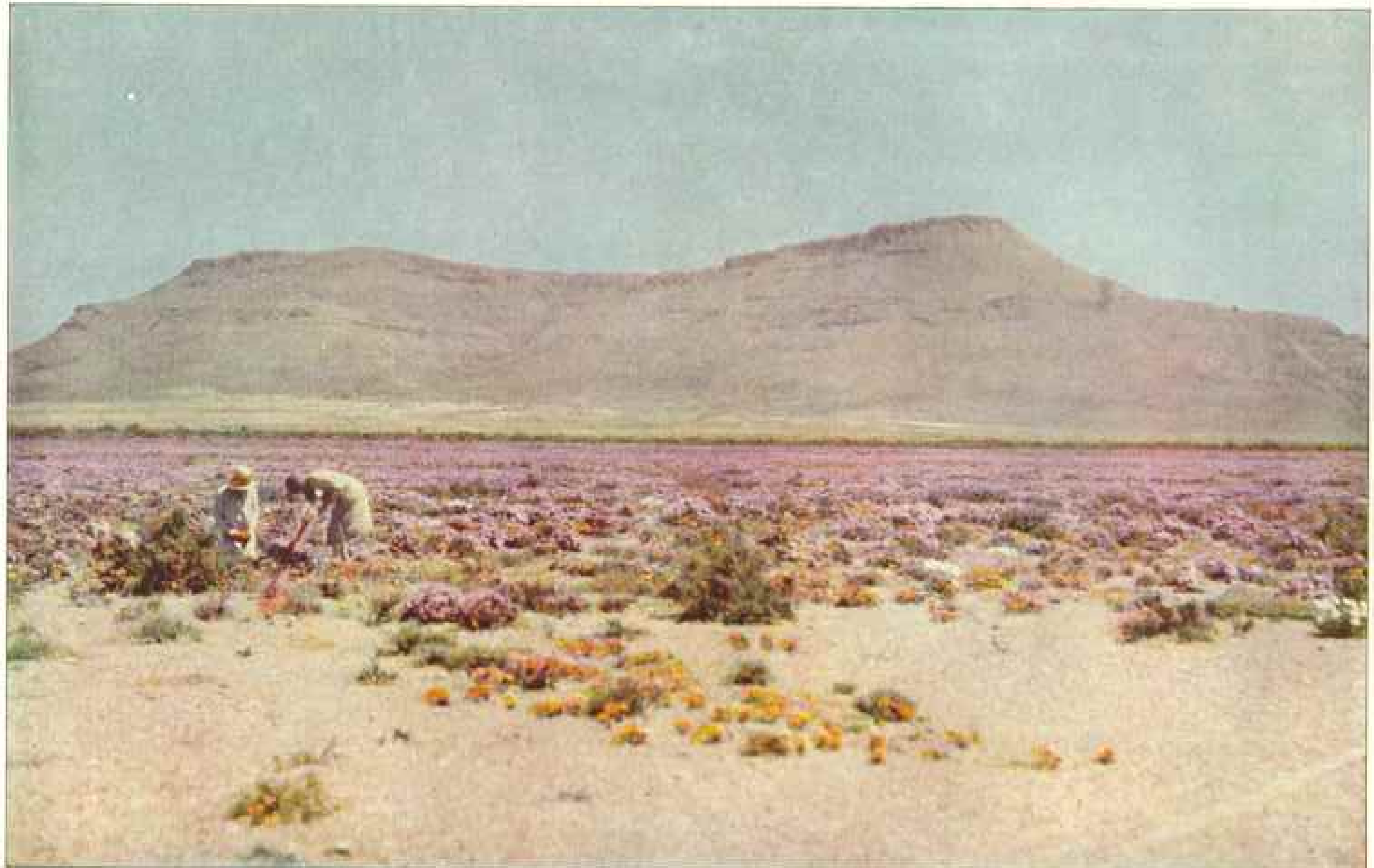
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Natural Color Photograph by Melville Chater

DOUBLE BALANCING ROCK IN THE MATOPO ESTATE, RHODESIA

Wild freakishness characterizes the Matopo Hills, which rise like a sea of rocky crests around the tomb of Cecil John Rhodes in Matabeleland. Combining a game-sanctuary and a national burial spot "for those who have deserved well of their country," this rough-hewn domain was bequeathed by the great British imperialist to the colony founded by his historic pioneer column which trekked northward in 1890.





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Natural Color Photograph by Melville Chater

#### SEPTEMBER SHOWERS IN CAPE COLONY BRING SPRING FLOWERS

Forty-eight hours before this scene in the Great Karroo was photographed it resembled a semi-desert without a gleam of color or sprout of verdure surrounding the stark ironstone kopjes (isolated hills). Then the rains of September—which is Cape Colony's first spring month—transformed the desert into a Corot-esque dreamland of delicate hues. Men's hearts were gladdened and a million sheep went forth to crop fresh herbage.



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Natural Color Photograph by Melville Chater

CAPE COLONY'S SUDDEN SPRINGTIME CREATES FLORAL CARPETS OVERNIGHT

This companion-piece to the illustration on the preceding page represents similar conditions and results in the southern, or Little Karroo. After as long as seven years of flowerless drought the semi-desert will, after heavy rains, suddenly become a vast vista of purple, daisylike mesembryanthemum. The two Karroos, totaling 100,000 square miles, support a great wool industry, thanks to the marvelous Karroo bush, which sustains sheep when, under drought conditions, all other herbage has perished.



JAN VAN RIEBEEK'S LANDING AT CAPE TOWN IN 1652

Although the Cape of Good Hope was discovered in 1488, it remained a mere "Tavern of the Seas," or revictualing port for East Indiamen until seventy servants of the Dutch East India Company under Governor van Riebeeck were established in that wild region.



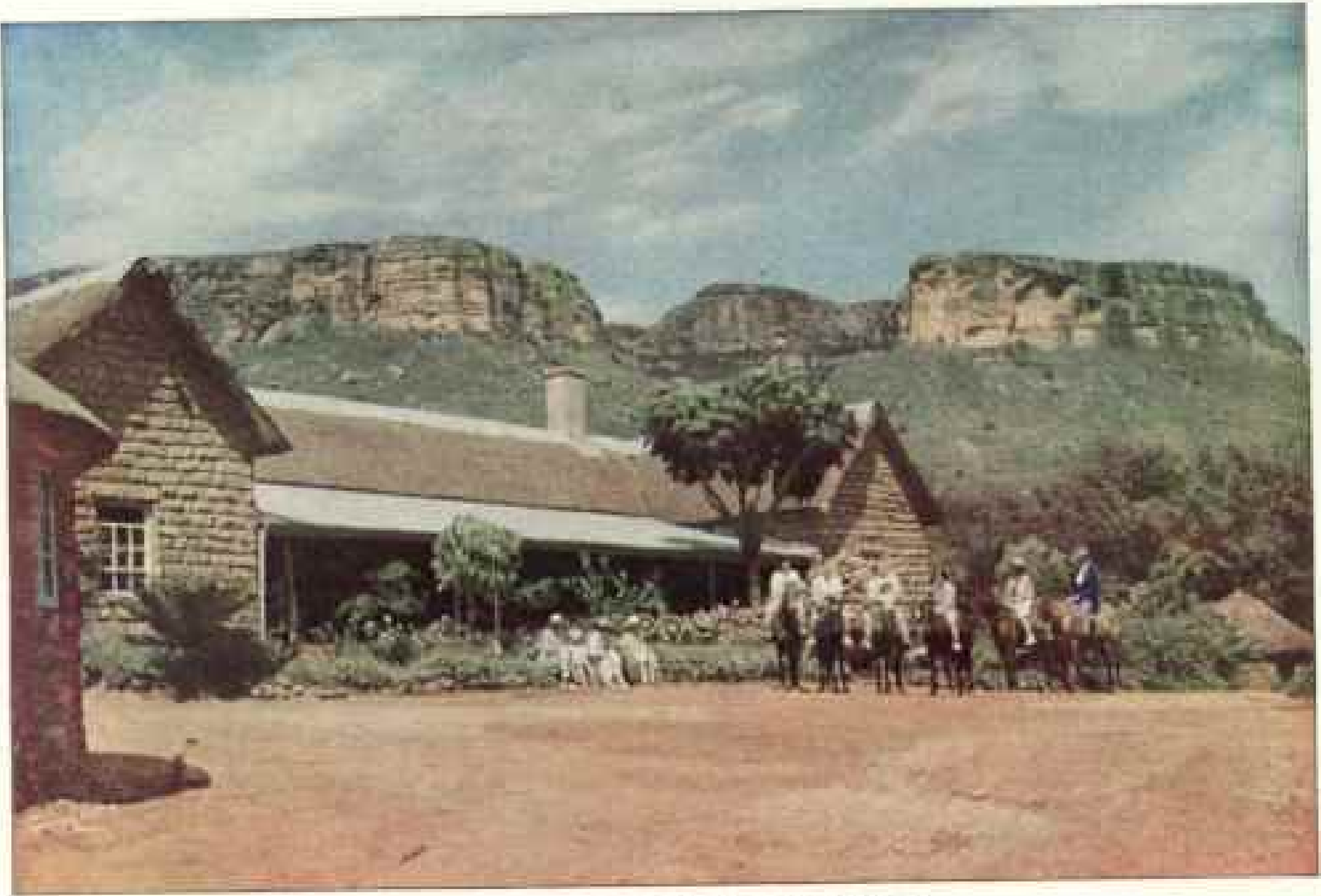
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Natural Color Photographs by Melville Chatter

REVERIES AMONG THE RUINS

Discovered in 1868, these mysterious Rhodesian ruins of Zimbabwe were once associated with regional rock-mines which must have yielded enormous gold exports. Modern critical opinions diversely attribute "Zimbabwe culture" to ancient Asians and to medieval Bantus.

## TREKKING SOUTH AFRICA WITH A COLOR CAMERA



### OFF FOR THE APEX OF THE UNION

Natal National Park contains in Giant's Castle, Cathkin Peak and Mont-aux-Sources, the highest peaks of the great Drakensberg or Dragons' Range. Here falls plunge 2,000 feet and vultures wheel over a wild and rugged domain.



© National Geographic Society

Natural Color Photographs by Melville Chatter

### THE LANGUAGE OF LOVE IN ZULU BEADWORK

These ornaments, when worn on the person, convey love messages by their colors. Thus, the five-flapped ornament means, "I love you, but cannot come, as you are poor; consequently, I feel weak and sickly."



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Natural Color Photograph by Melville Chater

MYNHEERS AND KAFIRS MINGLE IN CAPE TOWN'S ANNALS

During the centenary celebration of the founding of South Africa's first college, from which the University of Cape Town developed, an 18th-century pageant was held on the grounds of the University. This group represents Governor van Plettenberg's historical journey through Cape Colony, where boundary stones were erected and the Dutch flag was unfurled.



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Natural Color Photograph by Melville Chater

AS "BEFO' DE WAR" IN DIXIE

This "stomping" the cotton into sacks (at the right) recalls methods once used on American plantations. Swaziland contains 2,000 square miles of excellent cotton country and has developed a parasite-resisting variety of the plant.



MY LADY'S RHODESIAN GARDEN

"The promised land," wrote Rhodes describing the nascent colony, "was an open waste. Everything had to be done." Nowadays gracious homes and gardens where English posies and South African flora meet, have created beauty spots of civic life in what was a wilderness forty years ago.



© National Geographic Society

Natural Color Photographs by Melville Chater.

AS GREAT-GRANDMOTHER DRESSED DURING THE GREAT TREK

Seated in the garden of Pietermaritzburg's historic Voortrekker Church, these two girls wear family heirlooms of 1833-1852, thus presenting a quaint reminder of those stirring times when the Cape Dutch trekked northward from English rule to found Orange Free State and the Transvaal.

Everyone knows what lies under the rainbow. In this case the treasure lay in Griqualand West and took the form of diamonds. It was in 1870 that that windy, dust-swept region had suddenly changed from No Man's Land to Everyman's Land, when diamonds were discovered there. Later, by the Keate Award, it was annexed to Cape Colony within such meticulously drawn boundaries that inside one farmer's house the family dined in that colony and went to bed in the Orange Free State.

"Playing jackstones with diamonds!" Somehow that electrifying caption was overlooked by news reporters in 1866, when, at Hopetown, on the Orange River, the presence of diamonds in South Africa was signaled by a child, who was discovered playing with a casually picked-up gem weighing  $21\frac{1}{4}$  carats.

At once the South African diamond fever was on. Ships lost their crews, overseas shopkeepers their clerks, police forces their "bobbies," the underworld its crooks; and perhaps the Church lost a curate, and certainly Natal lost a budding cotton planter—he had once felt drawn to the ministry—in the case of an invalidish young fellow named Cecil John Rhodes. All raked up the price to get them to Griqualand's "desert of drought and diamonds."

#### PRECIOUS STONES MARKETED BY THE TON

Future Kimberley was soon a scene of canvas tents, of wagons converted into huts, of prospectors sieving the diamondiferous earth, and of "kopje-wallopers"—those who bought other men's finds on speculation—hurrying to and fro among the sorting tables.

Also, there appeared the resourceful "I. D. B." (illicit diamond buyer), who, cooperating with what might be described as the diamond-stealing industry, smuggled out stones in contravention to the law. Stowing gems in cigarettes, pipes, and hollow shoe-heels by no means exhausted his ingenuity. The hungry-dog trick—that is, feeding a starved animal on meat containing diamonds and subsequently retrieving them by cutting him open—was much in vogue.

Under desert conditions, food was often more precious than diamonds, and baths, if you could afford that luxury, were taken in

imported soda water. Despite prophecies of a brief year's life for Kimberley, the first two decades showed a production of six tons of diamonds from the Griqua country. Indeed, by 1880 the possibility of South African stones swamping the market was so apparent that Rhodes and his group formed the price-and-output-controlling De Beers Company.

Modern Kimberley abuts on a three-mile-wide circle which contains, within barbed-wire barriers, mines, housing "compounds," process sheds, company stores, hospitals, public baths, and kitchens—in fact, everything necessary to the industry and its 5,000 Bantu miners.

These Bantu "boys" are voluntary recruits, who mine for six months annually, returning to their kraals with the wherewithal for meeting taxes, for buying wives with *lobola* (cattle dowry), or for less serious investments, such as concertinas and mouth organs. In "above ground" hours they are seen cooking their food, or purchasing at cost price at the stores, or depositing their wages with the Company's savings department. Often these deposits represent such considerable annual aggregates as \$230,000 paid in by 12,000 miners.

Each week in the Kimberley mines some 70,000 tons of "blue ground" (hard, diamondiferous earth) are blasted out, crushed, fed into running water, rotated in steel drums, jiggled along in troughs, and washed across tablelike surfaces coated with petroleum jelly. The rotary process, by centrifugal force, separates the ground-up mass into different-sized units. The jiggling process washes away barren elements from the water-borne "concentrate," of gravellike appearance; and, finally, the diminished residue flows across the petroleum surfaces, to which only the diamonds adhere.

Yet "diminished residue" is putting it but mildly, since these 70,000 tons of blue ground will produce only about  $10\frac{1}{4}$  pounds of diamonds—say, a ratio of 14,000,000 to 1.

We addressed ourselves to the cleanser, who, broad blade in hand, now and then scraped off the diamondiferous petroleum and threw it into a vat of boiling water:

"Scraping off millions of dollars' worth of diamonds in this way, isn't it rather exciting?"

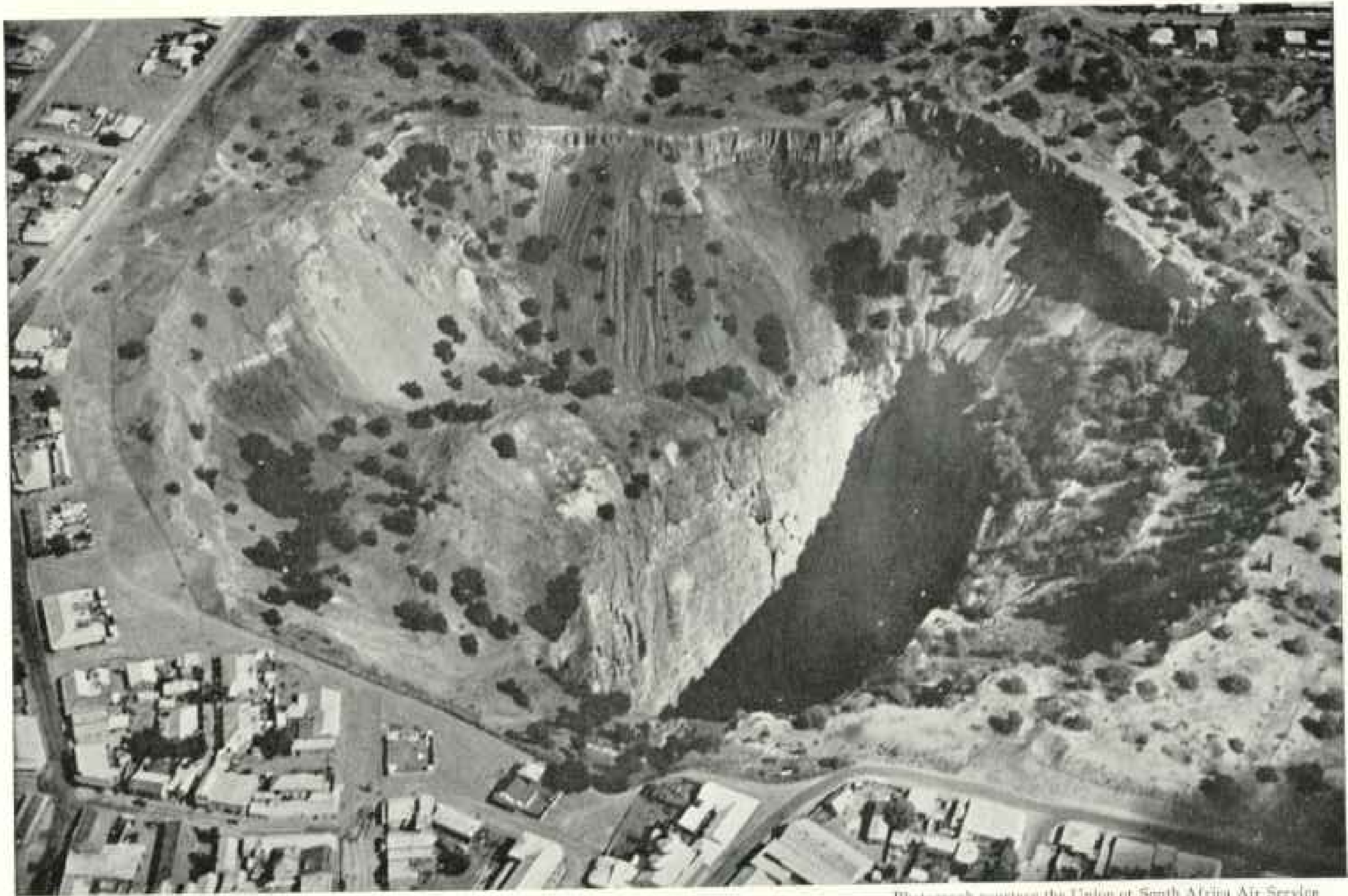




Photograph by A. H. J. Sieverdink

HAULING "PINES" FOR SHIPMENT TO THE DINNER TABLES OF THE MOTHER COUNTRY

Various fruits ripen here at a time when they are scarce in England, and for several months the Union has no competition except from South America and Australasia. Despite railroad and motor truck, the ox still hauls most of the heavy goods to and from stations.



Photograph courtesy the Union of South Africa Air Service

KIMBERLEY'S GREAT HOLE THAT ONCE SPEWED DIAMONDS INTO EUROPE'S CAPITALS (SEE TEXT, PAGE 421)

This mine, one of the Kimberley group, was abandoned in 1909. To-day a deserted crater, almost a mile in circumference and a quarter of a mile deep, it has only a historic interest of those days in the 1870's when from 10,000 to 12,000 diggers sifted the earth and clawed at fortune.



Photograph by Melville Chater

#### BIG, BLACK JOHANNES WITH TWO OF HIS COBRA CITARGES

Although this well-known character has chaperoned as many as 2,000 reptilian residents at a time at Port Elizabeth's Snake Park, the only time he really hated snakes was when he was fined for carelessness in allowing himself to be bitten (see text, page 410).

"Why, no," he answered unemotionally—and everyone knows what familiarity breeds—"it's about like handling mortar with a trowel."

Inside the sorting room, to which you are admitted after an eye has scrutinized you from behind a slid-back panel, men were poking diamonds through graduated holes in small screens to ascertain the stones' diameters. On one table alone lay 18,500 carats-weight of gems, worth approximately a million dollars. Feeling as dizzy as Ali Baba in the treasure cave, we asked tremulously of a sorter:

"Putting millions of dollars' worth of diamonds through screen holes, isn't it a bit thrilling?"

"Oh, no," he answered, suppressing a yawn—again that familiarity complex—as he popped a one-inch diamond through the screen, "it's about like shelling peas."

Not exactly what you'd call vulgar ostentation, that! And in fact Kimberley-town itself is as simple and homelike a

place as you'd find in the suburban area of some American city.

Are "simple and homelike" odd epithets for a mining center that has produced nearly thirteen hundred million dollars' worth of diamonds in half a century? Well, it's difficult to see how Kimberley could adequately have expressed its wealth production save by paving its main street with gems; but in truth it has been its fate to have created fortunes that too often flitted from South Africa to the attractions of London and Paris.

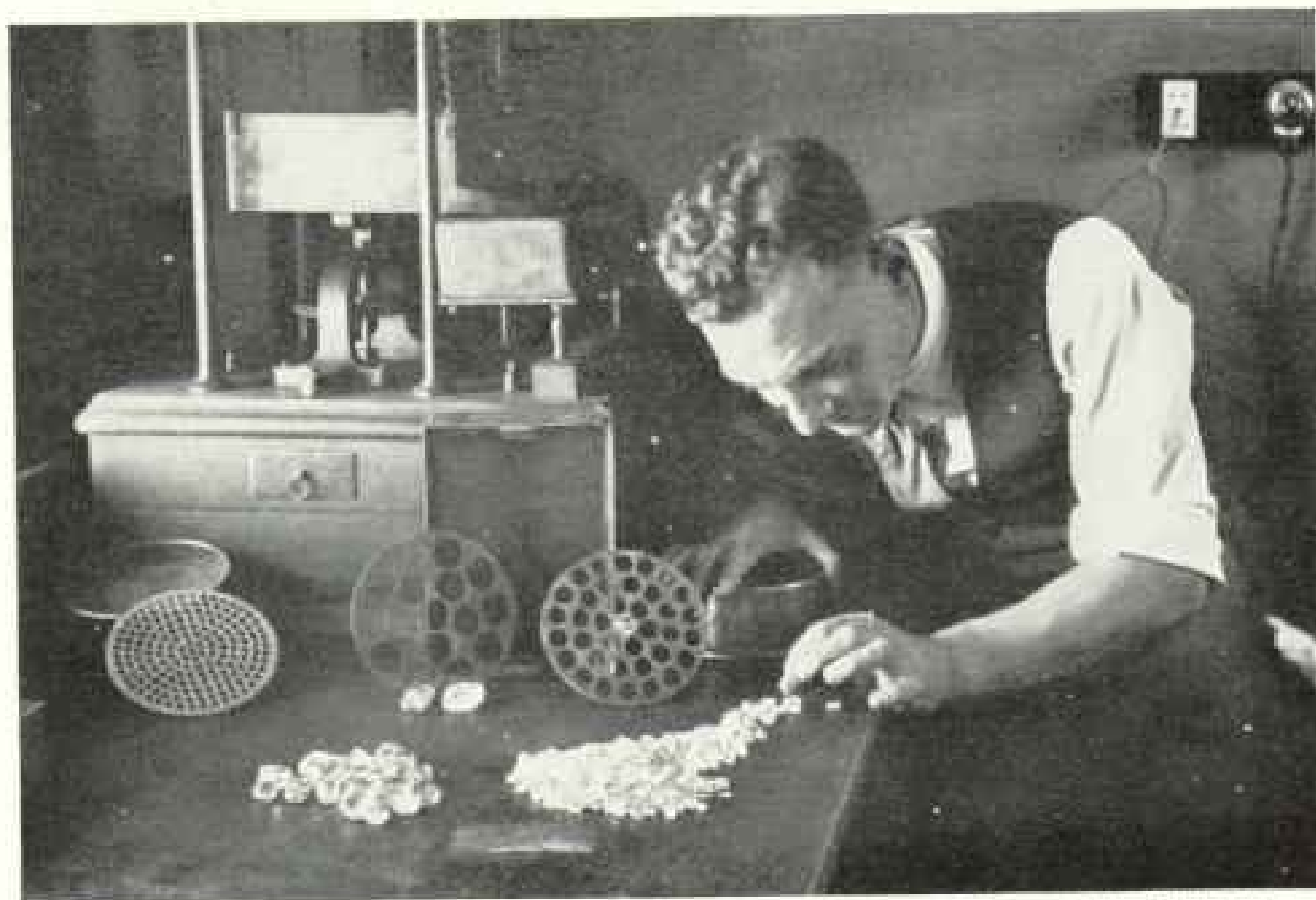
Yet there was an exception. At least one Kimberley digger could amass a fortune, yet scorn to use it in the common way. Great wealth constitutes a trust, to be administered in the wider interests of humanity—such was his view. And that he did, according to his lights, within South Africa and for the British Empire.

You may strike his trail along the twisting street—it follows the route of bygone diggers' footpaths from claim to claim—



THE "POST-OFFICE TREE" AT MOSSEL BAY

Some 400 years ago a shipwrecked Portuguese captain put in here to repair damages from a storm. He wrote an account of the disaster and hung it up in an old shoe on a large millewood tree, where it was found some time later. The tablet proclaims this the original tree.



Photographs by Melville Chater

"ONCE YOU GET USED TO IT, SORTING DIAMONDS IS AS TAME AS SHELLING PEAS"

Into the upper of the two boxes is fitted one of the screens shown. The switch is then turned on, oscillating or jiggling the box. The smaller diamonds fall through the screen and the larger ones remain (see, also, text, opposite page).



54

TO SOUTH AFRICA, AS TO HIS OTHER OUTPOSTS OF EMPIRE, THE BRITON TAKES HIS SPORTS WITH HIM

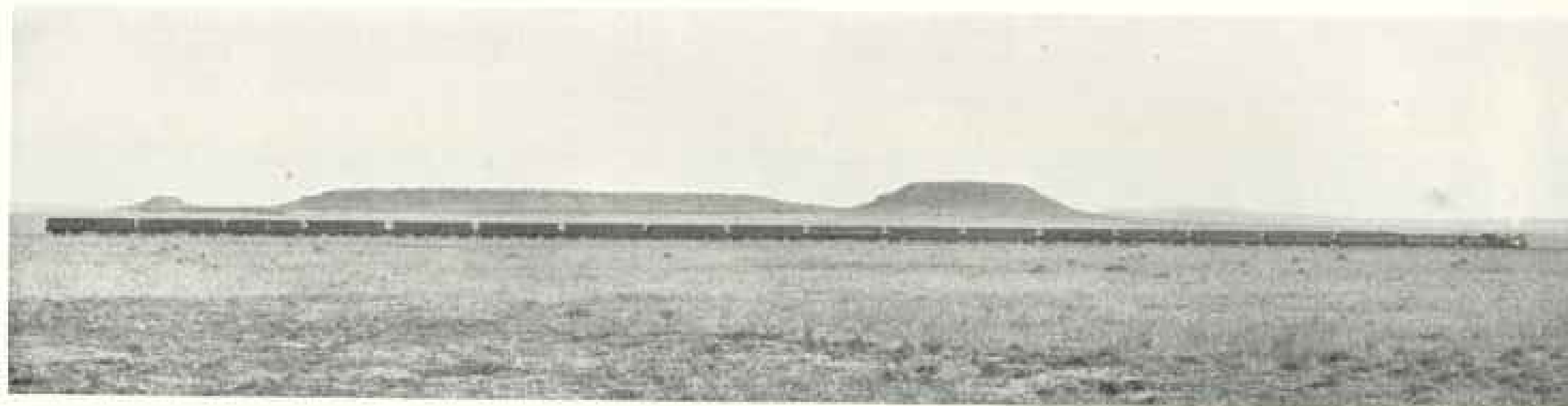
The principal Rugby matches are played on the grounds at Newlands, six miles from Cape-Town. Here, every Saturday during the winter season, from April to September, thousands of football fans cheer their favorite teams.



Photograph by Heyburn and Jones

PEACEFUL NOW, GRAHAMSTOWN WAS ONCE THE STAGE FOR BITTER STRUGGLES BETWEEN WHITES AND BLACKS

There is hardly a hill, valley, or cliff in the country surrounding this former outpost against the Kafirs that cannot tell its story of bloodshed between settlers and natives. It was also the goal of the famous ride of Dick King (see text, page 451). To-day it is a leafy little city, one of the Union's pleasantest places in which to live, and is often thought of as the most English town in Cape Province. Bathurst Street, with the Boer War Memorial in the foreground.



OVER THE PLAINS OF THE GREAT KARROO THE MAIL TRAIN WINDS ITS DUSTY WAY

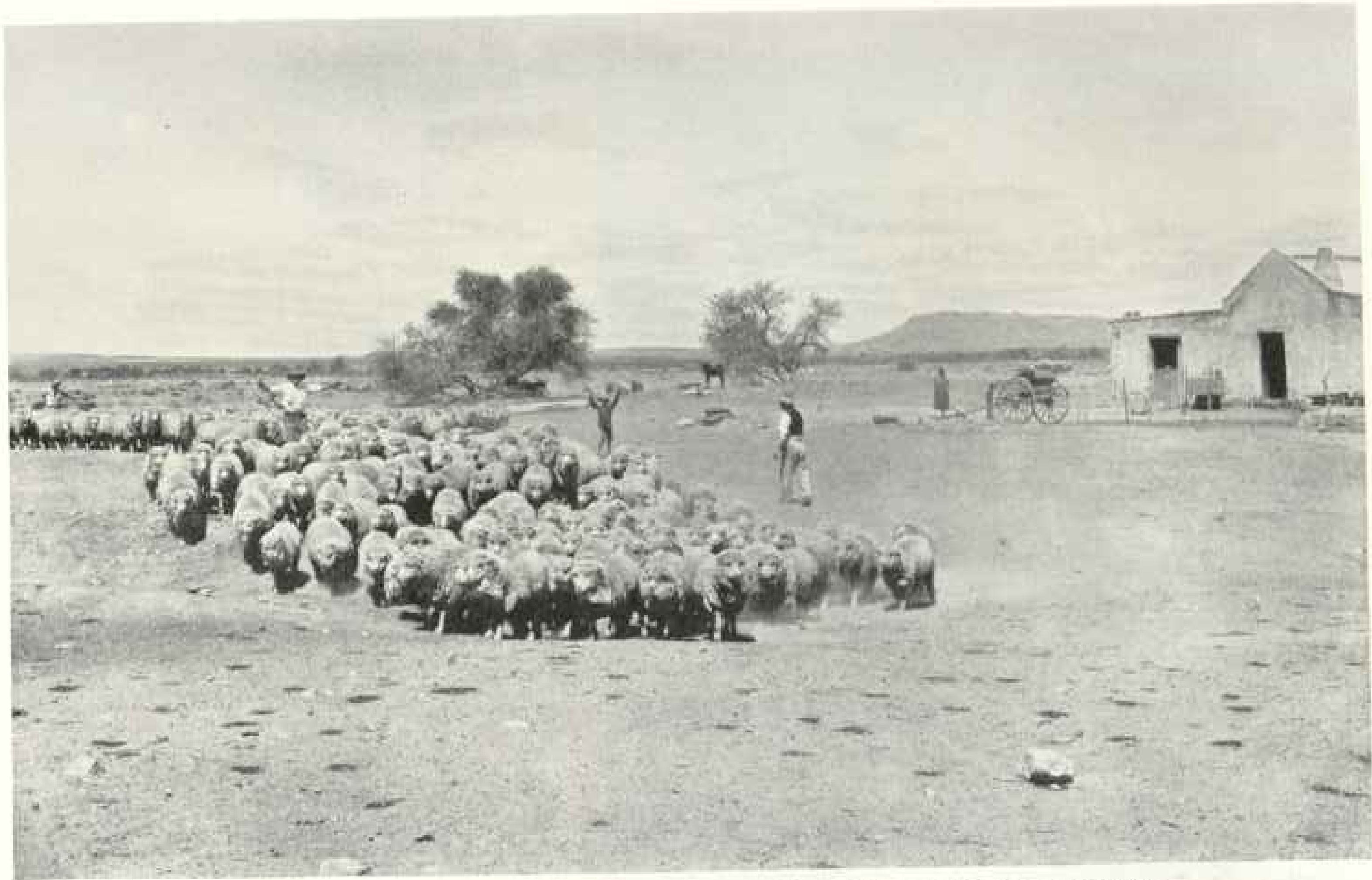
"Dry, barren"—such is the meaning of the Hottentot name for the two immense plateaus known as the Great and Little Karroo. In drought times the vegetation parches, but rains can transform them overnight into a fairyland of color (see Color Plates II and III).



WHEN FASHIONS CHANGED, OSTRICH FARMING DECLINED

Photograph by Melville Chater

Just before the World War, South Africa exported more than a million plumes annually; to-day, owing to drought and, more particularly, to style vagaries, only a fraction of that number. In recent years, tanned ostrich skin has been used in the manufacture of pocketbooks and other articles.



THE KARROO PLATEAUS SUPPORT ONE OF THE WORLD'S GREAT WOOL-RAISING INDUSTRIES

Irrigation, borcholes where steel windmills whir, and the aromatic little gray-green Karroo bush combine to sustain great flocks of sheep. The original type, still bred in large numbers, is the hairy, long-eared, and fat-tailed variety, but English and Dutch breeds are popular, as well as merinos imported from Spain and Australia. Goats also thrive here.





Photograph by Melville Chaper.

A WALL OF CACTUS 12 FEET HIGH, NEAR OUTSHOONS

After the spines are burned off, the plant is used for cattle fodder in times of drought. A spineless variety is also cultivated for forage purposes.

that leads you to the long-abandoned "New Rush" mine. Here is the vast, extinct crater, almost a mile around and a quarter of a mile deep, that once spewed diamonds into Europe's capitals; and here, too, if you've eyes to see them, swarm old-time miners' ghosts, with avid eyes and avacious hands, sifting the earth and clawing at fortune. To-morrow, for them, the

fleshpots of Paris and London! (See page 423.) But not for him, young Rhodes, that fellow who sits so moodily apart from them. One day there shall be far-famed scholarships called so, and his name shall name a people. "For a dream cometh through the multitude of business." And there he sits, on his old mine bucket, dreaming . . .

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*The Author continues the account of his travels and observations in the three remaining Provinces of the Union in succeeding pages—Orange Free State, pages 431-444; Natal, pages 445-478, and Transvaal, pages 479-512.*

## ORANGE FREE STATE: THE PRAIRIE PROVINCE

"BETHLEHEM!" announced the voice. Half roused from slumber in our sleeping-car compartment, I relapsed into a confused dream about being simultaneously in Palestine and Pennsylvania. But, "Bethlehem!" insisted the voice—it was our porter's—whereat dreamland's hodge-podge of steelworks and scriptural scenes vanished in the realization that we were well within the eastern border of Orange Free State.

Bethlehem ("O.F.S.") is an appropriate name for the gateway of what is preëminently a pastoral and agricultural province. Moreover, something of the gently rolling veld, of its straying sheep and clear sunlight, recalls aspects of that Palestine which the Dutch Voortrekkers celebrated in dotting their long trail with many a scriptural place name.

