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THE NATIONAL GEOGRAPHIC MAGAZINE

Belgium Comes Back

BY HARVEY KLEMMER

With Illustrations from Photographs by Maynard Owen Williams

EUROPE is coming back—painfully but perceptibly. And in the vanguard is a little country which was invaded not once but twice, which was occupied for more than four years, and which served as a battleground for some of the fiercest fighting of the war.

That little country is Belgium (map, page 578).

Of all those countries which were forced to defend themselves against aggression, none has shown greater recuperative powers than the Kingdom of the Belgians.

The cities of Belgium, unlike those in many countries, are ablaze with light. Neon lights are particularly noticeable. There seems to be more neon lighting in Brussels (Bruxelles) than in all the other capitals of Europe put together.

Belgian stores are filled with goods. This may not seem unusual in the United States, where shortages are the exception rather than the rule; in Europe, where even the necessities of life are generally difficult to obtain, a Belgian shop window looks like something out of the *Arabian Nights*.

Even Meat Supply Is Ample

Food, while still somewhat scarce, is outstanding in postwar Europe. Meat is not thrown around, but there is enough. The Belgian cuisine—elegant like the French but with a slightly more earthy quality—has always enjoyed an excellent reputation. Today Belgian chefs are outdoing themselves to regain the position they held before the war.

The Belgians as a people like to eat. With the exception of breakfast, which is on the light, Continental side, they make a social event and a gastronomic delight of each meal. They eat leisurely; they eat a lot; they eat with obvious pleasure. They like music with their meals, and there is much laughter and conversation.

1,300 Calories a Day

The Belgians lived on less than 1,300 calories a day during the German occupation. No one begrudges them a good meal now!

Hotel accommodations are approaching normal. Throughout the country banners proclaim the exciting news: "L'Hôtel est réouvert."

Rationing is still in force in Belgium; however, restrictions are less onerous than in most European countries—Britain, for example—and they are gradually being lifted. Meat was derationed on February 1, 1948, leaving only coal, sugar, fats, and cereals still subject to control.

Belgian industry, always dynamic, is operating at more than 100 percent of the prewar level. In some lines production is much greater than it was before the war.

The chemical industry is operating at 375 percent of the prewar rate, the woolen industry at 155 percent, the machinery industry at 118 percent. Recovery in other lines, while less spectacular, has been, on the whole, encouraging.

The glass industry, one of the largest in Europe, has been handicapped by a lack of materials. Nevertheless, Belgian glass, including crystal from the unique Val St. Lambert works, is again available (page 603).

The textile industry, one of the oldest in

Antwerp's Jules Verne Will Arrange a Night Flight to New York and Think Nothing of It

Phileas Fogg's *Around the World in 80 Days* seemed fantastic in 1872, when Verne wrote the travel tale. Now the globe may be circled by air in a tenth of the time. One can dine late in Brussels, catch a plane, and breakfast in New York. Magazines in many languages are sold at the cinema lobby on the left.

Europe and very important to the Belgian economy, is a particularly bright spot. The woolen mills of Verviers are humming; carpets are pouring from St. Niklaas and cotton goods from Ghent (Gent); the production of linen (Plate II) is pressed at Courtrai (Kortrijk), at Deinze, and at Brussels.

The Diamond Industry

The diamond industry has recovered less rapidly. The principal function of these stones is not, as one might assume, the ornamentation of the human body; of far greater importance is their use, throughout the world, for industrial purposes.

The diamond industry in Belgium is centered in Antwerp (Antwerpen), where shipping, foreign trade, and precious stones vie for leadership.

The aristocrats of the diamond-cutting profession congregate in certain cafes where they are glad to explain, over a drink or two, the intricacies of one of the most precise crafts known to man (page 581).

Each stone passes through 10 or 15 hands before it is ready for sale, and each craftsman must be a master at his particular job. Stones are graded according to color, purity, and number of facets. Those which get into the newspapers are generally large; some of the most exacting work, however, is done on small gems.

A cutter showed me stones so small I could hardly see them with the naked eye. They

A Genial Hostess Serves Coffee at Noville, Where the Battle Line Bulged

Here, where American tanks battled in a fog, nearly everything was wrecked (page 601). Today tar-paper shacks spring up among the ruins. Café du Commerce does better with a cement-block façade.

could be rolled between the thumb and forefinger like grains of sand; yet each one of these tiny particles had been carefully faceted. You wonder, watching these men at work, how they keep their eyesight.

I always wonder why diamond cutters don't look more like diamond cutters than they do. One expects to meet elderly esthetes or old men with microscopes. Yet most of the men look like workers in any other line and are preponderantly of stocky build.

David Boris is said to be a champion cleaver. He is also a billiard champion and was once a champion wrestler. I haven't seen him cleave a diamond or toss an opponent over his shoulder on the wrestling mat; but I can testify that, at the billiard table, he is grace, poise, and dynamite rolled into one.

Belgian agriculture, which was not greatly disturbed by the war, continues to maintain a high level of production, despite the severe drought of 1947 (Plate XIX).

The Belgians long have been noted for their ability to extract a large amount of food from a small amount of soil.

They are equally proficient with flowers, which, along with fruit and vegetables, are an important item in Belgium's trade with her neighbors.

Acres of Greenhouses

The natural productivity of Belgian agriculture has been augmented by an intensive use of greenhouses. Traveling through the country, I saw acre after acre of glass, including the famous hothouses of Hoeylaert, near

Drawn by H. E. Eastwood and Irvin E. Allaman

Belgium Looks Like a Table of Battles. No Wonder It Is the "Cockpit of Europe"

Armies for centuries have found the Belgian lowlands a convenient path of invasion. Here Napoleon met his Waterloo. Liége and Ypres (Ieper), Bastogne and St. Vith stir memories of two world wars. Twice in recent years the German Army burst through the forested Ardennes. Industrialized Belgium crams its 8.4 millions—710 to the square mile—into a Maryland-sized area.

Brussels, where large quantities of grapes are produced for export (Plate V).

Foreign trade is a necessity to Belgium. Although the country is self-sufficient in garden truck, thanks to the system of intense cultivation employed, the production of grains is not sufficient to feed more than one-third of the people. Two-thirds of Belgium's cereal requirements, therefore, normally must be met abroad.

"We have no alternative," said a Belgian economist. "With us it is a question of importing or starving. And, in order to pay for our imports, we must export."

Outside of coal, Belgium has few resources. This has forced the little land to become a processor of raw materials brought in from the colonies and from other countries. Belgian specialties have hitherto enjoyed a favorable market in the United States and no doubt will again, once normal conditions have been restored.

Market for U. S. Goods

On the other side of the transaction, Belgium provides a sizable market (averaging nearly $50,000,000 a month the last half of 1947) for American commodities (Plate V). The country is also a distributing point for other markets in Europe.

The Belgian Government, for the first two years of reconstruction, emphasized imports over exports in order to bring prices down and stimulate production. It was a smart move.

Bastogne Honors the American Who Said "Nuts!" to the Nazis' Surrender Demand

Here Brig. (now Maj.) Gen. Anthony C. McAuliffe, his men surrounded by Von Rundstedt's break-through, delivered his immortal defiance. In gratitude, Bastogne has set up its Place MacAuliffe, Café MacAuliffe, and this cartoon tribute. In doing so, the Belgians have inserted a redundant "a" into "Mc," but the general is not worried. One of Bastogne's famous hams is pictured on the signpost.

Prices did come down, production did go up, and exports have nearly reached their prewar proportion of 90 percent of imports.

Although Belgium is a participant in the European Recovery Program, she is less interested in direct aid than in the rehabilitation of countries which normally buy her goods. Meanwhile, Belgium has herself been extending aid. Credits aggregating more than $300,000,000 have been granted to various countries.

Belgium has also been re-exporting for "soft" currency some of the goods which she has purchased for dollars in the United States.

A step in the direction of freer European trade, and one which may have far-reaching consequences, is the customs union recently created by Belgium, the Netherlands, and Luxembourg. This union, popularly known as Benelux, has aroused great interest throughout Europe; it is particularly significant in view of the possible formation of a Western bloc as a counterpoise for the organization which has been effected in eastern Europe.

Trains and Buses Run Again

Belgian transport is well on the way to recovery. Trains and buses are running normally. Gas rationing has been abolished. There is an acute demand for automobiles, as elsewhere, but new vehicles are coming in from France, Great Britain, and the United States.

The inland waterways, an important link in the country's transportation system, are functioning as usual (Plate XXI).*

Belgium is still short of ocean-going shipping. However, vessels now under construction, in addition to those acquired from other countries, are expected to restore the merchant marine to its prewar status.

* See "Through the Back Doors of Belgium," by Melville Chater, NATIONAL GEOGRAPHIC MAGAZINE, May, 1925.

Cargo moving through Antwerp has been greatly reduced, principally as a result of decreased activity in the German hinterland, normally served by this port. The future of Antwerp will be determined largely by what the Allies do in Germany.

United States vessels, which before the war ranked ninth, today lead vessels of all nations in volume of cargo handled at Antwerp.

Belgium is ideally situated to be a junction between the Old World and the New. She is located in one of the most highly developed areas on earth; she has excellent communications.

There is practically no unemployment in Belgium; in fact, most industries are making frantic efforts to recruit workers.

There is a serious shortage of coal miners. To relieve the situation in this direction, the Government has recruited men in foreign countries.

The textile industry is handicapped by a lack of young women workers for the mills. Farm girls, who formerly constituted a large part of the labor force, have learned other trades. Moreover, prosperous conditions at home have caused many to stay on the land.

Servants are hard to get, and the matrons of Brussels sound very much like the matrons of Washington or St. Louis in their laments.

Relations between labor and management, while delicate, have been relatively stable. Strikes, despite an unsatisfactory relation between wages and the cost of living, have been few.

A strike which did occur, and which detracted considerably from the pleasure of my sojourn in Brussels, tied up the Opera House for an entire month when artists and other personnel refused to work without a raise in salary.

Reasons for Rapid Recovery

There are several reasons for the relatively rapid recovery achieved by the people of Belgium.

The Belgians, first off, had a distinct psychological advantage in dealing with the enemy. These people have suffered occupation so often that they have developed a positive genius for outwitting authority.

The Belgians gained an additional advantage from the fact that they were liberated sooner than some of their neighbors.

The destruction of property in Belgium, while burdensome, did not approach that suffered by some countries. Belgian industry was more or less ready to go when the war ended. Moreover, the Port of Antwerp, one of the most efficient in Europe, remained open.

Belgium also had a wealthy empire, which remained inviolate throughout the war, at her disposition. Her gold reserve, meanwhile, was waiting for her in the United States.

The Belgian Government, while the Germans were still in the country, made plans for the rehabilitation of industry, for the protection of labor, and for the stabilization of the currency.

The rehabilitation of industry is, as has been pointed out, now in an advanced stage.

A comprehensive plan of social security was put into effect immediately after the cessation of hostilities. This showed the working population that the Government had their interests at heart. It also gave Belgian labor an advanced system of unemployment insurance, old-age pensions, health benefits, family allowances, workmen's compensation, and other advantages.

Industry's Wise Leadership

The situation was further improved by the fact that Belgian industry boasts some of the most intelligent leadership to be found in any country.

The Government, finally, promulgated a series of bold measures designed to block off excessive purchasing power and to stabilize the currency.

The financial situation was desperate after the occupation. The circulation of currency was five times greater than in 1939; the budget was out of balance; a large German credit had to be added to the public debt. To correct these conditions, the Government was forced to adopt one of the most radical financial programs ever employed in a democratic state.

Details of the Government's program were worked out while the war was still on.

New bank notes to replace those then in circulation were printed in Britain. Depositors' receipts and other forms were printed by the National Bank in Brussels right under the noses of German inspectors. When the enemy finally was driven out, everything was ready for measures required to preserve the franc.

It was a novel, a fearless, and a far-reaching approach. The franc was revalued. All bank notes valued at more than 50 francs were called in. Bank accounts were frozen. General taxes were increased and three extraordinary levies—a 5-percent levy on capital, a 70- and 95-percent levy on excess profits and income, and a 100-percent levy on profits made in dealing with the Germans—were imposed. A control system for foreign exchange was inaugurated.

Some of the Belgian measures were pretty

Staff Photographer B. Anthony Stewart

An Antwerp Grader Examines Coal's Hard, Brilliant Cousin, the Diamond

Diamond is related to the graphite in a pencil as well as to that "black diamond" called coal. All three are forms of carbon. Since diamond is a hard cutting substance, industry uses the stone or its dust as an abrasive. The jewel does not owe its brilliancy to polish alone but also to light-reflecting facets (page 576).

strong medicine, but they seem to have worked.

Belgium's fiscal position was further improved by the expenditures of British and American troops; by loans totaling $130,000,000 granted by the Export-Import Bank to cover purchases made in the United States; by a credit of $25,000,000 extended by Canada, and, finally, by a credit of $11,000,000 granted by the International Monetary Fund.

In addition to the foregoing grants, Belgium may draw another $56,500,000 from the Fund during 1948.

Industry of People Key to Recovery

The principal factor in the recovery saga, of course, has been the industry of the people.

Belgium, with about 8,400,000 people crowded into an area little larger than that of Maryland, is one of the most densely populated countries in Europe. The number of inhabitants to the square mile is about 710, compared with 48 in the United States. Despite this lack of "living space," Belgian industry and Belgian agriculture have reached a high development.

Everybody works in Belgium—men, women, children, animals. The tempo of city life is brisk.

In the country you will see people going into the fields at dawn, and if, perchance, you return at dusk you will find many of them still there.

Driving in the country at night is made difficult and hazardous by a procession of carts creaking their way home, heavy-laden, from the fields.

Another thing which strikes the visitor is the number of people with bundles on their backs. Everyone seems to be carrying something; those who aren't will probably be pushing bicycles, carts, or wheelbarrows.

A Belgian will carry anything on a bicycle—boxes, bundles, bales. Once, along the Schelde, I saw a man pedaling over the cobblestones with a barrel between his arms.

In addition to bicycles, three- and even four-wheeled carts are operated by foot power.

Animal power is also used widely in Belgium. Belgian horses are noted for their size and stamina. In addition, dogs are used for pulling carts; and you may even see a dog helping to push his master's cycle (Plate XXII). Cows are also used as beasts of burden.

Walking near Namur one afternoon, I was startled to see a procession of hay wagons, four in all, moving majestically down the road behind a power plant consisting of two horses and a cow.

Hard work does not seem to prevent the Belgians from living a full life. They like a good time and, somehow or other, they manage to enjoy themselves.

It would be a mistake to conclude from these observations that Belgium's worries are over. They aren't, and the little country may have to make additional sacrifices before her economy is placed on an even keel and living conditions are in all respects restored to their prewar level.

Belgian industry is greatly in need of modernization. Machines and factories are in many instances worn out; others are outmoded. Belgium must overhaul her equipment to catch up with the technical progress achieved by other nations during the war.

"We also have a psychological hazard to get over," one manufacturer said to me. "During the occupation our strategy was to produce as little as possible. For four years we operated at less than half of capacity. Now we find it difficult to get back into the swing of capacity production."

An economist at the American Embassy in Brussels, who is generally optimistic about Belgium, points out that the little country is now "bumping a ceiling."

Coal a Vital Need

"The Belgian economy is based on coal," he explains. "Coal production has risen to 80 percent of the prewar figure. However—and this is an important qualification—production seems to be stalled at this figure. Obviously, the Belgians will need more, not less, coal if they are to get back on their feet economically."

The Government has endeavored to keep prices and wages in line, but there have been some breaks and there may be more before the economy is stabilized. Prices on many items, especially luxury goods, are high by American standards.

Rent increases are controlled, but when people move they sometimes find themselves paying three or four times what they paid before the war. The Belgian worker, notwithstanding a doubling in his income, is not happy about the cost of living.

The black market, which was encouraged during the war as a device for outwitting the enemy, has virtually disappeared.

Belgium's Housing Problem

Belgium, in common with the rest of Europe, has a housing problem. The situation is acute in Antwerp, where over 50 percent of the houses were damaged or destroyed by enemy action, and in Liége. Belgium was once acclaimed as "the best-housed country in the world." The destruction of property in two wars affected this coveted position.

Not only houses are short in present-day Belgium. Schools, churches, stores, theaters, factories, warehouses—all are required in substantial numbers.

More than 3,000 school buildings were severely damaged during World War II and 281 were completely destroyed. Even more serious, educators say, is the disruption of education caused by the occupation.

The schoolteachers of Belgium have a real problem on their hands. Their charges for years were handicapped by irregular attendance, by shortages of food, fuel, and clothing, by rushes to air-raid shelters, by lack of rest. Many children were forced to lie and cheat in order to outwit the enemy; some were hunted by the Gestapo; others lost their parents.

Then there was the Nazification of schools. Anyone less indomitable than a schoolteacher, and less industrious than a Belgian, would be appalled by the educational job which must be done in this country.

The political situation is in a state of uncertainty. The current government is based upon a coalition of the Christian Social and Socialist Parties.

The country is divided, rather seriously, over the question of whether or not King Leopold should return to the throne.

Belgium is further divided by a long-standing rivalry between the two groups which make up the population—the Flemings and the Walloons.

The Walloons were once dominant in the affairs of Belgium. Now the Flemings have achieved equality, and there is considerable controversy with regard to the status of the two groups.

The Flemings, who live in the northern half of the country, speak a Dutch patois. The Walloons, who live in the south, have, since the 13th century, spoken French.

Kodachrome by Maynard Owen Williams

Best-known Lacemaker of Historic Bruges (Brugge) Is This Venerable Cover Girl

Her picture, widely published, was on the poster for the splendid Lace Exhibition of 1947. Her face—a well-lined history book of humble toil—is a trade-mark for Bruges lace, as Chardin's "La Chocolatière" is for Baker's cocoa.

Kodachrome by Maynard Owen Williams

Belgium's "Golden River," the Lys (Leie), Is No Longer Clogged by Sunken Rafts of Rotting—or Retting—Linen

Nowadays the linen fibers are freed of the useless inner tissues by soaking them in tanks flooded with heated water. Over the sunny field of drying flax hangs a sour, disagreeable stench. This little valley has been the center of a flax industry since the days when the Roman dramatist, Plautus, described it in 200 B. C.

When Bruges Ranked with Venice as a World Market, Its Port Was Here at Damme

Painters, intrigued by quiet canal and tufted trees, have displaced the stevedores who sweated cargoes ashore. In the thirteenth to fifteenth centuries, Damme was "the most famous of ports."

At one time the 1,700 sailing ships of Philip Augustus were anchored in what are now meadows. Valleys have silted up. Dune sand has filled in the hollows. Islands have become a part of the mainland where Belgium joins the Netherlands.

Kodachrome by Maynard Owen Williams

Father and Mother Point Out Brussels' (Bruxelles) "Most Famous Citizen," the Many-costumed Manikin

Sometimes the grotesque but daring figure wears the feathers of an Indian chief or the uniform of the beloved GI. Here he wears a uniform from the Ardennes, close to the scene of the Battle of the Bulge.

Kodachromes by Maynard Owen Williams

So Costly Are Belgian Hothouse Grapes that Oranges from Distant America Outsell Them in the Market Place at Furnes (Veurne)

Each bunch is pampered through the winter, competing with cold citizens for strictly rationed coal. Such huge grapes as the Leopold III (right) are sold beside California, Florida, or Brazilian oranges, but at eight times the price per pound.

Kodachrome by Maynard Owen Williams

White-prowed Swans Split a Water Mirror at Bruges, Once the Busiest Mart in North Europe

Where a great commercial activity reigned and trading guilds had their headquarters, the quiet canal now leads a graceful, unruffled life.

Kodachromes by Maynard Owen Williams

Sight-seers in Spotless Launches Cruise under the Bridges Which Gave Bruges Its Name

Along peaceful canals, visitors ride to Memling's famous paintings in St. John's Hospital or to the shady Lake of Love, dotted with snowy swans. Red geraniums and bright flower boxes add to the appeal of the picture town of Flanders, famous for its dramatic Pageant of the Holy Blood, brought from Jerusalem in 1149.

"Treasures of Christ's Church" Parade in Honor of St. Laurent, Patron of This Quarter

This martyr considered children more worthy than gold and gave the church treasures to the poor. He was roasted on a gridiron bed by the infuriated prefect.

© National Geographic Society Kodachromes by Maynard Owen Williams

Young Lads Bear Aloft Bright Banners Honoring Brussels' Patron Saints

In a square below the Tomb of Belgium's Unknown Soldier they kneel while the city is blessed. From here the procession moves to the Cathedral of St. Michael and St. Gudula.

Watercolor by Maynard Owen Williams

Scores of Such Belgian Carnival Groups March in Folklore Parades

Competing for banners or prizes, these merrymakers go from festival to festival, having a good time, dancing in the squares, and putting on a colorful show. Here at Courtrai they wear costumes from neighboring Netherlands.

Belgians All, the White-capped Merrymakers Call Their Carnival Group at Courtrai "the Volendammers"

Hours of marching and street dancing lie ahead. Now they sit, awaiting the start of one of many folklore parades which add color to the summer scene.

In Heavily Padded Suits, Ostend's (Oostende) Fishers Parade Sea Symbols to the Tinkle of Bells

"Shoot us!" laughed the woman on whose friend a stuffed sea gull was perched.

Small as she is, the mermaid (right) makes a heavy millinery ornament.

Such dancing, prancing carnival figures are called *Gilles*. Local Courtrai groups wear linen bobbins or scutching wheels on their heads.

But most famous of all are the high-plumed street dancers of Binche, their jingling sound as gay as sleigh bells in the snow (Plate XXIII).

Cradled Ashore at Ostend, a Car from Dover Will Soon Speed along the Splendid Highways of Belgium

Tourists from Britain bulked large in European travel. Some reserved the same rooms year after year. But since October 1, 1947, travel on the Continent has practically ceased, for Britons may not carry funds abroad for vacationing. Splendid ferries maintain a short and comfortable service between Ostend and Dover.

Until Zeebrugge developed its curving mole and was connected with Bruges by a 9-mile canal, Ostend was the only important seacoast harbor in Belgium.

The old fishing village, which once saw Crusaders sail, became a favorite pleasure resort and summer residence for the Royal Family. Two wars rained death and destruction on the city, which is now bravely digging itself out of the ruins.

Kodachromes by Maynard Owen Williams

Summer Sports in Sands Now Freed of Deadly Mines Show the Futility of Hitler's Atlantic Wall

Heavy cement blockhouses near Ostend stand idle while children play along the 40-mile seacoast facing England. One Victory Bunker, its walls still covered with German murals by homesick Nazi soldiers, is now a tearoom and night club. Here German boys had a beer or a shave to escape the boredom of waiting. Present-day visitors gather in the thick-walled hide-out from death to watch the antics of a clown or dance to American music.

Rainless Days, Cruel to Europe's Farms, Made 1947 a Banner Year on Belgian Beaches, Which Stretch from France to the Netherlands

Visitors crowded shell-torn hotels. Restaurants offered better meals than are common in postwar Europe. Gay umbrellas brightened the sands. Belgian vacationers rested up for another year's hard work.

Kodachromes by Maynard Owen Williams

Near Ostend, Sister Poses to Her Finger Tips. At Aristocratic Le Zoute, Two Pedicyclists "Get Set" to "Go!"

Sunshine, which ruined many crops, spread plenty of sun tan along the Belgian coast. Hundreds of hotels offered accommodations at from $3 to $12 a day. Quick repairs were made to blasted buildings. Once more the golden beaches belonged to a peaceful land.

Kodachrome by Maynard Owen Williams

Five Towers of Tournai's Matchless Cathedral Still Stand above the Ruined City

From Romanesque to Renaissance, this architectural masterpiece took over 500 years to build. Unlike the City Hall, Public Library, several churches, and more than 1,200 houses, the finest of Belgian churches was not razed by war.

Many Belgians are bilingual: they speak both Flemish and French. Some, in addition, speak a patois of the two. A Brussels shopkeeper told me that he found it easier to understand his British and American customers than his Antwerp customers, while the people of Antwerp complain that they have difficulty understanding their compatriots from Brussels.

Near the German border, meanwhile, there are villages—Eupen, Malmédy, and St. Vith, among others—where the people speak a German dialect.

The tourist business is important to Belgium, and, with its long succession of rainless days, 1947 was a most successful season, especially along the coast.

Visitors coming here will, as hitherto, find much to see and do. Belgium has always been a mecca for sight-seers, particularly for those who like to delve into the past. Now, to the remnants of a rich, old civilization has been added the heritage of yet another chapter in the grim, turbulent, and immensely exciting history of the "Cockpit of Europe."

Scars of War Still Abound

Signs of the country's most recent ordeal are still plentiful.

Going up the Schelde, I noticed the hulks of sunken ships along the shore.

The General Motors factory at Antwerp was a flattened mass of concrete.

Damaged houses, some without roofs, some propped up with poles, were a common sight.

Trenches, pillboxes, and faded camouflage were still in evidence.

Old American and British signs mark routes taken by the liberators, including the famous ABC Highway which ran from Antwerp to the front.

Bits of battle debris may still be seen in the fields, and here and there a giant crater marks the spot where a bomb came screaming to earth.

Stretches of the Atlantic Wall, pathetic reminder of enemy nervousness, remain along the coast (Plate XIII).

And occasionally you will come upon former prisoners of war, including superman coal miners, helping to rebuild the country which they tried to destroy.

The Belgians are trying to forget the war; nevertheless, the war is still very real, and practically everyone you meet has a story which he will pass on, without too much prodding, for the benefit of posterity.

There is the Flemish ship pilot:

"There were 20 ships in the first Allied convoy to come up the Schelde. I had an American Liberty. I was so excited I could hardly do my job. It had been five years since I had handled a large ship. That Liberty looked like the *Queen Elizabeth*."

There is the Antwerp businessman whose home was used as a headquarters by the Germans:

"Many notables came here. Goering. Von Rundstedt. Rommel. Goering slept in my bed. Later the British and Canadians were here. Montgomery came, and King George.

"The Germans gave us four hours to get out. They asked for a key to the bookcase so that they could read. Although there were several anti-Nazi books in my library, none of these was disturbed. . . . Strange people, the Germans."

The businessman's wife takes up the story:

"They put runners on the carpets and left everything as they had found it. We hid the silver and paintings. The Kommandant found a metal tray and wanted to know what it was for. I told him that it was the tray from which Napoleon ate his last breakfast. The Kommandant grimaced and put the tray away."

Listen now to a Belgian soldier:

"We were impressed by the German equipment. It was good and there was plenty of it. But when the Americans came, we knew that victory was ours. Here was equipment even better than that of the Germans. And when it came to quantity—!

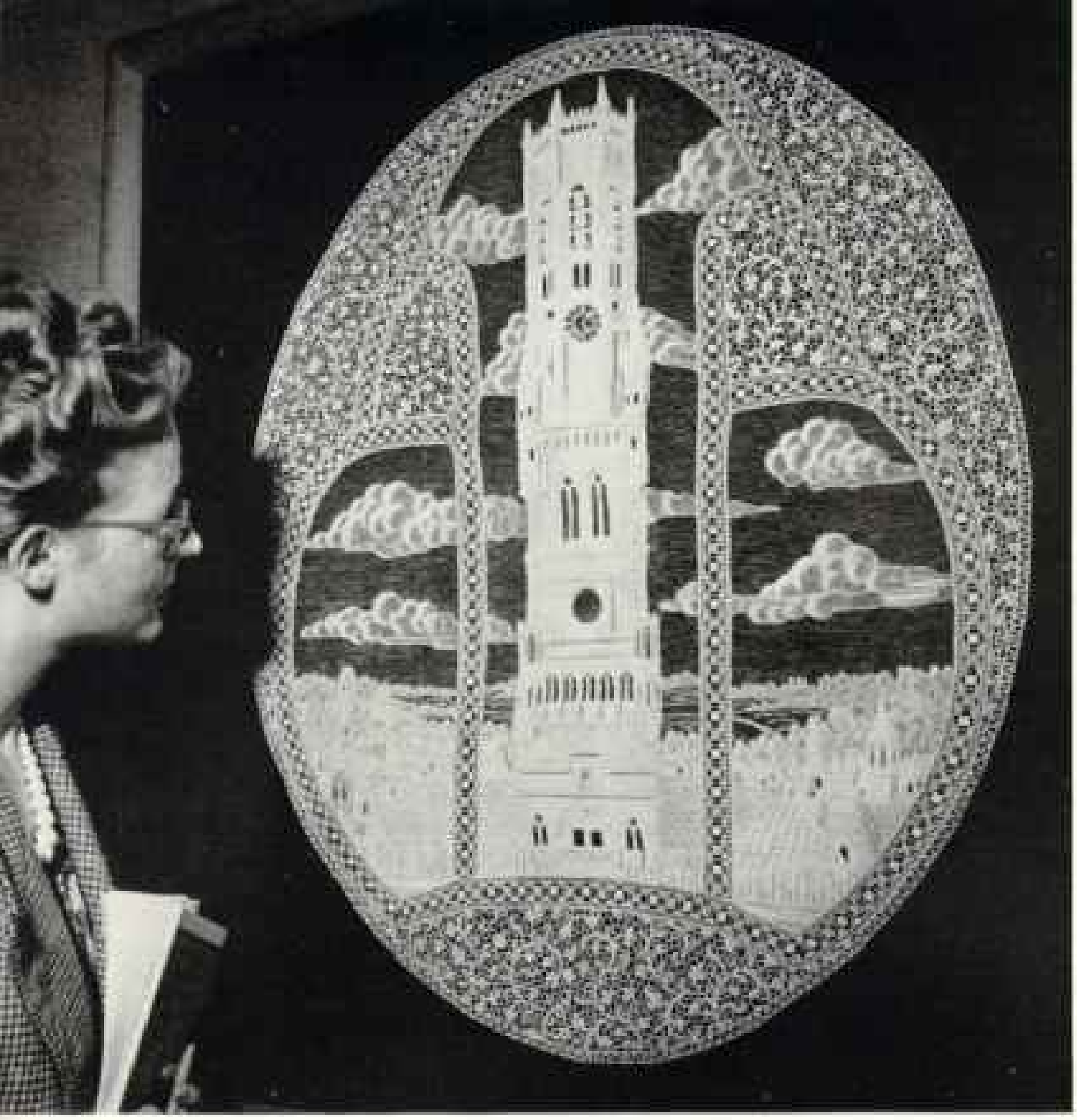
"I was on my way up to the front. For four days and nights the tanks and trucks rumbled by. We knew then that the end would not be long in coming."

A Country of Contrasts

Belgium is a country of contrasts. She is at once earthy and elegant—a land of peasants and well-dressed women, of wooden shoes and fine gowns, of horsecarts and automobiles. She is a land of old churches and modern homes, of intense agricultural activity and busy factories. The union of art and industry, which here has been developed to a high degree, finds expression in the slogan frequently applied to Antwerp—"World Port and City of Art."

The same slogan could be applied to Ghent, which, in addition to its historic and artistic attractions, also serves as Belgium's second port (Plate XXI), as a textile center, and as the focal point for a vast flower-producing area.

Brussels is a gay and shining spot, filled with music and laughter and art and antiquity and industry and politics and diplomacy and education and—but why go on? (Plate VIII.)



Belfry of Bruges, Famed by Longfellow, Shines in Lace

Lace began as a patch-in-time to save wear. This specimen was one of hundreds, some dating to 1599, shown at Bruges's 1947 exhibition of Belgian lace. Longfellow wrote: "In the market place of Bruges stands the belfry old and brown; thrice consumed and thrice rebuilded, still it watches o'er the town. As the summer morn was breaking, on that lofty tower I stood, and the world threw off its darkness, like the weeds of widowhood."

If you haven't visited Brussels, go and see for yourself. You will never forget it.

My favorite city is Bruges (Brugge)—once a port, once a textile center, now a repository for one of the most interesting historical heritages on earth. If you like old buildings; if you like quaint bridges and sleepy canals (Plates VI, VII, XXIV); if you like lace, produced by quick-fingered old women while you watch (Plate I); if you like the timelessness of a bygone civilization projected into the present—then by all means don't miss Bruges.

The estuary connecting Bruges with the sea is filled with silt (Plate III); the textile industry has moved away; moss creeps through the cobblestoned streets.

Nevertheless, the city is far from dead. It is a mellow place, and a wistful place, but the achievements of the past, which proclaim themselves on every hand, shine through the city's crumbly exterior with a light which will never be extinguished so long as man looks to the past for guidance to the future.

If you haven't discovered it by now, this traveler is fond of Bruges!

The aura of antiquity which hangs over Bruges is characteristic of Belgium. There is an old restaurant in Antwerp which is popular with visiting gourmets. It is a charming place, with leaded windows and blackened rafters, picturesquely located at the end of an ancient courtyard. One day, after an excellent lunch, I asked the waiter when the restaurant was established.

"In 1777," he replied.

The manager, who was hovering near by, looked pained.

"The correct date is 1774," he said.

The waiter retired in some confusion. Whereupon a slightly inebriated gentleman at the next table observed dryly:

"It just goes to show how old the eating habit is."

The Grand' Place in Brussels is, of course, a "must" for tourists, as is Rubens's house in Antwerp. There is also much to delight the eye and lift the spirit at Liége, at Tournai (Plate XVI), at Louvain (Leuven), at Audenaarde, and at Malines (Mechelen).

The archives of Tournai, popular with visitors before the war, unfortunately have been destroyed. Other treasures which have been lost include the Abbey at Nivelles and the library of the University of Louvain, destroyed also in World War I and reconstructed with American aid (Plate XVIII).

A Land of Bells

The carillon at Malines will stir those who thrill to bells. Belgium is a land of bells.* The Nazis took many away for melting down; however, the underground succeeded in saving many of them and eventually, amid great celebrations, in returning them to their age-old repositories.

Historical and religious festivals, known as kermesses, are numerous in Belgium (Plates IX, X, XI, XXIII). They are based on the

* See "Singing Towers of Holland and Belgium," by William Gorham Rice, National Geographic Magazine, March, 1925.

folklore of bygone centuries and are held on various dates in all parts of the country. Some of these festivals go back a thousand years or more, and, because of their historical import and the costumes employed, are interesting to watch.

Sports, pretty well out of the picture during the occupation, have made a rapid comeback. The pigeon racers are out in force; archers loose their shafts from the strings of countless bows; Belgian cyclists have reverted to their long-standing habit of collecting championships wherever they can find anyone to ride against them.

The Belgian seacoast was heavily fortified by the Germans (Plate XIII).

The fortifications are now being demolished and many of the resorts which made the littoral a play place for all of Europe have been reopened (Plates XIV, XV).

A Master Craftsman Sets the Threads for a Damask Tablecloth

Above him, the paper pattern is red and white. When woven, the fabric will be white on white, its pattern resulting from the arrangement of warp and weft. Damask takes its name from Damascus, where gold and colored threads emphasized the pattern.

Zeebrugge, destroyed in World War I and again in World War II, is in process of reconstruction.

The most spectacular scenery in Belgium is found in the Ardennes, a region of great beauty located in the southeastern part of the country. Here is a glorious landscape compounded of timbered hills, green valleys, and rippling streams. The forests are especially impressive—deep, mysterious, solemn. And over all hangs an atmosphere of times gone by, expressed in feudal ruins, ancient customs, and hoary legends.

You come out of the Ardennes exhilarated and subdued—exhilarated by the breathtaking beauty which you have been privileged to behold, subdued by the mystery of the brooding forests and the eternal hills.

The Ardennes have a special appeal for Americans, for it was here that our troops stopped, held, and then threw back Field Marshal Karl Rudolf Gerd von Rundstedt's legions in the Battle of the Bulge.

The Germans, who had already been driven from Belgium, poured back across the border in a desperate effort to throw the Allied timetable off balance, to separate the American and British Armies, and possibly to capture our supply center at Antwerp.

It was a bold gamble, and for a time it looked as if the enemy might succeed. Eventually, however, we threw the invader back, thereby shortening the war and writing a new and brilliant chapter in the history of American arms.

Rebuilding in the Bulge

The people of the Bulge are making a heroic effort to restore their shattered villages.

The little stream which loops around Houffalize is choked with rubble. There is a temporary bridge over the stream and shopkeepers carry on in shacks.

Noville, where our tanks battled in a fog, is a shambles (page 577). People are living in wooden huts; church services are held in a tar-paper shack; the Café du Commerce holds forth in a tiny cement-block building.

At Remofosse there is a farmhouse which is being used as a shelter for livestock; the farmer and his family, meanwhile, have moved into the barn.