Indeed, travel in whatever direction across the Free State's prairies, and you are met by the same alternating motives of a rich, pastoral scene—grain, cattle, sheep—while the rolling veld stretches horizonward and white, bulbous clouds, regularly spaced, make cycloramalike procession across the blue.

Though the sun strikes hot, the air has a tonic tang; for, as some glimpsed railway station sign presently proclaims, you are between 4,000 and 5,000 feet above sea level. Then you comprehend why the Free State's prairies, together with those of the Transvaal, are called the High Veld. In "veld" you almost catch the sound of "field," though the Afrikaansche word bears a more extensive sense.

What you are traversing is part of South Africa's vast interior plateau, which, if estimated at the 4,000-foot contour, forms more than one-third of the Union's area.

Occasionally, miles apart, the plain yields sight of some neat little *dorp*, with church spire rising in benediction over its flock of flower-bordered homes. Or perhaps you pass through some larger, wide-avenued farming town, whose group of municipal buildings give on to busy shopping streets, and these to bowling greens or riverside pleasancess—all this with the prosperous air of a self-contained civic unit set amid the boundless veld.

Now some distant fringe of trees—rare and welcome sight—marks the course of a

stream. Now loom up veritable colonies of steel windmills, hailing from Illinois or Indiana, busily tapping subterranean waters; and a close inspection of the countryside's numberless pools, frequented by contemplative, cud-chewing Frieslands, reveals a widespread system of natural cups, or rain catchments, each dammed at one end.

King Midas had his fateful "golden touch" whereby earth's prized things turned uselessly aureate. And, says the myth, it was a sprinkle of water that re-metamorphosed them to their former state of utility. For South Africa, where the world's richest gold mines abut on water-hungry lands, what a parable, this, in economics! Give her, by whatever engineering feat, abundance of water, and her prairies and pastures will teem tenfold with that living wealth which gold mines cannot produce.

### ON THE FAMOUS VOORTREKKERS' ROAD

We had been moving southward through the Caledon Valley, then westward along the Orange River. We now left its course near Colesberg, where the old wagon road, used by the Voortrekkers from 1833 onward, enters the Free State. To-day that historic road is claimed by motor lorries and limousines. But the Free State's breed of horses is far from being shelved, and once, amid the filling stations that dotted the way, we encountered a memorable link with the pregasoline era. It was nothing less than the old-fashioned smithy.

Yes, there it stood, a venerable altar of the flame rite whose alluring mysteries caused many a loitering American boy of a past generation to be late for school. As we watched, reality mingled with memory; the hoarse bellows, the anvil-clang with spurt of sparks, the sizzle of shoe in water, the smell of seared hoof, the flat-headed nail you treasured up, the—

But just then the voice of the present cut in; for near by, under the spreading chestnut tree, the village garageman, without any display of brawny arms, was prosaically feeding gasoline into our tank, while confiding to our chauffeur—instead of something righteous about owing not any man—"Yes, I'm two months in



TEMPLELIKE CLIFFS GUARD THE APPROACH TO THE GOLDEN GATE NEAR BETHLEHEM

Photograph by Melville Chater

Through this defile the last Boer commandos escaped, to become the "bitter-enders," or guerrilla warfarers, at the close of the Anglo-Boer War. Geologists believe that the ground atop the plateaus of Orange Free State is perhaps some of the oldest in the world. At a remote period volcanic eruptions covered the region with a great, level expanse of lava. Denudation and erosion have cut the plain into a series of table mountains (see, also, page 442).



Photograph by Melville Chater

APPROPRIATELY, A GARDEN SPOT MARKS THE CENTER OF BLOEMFONTEIN

The metropolis of agricultural Orange Free State is laid out around this public square. The cenotaph commemorates those who died in the World War. Facing the pleasant park are many of the principal hotels and shops of the city (see text, page 439).

arrears on that Bluebird Six I'm buying on installments."

Worthy of a monument is that old Voortrekkers Road, with its memories of South Africa's epic, an epic of exodus. That "a nation cannot remain half-slave, half-free," was as true of South Africa in 1833 as it was of the United States in 1861; and true, also, was it, in each case, that some one must pay the emancipation bill. It was the descendants of the Cape's first settlers who paid by economic loss and by exiling themselves.

For a generation the British missionaries' ideas of race equality had been a clash with those of the slave-holding Boers, when there descended the Imperial bombshell of abolition of slavery, which liberated some 39,000 blacks in the Cape. This, together with a badly mismanaged indemnity, spelled property confiscation to the Boers. They began quitting the Cape "with the full assurance," so read Trek Leader Piet Retief's manifesto, "that the English Government will allow us to govern ourselves without interference in the future."

#### THE COVERED WAGON—CONVEYANCE, FORTRESS, AND HOME

Bible in hand, gun on shoulder, accompanied by their wagons and herds, the Boers headed into the unknown. But, although *boer* means "farmer," that word hardly describes the virile hunters and cowboys who went forth to what, in a sense, corresponded with America's "winning of the West." Beyond them lay hunger, thirst, and the menace of Zulu regiments; yet, like the Israelites of old, the trekkers were devoutly upheld in their faith that the Lord would bring them out of their Egypt and into the Promised Land.

Picture the long line of covered wagons rolling across the veld. It is a companion piece to that of the American pioneers' trek, a decade later, over the Oregon Trail. Each wagon has its sixteen span of oxen in rawhide traces, its device for keeping sand out of the hubs; it contains pots, pans, *biltong* (strips of dry salted meat), molds for candles and bullets, and a sleeping frame strung crisscross with rawhide thongs.

By night the wagons will be lashed together in *laager*—that is, in a defensive

circle which incloses families, campfires, and herds. And thus the Voortrekker's wagon was at once his conveyance, his fortress, and his home (see page 441).

#### PAUL KRUGER'S ACCOUNT OF THE TREK

See yonder small, sturdy boy driving his father's beasts ahead of the family wagon! Worshipfully named for two apostles and a martyr is this small Stephanus Johannes Paulus Kruger, who will yet be four times president of his people (see, also, pages 480 and 512). Many years later he will write of the Trek:

"And so my parents and relatives left house and home for a wild and unknown country. . . . My occupation was to drive the cattle and keep them together. . . . Daily, at dinner and supper, the children had to read part of the Sacred Scriptures. . . . Whenever the trek came to a resting place, a small hut was built, and this became the schoolroom for the trekkers' children."

Next year came the main body of the trek, under Piet Retief, Hendrik Potgieter, and other stout leaders. Government of a sort was established, but God's Word constituted the trekkers' highest law. And they called the land the Free State, meaning thereby not only freedom for themselves, but that neither slavery nor the seizure of natives' lands would be permitted; and so, at the outset, they bartered cattle for territory.

But, as they trekked farther north, "peaceful penetration" was extinguished in warfare and massacre. Again and again the wagon wheels were locked in laager against the black waves of onrushing Zulu regiments. Once the little Kruger boy lay within the wagon circle, reloading hot guns, while for an hour the men behind the wheels poured lead into an assegai-hurling horde of 5,000 Matabeles—an attack which cost the defenders 55,000 head of looted sheep and oxen.

Many an entire party—one consisting of 33 men, 95 women, and 200 children—was assailed to death. The retreating Zulus burned the veld as they went, leaving a desolation where hunger and thirst grinned skull-like along the Voortrekkers' trail.

It is estimated that from 1833 to 1840 some 10,000 of these Cape Dutch pioneers crossed the Orange to lay the foundations



BLOEMFONTEIN TAKES JUSTIFIABLE PRIDE IN ITS COURT BUILDING

Significant of the remarkable change that has come to South Africa is the fact that the city which grew up in an atmosphere of strife, knowing the horrors of the Basuto wars, has been made the judicial center of the Union, the Court of Appeal for the Union and Rhodesia being established here in 1910 (see text, page 439).

of the Free State and the Transvaal. Various of their parties must have covered a thousand miles or more. Indeed, if tradition be correct, one party followed through the northern Transvaal what they took to be the Nile. Constructing boats to carry them to Egypt, they descended another river, which was in fact the Limpopo, and finally arrived at Delagoa Bay, only to be wiped out, man and beast, by fever and the deadly tsetse fly.

#### HARDSHIPS RECALLED IN PLACE NAMES

The Voortrekkers are no more, but their story lives forever in South Africa's place names. Moorddrift (Murder Ford) and Weenen (Weeping) tell their tale of massacre. Biblical consolation breathes in Bethlehem, Carmel, and Bethany. Many a town's name ending "fontein" commemorates the slaking of thirst at a spring; and touchingly suggestive of hardships endured and past is the oft-repeated "rust" (rest) in such names as Rustenburg (Place of Rest) or Rust-en-Vrede (Rest and Peace).

In 1837 the Orange Free State was proclaimed. The Boers had hardily won their new home, which they were to govern by their own *volksraad*, or parliament, for half a century.

A very different trek, yet one not without its human poignancy, was that of the Griquas, the half-breed offspring of whites and Hottentots in the Cape. It was Adam Kok, a mulatto ex-slave, who led this unwanted people out of the Cape and into Namaqualand. For more than a century they wandered northward, then eastward, under Kok and his succeeding sons; then the advancing Voortrekkers shouldered them from the nascent Free State. At last, this pariah people, under Adam Kok III, reached what is now East Griqualand and founded their capital at Kokstad. There they had their own remarkable parliament, whose voluble proceedings were naively characterized as "the talk that was talked by those who talked the talk"; and though they eventually faded from the picture, as unwanted peoples will, Adam Kok's monument still stands in Kokstad



THOUSANDS OF BLOODED SHEEP NOW GRAZE WHERE ONCE ONLY WILD ANIMALS ROAMED

With its great flocks, the veld near Kroonstad resembles the grazing plains of Utah. Orange Free State produces about one-third of the wool crop of the Union.

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Photographs by Melville Chater

PEDIGREED CATTLE AT BLOEMFONTEIN AGRICULTURAL SHOW PROVE THE PROGRESSIVENESS OF FREE STATE HUSBANDMEN  
(SEE TEXT, PAGE 439)



Photograph by Melville Chater

NATIVE CATTLE MAKE EXCELLENT DRAFT ANIMALS.

Near Kroonstad live-stock raising is the principal source of wealth, for the broad veld, often too dry for farming, produces abundant hay. The long-horned Afrikanders are admirably suited to work under prevailing conditions (see text, page 439).





Photograph by Melville Chater

#### CONTRASTING DISPLAYS POINT OUT PERILS OF POOR FARMING

At the Bloemfontein Agricultural Show two miniature farms demonstrate the value of scientific methods. The signs, printed in both English and Afrikaans, illustrate the fact that the Union is bilingual (see text below).

as a touching remembrancer for whosoever sympathizes with life's pariahs and under dogs.

#### A COLLAPSING MOTOR CAR INTRODUCES A STRANGE LANGUAGE

Over much the same route, I daresay, as the Voortrekkers', we came to Bloemfontein. Gratefully we shall always remember that town, since it sent out an excellent car to replace ours when the latter broke down *en route*. It is but fair to say that we found modern high-class cars everywhere available throughout the Union, and that this one, hired in some tiny dorp, was the sole exception during six months of travel. Its proprietor had told us that it had done him handsomely for 15 years, and we had promised him to love and cherish what rather resembled an old curiosity shop on wheels.

Really, that car would have made an invaluable clinical study: chronic asthma; alternate high and low blood-pressure; articular rheumatism; paint degeneration resembling psoriasis. A post-mortem would have been simply fascinating.

On the occasion of its final collapse we were giving a dignified old native a 20-mile lift toward his "location." Suddenly the Old Curiosity Shop died under us. Resuscitation proved impossible; so the old native got out and started to walk.

"Buy a donkey!" he remarked, smiling, as he turned to go.

At this quite unexpected version of that sneer of the 1890's, "Get a horse," we glared at the miserable old ingrate; and "Buy a donkey," he repeated gaily, pointing at the Old Curiosity Shop.

"Speak up," I adjured our polyglot chauffeur. "He's insulting an American-made car. Tell him for me to go to—whatever they call it in Bantu!"

"Buy a donkey," fairly pleaded the old man, almost bowing to the ground. And the chauffeur mumbled through a mouthful of washers, "He's saying, 'Bei danke!' It's Afrikaans for 'Thanks very much!'"

Such was our introduction to the sound of the Afrikaansche Taal, that derivative of High Dutch whose printed words, paralleled with English, are seen in railway time-tables and public notices throughout

the Union. In fact, from the lower school grades up to the highest courts of law, the Union is officially bilingual.

Whence arose the Taal? The early Cape Dutch brought over Holland's language, but not its literature. Their converse with natives necessitated a simplification of the complex High Dutch, while by degrees English, French, Bantu, and Malay words were absorbed in what developed as a domestic and rustic patois.

To-day Afrikaans, while lacking literary evolution, is spoken exclusively by about one-fifth of the Union's European-descended peoples, and so widely has it diverged from its root tongue that Hollanders can with difficulty understand a language which branched off from theirs some two centuries ago.

#### BEAUTY, BEASTS, AND STARS AT BLOEMFONTEIN

Bloemfontein, provincial capital of Orange Free State as well as an academic center and the seat of the Union's highest court, has the double dignity of its fine Government buildings and of those gracious floral parks which characterize so many South African towns; but Bloemfontein goes a step farther by adding beasts to beauty in the shape of a cageless zoo. Here, on water-girt islets or in deep, unbarred pits, monkeys antic and patriarchal baboons boss their families. Uncaged eagles sentinel the rocks, and even lions and leopards, in deep pits, are on probation in this zoo that is a playground instead of a prison.

Climb Naval Hill and a bit of Michigan confronts you in the silver dome of the University of Michigan Southern Observatory, also known as the Lamont-Hussey Observatory. From its site you'll need no aid of its 27-inch refracting telescope to discern on the horizon a somewhat similar bit of Massachusetts, to wit, the Boyden Station of Harvard College Observatory. Atmospheric clarity is the consideration underlying the establishment of these two stations in South Africa.

The Michigan staff is searching for and measuring double stars, having recorded some 2,200 of these during a two-year period of observation. The double, or binary, star, a phenomenon first studied in detail about 1800 by Mayer in Germany and by Herschel in England, consists of two suns

moving about their "center of mass"—that is, a point on a theoretical line joining their centers, under each other's gravitational influence.

The Harvard group, equipped with eight photographic telescopes, including a giant 60-inch reflector, the biggest telescope south of the Equator, is pursuing research work on a large scale. Its chosen field embraces the Milky Way, the Magellanic clouds, and the extra-galactic nebulae that lie "back of the beyond."

#### AT A SOUTH AFRICAN CATTLE SHOW

Our stay at Bloemfontein coincided with cattle-show week. Milling thousands of town and country folk were inspecting monster mangel-wurzels, Gargantuan pumpkins, kingly Afrikander bulls, and egg queens of various poultry breeds. Then came the big event, a superb parade of prize-winning cattle. Around the wide, sward-inclosing circle they trod in stately march, award cards flapping proudly at their horns, a concentrated display of the Union's pedigreed resources (page 436).

There were the black and white Frieslands, for long South Africa's sole imported breed. An international animal of history and high milk records is the Friesland, otherwise called the Jutland, the Fribourg, and the Hollandais, according to whether she hails from Denmark, Switzerland, Belgium, or France. Tacitus, writing Roman history, deemed the trans-Rhine Friesians' cattle worthy of record, though not, to be sure, the technical kind of local "record" that the South African Friesland has lately achieved, with more than 21,000 pounds of milk and 723 pounds of butter-fat in 300 days.

Then came South Africa's own breed, the massive Afrikanders, descendants of those native cattle which the first colonists found at Table Bay. Pioneering conditions called for draft beasts; hence the Afrikander was bred for hardiness. To-day, representing a distinct, century-old breed, he constitutes a splendid worker under veld conditions—that is, without shelter and with natural grasses as food—while his resistance to drought and insect plagues is remarkable (see page 437).

In brief, there were representatives of all the horned hierarchy: the Red Polls, dual providers of meat and milk; the deep-red, curly-coated Sussex; the Brown



Photograph by Melville Chater

#### A MISSION LUNCHEON PARTY OF SMALL SOUTH AFRICANS

These children emphasize the fact that the white races of the Union are overwhelmingly Nordic. The British and the Dutch lead, those of Dutch origin being numerically superior. Missionaries went to South Africa 200 years ago. They helped to spread civilization, and left valuable historical records of the conditions existent in the country at various times (see p. 434).

Swiss mountain breed; the hardy Hereford and the red-white-and-roan Shorthorns, both descended from British ancestors that might well have been called "the beeves that made John Bull famous." And, of course, there were the fawn-colored, deerlike Jerseys and the bulkier Guernseys, whose widespread fame is in inverse ratio to the size of their tiny habitats in the Channel Islands.

Such a spectacle, drawn from the Union's 11,000,000 head of cattle, brought home the thought that "cattle"—if you curtail *capitale*, the Low Latin word from which it is derived—plainly means accumulated wealth. But apart from economics stands sheer animal beauty, and small wonder is it that, from the Greeks downward, poets have hymned the heifer: Keats, with his "All her silken flanks in garlands drest," and Kipling's "Sussex cattle feeding in the dew."

#### THE SQUATTER IS A BIG PROBLEM

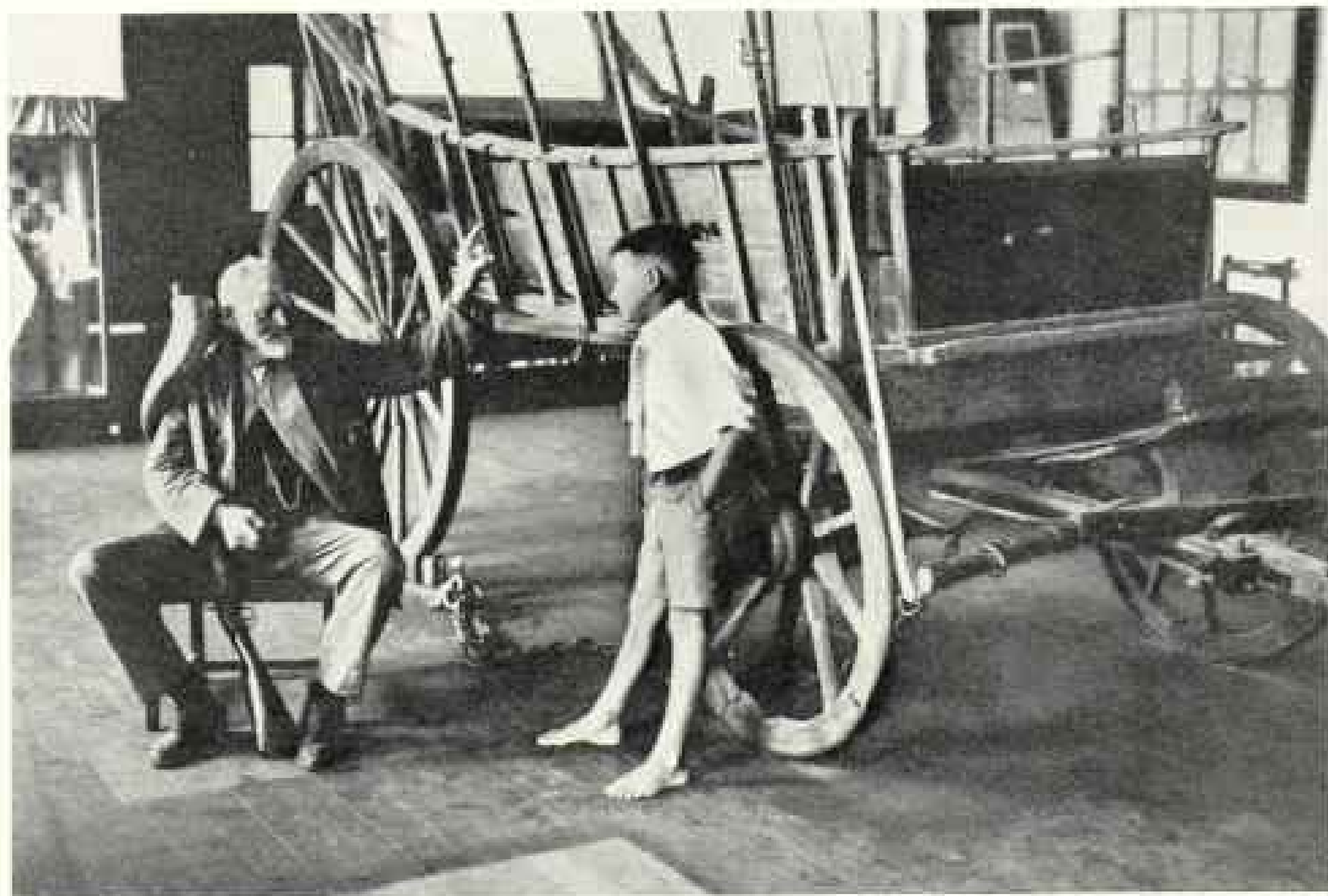
Driving for some hours out of the city, we encountered lands where deep *dongas* (gullies) revealed the curse of soil ero-

sion. Not for nothing does the national slogan, "Stop dongas!" cancel the postage stamps on South African mail.

The forlorn scene included a few dismal shacks, where some frowzy men and women and a plethora of dull-faced children lounged in the sunshine. Yet they were whites, or, rather, "poor whites," representing a South African aspect of that retrogressive type which is found in many lands.

But how came so formidable a number as 120,000 to 150,000 of this class to be scattered throughout the Union? One theory relates their origin to the early days, when pioneer holders of, say, 5,000-acre tracts apiece permitted later comers to squat and hunt. That too-easeful existence, based on slave help and game aplenty, lasted only for a few generations; whereafter landholdings diminished, game disappeared, and large numbers of these uneducated, untrained *bywoners* (squatters) were forced to drift and degenerate.

Though social agencies aplenty—governmental, religious, municipal—are supplying every stimulus to uplift this inert



Photograph by Melville Chater

"TELL ME A STORY ABOUT THE GREAT TREK OF THE BOERS"

The young descendant of a Voortrekker family leans against a genuine "prairie schooner" type of vehicle that served the sturdy trekkers during their northward exodus, between 1833-52. The old-timer, born about 1845, is not of Voortrekker origin, but knows the story of Oom Paul Kruger's people well (see text, page 434). The wagon is preserved in the Museum of the old Voortrekker Church at Pietermaritzburg (see illustration, page 446).

social mass, it will take long to solve the Union's problem of the bywoner, if only by reason of his numbers.

A saving gleam of humor lightened the picture when one of the squatters serenaded our halted car with mandolin strains. The expected sixpence passed from us to the somnolent-looking serenade; then we asked him what he did for a living.

"M—m—m—, traveling." He seemed to swallow half his words and cud-chew the rest. "M—m—m—walked across Africa—m—m—m—looking—m—m—m— for work."

"Across Africa!" We began feeling in our pockets for another sixpence while visualizing such topographical terrors as the waterless Kalahari Desert. "Poor fellow! What did you do when you came to the Kalahari?"

His bored, annoyed look revealed that geography wasn't his forte. Almost he seemed about to ask, like the American "black-face" comedian, "Er, whah bring

that up?" But instead he replied with unctuous languor, "I—m—m—m—oh, I just swam it."

And thereat we let the subject, as well as our still-pocketed sixpence, drop.

AGRICULTURE STIMULATED BY EDUCATION

Near Bloemfontein the Modder River winds through irrigation settlements which are centered by the fine buildings of the Glen School of Agriculture. That the Union opens for its farmers every avenue of progress is as evident at Glen as it is at similar institutions situated in the other three provinces. These schools, together with agricultural faculties at the universities of Stellenbosch and Pretoria, specialize in local farming types, and by extension services provide *liaison* with numberless agricultural associations.

Then, too, there is the Government's extension service, whereby the Union is toured by trains equipped for agricultural demonstration; and of prime importance is the governmental Land Bank, whose



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TRAVEL BY CAPE CART IN NATAL NATIONAL PARK RECALLS PIONEER DAYS IN THE UNITED STATES

Visitors may engage transportation in mule- or ox-drawn covered wagons. The flat-topped mountain in the background is typical of the scenery in many parts of the Union (see illustrations, pages 392, 428, and 432).



THOUSANDS OF ACRES OF MAIZE ADD TO THE WEALTH OF THE UNION

Kafir corn is also an important crop. Seed is carefully selected, and modern scientific methods of dry farming are employed where rainfall is light and irrigation is impracticable. Parts of Orange Free State and Natal are particularly well adapted to this sort of agriculture. Growers benefit by the activities of the agricultural school near Bloemfontein (see text, page 441).

function of making money advances to farmers and farming cooperatives has proved, especially during droughts, of inestimable value.

Sowing the educational seed for the crop of progress has produced in the Union scientific methods undreamed of a generation ago, and especially enlightening is it to meet among South African farming experts many a man who went overseas—to Iowa, Illinois, Wisconsin, or elsewhere—for his agricultural training.

It was northward of Bloemfontein that we entered the Union's "maize triangle." Measuring some 250 miles on each side, it represents about one-half of the national maize yield. Here was King Corn, in his tassel-waving majesty, reigning over such vast, continuous domains that even a Kansan—and Free Staters say that Kansas resembles their province—would have sat up and taken notice (see illustration, p. 443).

How to keep birds off crops or new-sown land? Ask Dad Inyanga; *he* knows. The *inyanga*, or heap-big Bantu medicine man, is a truly impressive figure, what with his snake skins, oxtails, medicine bag, and his little magic ways. Summoned to some native's corn patch, this crop doctor catches fledgling birds and compounds their bones and feathers, together with certain mysterious pebbles and powders, into a mystical mash. Then he strides majestically through the patch, broadcasting the mixture while chanting of what dire things will happen to Old Man Crow if he dares alight there.

Should the incantation fail to work—well, the doctor calmly explains that's because he wasn't paid enough. The more money, the stronger the magic.

#### WILD GAME AN INCREASINGLY RARE SIGHT IN THE UNION

Outside the busy farming center of Kroonstad, we literally ran into wild game crossing the open veld. It was a herd of springbok moving at arrow speed, while

leaping high in air, at play, as they shot past us. A beautiful and increasingly rare sight, this, in the Union! For, contrary to the popular impression that South Africa consists of big game, plus Zulus, plus Wild West life, instead of a well-rounded civilization, the dwindling of the native fauna was officially recognized as long ago as 1898, when the Sabi Reserve was set aside as a game sanctuary.

#### THE PRAIRIE PROVINCE TOUR COMES TO A PLEASANT END

South African place names, which so often commemorate a pioneer's home town in Europe, sometimes arrest the traveler by their cheering unexpectedness. It was beyond Kroonstad, amid a countryside of the tiniest of dorps, that we asked road directions of a wayfarer.

"First," he replied, "you come to Dover." We visualized England's chalk cliffs. "Then you head for Calais." We imagined the famous Channel crossing. "And pretty soon you're at——"

"Not—not at Paris?" we hazarded.

"That's right. You've been there?"

"Oh, yes." (Visions of boulevards and cafés.) "Everyone, sooner or later, gets to Paris."

"Yes, it *is* popular. Crowds of visitors; lots to do."

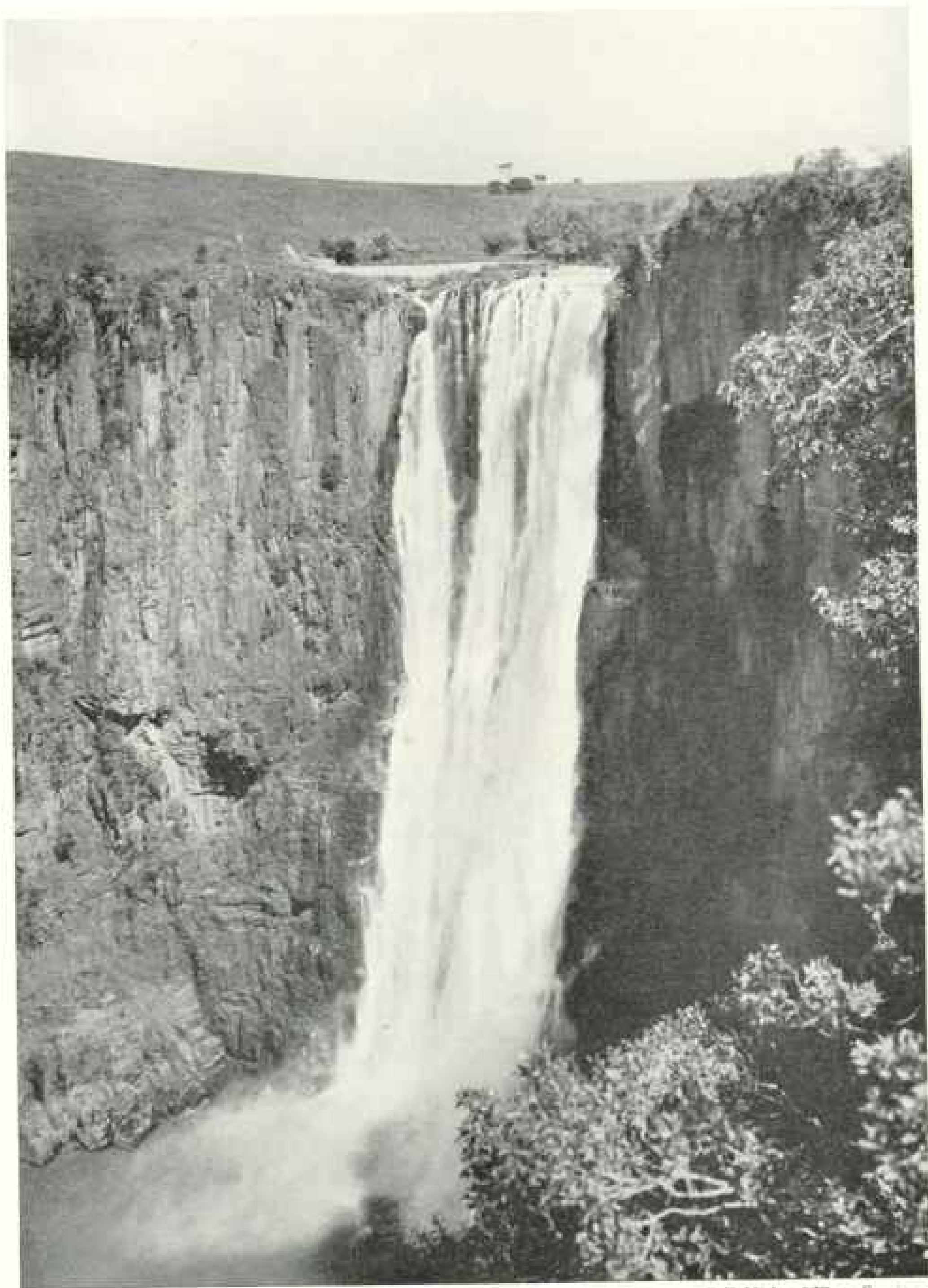
"Lots. Oh, well, there's only one Paris."

"That's what we think around here. Why, its population has jumped to 3,000! Yes, Parys is pretty hard to beat."

And presently we reached the little resort of Paris-with-a-difference. Bowered in oaks and evergreens and skirted by the willow-shaded Vaal, Parys presents a scene of waterside bungalows and river sports and provides the inland Free State with a charming aquatic playground.

At the Vaal we ended our encirclement of the Prairie Province. Its sunny cornfields dropped behind as Basutoland's blue mountains closed about us on our way to Natal and the sea (see pages 445-78).





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HOWICK FALLS HANG THEIR GLEAMING CURTAIN AT THE ENTRANCE TO  
HISTORIC BATTLEFIELDS OF THE BOER WARS

Plunging over a 354-foot cliff, more than twice as high as Niagara, the Umgeni River near Pietermaritzburg, Natal Province, thunders ceaselessly into a dark basin hollowed out of rock by age-long hammering. The cataract is being utilized to generate electricity for a factory, but nothing has been done to spoil its scenic beauty.





THE OLD VOORTREKKER CHURCH AT PIETERMARITZBURG

The early Boers vowed to erect it in gratitude for their victory at the Battle of Blood River, 1838, over 10,000 Zulus commanded by Chief Dingaan (see, also, Color Plate VIII). The first pastor was an American missionary (see, also, text, page 464).



Photographs by Melville Chatur

DURBAN COMMEMORATES THE HERO OF A FAMOUS RIDE

The statue represents Dick King, who rode 600 miles, to Grahamstown (see page 427), in ten days to get relief for the British when the Dutch were besieging Durban. It stands on the Victoria Embankment at Durban (see, also, text, page 461).

## NATAL: THE GARDEN PROVINCE

It is a land of perpetual greenness. Whether you approach it from mountain, plain, or sea—be it even in winter, when much of the Union's landscape is yellowed and sere—you feel as if you were entering some embowered oasis of sylvan depths and tinkling streams.

Natal, indeed, is as perennially green as the Christmas tree, with which its name is not unassociated; for, on Christmas Day, 1497, when Vasco da Gama sighted its shores, during the first successful Cape-rounding voyage to India, he announced to his officers, "Senhores, let us name it for this, the Natal Day of our Lord."

Our approach from the south lay through an emerald-green valley whose flanks were dotted with pied cattle and with distant clusters of native huts resembling brown mushrooms. Then, suddenly, around a cliff, the ocean gleamed. Away stretched a vista of white beaches whose jungle-fringed dunes showed silhouetted palms and gross-banana trees. A pelican fished in the estuary, monkeys chattered on limb. The old Portuguese explorer's caravels must be just around the headland, or so one felt amid the timelessness of that tropic scene.

But they weren't. Instead we encountered some resort hotels, bungalows, and golf links. Truly, if nowadays Vasco da Gama could send a spectral scouting party ashore in southern Natal, the report might run, "Lord Admiral, we found comely taverns and men doing strangely with tiny balls, which they do eagerly pursue, being armed with curious sticks."

Indeed, Natal worthily upholds the best traditions of that "royal and ancient game" whose courses, whether laid along rolling prairie, or across sea-washed hills, or around some gnarled mountain's base, are scattered through the Four Provinces. Beneath such sunlight as South Africa's, with brilliant blue overhead and emerald-green underfoot, even that stern taskmaster, Colonel Bogy himself, might relax into a smile.

But *were* we in Africa or India? For, along the northward-stretching motor road, there now appeared brown, bare-foot women, vividly draped, with golden anklets and jeweled nose ornaments; and

now we glimpsed little white temples en-friezed with the effigies of India's grotesque gods. In fact, we had entered Natal's great sugar-cane belt. It was in 1860, in order to meet the labor shortage occasioned by slave liberation, that local cane planters first imported Indian coolies on the indenture system.

### ASIATICS AND BANTUS VASTLY OUTNUMBER NATAL'S WHITES

Nowadays Natal's white population hardly outnumbered that of her East Indians. Indeed, the total of her Asiatics and Bantus exceeds by eightfold that of her Europeans. Yet, and this fact illumines Natal's civic and industrial achievements, it is scarcely a century ago that the future province was still that wild country of bushland and bare hills that cradled the Amazulu.

To glimpse the Zululand of to-day one motors a hundred miles northward of Durban, along sea level; then climbs into the hill fastnesses of what at first seems an almost unpopulated country.

At long intervals our car passed some white man's sugar cane, flourishing at 2,000 feet, or his far-removed neighbor's trading store and hostel; for by law the Zululand trader must accommodate wayfarers in a countryside where, what with a quarter of a million acres of native reservations, dwellings consist almost exclusively of native kraals.

For a day we undulated over a succession of bare, blue hills that, with longitudinal ripples lying like a thousand parallel pleats, have a remote and savage beauty all their own. Then, fording droughty, bowlder-strewn streams that little suggested Zululand's rainy-season menace of sudden floods and as sudden death, we reascended to the magnificent valley views of a wooded country, where the vulture wheeled aloft, and monkeys skittered out of our path, and the cattail-like pistils of the kniphofia flashed flamelike as we passed.