The Government is building model homes in the razed village of St. Vith. Elsewhere—at

In a Hekelghem Cafe an Artist Copies Rembrandt's *Night Watch* by Sifting Colored Sand with His Fingers

This "sand carpet" depicts the famous *Sortie of the Civic Guard*. When finished, it will remain on display until dust dulls its colors. If sprayed with a fixative, it may be hung on a wall as a permanent fixture. Sand pictures drawn by medicine men are a popular art form among Australian aborigines and American Indians.

Armed Guards Patrol the Diamond Club of Antwerp

This corridor, protected by armor plate, surrounds a safety-deposit vault.

This Crystal Vase Duplicates One Made for a Japanese Prince

GI's admired art objects in Val St. Lambert glass works near Liége.

A Tapestry Artist in Malines Repairs a Centuries-old Masterpiece

Belgium has no greater asset than her artisans trained in creative work. Malines, long a center for wood carving and luxurious textiles, is noted for its carillon music, joyously rippling down from heaven. Such bell masters as Jef Denyn and Staf Nees brought fame to St. Rombold's 45-bell carillon (page 600).

Malmédy, near which the Germans executed 71 American soldiers; at Stavelot, at Marche, at Laroche, at Bastogne—local citizens are repairing their homes and stores and farm buildings as best they can.

An American Shrine

Bastogne is in process of becoming an American shrine. Here it was that the Americans under Brig. (now Maj.) Gen. Anthony C. McAuliffe, although surrounded, held Von Rundstedt at bay; here it was that McAuliffe sent his celebrated reply—"Nuts!"—to the German demand that he and his men surrender (page 579); here it was that the Germans finally realized, if they hadn't realized it before, that the war was over.

Bastogne today is a beehive of activity. Seventy percent of the town's buildings were damaged or destroyed. Those which are too far gone to save are being pulled down; bricklayers, stonemasons, and carpenters are restoring the others as rapidly as possible. It gives you a lift to see the energetic way the people are going about the business of rebuilding their devastated town.

The main street is a maze of ladders and scaffolds. Piles of lumber, brick, and stone greet you on every hand. A sawmill has been set up not far from the main square, while up in the hills gangs of men crash trees to the ground for desperately needed shelter.

Debris, thousands of tons of it, has been carted to a huge dump. German prisoners,

Wide World from Press Ass'n

Ostend Lads March in Clogs and Oilskins to Witness the Blessing of the Sea

Behind this pleasure resort, now badly damaged, lie a thousand years of history as a fishing port. Fish and cheese perfume its old markets. Once a year priests and fishermen take part in the traditional ceremony on the water front. These boys bear a ship model which their grandfathers carried before them.

dirty and dejected, were being used for this work when I was there.

The town's main hotel, the Le Brun, was hit seven times by shellfire, which rendered 27 out of 36 rooms uninhabitable. The basement was used as a hospital, and Anne Le Brun, pretty daughter of the proprietress, tore up the hotel linen for bandages.

The dining room was spared—a circumstance which permitted me to enjoy a wild-boar lunch in some of the nicest company a stranger in the Ardennes could ever hope to know.

The people of Bastogne naturally feel a great warmth for Americans. They have named the main square for McAuliffe and the General's picture is freely displayed; the town fathers voted to erect a monument to those who gave their lives in the Battle of the Bulge; some persons have "adopted" the graves of American soldiers and correspond regularly with relatives in the United States.

Most of the Americans who fell in the Battle of the Bulge were buried at Hamm, in Luxembourg, and at Foy, near Bastogne. Other Americans were buried at Fosse (near Namur) and at Neuville en Condroz and Henri Chapelle (near Liége). Nearly 28,000 men, altogether, were laid to rest on Belgian soil.

The funeral ships are now bringing our dead home. Many of those who fell in Belgium will remain as a permanent link between two coun-

tries which, although distant and dissimilar, have found it necessary to make common cause in the never-ending fight for freedom.

Bastogne's "Nuts Day"

December 17 is known in Bastogne as "Nuts Day." On this day a young man interested in matrimony offers his girl a bag of nuts; if she accepts the nuts, they are betrothed and, according to custom, will marry within the next year. It is an old ritual but one which almost inevitably will become associated with the rejoinder of our troops to the German ultimatum.

Bastogne's historic siege aroused the admiration of the world, and many people are expected to visit the area when conditions permit. Americans who participated in the Battle of the Bulge will certainly want to go back; in fact, some have already returned to look up old friends and to tramp over ground wrested at such cost from the enemy.

Until recently souvenir hunters had no trouble picking up mementos of their visit. The woods and fields were sprinkled with reminders of the fierce encounters which raged all through this area. An American Graves Registration Service official whom I met at Foy laughed when I asked if there were any souvenirs lying around.

"There's a pile of German helmets behind the house," he said. "And if you want to go down in the woods you'll find plenty of cartridge cases, gas cans, and so on."

He was silent for a moment and then added:

"Oh, yes, there are also some German boots, but I think I should warn you that they still have feet in them!"

Years of Restoration Work Ahead

The Belgians, no mean souvenir hunters themselves, have collected an enormous amount of material from the battleground. Tanks and other vehicles were stripped of everything that could be carried off; helmets have been picked up by the hundreds; guns and knives are hoarded, and in house after house Madame brightens up the surroundings by a lavish use of well-polished shell cases.

And now, what about the future?

Belgium has taken a beating—make no mistake about that—and it will take years of hard work to repair the ravages of the last few years.

Belgium was occupied for 52 months. During this period loot removed from the country by the Germans amounted to between 6 and 8 billion dollars.

The wartime destruction of property, although less than that suffered by many countries, was nevertheless extremely heavy in relation to the size and population of Belgium.

It would not be surprising, in view of what they have been through, to find the Belgians imbued with an implacable hatred toward Germany. But that apparently is not the case. The reaction of the average Belgian is not so much hate as disgust, plus a profound disappointment in a neighbor who seems to be congenitally unable to keep the peace.

The contempt of the Belgians for Germany finds expression in many ways.

The proprietor of a restaurant in Antwerp has trained his dog not to touch food if anyone says "Hitler." Only when you say "Leopold" or "Churchill" will the dog eat.

Statues of the Manneken, that distinguished little man who adorns a fountain off the Grand' Place in Brussels, have been combined with the swastika to express with typical Belgian earthiness the attitude of the populace toward Nazism (Plate IV).

A Brussels girl with whom I talked said that her father, a baker, had been sent to Belsen. He was never heard from again.

"I hope he died quickly," said the girl.

Her brother, a slave worker in Germany, escaped and joined the British Army. His one idea was revenge, and when he was sent to Germany as part of the British Army of Occupation he could hardly wait to start pushing Nazis around. Alas for his oft-rehearsed schemes! He married a German girl.

That's the way it is with countries. Belgium has plenty of reason to hate the Germans, but she knows, deep in her soul, that she must learn to live with them. Brussels is less than 75 miles from the German border. Germany has products which Belgium needs, and Belgium has products which Germany needs. Finally, and perhaps most important of all, the great Port of Antwerp must depend for much of its livelihood on commerce which originates in Germany.

If the Germans can demonstrate their ability to live at peace, they need not worry about the Belgians.

Belgium is also anxious to co-operate with other nations in the maintenance of peace. She is jealous of her independence, but she knows that only through international collaboration can war be prevented. Belgium, accordingly, is a loyal member of the United Nations.

Belgium is on the route of invasion. For centuries she has been trampled by the armies of warring powers. She will do everything she can to see that war does not come again—to any country, anywhere.*

* For additional articles on Belgium, consult "National Geographic Magazine Cumulative Index, 1899–1947."

Stylized Sky, Sea, and Smile Ornament Brussels' Chinese Pavilion

Near Royal Park, this Oriental structure houses a splendid collection of Far Eastern art.

Crucifix and Flowers First; the Hair-do Can Wait

On St. Laurent's Day, workers' homes are decorated (Plate VIII). Sand and confetti camouflage the cobbles. The pageantry of bright banners and gay-robed children dominates this modest quarter.

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Kodachrome by Maynard Owen Williams

Above Herbert Hoover Place, Louvain's University Library Raises Its Bandaged Head

A Canadian War Vehicle Helps Reap a Peacetime Harvest Where Napoleon Met His Waterloo

In the distance rises the 28-ton Belgian lion, cast by John Cockerill of Liège from captured French cannon.

Kodachromes by Maynard Owen Williams

Hands Help Legs Lift Visitors Up Waterloo's Artificial Memorial Mound

From His High Pedestal in the Friday Market, the "Brewer of Ghent" Exhorts His Followers to Ally Themselves with England

In this rallying place the Counts of Flanders promised to respect the rights of the liberty-loving citizens.

Jacques van Artevelde, to make sure of having English wool, backed England, while the aristocracy of Ghent (Gent) supported France.

When he tried to have an English prince made a Count of Flanders, the tide turned, and a political enemy killed him in his own house.

In bilingual Belgium, Jacques' name appears as "Jacob" on the monument.

Gothic Guild Houses Look Down on an Outgrown Waterway Through Ghent

When Antwerp (Antwerpen) was attacked by flying bombs, the Port of Ghent did heroic service for the Allied cause.

Throughout April, 1945, Ghent discharged daily 962 tons of precious war supplies for each ship—"the highest output per ship ever attained in the European Theater of Operations, including the ports of Britain, the Mediterranean, of France, and of Belgium."

Now the new port is being improved, but barges still float through the heart of the town.

At the right is the Quai aux Herbes, lined by fine old houses, among them the House of the Skippers and that of the Grain Measurers, of this mid-city port where the Lys joins the Schelde.

Reproduction by Maynard Owen Williams

© National Geographic Society — Kodachromes by Maynard Owen Williams

Belgian Dogs Serve as Auxiliary Motors and Guard Bread and Milk

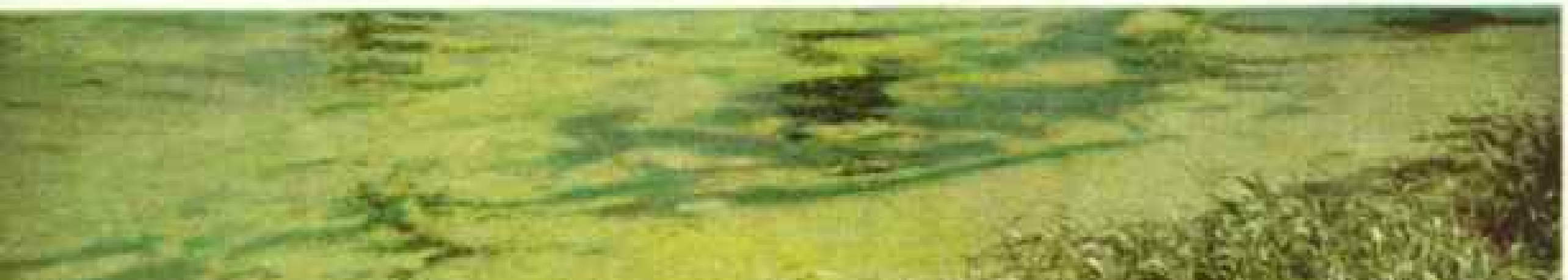
Such sturdy dogs seem to enjoy their toil. Friendly enough, they become fierce and noisy if anyone touches the goods they watch. When their master or mistress returns, they are eager to share in the hard toil for which Belgian farmers and industrial workers have long been known. Trotting under yokes, the two baker's dogs are pushers not tractors, comrades rather than mere beasts of burden.

Fine Feathers from Far Peru Are Worn by the Orange-tossing *Gilles* of Binche

When Philip II of Spain visited his Aunt Mary in Binche, the townsfolk decked themselves out in Inca finery from newly discovered Peru. Now these carnival dancers, with Binche lace at their ankles and Spanish lions rampant over their well-stuffed costumes, jingle their way through many a street carnival. *Gilles* is the term for these high-hatted, bell-belted, loud-clogged joy makers.

Belgian Scout Cubs Turn Their Backs on Ice Cream to Look at a Canal

In much of milk-starved Europe, a well-filled ice-cream cart would be the center of attraction.



Kodachrome by Maynard Owen Williams

A Young Scout, Riding an Air Mattress, Crosses a Historic Waterway

Along this algae-green canal, the commerce of the seven seas once came to Bruges. Now a Scout leader uses it as a training spot for his Cubs.

By Cotswold Lanes to Wold's End

By Melville Bell Grosvenor

With Illustrations from Photographs by the Author

"How pleased I am that you are coming to England—and to the Cotswolds! Come and stay with us in our little cottage in this unspoiled village of Leafield, Oxfordshire."

These hospitable words from my old friend Alan Villiers, of grain ship, square-rigger fame, greeted me on my arrival in England.

"You will live in a real Cotswold cottage (a bit tough, but not too bad), and you will sample the English country life of today. We have a nice vegetable garden, a warm attic room, a couple of reasonably house-trained children, and a good welcome for you."

Ask any British naval or colonial officer long in the Far East or Africa what he would like to do most when he retires. Likely he will say, "Give me a cottage in the Cotswolds, with a little garden, a dog, and a pipe."

This tiny region straddling the Cotswold hills west of Oxford is a country all its own (map, page 633). To an Englishman it typifies old England. Little cottages with flaked-stone roofs (page 618) merge into the wolds, or hills, as if they had grown there. Each has its rose garden with ramblers climbing the walls and perhaps blue delphinium, petunias, phlox, and lilies nodding in the breeze.

Even the quaint names of Cotswold rivers and towns caught my fancy. Think of living beside the Evenlode or the Windrush, purling streams lazing beneath great oaks and winding through lush meadows, or calling your home town Chipping Campden, Snowshill, Birdlip, or Lower Swell!

In London I acquired a brand-new 10 hp. Prefect through cooperation of the Ford Motor Company. It was "pocket-size," only 12½ feet long, yet ideally suited to the narrow lanes of the Cotswolds.

All the way to Oxford we drove through beautiful English country gently rolling with pastures and sylvan glades. Set back from the road on hills, fine manor houses like castles peeped through the trees.

Rounding a wooded bend, we slowed for a young couple in shorts, both riding bicycles. Father towed a tiny cycle trailer. Junior fast asleep inside. Mother carried baby's gear on her back. They were a most attractive family.

Bicycles—swarms of them—were everywhere, for it was a beautiful, warm, sunny day, and "trippers" were taking advantage of the weather.

But, as always in England, a shower was just around the corner. When it came, like a flash, the cyclists donned rain clothes. They stuck heads through slits in ponchos and stretched the tentlike coverings across the handle bars. Then they kept on pedaling!

We saw hundreds of such touring groups everywhere in the British Isles. Many rode tandems for two—and even three. The "bicycle built for two" is no Gay Nineties' prop in England today.

Bells Sing Welcome to Cotswolds

Leaving Witney, noted for its Early blankets (Plate VIII), we took to a narrow stone-walled lane. From a hill I spotted the tall thin steeple which Alan Villiers wrote was the guidepost to Leafield. But he had not mentioned the bell music that came floating across the meadows.

As we approached, the din grew. In Leafield green, directly below the church, it was earsplitting.

"Ding, dang, dong, bom, welcome to the Cotswolds," the bells sang over and over.

Entranced, I stopped the car and listened. Townsfolk were gathered beneath the arched gate of the churchyard. All were enraptured by the tintinnabulation.

When I asked a small boy where Mr. Villiers lived, he replied, "The sailor fellow from Australia?* Just demobbed? He lives down there, third cottage on the right."

Slowly I drove down the lane, its stone walls topped with red ramblers. There, in his garden, I saw my salty friend, Alan, with his two youngsters laughing a greeting.

"Welcome aboard," he beamed in his nautical way. "And watch the overheads when you enter—Cotswold doors were designed for dwarfs!"

Inside, Nancie, Alan's charming Australian wife, was waiting for me. For ten days she served as my hostess and, when Alan spelled her at the chores, acted as guide while I explored the Cotswolds.

"You're just in time for some Australian meat pie and black currant pudding," she greeted us. "Put your things down; it's ready."

* See, by Alan Villiers, in the National Geographic Magazine: "Cape Horn Grain-Ship Race," January, 1933; "North About," February, 1937; "Rounding the Horn in a Windjammer," February, 1931; and "Last of the Cape Horners," in this issue.

Gloomy Austerity Ends when the Darts Game Begins in the Fleece, Bretforton

To English countryfolk the village "pub," or inn, is what the corner drugstore or club is to Americans. Here, about 6 o'clock in the evenings, farmers, laborers, the blacksmith, postman—practically everybody—gather for their pint of bitter (light beer) and a bit of gossip and dart playing. This stone-roofed inn, built as a farmhouse in the 14th century and little changed, has been in Miss Lola Taplin's family for over 300 years. Players smile because E. C. Halford has just opened the game with a "double nineteen" and a bull's-eye, 25 points, and still has a feathered dart to throw.

While we ate, Nancie told me how she met and married Alan in Scotland while she was a section officer in the WAAF. When Alan took his LCI flotilla to the Mediterranean and Far East, she bought the Leafield cottage and there began raising her little brood.

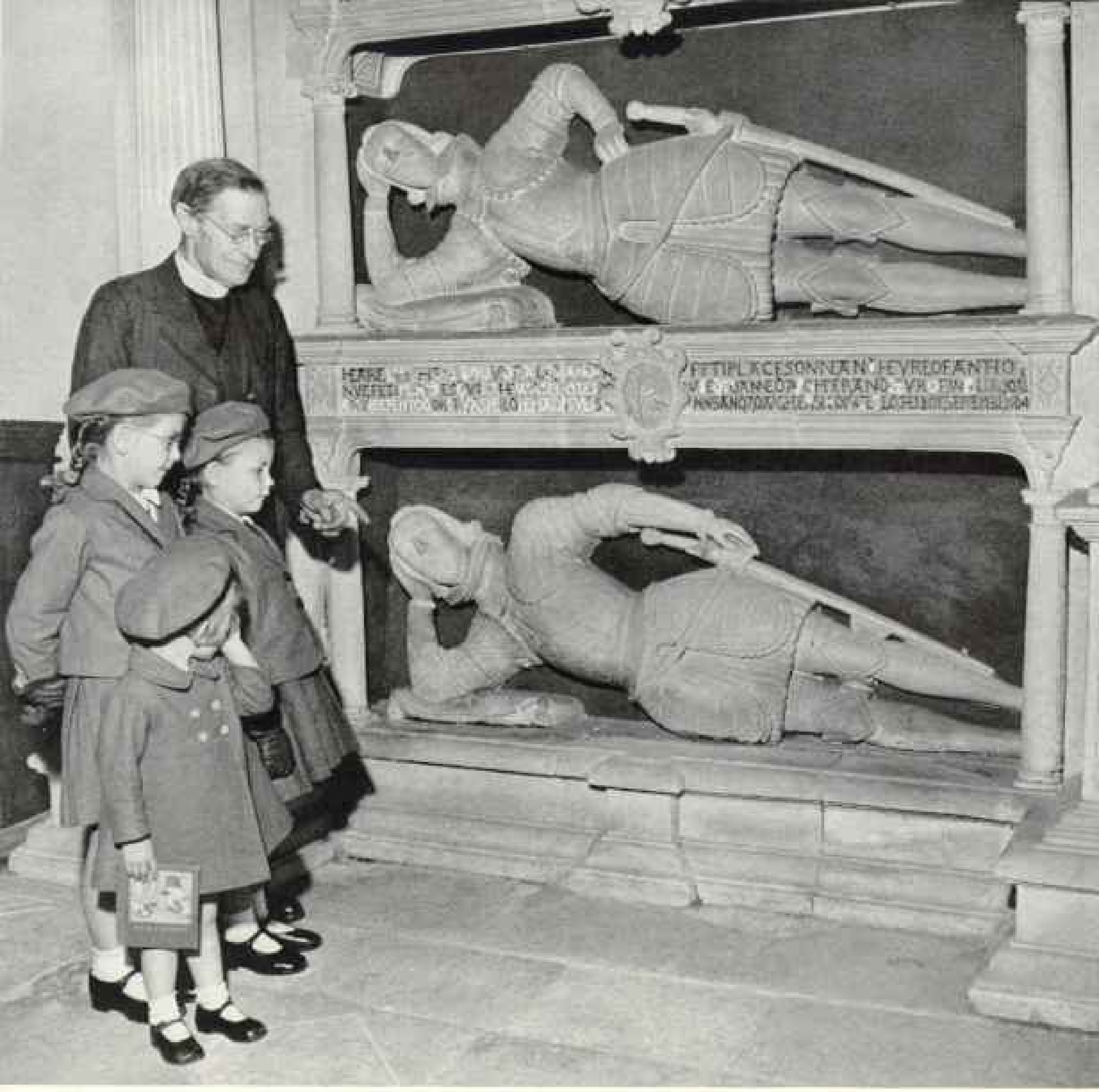
"That first winter was a tough one, but the villagers were wonderful and helped me in every way," said Nancie.

Over coffee we could still hear faintly the pealing and clanging of the bells. "Don't they ever grow tired?" I asked.

"No; this is practice night. Teams of bell ringers are rehearsing for next Sunday. They will ring 720 changes. It will take a half hour. Alan, show him up to the belfry, so he can see the men in action."

It was dark in the lane and we had to feel our way. Only one electric light shone in the village green, but the bells kept us company.

"The brownout has even reached Leafield," Alan said. "All over Britain, lights, even street lamps, are cut to a minimum to save coal."



For Nearly 400 Years, Fettiplaces Have Lain Here Stiffly, in Their Armor

Not even the marble elbow pads have eased their long vigil! This powerful family ruled the Swinbrook area of the Cotswolds for 315 years, left funds to its church for quaint charities that are still in force today (pages 620, 621). The town's name goes back to William the Conqueror's day; it is mentioned in his Domesday Book. Originally it was called Swine Brook because pigs watered there, in the Windrush.

As we fumbled around the tower, looking for the door, the bells beat upon our ears. "Tin, tan, din, bom," they sounded over and over. The reverberations stirred me deeply. Perhaps that's why bells are rung; they draw people like a magnet.

Up endless stairs we climbed to a room dimly lit by lamplight. Six men and boys in a circle were pulling and letting go red, white, and blue ropes. Not a head turned as we entered; each kept eyes glued to neighbor's rope. Above, we could hear the bells sounding.

From the group of onlookers a grizzled man came forward, and Alan introduced him as Mr. Arthur Lynes, foreman of the tower.

"Welcome to our belfry! Are you a ringer?" Mr. Lynes asked.

"No, I can't ring a bell," I replied.

"Sorry; good ringers are scarce. We're always looking for a new man to lay hand to a rope."

For a while we stood and watched the solemn-faced ringers pulling and letting go their ropes and sallies (grips).

No one spoke or even smiled. Finally the course, or tune, completed, everyone began talking, congratulating the experts, joshing those who made mistakes.

© Evening Standard

Not until a Chipped-stone Roof Ages 200 Years May a Slater Be Needed

Here, at Filkins, a Cotswold roof man skillfully hangs a flake, or stone tile, to a lath with an oak peg. Old-time slaters can do anything with these slats, curving them around roof valleys and chimneys to make a leak-proof joint without aid of lead (page 635). Largest stones are hung above the eaves, smaller ones near the ridge.

Mr. Lynes explained change ringing, or the hand pulling of bells to sound them, in contrast to electrical ringing, or the use of a keyboard.

"Change ringing originally was peculiar to the English," Mr. Lynes said. "Belgians play tunes on their carillons by striking a hammer against the bell's rim.* But in change ringing the whole bell is swung in an almost complete circle, the clapper striking near the end of the stroke. This swinging of the bell as she —a bell is always a lady—is struck mellows the tone, but makes it stronger, more piercing. Come up to the bell chamber and I will have the big tenor rung for you."

Up a steep ladder we climbed and through a trap door into the cavernous steeple. Six monster bells in a cluster hung from big wheels; ropes led from each through the floor to the ringers' chamber below.

As I watched, the big tenor slowly swung upright, her bronze mouth yawning. I could clearly see the inscription on her side: "Presented to Leafield Church by H. M. Queen Victoria, 1874."

"She is set at the backstroke," Mr. Lynes said in my ear. "Hang on now and I'll give the signal for a handstroke."

"And let me warn you, the sound of the bells terrifies some," Alan put in. "If you were locked up here during a prolonged peal, the concussion might drive you mad.

"In Dorothy Sayers' novel, *The Nine Tailors*, one of the big bells was the murderer. The victim had been tied in the belfry. Old Batty Thomas drove him mad and finally killed him with her bonging."

Suddenly the giant bell rolled over and bellowed a vibrant "Bom." The whole tower jarred. My hands and arms vibrated. Again the bell swung, in reverse this time, the backstroke. Again came the deep "Bom," like a 16-inch gun firing.

* See "Singing Towers of Holland and Belgium," by William Gorham Rice, NATIONAL GEOGRAPHIC MAGAZINE, March, 1925.

Back in the ringers' chamber another group, including a girl, were set to play "Plain Bob Doubles." This is a simple course usually practiced by beginners.

Change ringing takes months of study before a novice may touch a rope. First he must learn to control his bell, then to sound rounds, or ring the natural chord of the bells, beginning with the smallest, or "treble." Next he advances to simple courses where the order of ringing is changed each time until all possible combinations, or mathematical permutations, are exhausted. For Leafield's six bells, 720 changes can be rung without repetition.

English bell ringing is more mathematical than musical. Notes come tumbling out in steady succession without regard for harmony or melody.

"Bells up and ready for ringing. Stand to your ropes," called the foreman. A youngster, not 14 years old, gave a pull on his sally and then let go. High overhead his bell rang true and clear (page 620).

"Look now, treble is gone," the conductor called. The other five ringers started pulling their ropes in sequence to "sound the rounds."

The bell music continued long after we returned to the cottage. Three hours they played that night. "As long as anyone will pull a rope," Alan commented. "And it's heavy work, too."

"Our house was once a duplex—two families lived under the same roof," Nancie said. "The previous owner cut doors through, making one roomy cottage. Neighbors tell me seventeen lived here a generation ago. Now our family of four occupies it. Many Leafield people moved to the cities to work."

The 300-year-old house, like most English homes, has no central heating with radiators. A tiny wood and soft-coal stove in the kitchen, another in the living-room fireplace—and two-foot stone walls for insulation—keep the home warm and comfortable.

Unlike the true Cotswold cottage, which has no plumbing, the Villiers home boasts a comfortable bathroom on the second floor.

During the evening talk turned to America. Nancie said she had never tasted a mint julep; she had seen pictures of them in magazines.

I offered to make one with a little bourbon I had brought from home. "Let me pick a few sprigs of that fragrant mint in your garden and give me a little sugar and some ice."

"That is nice of you," my hostess said. "But ice? We have no ice here."

"Let's go up the lane and borrow some."

Nancie laughed. "You're in an English village. You won't find ice cubes here. Not a single cottage has a refrigerator."

I was astounded by her answers.

"Ice is so scarce many villagers would not know how to use it," she said.

"How do you keep your meats, milk, and butter?" I asked.

"In a cupboard set in the stone wall."

She opened the door of her "Cotswold icebox," a niche beside the leaded window. The butter was firm and the milk cool. Temperature is seldom high enough to spoil perishables.

The air is always cool in "windswept Leafield," as villagers call their town. Perhaps that's why refrigerators are not necessary. Hot summer weather, such as is known in parts of the United States, is extremely rare and lasts only for a day or so. During the whole time I was in the Cotswolds I found English tweeds and woolen socks a real need.

Nancie turned Alan and me out in her raspberry and black currant patch. Sitting on the stone wall, we lazily picked the luscious berries she turns into jams and puddings.

That night the rain pattered on the stone roof and the wind whistled. But in the morning the sun streamed in my dormer. Roses in the gardens and the green shutters of the cottages across the way sparkled in the sun.

"What a fine day for color photography," I commented to Alan at breakfast. "Not a cloud in the sky."

A growl from the sea captain. "It always rains in the Cotswolds after a sunny morning. By 10 o'clock it will be cloudy, and rainy in the afternoon." And how right he was!

"Life in a Cotswold village revolves around its church. You must explore one thoroughly; then you will be familiar with them all," my host said.

After a supper of delicious "wet hash"—lamb stew, tomatoes, potatoes, and a bit of ham—the weather cleared and we set out for Swinbrook. With double daylight-saving time, the sun was still quite high.

Down stone-walled lanes we drove, with the sun gilding the cows and Shires grazing in the meadows. Blood-red poppies carpeted the hillsides as in Flanders fields; rose-bay willow purpled the roadside for miles.

Overlooking Swinbrook, sprawled along the Windrush, perched St. Mary's Church. Some of its original stones and pillars were raised in Norman times.

Off the beaten path, this little church was full of surprises. Tacked on the doorway was this welcoming notice penned by the vicar:

Here no sexton with his keys
Greedily looks for fees.
Visitors may stop at leisure
And may photograph at pleasure.
Here is dole material bread
(Giv'n by worthies long since dead).

Bodies Tense, Faces Solemn, Bell Ringers Pull Their Ropes in Leafield Belfry

The boy has just let go the "handstroke," and his colored sally (grip) flies to the ceiling. His bell, the "treble," in the tower overhead, is swinging violently down, wrapping the rope around "her" wheel. If he did not release the sally in time, the pull of the bell might yank him to the ceiling. Man at left is set to "pull off" his bell, cocked upward ready for ringing. Like a hawk he watches the boy's rope and at the right instant pulls his sally, causing the bell to swing down and her clapper to strike a resounding "Bom." Timing is of utmost importance for good ringing. To ringers, a bell is always a lady (pages 617-9).

Browsing through the church, we were startled by knights in armor, white and stiff, lying on shelves beside the chancel. Each looked as if he had just lain down on his side, with his armor keeping his body straight as a board (page 617).

These were the Fettiplaces, the famous family who owned and ruled the Swinbrook area for 315 years. So powerful were they and their neighbors that villagers roundabout still quote this old rhyme:

> The Traceys, the Lacys, and the Fettiplaces
> Own all the manors, the parks, and the chases.

Around the corner Nancie found a small window with bits of stained glass showing strange-looking figures in brown and gold. An inscription told how a German land mine with parachute dropped between the church and the Windrush on the evening of September 26, 1940.

The explosion shattered windows, displaced roof tiles, but no one was hurt. The vicar carefully collected the broken glass and had it reset.

It was sad to think that the Battle of Britain had touched even this idyllic spot so far removed from the 20th century.

On a wall we saw "A Table of Benefactions" listing many Fettiplace charities.

"In 1743 Sir George Fettiplace gave £2:10s [now $10] A year to repair the Family Monuments in Swinbrook Church, and £3 [$12] A year to A Clergyman for preaching four Sermons in every year in commemoration of himself and his Sister."

In addition, he "gave £13 [$52] A year to be distributed in ten sixpenny Loaves every Sunday among the poor, who must be present at divine Service to receive it."

Could these 200-year-old charities still exist, we wondered. Sure enough, on the vicar's desk we found a stale sixpenny loaf!

Minster Lovell's Skeleton in the Closet

Next Sunday we returned and saw an elder hand out sixpenny loaves of bread to the needy. But there was this modern touch: Each parishioner had to put a "BU" (bread unit) in a cup to get his free Fettiplace loaf! Austerity had found its way even to Swinbrook (opposite page).

From Swinbrook we drove through meadows

along the winding Windrush to see Minster Lovell. Nothing is left of the castle but walls and turrets with stairs leading nowhere. Stories told about the old ruin clothe it with mystery that attracts thousands.

Novels have been written about Minster Lovell, the most famous being *The Blanket of the Dark*, by the late John Buchan (Lord Tweedsmuir, formerly Governor General of Canada). The book tells of the adventures of Peter Pentecust, who fought against King Henry VII at the Battle of Stoke in 1487, and, escaping, hid out in the Minster Lovell dovecote.

But the story that draws most visitors to this castle shell is the mysterious disappearance of Francis, thirteenth Lord Lovell, who also fought and lost at Stoke. Escaping, he dove his horse into the Trent and was never seen again.

Many legends grew up about his disappearance, but one held through the years. Lovell was rescued from drowning and hidden in a secret room in his castle by a trusted servant. But this retainer died with the secret, and Lord Lovell was entombed alive.

When repairs were made in 1708, workmen broke into a hidden chamber. Seated at a writing table was a man's skeleton with a dog at his feet. Though it was never identified, many felt that the relic was the great Lord Lovell, who had "starved like a rat."

Next day I took Alan to the station in lovely Ascot under Wychwood. From the brow of a hill overlooking the Evenlode we saw the London train puffing down the valley. I became alarmed that he might miss it.

"Don't worry! Plenty of time. They will hold the train if they see anybody coming," Alan said.

To Keep His Free Loaf, He Must Turn in a Bread Unit

Back in 1743, Sir George Fettiplace left £13 ($52) a year to buy ten sixpenny (10-cent) loaves of bread each Sunday for the needy of Swinbrook's church. But he willed the parishioners "must be present at divine Service to receive it." To this day loaves are handed out, but rationing demands "BU's" in return.

Just before the train pulled out, a girl rushed up on her bike. "Better run, Anne! I will park your bicycle for you," the stationmaster called calmly. She did and he did—an example of Cotswold courtesy.

Driving on, I called upon the author, Mrs. Muriel Groves, in Shipton under Wychwood. Nobody knows the southern Cotswolds better than she. I was pleased that she could accompany me on several motor trips.

"I have lived in Wychwood Forest for 300 years at least!" Mrs. Groves greeted me. "Many of my family, the Hambidges, are buried just outside Swinbrook Church."

In the old days the Wychwood was a large royal hunting preserve. Its trees covered the hills between the Evenlode and the Windrush.

Shipton and Ascot nestled beneath those forested heights. Thus they won their name "under Wychwood."

In the Victorian era Wychwood trees were cut and its lands plowed, until now only a small copse is left.

William the Conqueror loved Wychwood; "Sciptone" is even mentioned in his Domesday Book. King John, local historians claim, built the hunting lodge at Langley, near Shipton. Henry VII stayed there with Queen Elizabeth of York; their initials, H E, can still be seen carved in a bay window of the palace, now a farmhouse. Henry VIII, while hunting here, was presented with a fine greyhound by Anne Boleyn in 1532.

Poaching, Answer to the Meat Shortage

"Shipton old-timers love to tell stories of poaching days in the ancient forest," Mrs. Groves said. "Everyone above 12 was required to respect His Majesty's wild beasts—the hart, the hind, the hare, the boar, and the wolf. Yet all hunted on the royal preserve; fresh meat was scarce. Many a Shipton villager had more venison in a week than a Londoner in a year."

The poachers strung nets between trees and then drove the deer down the "ride" into the nets. Others used trained lurcher dogs to pull down the deer or drive them to the nets.

Cunning places were picked for hiding venison—a hayrick hollowed out, false bottoms in carts, even an empty tomb in the Burford churchyard.

Forest keepers often searched the villages for cooked venison, even looking into "Cotswold iceboxes." On one raid a housewife picked a venison pie off the table and shoved it under baby in the high chair. Keeper left, none the wiser.

Returning home to Leafield, I circled through Charlbury to view the shrunken Wychwood. Beneath great trees I "saw" shadowy poachers stalking deer through the ferns and purple rose-bay that carpeted the glades.

Food is strictly rationed in Britain, so that rich and poor receive the same. Yet country people fare better than city folk. In Leafield everyone has a little garden in which he tries to keep something green the year around.

Old Harry Wiggins was setting out Brussels sprouts when we called on him in mid-July. "Oi loikes Brussels sprouts. They be proper hardy ones, they be," he said.

The plants grow all winter; he picks buds even in the snow. Savoy cabbage, leeks, and broccoli sown in the summer also survive frost and ice and they are "fit to pick in spring if I lev 'em bide (leave them alone)."

Grain for cattle and poultry is strictly rationed. Farmers must turn in all their milk and eggs to Government-approved collectors, keeping only the ration allotment, one egg a week per person.

While I was in Leafield an inspector called on a housewife and asked to see her chickens. He checked the egg production against the number of hens. If she had sold eggs in the black market, her poultry feed would have been cut off and she could have been prosecuted. Fortunately, her egg production checked with the records.

One evening a neighbor told us of her pig club. She and several friends were fattening a hog with their kitchen and garden refuse. Thus they need not buy much feed. But the pig has to be accounted for. When it is killed, a year's bacon coupons must be turned in.

"We took the pig indoors yesterday," she said. For a moment we imagined "porky" running around inside her home!

Then she asked, "Would you like a bit of bacon?"