But where were the natives? Were there no more than the few passing girls balancing baskets of corn on their heads, and the few squatting boys who carved wooden spoons while watching cattle? The truth is, while Zululand's little, circular



Photograph by Melville Chater

COMMERCE AND RELIGION MINGLE IN THE DURBAN EAST INDIAN QUARTER

Shops underneath the arcade of the mosque and mosque school recall the Biblical record of the money-changers in the Temple.

kraals are scattered far and wide, they are seldom near roads and, when distant, melt indistinguishably into the background.

"No, *baas*," an old Zulu told me later on, "my people don't like living near roads. They like streams and hills. And besides," he added thoughtfully, "if they lived too close to a road some white *baas* would make them work on it."

Nowadays, sadly enough, that fine-looking creature, the Zulu, too often forsakes his picturesque native dress for some hodgepodge of hand-me-down store clothes. To see true Zulu costumes and customs, one must stumble fortunately upon the right kraal at the right time, as it was our luck to do beyond the Black Umfolozi River (see, also, page 463).

THE COLOR LANGUAGE OF COURTSHIP

A wedding, which we were to witness later, was being prepared for; hence beer-making was in progress. Kafir corn, having been water-steeped until it had sprouted, was being pounded fine, then mixed anew with water to cause the fermentation which would produce—well, call it a mild near-beer. Men were fur-

bishing assegais, oxhide shields, leopard-skin smocks. One woman was undergoing a primitive beauty-parlor treatment that built her hair into a high, red-clayed "permanent bun." Another was stringing gay beads into patterned bands.

"Now, here's something really interesting," said our interpreter, as we paused by the bead-stringer. "It's the color language of courtship. She's stringing bead sentiments for some young girl to display when her lover is around. Let's ask."

The waistband in four colors proved to mean, "I am in love with you" (white), "but there are difficulties" (black), "because you lack cattle dowry" (pink), and "therefore I feel weak and sickly" (green) (see Color Plate V).

We said it was almost as good as wireless. Could she, perhaps, make the beads talk American? Something, say, like, "Ah love muh baby lots; he's my bank-roll babe; got de weeps, Ah have; Ah love him so-o-o-!"

Our suggestion was duly expressed, though in modified form, by a layout of white, yellow, red, and blue beads in their proper number and juxtaposition. "Only,"



NATAL UPHOLDS THE BEST TRADITIONS OF THE "ROYAL AND ANCIENT GAME"

Whether laid along rolling prairie, or across sea-washed hills, or around some gnarled mountain's base, the Union's golf courses are scattered throughout the Four Provinces. A game in progress at Umkomaas, in the river valley of which young Cecil Rhodes and his brother Herbert raised prize-winning cotton.

commented our interpreter, "Bantu idiom is as different from jazz dialect as poetry is from doggerel. For instance, she says the red beads mean, "My eyes are red and sore from too-long watching where you come not," and the blue beads mean, "Were I a dove, I'd fly to pick crumbs from your door."

And thus, with but a matter of beads in half a dozen tints, do Zulu youths and maidens express the whole range of courtship. Well, as for that, "Love's musical instrument has but two stops, and yet the cunning musician does thus much with it."

#### WEDDING CEREMONY LASTS TWO DAYS

The wedding was a two-day affair, with much dancing and many repetitions of two songs. "It is my choice; I left my people," sang the bride and her bridesmaids, while somewhat less appropriate seemed, coming from the groom and his fellows, "What, no cartridges! Now we're in a mess!"

The bride was becomingly skittish, refusing to stir from her station, which was well apart from the bridegroom's kraal, at

the behest of successive messengers. Presently she condescended to inspect, with critical comments, the presents which were hanging on a tree. And when at last, decked in her bridal ornaments, she drew near the kraal, it was as a screened treasure behind upheld mats, which in good time were dropped, to the bridegroom's proper bedazzlement.

The vows were pithy and distinctly forward-looking: "I've come. You'll treat me well? You'll bury me and I'll bury you."

"Agreed. You treat me well, also."

Then followed singing and dancing until dusk; then general dispersal.

The second day was inaugurated by a breakfast reception, following which the bride distributed her girlhood's trinkets among her maids. Then came the final ceremony of her breaking the shaft of an assegai and rushing from the kraal, homeward-bound. Perhaps it was a last symbolizing of bride skittishness or perhaps—temperamentalists take note—it meant that it's better to do your running away before marriage than after. At any rate, the



Photograph by Melville Chater

#### A TONGA BOY GOES COURTING

His hair is bleached and deinked by rubbing soap into it. His vanity case consists of a mirror.

specially appointed bride-catcher overtook and retrieved her for the groom, which seemed to satisfy everyone present that, without more solemnity than is entailed in jumping over a broomstick, the two were now, honest to goodness, really married.

#### WHEN CHAKA THE TERRIBLE RULED

What one witnesses nowadays in kraal life is the working out of an administrative system based on those "scheduled native areas" which are found in all of the Four Provinces. Operating downward from the Governor General, and through hereditary chiefs, their headmen, and the latter's representatives in each family or

clan, this patriarchal system aims at conserving with a minimum of interference that which is best in Bantu law and tradition.

A truly staggering problem, this, in "adaptation"! And it appears the more so when one realizes that it is scarcely a century ago that Natal, to cite one province only, was a black Paradise of a million or more Bantu tribesmen.

Paradise? Inferno, rather! The tribal troubles had begun when one Dingiswayo, a would-be usurper, fled to the Cape for refuge. There he beheld the revelation of military drill and, moreover, acquired the services of a white man, who, returning northward with him, taught that drill to Dingiswayo's people. In turn, the sight of drilled Bantus infected the imagination of one Chaka, and thereupon this potential Napoleon of the Amazulu proceeded to weld his tribe into a truly terrible fighting machine.

The great oxhide shield, the short stabbing spear, the outspread crescent formation that closed its deadly horns about the enemy—such were his ladder rungs to conquest. Moreover, he organized not only his warriors, but his maidens, marrying them off by regiments, male and female, when the valor of the former had been proved.

Spartan measures prevailed. Cowards in the fighting line were executed in batches after the action. Because one girl regiment defied the military marriage system, it was promptly massacred. And Spartan example triumphed. At the behest of this black dictator some entire regiment would unhesitatingly hurl itself over a cliff. His Amazulu became all-conquering, and he that bloody "Chaka the Terrible," who would, for instance, kill off eleven wives "because they annoyed him."

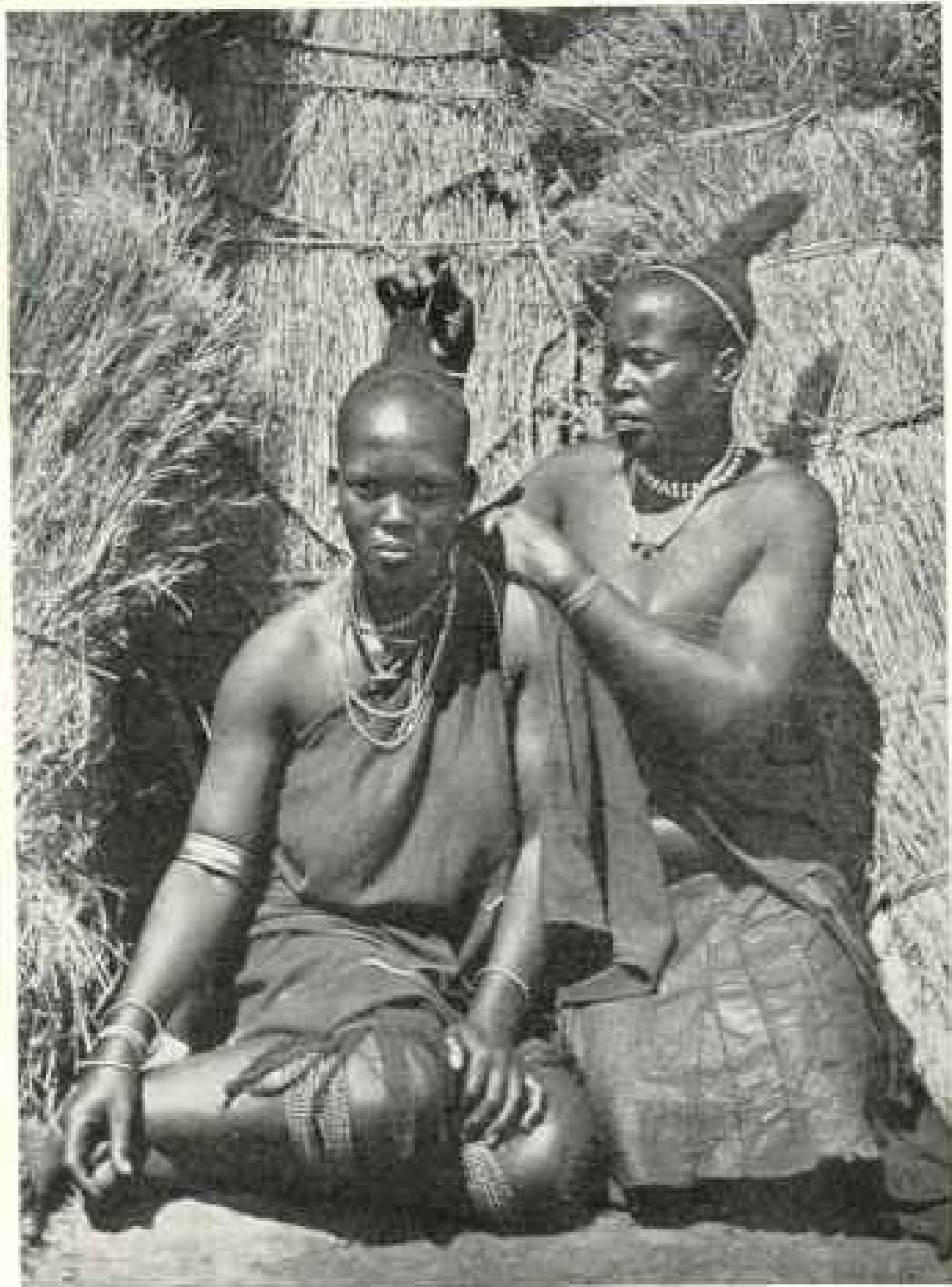
Rather a chancy host, this, for white men to visit! Yet in 1823 a certain adventurous Lieut. F. G. Farewell and some of his Cape friends actually bobbed up in Chaka's court. What a sensation these advance salesmen of white civilization created may be gauged by the fact that one of them, Henry P. Fynn, was at first supposed by the Zulus to be some sort of sea monster. And he, being Irish, no doubt coyly admitted it, with "Sure, me name's Fynn, and haven't fishes fins?"

In the end, Chaka was so impressed by his guests' ability to kill distant beasts with a "tube of thunder and lightning" that he granted the concession-seekers trading rights and a generous slice of territory. And thus "Point Fynn" and "Fort Farewell" began appearing on rough maps of the site where to-day stands the charming seaport of Durban.

#### CATTLE BROUGHT ABOUT DURBAN'S BROAD STREETS

View it from its residential heights, where scarlet flamboyants, blue jacarandas, and purple bougainvillea brighten gracious gardens overlooking the red-roofed lower town. Or visit its park-centered municipal square, or its bay-skirting Marine Parade, or its shipping-thronged docks, or its ten-mile beach, where big folks skim ashore on surfi boards and little folk circumnavigate kiddie pools in miniature ocean liners. Wherever you turn, the cumulative effect is that of a charming, homelike town that civic pride and affection have built up (see, also, Color Plates IX-XII).

Cattle as city planners; it sounds an odd phrase until you learn that Durban's unusually wide streets coincide with the ample space formerly needed in order to make turns with covered wagons drawn by sixteen span of oxen. Spans of double the length would have achieved a yet happier result for Durban's crowded parking spaces of to-day. Indeed, the only bovine touch that has defied the motor car's encroachments is beheld when the Zulu rick-



ZULU COIFFURE REQUIRES PROFESSIONAL SKILL.

Though "permanent waves" are natural, the native beauty parlor does a brisk trade. A prospective bride is acquiring the approved style of hairdress.

sha boy, crowned with a pair of oxhorns, comes loping down the street. Gorgeously bedecked, from his black poll to his white-washed legs, with oxtails, pelts, beads, snake skins and dyed feathers, Jim Tikkie suggests "a sort o' giddy harumphrodite" made up of horn-crowned Isis and of heap big Injun chief on the warpath (see Color Plate XV).

Or, if he isn't Jim Tikkie, he is likely to be John Sixpence or George Guinea, for Bantus are fond of reminding their names, so to say, in terms of British coinage. Not that we knew what a tikkie is until one day a tram conductor requested us to produce one.

"But we haven't one," we replied, thinking he had said "ticket." "But you *must* have one," he insisted, thinking we had understood "tikkie." He then proposed we should give him a "Scotchman" instead. We stared blankly. "Then make it in pennies," he concluded wearily, "if you know what *they* are."

"Tikkie" and "Scotchman" turned out to be, respectively, a threepenny-bit and a two-shilling piece. It is said the latter nickname commemorates the get-rich-quick scheme of a certain labor contractor in South Africa's early days. He was a Scot of the proverbial kind that hires out for blood transfusion when he has a nose-bleed. Thanks to the slight difference between the sizes of the two-shilling piece and the half crown, this Aberdeen Archimedes succeeded in levering sixpences out of his coolies on pay days by foisting "Scotchmen" on them in lieu of the more valuable coin.

#### DURBAN'S BACK DOOR OPENS ON THE WILD

How recently Durban has emerged from the wilderness we did not comprehend until we walked with some of its pioneers on a local bowling green. Hard enough it was to wean those old codgers away from their "woods" (bowling balls), to reminisce of hunting buck in what are now city parks, and to relate how only last year Hubert the Hippo emerged from somewhere up north and came slouching through Durban's streets in search of the ideal river of his dreams.

Hubert's prowlings through Natal pervaded the news columns and inspired bedtime stories for many a week. Moreover, in the suburbs beyond the Umgeni River young Durbanites may visit the little gray monkey folk, where, amid arboreal freedom, they will drop earthward to eat bananas from one's hand.

Meanwhile by the Umgeni stands some Zulu mother, bare to the waist, coiffured with enormous red-clayed "bun," and totting a black-eyed man babe in a sling across her back. And what will *his* bedtime story be? Perhaps that Zulu legend of how at full moon Chaka's long-dead *impis*, brandishing shields and assegais, may be seen sweeping across the stream.

At Durban's docks, as at Cape Town's, you may glimpse the flags of every land whose ships plow the seven seas. And then there is Durban's whaling fleet. Like

unto the bucking broncho's motion is the heave and plunge of one of these small craft, as, her decks deep in seas, you watch harpoons containing explosive charges being shot into big cetaceans. Or, if it's a man-and-monster struggle you want, there's shark fishing. As for Durban's maritime wealth of smaller fry, known under such curious names as "Roman," "Dane," "Englishman," and "blue Hottentot," it sounds less like a rod-and-reel affair than a finny League of Nations.

#### A DEMONSTRATION BY FIRE-WALKERS

But the most curious of Durban's sights is that of the Indian fire-walking. Imagine a roped-off space where men rake level the embers of a great log fire. Half-suffocated masses of vividly draped East Indians, keyed to religious tension. Jostling throngs of unreverential Europeans in circus mood. Standards hung with palm fronds, and a little shoulder-borne shrine with idols of Brahma, Vishnu, and Siva. And presently the foliage of near-by trees scorches and dies, while attendants dash water in the faces of fainting women and children (see illustration, page 475).

What are these entering ten, lunatics or epileptics? They are naked to the waist; they are skewered through the flesh as meats are skewered; their heads loll, their tongues slaver, their eyes protrude. These, the *soutris*, or fire-walkers, have fasted week-long and have just been sprinkled with water from holy Ganges.

Tom-toms beat, cymbals clash. The gaudy shrine has been set at the farther end of the fire bed, whose gray ash glows furnacelike under the least wind puff. And now—you gasp—one of the *soutris* runs staggering across the fire to the altar of his gods.

Another passes over, a woman, chanting; and now a third, a boy of eight years. Then come two who, colliding midway, fall prone on the fire bed, then arise and stagger onward to the shrine. And now all have passed over, and tom-toms and cymbals vibrate anew through the awed hush of India's massed ranks.

What of the physical phenomenon? Indisputably the foot soles of two of the *soutris*, as they lay in collapse after the ceremony, showed ash dust, but no burns. And what of the mental phenomenon? Indian mystics will tell you that by self-inflicted tortures the soul reaches through

FACES AND FLOWERS BELOW THE TROPICS



FLAMING AGAINST SUBTROPIC SKIES

In the Union's yearlong cycle of color, the mauve jacaranda is followed by the blazing flamboyant. This so-called "flame-of-the-forest," a species of poinciana, is found as far east as the Malay Peninsula.



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Natural Color Photograph by Melville Chater

HOMEWARD-BOUND FOR MOTHER INDIA

East India coolies were first introduced into Natal in 1860, to meet labor shortage due to abolition of slavery. These women and their families, in charge of Durban's labor bureau, are about to embark from South Africa for their homeland.





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A CIVIC MEMORIAL OF WILD FLOWERS

Pioneerlike simplicity is expressed in the rough-hewn stone and the wild flowers which are seen in this corner of a World War memorial plot on the fringes of the Little Karroo.



Natural Color Photographs by Melville Chater

FLOWERING TREES ARE CONSPICUOUS IN THE UNION

During October and November the jacaranda spreads its lovely canopy over many a street in the Union. Jacaranda-time, especially in Pretoria, presents the charm of lilac-time in other lands. A street in Durban.



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Natural Color Photographs by Melville Chater

## INDIA'S PICTURESQUE PEOPLES HAWK THEIR WARES IN DURBAN'S STREETS

The flower-seller, the turbaned *babas*, the nose-bejeweled mothers, the fanatic fire-walker, the little girls in gay pantalettes—all contribute to the kaleidoscopic picture of Durban's Indian quarter. White temples, decorated with India's gods, dot the sugar plantations where many of these folk are employed. Originally introduced on indenture to meet labor shortage, they now number 185,000 in Natal.



DURBAN'S CIVIC AND PATRIOTIC CENTRE

Town Hall Square, with its municipal buildings and memorial of the World War, constitutes the stately center of this important seaport, founded in the wilderness a century ago.



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Natural Color Photographs by Melville Chater

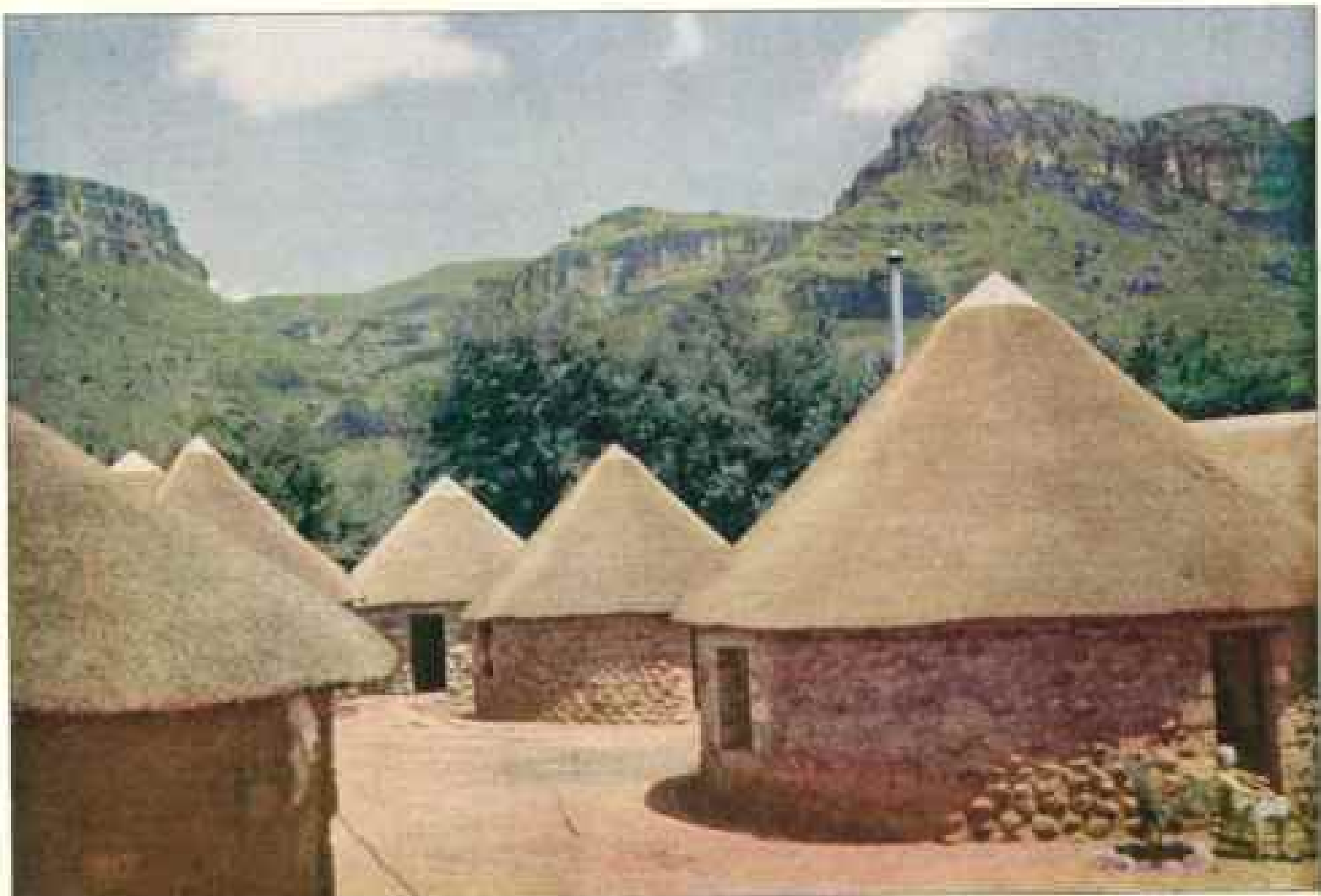
SOUTH AFRICAN FLOWERS FOR INDIAN SHRINES

Seventy years ago India's coolie class first transplanted its color and customs into Natal. This segment of the population has now its local areas of oriental life and customs.



CANE THAT SWEETENS SOUTH AFRICANS' COFFEE AND DRIVES THEIR CARS

The Union's great sugar-cane belt extends for some 250 miles northward from Natal's coastal flats to altitudes of 2,000 feet in Zululand. Motor-spirit is one of the cane's by-products.



© National Geographic Society

Natural Color Photograph by Melville Chater

RONDAVELS IN THE NATAL NATIONAL PARK

On mountain, veld, and seashore, the thatched roundhouse, or *rondavel*, is found among the Union's natural playgrounds. This evolution of the native hut makes an ideal cabin for camping purposes.



© National Geographic Society

Natural Color Photograph by Melville Chatter

EXTRACTING VALUABLE CHROME IRON FOR AMERICAN INDUSTRIES

Vast deposits of chrome iron ore render Southern Rhodesia the world's greatest producer of that mineral. Employed as a hardening agency, its greatest consumer is the United States steel industry.



© National Geographic Society

Natural Color Photograph by Melville Chater

ZULU RICKSHA BOYS BEGAV DURBAN'S STREETS

Jim Fish—as the Black is called collectively—is not to be outdone by Durban's colorful natives. Horn-crowned like Isis, his legs whitewashed, his person amazingly bedecked, he and his jaunty vehicle make limousines seem drab in Natal's seaside city.



JOHANNESBURG MINE BOYS IN TERPSICHOREAN ARRAY

After working more than a mile underground during the week, Johannesburg's 190,000 gold-mine boys relax in Sunday dances wherein the "ladies" carry parasols.



© National Geographic Society

Natural Color Photographs by Matilde Chatter

HAND-TRUCKING \$500,000 IN GOLD BARS

British sovereign, Brazilian milreis, Argentine peso—the Pretoria Mint produces bullion for all three. Not even the Spanish conquistadores dreamed of such a treasure house as the Transvaal.

flesh-numbing ecstasy toward those higher states of being that lie between it and the Absolute.

#### NATAL'S HERO RIDES 600 MILES FOR HELP

Durban's chronicle, and therefore Natal's, is most congenially grasped as, book in hand, you sit in the Old Fort's gardens coming some of the stirring events that centered within its now placid walls.

In 1828 Chaka was assassinated by his half-brother, Dingaan. Zulu hegemony continued under the latter, who kinged it in his great kraal, where, crouching on the floor of ant heap mixed with blood, his satellites would gruesomely apostrophize him as "Thou vulture! Thou the bird that eateth other birds!"

Voortrekker Piet Retief and his comrades presented themselves at Dingaan's court, asking for a cession of lands. There, having been disarmed on a treacherous pretext, they were executed to the last man. This affair, together with subsequent massacres of the Boer settlers, showed that the white man's existence in Natal hung on a thread. Promptly concentrating a well-organized commando, Andries Pretorius met the Zulu king's 10,000 warriors and crushed them at the Battle of Blood River in 1838.

But now, with the English at Port Natal and the victorious Dutch forming a republic at Pietermaritzburg, an interracial clash became inevitable. The Dutch stole a march on the English and surrounded their encampment on the spot where the Old Fort now stands.

Grahamstown, in the Cape, was the nearest military post to which the besieged garrison could look for succor. But how to send word across 600 miles of wilderness? Dick King, a transport rider, said he would undertake the job. One May midnight in 1842 King, accompanied by his Zulu "boy," stole from the camp, rowed across the bay, with two horses in tow, and galloped for Grahamstown (page 427).

Ahead lay coastal forest and seven main rivers infested with hippos and crocodiles. The riders swam the rivers, bridle on arm, followed kraal-to-kraal trails, and, as for food, lived mostly by the revolver. Then, like the exhausted comrades in Browning's Ghent-to-Aix ballad, the Zulu boy turned back, while King galloped on alone. For another hundred miles he spurred through

the territory of inimical tribes. Then a final 60 miles and he entered Grahamstown bestriding a gaunt, mud-caked animal that, said one bystander, "was still something like a horse." And there King delivered his dispatches, falling asleep seated while the colonel read them.

Within a month an English relief force sailed into Port Natal. A few years later the province was annexed by the Crown. And to-day, on Durban's bayside, a bronze Dick King, mounted on his horse, commemorates that ten-day dash through the wilderness as the greatest ride in South African annals (see page 446). Only we'd like to know the forgotten name of that gallant steed, compeer to the "Roland" who "brought good news from Ghent."

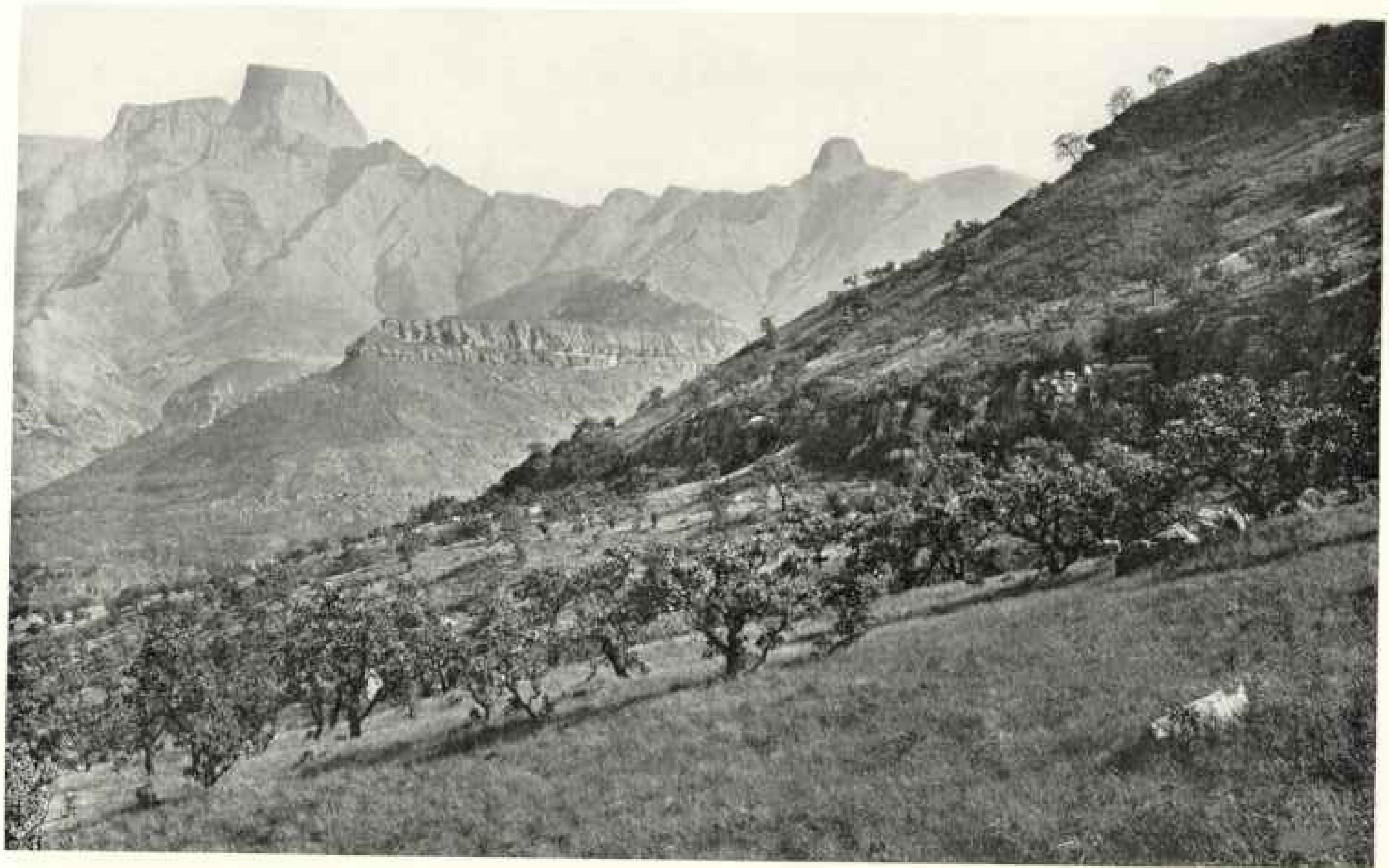
#### NATAL'S CAPITAL BREWS BEER TO LOWER RENTS

Over the old Dutch road we came from Durban to Pietermaritzburg. Its central plexus of public buildings proclaimed it to be Natal's capital. From here and there among its embowering greenness peered the pink or lilac color-splash of "pride of India" trees; but such are the least of Pietermaritzburg's horticultural beauties for those who arrive when its famous azalea gardens are in bloom.

On the city's one hand lies the arc of a wide valley and, on the other, wooded heights commanding a vast vista, across which peers, distantly, the blue and flat-topped Natal Table Mountain. Surely that smiling scene must have spelled peace to the Zulu-harassed Voortrekkers, led by Piet Retief and Gert Maritz, when they outspanned on the spot that to-day commemorates "Piet" and "Maritz" in its name.

Far from being purely administrative, Pietermaritzburg builds and operates its public markets, swimming baths, suburban native quarters; it manages its electric lighting system, brews its natives' beer, and plants extensive groves of wattle trees to feed a mimosa-extract industry. In South Africa that decorative tree, with its yellow blooms, is no haphazard growth. The seeds of a wattle grove are boiled before planting to stimulate germination, while the bark of the mature tree is similarly treated in order to utilize the essence which, when evaporated, is known in the tanning trade as solid mimosa extract.





HIMALAYAS OF SOUTH AFRICA, THE DRAKENSBERG MOUNTAINS LIFT THEIR CRAGGY HEADS IN A 600-MILE RAMPART  
(SEE TEXT, PAGE 473)

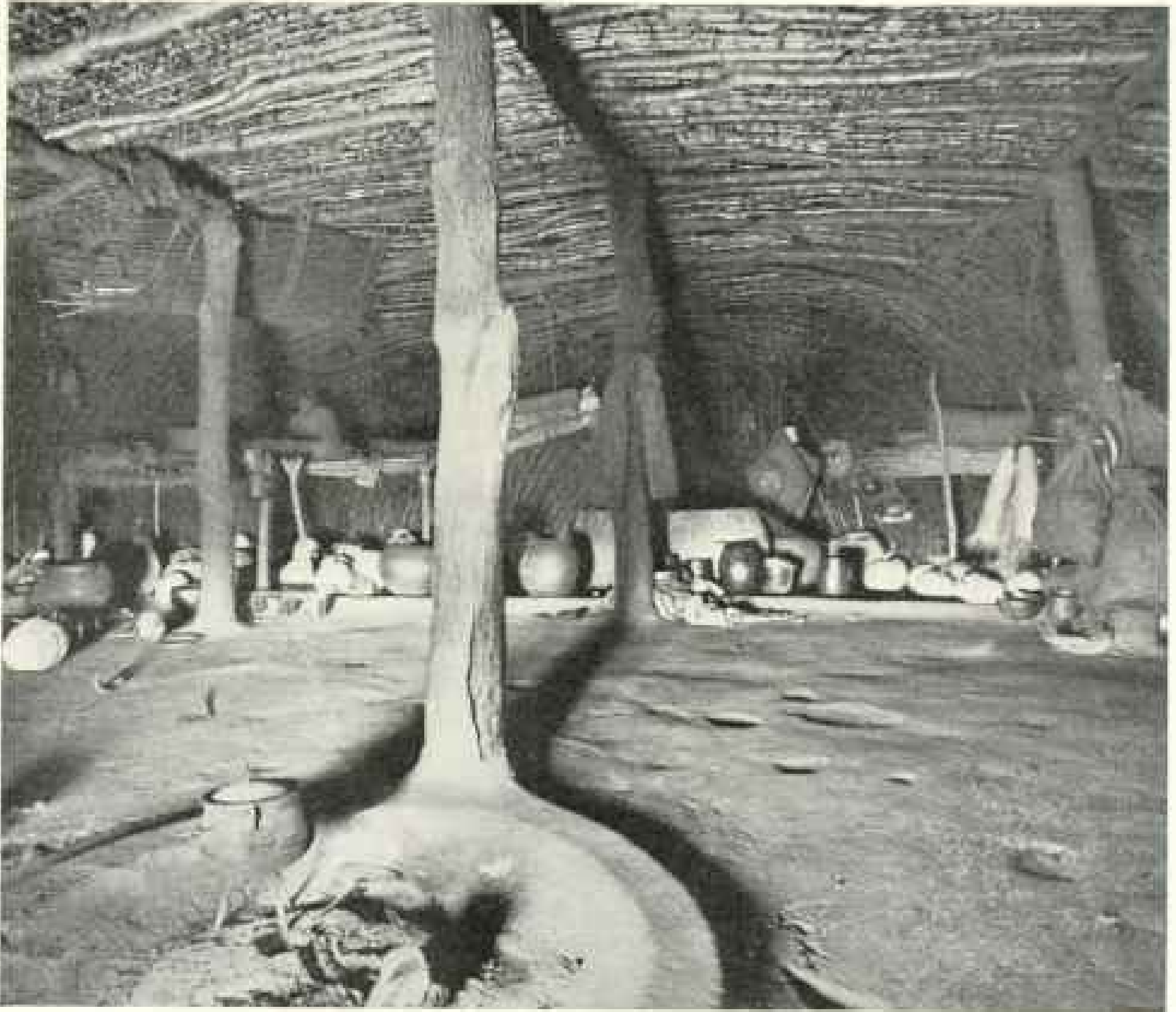
The range separates Natal from Basutoland and Orange Free State. Its highest peak rises about 12,000 feet above sea level and 7,000 above the surrounding country. Going up from Durban to Pietermaritzburg by train, the traveler passes through "the Valley of a Thousand Hills" and, continuing the journey, finds himself amid magnificent scenery at an altitude banishing memories of the tropic heat of the coast. In this region were fought many of the bitterest battles of the Boer wars.



Photograph by Melville Chater.

## THE CIRCULAR HUTS OF THE ZULUS ARE SELDOM NEAR ROADS

"My people don't like living near roads," said one old native. "They like streams and hills. Besides, if they lived too close to a road, some white *boss* would make them work on it" (see text, pages 447-8). The kraals, or huts, of this native reservation at Izingolweni melt indistinguishably into the background.



ZULU ARCHITECTURE LEAVES AS MUCH AS POSSIBLE TO NATURE

Growing trees, stripped of their branches, support the roof of the hut, which is made of pliable poles thrust into the ground and bent over the crude framework. Grass thatch keeps out the rain. Often the kraal is so low that its occupants must crawl through the entrance. Among the natives the patriarchal form of government still exists, the headman of the clan occupying the largest hut of the village.

Maritzburg's (a shortened form of the name) native location proved to be a neat suburb of two-roomed brick bungalows with electric light, vegetable and flower gardens, communal washhouses, and concrete market stalls. Brewing the mild Kafir beer, selling it on ration to the natives, and covering the building costs with the profits, constitute Maritzburg's social feat of transforming beer into low-rental bungalows.

"But why municipally built and managed?" we asked the official who was showing us the "location." "Why not by private initiative?"

"Because," he explained, "the Union's Bantu problem is too big to be handled otherwise. Imagine the United States to contain, according to comparative ratios,

80,000,000 negroes. Imagine them to be emerging from a tribal life based on agricultural communism and still entertaining such superstitions as rain-making and witch-doctoring. Now you can see why native reservations are set aside and why all Union towns establish native locations.

"Moreover, what happens when the work-seeking Bantu migrates cityward? For him tribal authority is gone; he flounders like an anchorless ship. It is the municipal 'location' that restores him to something nearer an independent existence, such as he knew in his home kraal."

HISTORIC CHURCH WHERE AN AMERICAN CLERGYMAN WAS FIRST PASTOR

Driving back to town, we sighted the quaint little Voortrekker Church (see page



ZULUS DRESSING A HIDE

A century ago this skin might have been made into the famous oxhide shield of the Zulus.



SUCH TREATMENT MAKES THE PATIENT FORGET LESSER PAINS

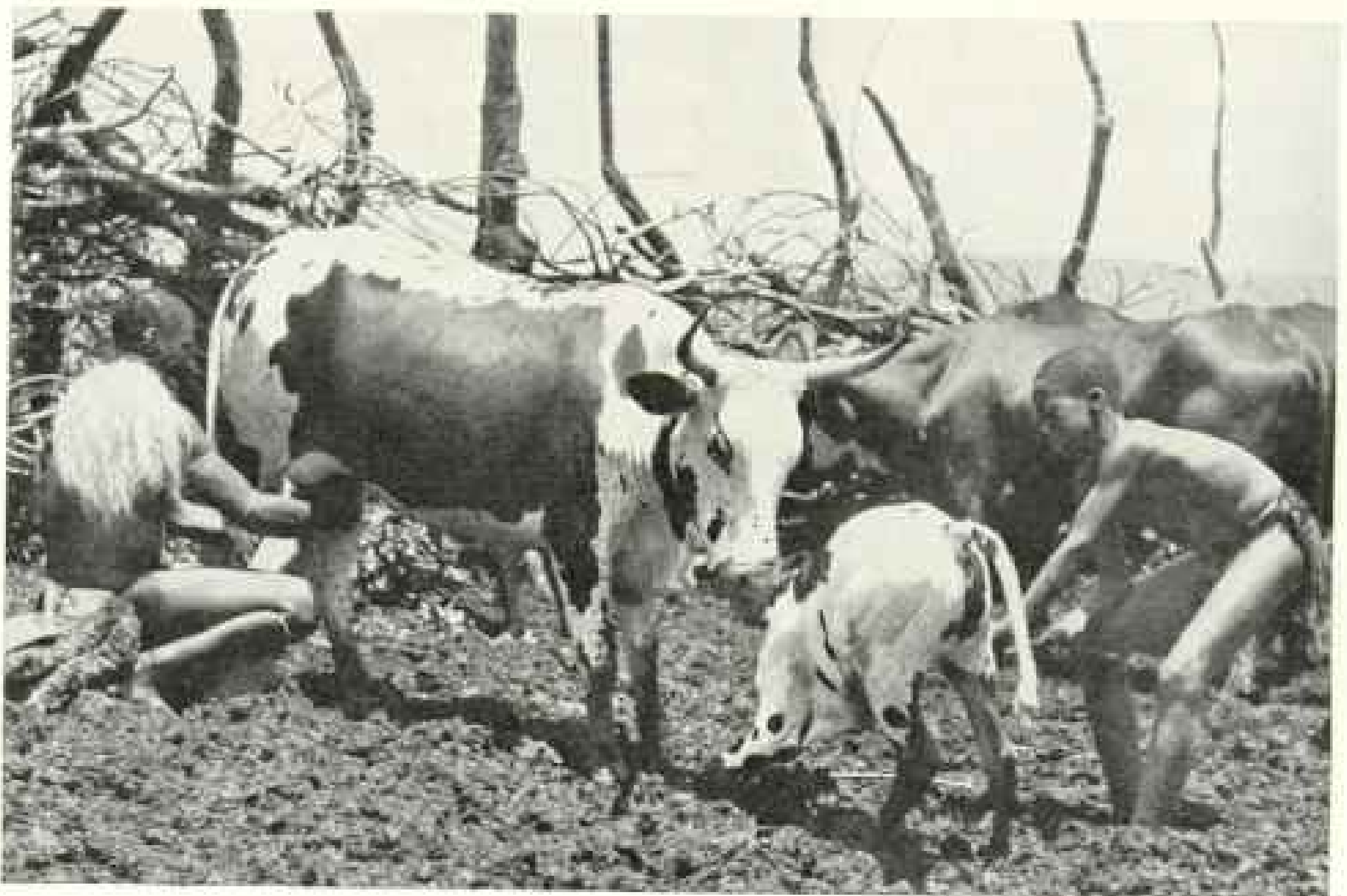
Evil spirits are many among the Zulus, and the witch doctor juggles with them all. He is not much feared now, but in the day of Chaka (see text, page 450) he was a sinister figure. It was the tribal magicians who "smelled out" the victims at the dreadful "weeping for Umundi," when the inhuman king assembled the nation to lament the death of his mother and instantly killed all his subjects who failed to mourn convincingly.



## HOT DOGS!

Photograph from K. Klien

Kafirs use these kettles to boil their "mealies," South Africa's version of America's "corn on the cob," over an open fire. Maize, or Indian corn, is a staple food for natives in some sections (see text, page 444, and illustration, page 443).



Photograph by Lynn Acutt

## THE MILKING IN ZULULAND IS DONE EXCLUSIVELY BY THE MEN OR BOYS

The boy at the right is restraining the calf while the milking is going on. As a rule, Zulus use comparatively little milk in their household, but devote it to the calf, for they consider it economical to have the calves develop into good beeves.



#### WHALERS CUT UP THEIR CATCHES

From May to November these marine monsters are landed on the beach at Durban and conveyed on railway trucks of special construction to a near-by whaling station (see text, page 452). Various species are captured.



© H. C. B. Wylde-Brown.

#### THE BUSHMAN DELIGHTED IN GRAPHIC ILLUSTRATION

These figures in Natal National Park show a group to the right dancing to the clapping of the seated women to the left. Cave walls and rocks in the mountains of Cape Colony and of the Drakensberg contain many examples of the Bushman's remarkable art (see text, page 411).



Photograph by Dr. Cou from Galloway

CHILDREN ROMP ON THE BEACH ACROSS WHICH DICK KING ESCAPED TO BEGIN HIS DARING RIDE

There is romance in the very air along the Durban water front. The intrepid messenger who saved the country for the British is to South African boys and girls what Paul Revere is to American youngsters (see text, page 461, and illustration, page 446).

446). "Give us victory over the heathen," thus prayed the Dutch burghers on the eve of the Battle of Blood River, "and we will erect a church unto the honor and glory of Almighty God." Under its scrolled gable—we rubbed our eyes—stood two "young females" dressed in sunbonnets and shawls, voluminous skirts, flowered aprons, and carrying squares of patchwork and velum-bound Bibles. Great-grandmother's ghost! Were they Voortrekker girls?

For what local pageant the two young ladies had resurrected those historic garments we did not pause to inquire. Seizing our cameras, we snapped that seeming daguerreotype of olden days before it could modernize itself, in a photographic sense, by melting away like a movie fade-out (see Color Plate VIII).

The old church holds a special interest for Americans, since its original pastor, Dr. Daniel Lindley, was a member of the first American missionary group to arrive in South Africa. Those were the days of dreaded Dingaan and of muscular missionaries. Lindley, for example, would ride 378 miles to Winburg, or 460 miles to Potchefstroom, to baptize or to celebrate communion. Incidentally, he must needs be able to build a house, use tools, plant fruit groves, prepare Zulu primers, shoot lions, and preach powerfully. That "there isn't a job on the top of the earth that the beggar don't know how to do" applies equally to Kipling's marine and to the Natal missionaries of 1835.

And from those same early "laborers unto the harvest," of whatever denomina-



Photograph from Union of South Africa Air Service

#### DURBAN BEACH HAS LEAPED TO SPLENDOR FROM BARREN DUNES

Only a few years ago this shore was a drab and uninviting stretch of sand. To-day it is the principal attraction of the city, with its esplanade, open-air swimming pool, hotels, cottages, and elaborate landscape gardens.

tion, there sprang a fine tradition of broad usefulness, be it education, or medicine, or trades schools, that operates to-day for hundreds of thousands of Bantu folk throughout South Africa.

#### A TRANSPORT RIDER TELLS OF THE GOOD OLD DAYS

It was at Pietermaritzburg that we met the old transport rider. He had long since retired, this former member of a profession whose heyday in South Africa corresponded roughly with that of the Deadwood Coach and the Pony Express in America. Would he talk with us? Now, would Kit Carson or Bill Cody reminisce of the glorious days of their youth? One question started the veteran off:

"Never heard of a buck wagon? 'Twas eighteen foot long and was built to carry

seven ton, and its 16-ox-span (well salted beasts that no tsetse fly could kill) did their 15 miles a day. At Durban you'd load your wagons with plows, or flour, or timber, and start off on your 500-mile trek for Pretoria. 'Twould be hides and wool, coming tother way. Spring and summer was our season, for in winter there'd be no veld-grazing for your oxen.

"What, never heard of a *sjambok*? 'Twas a rawhide whip, 36 foot long, and a good driver could flick a fly off the leader's ear at that distance. Night travel was the thing, because the sun would knock your oxen out. Then at breakfast time you'd outspan and——"

"Unhitch, you mean?"

"Ay, that's it, outspan." His gaze grew far-set through the blue smoke swirl of his pipe. "There'd be coffee and bacon and





Photograph by Melville Chater

#### UNEXPECTED SURF BREAKING ON DURBAN'S MERMAIDS

During the South African winter the climate along the Natal coast is delightful, with perpetual sunshine but enough tang in the air to take away the languor of the Tropics.



Photograph by De Cou from Galloway

#### A HINDU FESTIVAL NEAR DURBAN BRINGS OUT FANTASTIC FIGURES

In the half century prior to 1910 many thousands of East Indians were imported into South Africa, mostly into Natal, as field laborers. They and their descendants have since become active as small traders and market gardeners.



WOOL FROM MANY VELD FLOCKS (SEE PAGE 436) GOES ABOARD SHIP AT DURBAN

"The Point" is the coast terminus of the Natal Railway system, the harbor the only one of importance between Delagoa Bay and East London. Because of its bunkering facilities and nearness to extensive coal fields, the city advanced during the World War to the place of premier port of the Union.

my Griqua boys singing away to concertinas or fiddles strung with buck gut."

"And what would they sing?"

"Sing?" (Much pipe-puffing.) "That's 60 years ago, mind you!"

He hummed, then found the words. Along with them you must imagine the illimitable veld and the two ox-drawn wagon trains approaching each other, as their respective Griqua crews call back and forth to a lilting tune:

"Warna toe gaan jy?  
*Pretoria toe.*

"Wat doen jy daar?  
*Om geld te kry,  
Om brandewyn te drink,  
En die meisies te try!*"

"And that," added the old transport rider, "is about like saying, 'Where are you

going?' 'To Pretoria.' 'What do you there?' 'Money to get, brandy to drink, and to look up the girls!'"

"And for food," we asked, "you shot game?" He nodded.

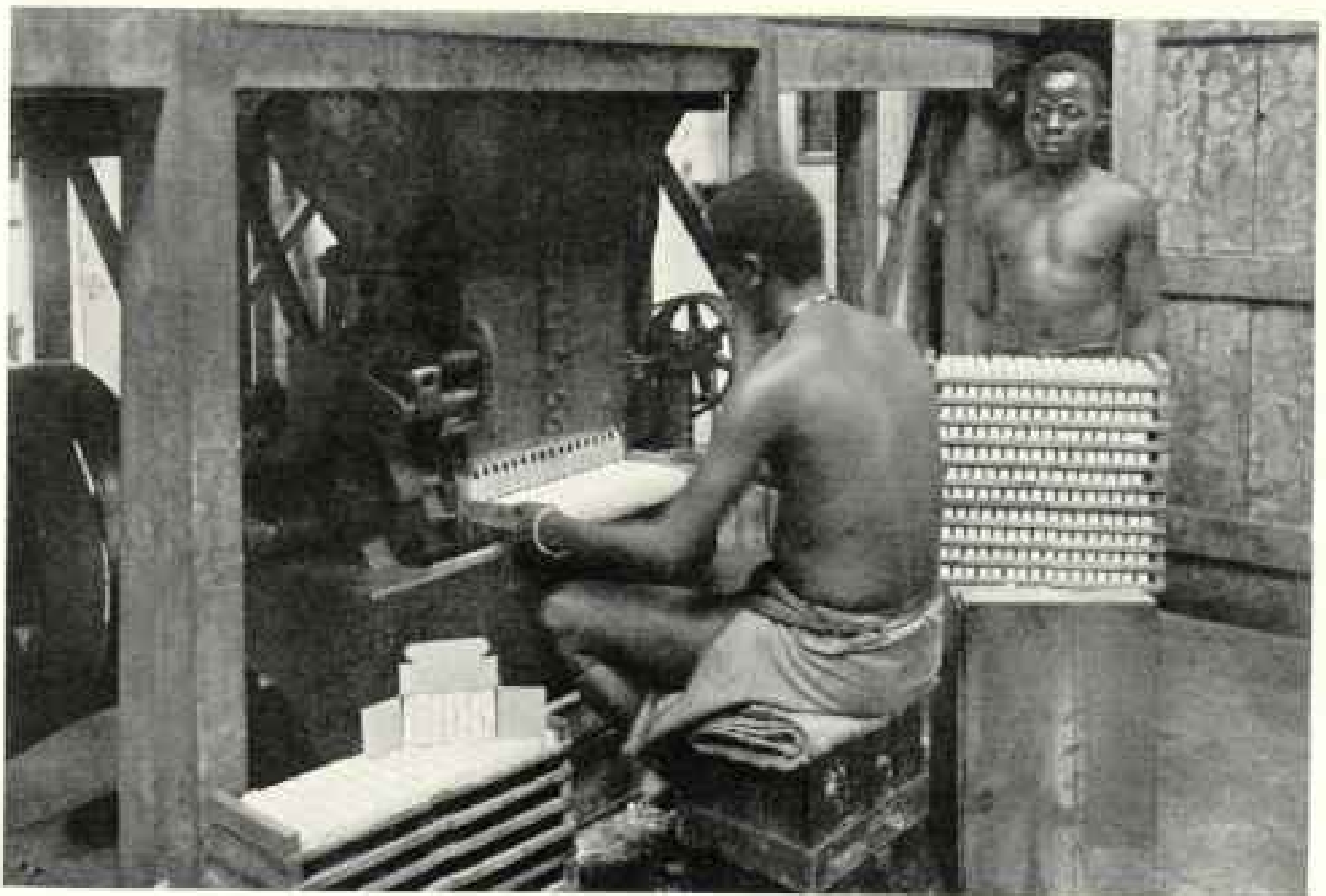
"Why, I've walked right in among 'em and shot my buck with the herd packed so thick about me that I could hardly pull him out to the wagon. But we shot only for food, not wholesale, for sheer slaughter, like those professional killers, later on. Buck? Why, around '75, I've transport-ridden one whole day alongside blesbok, springbok, wildebeest, zebra, one solid herd, going down to the lower levels for winter pasturage. Yes, right to the horizon, the veld seemed to rock up and down with moving game—a sight never again to be seen by the eyes of man!"



Photograph by Melville Chater

#### THE MAKINGS OF A FIRST-CLASS BONFIRE NEAR DURBAN

Trucks are bringing in loads of sugar cane from the fields for maceration and reduction into sugar at the plant. The first step is to free the cane from the loose husk which envelops it, and this is done merely by setting fire to it. Being moist, the cane emerges entirely uninjured.



#### MAKING LUMP SUGAR FOR THE WHITE MAN'S TEA AND COFFEE

Sugar-cane plantations dot the coastal belt of Natal. They produce enough sugar for the Union market and a surplus for export.

Next day we headed for the Natal National Park. Detraining at Ladysmith, we encountered masses of men wearing old campaign hats and faded service ribbons. They were there to commemorate those Anglo-Boer War days when Ladysmith made front-page news. And now, 30 years after, these former foes would lunch and swap yarns of bygone siege months when lyddite shells were hursting green over besieger "Piet," and besieged "Tommy" was subsisting on horsemeat sausage and roseleaf tobacco.

We motored to the National Park across country where arum lilies patched the green veld, and straight-backed Zulu women tended flocks, and the long-tailed "widow bird" flopped top-heavily in air like some mishandled airplane. Meanwhile there uprose and outspread the Drakensberg's vast blue barrier; and thereunder we halted, at last, at a peaceful mountain camp, with its tennis courts, hostel, and group of *rondavels*, for that is what the Afrikander calls his stone-walled, thatched development of the native's circular hut (see Color Plate XIII).

The park conserves some of the most striking mountain scenery in South Africa. You may ascend by forest trail into a towering defile where the Tugela River's falls drop 2,050 feet, or you may achieve the Mont-aux-Sources, where that river, as well as the Orange, rises on what is the apex of the Drakensberg.

Much as the American feels about his Rockies, the Afrikander feels about his Drakensberg. A truly magnificent nat-



Photograph by K. Klimm

#### BANANAS GROW TO PERFECTION IN NATAL

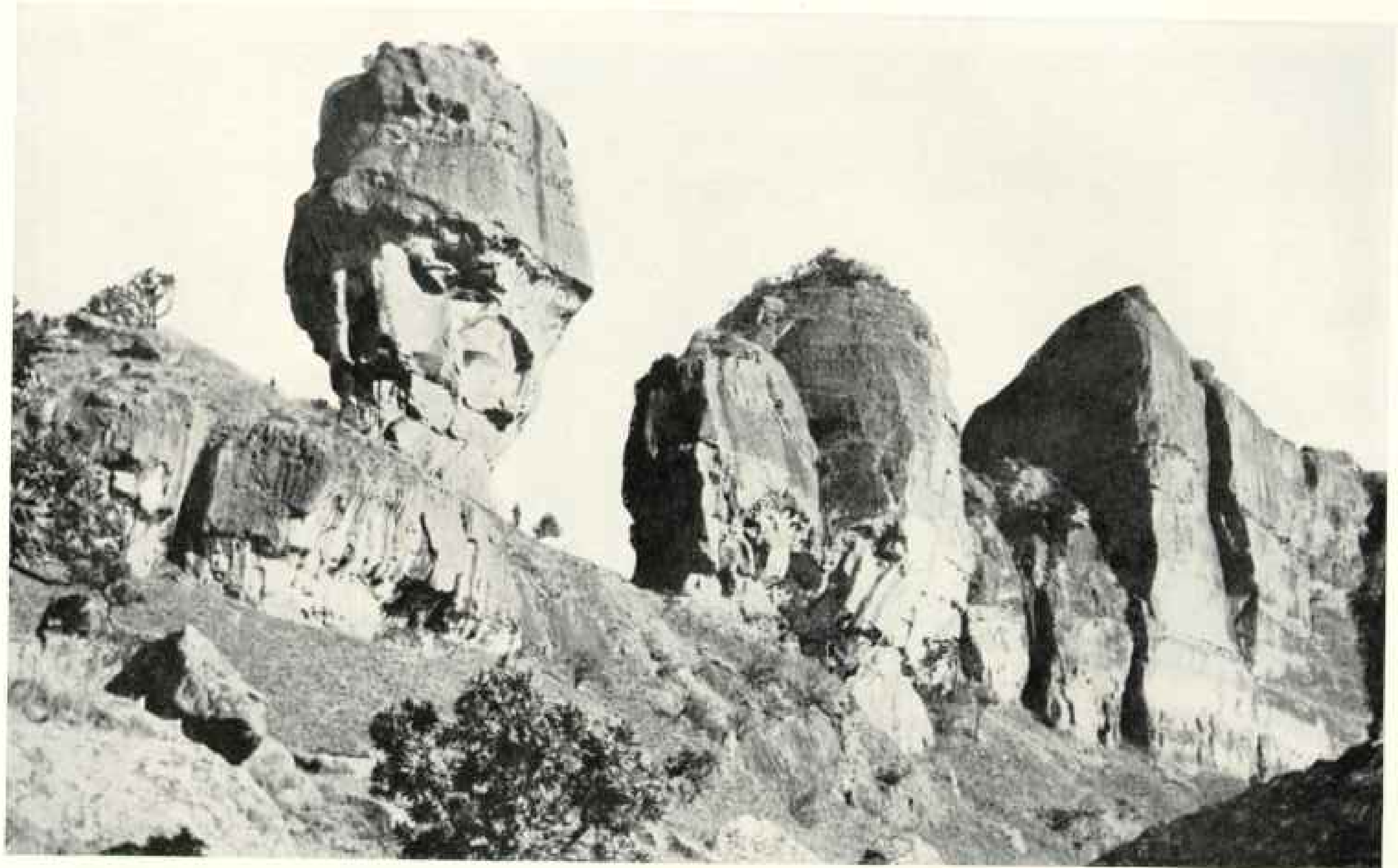
The planting is largely done by East Indians, but white farmers are being encouraged to take it up

ural feature, it represents the main range and perhaps half the length of a mountain chain that stretches almost unbrokenly throughout 1,200 miles, from the Cape to northern Transvaal (pages 462, 474).

#### TALL TALES ABOUT THE FAMOUS BASUTO PONY

You do the Mont-aux-Sources ascent by pony, the famous Basuto pony. Now, we had heard much about him—his sure-footedness, his locality sense, his intelligence.

As fish stories are born of rivers, so pony stories are bred of mountains; with which comment I will repeat a yarn told us by a tourist at the lodge. Without



NATURE HAS IMMORTALIZED THE ENGLISH "BOBBY" IN NATAL NATIONAL PARK

© H. C. B. Wythe-Brown

The Policeman's Helmet is a freak sculptured by erosion from volcanic rock (see, also, text, page 473, and illustration, page 462). The guide standing at the right of the huge figure gives an idea of its size.



Photograph by Lynn Acutt

#### FIRE-WALKERS DEFY THE LAWS OF NATURE.

The East Indian dashes barefoot across a pit filled with burning charcoal at Durban. Upon his head he carries an offering of flowers for the deity in whose eyes he seeks merit. The heat is so terrific that the spectators must shelter their faces from it; yet the devotee will come through the ordeal without a blister (see text, page 452; also pages 513 to 522).



Photograph by Lynn Acutt

#### A WALKING PINCUSHION IN DURBAN

This Hindu has more than 600 hooks and pins inserted in his body. Dressing him takes about an hour and a half. In his hands he holds two skewers which are stuck through the abdominal wall. There is also a skewer through the center of the tongue; it does not draw blood when inserted or removed. Limes and carnations are also suspended by hooks inserted in the flesh. The fluid on the body is holy rose water from the Ganges (see, also, pages 513 to 522). To meet the labor shortage occasioned by slave liberation, local cane planters first imported Indian coolies on the indenture system; now the province's white population hardly outnumbered that of its East Indians.

actually laying his hand upon a Bible, he averred as follows:

"Intelligent, those little Basutos? Listen! Last week I rode up to the Montaux-Sources. Knew there was a Bushman painting somewhere *en route*, but forgot all about it. Suddenly pony stopped dead, whinnied, and wouldn't budge. Tried sugar, but no go. Licked him, but he just turned his head and eyed me re-

proachfully. So I dismounted and investigated. What do you think I saw? That Bushman rock painting that every tourist inspects at that particular point!

"Intelligent, eh? But listen! Even after I'd remounted, that pony wouldn't budge. Stamped, whinnied, tossed his head. A thought struck me. I got off again, took a snapshot of Bushman's painting, as all tourists do, and got on again. Then off that pony started, gentle as a lamb. Now, if that's not horse sense?"

Next morning with cameras and lunch basket, accompanied by two Basuto boys and mounted on two of the famous ponies, we set off and upward. From a point four hours' ride away there loomed the great massif where the Drakensberg and the Maluti Mountains meet. The route led "upstairs," as our Basuto boys described it, over a ribbonlike trail, where bottlebrush flashed scarlet on the hills and the protea tree displayed its extravagant blooms. Uphill and down we went, now

through dim glades, now under the dazzling, cloud-piled blue, now amid the swirl of some mountain stream.

Our ponies weren't in the personally-conducting-guide class; they were more like expert tight-rope walkers. The way they ambled along the extreme verge of dizzy gorges was disconcerting, especially when my beast would lower his neck over the edge in quest of forage. Jerking at the

reins availed nothing. He would merely look around with a scornful air, as if saying, "Stranger, you don't know what danger is! Why, you're as safe as a movie stunt actor bicycling around the top edge of a skyscraper! Come, loosen up while I grab that hunch of green stuff!"

From brilliant sunshine we passed in and out of successive showers. Once our ponies stood immovable amid a thirty-minute hailstorm. Vaster stretched the outflung panorama below us as, by hair-pin tracks ever more sheer, we quitted the final trace of verdure and scaled the ultimate massif itself.

At last we halted on a summit of gnarled rock where silence cloaked all, where there was no life save for the wheeling vulture and, to his view, a group of human specks, ourselves, on a solitary peak. Enormous gulches encompassed us. Stretching horizonward lay northern Natal's expanse of pleated mountains, in turquoise and opal hues. Behind us titanic walls of cobalt blue rose sheer, as from bottomless chasms, hiding what might have been the dizzy edge of the world.

"We catch nice cave, *baas*," cheerily announced our Basuto boys. Then they led us to where the ultimate pinnacle had split open so as to form a pitch-black cavern. Never had sunlight pierced that cleft in the granite, where a clammy sweat bathed the walls of what would have enraptured Hecate, Queen of Gloom. "Now we catch tea and go sleep," gaily chorused



© Herbert Lang

#### FULL SPEED AHEAD: A WHITE RHINOCEROS CHARGING

The largest land mammal except the elephant sometimes measures 15 feet in length and 6 feet in height at the shoulder. It is now rare, but is found in Zululand and a few other parts of Africa.

the Basuto boys, thus intimating that here, within the mountain's bowels, we might pass a thoroughly jolly evening.

We broke it to them gently by displaying our aneroid—it stood at about 10,000 feet—and explaining that we made it a rule never to reserve accommodations higher up than the 50th story. Then, with murmurs of disappointment from our cave-minded boys, we started to go "downstairs," as they called our homeward route.

All might have been well if, at 6 o'clock, big black storm clouds hadn't suddenly swallowed the sky. Down, down we went in the gathering gloom, while the trail





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#### THE CITY HALL AND PUBLIC GARDENS OF DURBAN

This handsome building, in the largest urban center of Natal, was opened in 1910. Memorials to Queen Victoria and to Durban's volunteers who gave their lives during the World War have been erected in the gardens (see, also, Color Plate XII). In the foreground is a stand of the horn-crowned, feather-bedecked Zulu ricksha men, the horns signifying strength and the feathers speed (see, also, Color Plate XV).

faded from sight, and the ponies stumbled and protested, and the baboons barked lonesomely among the rocks. After an hour, there was nothing for it but to turn the ponies loose and walk in Indian file. This we did, holding hand to hand amid a blackness so profound that the leading Basuto's white tunic was invisible at two feet.

It was a three hours' business done at snail pace, inch by cautious inch, through pouring rain. Now we found ourselves on the precipice's edge and sheered away. Now we waded knee-deep streams or fell flat in the slithery mud. Were we mov-

ing in circles, getting nowhere at all? Like the Allan Quatermain trio, lost in King Solomon's mines, we had used up our last match when, miles away down the mountain, there gleamed—could it be?—the hostel's lamps!

Hot baths, hot-water bottles, hot drinks, food, clean sheets, bed! Whatever we may have exclaimed, it corresponded roughly with Quatermain's "A light, by Heaven! We are saved!" But, do you know, those wild-life Basuto boys seemed utterly bored. Said one of them disconsolately, "Hotel, *baaz*— Ugh! Not so jolly like that cave upstairs!"

## THE TRANSVAAL: THE TREASURE-HOUSE PROVINCE

"**G**EORGE! Where is that porter? Oh, George!"

A rap sounded on our compartment door; then a colored functionary put his head in and inquired, "Which George, sir?"

"Which?" Still sleep-befuddled, we had in mind that generic "George" of the Pullman system. "Aren't you all Georges on this train?"

"No, sir. We are 'boy'—all of us are 'boy,' sir." Which incident may provide an open sesame for future strangers traveling on South African railways.

It was our first extended rail journey in the Union. The vestibuled express, with sleeping and dining arrangements similar to those in European corridor trains, makes its 1,001 miles from the Cape to Pretoria in 31 hours. At Cape Town your baggage has been entrained from shipside by the railway service, which will handle it again between your destined station and hotel. You identify your compartment by card system; then settle down to books or to scenery distractions in the observation car.

### SOUTH AFRICA'S RAILWAY SYSTEM IS GOVERNMENT-OWNED

Breakfast over, we consulted a handbook as to the scope of the Union's government-owned railway system. It is considerable. The steel triangle connecting Cape Town, Bloemfontein, Johannesburg, Pretoria, and Durban measures some 2,750 miles, which is about one-fifth of the system's total trackage. Further, the railways operate the Union's grain-elevator service, erect housing centers for the system's employees, and pay an annual pension bill of \$1,600,000.

What inaugurates railway pioneering? In many a Nature-favored country early settlers spread along navigable rivers, thus providing a feeder for the subsequently advancing rails; but in South Africa's case there were no such rivers to advantage its infant railways of the 1860's. Instead it was the subsequent discovery of diamonds at Kimberley and of gold on the Rand that constituted the belated feeders for railway extension northward.

South Africa's early days of "steam-car" experimentation presented humors and ag-

gravations aplenty. One aspiring individual bought up a bit of bankrupt railway and its rolling stock for \$100 and reorganized what he might well have called the Hand-to-Mouth Route. When the daily train stoppage occurred for want of fuel or water, the passengers pitched in with the crew to cut brush and dig water holes. And the popular taunt was, "Guard, is there a school handy, so I can educate my children while we are waiting?"

But subsequent railways survived, consolidated, and gallantly forged northward. And to-day, as one's limited speeds through some sparsely settled region, it is striking to reflect that the Union's 12,000-mile system, while serving an area approximating that of twelve Southern States combined (see page 400), can draw only on a total white population which hardly exceeds that of West Virginia.

### OFF FOR THE TREASURE CAVES

We were on our way to an Arabian Nights' Entertainment; for hardly less marvelous than Sindbad's stories are the huge underground treasure caves known as the Witwatersrand Gold Mines. Indeed, it is quite possible that Arabian romancers drew some of their wonder tales from East African backgrounds. Certainly a medieval legend identified King Solomon's aureate Ophir with that "Anfur" whose port, said the legend, was the East Coast town Sofala; and in 1569 a luckless Portuguese expedition under Francisco Barreto actually ascended the Zambezi in search of Ophir, to find instead miasmas and a malarial death.

Not to know your luck is almost as bad as being luckless. It was some 270 years after Barreto's tragedy that the Voortrekkers, in advancing northward from their outpost at Potchefstroom, unwittingly crossed, at the Witwatersrand, one of the richest gold fields in the world.

Potchefstroom is the Transvaal's oldest town. Nowadays an educational center of various collegiate institutions and an outstanding school of agriculture, it dates to 1839, when Hendrik Potgieter and his trekkers settled there in the wilderness lying beyond the Vaal River.

As was the case with those Indian-ambushed emigrants who, almost contempo-



POTCHEFSTROOM AIDS TRANSVAAL FARMERS TO GROW BETTER CROPS

Its School of Agriculture is one of the best in South Africa, with a Government experimental farm 3,500 acres in extent. These buildings are the farm's offices. Potchefstroom is the educational center of the western Transvaal.

ranecously, were advancing across Oregon's plains, the trek-Boers enjoyed no mere "peaceful penetration." Some 80,000 Matabele, under Chaka's defecting general, Mosilikatze, must be driven across the Limpopo before unmolested settlement was assured.

Thereafter the farms were delimited, quaintly enough, by the prospective owner riding over the longest possible boundaries within a given number of hours. And, as "United we stand" was obviously the watchword, the Boers created several tiny States, as at Potchefstroom, the latter ultimately absorbing the rest under the style of the South African Republic.

#### TWO GREAT PERSONALITIES IN SOUTH AFRICAN HISTORY

A vast, meagerly populated expanse of veld, where families built thatched dwellings, sowed corn, cast bullets, and shot the buck which provided them with meat, rough clothing, veld shoes, and harness—such was the struggling rural republic that gained British recognition in 1852 and

four years later established its capital at Pretoria (see illustration, page 491).

But the true struggle, that of race supremacy in South Africa, was yet to come. Of the two protagonists in that struggle, one was to go thither in search of health. See him, in the early '70's, a physically delicate youth, fresh from Oxford, in his pocket a copy of Aristotle, with "Cecil John Rhodes" inscribed on its fly-leaf. With astonishing bounds he will make a fortune on the diamond fields, become Premier of the Cape, and further his life's dream of extending British imperialism in South Africa. He is dreamer and doer in one. Such men are formidable (see, also, pages 397 and 424-30).

Now, see this other—no cultured Oxonian, but the hard-bitten product of the Transvaal veld. Middle-aged, massive, slow and sure as an ox, he sits on his homestead's stoop poring over the Bible which he holds in his knotty hands. That small Paulus Kruger of trek days has waxed into this dominating figure (see page 434 and illustration, page 512).



AFRIKANDER CATTLE WERE THE TREK OXEN OF PIONEER DAYS

These animals have existed as a distinct type for more than a century (see text, page 439, and illustration, page 437).

Childhood's memories of white masters over black slaves have ingrained in him the instinct of race supremacy, while other memories of slave emancipation and of his family's consequent self-exile have wrought in him an undying hatred of things British. Iron-bodied as iron-willed, this Bible-taught, black-veiled Cromwell sees God's hand in all his actions.

"Flinch not, neither fall into unbelief"—thus he will later on address his army in the field—"but hold fast by your faith, and so go forth to fight in the name of the Lord." Is not this in true "Ironsides" vein? And, as the future president of his people sits conning the Scriptures, we need only read "the British" for "Amalek" to comprehend his mouth's grim line, as he reads: "Thus saith the Lord of hosts: . . . Go and smite Amalek, and utterly destroy all that they have."