While I was sending a cablegram home from the post office one day, the young "postie" said: "America is a fine country. When I was with the RAF I hitchhiked from Boston to the West. Even got to the Dakotas—grand country, that! And be sure to see Chastleton Great House."

House Dates to 11 Years Before Plymouth

So, with Mrs. Groves as guide, Nancie and I wound through the narrow green canyons that are Cotswold lanes to Chastleton. The huge manor of yellowish stone and chipped stone roof was built eleven years before the Pilgrim Fathers landed at Plymouth! Yet it is just the same today and is still owned by the Jones family.

We wandered through the spacious rooms, with huge fireplaces, paneled walls, and furniture from the time of William and Mary and earlier.

On a wall we saw the marriage settlement of 1609 between Henry Jones and Anne Fettiplace. Sir Edmund Fettiplace, the same whose tomb and epitaph we admired in Swinbrook's church (pages 617, 620), agreed to pay a dowry of £1,000 to Father Jones *after* the marriage.

The matchmakers evidently knew child psychology—the agreement was made without the knowledge of the youngsters. So the wedding took place and they lived happily at Chastleton, having 13 children!

Pointing to a portrait of a young lady, our

Kodachrome by Melville Bell Grosvenor

Round and Round, Leafield Children Skip During Recess in Their Cotswold Schoolyard

Where Kings Hunted in Bygone Days, Minster Lovell Children Play "Drop the Handkerchief" in a Court Overlooking the Windrush

Beyond stone walls, cattle and sheep graze in meadows carved from ancient Wychwood Forest.

Rationing Is Tough for Parents but Not for Children

These tots have just finished a hot lunch provided by Minster Lovell school.

Kodachrome by Melville Bell Grosvenor

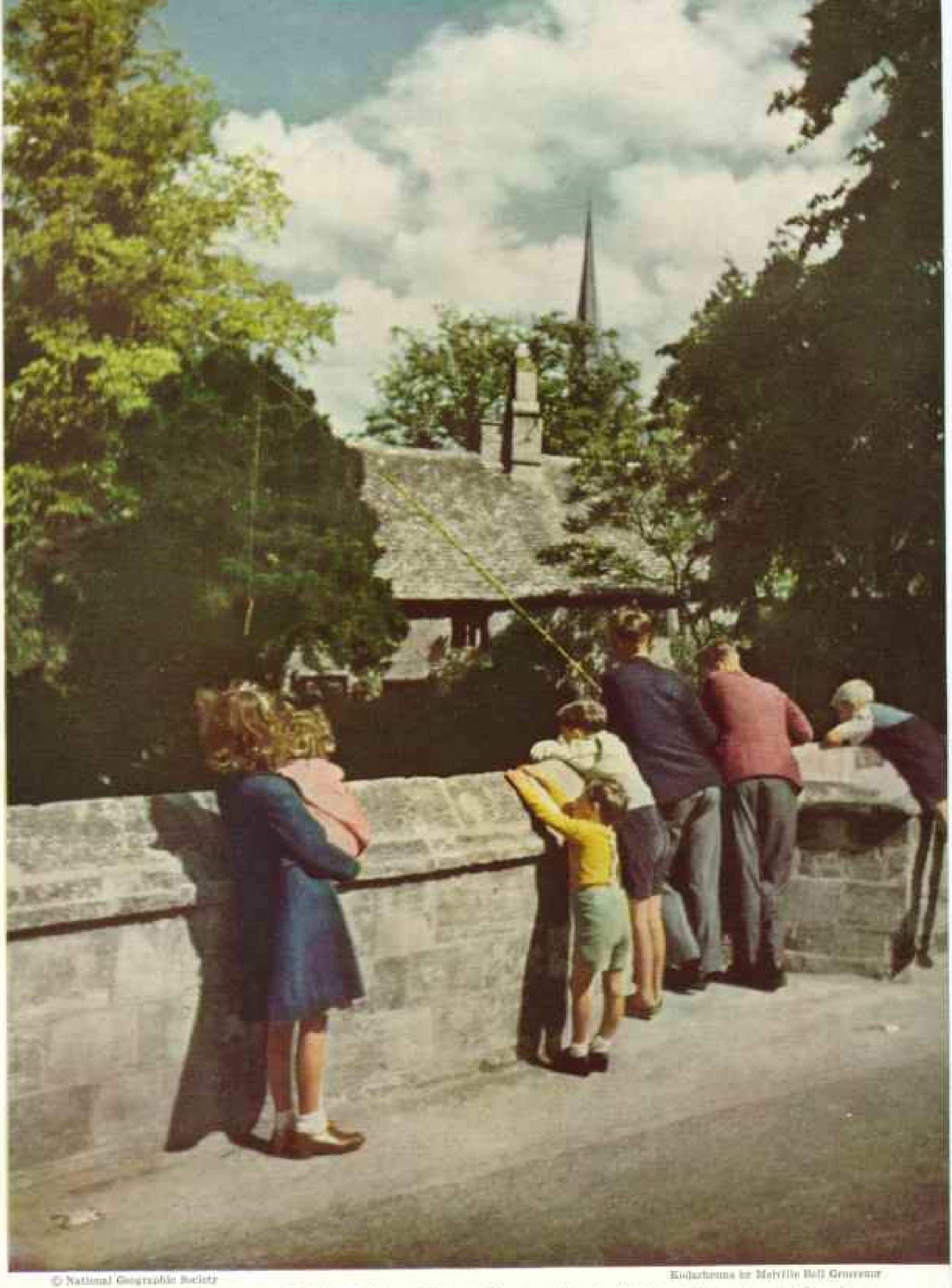
Mothers Find It Harder to Clothe Youngsters than to Feed Them

Most families pool meager coupons and give rapidly growing children priority.

Kodachrome by Melville Bell Grosvenor

No Cars, No Petrol, Austerity Rations—Yet Britishers Have Fun on Their Holidays

Here, above Burford bridge, a fisherman reels in to watch canoeists paddle up the storied Windrush. Tiny hamlets, home of friendly folk, straddle the banks of this Cotswold river, "that winds through the rushes." Many kings, including unlucky Charles I, galloped across on hunting forays.



© National Geographic Society Kodachrome by Melville Bell Grosvenor

Anglers Avoid Buses in Bridge Niches Where Burford Folk Dodged Thundering Coaches

On this narrow span across the Windrush the great Queen Elizabeth was greeted by Burford aldermen and given a purse of gold. Slender steeple of the parish church pierces the sky above the old Wysdom House, where a man sold his wife for £25 and was paid 15 to take her back!

Sun Peeping Through Blue Rifts in the Clouds Spotlights the Golden Cottages of Great Tew, One of England's Loveliest Villages

On the eastern edge of the Cotswolds nestles this straggling line of thatched cottages of yellowish oölite, or limestone. Wire netting tacked under eaves bars rodents.

Kodachrome by Melville Bell Grosvenor

From a Five-barred Gate near Burford, Cotswold Children Look Over Smiling Windrush Valley, Some of Oxford's Richest Farmland

Britain is intensively cultivated to grow as much food as possible. On such uplands, once a vast sheep pasture, crops may be a month later than in the lowlands.

Blanketmakers Bowl on the Green in the Garden of Their Witney Sports Club

Kodachromes by Melville Bell Grosvenor

Witney Blends and Weaves Wool from Many Nations to Make Fleecy Point Blankets

Handed down from father to son for eight generations, the mills of Charles Early and Co. first began weaving blankets in the days of King Charles II. Striped duffle blankets, here rolling off a nap-raiser, were the earliest type sent to North America because they "best please the Indians of Virginia and New England, with whom the Merchants truck them for Bever and other Furs." From the marks, called "points," on the edge above the man's arm, Indians could quickly tell the size and value of the blanket. One like this cost four skins at trade.

guide said: "That's Anne Fettiplace in her bridal gown. We took the picture down recently for cleaning. The bride had red nails —there's nothing new under the sun!"

Secret rooms always fascinate me, so I was thrilled when we walked through a sliding panel into a tiny hidden chamber. The guide was not long unfolding its story.

After the Battle of Worcester in 1651, a member of the family fled here and took refuge in this room. Hard on his heels Cromwell's men clattered up to Chastleton and, seeing a steaming horse in the barn, demanded that Mrs. Jones produce the fugitive. They thought him King Charles II himself.

To prove no one there, Mrs. Jones showed them through the house. Not satisfied, they stayed the night and chose above all places the room with the secret panel. Fearing her husband might betray himself by making a noise, Mrs. Jones tried to inveigle the men down to the banquet hall, but they demanded service in that room.

Mrs. Jones sent food up, all right, but she put laudanum in the wine. Soon the men were fast asleep, sprawled on the floor.

"Can't you see little Mrs. Jones stepping gingerly over those snoring soldiers and releasing her husband, who escaped and was never caught?" Mrs. Groves asked.

"Stow on the Wold, where the winds blow cold!" said our lady guide, as we approached a castlelike town crowning a hill. "Roads radiate from it like spokes from a wheel."

Old Stow encloses a hollow square, the market place where cattle were corralled for safety in olden days. Narrow streets led my little Prefect into the court like a gateway. We admired the yellowish houses, the church, and the stocks where prisoners were exposed to public scorn (Plate XIII).

Our road to Upper and Lower Swell was overhung with big trees. It was easy to believe the local saying, "The squirrel can hop from Swell to Stow, without resting his foot or wetting his toe."

To an American the two little hamlets are well named: "swell" is the view as well as the name.

My chief recollection of Lower Swell, besides its church and trim yellow cottages with doorstep gardens, was the sweet scent in the air (Plate XIX). Creamy blossoms carpeted the meads beside the Dikler. With reason the herb is called meadowsweet.

Lower Slaughter is a quiet little village hardly as bloody as its name implies. A tiny brook wends down its one street. Every book I read spoke of the white ducks that sport in its millstream. Sure enough, Pekin ducks were tipping and rippling reflections of rose gardens and cottages (Plate XIX).

A Venice in the Cotswolds

Coming to Bourton on the Water, I was surprised by a miniature Venice. Through the village green the Windrush flows beneath arched bridges. But there is this contrast with the Italian city: Bourton's water is clean and clear, rippling in its shallow bed.

Picturesque as Bourton is, it hardly seems a Cotswold town, because its houses are red brick and its roofs blue slate. The railroad has brought modernity here.

In the vegetable garden of the New Inn, the proprietor has built a miniature Bourton on the Water. So realistic is his toy village that photographs of it are mistaken for aerial views of the town itself.

Every tiny house is built to scale. Even small saplings reproduce live trees, and a Windrush winds through the village. Street lights glimmer, and an organ plays hymns in the church.

Through a periscope visitors get a "villager's view." All is well till a live giant in seven-league boots stalks across the scene!

Near Bourton we turned into a service station, typically Cotswold. Set in a flower border were toy cottages, stone walls, and mushroom-shaped stones, once used to dry grain. Townspeople sat on the stones to watch the servicing of our car.

"Put in 3½ gallons of petrol and check the oil," I said to the smiling attendant, who was dressed in a neat smock.

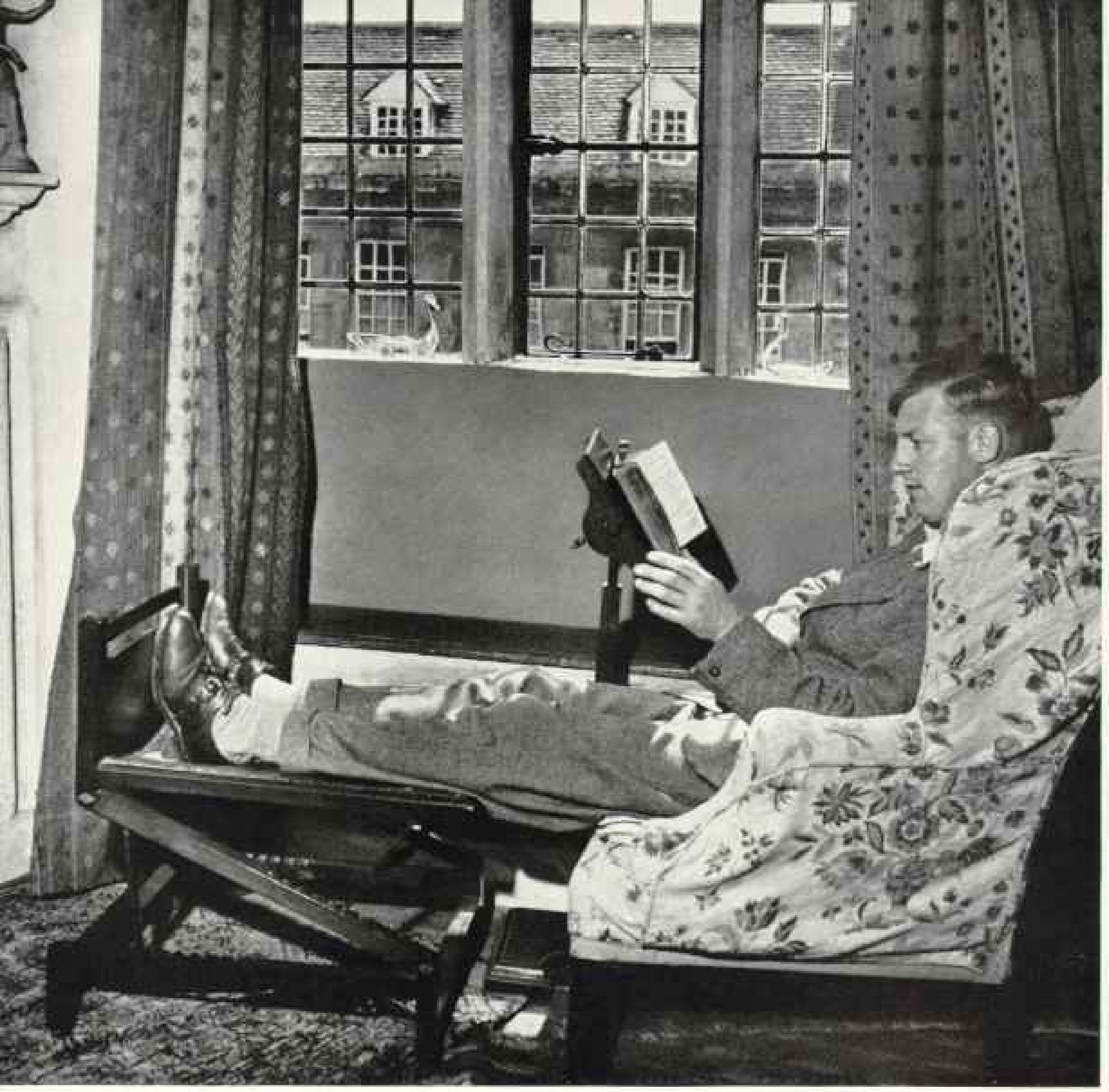
"Let's see—Maryland or Pennsylvania?" he asked, with a twinkle in his eye.

"District of Columbia," I replied.

"I knew it was close—could tell by your accent. I lived in Washington for 2½ years during the war when I was in the RAF with the British Air Purchasing Commission. Spent my holidays in the Poconos and Pennsylvania Dutch country. How's Georgetown and the Chevy Chase Club?"

Alan joined us on our trip to the west. Our first visit was to old Burford, a prosperous town in the days of the coaches. Travelers moving north and south, east and west, stopped here overnight. Kings and queens of England who have slept in Burford sound like a Who's Who of royalty.

The railroad came and Burford went into a decline. But the motorist brought prosperity again. In summer one has to make reservations far ahead at the Bull, the Lamb (in Sheep Street), the Bay Tree, and at others whose history reflects Elizabethan days.



"Be Prepared" Is Commander Hart's Motto; He Keeps an Antique Gout Stool Handy!

Reclining in the 200-year-old Chippendale wing chair is his nephew, with feet propped up on the frame. It can be adjusted for height and angle and runs on leather rollers. On the walls of his old home on High Street in Chipping Campden this retired naval officer treasures pictures and flags of every British ship, from sail to steam, that he served in (pages 637, 638).

Burford's church is one of the finest in Oxfordshire. Its tower goes back to Norman times, and its history is as exciting as that of Burford itself (Plates IV, V, VII).

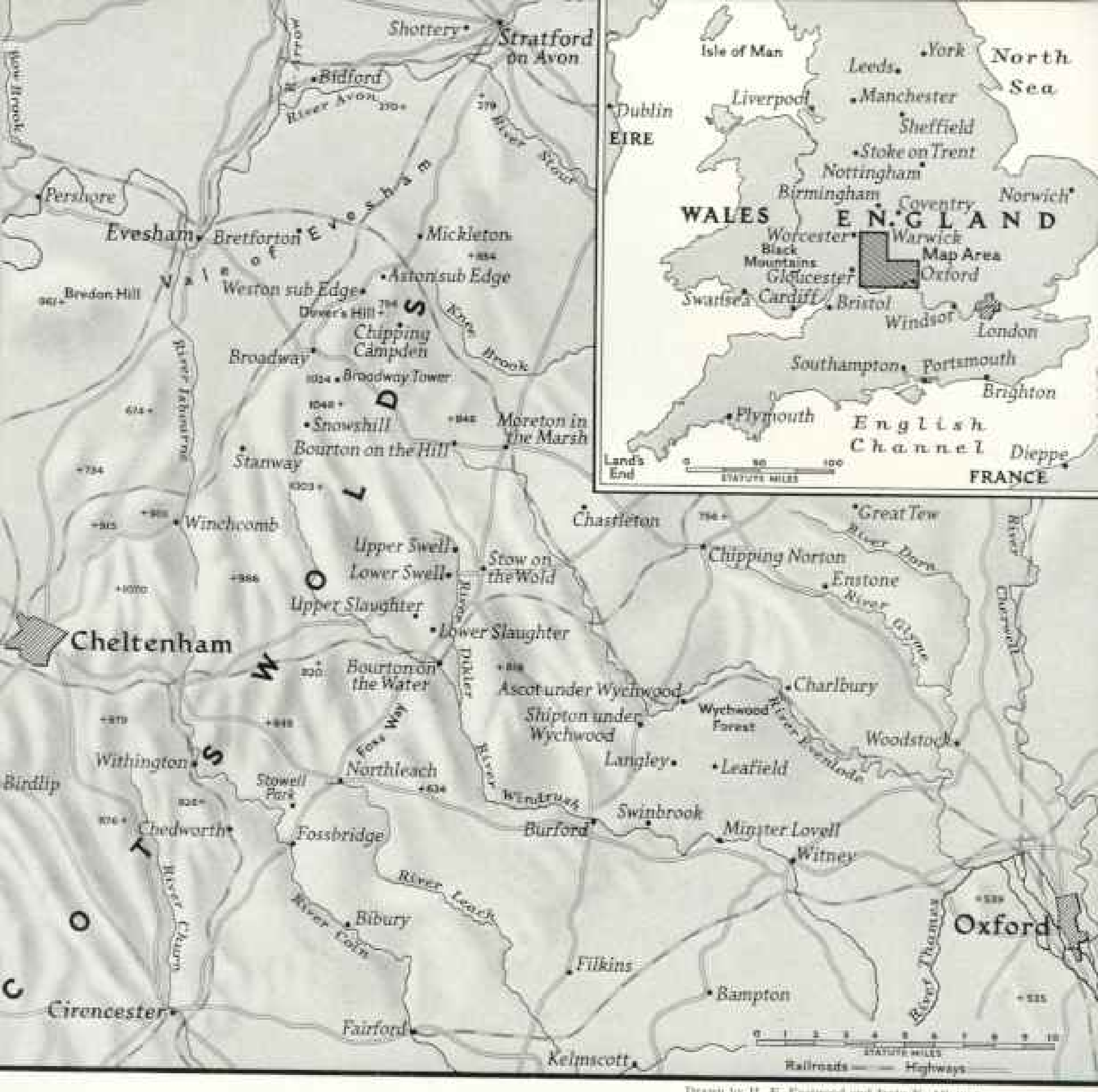
Cromwell's men put down a mutiny here and incarcerated the prisoners in the church. On the font we saw a crudely carved name, "Anthony Sedley Prisner 1649."

Roman Roads Are Main Highways Today

We joined the famous Roman road, Foss (Fosse) Way, now a modern highway, at Northleach. Straight and true, over hill and dale it strides. Romans built it that way so guards could keep an eye on long pack trains and gallop to the rescue in case of ambush by hostile Britons.

Not far from Northleach we digressed to see Chedworth's Roman villa, built A. D. 180 but "modernized" about 300-350. Its foundations outline a sumptuous villa enclosing three sides of a square. The caretaker brought the ruins to life with his descriptions of Roman days.

"Do you realize the Romans occupied Britain some 400 years? That's almost as long as the New World has been known," Mrs. Groves remarked. "We are coming now to



Drawn by H. E. Eastwood and Doris E. Alleman

The Cotswolds, a Bit of Old England, Tucked Away in the Hills above Oxford

Descend the steep western edge of the wolds, and you enter a different world. Yellow cottages with stone roofs give way quickly to houses of brick and slate; even the people are different. Off the beaten path, the Cotswolds remain much as they were three or four hundred years ago when thousands of sheep roamed the downs and wool made the people rich.

Cirencester. It was the Roman town of Corinium, second only to London in importance."

When a street is torn up or a cellar dug in Cirencester, Roman relics, coins, or foundations are often unearthed. Its Roman museum is one of the richest in Britain (Plate IX).

Bibury Trout Prefer Bread to Fly

Bibury lived up to its reputation as "one of the loveliest villages in England." We admired gray cottages reflected in the still waters of the River Coln and the five-centuries-old almshouses of Arlington Row, which draw sightseers from around the world (Plate XV and page 635).

From Bibury bridge we saw fat trout, so old and wise they never rise for fly or worm (Plate XIV). Crusts thrown to them by visitors are their favorite diet. Now, with bread rationed, they often go hungry.

I marked one big fellow on the bottom lazily sculling against the stream; he kept station perfectly. A passing bicyclist tossed in a cigarette butt. In a flash the "sleeping" trout snatched it, then angrily cast it forth.

Small boys fool the fish and their sportsmen elders. They bait hooks with crusts and catch

Before the Lygon Arms in Broadway, the North Cotswold Hunt Gathers for Its Opening Meet — Chase of the Fox Across the Downs

Gentlemen in pinks (scarlet coats) and boots and ladies in riding habits and bowler hats mount their horses, ready to follow the hounds, here awaiting the opening horn.

Lygon Arms has given shelter to travelers for more than 400 years. It was a famous coaching inn for the London-Worcester-North Wales road, which passed down Broadway's wide street, lined with buff-colored cottages. The main section of the inn, where workmen are repairing the roof, was built about 1530, but the front door bears the epic date in American history, 1620.

Many famous people have stayed at Lygon Arms, from Cromwell, who slept there traditionally before the Battle of Worcester, down to the present Queen Elizabeth and the Dukes of Windsor and Gloucester. Thousands of Americans have visited here, too, including Henry Ford, his son Edsel, and grandson Henry (p. 637).

Lichen- and Moss-covered, Steeply Pitched Roofs and Dormers of Arlington Row Have Sheltered the Needy since the 15th Century

Cotswold cottages, such as these almshouses at Bibury, fit the landscape so well they seem to have grown there (page 633). And they are a product of the land on which they stand, since stone for walls and roofs was quarried locally.

Chipped-stone roofs weigh many tons, for the largest slats near the eaves may be two inches thick, and they overlap for two-thirds of their length. Roof rafters, formerly hand-hewn, must be exceedingly strong.

Nature manufactures these roof tiles. Blocks of limestone left to winter in the open are split by the frost. These flakes, trimmed and holed, are then ready for hanging (page 618). House builders welcome cold winters, for then roof slats are plentiful; warm winters bring a scarcity.

the biggest ones. But that's "not cricket"!

Following the lovely Coln past unforgettable villages, we came to Fairford. Though noted for its fishing, Fairford is celebrated chiefly for its curious church windows.

Afternoon tea seems a waste of time to most Americans. But I had not been in England two days before I found tea was a necessity; without it I starved!

So we stopped at the Bull in Fairford, for English tea—not just a cup but a big pot of steaming brew—with thin slices of thinly buttered bread and cakes. Tea, with a definite place in the British diet, is provided for in the rationing system.

Walls of the Bull, a rambling hotel, are covered with fishing trophies from its stream. Patrons pay 10 shillings ($2) per day to fish in its private reach of the River Coln.

America seemed far off in the piscatorial atmosphere of the Bull. Yet when I returned to the United States, my son-in-law told me he had trained for four months at Fairford with the U. S. Army Engineers.

"Did you go to the Bull?" he asked. "What wonderful feeds we had there, but we had to be on our good behavior! We were quartered in the Fairford manor house and 'fought' over every field and measured every bridge for miles around."

Like medieval comics in stained glass are the windows of Fairford's church. Walt Disney could draw no funnier figures, nor more horrible, than these blown in glass at about the time America was discovered. John Tame, the wealthy wool stapler who sponsored this sermon in pictures, had a keen sense of humor.

Most celebrated is the great west window, picturing Judgment Day. From open tombs at the bottom the exalted wind slowly up to a heaven depicted in gorgeous ruby and blue. But the damned are whisked off to hell (a glassmaker's oven!) by the most devilish devils imaginable.

Little blue and red demons, dog-faced and monkey-faced, beat the victims (mostly naked women), pitchfork them, and carry them off screaming to hell by wheelbarrow and on the shoulders.

In another window beside the altar Satan is locked behind red-hot bars. "That's where the Devil ought to be, and then we'd have peace," Mrs. Groves said.

Leafield Ringers Play Fast Peal in Farewell

Next day regretfully I said good-bye to the Villiers. I was off to explore the north Cotswolds.

Clear, sharp notes of the bells came jangling across the still air as I drove through Leafield green. From the fast pealing I knew old-timers were showing off to beginners. My friends the bell ringers were giving me a joyous farewell.

Purposely I kept off the main highways, zigzagging across rolling downs to find hidden villages. A favorite was Bourton on the Hill, a hamlet with "window box" gardens. Its yellow cottages and church clung to a steep hillside like barnacles. Squeezed between house fronts and the lane, terraced gardens burst with flowers of every kind.

Suddenly I came over another hill and found myself on a vast green scarp. "Wold's End," local people call this sharp western border of the Cotswolds.

The wind whistled as I walked across to turreted Broadway Tower standing like a sentinel on the brink. Cattle grazed on the slopes around it; behind stretched the green pastures of the highland Cotswolds, once a vast sheep walk or pasture (Plate XVII). Far below reached the lovely Vale of Evesham, its face splotched with cloud shadows, green fields, and many villages and hamlets.

The Countess of Coventry, according to local tradition, built this tower so she could watch her Earl hunt. From its windy summit she kept track of his waving plumes, as he galloped across the downs, to see that he tarried not in tavern or cottage.

Actually, the tower was built in 1800 by the Earl of Coventry to please his wife, who liked to climb to its top and survey his domain.

Many famous poets and artists have spent vacations in this "medieval castle." While they waxed enthusiastic over the view, all grumbled at the long uphill pull from Broadway, the nearest town for supplies.

Farther along "the Edge" we saw at our feet Snowshill, a picture village of golden cottages tucked in a narrow coomb.

Henry Ford, who often visited the Cotswolds, loved Snowshill (pronounced "Snozill"). He bought a farm group here and shipped the cottages stone by stone to Greenfield Village, Michigan.

When the houses were assembled, though every stone and roof flake was numbered, even his most skilled mechanics could not put them together again! Mr. Ford had to send to Snowshill for a stone tiler to hang the roofs.

Dropping down from the wolds by a narrow lane, we passed through Stanway, a famous town of yellow houses and red roses. In a pasture a cricket game was in progress, the players dressed in snowy white. In fact, townspeople were playing cricket in nearly

Close the Side Shutters and a Box Bed Is Tidy by Day, Snug at Night

In old houses, where people passed through one bedroom to get to another, these beds gave privacy. Comdr. Fred Hart, retired from the Royal Navy, sleeps in this 18th-century one from Brittany. His home in Chipping Campden is a living museum; everything in it is an antique. Exhibited are fascinating objects, from the "pottie" rocking chair to the child's slippers shod with little horseshoes (pages 632 and 638).

every village; the game was as common as sand-lot baseball at home.

Making a sharp turn, we literally burst into Broadway. As its name implies, it is one long street, an expanse of lawns and flowers edged with old houses of yellowish stone (Plates XXII, XXIII).

The principal highway from London to Worcester passes through Broadway; so the town prospered as a coaching stop. Its 400-year-old inn, the Lygon Arms, is one of the most sumptuous in England (page 634).

If you are one of those who like to sleep in famous persons' rooms, you can have your wish at Lygon Arms. Reserve in time and you may have the Cromwell Room, where traditionally the Protector slept in 1651. Henry Ford and his family occupied this suite on several occasions.

Many of the British Royal Family have stayed in Lygon Arms, including Her Majesty the Queen. Maj. Gen. Joseph D. Patch visited the inn, too, during the war, for Broadway was in the American training area.

The quiet charm of old Broadway has attracted many American artists. The late Francis Davis Millet had a house and studio in the village, where John Singer Sargent,

Edwin Austin Abbey, and other 19th-century painters visited.

Back atop the wolds, we caught glimpses of a flat-topped tower rising above buff cottages set in a green valley. It was Chipping Campden, "the flower of Cotswold towns" (Plate XXI).

There I stayed with Col. and Mrs. James Hargreaves in their comfortable Cotswold House Hotel.

Everyone smiled a welcome. It was as if the whole establishment was a happy family—the maids, daughters of the house. The servants, from cook to manager, are former service girls—Wrens, Ats, and Waafs. Now they are studying how to run a hotel and the catering business, under Government sponsorship, akin to our GI Bill of Rights.

From my window I looked past chimney pots smoking thin wisps to the grassy hills and patchwork fields above Campden. Below stood the arched wool market and the city hall, the town's center of life. Even swing music floated from the latter when dances were held there in the evenings.

Back in the days when sheep made the wolds rich and famous, Chipping Campden was the center of the wool industry. Success brought prosperity to its people; they built fine homes and manors.

Campden folk cling to tradition; fight attempts to commercialize their town. In fact, Chipping Campden is an English Williamsburg, but with this difference: the houses are originals, not restorations.

With Mrs. Hargreaves I strolled down High Street, window-shopping in the old bay fronts. As houses abutted on the sidewalks, we could look right through leaded glass into front parlors or little shops.

Perhaps grandmother was knitting in a wing chair or a storekeeper arranging bread, sweets, meat, or tobacco in her round window. Shops and homes looked alike, for signs are few and inconspicuous (Plates XVII, XX).

One old house full of antiques especially appealed to us. As we entered, a bell tinkled, but no one greeted us. We were supposed to browse among the antiques undistracted.

I was fascinated by the big bow window which filled the front of the room like a movie screen. Passers-by unaware of us in the depths stopped to peek at the copper coal scuttles, ladder-back chairs, pewter mugs, and brass warming pans. Just like actors on a screen, an elderly couple in tweeds, young hikers in shorts with knapsacks, school children with their book bags, and trippers, all did their little act framed in the bay.

When the proprietor, Mrs. G. C. Pritchard, finally met us and I told her I represented the National Geographic, she said, "I've been a member of The Society for years.

"Come upstairs to my living room. You will be interested, for it was the Wool Staplers' Hall."

In a lofty vaulted room we talked of the old days in Chipping Campden. Here the staplers spread out their wool samples and settled prices before going out to the Market Hall in High Street for a supposed auction (Plate XVIII).

"Prices obviously were rigged or settled in advance," Mrs. Pritchard said. "This hall, by the way, built in the 14th century, is one of the oldest buildings in Campden."

Our hostess ended up serving us tea with delicious homemade cakes and bread, instead of our buying antiques. She had once lived in Washington, D. C.

Many of the old houses in High Street are now owned by British colonial and naval officers who have retired from active service. In one of them Comdr. Fred P. Hart lives exactly as Campden people did hundreds of years ago (pages 632, 637).

Cotswold Games Were Rough and Tough

One day our little Prefect squeezed along narrow, winding lanes to visit Dover's Hill, where in Shakespearean times and later the Cotswold Games were held.

White and blue flowers lined the grassy roadsides. "Cow parsley," Mrs. Hargreaves called the white blossoms. "Most awful weed we've got. And the blue fringe is campion."

Every Whitsun Thursday athletes from all over England came to this grassy knoll to vie in contests rough and tough. They competed in cudgel and backsword play, wrestling, and of course greyhound and horse racing. But toughest sport of all was shin kicking. Opponents kicked each other with their heavy boots until one gave in.

Campden's star shin kicker conditioned himself by batting his legs with a hammer; others trained by whacking their shins with planks. No guards were used, either.

In several of Shakespeare's plays he refers to the Cotswolds, and some of the characters in *The Winter's Tale* speak the dialect of the wolds. Stratford on Avon is only ten miles to the north; so this sheep country must have been familiar to the bard from his earliest days.

As I waved good-bye to my friends in Chipping Campden, Colonel Hargreaves said: "When you come to the steep western scarp of the Cotswolds, with the Vale of Evesham far below, remember that's Wold's End."

As in Most English Towns, the Church Dominates Cirencester

How to pronounce its name worries its people. Old-timers say "Sister." Shakespeare, in *Richard II*, called it "Cicester." Many settle for "Cirencester." The Romans built a large town here, called Corinium.

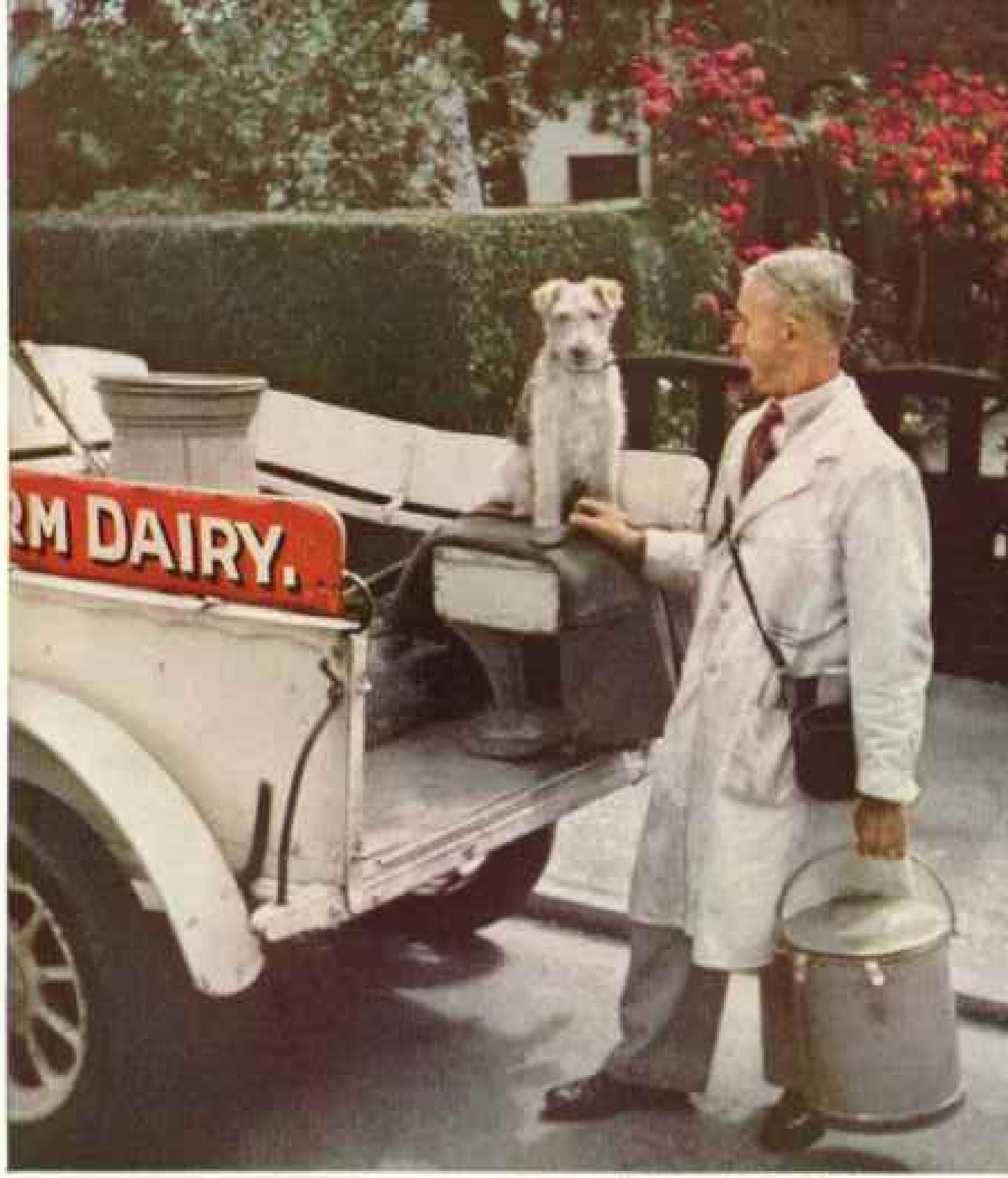
X

To Ascot under Wychwood Comes Foster's Traveling Shop, Bringing Pots, Pans, Tools—Anything a Housewife Needs, Except Food

The author met this store on wheels in many villages throughout the Cotswolds. Nearly every household bought coal oil for kitchen stoves.