#### WALKER STUBBED HIS TOE ON A TEN-BILLION-DOLLAR REEF

Strangely impressive, as one approaches Johannesburg, are those miles upon miles of mine dumps surrounding the Witwaters-

rand. Across the vast plain they stretch, like avenues of mammoth monuments, as if promising a climax of prehistoric grandeurs. Yes, grandeurs—but of what land? For sometimes they align themselves in a great wall, recalling China's. Or, again, you catch in their outflung vista a resemblance to Egypt's pyramids or to Mesopotamia's ziggurats. Or, yet again, their sloping, sand-hued massifs suggest military fortifications on a scale the world has never known (see page 484).

The colossal picture tempts one's fancy. If the Rand's gold mines crumbled to nothingness, leaving only the dumps, some writer of a millennium hence might conceivably describe them as "those mighty works, reared perhaps as defenses or patriotic monuments by the ancients of the 20th century."

Later, we asked a local statistician to give us some approximate idea of the dumps' tonnage. He thus replied by letter: "Would you prefer it in ocean greyhounds or in Egyptian pyramids? I estimate that 20,000 *Mauretania's* would about equal and 12,000 *Leviathan's* would some-



Photograph from Melville Chater

DIAMONDS AND ROMANCE UNDERLIE JOHANNESBURG'S BUSINESS STREETS

The arcaded pavements are characteristic of all cities in the Union. From a frontier mining town the Transvaal metropolis has grown to a great center of business.

what exceed the dumps' tonnage. Or, shifting the comparison, that tonnage would be approximated by aligning across the Rand 102 replicas of the Great Pyramid."

Stubbing one's toe against a ten-billion-dollar gold reef is an experience reserved to the few. It was in 1886 that George Walker, out for a stroll, accidentally kicked into a gold-bearing outcrop of what proved to be the main reef of the Witwatersrand. Shades of Francisco Barreto and Monomotapa! Here, shaped like a vast bowl imbedded face-upward, was a 70-mile stretch of gold-impregnated rock that, if you believe in Kismet, had awaited George Walker's intrusive toe ever since early geologic times.

And now, upon that treeless, uninhabited no man's land there appeared a tawdry mining village of tents and covered wagons. Telegraph wires hummed and the

village became a raw, tin-shack town of 3,000 people. The prevailing crude process lost half the gold worked. Yet who cared, since the Reef seemed inexhaustible? Supplies were teamed from 300 miles away. Yet who minded fancy prices? And, as to the water shortage, "All right; let's bring in champagne!"

Thus began the babyhood of Johannesburg, which to-day, though a mere youth in years, is a giant in achievement. The largest African town south of Cairo and chief commercial plexus of the Union's hinterland, "Jo'burg" has a municipal area of nearly 82 square miles and some 300,000 people, or about half the population of the Reef, upon which rises this city built on gold.

A town of such spectacular beginnings needs time to settle down to life's quieter realities. To-day, 45 years young and

quite used to having an annual \$225,000,000 worth of gold dug up, so to speak, in its back yard, the City of the Reef presents the aspects of a well-rounded cosmopolitanism. One might expect such fine public buildings as the Town Hall, the Law Courts, and the Stock Exchange, yet few visitors would anticipate the planned beauty of some of Johannesburg's suburbs, or the spaciousness of its parks and recreation fields, or its support of art, medical research, and of so impressive an academic seat as the Witwatersrand University.

As for the city's play-hour aspects, one might mention innumerable clubs, race meets, sporting events, motor cars like peas in a pod, and motor cycles—watch your step!—like "whiz-bangs" in a major offensive. And to all this add a hospitality savored with the lingering tincture of pioneerism.

Although the discovery of the Main Reef in 1886 had come as a timely prop to the then tottering treasury of the South African Republic, even a ten-billion-dollar gold mine may have its drawbacks, as President Kruger was to discover. What was to be his people's future? In trek days, English policies had pushed them northward to found new States; but by 1877 the English had followed them up and had annexed the Transvaal, only withdrawing after their defeat in the British-Boer War of 1881.

And now hardly were the gold mines going strong when here were "those English" again, effecting peaceful penetration as prospectors and miners on the Rand. In brief, while the Boers owned the Transvaal's soil, the *uitlanders* (aliens) were more and more possessing themselves of its wealth.

On the other hand, the *uitlanders* found themselves more and more in that exasperating status of taxation without representation. They pushed political agitation, but Kruger would not weaken his own people one iota by giving "those English" the franchise.

This embroiled situation brought on the Jameson Raid, which was in effect an armed insurrection, subsidized by Rhodes and led by Dr. Jameson, administrator of Rhodesia, to overthrow the Transvaal Government. It proved abortive, as did the British-Boer conference of a few years

later. Briefly, "Votes for *Uitlanders*" spelled war—and in 1899 war came.

"In Pretoria before Christmas!" was the farewell shout of British troops embarking for battlefields 6,000 miles distant. But what England foresaw as a three-months' affair proved to be more nearly a matter of three years. Not until 1902 did the Treaty of Pretoria formalize the prevailing of British arms. And the war closed with war's inevitably huge costs, there being some 48,000 Boers in British refuge camps, while most of the nation was being maintained at the victor's expense.

#### A VAST SUBTERRANEAN CITY MORE THAN A MILE UNDERGROUND

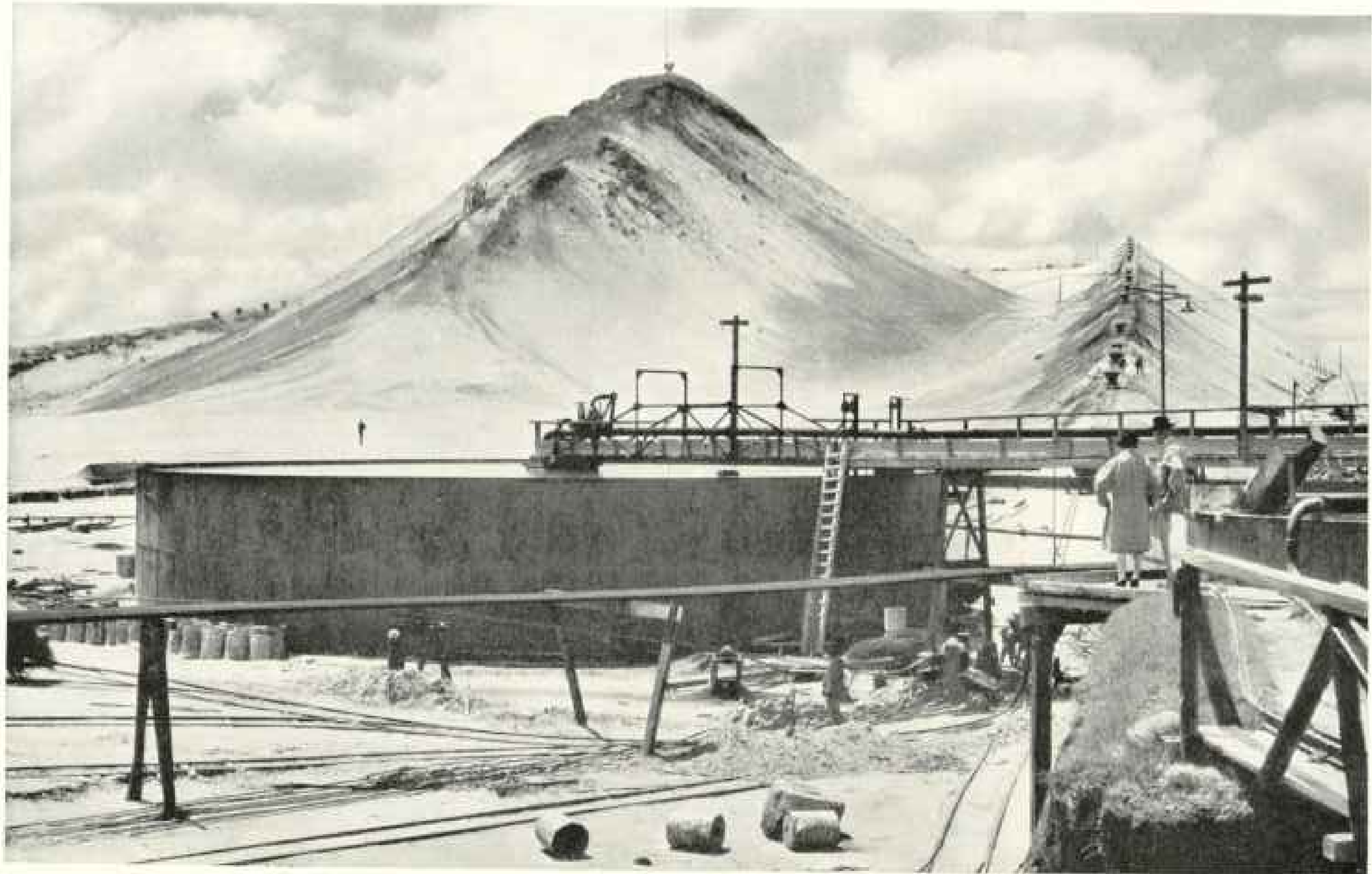
The Witwatersrand mines, whether at work or play, present a unique sight. Here we are in work hours descending by "skip" (lift) into the interior of the earth at the speed of an express elevator (see p. 486).

Johannesburgers dig holes as grandiosely as Americans rear skyscrapers—more grandiosely, in fact, for your alighting point proves to be one and one-third miles below the earth's surface. Your impression of this subterranean electric-lit town, with its avenues and cross-streets, where thousands of men are drilling or loading the auriferous conglomerate, is one of cleanliness, neatness, and—thanks to the giant ventilators—of a not-too-uncomfortable warmth.

You stay long enough to watch a surface hoist start off with its 9¼-ton load, which it will lift up that mile or more of shaft, to the crushing and reduction plant, in about two minutes. Then you regain the skip and ascend once more to what, measuring holes by skyscrapers, the cable operator might conceivably announce as "Two hundredth floor, last stop!"

That which you have glimpsed is but a tiny corner of what is, in effect, a vast subterranean city, whose axis measures 70 miles, whose workers number 100,000, and whose shafts, avenues, and streets total 4,000 miles, or approximately the length of the African Continent. And the business of this super-mole city is to discharge over one-half of the world's annual gold production.

How to handle that grand total of 212,000 men, 90 per cent of them Bantu, who, either above ground or under it, work on the Rand?



#### SOUTH AFRICA ALSO HAS ITS PYRAMIDS

Photograph by Melville Chater.

Strangely impressive, as one approaches Johannesburg, are these miles upon miles of mine dumps surrounding the Witwatersrand gold fields and stretching across the vast plain like avenues of mammoth monuments. This is the waste, running into millions of tons of fine white sands, left from the gold-extracting processes (see, also, text, page 481).

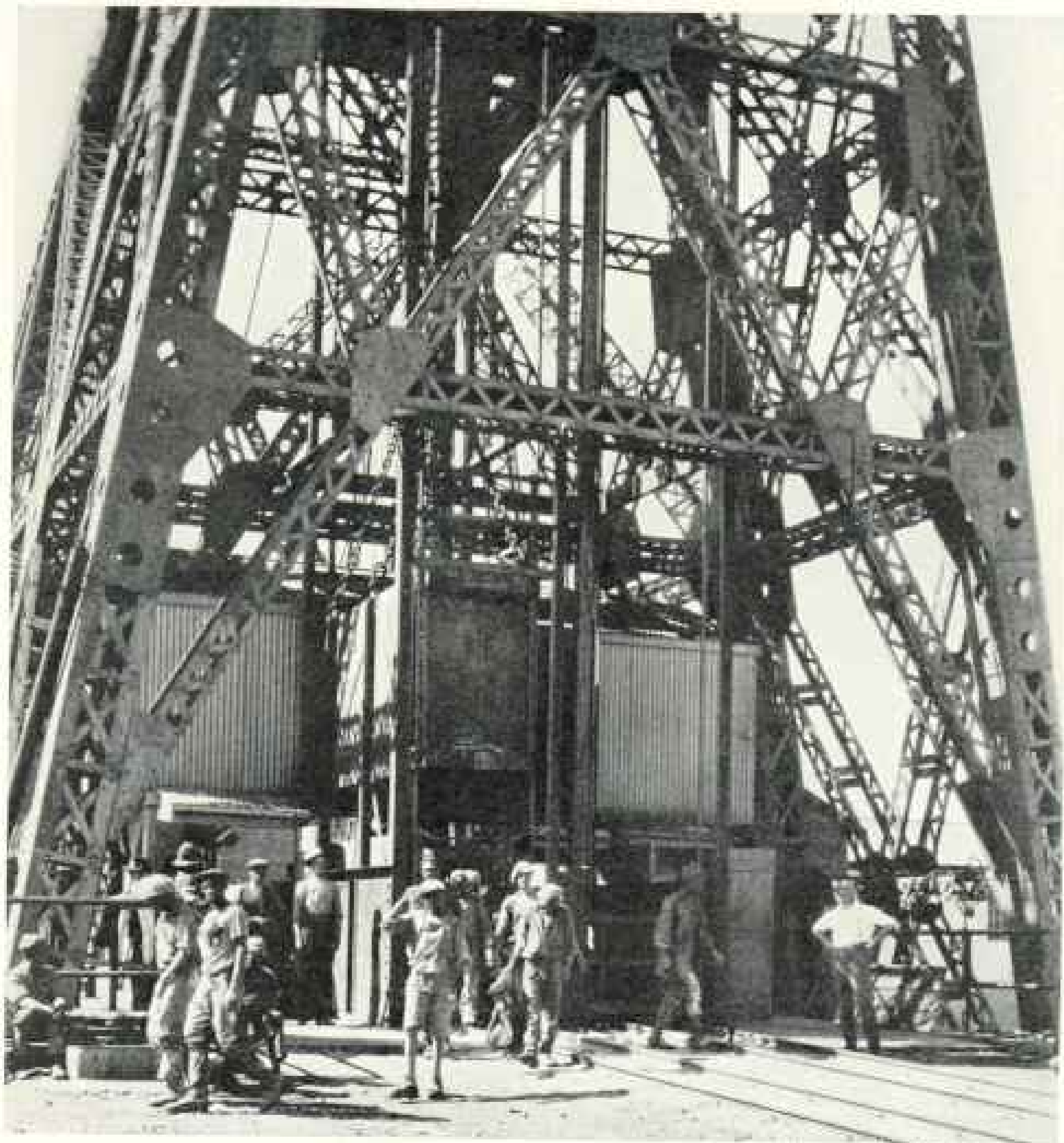


Photograph by Melville Chater

ON SWARDS AS SMOOTH AS GOLF-GREENS, JOHANNESBURGERS ARE ONE WITH DRAKE IN THEIR LOVE OF BOWLS.

What a link such a scene as this, common all over the Union, furnishes with the 16th century! This is the identical game which tradition says the great Elizabethan was playing with the captains of his fleet when couriers brought news of the sighting of the Armada. In its off hours the City Built on Gold forgets its world-important mining interests.





Photograph by Melville Chater

"UNDERGROUND COMMUTERS" ASCEND FROM A MILE BELOW GROUND

The "skip," or lift, has brought them at express-elevator speed from the subterranean electric-lit town, with avenues and cross-streets, where thousands of men drill or load the auriferous conglomerate (see, also, text, page 483). Above ground is a confusing mass of vats, trolleys, bins, trestles supporting pipes and machinery, dumps, headgears topped by cables and whirling wheels, and various structures of wood and iron.

Recreation—whether golf, tennis, bowls, swimming, or native dances—is universal, with inter-mine sports as a corollary. As to health and safety, each man regularly undergoes medical examination, first aid is taught to many thousands, while that cheery organ, *The Reef*, advises you on everything, from keeping fit to giving accident-prevention tips to American visitors in what is thought to be Americanese, as thus:

"Say, folks, we're right here at a real slap-up gold mine. Lady from Memphis, please don't eject your gun down the shaft. That pellet will accomplish a velocity of 5,000,000 miles per second and give some one a headache."

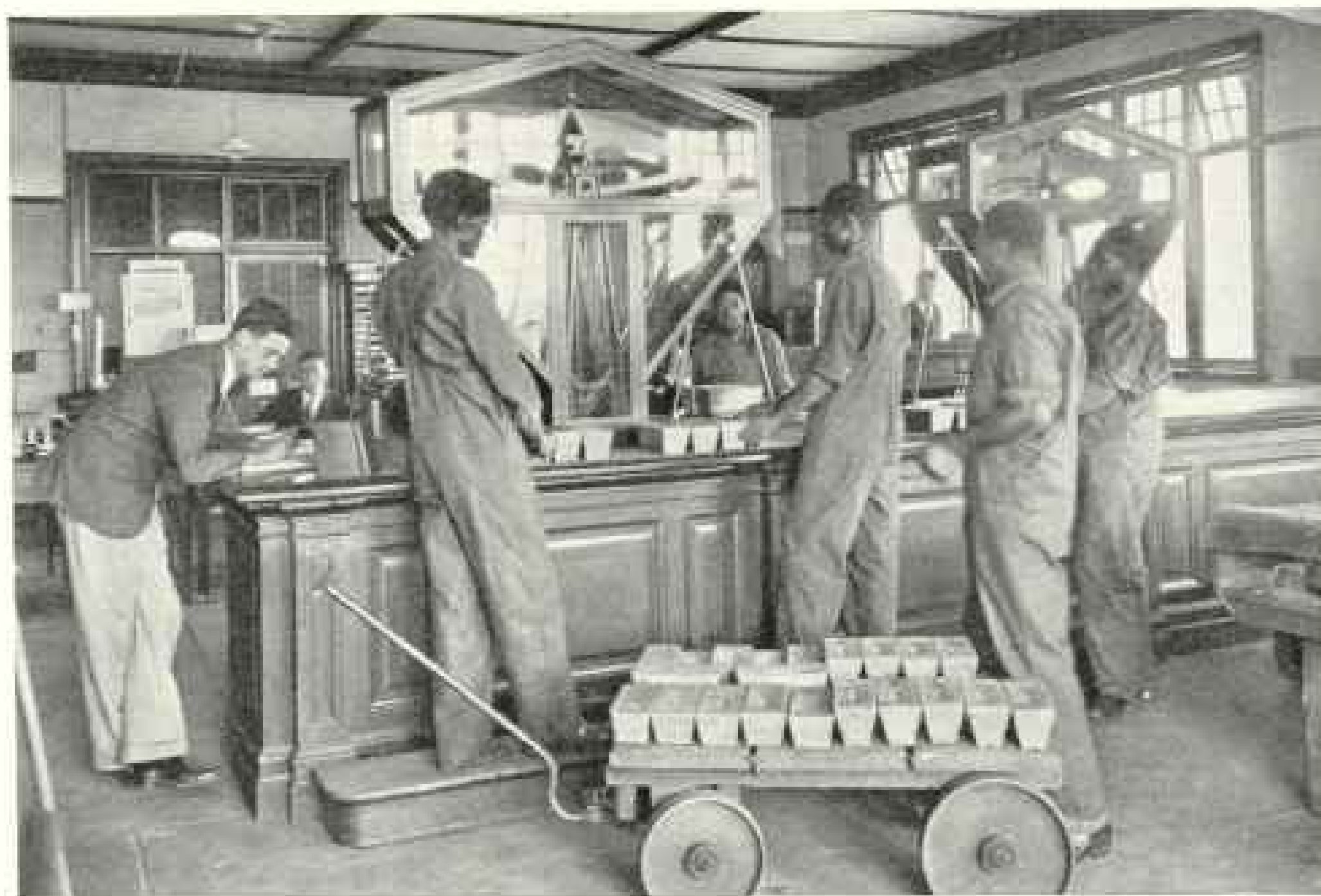
BUYING FOOD FOR A CITY OF EMPLOYEES

Whoever presides over the mines' commissariat must at times develop a genuine housewife's headache. Let us imagine a



POURING REFINED GOLD FOR FORMATION INTO INGOTS

When it comes from the Rand mines, the gold is not of sufficiently uniform quality or purity to be acceptable to the world's gold consumers; hence it is sent to the refinery on the premises and later cast into ingots for shipment.



Photographs courtesy South African Chamber of Mines

WEIGHING GOLD INGOTS AT THE RAND REFINERY

These men are handling 31 bars, each valued at \$25,000. Billions of dollars' worth of gold have been disgorged by the Witwaterand fields since their opening, less than half a century ago (see text, page 481).



Photograph from Melville Chater

#### BURROWING IN THE WORLD'S GREATEST GOLD FIELDS

This human mole, with his compressed-air drill, and thousands more like him pierce the rock or load trolleys to the accompaniment of a chant. To the sharp, metallic tinkle of hammer and drill striking rock, the rumble of broken ore through the chutes, and the noise of skip and cage as they shoot to top and bottom of the shafts (see illustration, page 486), the Bantu adds his strange refrain to round out the weird medley of sound in the depths of the Rand.

symbolic Mr. and Mrs. Transvaal Goldmines making up their household books at the close of 1928:

"Hum! Six millions of dollars' worth of food for our native boys. Rather steep, my dear!"

"Let me look, papa. Oh, 23,000 tons of meat, beans, and fish—that accounts for it."

"Hum! I suppose 400 tons of soap for baths and 3,000 tons of candles are correct? . . . Here's \$200,000 for the boys' clothing, slickers, and boots. Hum! Spring cleaning—that's the paint and tar—\$180,000. But what's this extra \$20,000 for?"

"Salt, papa. The boys love their pinch of salt, and——"

"Salt! Just salt! Why, mamma, do you realize that our little household is costing us, in stores, \$74,000,000 a year?"

As to recreation, the "boys'" weekly war dance rivals a circus, a rodeo, and a football match combined. Here is a native compound disgorging its thousands of

black Shangaans who are welcoming other thousands of black M'Chopis, the former tribe's invited guests. A pell-mell pageant of savage magnificence! All are superb in leopard skins, beads, head plumes, ox-tail knee adornments (see page 490).

Intriguing, too, are such borrowings of white man's "medicine" as armlets of Red Cross buttons, fountain pens thrust through ear lobes, and medical charts stuck on like mustard plasters.

As a sideshow, a ragged diviner is foretelling to-day's results. He arranges some stones and bones on a blanket, then toward them he makes a head-first slide, as if to second base, and lies there, jabbering his prophecies.

To the Shangaan captain's incessant shrillings on a referee's whistle, an *impi* (regiment) of warriors takes the field. The funny man, imitating the methods of Western warfare, chatters into a weird tin-can contraption representing a field telephone. And now a thousand assegais and oxhide shields are brandished and a



Photograph by Melville Chater

## THE TRANSVAAL IS A TREASURE HOUSE OF MINERALS

The small boxes contain fine, silky asbestos in the various progressive stages of the crushed rock, while the truck is filled with the final product, ready for export. Besides its gold and diamonds and its valuable deposits of asbestos, this province also mines platinum, coal, iron, copper, and other minerals (see, also, Color Plate XVII).

thousand voices chant, "*We dance as our fathers did when they fought the white people!*" Then the regiment's wild, concerted gyrations continue for half an hour, while for accompaniment there reverberates the sound of two thousand naked feet, stamping staccato as machine-gun fire, in earth-shaking unison. Whatever the retiring impi's yell really means, you feel that its sentiment might be not inaptly expressed by "*Rah-rah-rah! Shanga-a-an!*"

And now enter the M'Chopi braves, bearing battle-axes and dancing wildly to the drum and "native piano" cacophonies of a jungle-born jazz band. The funny man is leaping about with a yard of tin tubing at his eye, spotting imaginary war planes.

"*Elephant of Ma Kabela, let us eat and go to battle!*" It is the onslaught signal. Imagined adversaries are hewn down wholesale, moppers-up finish off the enemy wounded. Victory's paean changes to laments for fallen comrades. Then again there resounds that earthquakelike hammering of an impi's heels on the supposedly bloody field.

"Whence hail these warriors?" comes the captain's shout. And in response, "From Mdungazi, the Elephant, our chief!" Yet to the overseas ear it sounds very much like, "*Who's all right? We're all right! M'Chope-e-e!*"

Then suddenly from somewhere come the strains of "God Save the King!" At once the savage comedy is forgotten. Thousands of shields and spears bristle skyward, while thousands of voices roar in loyal response, and the ubiquitous funny man yells with the loudest loyalty of all.

How explain the Reef? How was this treasure house built? In order to comprehend, we must imagine successive geologic cataclysms—molten rock being ejected from the interior of the earth; long-vanished seas rushing in to lay sediments thereon; then the sea's retirement, and in its place some great, prehistoric river sweeping through auriferous regions to deposit its granular gold among that three-mile depth of marine sediment.

But the Transvaal, like South Africa in general, is as varied in respect to treasure



THE RAND MINE "BOYS'" WEEKLY DANCE RIVALS A CIRCUS, RODEO, AND FOOTBALL MATCH COMBINED

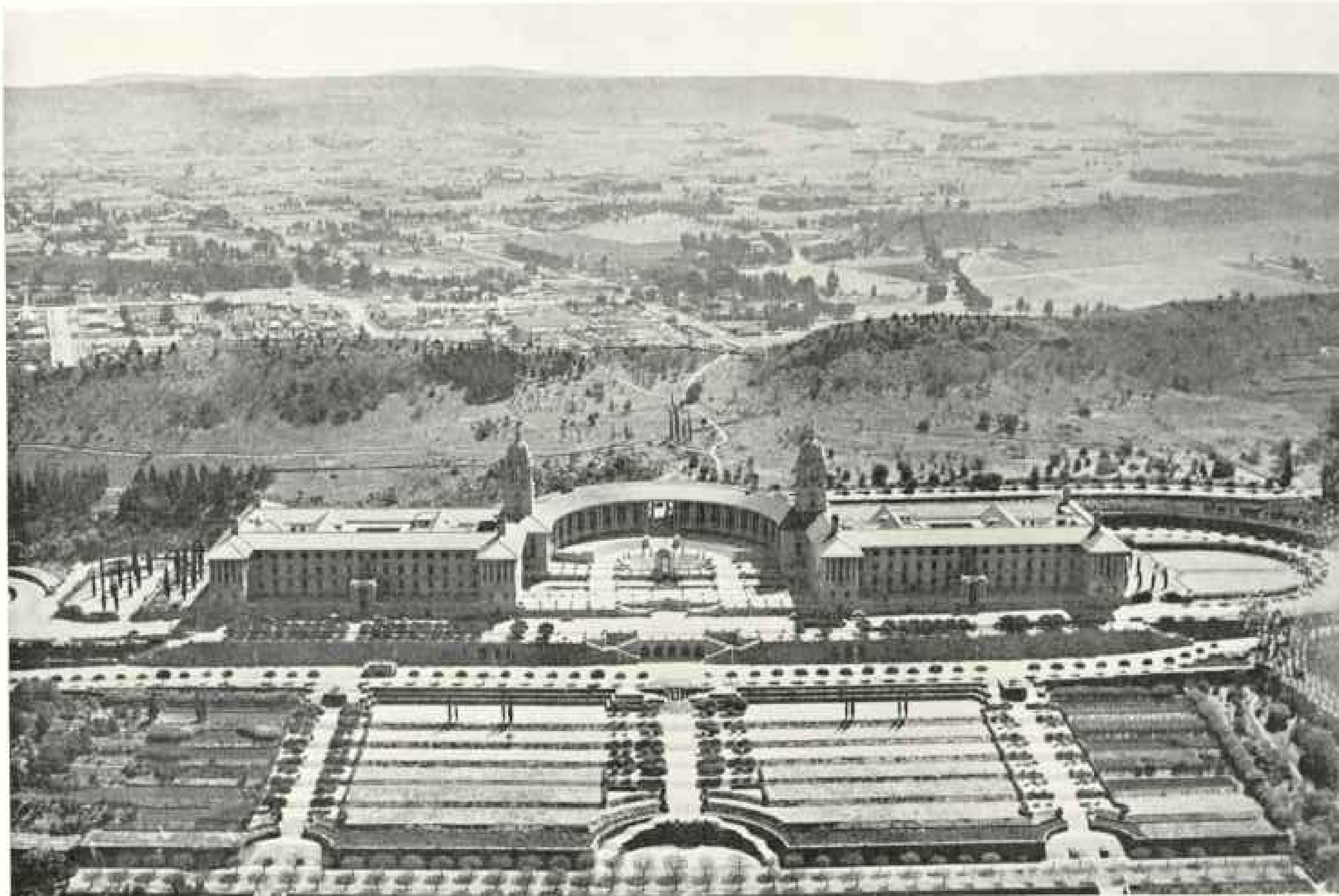
Superb in leopard skins, beads, head plumes, oxtail knee adornments, an *impi* (regiment) takes the field. And now a thousand assegais and oxhide shields are brandished and a thousand voices chant, "We dance as our fathers did when they fought the white people!" (See text, pages 488-9.)

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Photographs by Melville Chater

A PELL-MELL PAGEANT OF SAVAGE MAGNIFICENCE: NATIVE MINERS DANCING ON THE MINING COMPOUND AT JOHANNESBURG  
To help their black workers keep cheerful and healthy, the mine operators encourage these tribal dances, but do not permit the members of one group to hold competitions with those of another, lest a warlike spirit be enkindled.



Photograph from Union of South Africa Air Service

HIGH-SET OVER THE OUTSPREAD TOWN, PRETORIA'S UNION BUILDINGS EMBODY SOUTH AFRICA'S PRESENT

Symbol of unification, as the name implies, this remarkable architectural group reflects the modern, progressive spirit of the Union for which Pretoria is the administrative capital; yet something of the land's pastoral days lingers in the green sweep of its far-spread valley (see, also, text, page 512, and illustration, page 505).

houses as was ancient Delphi, with its "treasuries." In the Pretoria region, and also near Rustenburg and in the "Bushveld Complex," there are apparently unlimited iron resources, while the last-named region promises to yield one of the greatest platinum deposits in the world. The Transvaal's annual production values in coal, silver, platinum, and the base metals total something like \$15,000,000.

And then there are the ever-cropping-up diamonds—one might almost say, those irrepressible South African diamonds. Really, one never knows where they will turn up next.

#### BLASTING FOR DIAMONDS

Here is the Transvaal's famous Premier Mine, an even larger crater than its defunct forerunner at Kimberley. In about a quarter of a century the Premier has produced some 6½ tons of diamonds, including the famous Cullinan, the largest diamond ever discovered. Its longest dimension was 4½ inches, its shortest was 2 inches, and it was cut into nine large stones and scores of smaller ones.

Blasting hour at the Premier, as beheld from the crater's edge, is a striking sight. At the given moment a red flag flutters, a bell clangs, and antlike multitudes of workmen are seen scurrying for shelter. There ensues a veritable barrage of some 2,000 dynamite charges, hurling successive masses of blue earth in air; then the explosions die down, the workers reappear to load the debris on trucks that ascend to the crushing plant, and the day's big diamond "offensive" is over (see page 502).

And, just to illustrate how South African diamonds keep cropping up, here is a glimpse of the Lichtenburg alluvial diggings west of Johannesburg. Not five years ago Lichtenburg was a tiny, willow-shaded Sleepy Hollow of a dorp—sleepy, perhaps dreaming, but certainly not of diamonds. But suddenly one day appeared some 25,000 men, who lined up for the official pistol shot, then rushed pell-mell to peg their claims on what had proved to be a diamond field fifteen miles long by five miles wide.

To-day the diggings contain 40,000 people and might be described as a dust-coated conglomeration of tin shacks, makeshift schools and shops, police spies, and scores of the usual diamond-buying outfit—that

is, a tin hut, a flag with owner's name, a roll of bank notes, a pair of scales, a magnifying glass, and a concealed revolver. And here some will make good and some will fail, and all will keep on "washing dirt" and hoping, until South Africa's next trek-inspiring rumor; for rumor, to the diamond prospector, is as the breath of life.

#### BOUND FOR KRUGER NATIONAL PARK

Africa, land of novelties, to paraphrase Pliny, still yields its striking contrasts. Our 7,000 miles of travel through the Union's centers of civic and economic achievement had given us but one side of the picture. Yet it is hardly more than an overnight train journey from the Rand's industrial plexus to that region of the eastern Transvaal's low veld where, from the lion and leopard downward, hundreds of thousands of beasts roam, and jungle law prevails throughout an area of more than 8,000 square miles. Such, in brief, is the Kruger National Park.

One's approach from interior plateau to seaward low veld lies through wild mountain and river scenes that prepare one for the spectacle of the game reserve, as a stage setting precludes the action. It was near the Swaziland border that our car veered from the vast, blue Makonjwa Range and descended toward Barberton.

The plain seemed to undulate with the woolly backs of sheep on their seasonal trek from high to low veld, from winter-withered grasses to where, as the landscape's smoke spirals revealed, old herbage was being burned off to make way for the new.

At length, across a vast amphitheater formed by the jagged profiles of an encircling mountain wall 20 miles long, there appeared Barberton, a scattering of dolls' houses in an immensity. What we beheld was the northern spurs of the Drakensberg and the oddly named De Kaap Valley.

Placing a *kaap* (cape) among mountains is a topographical feat rivaling Shakespeare's "seacoast of Bohemia." It was when a band of weary Voortrekkers from Cape Colony first gazed at those mountain spurs across sealike mists and beheld therein a resemblance to the sea-and-mountain prospect of their homeland's shores, that the touching cry went up, "The Cape, our Cape!" And De Kaap it has been ever since.

SCENES ON HIGH VELD AND LOW



CAPE TOWN'S FAMOUS MARINE DRIVE

The cliff-edging Victoria Road skirts a seaward section of the 90-mile drive which circumscribes the Cape Peninsula. With Table Mountain towering 3,500 feet overhead, and two oceans washing blue against the flower-carpeted peninsula's flanks, this marine drive is among the most spectacular and beautiful in the world.



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Natural Color Photographs by Melville Chatter

ROCKS THAT YIELD SPINNING MATERIAL

Cotton oozing out of rocks would somewhat resemble this product from a Transvaal mine. It is the "salamander's wool" of the Chinese, and the "asbestos" of the ancient Greeks and of to-day. South Africa's asbestos is produced mainly in Southern Rhodesia and the Transvaal.





© National Geographic Society

SHE KNOWS HER WILD FLOWERS

Due to the floral wealth of Cape Colony, its school children are keen amateur botanists. The vase contains aristeia, leucadendron and several varieties of protea. This young girl knew and named them all.



Natural Color Photographs by Melville Glazer

THE FLAG, THE FLOWER, THE GIRL

"Miss Cape Town," her arms full of her national flower, the protea, stands beside the Union's composite banner. Its ground is the old Dutch flag, whose colors once symbolized Lutheranism and the House of Orange.



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Natural Color Photograph by Melville Chater

#### A WILD FLOWER SANCTUARY IN THE FLÓRAL PROVINCE

Leafy Kirstenbosch, under Table Mountain, is the perennial haunt of botany classes and flower-lovers. The blue charicis and the hillside's multi-colored mesembryanthenums here shown represent but a corner of these National Botanical Gardens' 1,100 acres, where the Union's floral wealth finds concentrated expression. Throughout Cape Colony upward of 100 wild-flower species are protected by law against indiscriminate picking.



RHODES'S GRAVE IN THE HEART OF RHODESIA

High over a lone and rugged realm, among titanic boulders that dwarf the spectator, the British empire-builder lies in his self-chosen grave in the blasted-out rock of the Matopo Hills: "Living he was the land, and dead his soul shall be her soul."



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Natural Color Photographs by Melville Chatter

A SWAP AT A BASUTOLAND TRADING STORE

It is literally a "trading" store. Grain (as per sample), in exchange for a gay blanket, is quite in the day's work. Sell him a blanket, a gay tin trunk and a mouth organ, and the Mosuto entrains blithely for the Johannesburg gold mines, which employ annually some 40,000 of his people.

SCENES ON HIGH VELD AND LOW



APPLE PICKING IN THE PRAIRIE PROVINCE

The Union's cool, high veld, as in Orange Free State, affords perfect conditions for apple stocks which have been introduced from many countries. The bulbous style of the Basuto pickers' skirts reflects the fact that Basutoiland was annexed by England during the crinoline period.



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Natural Color Photographs by Melville Chater

THE MAKINGS FOR A NOAH'S ARK IN BASUTO POTTERY

The objects on the table are not bathtub toys, but the art expressions of a primitive Bantu people. Although untaught, the Basuto represent, in their excellent handicraft, a striking development beyond South Africa's aboriginal Bushmen.



© National Geographic Society

Natural Color Photograph by Melville Chater.

PATTENING FOR THE MARRIAGE DOWRY

*Lobola*, or cattle dowry, is the invariable concomitant of Bantu marriage. "Say it with heifers" is the open sesame of Bantu courtship. The Afrikaner animal, when crossed with European stocks, gives a hardy strain which lends resistance to parasitical ravages.



© National Geographic Society

Natural Color Photograph by Melville Chater.

SWEETNESS AND SALTNESS—FLOWERS AND SEA

"Knee-deep in June" is here paralleled, during the Floral Province's springtide, by "waist-deep in October." Field daisies and mesembryanthemum blaze along this marine drive which skirts the Cape Peninsula (see also Color Plate XVII).



COME ON IN: THE JANUARY WATER'S FINE!

Thanks to its "southern exposure," the Union is an all-the-year-round outdoor country. Hence the multiplicity of its athletic fields, cricket pitches, golf courses and al-fresco swimming pools. Hence, too, the fine records that South Africans make in international sport.



© National Geographic Society

Natural Color Photographs by Melville Chater

LANTERNS IN THE WIND

Reared in a temperate clime, this fairylike little tree would "take the winds of March with beauty." It is the Chinese lantern, or *klapperdax* (wood bell), whose pods sway in Cape Colony's September springtime.

Barberton, the Rand's predecessor as a gold-rush center, nowadays adds to mining the soberer interests of tobacco, cotton, citrus, and tree nurseries. But "nurseries" is, perhaps, too infantile a term to convey a picture of millions of straight, mastlike boles towering to 120 feet. This adaptable—I had almost said accommodating—species of eucalyptus grows 10 feet a year, conveniently sheds its bark and branches, and, when felled, repeatedly renews itself to full growth by shoots springing from its stump. Assuredly, instead of *Eucalyptus saligna*, it should be called "Lumberman's Delight."

#### ON A VISIT TO 500 LIONS

The citrus-growing settlement at White River constituted practically our last glimpse for several days of man and his habitations. Ahead lay only rangers' isolated camps or some cluster of lion-proof huts in a forest wilderness of scrub growth, stony kopjes, bowlder-edged gorges, reedy streams, and wild creatures' lairs.

Our light car contained canned foods, blankets, and candles. Our only road consisted of wheel tracks winding through cleared spaces, and our only weapon, carried under the park authorities' seals, was a small revolver.

Does that seem a slight armament with which to enter a reserve containing two main herds of elephants and something like 500 full-grown lions, not to mention buffalo, leopards, and hyenas? We questioned our chauffeur about it. He had had considerable experience in the reserve and apparently he knew by heart the useful list of Don'ts issued by the park authorities.

"There's nothing to worry about," he assured us. "A well-fed lion won't attack anyone."

"I see. But—but how can one tell he's well fed, by just looking at him? Should one shoot if——?"

"Don't," he quoted rather sternly. "forget that if you fire at and wound a lion or lioness you are making unnecessary trouble for yourself. The animal, probably merely curious before, will——"

"I see," we murmured apologetically. "But how's one to know he's merely curious?"

It wasn't long after our roadside breakfast that beasts aplenty began to appear.

They are most frequently seen in early morning and late afternoon, because during the noontide's heat they are apt to keep within thick shelter.

First, there came into view a herd of zebra—fine, capering, glossy-coated creatures, that made one's memories of caged zebras seem tame indeed. We circled around them at 40 paces distance; then in orderly fashion, they trotted off into the scrub.

On we went, proceeding slowly, while curve after curve of the woodland track revealed successive herds of deer—reed-buck, steenbok, the graceful impala, and the charming little duiker—standing at gaze in near-by brush. And once, on quite unsheltered ground, at an unexpected turn, we stopped dead not ten paces from a big, magnificently antlered kudu, who, surprised as ourselves, stared long and interestedly before rejoining his herd.

Generally, indeed, the park's deer species will stand, more surprised than fearful, regarding your car sidelong, as if it were some strange creature. And that applies more or less to all the reserve's wild denizens. Having lived there undisturbed, generation after generation, for a quarter of a century, they do not mistrust man.

Yet I don't know that such a clean bill of trustfulness could be given the troops of monkeys festooning themselves on tree limbs, or to the sedate baboons, holding family conferences among the rocks. The former seemed to jabber, "Who are you? Beat it or we will!" Which they promptly did. As for solemn-faced Old Man Baboon, he appeared to issue retreat orders to his females, who thereupon would slink off in file behind the family rock haunt, with their babies riding upside down under their stomachs.

But, as yet, no lions. At noon we lunched near a river bank beside some circular, windowless huts, visitors' sleeping quarters, so strongly built of cement as to render them proof against any prowling man-eater. Then we took another direction through the reserve.

It was like turning a page in Nature's picture book of beasties. Hardly were we well away when a couple of giraffes appeared. For a moment they surveyed us from an eye altitude of perhaps 20 feet; then they ambled off, "neck or nothing," as you might say.





© Publishers' Photo Service

#### A MINE THAT PRODUCES DIAMONDS BY THE TON

Larger even than the defunct Kimberley (see illustration, page 423), the Premier Mine, 25 miles east of Pretoria, has yielded some 6½ tons of diamonds in a quarter of a century. Its most noted stone is the Cullinan, found in 1905 (see, also, text, page 492).

Thereafter, save for a pair of leopards who lay watching us through the tall grass, we lost count of things. Too numerous to record were the maned, clumsy-appearing wildebeest, whose herds time and again went galumphing—no other word fits—across the road. Rather, we began counting the number of horned, weather-bleached skulls, significant proof that the lion had passed that way.

#### THE AUTHOR MEETS A LIONESS AND HER CUBS

Once, when a herd of eland stampeded past, we discovered that what had startled them were the antlered remains of a recent "kill." And meanwhile from his covert the jackal watched the high-perched vulture, who in turn was watching some distant lion's movements, each biding his

time for the fragments of the latter's feast.

Serious thoughts invaded us. We put it to our chauffeur:

"Look here—no joking—what would you do if a lion came out right now?"

"I'd slow down." And he quoted from his official list of hints: "'Don't get alarmed if lions stand staring at your car. They don't mean any harm and are, in fact, looking at your car and not at you.'"

"Yes, yes," we murmured. "Of course. How simple. Might have known it. And yet——"

"'And don't,'" he added, still quoting. "'get within 100 yards of a lioness with small cubs.'"

"Rather not," hastily we reassured him. "No, we wouldn't dream of doing such a thing."



THE TRANSVAAL IS THE UNION'S LARGEST PRODUCER OF TOBACCO

The fresh leaves delivered by farmers are immediately bulked in huge stacks, with a perforated tube and a thermometer in the center. Here the tobacco undergoes several stages of fermentation. Usually three months are required for the curing process. A corner in a cooperative fermentation warehouse at Rustenburg.

"She may think you mean to harm them, and——"

But just then he braked hard; for, regarding us indignantly from mid-road, there stood a big lioness with two small cubs, not 50 yards away. Hastily we urged our chauffeur to make it the regulation 100. But before we could back she gave an angry snarl, as if to say, "It's a one-way street, this," and disappeared with her fluffy family into the deep grass.

We breathed more freely. Yes, it had been a sight; yet I couldn't help thinking of Little Effie, who, upon first meeting big tigers in the zoo, backed away timidly, whispering, "They—they're nicer when they're parlor rugs."

It was long after dark—we were picking our way through dense woods in search of a rumored rest shack—when we suddenly

glimpsed the distant, closely bunched lights of—what else but some unaccountable forest village would explain those hundreds of lamps arow? But next moment, with a galloping past of hoofs and the wafted smell of wild animals, the "village" turned out to be the luminous eyeballs of a startled herd of wildebeest.

The rest shack, where we ate a canned supper, then spread our blankets on the bare floor, could hardly be described as lionproof. At least, by virtue of wire screening, it was mosquitoproof. And so we rolled over and— But no, we didn't sleep for quite some while, because the roaring of lions along the near-by river bank was as continuous as it was dismal. And when we did finally doze off, some big beast or other banged against the side of the house and woke us up again.



Photograph courtesy Union of South Africa Air Service

#### HARTERBEESTPOORT DAM IS SOUTH AFRICA'S LARGEST IRRIGATION SCHEME

It closes a *poort* (pass) in mountains 25 miles west of Pretoria and impounds sufficient water from the Crocodile River to irrigate some 30,000 acres. The reservoir at high-water level covers  $6\frac{1}{2}$  square miles. In an area of about 250 square miles, embraced by two canals from the north end of the lake, settlers, carefully selected by the Government and aided with houses, stock, and implements, are carrying out one of the costliest experiments of its kind.

"St-t-t!" I ejaculated, rousing the chauffeur. "If a lion leaps through the wire screening, shall I——?"

"*Don't*," he muttered, quite automatically, being three parts asleep. And at last, to the muffled sounds of that gulping, leonine chorus, I fell into a ridiculous hodgepodge dream, wherein some one kept insisting, "*Don't* be alarmed if you wake up to find a lion standing over you. Be nonchalant. Light a Something-or-other cigarette."

Late next afternoon we found ourselves outside the reserve, once more in the country of unstriped zebras and white men's wildebeests. That is, after 48 hours spent in watching wild creatures, we somehow felt that the countryside's donkeys *ought*

to have stripes and its cattle flowing manes. And, understandable by anyone who has seen the beauty and dignity of wild life in the forest, we felt we should never care to look upon a caged creature again.

That night we entrained for Pretoria. The fact that it is only 300 miles from the reserve's primitive forests to the Union's administrative seat reminded us once again of how youthful, for the most part, are that Union's provinces and how century-crowding has been their development; for, with the Cape as an earlier settled base, it has been a bare century since English pioneers or Dutch trekkers first entered jungle or raw veld to found Natal, the Free State, and the Transvaal (see text, pages 434, 461, 483).



Photograph by Alan Yates

#### THE AMPHITHEATER OF THE UNION BUILDINGS AT PRETORIA

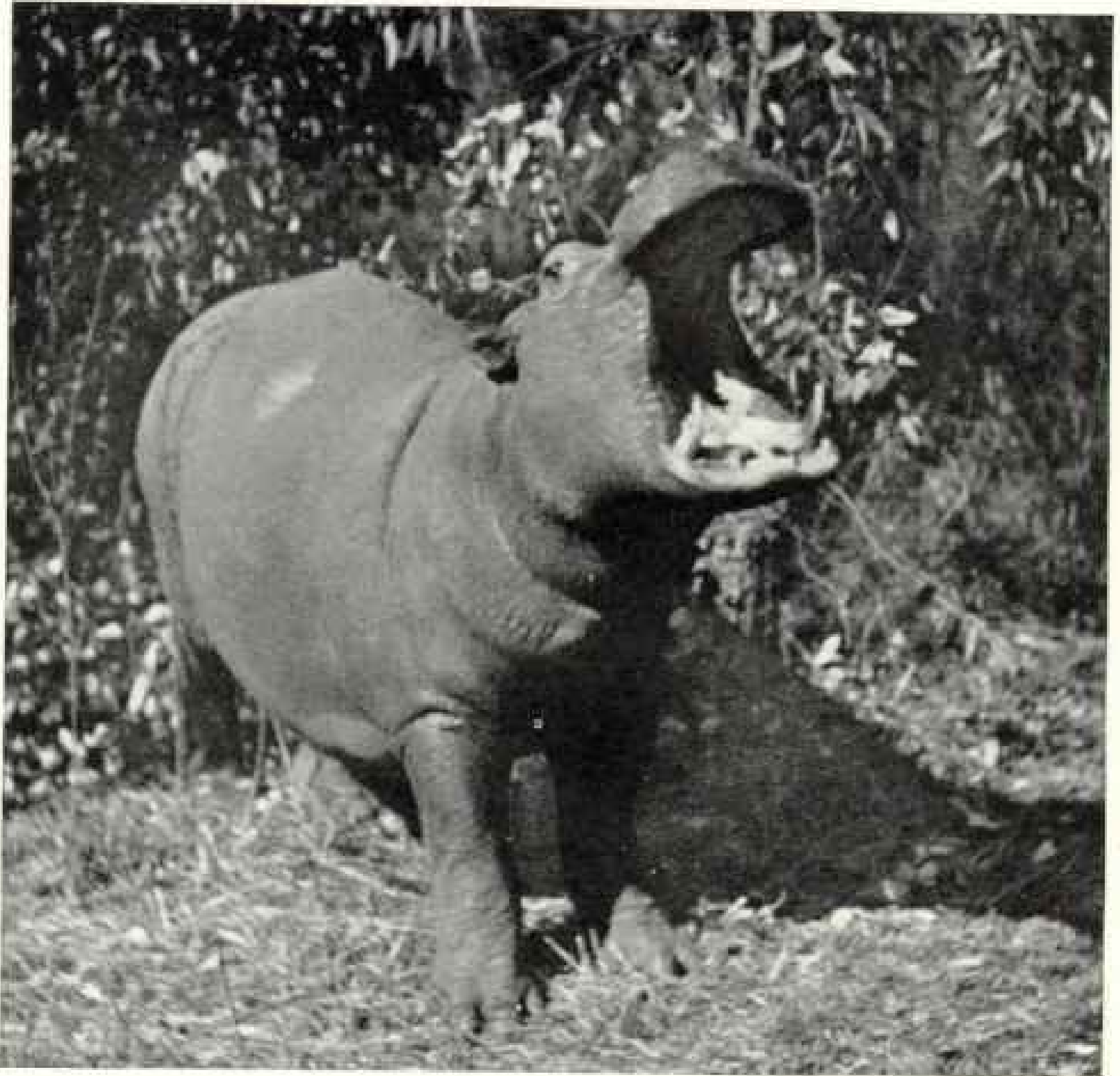
A view from the balcony of the Governor General's room shows the rostrum (center) and tiers of stone rising to the colonnade at the back, which link the two extensive wings of the structure (see, also, illustration, page 491). At the foot of the amphitheater, green lawns and ornamental ponds, in which reeds, rushes, and waterlilies grow, make a pleasing contrast to the masses of stone. So far as possible, only materials obtainable in South Africa have been used, both inside and out.



© Publishers' Photo Service

#### THE GOVERNOR GENERAL MAKES HIS HOME AT GOVERNMENT HOUSE

This splendid edifice at Pretoria is one of the finest governor's residences in the British Empire.



IN THE PRETORIA ZOO THE HIPPOPOTAMUS FEELS AT HOME

Not many years ago such fellows roamed undisturbed through the forests of South Africa or wallowed in the streams. Now the number running wild has dwindled even as the buffalo herds of North America.

Indeed, Pretoria itself, whose name commemorates Andries Pretorius, of Blood River fame (see text, page 461), is only 76 years old, while as an administrative capital it has scarcely passed the 20-year mark. The State Constitution was proclaimed in 1910, following a National Convention that declared the four provinces as consolidated "in a legislative union," to function through a two-chambered parliament, with a Crown-appointed Governor General, "under the name of the Union of South Africa."

Neither Rhodes nor Kruger lived to witness those events. They had passed on, within a few years of one another, each

having made his historic contribution to South Africa.

As Cape Town's environs will always be associated with Rhodes's memory, so Pretoria will always be associated with Kruger's. Something of his severe, patriarchal simplicity is suggested by that still-standing house of his, upon whose *stoep*, seated among his burghers, the old "lion of the Transvaal" would drink powerful coffee, smoke powerful pipes, and growl forth powerful phrases. No leader ever embodied more fully a virile people's characteristics or was more prompt to defend their rights to the last ditch (see illustration, page 512).



Photograph by Melville Chater

THEY PREFER THEIR KITTENS WILD  
 Lion cubs and their playmates at the Johannesburg Zoo.



Photograph by Ben Ali McAfee

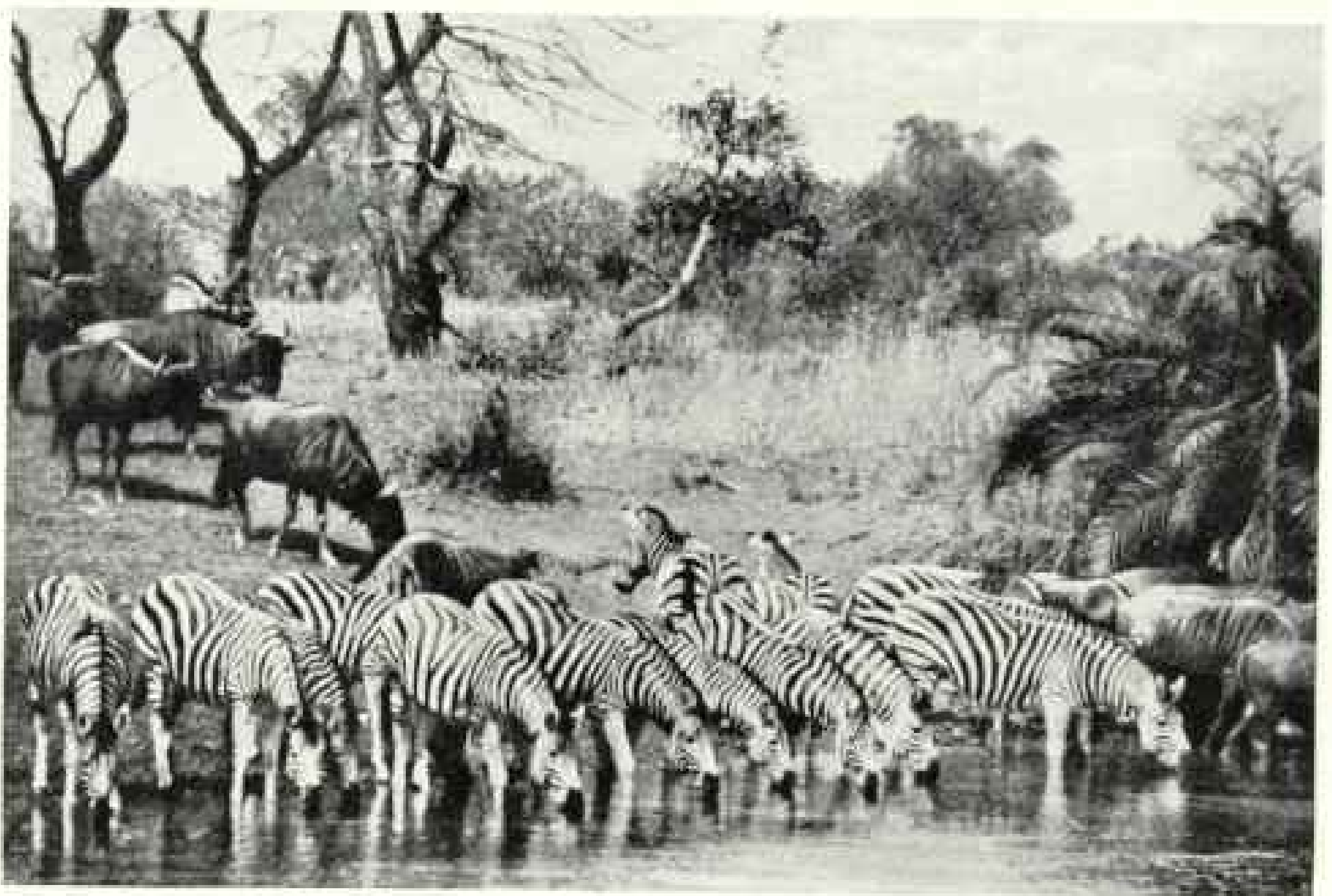
MONKEYSHINES IN THE TRANSVAAL

When the whites first came, this Province abounded in game, particularly the larger types, but indiscriminate shooting took sad toll. To-day many of the large and small animals find sanctuary in the game reserves, especially in Kruger National Park (see, also, text, page 492, and illustrations, pages 508, 510, and 511).



Photograph by Kathleen Brecher

EVEN HAWAIIANS MIGHT ENVY THIS TRANSVAAL VERSION OF THE GRASS SKIRT. These grotesque whitewashed figures are participating in Kafir ceremonies attendant upon initiation into manhood.



ZEBRAS AND BLUE WILDEBEEST LIVE TOGETHER IN AMITY © Herbert Lang

Kruger National Park, in the eastern Transvaal, with more than twice the area of Yellowstone, the largest national park in the United States, preserves great wild herds of the indigenous fauna of South Africa (see text, page 492).



Photograph by Melville Chater

THE CHILDREN'S FAVORITE PUSHMOBILE IN THE JOHANNESBURG ZOO

"Pushmobile," because one usually has to push behind to get this aged tortoise started. He is not a native of Africa, but of the British-owned Seychelles Islands, in the Indian Ocean.

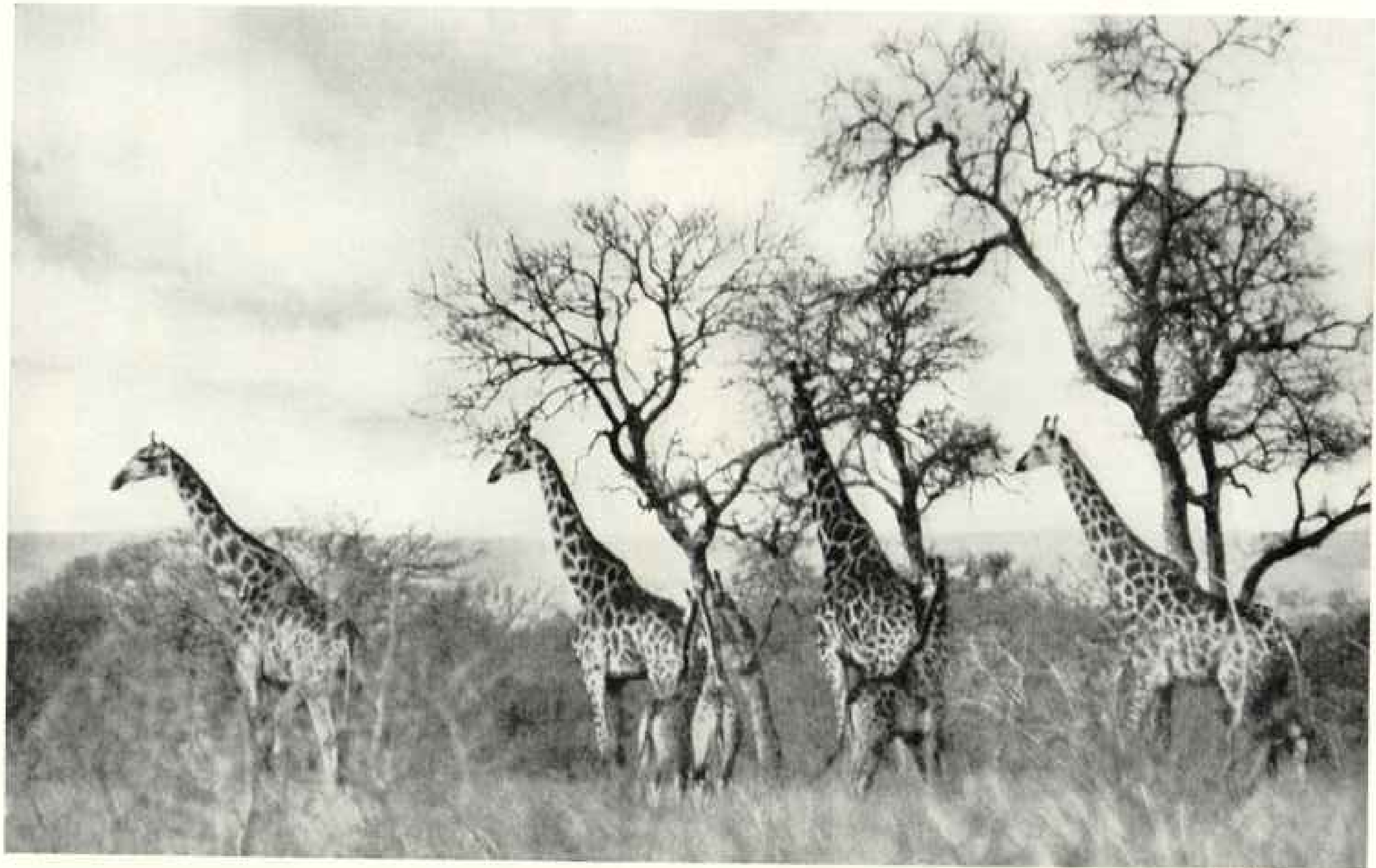


Photograph by Ben All McFee

THE KING OF BEASTS STANDS A PRISONER WHERE ONCE HE STALKED IN MAJESTY

He is confined in an unfenced pit near Johannesburg. It was not so long ago that settlers lived in constant terror of such beasts, yet the barrierless zoo has become popular in the Union (see text, page 439).

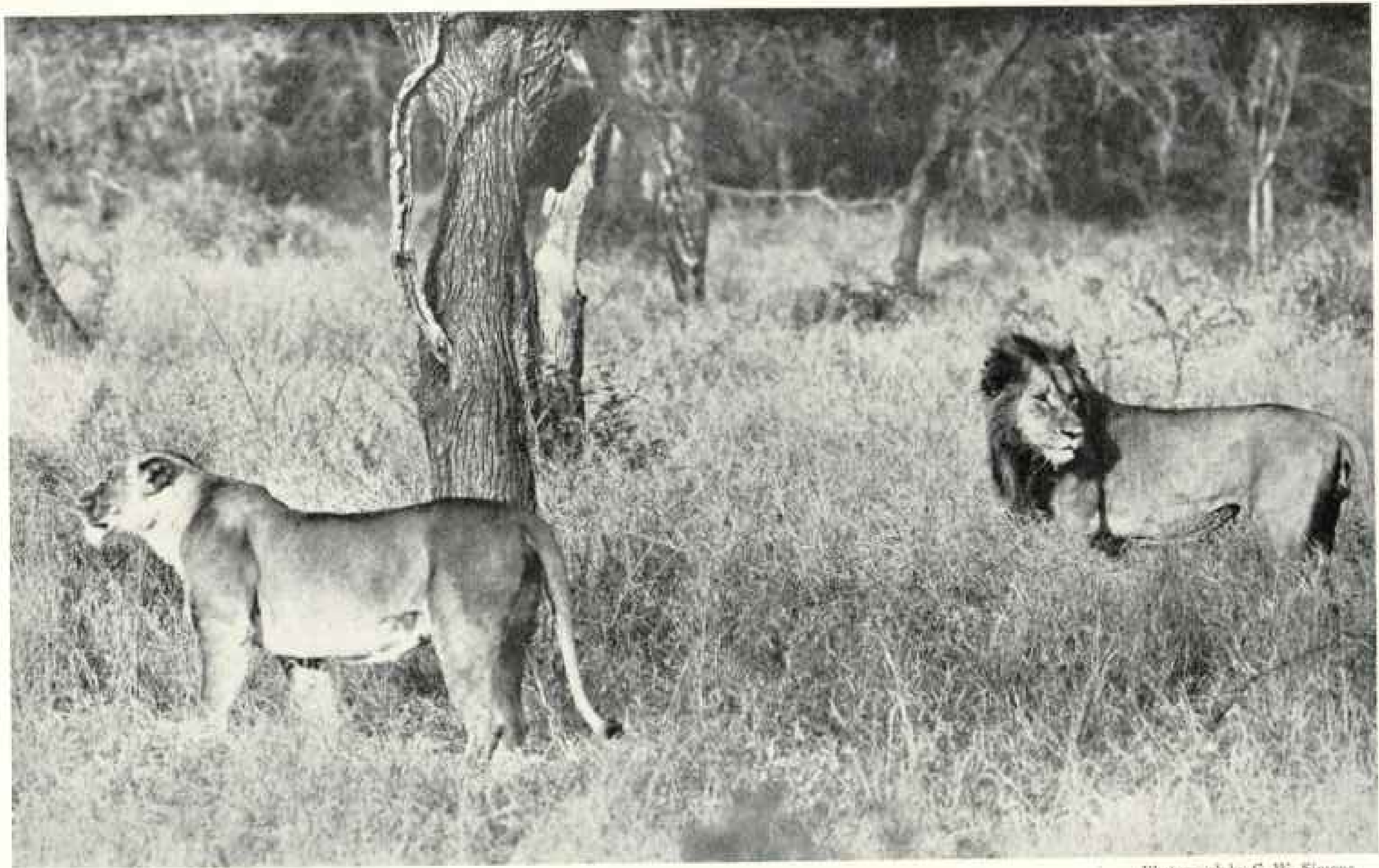




HUNTED WITH CAMERAS ONLY, GIRAFFE FAMILIES WANDER UNDISTURBED IN KRUGER NATIONAL PARK

© Herbert Lang

What a treat for the circus lover is a trip through this great game reserve, where species of animals that are rapidly disappearing from the rest of the earth live the life that used to be. In addition to the tamer beasts, it is estimated that more than 500 lions inhabit the bush of the sanctuary.



Photograph by C. W. Simons

IN DIGNITY AND IN BEAUTY, THE LION AND HIS MATE ROAM THROUGH KRUGER NATIONAL PARK

Upward of 300 miles of motor roads have been constructed through this reserve, and from an automobile the visitor frequently catches satisfying glimpses of wild life (see, also, text, page 502).



Photograph by Melville Chater

THE "OLD LION OF THE TRANSVAAL" LOOKS BENIGNLY ON PRETORIA

The pedestal upon which the statue of President Kruger stands supports four figures of the Voortrekkers. The famous top-hat which marked Oom Paul is said to be hollow, thus providing a drinking place for birds after rains.

Pretoria reflects South Africa's present while preserving, in a very charming way, its past. The one is embodied in the stately Union Building, symbol, as its name implies, of unification, high-set over the outspread town. The other is expressed, far better than by some clamorous metropolis, in the homelike, valley-nesting town itself; for something of the land's pastoral days—and the pastoral note predominates in South Africa's story—lingers in Pretoria's prim streets, in its quiet homes with their beckoning, old-fashioned flower gardens, in the green sweep of its far-spread valley.

Take a last, bird's-eye glimpse of it all. Look down from the Union Building's balustrade upon the terraced approach, blue with fallen jacaranda blossoms, upon the town's massed housetops, and, stretching afar to opalescent hills, the solitary spaces of that great, peaceful valley.

It reminds one, that valley, of some seafarer's dreamed-of haven, or of some pioneer's outspan spot after the long, toilsome trek. And whether they, the seabred or the veld-bred, might greet it with, "Here is rest!" or, "*Hier is rus!*" it all comes—as the Union Building bears witness—to one and the same thing.

# THE FIRE-WALKING HINDUS OF SINGAPORE

BY L. ELIZABETH LEWIS

WHETHER he be transplanted from his native land to the Union of South Africa or to the Straits Settlements, the East Indian fire-walker takes his weird religious ceremony with him.

After an absence of two years, I had been back in Singapore\* only a few hours when my English school-teacher hostesses rushed into their apartment with the breathless news that a Hindu acquaintance had given them reserved-seat tickets for a *Treemiri* (fire-walking).

We stepped into a 20th-century automobile and were whisked away to see an ancient rite which is as vital to-day in the lives of the Hindus as it was at the time of its inception.

We arrived, as we supposed, early enough to avoid the crowd. To our surprise, the street outside and the yards within the temple inclosure were already thronged with Hindus, Chinese, Malays, and others.

The task of wending our way through this seething mob was as difficult as that of finding a place in a New York subway express during the rush hour and vastly more unpleasant, for most of these human beings wore practically no clothing. It was with a thankful sigh of relief that we sank into our chairs on a balcony and looked down upon the throngs, composed chiefly of spectators.

#### DEVOTEES PREPARE THEIR BODIES FOR TORTURE

The devotees, including quite a number of women, approximated 400. Some were kneeling and touching the earth with their foreheads, while others, more devout, were literally groveling in the dirt. A few were endeavoring to crawl or roll completely around the temple, a task which would have been difficult if the path had been clear and covered with velvety moss instead of being rough, crowded, and thick with dust. One elderly man seemed at the end of his strength when he had completed his self-appointed penance, although two friends had accompanied him and lifted him over drains and other hindrances.

\* See, also, "Singapore, Crossroads of the East," by Frederick Simpich, in the NATIONAL GEOGRAPHIC MAGAZINE for March, 1926.

Many of those who had made a vow to undergo torture had prepared their bodies the preceding month by some form of penance and had refrained from eating for a day before the event.

While these zealots were proceeding with their tasks, a bed of coals was being prepared. Great piles of wood were burned to embers; then the ashes were raked into a neat bed about 24 feet long. It seemed hours to us before it reached this stage, as the atmosphere was rendered almost unbearable by the intense heat.

At the end of the mass of live coals was dug a pool, which was filled with milk brought to the spot in earthenware jars. The images of the gods were then brought from the temple and placed near this pool of milk.

#### SACRIFICE OF A GOAT PRECEDES FIRE CEREMONY

When all seemed in readiness, we heard the sound of drums and a stir of excitement swept over the crowds. This we were told signified the return of devotees from the Serangoon Road Temple, whither they had gone to complete final preparations. The next instant two men appeared with a goat, one holding the frightened creature's head and the other a hind leg. Another man raised a scythelike knife and in an instant the head was severed from the body.

A fourth participant snatched the quivering, bleeding body and ran around the bed of coals, then disappeared in the throng.

By this time I was feeling desperately ill, but with no possible chance for escape, for the crowds were now in a frenzied state and it would have been unsafe to leave our refuge. The staring eyes of the devotees seemed glued upon the idols at the other end of the path of glowing embers.

Finally, the priests who held back the devotees began to lash them with whips, and one by one they made a dash, bare-footed, across the red-hot coals into the pool of milk.

Each participant wore a short covering of cheesecloth stained yellow by saffron water, and each carried in his hands, clenched above his head, a twig of green



Photograph by Lillian Schoeller

DEVOTEES BRING WOODEN ARCHES TO A SINGAPORE TEMPLE TO BE DECORATED WITH FLOWERS (SEE TEXT, PAGE 522)



Photograph by Len H. Ross

SINGAPORE'S CAR OF SILVER SEES SERVICE BUT ONCE A YEAR

Made of solid silver beautifully wrought, and with a gold ornament in the center, it is brought from its place of safe-keeping for three days during the annual religious festival of *Tai Pnam*. At night the car is brightly lighted by electricity furnished from storage batteries.



Photograph by L. Elizabeth Lewis

PREPARING A SILVER CAR FOR A HINDU GOD'S TRIUMPHAL PROCESSION

Accompanied by hundreds of torch-bearers, the idol is drawn through the streets of Singapore by two sacred oxen (see, also, illustration, page 515) during the Tai Pusam ceremony.

from a tree supposed to possess curative properties (see, also, illustration, page 475). The wrists were tied together with yellow amulets. If the person was pure, the amulet would remain unbroken. I did not see any break.

A CHILD SNATCHED FROM THE EMBERS

The priests would sometimes strike a devotee several times, and then give the wrists a stinging blow before releasing him. Not one flinched, nor did any appear to have felt the cut of the whip. Some ran and some walked slowly through the coals.

The women seemed much calmer than the men. Some of them carried babies in

their arms. One woman with a child fell when she had covered almost half the distance. The child was snatched from the embers, but the mother was rolled over several times before she was removed from the hot bed. Whether or not she was burned I could not tell, but she seemed on the point of exhaustion.

A legend seems to be at the base of the origin of this ceremony. The Pandus—five brothers who reigned in former Hastinapura, 60 miles from modern Delhi, had one queen, Draupadi, the deity invoked at this festival. These five kings had some cousins who envied their position. Duryodhana, their leader, conceived a plan whereby he could obtain the coveted king-

dom. He invited the Pandus to a gambling party at his palace and through trickery won their kingdom.