"It's Nice to See an American Again," They Said to the Author

And just then a Britisher whistled like a GI, reminiscent of U. S. troops who crowded Cheltenham during the war.



"Watch the Lorry, Bonzo, While I Deliver This Churn"

Strange to American ears seem many common English words, such as lorry for truck, churn for milk can.

In Upper Slaughter, a Well-trained Dog Delivers the Evening Paper

Cotswold roofs are not of slate, but flakes of limestone pegged to wooden laths. Upper Slaughter, crowning a hillside, and its twin in the valley got their names from a giant sloe tree that once identified them (Plates XVI, XIX).

War Removed These Signs to Foil Parachutists. Now They Point to Cotswold Towns Again
"Did you ever play baseball?" the author asked these boys. "Baseball—what's that? How do you play it?"

To the Bookshop Come Villagers on Bicycles to Buy Expensive Cigarettes and Newspapers
Hub of the Cotswolds is Stow on the Wold, "where the winds blow cold." This shop faces market court, scene of the famous Stow Fair. Twenty thousand sheep were sold here in a day when the wool trade was at its peak.

Beneath Bibury Bridge, Wise Trout Float in the River Coln. They Await Not a Fly but a Crust of Bread

Lazily the big fellows scull against the stream, a weather eye cocked for a generous visitor. Now, with rationing, they often go hungry. Swan Hotel is a fishing inn.

By an Old Door in Withington Nigel Bounces His Ball

High hills squeeze the town till it's only a long, narrow street beside the Coln.

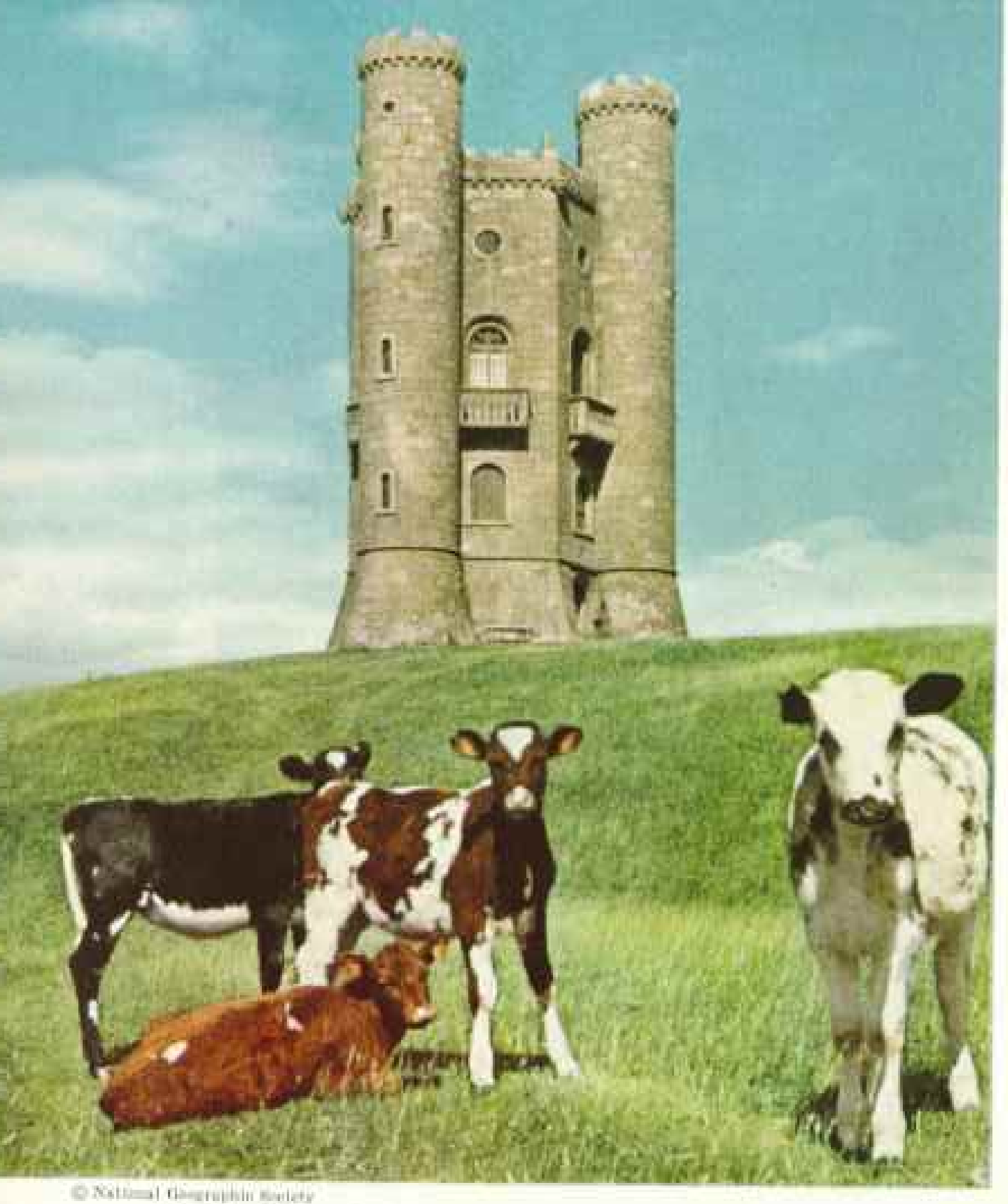
Kodachromes by Melville Bell Grosvenor

Woolsacks, Like Fluted Half-barrels, Grace Wool Staplers' Tombs

Bibury churchyard is embowered with roses. Ramblers straggle on walls.

Stone Cottages Beside a Still Stream—Such Unspoiled Scenes Draw Visitors to the Cotswolds to Loiter, Fish, and Play—Lower Slaughter

Built of soft stone that hardens on exposure, Cotswold homes have persisted with little change for centuries. Some houses "grow" from quarries on the site.



On the Edge of the Wold Stands Broadway Tower

From its top, 13 counties may be seen, from Vale of Evesham far below to the Black Mountains of Wales, 50 miles away.

Bow Window, Delphinium, Picket Fence—Chipping Campden

On rainy days the label over the door gives shelter. The doorway was used as a set for the movie, "Sorrel and Son."

Kodachrome by Melville Bell Grosvenor

To This Arched Wool Market Chipping Campden Owes Its Name

The word "Chipping" derives from the old *ceaping*, or market. Some years ago the owner of the arcade, set in the midst of High Street, planned to sell it abroad. Townspeople presented it to the National Trust.

"Four Ducks on a Pond, a Grass Bank Beyond . . . What a Little Thing to Remember for Years!"

Many authors have thus described Lower Slaughter, a village of gray stone cottages beside a millstream.

"Hello! We Like to Play on the Walls. It's Risky"—Lower Swell

Dry stone fences, so familiar in the Cotswolds, mark boundaries and keep cattle and sheep within limits. Since no mortar binds the loose rocks, they fall apart easily. Children often are forbidden to play on walls.

If the Wool Staplers Who Built Chipping Campden Centuries Ago Strolled Down High Street Today, They'd Feel Much at Home

Just as in olden days, butcher, baker, greengrocer display their wares behind bay fronts and mullioned windows. No modernistic stores or bright neon signs here.

Forebears of These Shires Grazing on "the Hoo" Carried Knights in Armor to Battle or Tournament

Now the big animals with shaggy fetlocks are the work horses of English farms.

Nestling in the green valley below is Chipping Campden, with its square-topped Perpendicular-style church looming over all.

When vast flocks of sheep roamed the rolling Cotswold countryside, Chipping Campden was a center of the wool industry. Merchants came from all over Britain and Flanders to buy wool in its arcaded market (Plate XVIII).

Campden's great wealth gained from wool is reflected in the magnificence of its church and the fine old homes that line High Street (Plate opposite).

Kodachrome by Melville Bell Grosvenor

Since the Days of Capt. John Smith, English Sea Captains and Colonial Men Have Dreamed of Retiring to Such Cotswold Cottages

The naval officer, holding his spaniel, has realized his wish and now lives in the yellow cottage with the garden. It faces the wide street for which Broadway is named.

Kodachrome by Melville Bell Grosvenor

Behind Their Broadway Cottage (Opposite Plate), Comdr. and Mrs. Robert Raikes Enjoy Their Hidden Garden, Where Rock Plants, Roses, and Vegetables Grow

Fairford Children Romp in Their Garden Beside a Thatched Cottage

Thatched roofs are uncommon in the Cotswolds today, though older people swear they are warmer in winter, cooler in summer. To fire-insurance companies straw is a menace. Skilled thatchers are hard to find.

Land of the Havasupai

By Jack Breed

FEW of the hundreds of thousands of visitors to Arizona who marvel at Grand Canyon every year realize that in a hidden side sanctum of this mighty gorge a tribe of 250 Indians peacefully farms verdant fields. After the beautiful stream that flows merrily through their canyon home they are called Havasupai (People of the Blue-green Water).*

First record of a visit by a white man to the Havasupai is that of Padre Francisco Garcés in 1776. The Spanish father descended into the canyon about the time of the signing of the Declaration of Independence.

In the latter part of the 19th century several exploring parties crossed the land of the Havasupai, but the tiny tribe remained virtually unknown until 1918 when Leslie Spier, anthropologist of the American Museum of Natural History, lived for several months at Supai and began to study them.

Hard to Find, But Has a Telephone

At Grand Canyon village, on the south rim, few of the National Park personnel could give information on the canyon of the Havasupai—some 35 miles west of the main tourist area. I learned, however, that the road to Havasu Hilltop, beginning of the tortuous 14-mile trail descent into the canyon, was terrible, but that the remote land of the Havasupai had good telephone service!

An easy call from the Grand Canyon telephone office put me in touch with cordial Noble Guthrie, then Indian subagent at Supai, who told me how to reach the land of the blue-green water people. I could either go to the rim on the mail bus on Tuesdays or Fridays, or drive out myself any day.

An Indian guide with pack horses would meet me at the Hilltop if I came in my own car, or I could go out with the mail and continue into the canyon on the mail horses. I elected to drive the 35 miles to Havasu Hilltop (map, page 659).

Before starting, I purchased food supplies at the Grand Canyon store, for visitors to Supai must do their own cooking. For gifts to the "aborigines" I added a sizable box of cookies, candies, cigarettes, and chocolate bars.

The road from Grand Canyon, through Rowes Well, to Havasu Hilltop was far better than I had been led to expect. For the most part, it was an ungraded dirt affair that wound through pine and juniper timber areas, as well as the expansive meadows bordering the south rim of the canyon.

At the 33-mile mark this easy dirt road ended, and the last stage required careful driving to negotiate a twisting, rocky wash. Several dilapidated barns and numerous junked automobiles and wagons littered Havasu Hilltop, the start of the Topocoba Trail down Lee Canyon to hidden Supai village.

John D. Lee, for whom this particular branch canyon is named, was a notorious outlaw of the 1860's who lived for three years with the Havasupai while hiding out after the Mountain Meadow Massacre in 1857.

At the head of Topocoba Trail, where I arrived in half the three hours I had been told the drive would take, I waited for about an hour before shouts and whistling from the canyon depths told me my guide was approaching.

The overhang of the rim and the steepness of the dropoff prevented my seeing more than a few hundred feet down the trail. The shouts continued for more than a half hour before Joe Jones, my Havasupai guide, came into view.

When Joe greeted me with a throaty hello, I was certainly amazed by his appearance. The traditional costume that I was expecting on a member of a remote and untouched tribe turned out to be a pair of tweed trousers given him by some previous visitor, a sweat shirt, heavy boots, cotton socks, and, to top it all, a baseball cap!

His round face, tanned and wrinkled and brightened by keen brown eyes, reminded me of the faces of the Hopi, but his gray hair was neatly cut and parted in barbershop style.

Joe spoke little English, but enough to tell me he'd like to share my luncheon sandwiches. He had ridden 14 miles that morning from the village with no food or water.

Horses Preferred to Mules

Soon he had my camping gear and equipment strapped to the crude wooden pack saddle, and the modern Western riding saddle cinched up for me. With Joe quietly puffing on one of the cigarettes I had brought along and munching a candy bar, we set off down the trail, driving the pack horses ahead of us.

It was interesting to note that the Havasupai use horses and not mules. I asked Joe about this, and he replied, "You train horse early, he good as mule, faster."

* See "Indian Tribes of Pueblo Land," by Matthew W. Stirling, National Geographic Magazine, November, 1940.

Ross Madden

What, No Wires? How Does a Portable Radio Work?

The Havasupai Reservation has two short-wave broadcasting stations and many standard receivers; but these youngsters found the photographer's battery-operated set hard to understand.

At the first turn of the Topocoba Trail I readily understood why I had been able to hear Joe's shouting and whistling so long before I could see him. In the first mile and a half the trail drops a dizzy 1,000 feet by means of 29 switchbacks down a steep talus slope to the floor of the canyon. On the way to meet me it had taken Joe a half hour of coaxing and yelling to drive the weary pack horses up that cliff. This was a new trail, he said, built by hand by the Indians.

The old trail, still clearly visible on the opposite wall of the canyon, had been used as a wagon road by early miners. How they managed to lower their wagons over the brink at the head of the trail I could not ascertain, but the rotted pile of what was once a wooden wagon, splintered on the rocks beneath the cliff, showed they were not always successful.

Seemingly in a matter of minutes, we dropped from the gray and buff limestone of the canyon rim to the brilliant red sandstone of the inner gorge walls. The remainder of the ride, down the creek bed and through countless meanders of the dry stream, became almost boring. Yet whenever I looked straight up I saw the canyon rim seeming to imprison us on either side.

In three hours the red-walled inner canyon began to widen, and lush groves of cottonwoods, willows, and green shrubs began to appear. Suddenly from the base of the canyon wall came the rush and bubble of Havasu Creek.

A closer examination revealed that the water gushes from several springs. By the time we reached the first stream ford, a few hundred yards farther on, the creek had enlarged to a veritable river 15 yards across and about three feet deep—water as crystal clear and sparkling in the Arizona sunshine as I had ever seen.

Red and Gray Walls Half a Mile High

In the last mile before reaching the village we crossed the creek several more times. We now began to ride between neatly fenced fields where green cornstalks quivered in the cool, light breeze. Untethered horses, munching the grass along the stream banks, eyed us curiously as we rode by. Up to this point we had met no Indians nor seen any sign of habitation on the canyon floor.

I was little prepared for my first view of the village of Supai. Weary from more than three hours of laborious riding, I was wondering whether this canyon passage had really been worth while. But on climbing a small rise where the trail enters a narrow cleft between a huge boulder outcrop and the red canyon wall, I promptly forgot the miles behind. There, sprawled below, was the lovely land of the Havasupai (Plate II).

Bright green fields of new corn, winding

William Bellamy, Jr.

Spurred Boots and Bobby Sox Adorn the Stomping Feet of Havasupai Harvest Dancers

To their crop festival in late August or early September the Havasupai invite neighboring Walapai, Mohave, Hopi, and Navajo to join in a round of merrymaking. At night men and women clasp hands and, singing in unison, shuffle around a circle to the beat of a drum (page 674).

lanes of sagging willows and cottonwoods, fine orchards, the rich brown of freshly turned earth, and here and there the quaint hogans and cottages of the Indians border the stream bed for about two miles.

Havasu Canyon widens to about a quarter of a mile here, and the brilliant red walls of the inner gorge, which rise several hundred feet straight up above the canyon floor, emphasize the greenness of vegetation. Giving still more color contrast, the gray outer ramparts of the mighty Grand Canyon itself ascend vertically an additional 2,500 feet.

Two towering red pinnacles, which the Indians claim are ancient gods, stood like sentinels on our left. Havasupai legend says that when these rock gods tumble, doom will come upon the tribe (Plate II).

All Modern Conveniences

A few hundred yards ahead of us the dusty trail disappeared into a neat row of cottonwoods which mark the center of the village of Supai. Indians, busy over their crops in the fields or chatting around a hogan, paused to wave to Joe, or just to stare at the white intruder into their isolated homeland.

At the end of the shady "main street" was the little schoolhouse with whitewashed clapboard walls, tiny steeple for the traditional school bell, and surrounding playground of seesaws, swings, and outbuildings. It looked as if it might have been moved here from New England.

At the Subagency headquarters Mr. Guthrie greeted us and led the way to the lodgings he very kindly provided for me. Again I was in for a surprise. Inner-spring mattresses, fresh white sheets, hot and cold running water, electricity at the flip of a switch, tiled bath, and electric fans made me gasp.

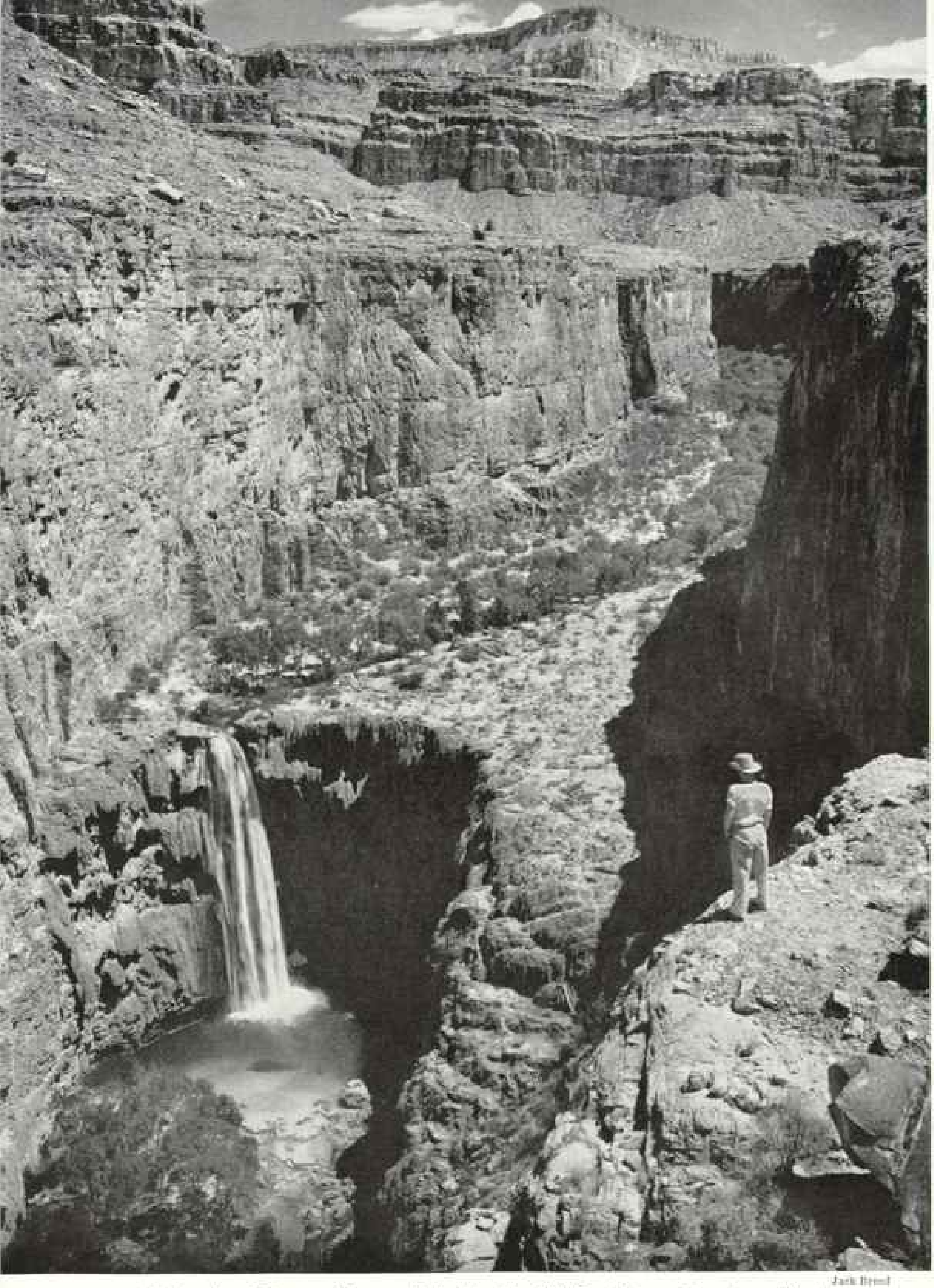
Near by were the rambling buildings of the Agency, and across the trail was the home of one of the two white schoolteachers who instruct the Havasupai youngsters. Mr. Guthrie proudly showed me his four electric power plants, radio station, post office, refrigerators, piano, dispensary, and telephones—all brought into the canyon on horseback or by drag.

Joe Jones unsaddled our horses and left me to marvel at his homeland.

"I bring horses tomorrow; we see falls," he told me.

But I replied, "I'd prefer to walk for a change!"

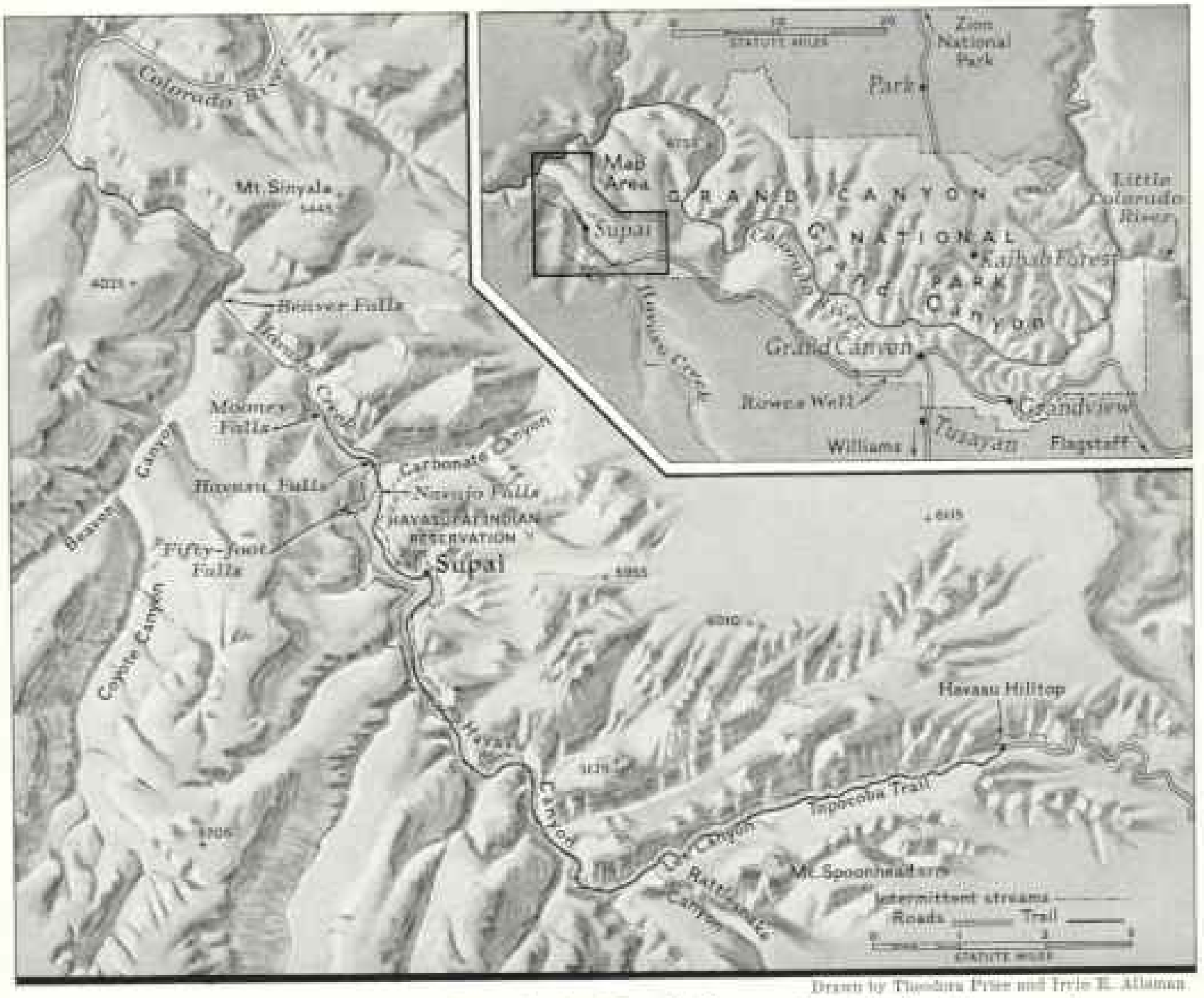
The canyon of the Havasupai is probably best known for its lovely waterfalls. Havasu Creek flows briskly for two miles through the inhabited area of the canyon before it tumbles over five magnificent falls to join the Colorado River several miles beyond. I found the trail to the falls in excellent condition for either



Jack Breed

Higher than Niagara, Mooney Falls Tumble 220 Feet into a Blue-green Pool

At the base of this cataract, under the Grand Canyon's massive walls, the author enjoyed a refreshing swim (page 661). Several miles downstream from the waterfall, Havasu Creek meets the Colorado River.



Drawn by Theodora Prise and Irvie R. Allaman

Half a Mile Below the Rim of the Grand Canyon Dwell the Havasupai

Turquoise Havasu Creek, cascading amid red cliffs, has given them their poetic name, meaning "People of the Blue-green Water" (*havasu*, "blue-green water," plus *pai*, "people"). The canyon home of this small tribe is one of the least accessible inhabited spots in all the United States. No wheels can enter it, so steep and rugged are the slopes. Even the mail must come by pack horse. To reach the Land of the Blue-green Water, the author traveled by automobile from the village of Grand Canyon to Havasu Hilltop, then followed the stream-cut canyons down to the reservation by horseback with a Havasupai guide.

walking or riding, and the distance between falls much shorter than I had expected.

The first cascade, called Fifty-foot Falls, resulted from a flash flood that engulfed the canyon in 1932. Surrounded by rich growths of moss and ferns, the creek spills over a broad bench in delicate ribbon patterns.

Several hundred yards downstream, the creek takes a plunge over Navajo Falls, dropping in fan fashion for 60 feet down the colorful travertine.

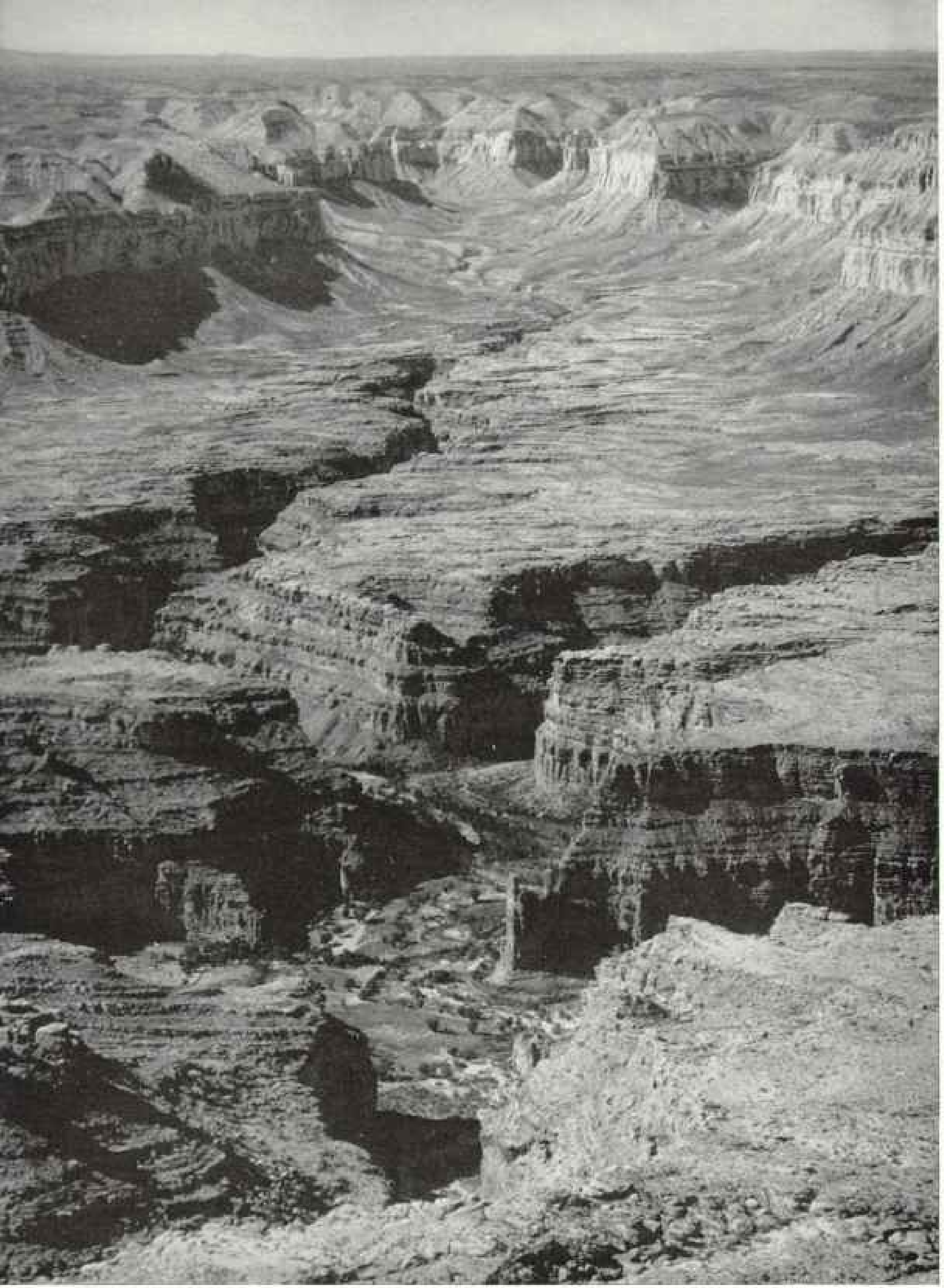
Another half mile of walking through the dense growth along the stream sides leads to the third and undoubtedly most beautiful of the falls, Havasu or Bridal Veil Falls (Plate I), 110 feet of gorgeous turquoise-colored water cascading gracefully into a sparkling pool. Here I saw at their best the striking colors and glistening waters that give the "People of the Blue-green Water" their name.

Though I had heard that the trail from this point on for the remaining mile to the fourth falls was too dangerous to be undertaken without a guide, I proceeded alone with no difficulty from Bridal Veil Falls through a heavy grove of willows and cottonwoods, where the buildings of a small mining camp still remain.

A silver mine up Carbonate Canyon, which joins Havasu Canyon at the base of Havasu Falls, had been worked some years before, and this was the forge and home of the miners.

Mooney Falls Drop 220 Feet

Passing through this encampment on into the open, cactus-covered canyon floor, I could hear the roar of Mooney Falls ahead of me, but had no idea of their exact location until I suddenly found myself on their precipitous edge (page 658).



William Belknap, Jr.

An Airplane View Reveals the Fertile, Isolated Abode of the Havasupai

Indian village and farms nestle on the canyon floor (center). To reach the reservation, visitors descend difficult trails for hours. Through a side gorge (right center) Havasu Creek flows toward the Colorado River.

Hopi Maidens

Products of Havasupai Handicraft Decorate a Schoolroom Down in the Grand Canyon

With the help of a white teacher supplied by the Bureau of Indian Affairs, these youngsters learn the proper technique of wrapping a baby on a cradleboard. On the wall are parching trays, gourds, and other utensils. On Saturday nights the schoolhouse becomes a movie theater.

Highest of all, 220-foot Mooney Falls are named for an ambitious prospector who was killed while trying to lower himself over their brink in search of mineral treasures farther down Havasu Canyon.

Later prospectors drove iron ladders into the rocks beside the falls, and today the visitor can lower himself easily through the many passageways and caves in the rocks with the aid of these spikes and some slippery steps cut into the cliffside. The refreshing swim which I enjoyed at the base of the falls with some other canyon visitors was alone worth the journey to Havasu (Plate VIII).

From Mooney Falls a difficult, little used trail winds past inaccessible Beaver Falls to the junction with the Colorado River several miles to the north; but because I wished to return to Supai village for a more intimate visit with the canyon dwellers, I turned back.

Mr. Guthrie told me that the maximum number the land can support comfortably is little more than 200 persons. At the time of my visit there were 35 families with an average of four children each. All the youngsters were required to attend school through the sixth grade. Supervised by Mrs. Guthrie and a regular Government teacher, the school had an enrollment of 40 pupils.

Compulsory attendance has recently been advanced to eight grades.

On Saturday nights Mr. Guthrie showed sound movies in the schoolhouse, and it was indeed a treat to see the major part of the populace turn out en masse to cheer the hero of a western thriller. Whole families showed up early to get good places, and many of the paunchier, older generation had a struggle squeezing into the desk seats.

Even though most of the audience couldn't understand a word of the fast English dialogue in the picture, they had no difficulty catching on to the gist of the story, and ardently cheered or hissed as the occasion required.

I was amused next morning to watch the teen-age braves playing Hollywood "cowboys and Indians" on their horses under the influence of the sagebrush saga of the night before!

Conditioned by their natural environment, the Havasupai are superb horsemen, swimmers, and cliff climbers. It is a common sight to see four or five riding around the canyon

floor on the back of one horse, the father in the saddle and his youngsters hanging on tightly fore and aft (Plate IV).

Tots lead happy, healthful outdoor lives and require few material toys or comforts. I photographed one group fishing for tadpoles in an irrigation ditch, using an empty glass preserve jar tied to a stick for a trap (Plate V).

Whenever I hiked to the falls, I saw shouting youngsters splashing and cavorting in the beautiful stream that flows literally at their doorstep.

Mail trips meant busy times around the post office. Several husky young men usually conducted this biweekly trek to the rim, although it was not unusual for some five-year-old to go along bareback, just for the ride.

When the pack train returned in the evening, there would always be a large gathering near the post office front porch, anxiously waiting to see who or what might come back with the mail.

Visitors Come "By Mail"

Many white visitors come out to the top of Topocoba Trail with the mail, for it saves wear and tear on cars. It is much cheaper to mail provisions to Supai than to hire a private pack horse. I was amused to see the assortment of letters, packages from mail-order houses, boxes of groceries, and picture magazines that arrived on these occasions addressed to such names as Wescogomie, Whatahomogie, Manahnja, or just plain Joe Jones.

Many requests come from ardent philatelists who wish a return letter bearing the Supai, Arizona, postmark. Collectors know it means the epistle was mailed from one of the few remaining post offices in the United States accessible only by horse or muleback.

I noted several different house types. The aboriginal mud and brush hogans, similar to those of the Navajo, are still common. These are used mostly by the older generation of Havasupai, who have not taken readily to the modern houses introduced by the white men.

After one of the several disastrous floods had devastated the canyon some years ago, the Department of the Interior packed in and set up many small wooden cottages. The Indians, however, preferred the dark, smelly interiors of their native hogans, and proceeded to use the cottages for storage.

Gradually young members of the tribe, influenced by the white man's schooling and training, began to move into the cottages, and the younger men and their families now occupy most of them.

To the white man these cottages would seem bare and unattractive inside. To the Havasupai they are luxurious. Some have two rooms, but most have one large room replete with iron-framed spring beds, wooden table, and a chair or two.

Cardboard packing boxes are cut up and used as wallpaper, and the thin wood strips from packing crates are used to repair leaks in the clapboard walls or roofs. The exteriors are invariably painted a brilliant yellow or green or blue.

Joe Jones and his wife lived in a conical hogan, although they also possessed a small cottage which they used for storage. Seeing at least nine pairs of trousers hanging inside, I knew Joe's previous visitors had indulged his predilection for white men's pants.

The pile of blankets and rugs formerly used for bedding on the floor had given way to spring beds. It takes time, but eventually the older Havasupai reluctantly accept these modern improvements.

Joe's wife appeared to be one of the oldest women in the tribe and extremely shy. She hid in the hogan at my approach, and it took a lot of coaxing on Joe's part to induce her to come out. Her face was deeply wrinkled, and her scraggly hair, Dutch cut in front, hung in long, irregular tresses to her shoulders.

Her faded calico dress was in marked contrast to the aboriginal aprons I had been expecting to see at Supai. Ragged cotton stockings and worn shoes completed her wardrobe. Her only adornment was a collection of safety pins proudly displayed across her breast.

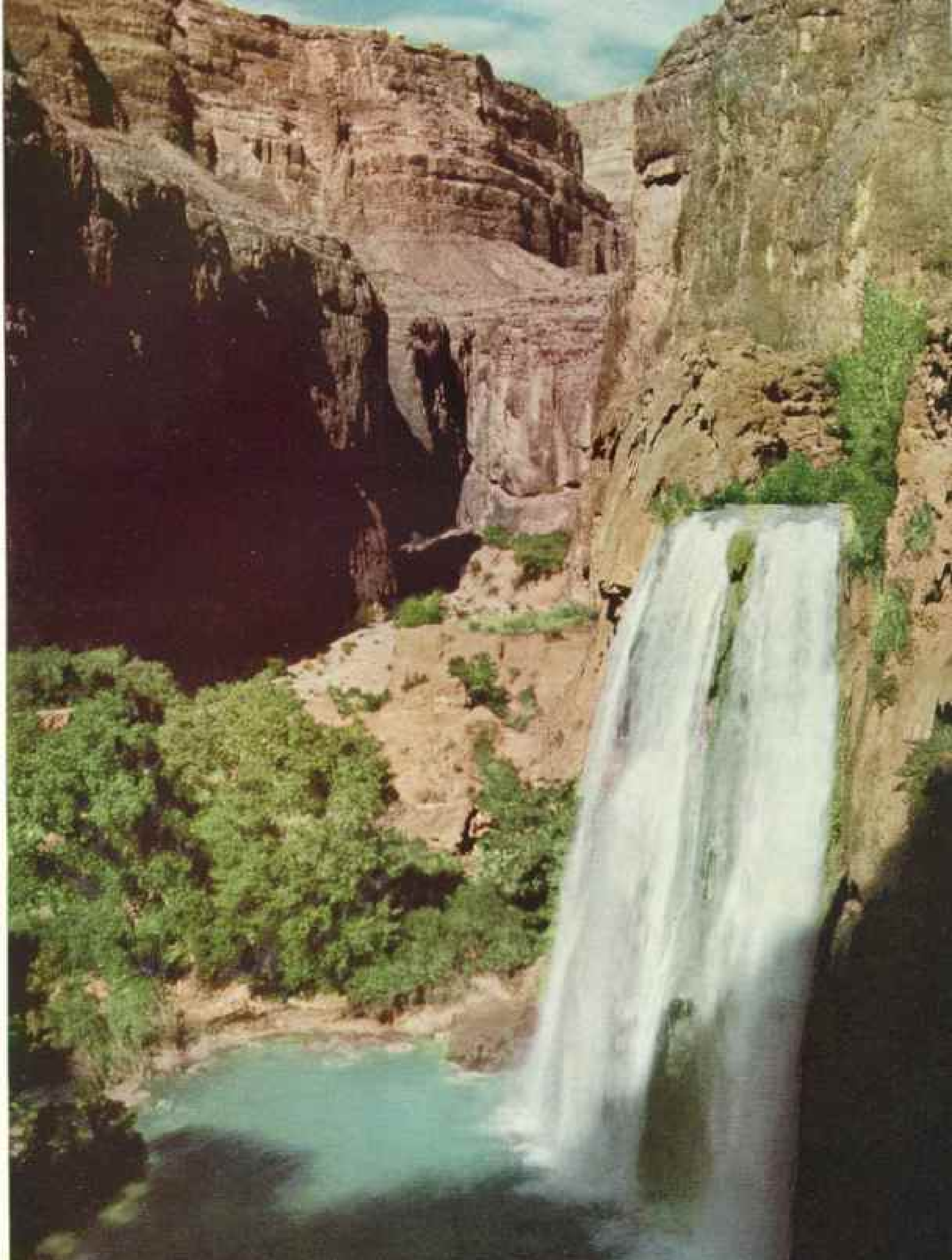
I asked Joe if I could take her picture. Instead of replying directly, he entered into a long conversation with her.

"She wants dollar," he finally told me. High finance had come to Supai too!

This surprised me, for none of the other Indians I had photographed had expressed any desire for a monetary reward. They preferred a copy of the finished print, which I was delighted to send them. Though I wished to preserve my friendly relationship with Joe, I took a chance and told him the price was too high. A further conversation ensued, and this time she agreed to let me take a picture for a quarter.

Few Havasupai have any money, and their opportunities to spend it are rare. Knowing this, I asked Joe if his wife wouldn't rather have something else.

The woman giggled slightly for the first time, and said that she'd like a new pair of shoes. My hardest problem was to find out what size she wore. It was not until some months later that I received a letter



Kodachrome by Jack Breed

Havasupai Indians Live Deep in Arizona's Grand Canyon, near Roaring Bridal Veil Falls

Their tribal name means "blue-green water people." Raiding Apaches drove them to their refuge from former homes along the Little Colorado River and San Francisco Peaks. A 14-mile trail winds from canyon rim to their tiny reservation. Havasu Creek passes through the tribe's farmlands. The Falls' new name is Havasu.

Kodachrome by Jack Breed

Sandstone Cliffs, Seamed and Worn by Erosion, Enclose Gardenlike Farms of the Havasupai

The canyon dwellers grow fruits and vegetables on about 175 fertile acres. Though the Government provides cottages, many Indians still prefer brush huts (left).

Kodachrome by William Belknap, Jr.

In a Corral, Brawling Cattle and Broncos Await Tests with Indian Cowboys in the Havasupai Harvest Rodeo

Navajo neighbors rode 165 miles to attend this festival. Havasupai are primarily agriculturists; they own few cattle. To corral even this small herd took hard riding.

A Young Brave Holds Tight for a Bouncing Ride down the Trail

Havasupai are expert horsemen, and children learn to ride almost before they walk. Often a family of four will ride one animal.

Kodachromes by William Belknap, Jr.

Through a Magic Mirror They See Their Canyon Playground

Havasupai children lead idyllic lives; parents believe that harsh words or cruel punishment shrivels their souls. But they must attend school through the sixth grade.

Kodachrome by Jack Breed

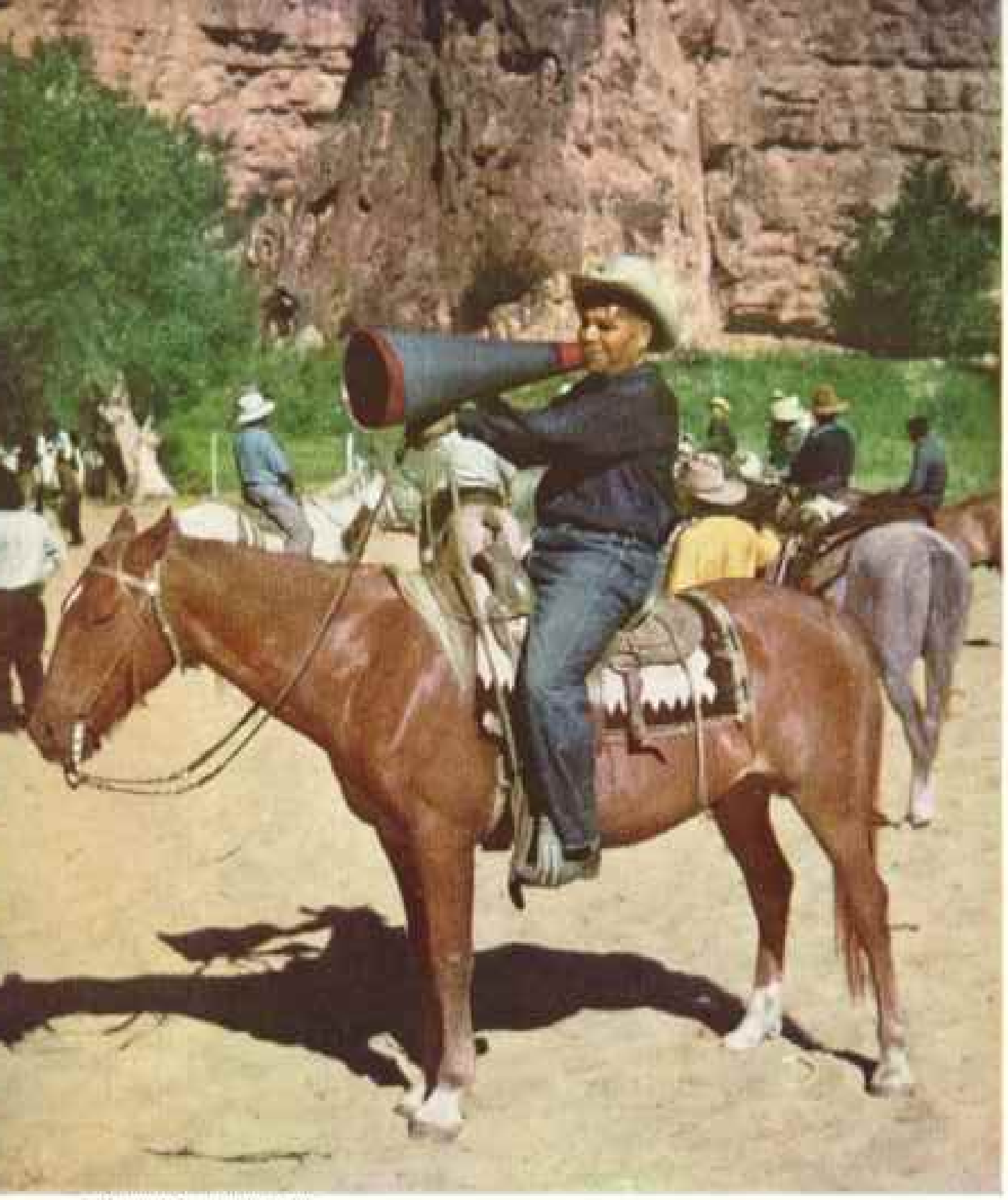
None of Your Fancy Fishing Tackle for Havasupai Sportsmen

With a jar tied to a string on a stick, they snare tadpoles in an irrigation ditch. Havasupai families average four children, who are reared in the belief that life holds little beyond a happy existence in their canyon home.

Kodachrome by William Belknap, Jr.

Heads Up! This Havasupai Bronc, Its Rider Tossed, Explodes in a Flurry of Flying Hoofs

The thrown cowboy (right) scrambles to his feet, while others dash for cover. From the corral fence rivals watch. Havasupai horsemen are hard to beat in contests.



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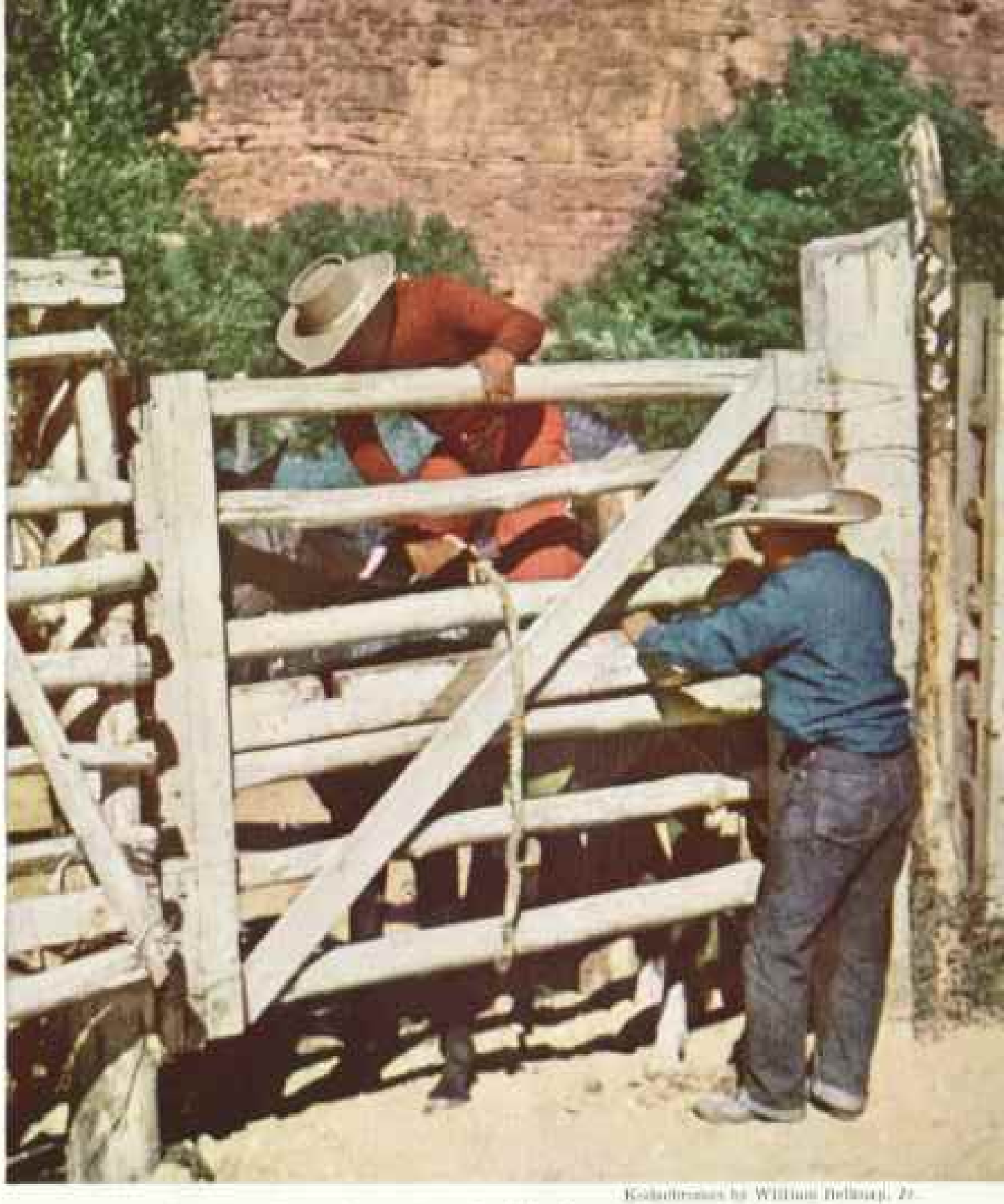
"All Out for the Bronc Riding!" Jim Crook Bawls in Havasu

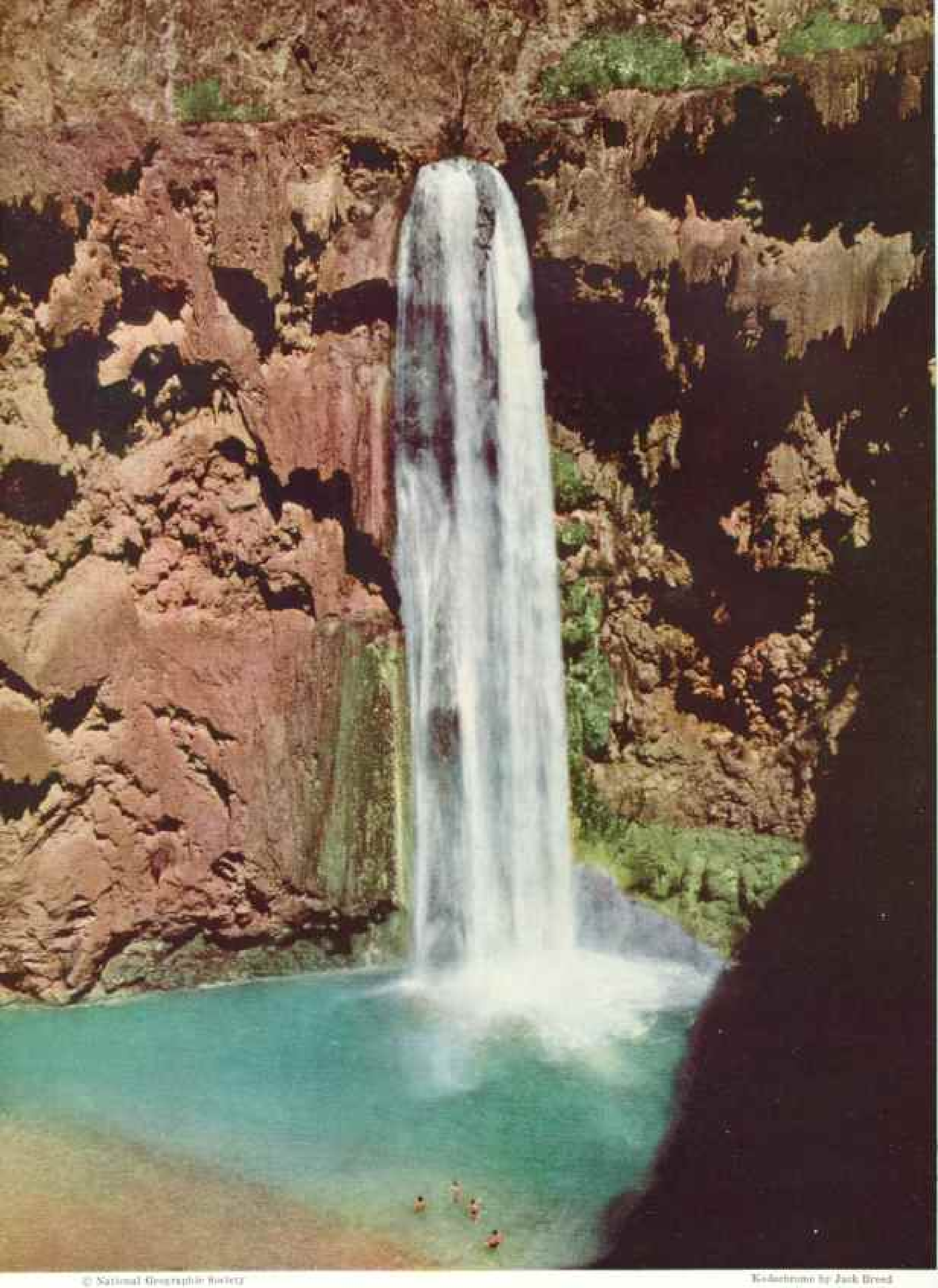
Prizes go to contestants who stay longest on a plunging cow's or pony's back.



Kodachromes by William Bellamy, Jr.

A Cowboy Eases into the Saddle for a Spine-jarring Tussle

In seconds, the Havasupai will be sprawling in the dust or in line for a prize.



Kodachrome by Jack Breed

Mooney Falls Makes a Giant Shower for Swimmers Frolicking at Its Base

Highest of several along Havasu Creek, it was named for a prospector killed while trying to lower himself over the brink to search below for silver. Visitors climb prospectors' iron rungs to explore caves in the cliff.

from Mr. Guthrie giving the desired information.

Cooking Done Out of Doors

Cooking and much of the other household life of the canyon dwellers are carried on outdoors. I had hoped the clay pot and coiled or twined baskets might still be in use, but I was too late. Modern sheepherder or small iron stoves and well-built stone fireplaces seemed to be in vogue. Metal pots and pans had supplanted the pottery and baskets; and aluminum and porcelain kitchenware littered the campfire area.

Some older women still do make the fine baskets, which may be purchased at the Agency, and parching trays are used in preparing some foods (page 673).

The staple corn is ground with a mano on a metate or pounded with a stone pestle.

Despite the dearth of cattle, strips of beef and venison were hanging from fence posts near the hogans. The meat is first sliced and cured by drying, and then pounded between stones for softening before cooking.

Hanging over a fence near Flynn Wescogomie's house was one of the finely tanned deer hides for which the Havasupai are famous. Hunting, a secondary occupation with the men, is carried on primarily in winter, when the fields lie dormant and fresh snow makes the animals easier to track.

The deer or antelope skin is first dried and dehaired. After being soaked in the stream overnight, it is twisted on a stick until dry again, and finally it is tanned with a preparation of the animal's brain and marrow.

Throughout the process the skin is kept immaculately clean and white. These expertly tanned hides and skins are main items of trade for the Havasupai, and visiting tribes enthusiastically barter for them.

Every morning the Havasupai men and women were busy in their fields, often with several babies propped up near by as an interested audience. Today, as in the past, they are outstanding farmers. They thoroughly irrigate and plant the 175 acres of arable bottom lands in corn, beans, and squash, their staple crops. Delicious peaches, apricots, melons, and figs are grown also in the neat orchards below their farmlands.

At present the Havasupai maintain two dams for irrigation purposes, one above the village and a second in the dwelling area. The main irrigation ditches are one or two feet deep and perhaps three feet wide (Plate V). Smaller connecting ditches divert water to the fields, which are laid out in a simple pattern to facilitate irrigation to all sections.

Joe's fields bordered the trail across from my quarters, and I would find him there soon after sunup every morning, engaged in turning the soil or clearing his irrigation ditches with his modern hoe and shovel. The fields are usually irrigated two days before planting is begun. A small digging or planting stick is used for the latter, and the seeds are evenly spaced along neat parallel rows. The corn ripens in about four months, though it may be picked and used in any stage of ripeness.

Looking up at the canyon walls behind Joe's fields, I wondered about the frequency of floods in this deep gorge, which drains such a vast area of the rim above.

"There have been several bad ones," Mr. Guthrie told me, "but no other so disastrous as the flood in 1911."

In that year a rim-to-rim wall of water 40 feet high washed away the Agency buildings. The terrified Indians took to the cliffsides as the onrushing water, spurred by melting snows and cloudbursts on the plateau above, swept down the canyon, washing away their dams, orchards, and homes.

After the deluge the Havasupai returned to their canyon paradise, rebuilt dams and irrigation ditches, replanted crops, and built new homes. But the older members of the tribe shudder to think of this catastrophe and doubtless still have some uneasy moments during the thawing and rainy seasons.

Havasupai Once Migratory

For centuries the Havasupai followed a migratory life. During the winter they lived up on the plateau of the canyon rim where they had abundant water and firewood and could readily gather seeds and track deer, antelope, rabbits, and squirrels in the snow. They lived in snug huts nestled among the cedar groves for protection against the weather. In cliff caches they kept stores of corn.

In spring, as the snows melted, they returned to the village in the canyon and began their April crop planting.

This semiannual migration has become virtually a thing of the past. Required school attendance for children is one obstacle.

The service flag that hangs in the post office bears 11 white stars for the Supai men who served during the war; and the influences of the war and modern civilization are felt increasingly in this remote canyon.

Some younger men now even leave the village with their families to seek employment at the tourist centers on the rim or in towns near by, though for generations no Havasupai would have thought of leaving his fields to work for the white man above.

Ailing Havasupai "Sweat It Out" in Torrid Steam Baths

To relieve that tired, run-down feeling, the "Blue-green Water People" strip to breechcloths and parboil themselves in the sweat lodge, Havasupai version of the Turkish bath.

Here Lemuel Paya, chief of the tribal council, emerges from a lodge while two companions (left) await their turn.

The lodge consists of a pit covered by tarpaulins or blankets stretched over a willow framework. Rocks are heated (foreground) and carried inside. Bathers sprinkle water on the rocks to produce steam. Temperatures sometimes reach 130°.

Between 10-minute periods of steaming, bathers loll outside, letting sand dry on their bodies. The process is repeated four times; then the Indians leap into Havasu Creek for a cool dip and return to their fields to work with new vigor.

Jack Breed

Deft Fingers of Havasupai Women Produce Baskets for Many Uses

Willow and acacia twigs from the banks of Havasu Creek are woven into vessels ranging from water bottles to large burden baskets, which are carried by means of a head strap (right).

Here a woman (center) works on a boiling basket; others of this type stand on the shelf behind her. Such vessels are made water-tight with coatings of soapweed paste, mescal juice, piñon pitch, and corn-meal mush.

Parching trays, like that beside the woman grinding corn (left), are among the familiar examples of Havasupai basketry (page 671).

On the roof (background) a deerskin dries in the sunlight. The house, of wood and stone, is typical of those which are replacing the Havasupai's primitive brush hogans.

Ruth Madden

William Belknap, Jr.

On a Lard-can Drum the Dance Leader Thumps out a Harvest-dance Rhythm

Around him, Havasupai and members of visiting Arizona tribes form a circle, their boots swishing through the sand. The drummer-leader, chosen for his ability to invent festival songs, intones a phrase, and the others repeat it in a low-pitched chant as they dance.

The summer months are still the fullest of the year; and Havasupai, no matter where they are, try to return to the village for the annual harvest celebration, or peach festival, which is held in late August or early September. To this festival they invite the neighboring Walapai and Mohave from the west, and the Hopi and Navajo from the east. Some of the guests ride 165 miles to attend (Plate III).

Rodeo Features Harvest Festival

There are dances in which every one takes part; but today the festival highlight is the all-Indian rodeo in which the various tribes compete. Before the celebration young braves ride far on the plateau rim to round up a sizable herd of cattle for use in the bull-dogging and branding contests. The Havasupai own few cattle and must go beyond the canyon walls to obtain the necessary steers.

Horses for the bronco riding are readily available, since ponies are a Havasupai's most prized possession and each family owns several (Plate VII).

The Indians organize and direct the fun themselves, and the competition is keen and highly exciting. At least one member from almost every family in the canyon strives to do his part to assure a Havasupai victory; and the noisy support of the home folk echoes loudly between the towering red cliffs. Having been virtually bred to the saddle, the Havasupai are hard to beat (Plate VI).

With reluctance I mounted my horse one morning and started back up the 14-mile trail to Hilltop.

Joe Jones whistled and shouted to get the pack horses up the last mile and a half, a rise of a thousand feet, on the Topocoba Trail. At the dilapidated barns we stopped, unloaded, and sat down for a quick lunch which I had prepared before leaving the canyon.

"Is there anything you'd like me to send you, Joe? Something you need badly?" I asked him.

"I like your pants, thank you very much," said Joe, eyeing my Navy khakis.

He was shouting happily at the pack horses again as I watched him disappear down the trail, my trousers *and* shirt neatly tied to the back of his saddle!

Postwar Journey Through Java

By Ronald Stuart Kain

FROM a plane four hours out of Singapore I watched with eager anticipation as the dark-green mass of Java rose from the scintillating sea.

Only five years earlier the Japanese had pounced upon Java as the key to the fabulous wealth of the Indies. Now the island was in the throes of political and social change.

It was an exciting time to visit Batavia, the old Dutch capital, and the surrounding Dutch-held districts, as well as Jogjakarta, the capital of the new Indonesian Republic, and other points in the interior. I had come to gather material for a book on the momentous changes taking place in the Indies.*

Since my Java journey in 1947, the Netherlands and the Republic have agreed to a United Nations proposal that the political future of Java, Sumatra, and Madoera be determined by plebiscite (map, page 682).

Nearly All Whites Are Ex-prisoners

A network of canals, broad avenues, and waving palm trees beckoned our plane down to Batavia's airport. Despite five years of war and revolution, the old city is still a monument to the enterprise and industry of the generations of Dutchmen who built it.

Virtually the entire white civilian population of Batavia, male and female, spent nearly four years in horrible Japanese prison camps. These unfortunates were then interned in the camps for many months longer by the Indonesian Republicans.

Nevertheless, astonishingly few of these people looked any the worse for their experiences. They represented, of course, the strong who survived, while their weaker companions perished or emerged from the camps in such ill health that they had to be sent to the Netherlands or Australia to recuperate.

One of the latter, a tall, friendly old Dutchman from Bandoeng, shared my hotel room one night before taking the plane home to the Netherlands. When he undressed I was shocked to see that he resembled a living skeleton, with only skin and wisps of flesh covering his protruding bones. Months of rest and feeding at Bandoeng had failed to fatten him up, and he was being sent home, probably to die in the arms of his family.

In marked contrast to the relatively well-fed white people remaining in Batavia were many badly emaciated natives. Rice, their staple food, was extremely scarce and costly because of the Republic's economic blockade against the Dutch-controlled cities.

Swarms of naked boys and ragged, half-clad coolies and women of the poorer classes testified to the acute textile and clothing shortage, which is another heritage of the war and the revolution.

There is no better place to see something of life among the poorer city dwellers of Java than in one of the big native markets in Batavia. We set out on a tour of one of these markets one hot Sunday by bicycle chair.

To get anywhere in Batavia except on official business is a headache. Private automobiles are almost nonexistent. Gasoline is strictly rationed by the Dutch authorities. The dilapidated buses and trams can scarcely be seen for the mass of natives clinging to the sides and sitting on the roofs. Taxis are scarce, and those operated by the Dutch must be ordered 24 hours in advance.

Accordingly, one either thumbs a ride on a passing official car (a very uncertain method); takes shanks' mare, which is hard work in Batavia's heat; or succumbs to the temptation to ride in a bicycle chair or a rickety little carriage pulled by one of the tiny, half-starved Indonesian horses.

Bicycle Chair—a Ricksha with Pedals

The bicycle chair is the Indonesian version of the Chinese ricksha. It is a three-wheeled affair with the chair in front. A ragged coolie's bare legs provide the motive power.

One minute after I entered one of these chairs I bitterly regretted my decision. Made to fit the shorter people of Java, it failed utterly to accommodate my lanky frame. I had to double up my long legs like a jack-in-the-box and, even though I sat bowed as if in devout prayer, my bald head bumped against the rough wooden frame of the awning set to ward off the sun's hot rays.

Unwilling to expose myself to the all-too-ready jests of Harry Summers, the Australian news correspondent who accompanied me, I suffered in grim silence until we reached the market some 20 minutes later.

As we approached the jumble of shacks and crude stalls, the crowd thickened and engulfed us in a world strange to a Westerner's eyes, ears, and nose. The tiny stalls, huddled

* See, in the National Geographic Magazine: "The Face of the Netherlands Indies," 20 illustrations from photographs by Maynard Owen Williams and others, February, 1946; "Java Assignment," by Dee Bredin, January, 1942; "Through Java in Pursuit of Color," by W. Robert Moore, September, 1929, and "Traveler's Notes on Java," by Henry G. Bryant, February, 1910.

Fix

All the Spices of the Indies Go into *Rijsttafel*

With mortar and pestle a Javanese cook in Batavia prepares a tangy sauce for Indonesia's famous specialty. At "rice table," beef, pork, goat, chicken, and fish appear in endless variations in times of plenty; a score of waiters may serve 40 different courses. The fiery seasonings are counteracted by copious draughts of beer. Guests help themselves to rice from a huge communal bowl.

together along both sides of narrow, irregular lanes thronged with jostling bargain hunters, offered a variety of articles ranging from rusty, secondhand nails and screws to fly-blown goat meat and American cigarettes.

Crowded Market Ignores Starving Child

Some of the stalls bore mute testimony to the passing of MacArthur's troops through the eastern islands of the Indies. They displayed many articles from U. S. Army quartermaster stores and post exchanges—at prices no one seemed able to meet.

In this good-natured, milling throng I made my first acquaintance with the amusingly precocious child peddlers of Java. Little boys, some of whom looked about five years old, carrying trays of cigarettes, fruits, or tidbits, marched with business-like aplomb through the mob, yelling their wares in treble but stentorian voices.

One little boy we encountered was in an advanced stage of starvation. Slowly and listlessly he half walked, half tottered by, his pitifully emaciated body showing through big holes in the rags that hung about him, his dull eyes pools of misery. No one, including the numerous food venders, paid the slightest attention to this dying child.

I remembered what an old-time resident of the East had told me in conversation the day before: "The East is pitiless to the weak. Human life is nothing."

Yet beggars get help. When a blind beggar, led by two healthy-looking little girls, passed by some of the booths, I saw venders throw dog-eared Republican currency into his wicker alms basket.

At length we found the incessant babble of many shrill voices and the strange pungent stench of the place beginning to pall upon us.

Walking down the street in search of transportation, I spied a fat-bellied, naked little Chinese boy, barely old enough to walk, who was lighting a cigarette from a large match gripped in his baby hand. Hiding behind the outswung door of a ramshackle Chinese store, he was sneaking a smoke. The father, shuffling to the door, shook a finger at his son in gentle, smiling reproof.

Summers and I chose one of the little one-horse, two-wheeled carriages for our return trip. The two of us were barely able to squeeze into the seats, designed for four

natives, that face each other in the rear of this Indonesian one-horse shay. Our combined weight threw the shafts of the carriage so violently skyward that we fully expected the little horse to follow.

Natives Trot Miles with Huge Loads

In sharp contrast was the new Chevrolet in which I made a day's tour of the Dutch-controlled territory along the Batavia-Bandoeng highway as the guest of Dr. Charles O. Van der Plas, adviser on Moslem affairs to the Governor General and a veteran administrator in the service of the Netherlands East Indies Government.

Dawn was just breaking as we drove out of Batavia, and hundreds of candles twinkled softly like hooded fireflies at native market places and food stalls along the road.

Peasants and coolies, naked except for shorts and carrying heavily loaded baskets balanced on pliant bamboo shoulder sticks, trotted by on both sides of the macadam road on their way to or from the city markets.

Watching the shuffling trot of these coolies, I noted its resemblance to the grotesque but rapid gait of American participants in "heel-and-toe" walking races. For many centuries it has been used here as the least tiring method of bearing heavy burdens.

Dr. Van der Plas told me that these short, lithe, steel-muscled little brown men carry loads of 150 pounds or more into Batavia from villages as far as 50 miles in the interior.

Other small groups of coolies were slowly pushing and pulling great clumsy two-wheeled carts loaded with firewood or big bamboo poles. Rarely did we see oxen or the small native horses pulling these ponderous vehicles.

© Screen Traveler from Gendreau

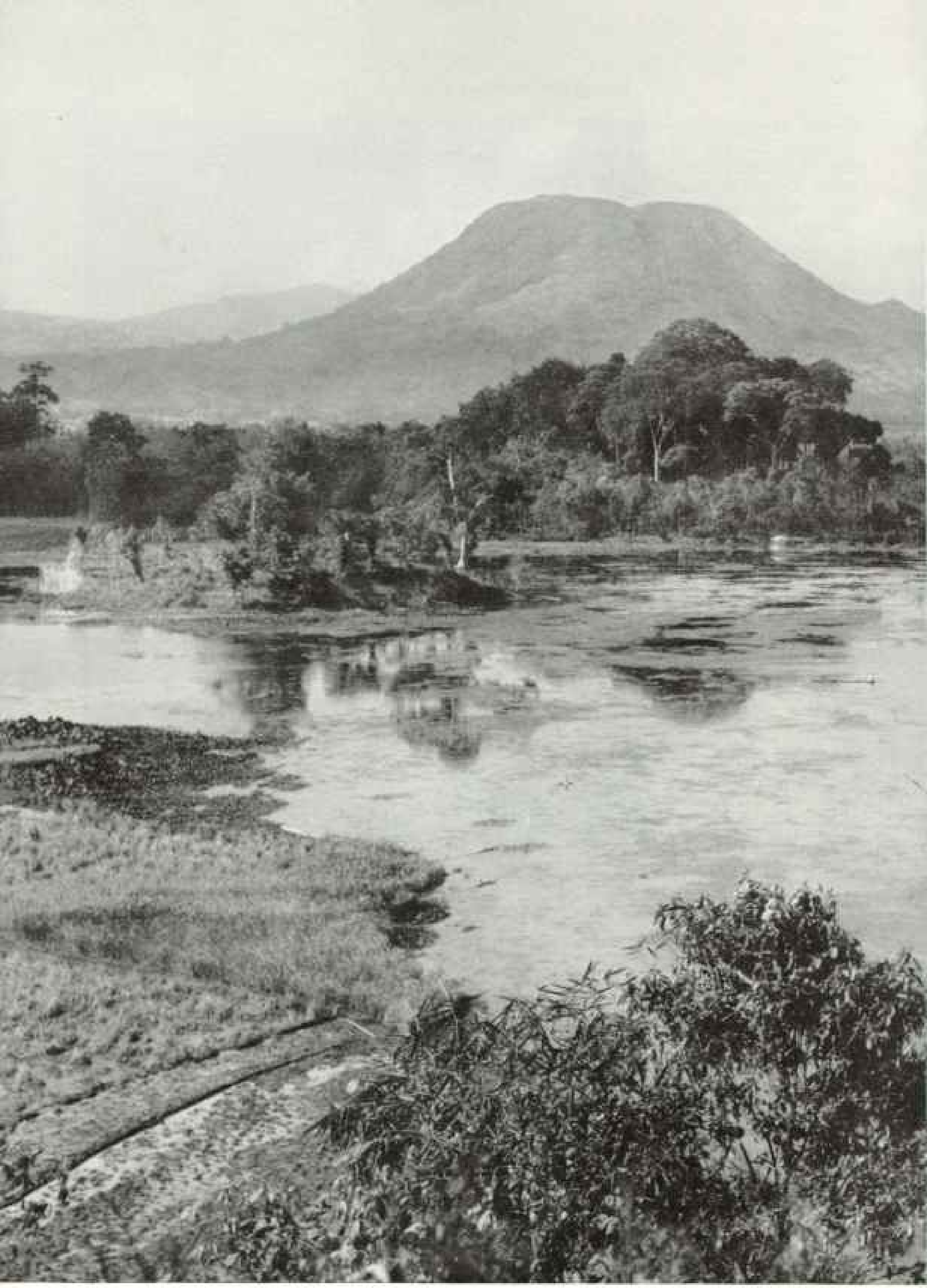
To Market in Baskets Go Pigs from Bali

On a wharf at Tandjoengpriok, seaport for Batavia, a Chinese prepares a slingload of five, squealing porkers for transshipment to Singapore. Thus neatly packaged, thousands of pigs made long sea voyages before the war, with Chinese attendants to feed and water them. Livestock is scarce in Indonesia today.