Duryodhana then sent for the queen and endeavored to disrobe her in public. A higher power protected her chastity by making her garments unending. Through sheer exhaustion, Duryodhana finally gave up his attempt to disrobe Draupadi, who then untied his turban and vowed that she would not retwine it until her enemies had been destroyed, and then she would bathe in fire as a proof of her chastity.

A war followed, and when the Pandus were the victors Draupadi performed her vow. So to-day she is worshiped as one of the seven goddesses of chastity, and even the mention of her name is enough to "wipe away all sins."

Walking through fire has become a custom for the curing of bodily ills or the overcoming of other calamities.

My curiosity and interest were so deeply aroused that my friends easily persuaded me to remain with them until the next great annual Hindu festival, the *Tai Pusam*, which requires even greater physical fortitude than the fire-walking.

Faith in the efficacy of these ceremonies is absolute. Suppose you or some members of your family have suffered a serious illness, over which the medical man seems to have no power. You make a vow that you will perform *Tremiri* or *Tai Pusam*, and the recovery begins at the end of the ceremony. Or suppose you are filled with gratitude for blessings which have been



Photograph by L. Elizabeth Lewis

#### THE TRIMURTI OCCUPIES A PLACE OF HONOR

With its one body and three heads, the image represents the Hindu trinity of Brahma, Vishnu, and Siva. It is most prominent of the decorations on the silver car which serves for the *Tai Pusam* ceremonies (see illustrations, pages 515 and 516).

bestowed or are desirous of having favors vouchsafed in the future. Again you make a vow that you will walk on fire or decorate your body with needles thrust into the flesh, and all will be well.

#### TAI PUSAM IS A THREE-DAY CEREMONY

To the Hindu god Subramanya, son of Siva, the *Tai Pusam* vows are made. This three-day ceremony takes place in Singapore in January. Weeks in advance the participants prepare themselves by abstaining from the routines of life.

The first day of the ceremony the silver car, which is the palanquin of the image of





Photograph by Lillian Schoedler

HE DOES A CRUEL PENANCE.

Three miles, under a blazing tropical sun, this man must walk, carrying the heavy ornament and pierced both back and front with metal shafts. He is accompanied on his agonizing journey by a drummer (see, also, illustrations, pages 520 to 522).

the god, is brought forth from its shelter in the courtyard of the Tank Road Temple, dusted and polished, then drawn to the South Bridge Road Temple, where it remains under a canopy until the third day.

On the car is a thronelike seat for Subramanya. The most prominent of the decorations is the representation, by means of a figure with one body and three heads, of the Trimurti, the three principal divinities acknowledged by the Hindus—Brahma, Vishnu, and Siva (see illustrations, pages 516 and 517).

On the second day the difficult part of the vow is performed. Although the devotees begin early in the morning, it is usually late afternoon before all have had a chance to become self-made martyrs.

As I was most anxious to get some pictures of these religionists, we started before 9 o'clock for the Parumal Temple in Serangoon Road and found the streets already alive with people, mostly Tamils, emigrants from southern India.

We abandoned our car on Serangoon Road, near the entrance to the temple grounds, and pushed our way through the crowds, which were as dense in spots as a virgin jungle. A few individuals were participants; the rest were simply onlookers.

It is here that the final preparations for the martyrdom take place. The participants—men, women, and children—gather in the grounds of the temple and bathe in a well the water of which has been blessed previously by the officiating priest.

The image of the god is garlanded with flowers, most intricately and artistically arranged, and showered with offerings of rice, bananas, coconuts, betel leaf, and other delicacies.

The vow-maker is now closely surrounded by his friends, who chant passages from the Vedas, here and there inserting in unison the cry of "Aro Hara." Next, powdered ashes, which may or may not be prepared to relieve the sensitiveness of the skin, are dusted over the body. The flesh is sometimes pounded with the edge of the hand, causing the skin to rise.

#### MAKING A PINCUSHION OF A DEVOTEE

I pushed my way to the front of a tightly packed group in order to obtain a closer view. Before me sat a Tamil clad in a loincloth and silver pins. Two temple officials, one on each side, were preparing the

martyr for his three-mile pilgrimage to the temple on Tank Road by thrusting pins into his flesh. His chest, his back, his forehead, his arms and thighs, were entirely covered with small, shining, V-shaped pins. He seemed almost in a state of coma and his eyes rolled in their sockets until at times only the whites were visible.

#### HITCHED TO A CAR BY HOOKS IN FLESH

Hardly knowing how I managed it, I found myself in the midst of another group, watching the priests thrusting long spearlike needles through holes in the metal laths of a fanlike arch over another devotee. These needles, which were from two to three feet long, had to be fastened securely in the flesh of the chest and back in order to hold in place this heavy metal canopy. Through his cheek had been thrust a silver skewer, which protruded an inch or more on each side of his face.

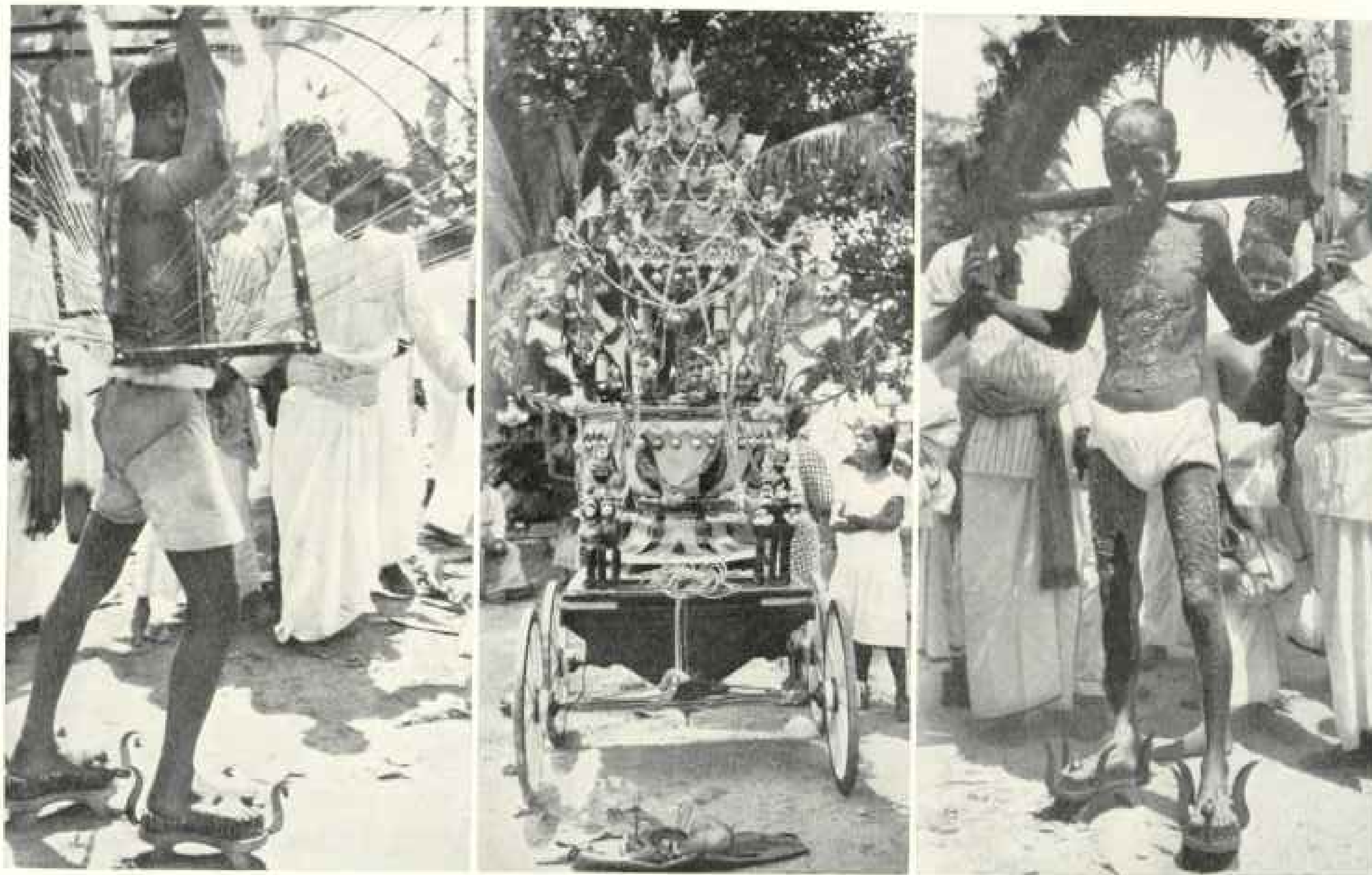
A follower placed before the devotee a pair of spiked sandals which had sharp, curved blades on all sides and pointed nails, an inch and a half long, rising from the center. He placed his bare foot under the strap which was to hold them on and proceeded a few steps. Then I saw him kick first one off, then the other. The attendant quickly picked them up and again placed them in his path, but they seemed too much for him. He refused to wear them.

I decided that I must be growing a bit hardened to all this self-torture, as I watched devotee after devotee being prepared in the fashion each had chosen. One was having his body covered with limes, which were dangling from hooks in the skin. The manner in which these were inserted made me think of the baiting of a fishhook (see pages 476 and 521).

Still another had small brass jars of milk hanging from the hooks. A leaf was tied over the top of each jar. If a drop oozed out on the way, he would turn around and start again.

Another had two huge hooks fastened into the skin of the back. He was hitched by these to an elaborately decorated cart weighing from 10 to 20 pounds.

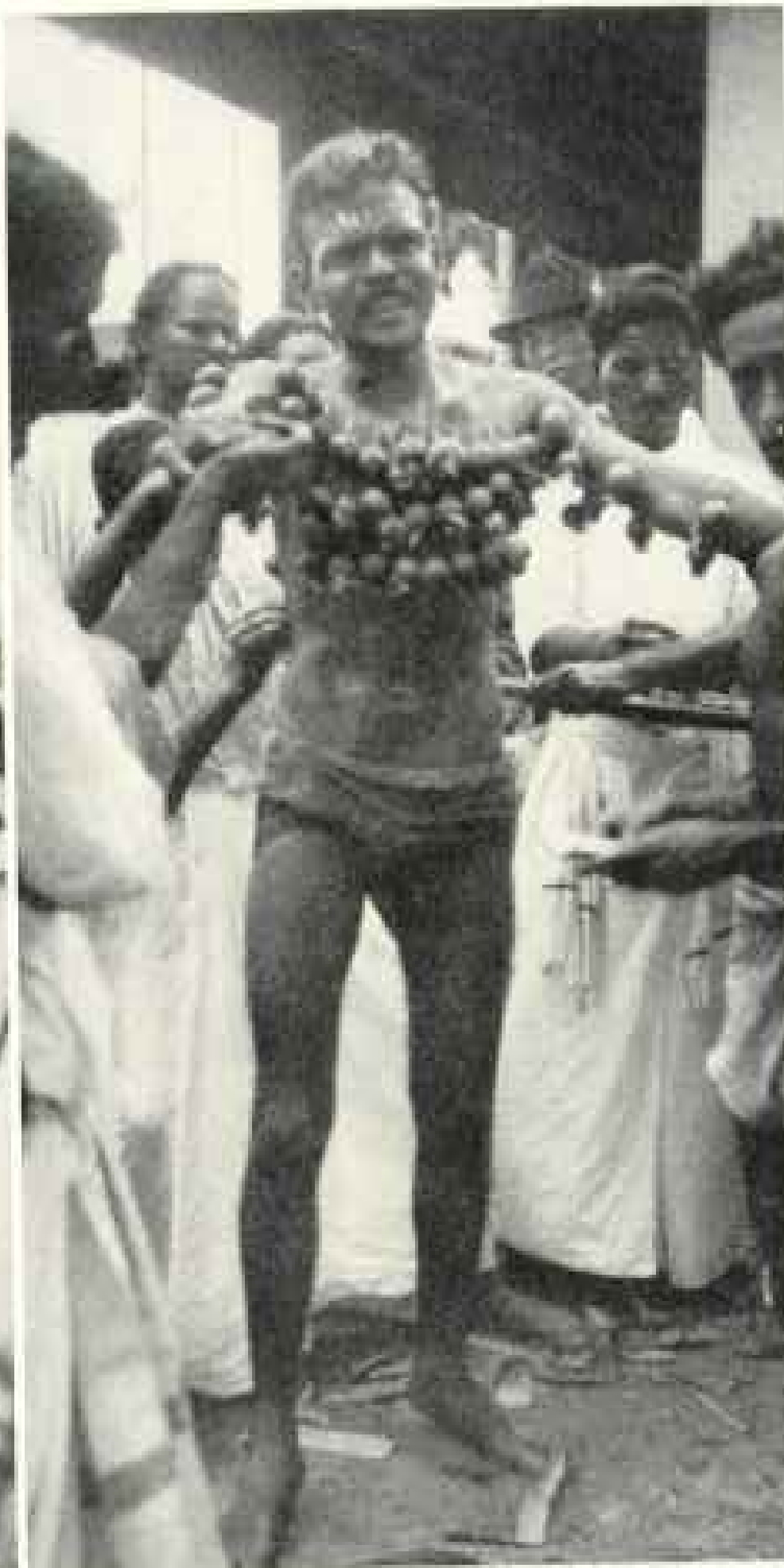
There were women and children starting on the same journey, carrying heavy wooden arches decorated with flowers, much like a gateway trellis, resting on their shoulders (see page 514). I did not



Photographs from L. Elizabeth Lewis

SUBRAMANYA'S DEVOTED FOLLOWERS TORTURE THEMSELVES TO FIND FAVOR IN THEIR DEITY'S EYES

The two men, left and right, are convinced that by piercing their flesh with needles and hooks and walking on cruelly spiked shoes they will earn absolution from all their sins and be rewarded with eternal happiness. The elaborately decorated car in the center is in readiness to be drawn by a devotee with large hooks in his back (see text, page 519, and illustration, page 522).



Photographs from L. Elizabeth Lewis

A TRANSCENDENT RELIGIOUS FERVOR MAKES THESE WORSHIPERS APPEAR OBLIVIOUS TO PAIN

The man at the left wears an iron collar held in place by silver-pointed iron needles fastened in his body. Two large silver pins are thrust through his tongue and a number of small ones through the skin of his forehead. In the center, temple attendants are snagging hooks, with limes attached, into a devotee's flesh (see text, page 519). The white-haired zealot at the right sits unflinching while the heads of slender spears are buried in his chest, stomach, and back.



Photograph from L. Elizabeth Lewis

A WORSHIPER ABOUT TO PROCEED ON HIS PILGRIMAGE OF PAIN

Besides enduring the darts which have been skewered into his body, he will also pull one of the procession's decorated carts by attaching its ropes to rings on the large hooks in his back (see, also, illustration, page 520).

see any with pins in their bodies, but saw a woman with silver skewers through her cheek and her tongue, which was protruding from her mouth in a most uncanny fashion.

We followed some of these processions to the Tank Road Temple, where the instruments of torture are removed.

The step of the devotees was elastic at the start, but grew slower as they proceeded. Their friends bore pots of burning incense and bowls of holy saffron water, which were used to revive the martyrs whenever they became faint by the way. Sometimes the followers danced, sometimes chanted a weird chorus.

There was a moment when I felt very much of a participant myself. I was standing before an oncoming group, feeling safe behind my camera box. As the celebrants drew near, I pressed the button in an endeavor to put within the confines of a motion-picture film an indelible impression of the ceremony. The man under the metal cage was coming and I was eager to get a close-up, so I stood my ground and allowed some of the attachés to brush by me. I did not realize my position until the end of one of the spearlike needles which kept the paraphernalia intact jabbed

my arm. Down came my movie machine and there I was, in the center of an excited mob. Apparently no one noticed me, so by careful maneuvering I got to the outer edge unharmed.

When the route has been traversed and the goal has been reached, the devotee kneels before the image of Subramanya while the friends place on the altar appropriate offerings and the priest bestows his blessing upon the gift and the giver. Then the devotee is taken to a corner of the temple, where the needles, spears, or hooks, as the case may be, are removed. After thus fulfilling his vow he proceeds on his way, apparently none the worse for the ordeal, no trace of blood appearing at any time during the procedure.

Tank Road for some distance on each side of the temple was lined with gaily decorated booths which were filled with Indian foods and sweetmeats. Throngs wearing their brightest and best *saris* and children dressed like their elders gazed with eager hopefulness at the contents of these temporary shops. All were in holiday mood and the scene was closely related to a country fair. It is a great day for the hawkers and the proprietors of these stalls.

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

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

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

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

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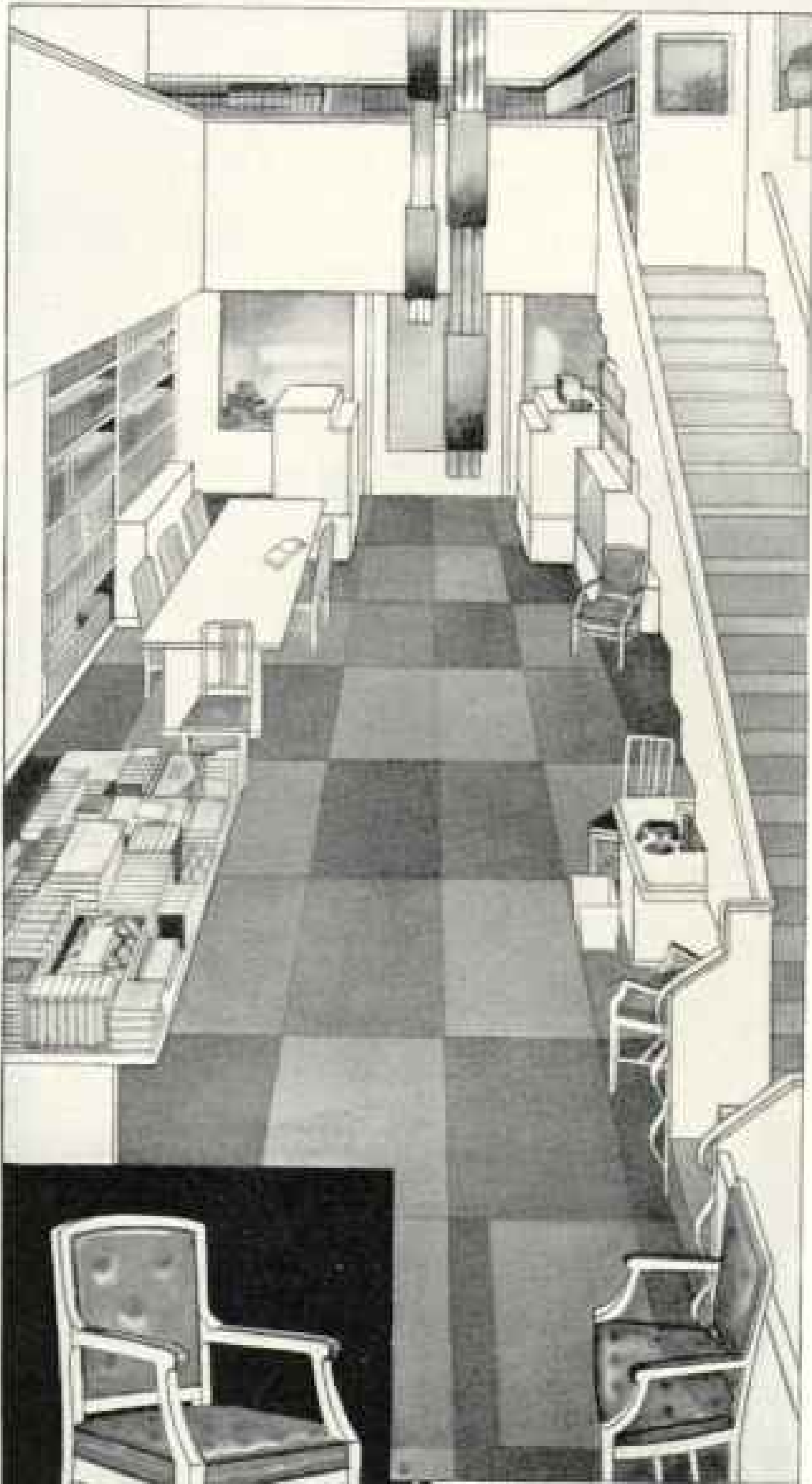
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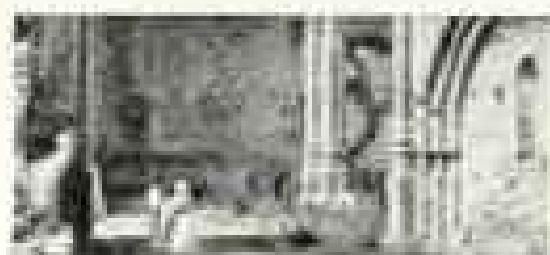
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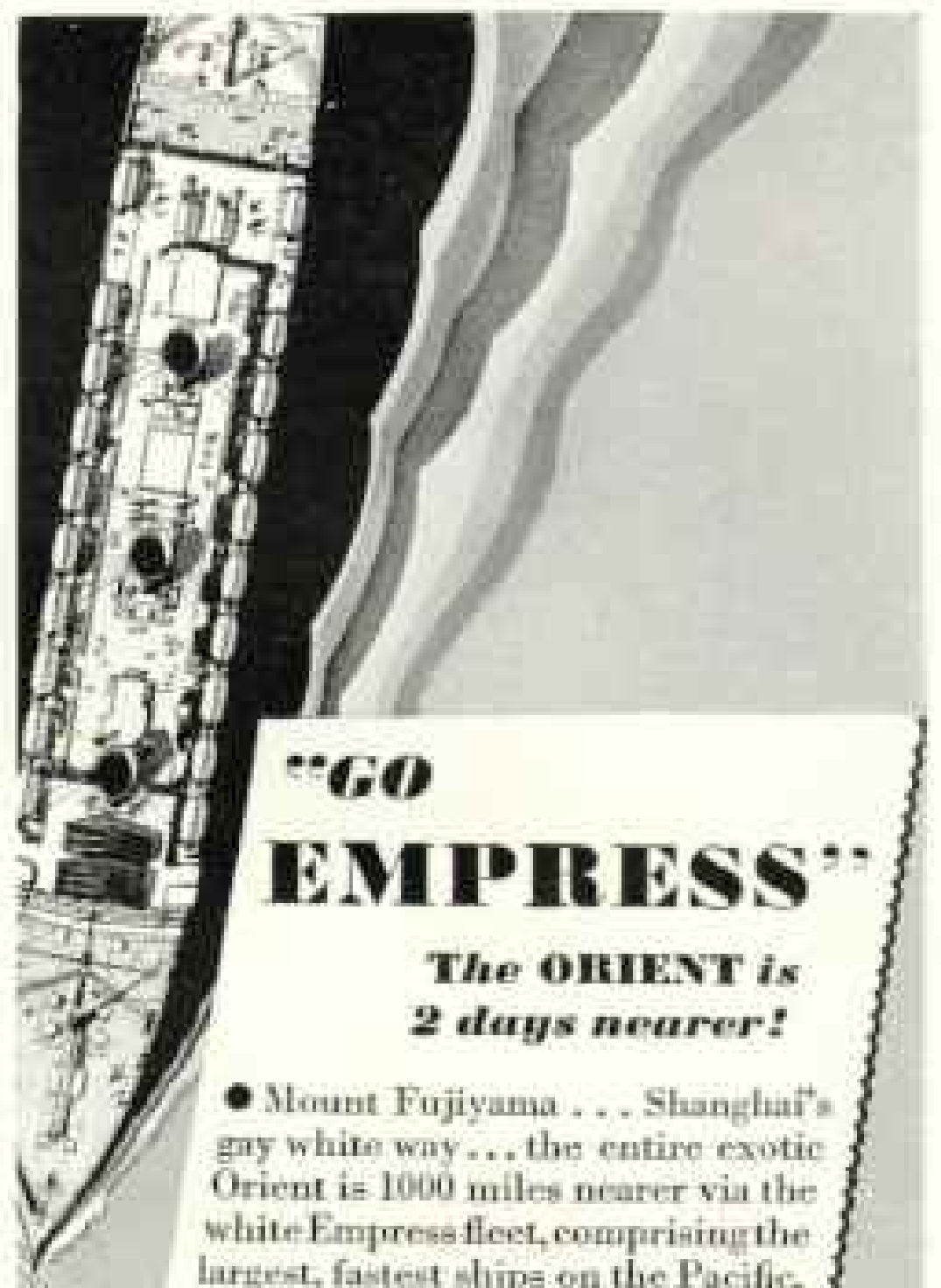


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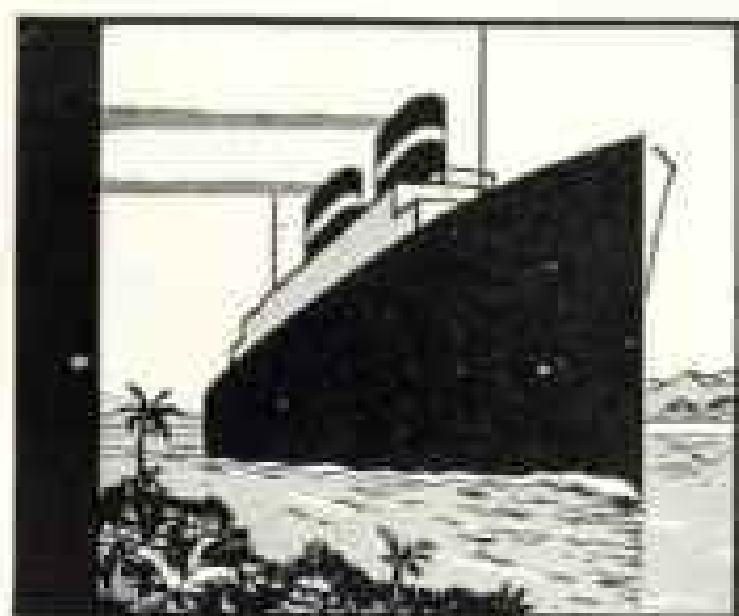
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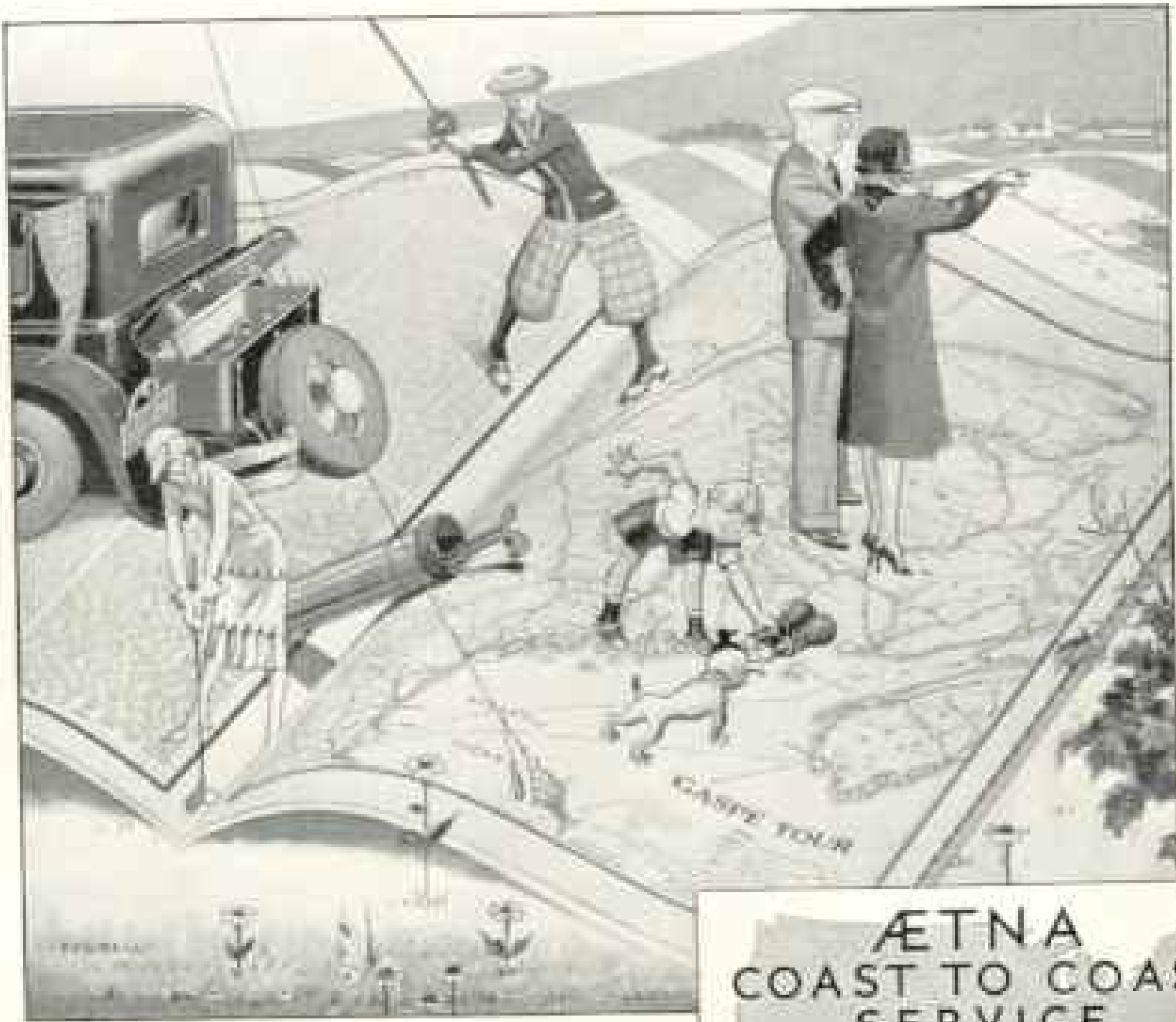
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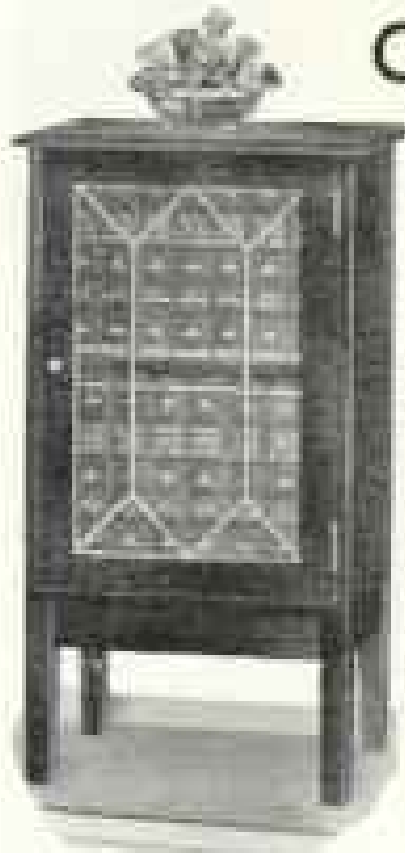
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Brush from the base to the tips of the teeth, uppers and lowers separately. This is the method which dentists advise. You will feel how the extra-resilient bristles s-p-r-e-a-d. How they firmly but gently massage the gum margins. How the sharply pointed tufts reach and clean between the teeth.

The gum massage is *automatic*, produced by ingenious Pro-phy-lac-tic design and quality bristle. While you are polishing the teeth to gleaming brightness,



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you automatically do good to your gums. The blood supply is energized. Tissues are firmed. Oral resistance is strengthened.

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Because we make Pro-phy-lac-tic Tooth Brushes right in our own New England plant, and have done so since 1888, they carry the broadest guarantee in the field: *If for any reason at all their service fails to satisfy, we will send you a new brush without charge.*

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Accept this supply of shaving cream. Please send the coupon now.

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and a can of Palmolive After Shaving Talc. Simply insert your name and address and mail to Palmolive, Dept. M-1207, P. O. Box 373, Grand Central Post Office, New York City.

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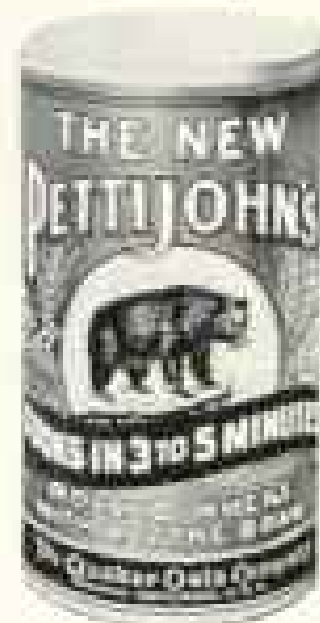
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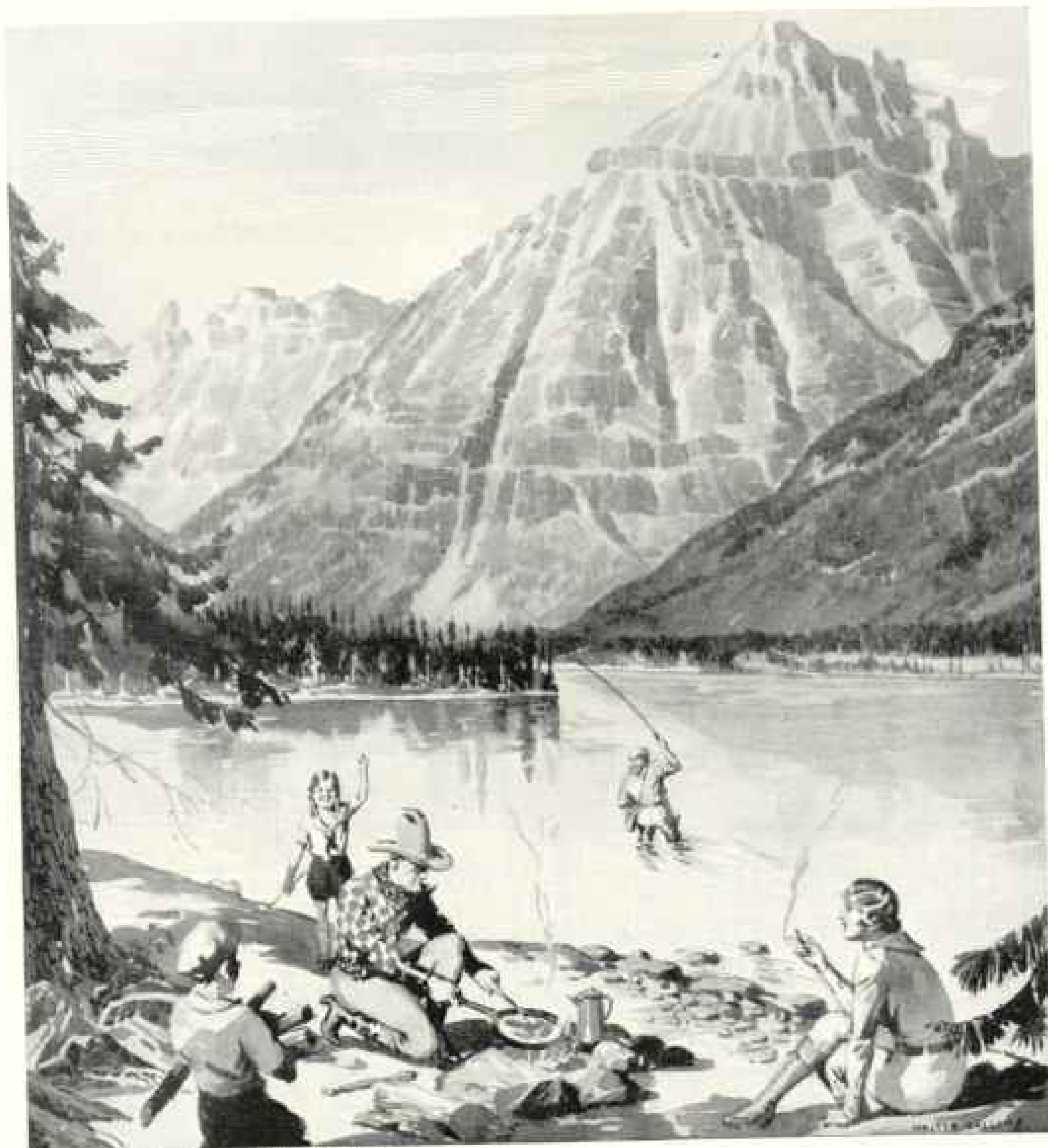
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*Mt. Cannon at the head of Lake McDonald*

## **This summer DO things while you SEE things — come to Glacier Park**

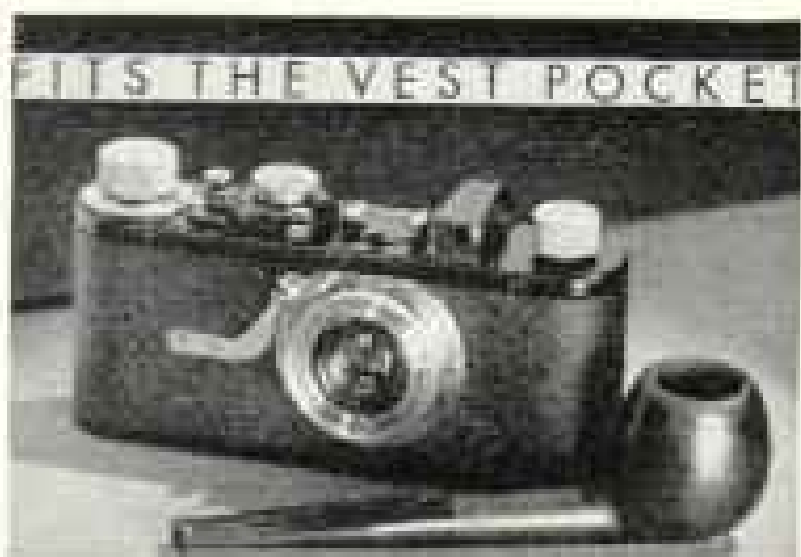
Slip into the youthful spirit of the Old West and let yourself go this vacation. Subdue a towering mountain one day and a rainbow trout the next. Camp out or drift leisurely from hotel to hotel, chalet to chalet, by horse, bus and boat, or on foot. Be informal—do whatever strikes your fancy! For information write

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# The "Teen Age"



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**L**OOK at that fine boy of yours, brought safely through childhood ailments. Now, as he enters his "teens", while he is still growing, he must build his health to guard against tuberculosis—a mortal enemy of those in run-down condition.