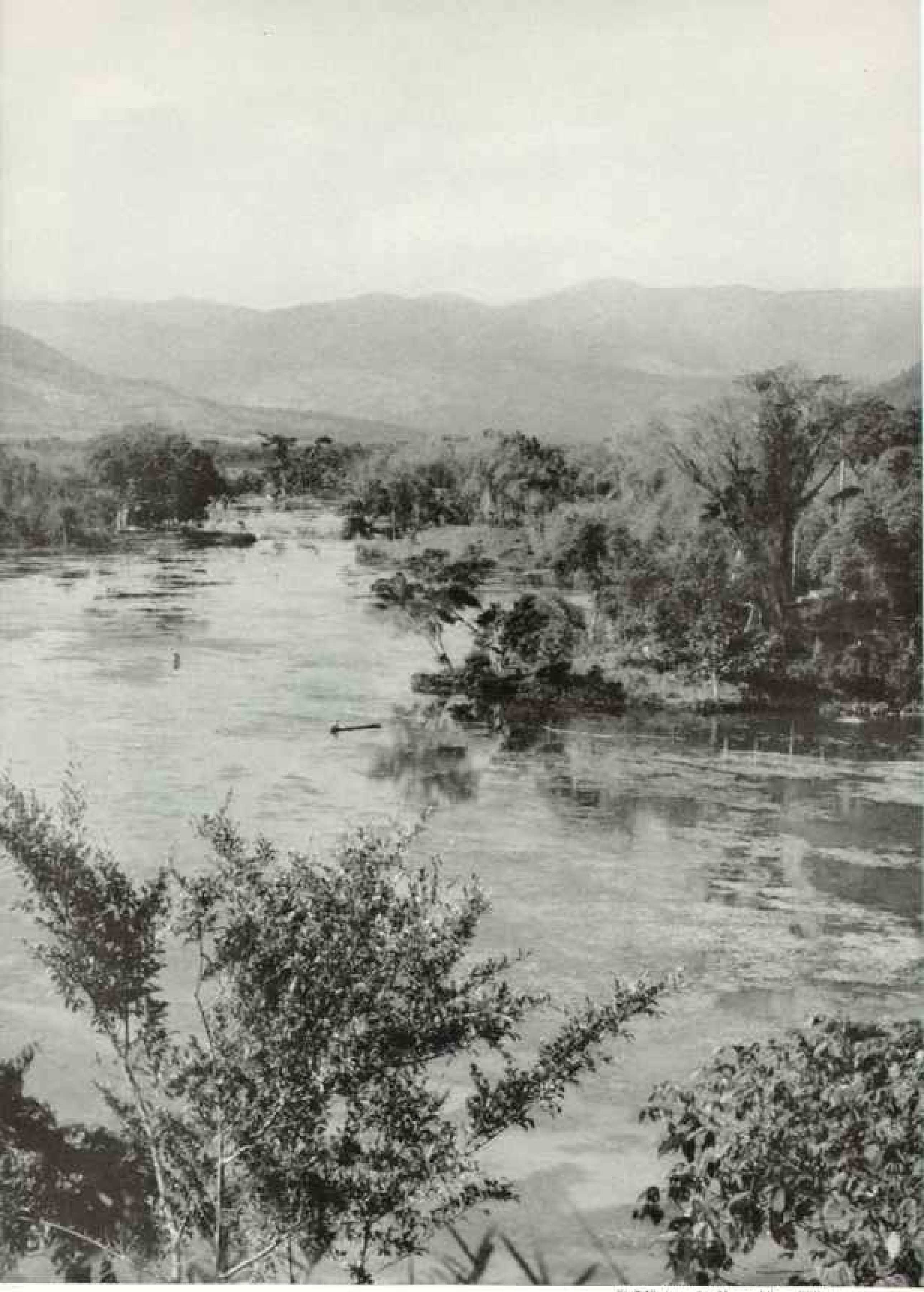
Every tree in the thick groves along the road bore some kind of fruit, or nut, or provided other food or raw material. We saw sugar, oil, and coconut palms; banana plants; mango, breadfruit, rubber, kapok, and gutta-percha trees, and many others economically useful, including the ubiquitous bamboo.

Chinese Victims of Native Resentment

At Buitenzorg (called Bogor by the Republicans) we slowed down for a look at the impressive palace occupied by the Dutch Governor General of the Indies before the war (page 684), and finally stopped to investigate a ragged crowd assembled in irregular queues before a small office building.



Western Java's Volcanic Peaks Frown upon Tranquil Lake Leles, North of Garoet



Staff Photographer Maynard Owen Williams

Lotus Plants Carpet the Water. Vacation Retreats Hide Behind Lush Tropical Growth

Photo Bristol from Three Lions

For Cool Sleeping in Humid Java, Nothing Beats a "Dutch Wife"

The girls, resting in their bedroom, straddle kapok-filled *rolkussen*, or round cushions (Dutch wives), which absorb perspiration. Netherlanders follow this custom throughout their tropical empire. Even those living in the United States find the bolsters a comfort in summertime.

We discovered that these poverty-stricken people were Chinese, mostly part Indonesian, who had lost their homes and possessions during the war and revolution and were awaiting the weekly distribution of supplies by a Chinese relief organization which received the cooperation of the Netherlands Red Cross.

The shops, stores, and trade of the Indies are almost entirely in Chinese hands. The resentment of the poorer Indonesians at this flared up during the revolution, resulting in terrible massacres of Chinese and in the flight of thousands of others to Dutch-held districts in Java and Sumatra.

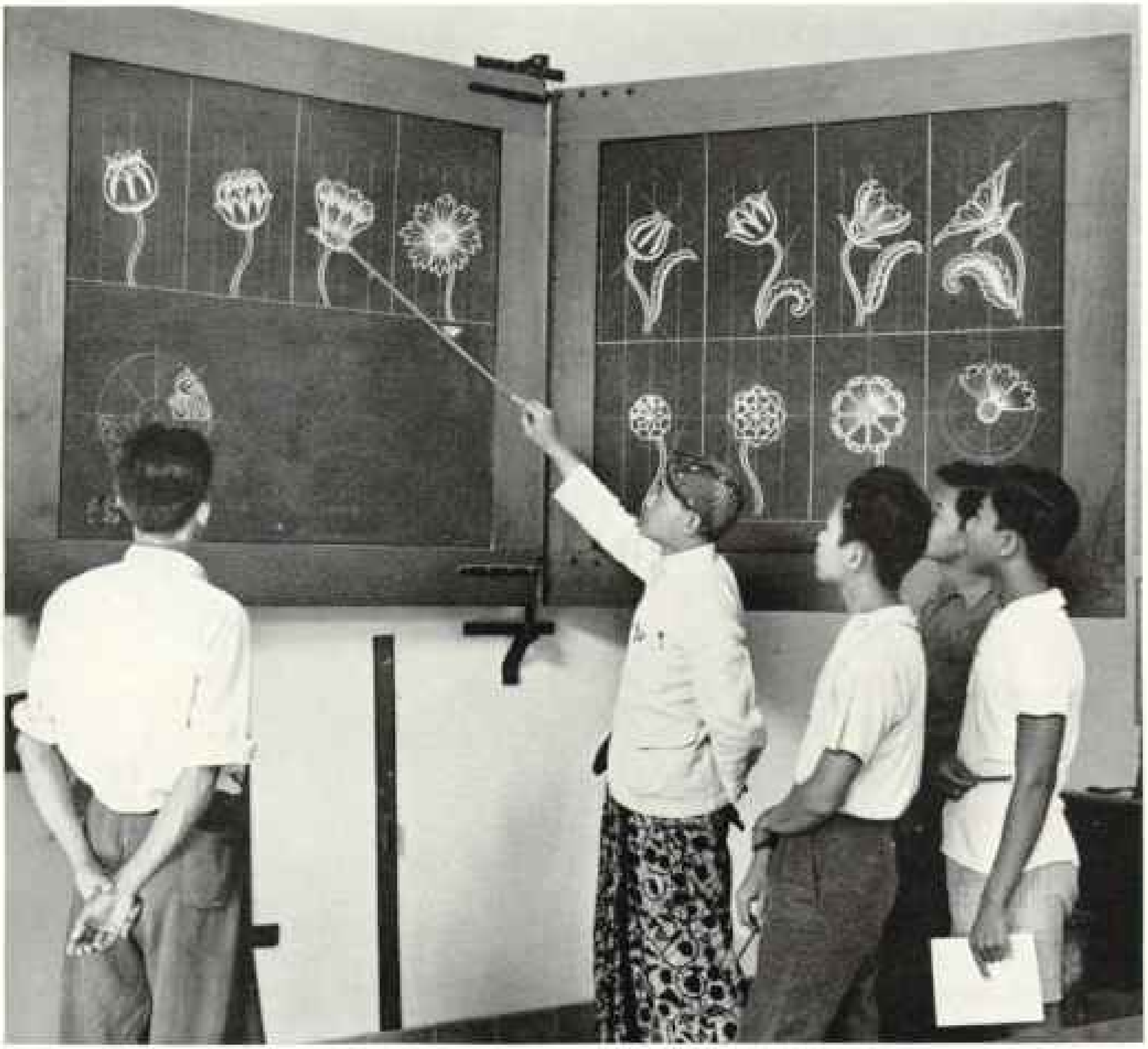
From pleasant but war-scarred Buitenzorg the road ascends steeply into the gorgeous mountain scenery of Java's interior.

We met occasional trucks of the Dutch Army careening down the curving road with rugged-looking, khaki-clad young Dutchmen at the wheels. Sturdy, perspiring little peasants swung off the pavement with their heavy burdens to let cars pass.

Farmers Busy in Long-neglected Fields

Occasional tea plantations clinging to the steep mountain slopes showed evidence of long neglect during the Japanese occupation and the subsequent revolutionary disorders. Disruption of intricate irrigation systems had left some of the rice fields dry.

But now peasants were everywhere at work, wringing their meager subsistence from the rich but overcrowded soil. Men and women were bearing golden sheaves of rice home from the fields on the inevitable shoulder sticks.



Deane Dickason

Aspiring Javanese Youth Receives Instruction in an Ancient Art

In this prewar picture the teacher points to chalked examples of floral design used in a school at Jogjakarta, now the Indonesian Republican capital in south-central Java. Such designs appear in bright colors on batiked sarongs like that worn by the instructor.

At one little village the town council was assembling in a rough pavilion, open on all sides, for its weekly meeting. A number of the councilors carried, with obvious pride, battered and bulging brief cases which looked as if they had been through not one but many wars. Here the brief case vies with the fountain pen as a symbol of wealth and importance among unlettered Indonesians.

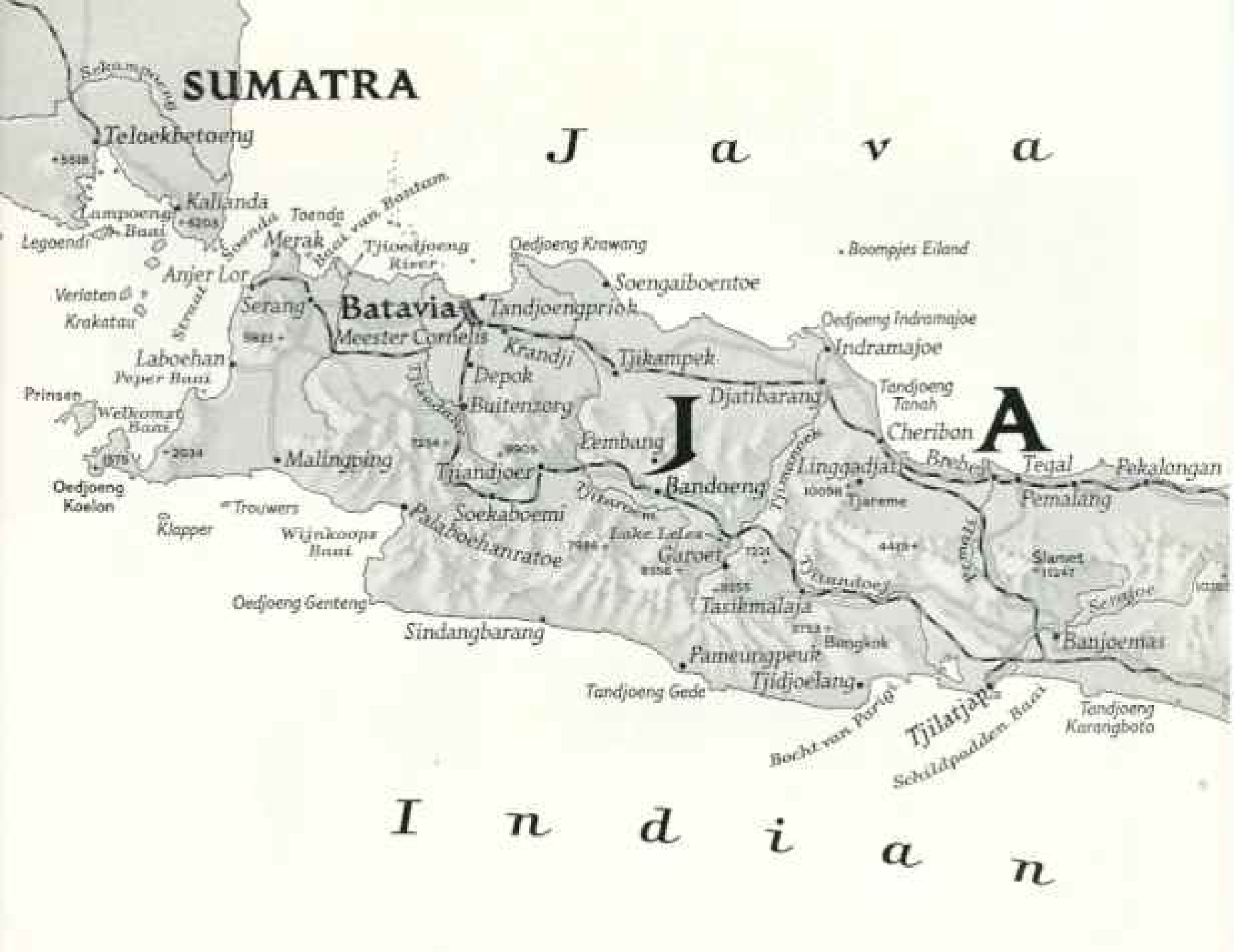
At the crest of the pass lolled a guard of four young Dutch soldiers. Their pleasant faces and friendly joshing reminded me of American GIs I had encountered in Europe.

Like our soldiers overseas, they were homesick. The lovely scenery, the cool mountain climate, and the relatively easy life they led, now that the sniping at outposts and convoys by Republican guerrillas had ceased, failed to banish their longing for their neat little homeland. Near by were the graves of three Dutch soldiers who had been shot by snipers.

Chickens for Fighting, Not Food

After lunch at the home of the Tjiandjoer district officer and his attractive blond wife, my host left the main highway in search of a school conducted by an old acquaintance, the district's chief Moslem *hadji* (*i.e.*, one who has made the pilgrimage to Mecca).

As we sped along the narrow dirt track, I feared that our visit would sadly deplete the rooster population of the vicinity. The Javanese seem to raise chickens primarily to produce gamecocks, for we flushed many of these magnificent birds from the middle of the



Drawn for Harry R. Oliver and Irvin R. Altemus

Java, Dutch Colonial Prize, Emerged from War Only to Plunge into Revolution

Japanese, occupying Java for three years, encouraged Indonesians to rebel against the Netherlands, which had ruled the rich island for more than three centuries. When Japan surrendered to the Allies, an Indonesian Republic was set up. It comprised parts of Java, Madoera, and Sumatra, with Jogjakarta as capital. Fighting followed, but early this year a United Nations committee obtained Dutch and Indonesian agreement to let a plebiscite decide whether all or part of these territories shall remain within the Indonesian Republic when it enters the Dutch-sponsored United States of Indonesia.

road. They stood there unconcernedly until the car seemed certain to run them down.

Game stock provides the Javanese with one of their greatest pleasures, cockfighting, but offers little attraction to an American who likes southern fried chicken. Javanese chickens are stringy and scrawny, with very little meat on their big bones. Their eggs are about half the size of those of a Plymouth Rock.

The home of the hadji proved to be a clean, well-built, but unpretentious little house with latticework sides to let the air circulate freely. It was set in the middle of a tree-shaded village composed of similar houses, with the inevitable fishpools in which we could see big carp and other fish waiting their turn to round out the sparse fare of the villagers.

The hadji's school was a small one-room house without a vestige of furniture; teacher and pupils sit on the floor with their legs crossed under them.

Three shy but friendly little boys wearing black Moslem fezzes showed us the dormitory where they lived. It was another small one-room house partitioned by latticework into dark little cubicles, each containing a latticework bed devoid of any covering.

Our host, a thin, young-looking man with quick eyes and an intelligent face, invited us to sit on his porch and talk with him. As he unrolled a straw mat, we took off our shoes and sat in a circle in the Eastern fashion, squatting on our crossed legs. His questions and remarks in Arabic, which Van der Plas translated, covered a wide range of world and local affairs, religion, and philosophy. But I was glad when it was time to leave and I was able to straighten my cramped legs.

It was now late afternoon, and reluctantly we turned back to Batavia, where the flickering candles of the market places again greeted us on our arrival after dusk.

Java Sea

I carried back with me an unforgettable impression of the placid flow of village and country life in the Sundanese districts of Java; of clean little houses with neatly swept and sanded yards, half-hidden by flowering shrubs and nestled together beneath groves of banana plants and fruit trees interspersed with fishponds; of a beautiful, fertile land alive with innately friendly little people who smiled and waved at the slightest invitation.

To Jogjakarta, Republican Stronghold

Early the next morning Harry Summers and I boarded the official car on the train to the Republican capital at Jogjakarta, in central Java. We both looked forward eagerly to visiting the territory, which had been under nationalist rule since proclamation of the Republic of Indonesia on August 17, 1945.

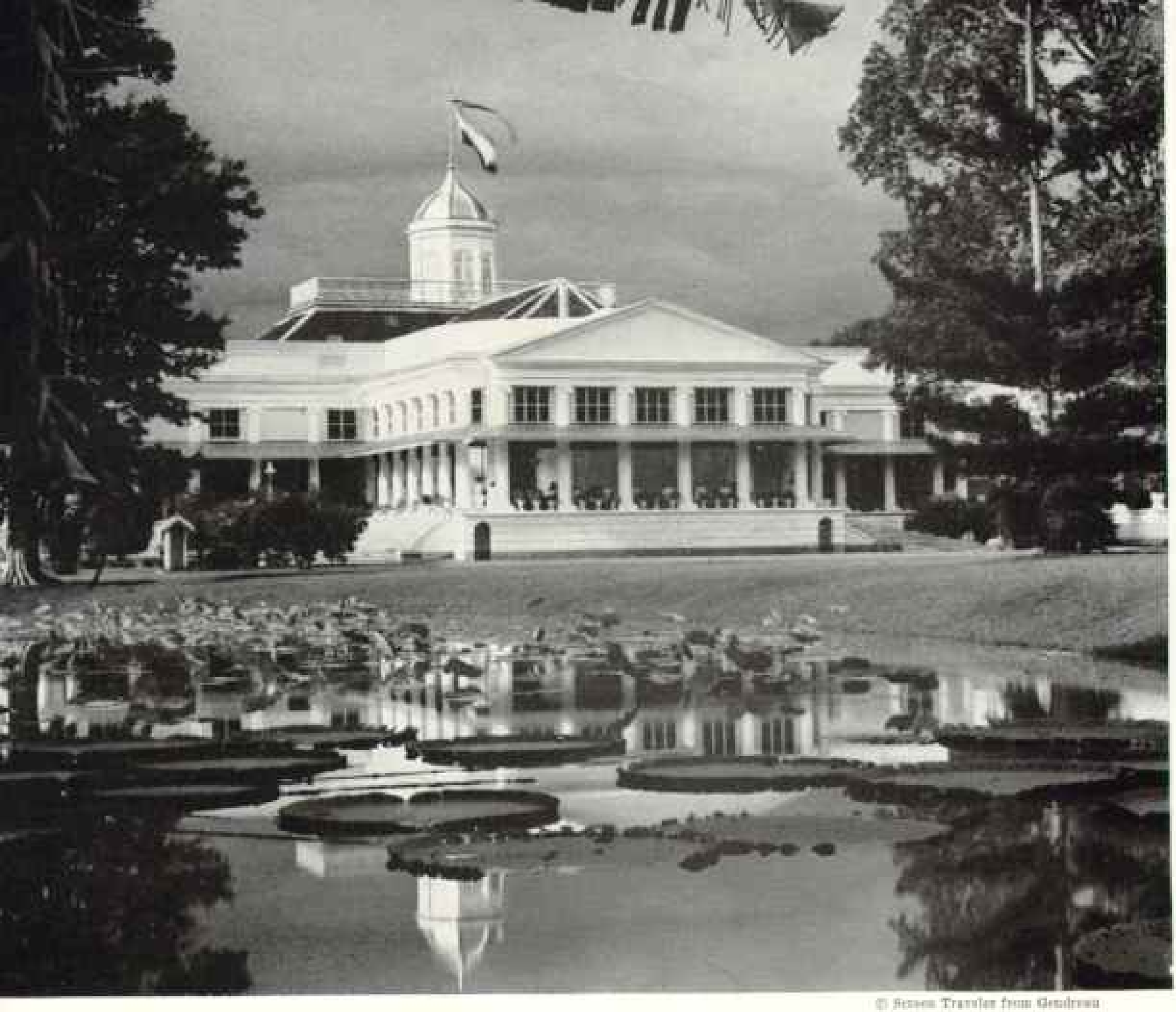
Sharing the car were two Republican Cabinet Ministers and other officials who were returning to Jogjakarta after the formal signing of the Linggadjati peace settlement with the Dutch in Batavia several days before, on March 25, 1947. We two, it developed, were the only white men on board.

Less than an hour after leaving Batavia, our train ground to a halt at Krandji, on the perimeter of the Dutch-controlled area around Batavia, where all passengers except those in the official car had to pass a Dutch military and customs inspection.

Sight of a platoon of sturdy Dutch soldiers drilling on the station platform recalled that for months Dutch and Republican troops had faced each other across the frontier, with not infrequent exchanges of small-arms fire despite the truce agreement which both sides had signed the preceding November.

A short distance farther on we stopped again, while Republican officers and soldiers examined the credentials of all the passengers.

Many of the Indonesian frontier guards were scarcely more than boys, and most of them were so short and slight that their rifles looked much too heavy for them. Attired



© Screen Transfer from Gendreau

Floral Wonders Surround the Governor General's Snow-white Palace at Buitenzorg

Victoria water lilies, with pads like floating piecrusts, and lotus plants adorn the reflecting pool. Japanese scientists used laboratories of the adjoining Botanical Gardens during the 3-year occupation of Java. The mansion, neglected during the war and the ensuing conflict between Netherlands and Indonesian Republican forces, recently became headquarters of the Dutch garrison of Buitenzorg, 30 miles south of Batavia.

and equipped with a bewildering variety of uniforms and arms, most of which appeared to be of Japanese origin, they slouched and swaggered about the platform, apparently enjoying their military role.

Long Hair a Badge of Patriotism

A few youths here, as in many parts of the interior, had let their hair grow long to fulfill an oath taken early in the revolution not to have it shorn until independence was won. For a foreigner, it was hard to tell whether some of these "long-hairs" were boys or girls.

An efficient-looking functionary, indubitably a girl, inspected the credentials of all who alighted from the train. The guards and the girl, I was informed, were among numerous students released from their studies to help keep governmental services running.

All morning our wood-burning locomotive with its Indonesian crew pulled us at a fairly good speed across the great coastal plain of Java, rice bowl of the Netherlands Indies. Green, flooded rice fields stretch to the sea on the north and to the rugged mountains looming on the southern horizon.

Immense labor is involved in planting and reaping such a vast area, since each stalk of young rice is pushed into the soft muck singly by human hand and cut by hand when it ripens—exactly the same way it was done two or three thousand years ago.

Fishing in a Rice Field

Occasionally we saw a fisherman standing motionless with bamboo pole extended and a heavy string dropping down into the nearly full-grown rice. The crop largely concealed the stagnant water, which is very shallow but nevertheless contains small fish that form a welcome addition to the peasant's almost exclusive diet of rice and fruit.

Now and then we saw country folk bathing naked in the muddy, crocodile-infested rivers.

Water buffalo were numerous here and almost invariably accompanied by boy herdsmen clad only in breechclouts. Whether grazing along the railway or wallowing in mudholes or streams, one animal in each small herd usually had a sunburned boy astride its broad back.

Later the President of the Republic, Achmed Soekarno, told me something about the habits of the huge creatures, with their great curved horns, which drag the ancient wooden plows of the peasants through the muck of the rice fields. The water buffalo, he said, is normally gentle and docile, but becomes infuriated and dangerous if the peasant tries to force it to work after 11 o'clock in the morning, when the sun's nearly vertical rays make it long to seek refuge in water or deep mud.

During stops at stations along the way we tried several varieties of fruit, including the delicious mangosteen with purplish husks protecting the succulent pure-white pulp within; also big green coconuts which squirted their cooling, astringent juice like a tiny fountain when a small boy expertly chopped out a small hole from which to drink.

But some of the "delicacies" pressed upon the willing native customers by the peddlers made my stomach quiver just to look at them —roast chicken, cooked dried bananas, goat meat, rice patties, and so forth, scorched in the tropical sun and powdered with the dust and soot of many passing trains.

Once in a while pitiful beggars in indescribably filthy rags, their bodies covered with sores, would evade the railway guards and raise little baskets pleadingly to the passengers. There has been a marked increase in syphilis and tropical sores throughout Java because of the breakdown of the prewar Dutch public health services and the lack of medicine.

Ancient Capital of a New Republic

It was dark when our train, after climbing all afternoon onto the uplands of the interior, panted into the station at Jogjakarta. The station was a tumult of pushing, perspiring Indonesians, hundreds of whom alighted from the tightly packed wooden passenger cars, while hundreds of others, bound for stations farther along the line, fought for a place to sit or stand.

Preceded by a young official of the Republican Foreign Ministry, we pushed our way through the mob to a pint-sized British car. Almost new, it was one of a few recently imported through the port of Cheribon. Practically all of the cars in the interior were

Lillian Schoedler

Wearing an Ornate Javanese Kris, He Stands Guard at the Sultan's Palace

This court attendant's chief is the Sultan of Solo (Soerakarta). Sarong and shiny stiff hat are his usual costume; he covers his bare shoulders with a jacket only when leaving the palace.

Three Lions

A New Look Results when East Meets West

This Soerabaja businessman, weighing cool comfort against the dictates of fashion, compromises between Javanese and European dress. Over his flowered sarong and open-toed sandals he wears Western-style clothes and sun helmet. Bicycles are a popular form of transport in less hilly parts of Java.

of prewar vintage. That the Republicans managed to keep them operating without spare parts and with an extreme scarcity of tires and inner tubes was a tribute to the efficiency of their mechanics.

The little car bore us smoothly along the main street of the Republican capital to the administrative palace of the Sultan of Jogjakarta, Hamanjkoe Boewono IX, where we were assigned a room opening on a secluded and peaceful court.

As we ate from the Sultan's expensive silverware on the veranda, we watched a score of small lizards crawling along the ceiling in search of insects and occasionally scuttling down the wall on suction-cupped feet to gaze curiously at their funny-looking white-skinned visitors. At intervals during the day and night these lizards send out the loud, grating cry which gives them their name: "geck-o, geck-o."

A day or two later we had the privilege of an interview with the charming, democratically minded young Sultan, who is both hereditary ruler and governor of the Jogjakarta district under the Republic and who holds other high offices in the government and the army of the Republican regime. Educated in the Netherlands, he has modern ideas and attempts to rule through a democratically elected legislative council.

Western Garb Replacing Javanese Dress

Here, as elsewhere in Java, most of the men and boys of the educated classes have cast aside the traditional and highly colorful Javanese costume—batik sarong, long-sleeved jacket buttoned at the neck, batik turban, and no shoes—in favor of informal Western attire—sport shirt, shorts or trousers, *and* shoes.

Except on formal occasions, when they revel in their beautiful Javanese costumes, the schoolgirls and higher-class young women dress very much as their sisters in America or western Europe.

Seeing these neatly dressed modern-looking boys and girls riding their bicycles with carefree self-reliance down the crowded streets, you have to pinch yourself to realize that you are in one of the most ancient capitals known to the recorded history of the Indies.

But heavily mixed with the modernity of Indonesian youth are figures and faces representative of a dying feudal age—the half-naked peasants, ragged peddlers, and street urchins squatting or sleeping on the sidewalk

in the shade, the women of the poorer classes in cheap, dirty-looking batik sarongs, the naked children.

Most depressing of all are the women coolies, who in this section of Java are horrible victims of that ancient, primitive male slogan: "Let the women do the work." Dressed in nothing but ragged gunny sacking or ill-fitting straw matting, these wretched women shuffle through the streets, bent almost double under sacks of rice or other goods and with a look of anguish and hopelessness in their dull eyes.

Slogans from American Revolution

Many of the bare walls in the center of the city were still adorned with weather-beaten propaganda slogans painted by Javanese nationalists just after the proclamation of the Republic in 1945, when they expected that American troops would be sent to Java to accept the surrender of the Japanese occupation forces.

Many of these slogans had been copied or adapted from the patriotic utterances of American patriots: "Give Us Liberty or Give Us Death," "Freedom Forever," "Unity and Independence," and so forth.

B. Brandt from Black Star

Mother and Child Pause for Lunch on a Javanese Rubber Plantation

In addition to rearing families, thousands of Indonesian women hold full-time jobs on estates growing rubber, sugar, tea, coffee, cinchona, and other valuable export crops. Many plantations provide barracklike nurseries where the infants sleep in hammocks slung from the ceiling and are cared for by trained attendants.

One of the young Indonesian officials assigned to guide and assist us was Johnny Senduk. Johnny at once attracted my attention by the frequent American slang expressions that crept into his fluent English. He is a Christian from Manado, in northern Celebes, who had gone to sea in search of adventure and, like many Indonesian seamen, had jumped ship in New York. He lived unmolested in Brooklyn for several years, acquiring an inordinate taste for American swing music and soft drinks and a deep admiration for America as a country.

Wartime conscription resulted in the discovery of Johnny's status as an illegal immigrant and he was deported. Now he divides his time between writing poetry, editing an English-language magazine published by the Republic, and taking care of inquisitive foreign correspondents and writers.

Whenever Johnny can spare an hour or two from his varied activities, he goes with other local hepcats to an ice-cream bar in Jogjakarta where tasteless ice cream is served to the accompaniment of hot jazz music from a well-worn collection of American records.

One sunny afternoon Johnny took us on a tour of the Sultan's residential palace, in another part of the city.

Alfred T. Palmer

Stubby Spires of Boroboedoer, Java's Buddhist Shrine, Frame Slumbering Mount Merapi

Each of these three bell-shaped stupas, like hundreds of others studding the massive temple near Jogjakarta, contains an image of Buddha. On the walls, more than two miles of carving depict the religious leader's life in detail. Boroboedoer was built about A. D. 850. Dutch rulers of the Indies began excavation and restoration of the ruins about a century and a half ago (opposite page).

The Sultan rarely visits this palace, preferring the simpler and more modern atmosphere of his administrative headquarters. So the palace is maintained largely as a matter of tradition and routine by a hereditary corps of officials, guards, and servants.

Passing through the outer gate was like entering another world—a world of peace, refinement, and quiet dignity, of harmonious blending of line and color—but also a world clinging with a sense of its own futility to a dying tradition and an outmoded civilization.

The entrance to the inner court was guarded by two huge pot-bellied statues, sitting alert with drawn weapons, presumably to scare away evil spirits. An equally amusing human guard, a little, wizened old man with a wispy gray mustache, stood holding a long spear with the butt resting on the marble floor.

The tip of the spear, it turned out, is still kept poisoned, in line with ancient tradition. But it seemed extremely doubtful whether the old man could hold the weapon if he attempted to level it at an intruder.

A Really Old "Swimmin' Hole"

From the residential palace we drove by carriage to the ruins of the Water Castle, the ancient court of an earlier line of rulers.

Wandering along a tree-shaded lane in the vast grounds of the crumbled palace, we were attracted by splashing and childish shouts to a really old "swimmin' hole" that would be the envy of almost any American boy. Naked youngsters and a few of their elders were plunging joyfully into a great weed-grown pool in which the rulers of Jogjakarta and its domains had disported centuries before.

Long ago the palace boasted a broad lagoon dotted here and there with impressive stone

pavilions. But now the lagoon is dry and its level floor is crowded with the houses, gardens, and fruit groves of modern Javanese. Here, as everywhere in Java, we saw many naked babies and swarms of older children.

The crowded bed of the lagoon is one of many illustrations of the island's grave problem of overpopulation. There are now around fifty million people dependent almost entirely upon agriculture for their livelihood on the island of Java—a population denser than that of any industrialized country in western Europe.

The Boroboedoer Still Glorifies Buddha

On another afternoon Johnny obtained possession of the British bantam car and took us to visit that crowning monument to the ancient Indian civilization of Java, the Boroboedoer.

An hour's drive through the ever-entrancing Javanese countryside brought us to the world-famous Buddhist shrine, which was discovered buried in a huge mound of rubble and excavated and restored by the Dutch rulers of the Indies. As we approached, we could see it from a distance, crowning a solitary hill near the end of a great valley encircled by rugged mountain ranges.

As our car ascended the hill and stopped, the massive size and fabulously ornate decoration of the temple inspired awe. The largest cathedrals of Europe, although more graceful and with much higher spires, would nevertheless look puny and insubstantial beside this 1,100-year-old marvel.

The hoary structure rises like a terraced pyramid with truncated corners from a base that would fill a good-sized city block to a great bell-like dome surmounted by a spire that looks as if it had been chopped squarely off not far from its starting point.

Gazing up the sides of the structure, you see everywhere the benign, impassive face of the Buddha staring at you or beyond you with an expression of timeless wisdom.

On the upper terraces the glorification of the Buddha takes another form. Each terrace is fringed with regularly spaced heavy stone screens, each a miniature replica of the huge bell-like dome (opposite page) and each containing in its hollow interior an identical statue of the Buddha seated with his hands folded, palms up, before him.

I noticed Johnny, with his arm stuck through one of the openings in a screen, straining to touch the hand of the meditative figure inside.

"If you touch the palm of the Buddha and make a wish, it will be granted to you," he explained. And then, succeeding in his quest, he grunted: "I wish, I wish I could find me a nice girl friend."

A few days later Summers and I were invited to accompany President Soekarno, Vice President Mohammed Hatta, and a number of other Republican officials on a four-day tour into western Java.

The trip reminded me of a Presidential campaign tour in America, except that here the people gathered to greet their leaders as champions of Indonesian independence rather than as leaders of a single political party.

The heady wine of freedom and democracy, I discovered, has imbued large sections of the population with nationalistic fervor and a feeling of exhilaration. Under the influence of Soekarno's personality and oratory his followers are apt to exhibit symptoms resembling those of champagne bibbers.

I am sure that Soekarno could teach a few tricks to the best of our American politicians on how to get right with the voters. Crowds were assembled at every railway station to cheer and salute the President.

"Mer-dek-a, mer-dek-a, mer-dek-a!" (Freedom, freedom, freedom), the crowd shouted in an endless chant, right arms held upward in salute.

At one typical stop a chorus of dark-eyed, serious-faced little schoolgirls lustily sang patriotic songs, one of which was set to the tune of our "Battle Hymn of the Republic."

The Sundanese people of western Java differ markedly from the Javanese inhabiting the central and southern districts. They are sturdier, hardier, gayer in spirit. Their women are more beautiful and more colorfully costumed and their traditional dances more vital and impetuous.

White Skin an Oddity Here

In the Republican territory of western Java a white-skinned American is the object of a curiosity which sometimes becomes embarrassing, for my Australian companion and I were informed that we were the first white men to enter this region since the early days of the 1945 revolution. Since Dutchmen and other Europeans who lived here before the war had spent the war years in Japanese prison camps, many of the native youngsters had never seen a white person.

Schoolboys and girls goggled at my ruddy, sunburned complexion tinged by the strange yellowish glow induced by taking atabrine tablets, and I noticed one group of small girls giggling delightedly at the cue-ball-like glisten of my bald pate. My height of six feet two astonished them, as the average

Denise Dickason from Ewing Galloway

Java's "Sand Sea," an Old Volcano Crater, Suggests a Landscape on the Moon

This lake of ash, in a depression between mountain walls near Soerabaja, was once a seething caldron of lava. Up the cement steps (foreground) visitors climb to peer into the roaring furnace of Bromo, an active volcano.

Staff Photographer Maynard Owen Williams

After a Round of Batavia's Shops, She Boards a Bus for Home

The sarong-clad woman (foreground) lifts a load of goods obtained by bartering produce of her outlying farm. The bus waits at a station on the colonial capital's main street beside the Molenvliet Canal. All Java now suffers from an acute shortage of transport (page 675).

Indonesian seldom stands more than five feet and weighs about half as much as a good-sized American or European.

Many of the schoolgirls are inveterate autograph hunters. They respectfully but firmly demanded not only autographs but messages for the little girls of Indonesia.

Since English is taught as the secondary language in Republican schools, some of these girls tried out their English on me, and I could not help admiring their proficiency. As we were about to leave Tasikmalaja, a bright-faced girl of about ten years handed me the following note:

Honourable Sir:

May we take the liberty to ask you if you will send us a copy of your impressions of Java and his inhabitants.

We hope you will not refuse this sincere desire of us.

Please, be so kindly as to convey our best wishes to the American girls.

Receive our thanks.

With kind regards,
Ann Soediadinata
Etty Kartamihardja
Garmini Soeria Danveningrat

Early dawn of the second day after our return to Jogjakarta found me, with an Indonesian companion, waiting at the jam-packed station to catch the train back to Batavia.

As luck would have it, the entrance to a first-class coach stopped right in front of me and, hanging desperately to my bags, I was swept on board by the swirling mob.

Train Packed Like New York Subway

Every available seat was already filled, so there was a rush for the next best positions, a perch on the arm of a seat or a suitcase.

Perspiring passengers kept pushing in until the car was jammed like a rush-hour express on the New York subway. We had to put up with such crowding for most of the 14-hour journey to Batavia.

The Indonesian children in our car were pure gold. The little Javanese baby boy in the lap of his peasant mother, who sat on the floor of the aisle beside me, sucked contentedly away at his harassed mother's ample breasts and never let out a peep the whole day. He amused himself by pulling the hair on my bare arms, and when I patted his

Netherlands Information Bureau

Symbol of Vanished Glory Is a Javanese Sultan's Gold-encrusted Coach

Here the Soesoehoenan of Soerakarta rides forth in his carriage, surrounded by servants in royal trappings. Even under prewar Netherlands rule the Sultan's power declined; now, with his territory in Indonesian Republican hands, it is almost nonexistent. In past years the Sultans of Soerakarta and Jogjakarta were Java's most important native leaders.

tiny hand his barefooted mother and father gave me the most heart-warming smiles I have ever received.

Lunchtime, which began early and ended late, meant a wild scramble by chattering members of the respective families for food packages stored in sacks or valises scattered all over the car.

Those of us who carried no lunches had to depend on the food venders at occasional stations. The difficulty was that it was virtually impossible to squeeze one's way out onto the platform even if one wanted to take the risk of losing his precious seat on the hard arm of a chair.

The windows of the car opened just wide enough to admit a man's flattened hand, but the peddlers managed to squeeze through some boiled duck eggs, also tiny oranges and other small fruit, and we subsisted on these.

"No Time for Climbing Mountains"

My Indonesian companion and a number of other youths who had fought in the Republican armed forces, first against the Japanese and then against the British-Indian troops who landed in Java to accept the Japanese surrender and rescue Allied internees, engaged me in conversation.

Their facility in our tongue was certainly a tribute to the thoroughness of the prewar Dutch educational system.

These youths showed great interest in American foreign and domestic affairs, and I discovered that they listened regularly to the "Voice of America" broadcasts from our west coast in both English and Malay.

One young veteran told me that it was his life's ambition to attend West Point and asked me whether there was any possibility of an Indonesian youth being admitted.

Towards evening, as we were crossing the great rice fields of the Cheribon plain, the sheer peaks soaring into the blue sky of the distant interior again attracted my attention.

"If some of our American mountain climbers saw those peaks, they could not resist an attempt to scale them," I remarked to my young Indonesian companion.

"We have no time for climbing mountains," he replied. "We have many more important things to do."

Sutherland Syndicate

In Gay Racing Harness, an Entrant in Madoera's Bull Derby Gets a Last-minute Grooming

Big sporting event of the year on this island, off Java's northeast coast, is the September bull derby at Bangkalan. Teams of animals, aristocrats of the island's herds, sprint before howling holiday throngs. Breeders adorn their bovine speedsters with fancy headdress, bells, ribbons, and tiny mirrors. Horns are painted or encased in knit wool. Umbrellas shade the bulls as they await post time.

All Madoera Turns Out on Derby Day; Seats in Trees Are Free

From lofty perches these islanders shout encouragement to their favorite bull teams as they gallop around the *alun-alun*, a grassy square in the center of Bangkalan, which for a day becomes the Indonesian counterpart of Churchill Downs.

Every Madoera village is represented by one or more teams which qualify for the derby in smaller meets held on preceding Sundays.

Villagers back their entries with an enthusiasm which frequently leads to violence. Owners of losing bulls, overcome by rage and disappointment, sometimes slaughter the offending animals on the spot and sell the carcasses to butchers.

Dorien Leigh from Black Star

Central Feature News

Down the Stretch Thunder Two Teams of Racing Bulls. Jockeys, Crouching on Sledges Between the Yoked Animals, Urge Them On

Admirers Surround Three Jockeys, Who Await Their Turn to Race

After a year of training and practice in minor village meetings, these racing-bull drivers (foreground) hold themselves in tense readiness for the derby at Bangkalan.

Bulls usually are driven by their owners. Each guards jealously his secret training methods. Derby victors win public adulation like that accorded a baseball hero in the United States. Defeated owners return home in virtual disgrace.

The drivers here wear their "uniform" of knotted kerchief, heavy leather belt, and wide pantaloons.

The fez, a popular form of headgear in Indonesia, predominates among the admiring youths. A few wear turbans, while one (center) proudly sports a sun helmet.

Dorian Lelah from Black Star

Young and Old Railbirds Reflect the Gaiety of Derby Day

"What cockfighting is to Bali, so is bull racing to Madoera"—so goes an Indonesian saying. And next to owning and racing a thoroughbred team, the Madoera villager's dream is to see his favorites compete for the crown at Rangkalan.

Neglected for the day are Madoera's rice fields, coconut groves, and salt deposits. All roads on the island lead to the races. Swelling the throng are additional Javanese enthusiasts who cross on the ferry from Soerabaja.

Derby festivities start with a parade of the gaily decorated favorites. Venders hawk their wares among the spectators. Owners of competing teams address the crowd, praising their animals and heaping scorn upon those of rivals. Bookmakers do a lively business.

Erwin Bergbaus

Dorien Leigh from Black Star

They're Off! Heads High and Muscles Straining, a Team Starts a Wild Dash for the Finish Line

The driver wields his short club furiously as the matched bulls break from the barrier and head down the track in quest of derby honors. Two European visitors (in white), who have strayed into the Bangkalan arena, hastily scramble out of the way.

Like an Angry Brown Demon, a Driver Flogs a Derby Team Past the Bangkalan Grandstand

Dorien Leigh from Black Star

The Winner and New Champion Tells How He Achieved Glory

Following derby day custom, this winner of a race at Bangkalan mounts the withers of one of his bulls to make a speech. With pantomime and oratorical flourishes he discusses his animals' pedigrees and describes his training methods. Among his defeated rivals may be some with broken bones, for jockeys frequently fall from their perches on sledges dragged between the yoked bulls.

During their three-year occupation of the island the Japanese banned bull racing and also bull fighting, in which two animals prod each other until one runs away. Many bulls were slaughtered to feed Japanese troops. However, bull sports were conducted secretly.

The first big race meeting since Japan's surrender was held a few months ago. A Madoerese, say the islanders, often values his bulls more than his family. He bathes them daily, supplies them with choice fodder, and is ever ready to proclaim their superiority. The best are trained for racing or fighting; the others are shipped abroad.

Before World War II Madoera exported about 60,000 bulls annually. Cows are used mainly as draft animals and for producing more bulls.

Last of the Cape Horners

By Alan Villiers

IN DECEMBER, 1947, the four-masted bark *Pamir* sailed into the Thames estuary, furled her 40,000 square feet of canvas, and took a tow to London docks.

Sailing out of Wellington, New Zealand, the 43-year-old *Pamir* had accomplished the passage in 81 days, which is good time. Across 15,000 miles of ocean she had averaged nearly 200 miles a day, and done it entirely without power.

As *Pamir* passed up the Thames, thousands marveled at her beauty. Scores of old salts looked upon her as a ghost out of the past.

She was almost as great a curiosity to active seamen. In fact, the British broadcast a warning to all watch-keeping officers in steamships to be on the alert for her at night.

I have asked myself whether a nautical writer might take this occasion to draft the obituary of commercial sail. If we inspect the Orient, where thousands of Chinese junks, Makassar praus, and Arabian dhows still work profitably under canvas, the answer is "No."

In Western waters, however, sail's time is up. World War II spelled its death. Bombs, mines, and raiders took their toll.

In 1932 I sailed with one of the 20 square-riggers making the annual grain race from Spencer Gulf, Australia, to the English Channel. Without subsidy of any kind, they competed successfully with steam. It must be admitted that one of these sailers carried an auxiliary engine; but the other ships all scorned her, refused to reckon her in the race.

One by One the Old Ships Go

In 1948 only four genuine Cape Horners survive, and gossip in all the ports that knew them says they will not linger long. One is New Zealand's *Pamir*, the subject of Norman M. MacNeil's splendid series of pictures (pages 703-710). I knew her as a worthy rival to sailing ships in which I served.

Another is the South African *Lawhill*, already an old ship when I sailed in her a quarter-century ago; her days are numbered. Others are the Finnish *Parsat* and *Viking*. A few other hulls survive, but no cargo-carrying square-riggers sail around Cape Horn.

It will be a pity when the last one goes. They were all magnificent, in their own way. I learned their strength as well as their beauty, for I gave them half a lifetime.

From the ease of a country home and a garden I now look back to the long, sunny days of sailing through the trades; the quiet, serene beauty of the ships themselves, every sail set in rounded curves of perfect loveliness. The seeming maze of the giant rigging was one of the finest engineering feats ever achieved by ship designers (page 707).

Alone in a world heading into the atomic age, the sailing ship made use of the free winds of God without benefit of artifice; and the satisfactions of those who served her were deep and real. Every voyage was a challenge; its safe achievement a triumph.

Beautiful as these ships were, they bred a tough race of men. Crews, manhandling their ships across the face of the seas, lived close to Nature. They learned to fight not only for every inch the sailer made along the road, but for their own very existence.

Their Blood Was Tar, Hair Rope Yarn

In those days men thought nothing of living in forecastles ankle-deep in sea water. Intense cold cracked their hands and made tough calluses open, running sores.

Nothing could be done about such wounds save to daub them in Stockholm tar. No wonder old-timers boasted that their blood was Stockholm tar, their every hair a rope yarn, their fingers marlinespikes.

In these times the number of men willing to accept sail's hardships is diminishing almost to the vanishing point. Now any deck hand who cares to describe himself as a seaman may tell the cook how he likes his breakfast eggs; he has his choice of two flavors of ice cream; and he can live in a well-furnished two-berth cabin.

Now and then such a man encounters a North Atlantic blow, but not even a deeply laden tanker is such a plaything of the sea as a Cape Horn sailer full of grain.

Some of the square-riggers used to come out of Spencer Gulf and throw their main decks under water as soon as they met the huge rollers of the Southern Ocean. They did not bring their decks above water again until they had rounded the Horn.

Those six to eight weeks were a cold, wet purgatory. Living quarters were constantly wet; clothing could not be dried. There was no heating system; no grog issue. As the galley was frequently under water, food was almost always cold.

And there was no refrigeration. Consequently, salt horse and salt pork, pea soup and stockfish were stand-by fare.

An ever-increasing number of recruits objected to this diet. When other ships began carrying fresh food under refrigeration, it

became difficult to find a man who knew how to make pork fit to stand a year's passage.

Finnish ships, taking a tip from Arabia's sheep-carrying dhows, tended sties of live pigs and slaughtered one a month.

Other vessels gathered the flying fish dropped aboard in the trade winds. In calms, the men caught bonito, dolphins, and albacore. A daily issue of lime juice kept scurvy away.

Winds Scream Through Icy Rigging

Cook and steward excepted, every man had to be on deck in bad weather. At the gale's command, everyone up to the rank of chief mate piled into the high rigging, where the wind screamed and the ice lay incrusted.

By day and by night all hands faced work on the high yards, their only safety a thin wire rope between them and the sea a hundred feet below (page 704). If anyone fell, he was almost surely doomed. Rarely did a lifeboat go out on a rescue mission, for the great sailer, running before sea and wind, could not be stopped. Lifeboat drill was a rarity.

Now and then a ship went missing. Icebergs loomed along the Cape Horn road. A bad landfall, a savage hurricane, a stove-in hatch, a dismasting in a sudden shift of screaming wind—all these things spelled death.

When the sailer goes, she sends out no radio messages, launches no boats; she takes all hands with her.

When I first went to sea, at the end of World War I, I met 70-year-old men in the forecastles of Cape Horn ships. They knew no other life; scorned to go in steam. They ran aloft with the youngest boy; stood up to every violence of the overwhelming sea.

By the mid-1920's these men were gone. In their place came boys. In the full-rigged *Grace Harwar*, a 1,760-tonner noted for her tendency to slay a man a voyage, we had only 13 youthful hands when I sailed with her in 1929. We ran the big *Parma* with a couple of dozen boys.

Rowed 30 Miles to Call on *Pamir*

It was during my days with *Parma* that I learned to know *Pamir*. I boarded her under strange circumstances one evening during the grain race of 1932.

Though I told this adventure in the January, 1933, National Geographic Magazine, it is not unworthy of repetition.

The four-masted *Parma* had wallowed for days in the South Atlantic doldrums when we sighted the lifeless sails of our rival in an equally windless sea 15 miles away.

As there was not much work to be done, a party of us obtained our captain's permission to borrow a lifeboat and pay a friendly call.

It was 2 p. m. as the davits lowered the lifeboat into the sea. At our lower level, *Pamir* sank out of sight below the horizon. After a short row she reappeared.

Taking turns at the oars, we reached her side in the tropic twilight. Our hosts were astonished at seeing us looming suddenly out of the empty Atlantic.

No one in our party had more than a nodding acquaintance with *Pamir's* men; yet within a few minutes we were exchanging yarns like the truest of old friends.

That night we rowed the 15 miles back to *Parma* by moonlight, taking our course from the stars. We reached our own ship at 2 o'clock in the morning, 12 hours after our departure.

Pamir raced us right up to the English Channel. She and *Parma* led the pack in a virtual dead heat. Both made the passage from Australia that year in 103 days.

Finnish Fleet on Last Legs

Some years ago the Aland Islands, a bit of Finland in the Gulf of Bothnia, became the last home of sail. In the port of Mariehamn the redoubtable Capt. Gustaf Erikson based his fleet of square-riggers. Somehow he scraped a living out of bargain-counter charters of Peruvian guano, Chilean nitrates, Scandinavian lumber, and Australian wheat.

Last year Captain Erikson died at the age of 75, leaving the future of his line in doubt. Of all the square-rigged ships he used to own, he bequeathed to his heirs only *Passat*, *Viking*, and *Pommern*; and if *Pommern* ever carries cargoes again she will have to undergo a costly make-over.

Even in Mariehamn it is difficult these days to recruit crews. War cost the Alanders seven years of sailing experience. The stream of men going into the grain race dried up.

Early this year Erikson's *Viking* and *Passat* picked up charters of Australian grain, possibly their last cargoes.

Meanwhile, the big *Moshulu* was badly damaged when she dragged ashore in Norway recently. The ex-Scottish *Archibald Russell* is laid up in the River Tyne. *Abraham Rydberg*, once a Swedish training ship, has converted to full power.

Padua and *Kommodore Johnsen*, both Germans, have gone over to the Russians, reputedly as naval training ships.

Parma is broken up.

Denmark's school ship *Kjøbenhavn*, greatest sailer of them all, went missing in the Southern Ocean in 1928-29, leaving no trace.

The cargo-carrying Cape Horner is done.

Square-rigger in a Tempest

Pamir, Relic of Sail's Days of Glory, Cleaves the Sea in Gale Dress

ON a January day in 1946 the four-masted bark *Pamir* set out from Vancouver, British Columbia, for her berth in New Zealand. To navigate the Strait of Juan de Fuca, she engaged a seagoing tug, the *Snohomish*. Aboard the latter was the photographer of this series, Norman M. MacNeil.

As the two vessels neared danger-laden Cape Flattery, northwesternmost tip of the United States, a strong gale blew up. To avoid undue strain, *Pamir's* crew set the upper and lower topsails and strongest staysails, only a part of her 40,000 square feet of canvas. Her upper sails remained safely furled. As each sail went up, *Pamir's* speed increased until at noon her crew let loose the towline and the great ship was free and on her own.

"Then," writes Mr. MacNeil, "we witnessed a drama reminiscent of that age long past when the clippers reigned supreme. As we stood spellbound, *Pamir* came racing toward us. Huge seas boiled over her bow. Her sails, billowed out to the full, were a scene of grandeur.

"Though seasick, I wrapped a towel around my camera for protection against rain, balanced myself on the heaving deck, and photographed the *Pamir*. Heeled well over in the terrific wind, she swept by majestically at a good 14 knots. *Snohomish's* flags ran up, spelling 'Bon voyage,' and her whistle hooted farewell to one of the last great wind ships. Soon she disappeared hull down on the horizon."

Resembling ink spots, a flock of "Irish pilots" (gulls) pursues the bark for "gubbins" (scraps) thrown over by the "doctor" (ship's cook).

Norman M. MacNeil

In Harbor, Slack-wire Dancers Nonchalantly Loose Canvas on the Fore Upper Topsail Yard

Only the footrope, a steel cable, lies between safety and death. Stomachs pressed against the yard, the men work with hands free. They maintain balance on an icy footrope even as the ship rolls in a gale. Blue peter, the flag on the foreroyal yard, calls shore parties to duty, as the ship is about to sail.

Barefoot Helmsman Holds the Course

In bad weather the wheel is more than he can handle; sometimes four men are needed. *Pamir's* wheel stands on the midship superstructure. Immediately abaft is the chart-house, where the bark's navigating is done.

The ship's bell, seen behind the wheel, strikes the hours and half hours, eight bells signifying the end of a watch. These "bells" date from the days when ships used sandglasses to measure half hours. Upon each turn of the glass, a bell was sounded.

Norman M. MacNeil

"Hamburg 1905" Bespeaks *Pamir's* Origin

Blohm & Voss yards, frequent target of Allied bombers in World War II, built the bark.

Beside her name plate stands the third mate. Far removed from the old-time "bucko" mate who manhandled shanghaied crews, he has to nurse inexperienced boys. He finds few men left who understand the old-time words of command.

Once *Pamir* carried Chilean nitrates for Germany. Later she joined the Finnish sailing fleet. By seizure in World War II she became a prize of New Zealand.

Pamir has had an adventurous career. Her masts have towered off most of the world's coasts. Her registered tonnage is 2,800 tons; her steel hull is 316 feet long. Top speed is 16 knots. Her New Zealand crew numbered 45; the Finns sailed her with fewer than 30.

Norman M. MacNeil

Norman M. MacNeil

Cordage Shrieking, Masts Swaying, the Bark Scuds Along. "Earth Will Not See Such Ships Again" (John Masefield)

Laden with 5,500 tons of wheat, *Pamir* rides deep in the angry sea. Taut in the wind are the six square topsails, jigger staysail, the fore, main, and mizzen-topmast staysails, and the inner jib. This is all the canvas the bark dares show to the gale. Her jigger mast is stripped lest sail there cause her head to drive up into the wind.

A Bewildering Maze of Lines Is Shipshape

Working in the dark, a square-rigger seaman can place his hand on every stay, line, tackle, sheet, shroud, and halyard shown here. Most of the running rigging is employed in handling sails. Heavy shrouds carry the ratlines and support masts (page 708). A flying bridge leads to the midship house. Below it, the winch is used for bracing the yards. The "fireplug" on the main deck is a capstan.

In 1932 *Pamir* raced 19 other square-rigged ships from South Australia to the English Channel. All carried grain, a cargo they snatched from steam competitors because they could load in primitive ports.

Pamir and her principal rival, *Parma*, set out for Cape Horn on the same day. Storms and doldrums beset them.

Leading all the others into port, *Pamir* and *Parma* docked in 103 days, still virtually neck and neck. Of the 18 other contestants, two did not survive to sail again. For an account of their thrilling 16,000-mile voyage, see "The Cape Horn Grain-Ship Race," by A. J. Villiers, in the January, 1933, National Geographic Magazine.

The last Australia-England grain race was in 1939. *Pamir* placed third.

Norman M. MacNeil

Norman M. MacNeil

No Place for Weak Heart or Faltering Legs—a View of the Main Rigging from Below

Held by four shrouds, the lower ratlines are broad enough to accommodate six men abreast. Nearly all the rigging is wire; yards and masts are steel. *Pamir's* mainmast, composed of several sections, towers 175 feet.

In the Officers' Mess . . .

. . . and on the Forecastle

The swinging lamp (left) remains upright no matter at what angle the ship may roll. At the break of the forecastle head, the bell is used to report what the lookout sees—one bell, a ship on the starboard bow; two bells, one on the port; three bells, one right ahead. The old-style anchor, a spare, rests in a housing in the deck.

Norman M. MacNeill

Capt. Desmond Champion (Right) Entertains Old Cronies in His Cabin

On his return to Vancouver the skipper relates how two men were washed overboard but were saved during the Cape Fluttery storm. On the wall he displays the photographer's gilt picture of *Pamir* (page 703).

Norman M. MacNeil

Her Furled Sails Resemble Snow on the Mountains as *Pamir* Proceeds under Tow

Unable to match the economy of steamships, the windjammers are all but a memory. An ocean grave took many; others went to the breakup yards. Their romance and glamour are preserved on artists' canvases and in model builders' glass bottles. *Pamir* has no auxiliary engines.

NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC ADMINISTRATION BUILDING

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ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

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

Articles and photographs are desired. For material The Magazine uses, generous remuneration is made.

In addition to the editorial and photographic surveys constantly being made, The Society has sponsored more than 100 scientific expeditions, some of which required years of field work to achieve their objectives.

The Society's notable expeditions have pushed back the historic horizons of the southwestern United States to a period nearly eight centuries before Columbus crossed the Atlantic. By dating the ruins of the vast communal dwellings in that region, The Society's researches solved secrets that had puzzled historians for three hundred years.

In Mexico, The Society and the Smithsonian Institution, January 16, 1939, discovered the oldest work of man in the Americas for which we have a date. This slab of stone is engraved in Mayan characters with a date which meant November 4, 291 B. C. (Spinden Correlation). It antedates by 200 years anything heretofore dated in America, and reveals a great center of early American culture, previously unknown.

On November 11, 1935, in a flight sponsored jointly by the National Geographic Society and the U. S. Army Air Corps, the world's largest balloon, *Explorer II*, ascended to the world altitude record of 72,395 feet. Capt. Albert W. Stevens and Capt. Orvil A. Anderson took aloft in the gondola nearly a ton of scientific instruments, and obtained results of extraordinary value.

The National Geographic Society-U. S. Army Air Forces Expedition, from a camp in southern Brazil, photographed and observed the solar eclipse of 1947. This was the seventh expedition of The Society to observe a total eclipse of the sun.

The Society cooperated with Dr. William Beebe in deep-sea explorations off Bermuda, during which a world record depth of 3,028 feet was attained.

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 in the Giant Forest of Sequoia National Park of California were thereby saved for the American people.

One of the world's largest icefields and glacial systems outside the polar regions was discovered in Alaska and Yukon by Bradford Washburn while exploring for The Society and the Harvard Institute of Exploration, 1938.

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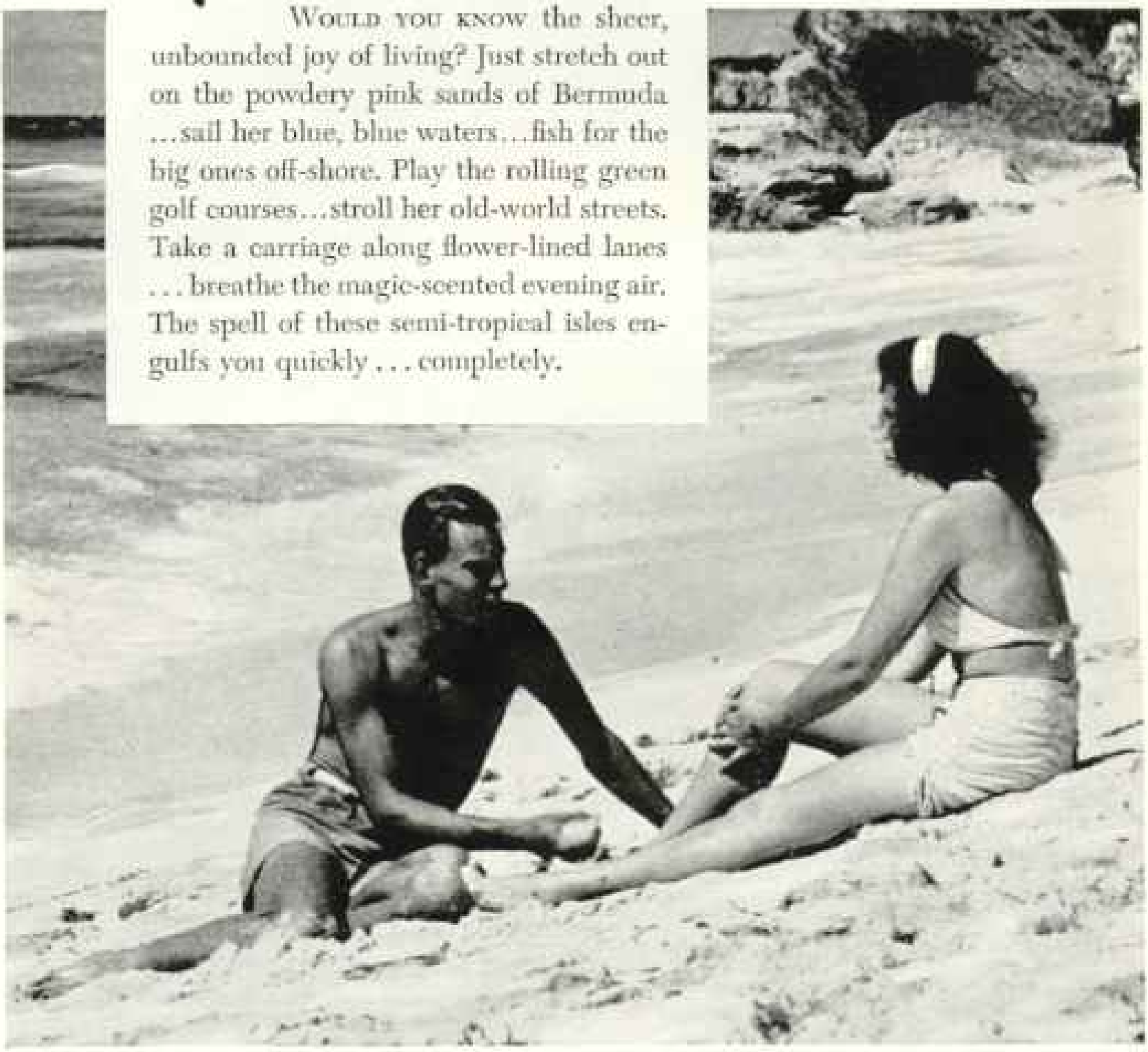

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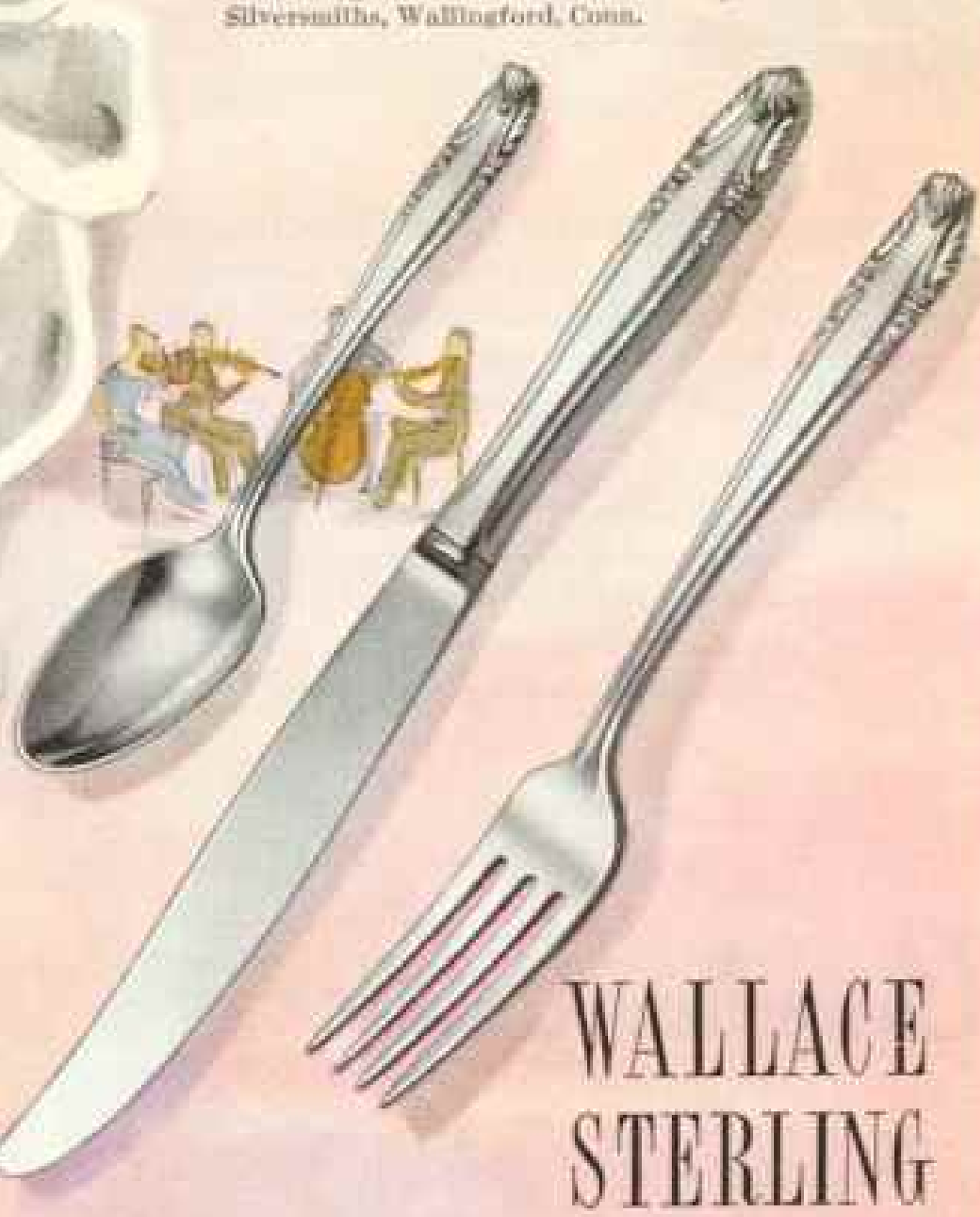

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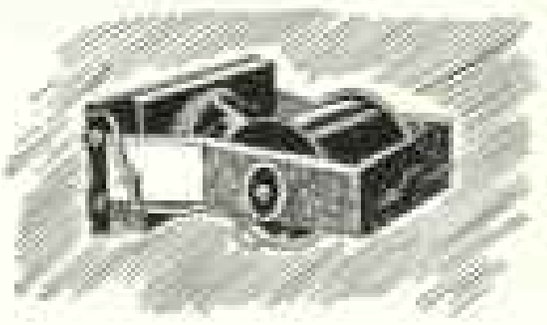
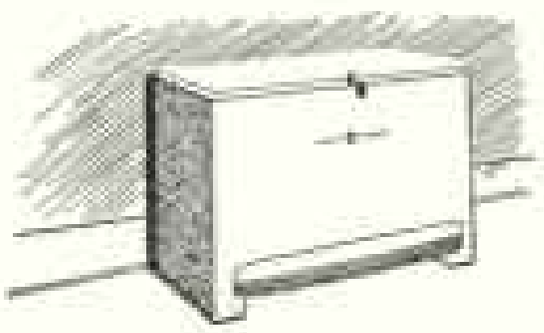


9. 1,700,000 of these dependable refrigerating systems have been in service in G-E Refrigerators 10 years or longer.



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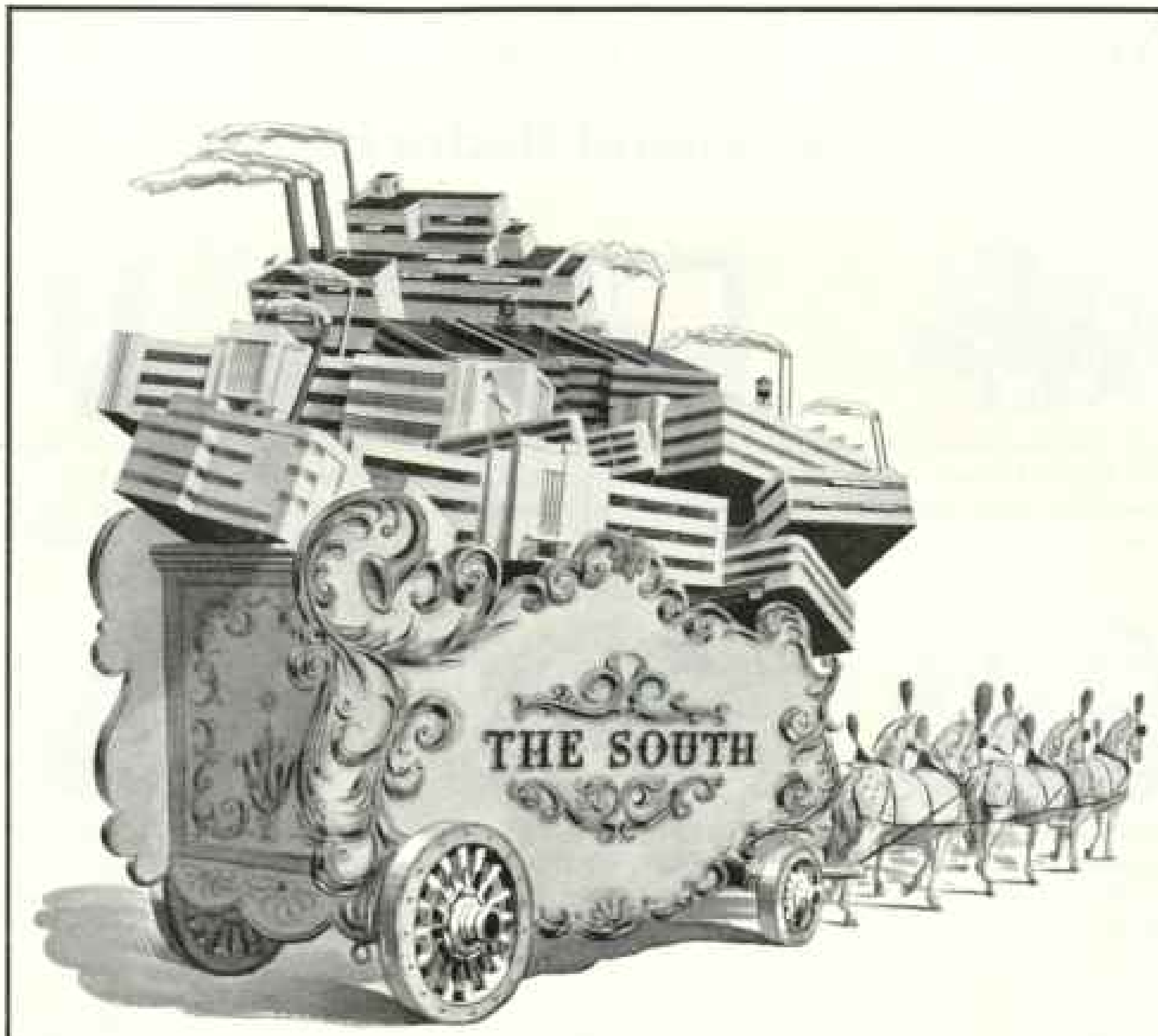

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ONLY AN *Elgin*

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MADE OF "ELGILOY" METAL

Eliminates 99% of watch repairs due to steel mainspring failures!