Adolescence is a critical age in physical development. It is a period of special strain—when growth and change are rapid—and when health and strength must be kept at the highest possible point.

Your boy may be tempted to over-tax his strength and undermine his vitality by striving to compete with older and stronger boys. Or your daughter may risk her health by too much social activity added to her school work, or by dieting in an effort to keep slender in emulation of some screen celebrity. Low vitality and under-nourishment make boys and girls especially susceptible to tuberculosis.

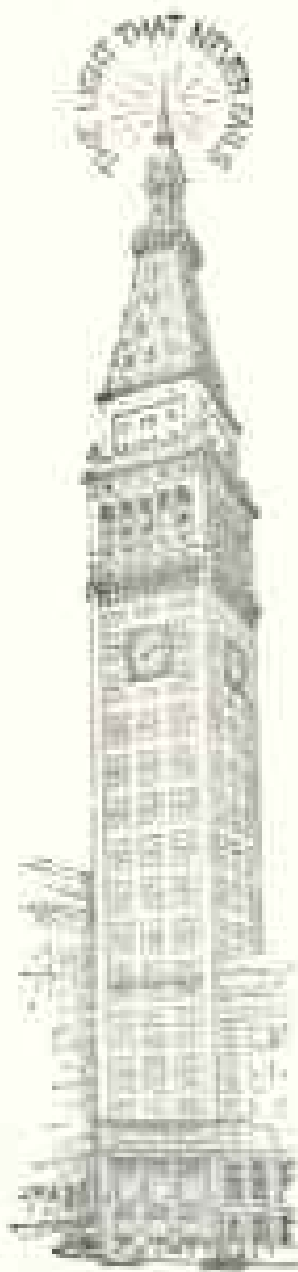
During the early "teens" the development of tuberculosis of the lungs is usually so slight as to cause none of those familiar symptoms of the advanced

stages of the disease—loss of weight, lack of appetite, indigestion, fatigue and a persistent cough. The first symptoms in adolescence may be listlessness, overtiredness, failure to gain weight, night sweats.

But in the late "teens" or early twenties, in event of low vitality, tuberculosis germs—especially in case of re-infection or heavy infection—gain headway. The tuberculosis deathrate reaches its peak among women at about age 22 and among men at about 42. Many of these deaths can be prevented.

Perhaps during no age in life are annual physical check-ups more important and valuable than during adolescence. And should you have any reason to suspect the presence of tuberculosis, consult your doctor as to the advisability of having the tuberculin or x-ray tests to find out whether or not your boy or girl is threatened.

The Metropolitan Life Insurance Company will gladly mail, free, to anyone who requests it, a copy of its booklet, "The Care and Prevention of Tuberculosis." Ask for Booklet 431-N



The Metropolitan prints this message to aid in the intensive April campaign of the National, State and local Tuberculosis Organizations to safeguard boys and girls in the "teen age" against tuberculosis.

**METROPOLITAN LIFE INSURANCE COMPANY**  
 FREDERICK H. ECKER, PRESIDENT      ONE MADISON AVE., NEW YORK, N. Y.

"Mention the Geographic—It identifies you."

# HAPPY EASTER

Here is a happy thought to celebrate the social side of the day! Give the newly-dressed-up package of Whitman's Chocolates — *A Fussy Package for Fastidious Folks.*

This is the original package of selected-center chocolates made up to suit the taste of those who like chocolates that require chewing.

For more than twenty years the Fussy Package has been a special favorite with fastidious candy buyers. Now at last it has gone frivolous with a lacy design borrowed from Valenciennes.

Just in time for Easter giving. See it at the nearby store that is an agency for Whitman's.

For name of nearest dealer look under "Confectionery" in Bell Telephone Classified Directory. Any telegraph office will take your order with cash, transmit by wire, and deliver anywhere in the United States.



*Whitman's*

Chocolates







# A splendid way to benefit from tomatoes!

Tomatoes teem with healthful, tonic goodness. Science rates them among the most valuable of all foods. And your appetite never tires of them in Campbell's Tomato Soup. Its sparkling, vivacious flavor is bright sunshine to your table — cheery, invigorating, splendidly wholesome. Purée of red-ripe, luscious tomatoes, enriched with golden creamery butter and seasoned to your taste's complete delight. 12 cents a can.

HEAR THE CAMPBELL'S SOUPS ORCHESTRA EVERY MORNING — (9.15 E.S.T.) (8.15 C.S.T.)

You simply add an equal quantity of cold water, bring to a boil, simmer a few minutes and serve. So easy and convenient.

### Your choice . . .

Asparagus	Clam Chowder	Pea
Bean	Consommé	Pepper Pot
Beef	Julienne	Printanier
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Celery	Mulligatawny	Vegetable
Chicken	Mutton	Vegetable-Beef
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In 1879, the New York telephone directory was a card listing 252 names. There were no telephone numbers, nor any need for them. When you telephoned, you gave the operator the name of the person you wanted. Service was slow, inadequate and limited principally to people of wealth. The cost of a single telephone was as high as \$240 a year.

Today, you can talk to any one of hundreds of thousands of telephone users for a fraction of what it then cost for connection with less than three hundred. Every new installation increases the scope and value of the telephones in your home or office.

Twenty-four hours of every day, the telephone stands ready to serve you in the ordinary affairs of life and in emergencies. In the dead of night, it will summon a physician to the bedside of a sick child. Men

transact a great part of their business over it. Women use it constantly to save steps and time in social and household duties. In an increasing number of ways, it helps to make this a united, more active, more efficient nation.

Simply by lifting the receiver you become part of a nation-wide communication system that uses 80,000,000 miles of wire, and represents an investment of more than \$4,000,000,000. Yet the cost of local service is only a few cents a day.

Subscribers who look back over the month and consider what the telephone has meant to them in convenience, security and achievement are quick to appreciate its indispensable value and reasonable price.

Frequently you hear it said—"The telephone gives you a lot for your money."

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★ *AMERICAN TELEPHONE AND TELEGRAPH COMPANY* ★



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Salesmen say it's

"clean business"  
to shave  
with Barbasol

\*Barbasol testimonials are not paid for.



S. Rae Hickok and Champion Hickok Salesmen responsible for the success of Hickok belts, garters and suspenders

THE finest shave—for the finest of salesmen—the leaders on the Hickok sales staff! That's Barbasol. This modern shaving cream turns out better looking, better *feeling* faces. And does it in quicker time. That's why it has been chosen by these men to give each one of them the "face that gets the order."

When the day starts; when the winners are picked; in the belt business or in *your* business; the men who step into

the front ranks are generally Barbasol Believers. They've made it the fastest-selling shaving cream in America.

Here's why: It *saves time*. And delivers the smoothest, easiest, slickest shave you ever had. No brush; no lather; no rub-in. Barbasol softens the beard like magic while holding the hairs straight up to the blade. It takes the tussle out of beards—tough beards, wire-haired terrors—all beards. How crisp and easy the razor slides along! Just follow

these directions and you'll give your face a glad surprise. At that, you'll follow the *crusade*:

**1.** Wet your face. Leave it wet . . . **2.** Spread on Barbasol so it reaches the skin . . . **3.** Wet a good blade and—SHAVE. That's all. And your skin stays soft and comfortable. No lotions needed. Blades last longer, too. Try Barbasol today. Generous tubes, 35¢ and 65¢ at all drug stores. The Barbasol Co., Department 19, Indianapolis, Ind.

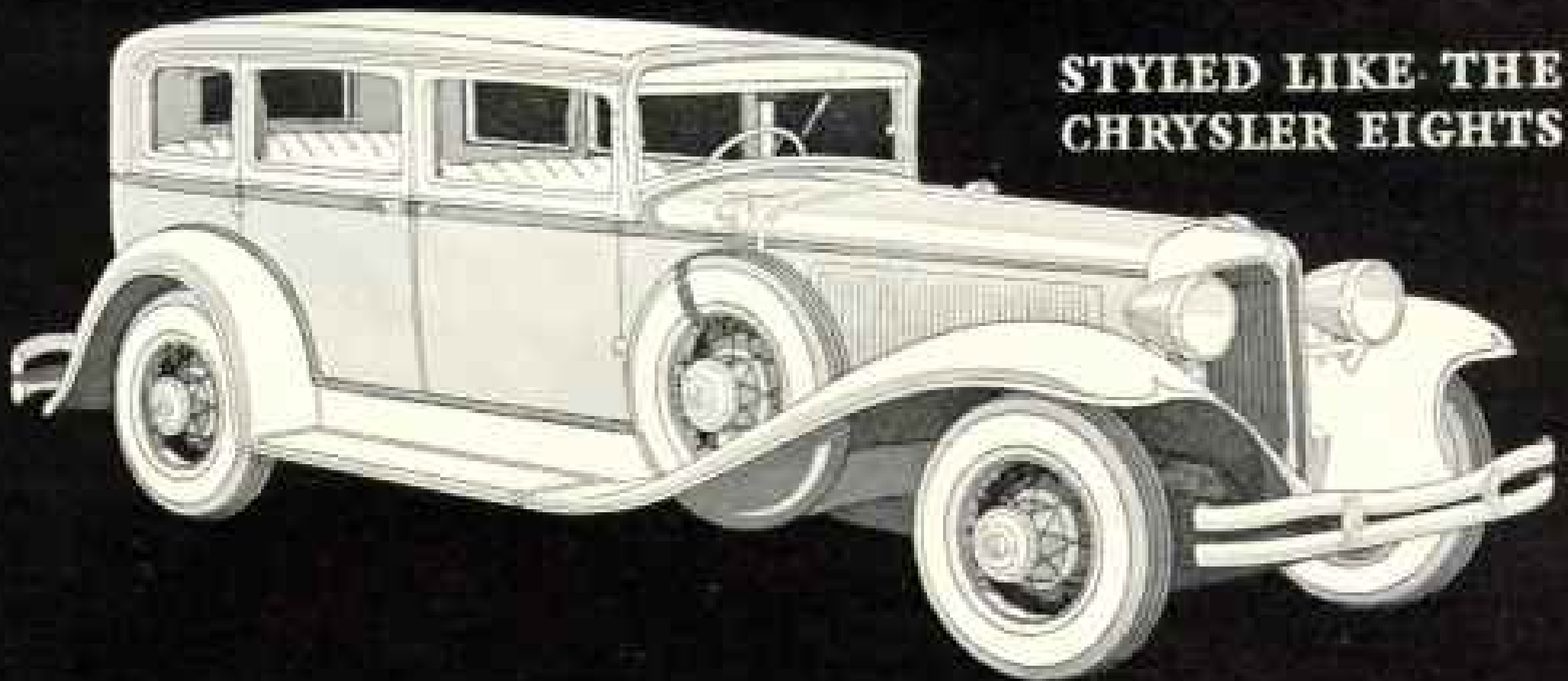


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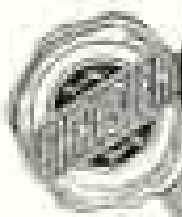
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a modern safety body of strong steel; solidly welded, with no joints to cause squeaks . . . It has self-equalizing weatherproof internal hydraulic brakes . . . It has hydraulic shock absorbers . . . It has adjustable front seat . . . It has five wire wheels at no extra cost . . . It has everything it needs to be the outstanding value among sixes. The performance of the new Chrysler Six is really something to experience. Something to get excited

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**M**ILLIONS of fingers now choose the pump with the Ethyl emblem. So great is the demand for this improved motor fuel that every fifth pump in the country is now an Ethyl pump.



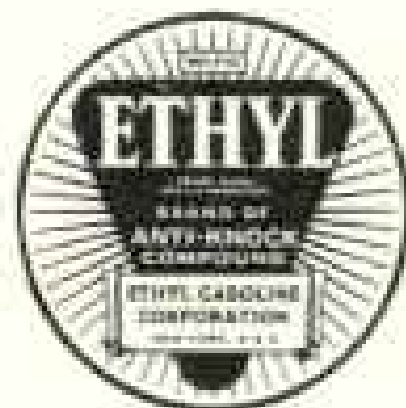
*For instance:* A recent count on the highway between Chicago and Milwaukee (Illinois 41 and Wisconsin 15) showed 597 gasoline pumps, of which 119, or one-fifth, were Ethyl Gasoline pumps. Surveys on other typical highways show that Ethyl maintains this percentage throughout the country.

The reason is that Ethyl Gasoline is more than gasoline. It is good gasoline *plus* Ethyl fluid, the ingredient that controls combustion.

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Ninety-five leading oil refining companies now mix Ethyl fluid with their good gasoline to sell Ethyl Gasoline. They have spent millions of dollars to gain the advantage of controlled combustion for their motor fuel.

You can buy controlled combustion for your car at any pump that bears the Ethyl emblem. And what a difference it will make! Ethyl Gasoline Corporation, Chrysler Building, New York City.



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

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*The other ingredients used in Ethyl fluid is lead*

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When you can't sleep no matter how hard you try—don't give up coffee. Just change your blend to a delicious coffee that lets you sleep—the improved Kellogg's Kaffee Hag Coffee.

Kellogg's Kaffee Hag Coffee brings you all of coffee's joys—with none of coffee's harm. By a special process the drug caffeine is removed. But all the golden flavor and rich aroma are retained.

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And the price, too, has been materially reduced. Try this wonderful coffee. Your grocer sells it. Or the coupon will bring you a generous sample.

You'll enjoy Kellogg's Slumber Music, broadcast over WJZ and associated stations of the N. B. C. every Sunday evening at 10.30 E. S. T. Also KFI Los Angeles, KOMO Seattle at 10.00, and KOA Denver at 10.30.



**KELLOGG COMPANY**

Dept. AB-4, Battle Creek, Michigan

Please send me, postpaid, sample can of Kellogg's Kaffee Hag Coffee. I enclose ten cents (stamps or coin). (Offer good in U. S. A. only.)

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THE Rio Grande, Colorado, Arkansas and Platte Rivers all rise on the very top of the United States, in Central Colorado. You can cross them all (and many of their main tributaries) in a 300-mile motor drive over safe, wide roads. And in no similar distance, anywhere, can you go so easily and comfortably thru such a variety of continuously changing and always gorgeously beautiful mountain scenery—snow-capped 14,000-foot peaks by the dozen, high passes over the Continental Divide, forests of fir, pine and aspen, carpets of brilliant wildflowers, bright, blue lakes; clear, foaming streams; canyons with towering, multi-colored cliffs; level mountain-encircled parks. And you can return by an entirely different, equally spectacular route, crossing all four rivers again.

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TOP: St. Sophia Ridge, La Plata Mountains, Colorado River Watershed. ABOVE: Odesza Gorge, Rocky Mountain National Park, on the South Platte Watershed



A Prize-Winning Pumpkin Field, in the Platte Valley



U. S. 40 follows the Colorado River thru Middle Park

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Send me the free book, "Colorful Colorado: Opportunity's Playground," illustrated with natural-color photographs.

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OF

THE  
"GOLDEN  
ARROW"

There is little of the ordinary train about the "Golden Arrow" that leaves Victoria Station, London, at 11 a.m. for Paris. As the Kentish fields slip by you seem only mildly interested in the acres of apple blossoms outside. What does impress you is the vibrationless hum of the train. The swaying chintz and the still glasses deny that you are gliding along at anything like fifty miles an hour. At Dover the great SS Canterbury smiles at any fears you may have about the English Channel.

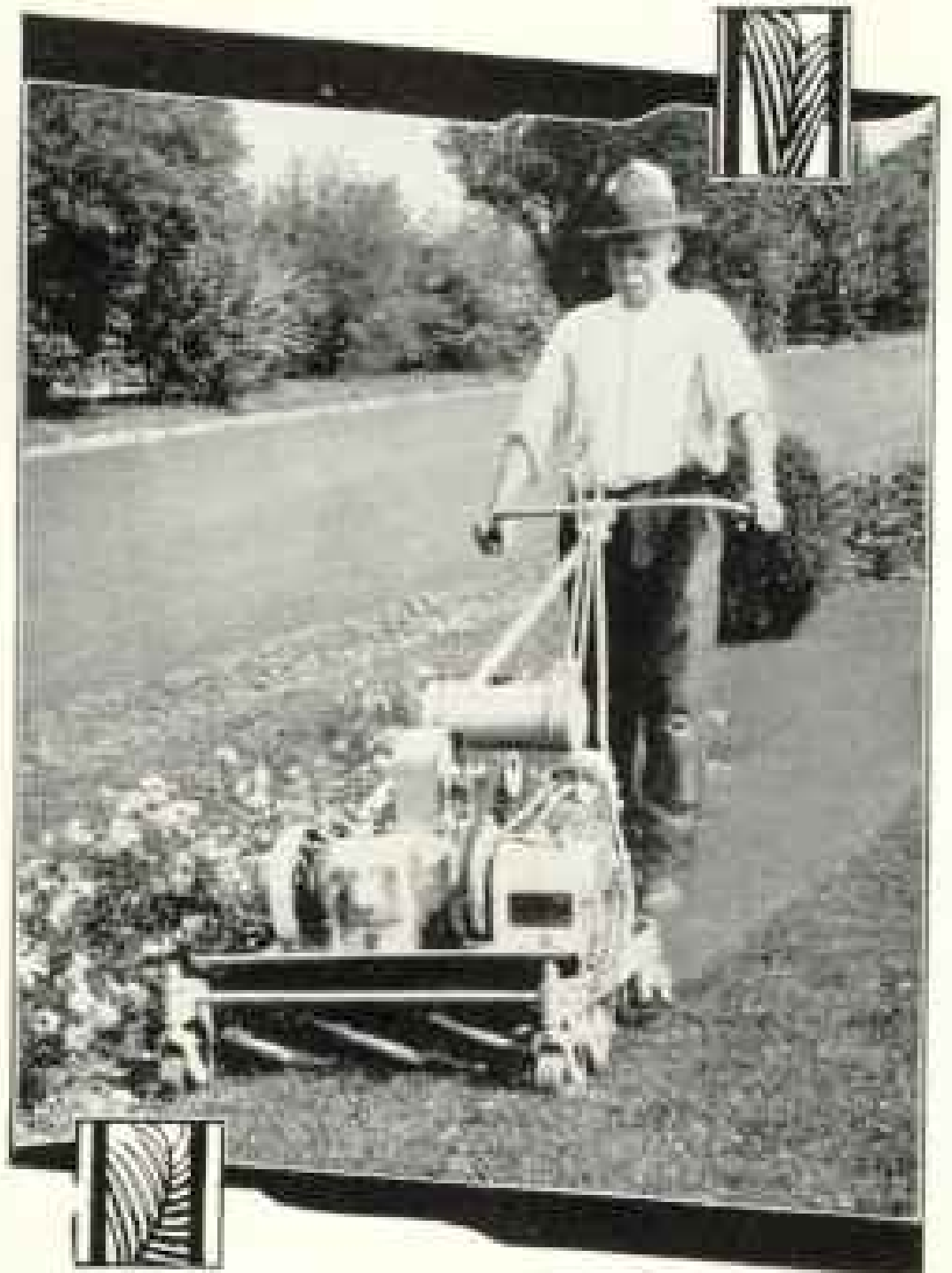
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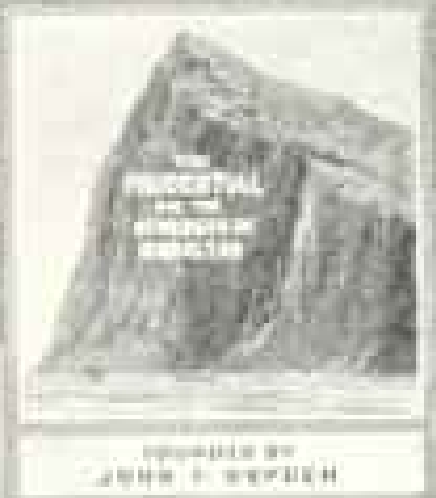
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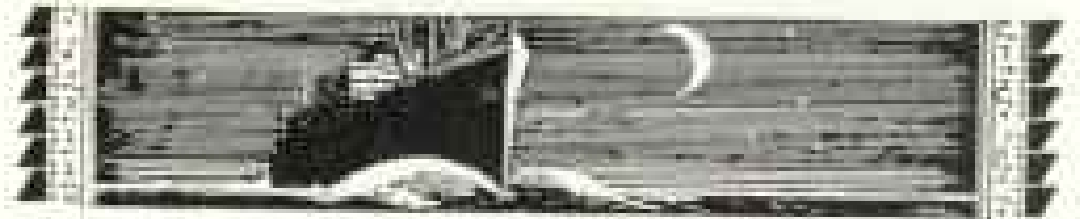


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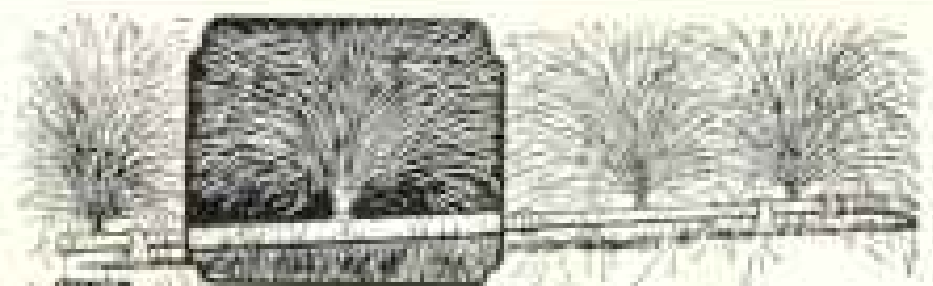
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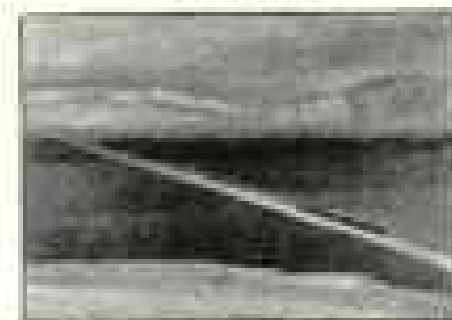
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BY  
Joseph H. Dodson



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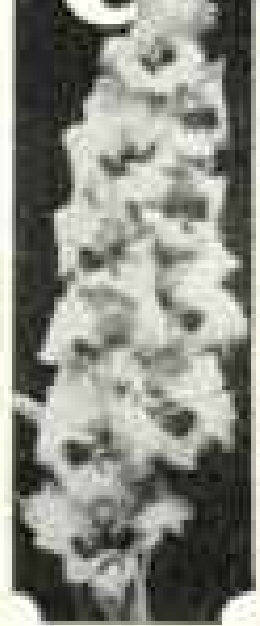
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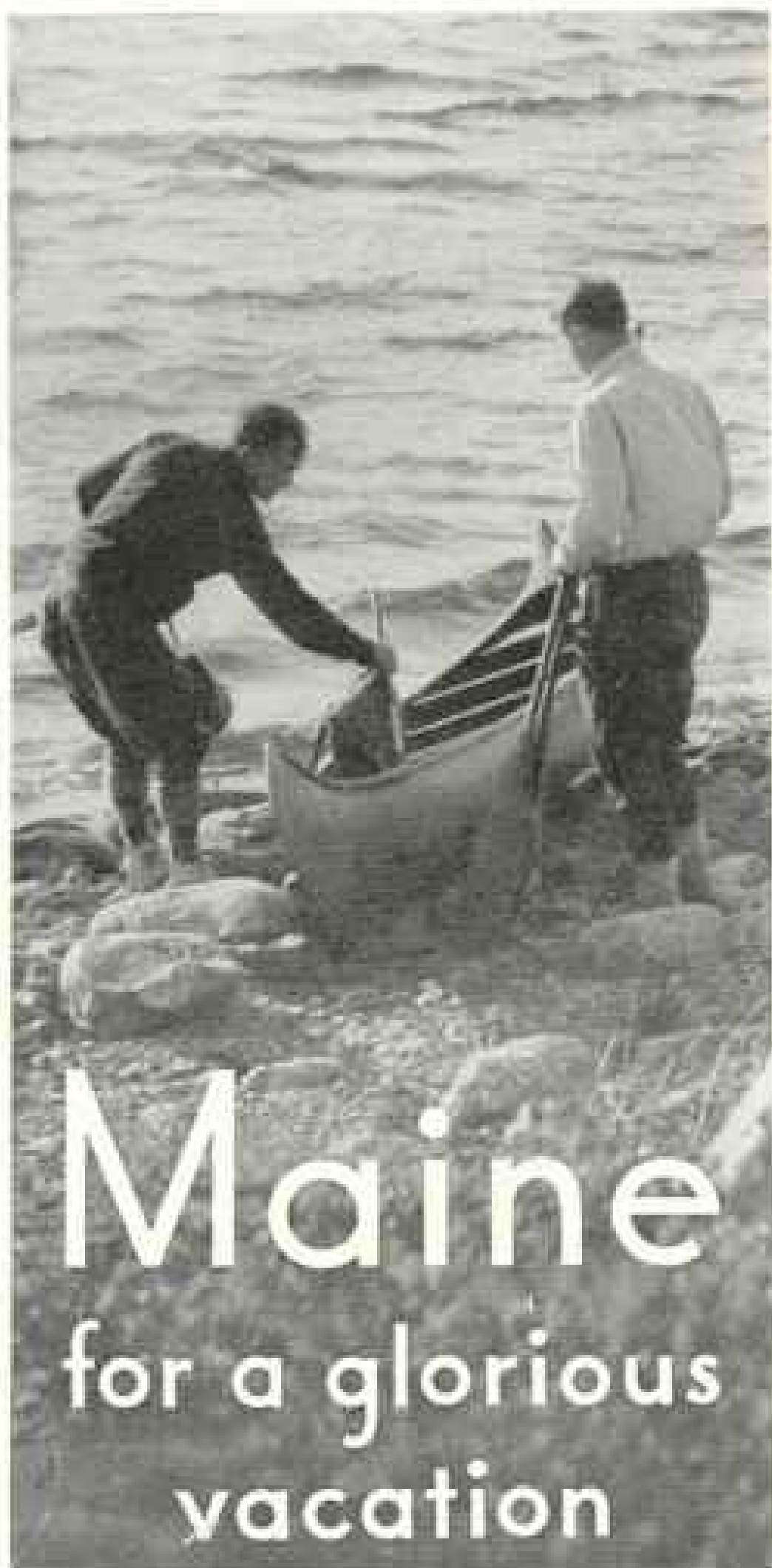
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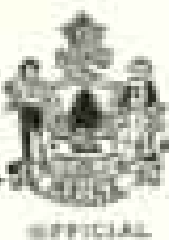


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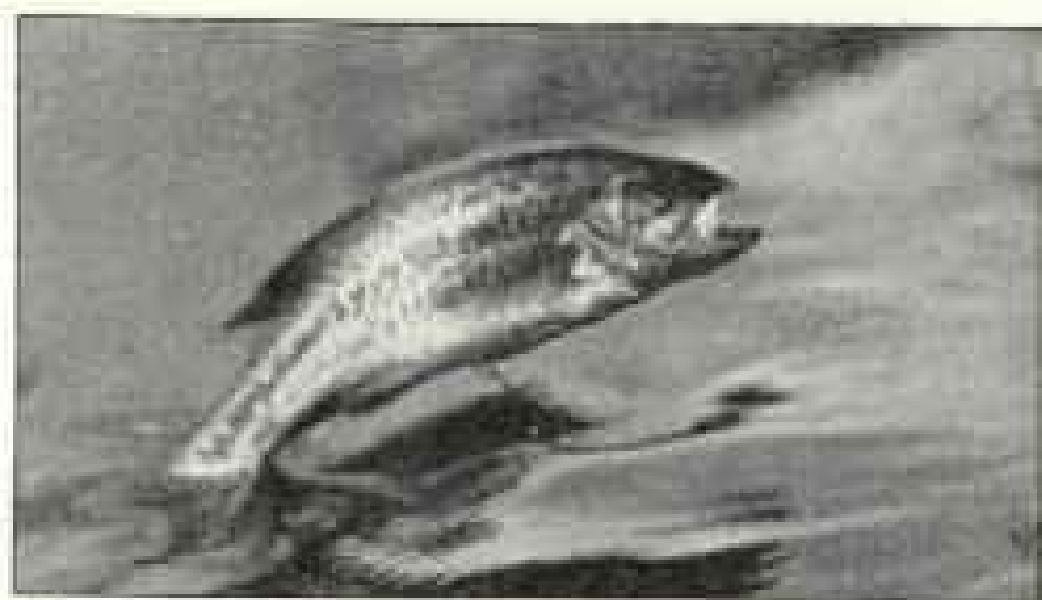
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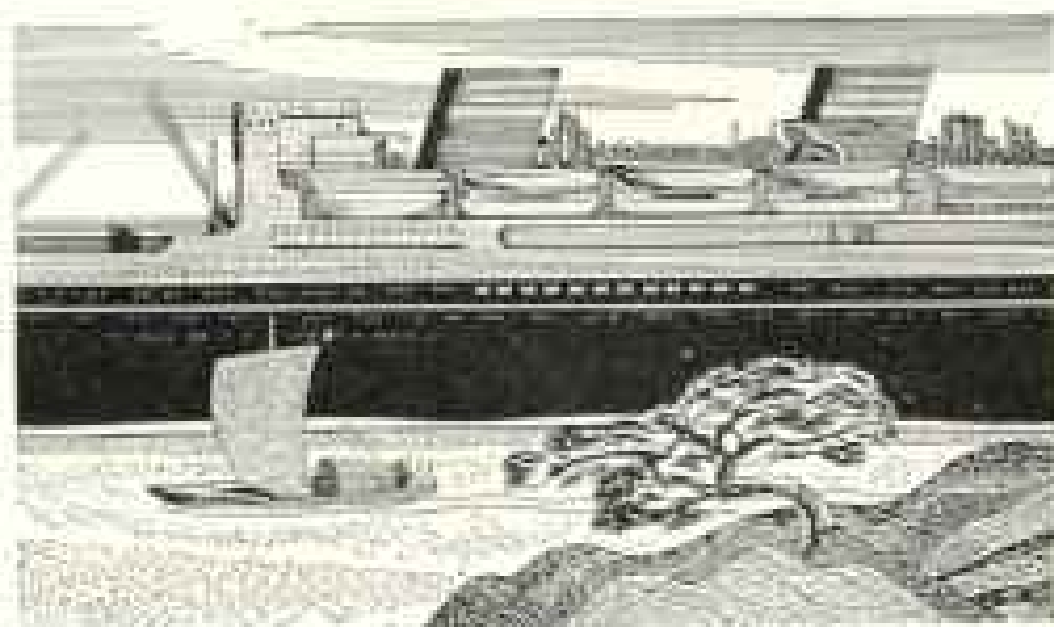
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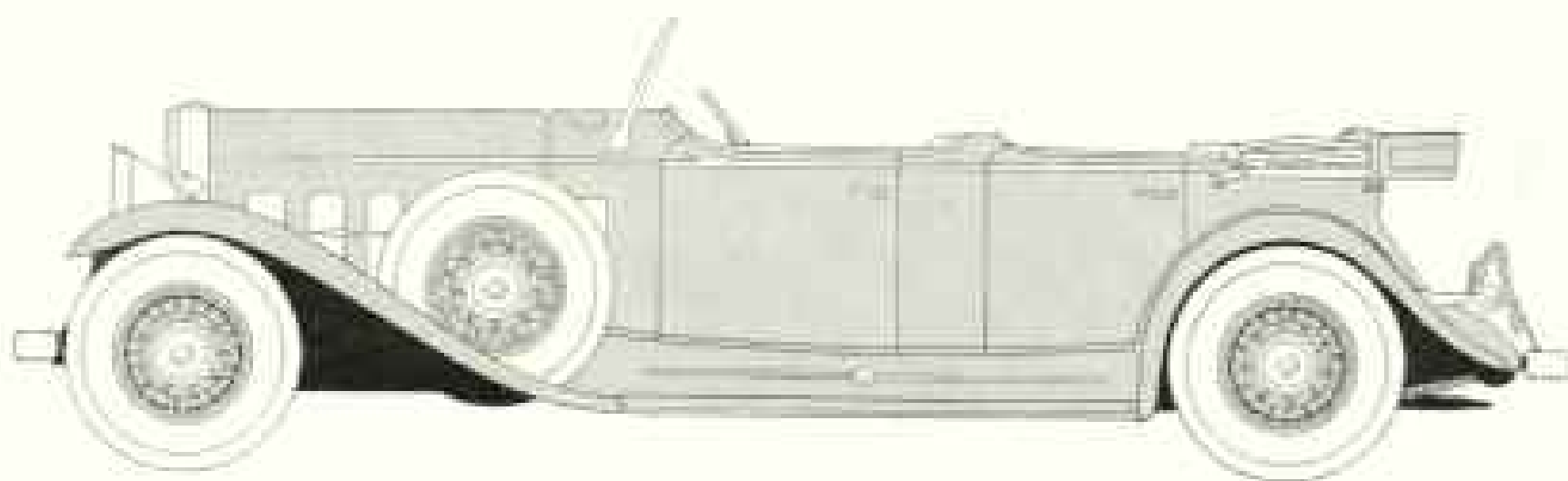
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