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The one you love will be happier with an ELGIN

The powerhouse of a watch is the mainspring. And, there in that part, Elgin offers a tremendous advantage.

Elgin's DuraPower Mainspring *completely* overcomes rust—the commonest cause of mainspring breakage. *Retains* its "springiness" indefinitely for greater accuracy through the years. *Actually eliminates 99% of watch repairs due to steel mainspring failures!*

This exclusive DuraPower Mainspring is in all new Elgins at no extra cost.

You know of Elgin's famed timed-to-the-stars accuracy. You can see Elgin's brilliantly original styling. And you can appreciate the importance of having a watch that's made in America, adjusted here both to temperatures and positions.

Now the "dp" symbol of DuraPower on the dial of every Elgin is a final assurance that you will be happier with an Elgin Watch.

Lord and Lady Elgins are priced from $65.00 to $5000. Elgin De Luxe from $47.50 to $100.00. Other Elgins as low as $29.75. All prices include Federal Tax.

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Garbage nuisance ended by new kitchen appliance that shreds food waste and washes it down the drain.

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Picture the ease, convenience and cleanliness—with all food waste disposed of *electrically*, right down the sink drain.

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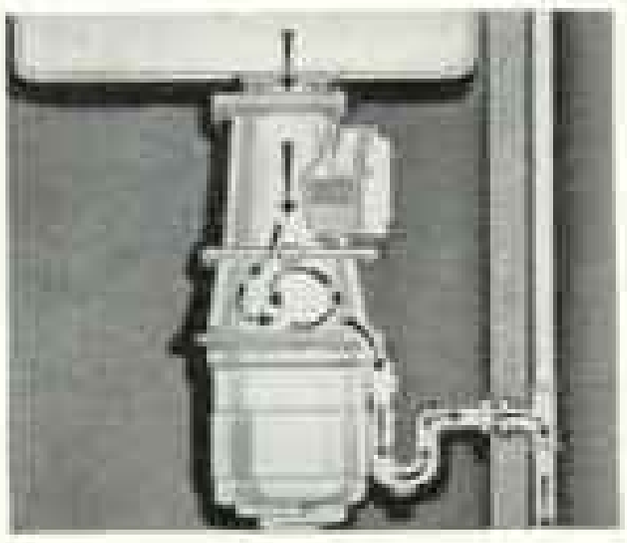

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3. Disposall starts automatically as cold water is turned on. The food waste is shredded into tiny particles, and flushed into sewer or septic tank.

4. We can hear you now, agreeing with other Disposall users who say: "It's one kitchen appliance I'd never give up." "So clean . . . so sanitary." "Great invention!"

DISPOSALL

DISPOSALL MEANS
GOOD-BY TO GARBAGE
AUTOMATICALLY!

*General Electric's registered trademark for its food-waste appliance.

For the perfect laborsaving combination, the Disposall can be teamed up with a General Electric Dishwasher in a complete Electric Sink! General Electric Company, Bridgeport 2, Conn.

GENERAL ELECTRIC

The high cost of living has us walking a tightrope too

The high cost of living is another name for inflation. It hurts us just where it hurts you—in the pocketbook. For when prices are too high, fewer people buy.

We are doing everything we can to keep our prices *down* and quality *up*. To this end, key men from all our companies meet at a round table once every month. They study the best results of National Dairy operations . . . pool brains and experience . . . to bring you *top quality at lowest possible price*.

Here are some figures which show how milk prices compare with food prices, from 1939 to 1947:

Increase in cost of food 106%

Increase in cost of fluid milk . . . 63%

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Milk—nature's most nearly perfect food—gives you more for your money than anything else you can eat. Our research guards the quality of milk—and cheese, butter, ice cream and other products made from milk—to keep nutrition and flavor at highest levels. Then we make these foods *available at the lowest possible prices to the greatest number of people*.

An impartial national survey shows that most Americans consider 10%-15% on sales a fair profit for business. Compared to this, the average profit in the food industry is less than 5%. And National Dairy's profit in its milk divisions in 1947 was less than 2%.

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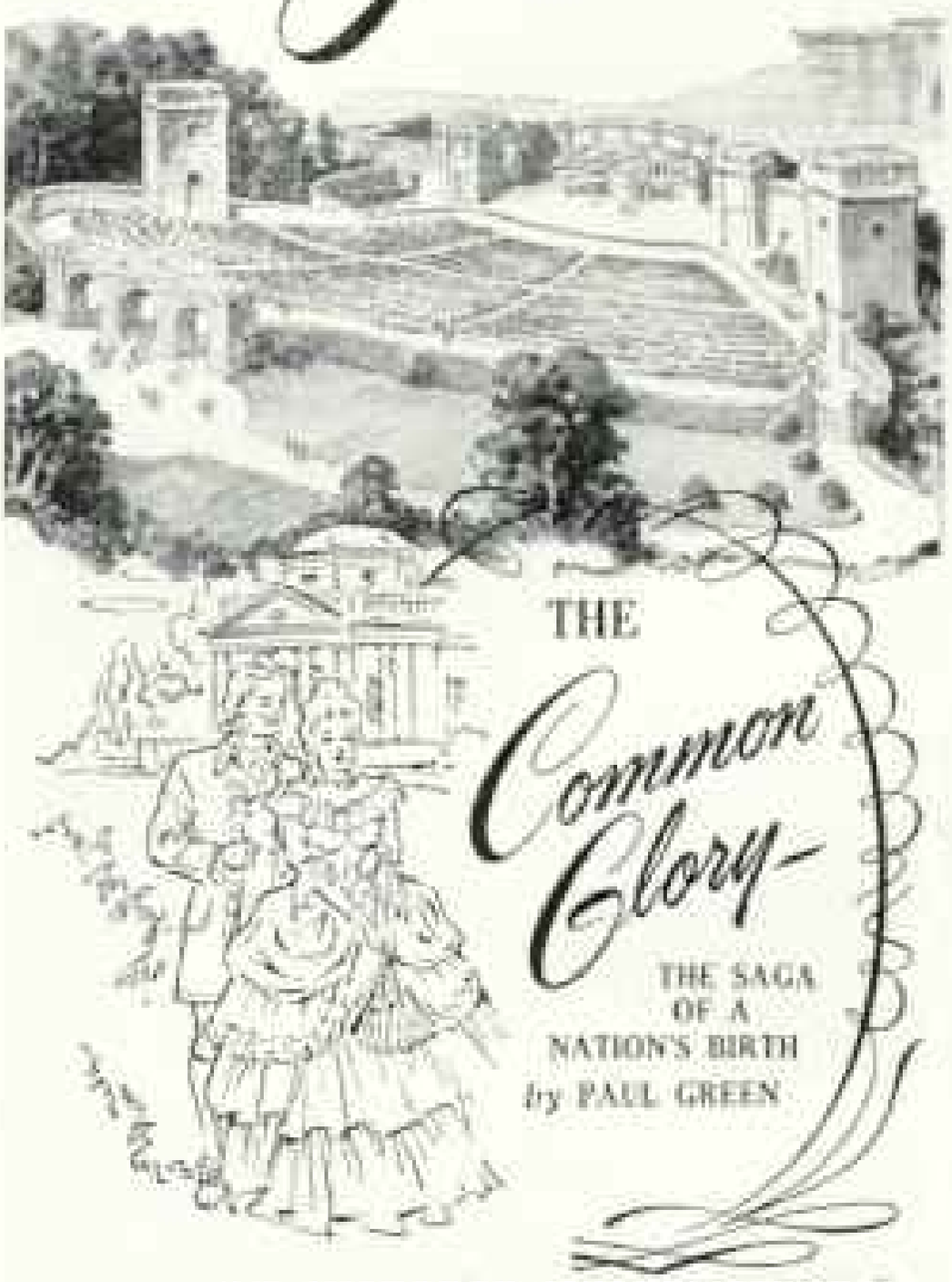

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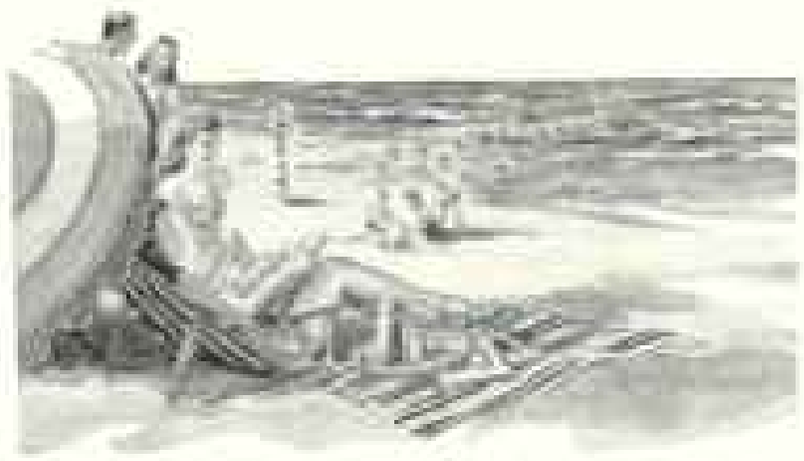

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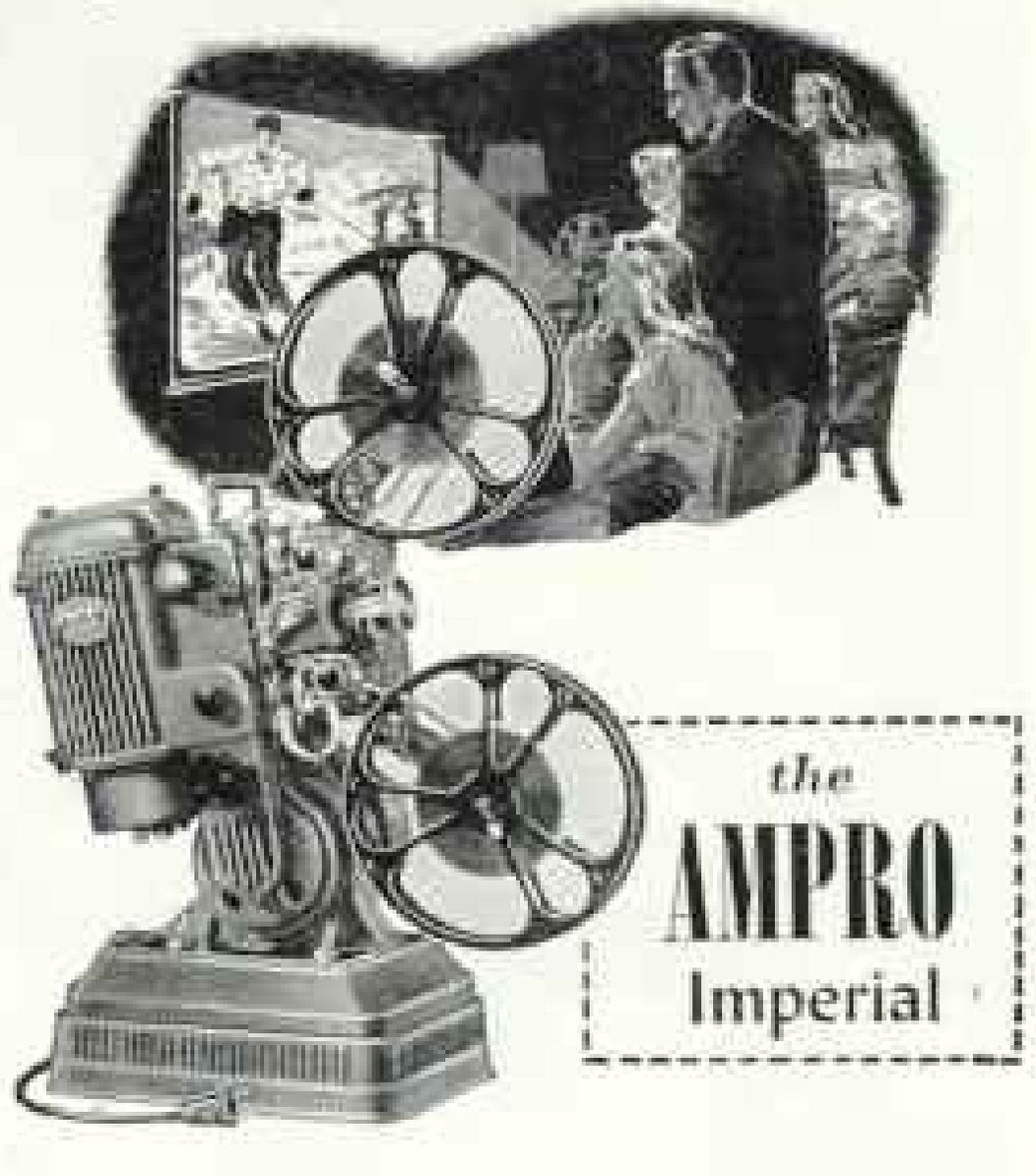

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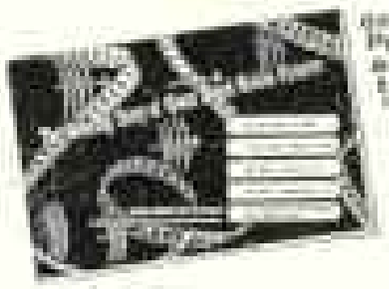

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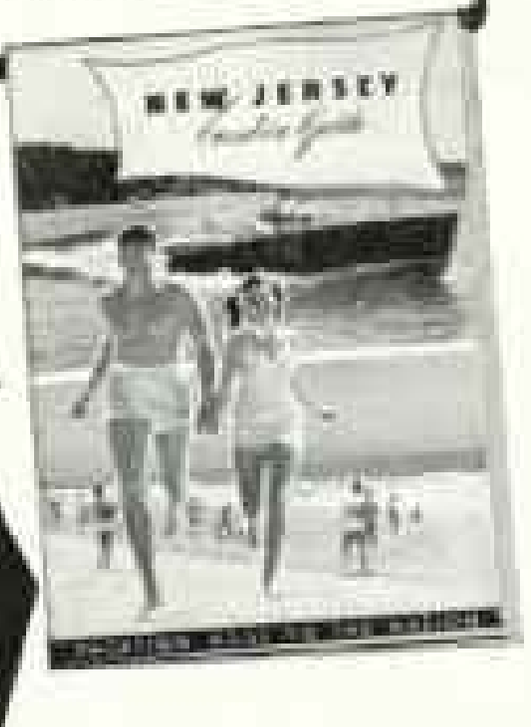

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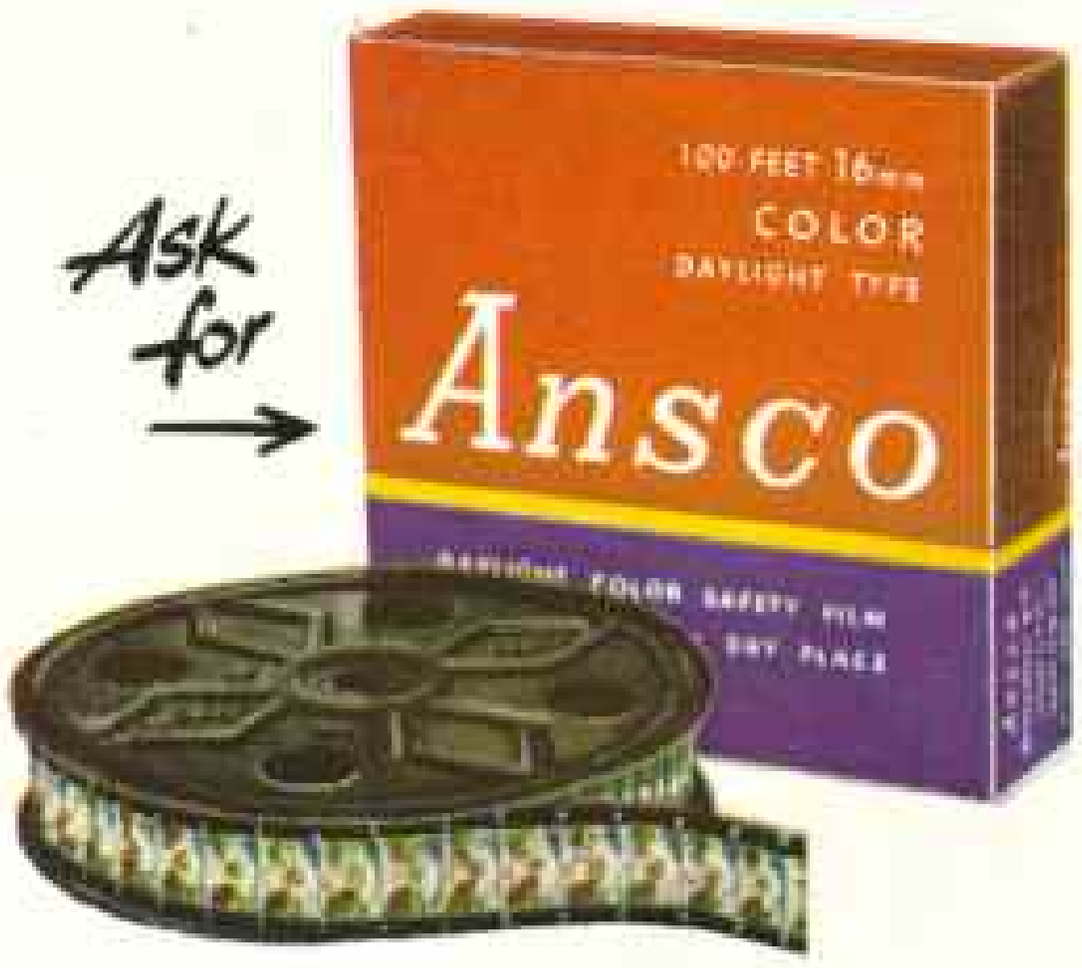

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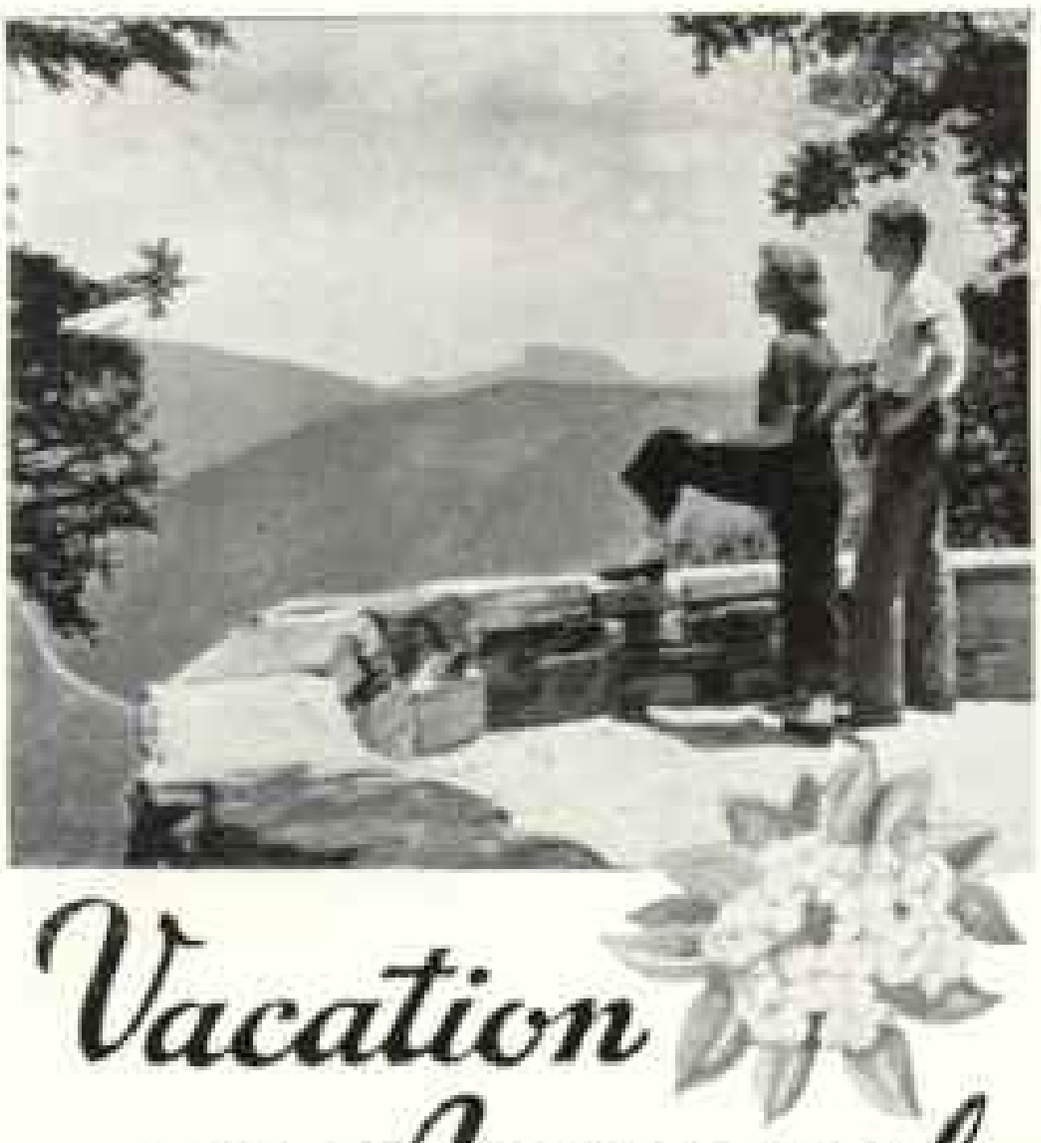

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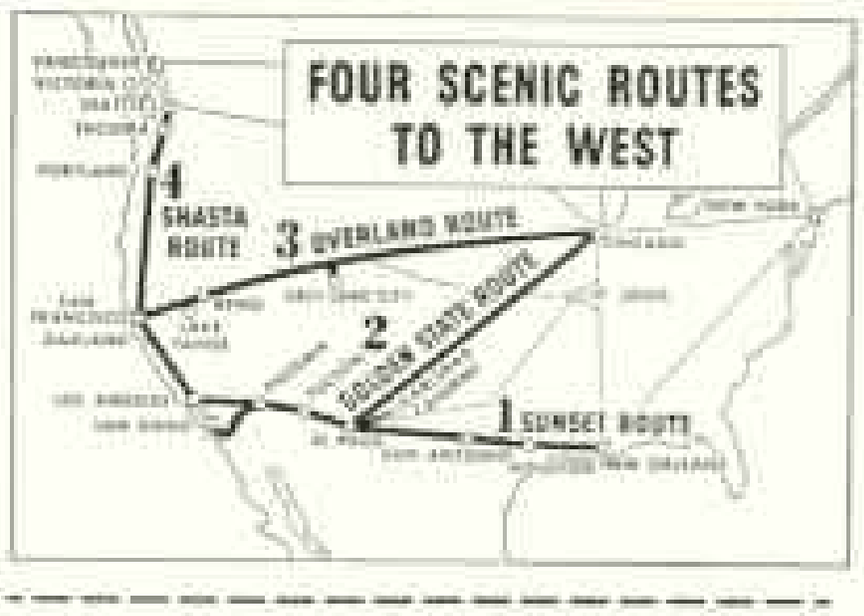

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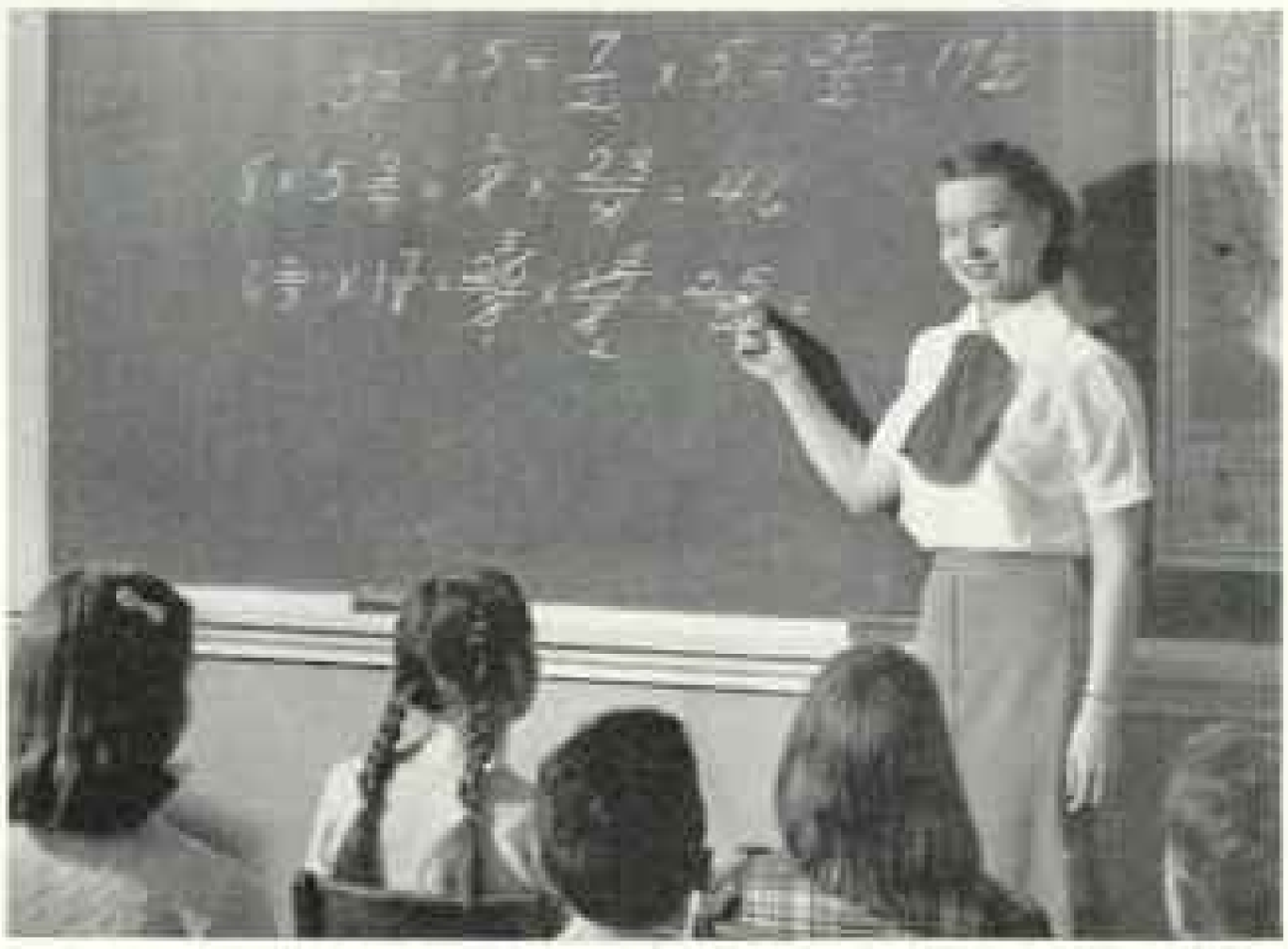

Will glasses alone improve your eyesight?

NO! You too, like the teacher, should have seeing ability to meet your visual requirements. As in the case of some teachers, you may not be able to achieve this unaided. The only way for anyone to make sure is to seek professional guidance. Important as glasses are, their aid to your visual comfort and efficiency depends upon the professional services and technical skills of your Optometrist, Ophthalmologist, Ophthalmic Dispenser (Optician).

EXAMINATION

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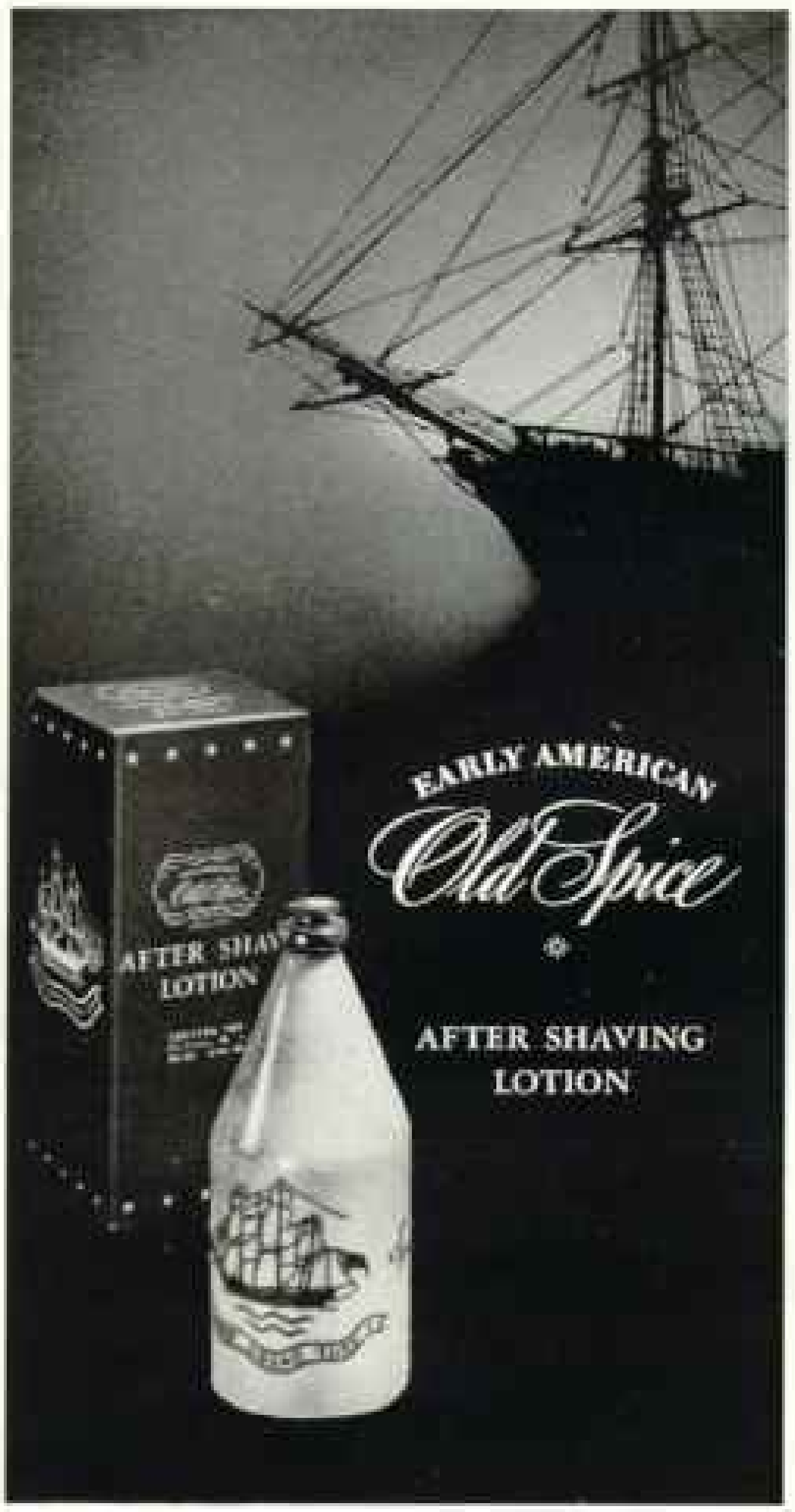
34



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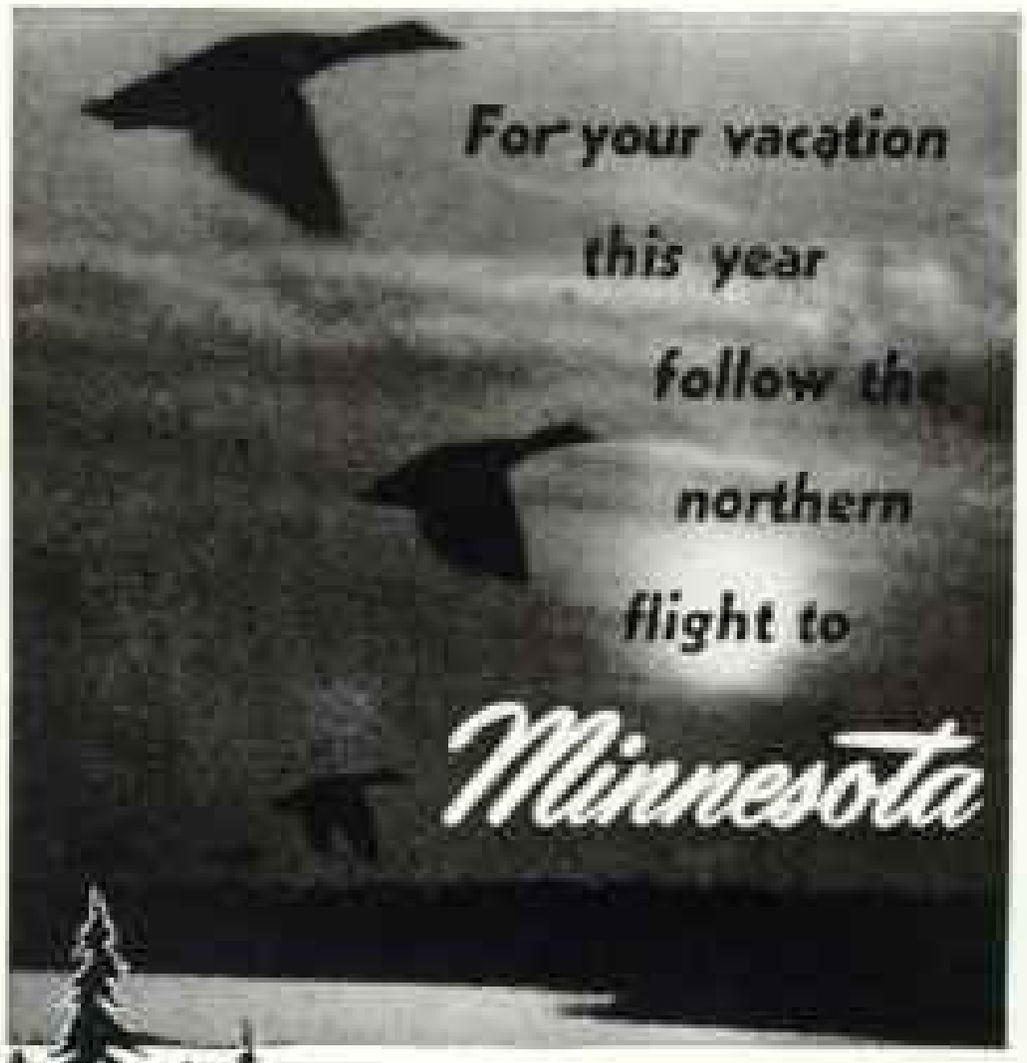

For resort, travel information and Minnesota booklet write Dept. 2053, Division of Publicity, Dept. of Business Research & Development, State Capitol, St. Paul 1, Minnesota. Remember, too, *Minnesota is a haven for hay fever sufferers.*

Minnesota

The Uncrowded Vacation Land of 10,000 Lakes

Come to DENVER

Sun-drenched mountain valleys carpeted with wildflowers invite you to enjoy a carefree Spring vacation . . . riding, hiking, fishing, climbing . . . or just relaxing!

Warm-water lake fishing. Trout season opens May 25. Winter sports on snow-capped peaks.

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A non-profit Community Organization
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Send scenic folder of Denver and its Rocky Mountain Wonderland ( ) Mountain Resorts and Dude Ranches ( )

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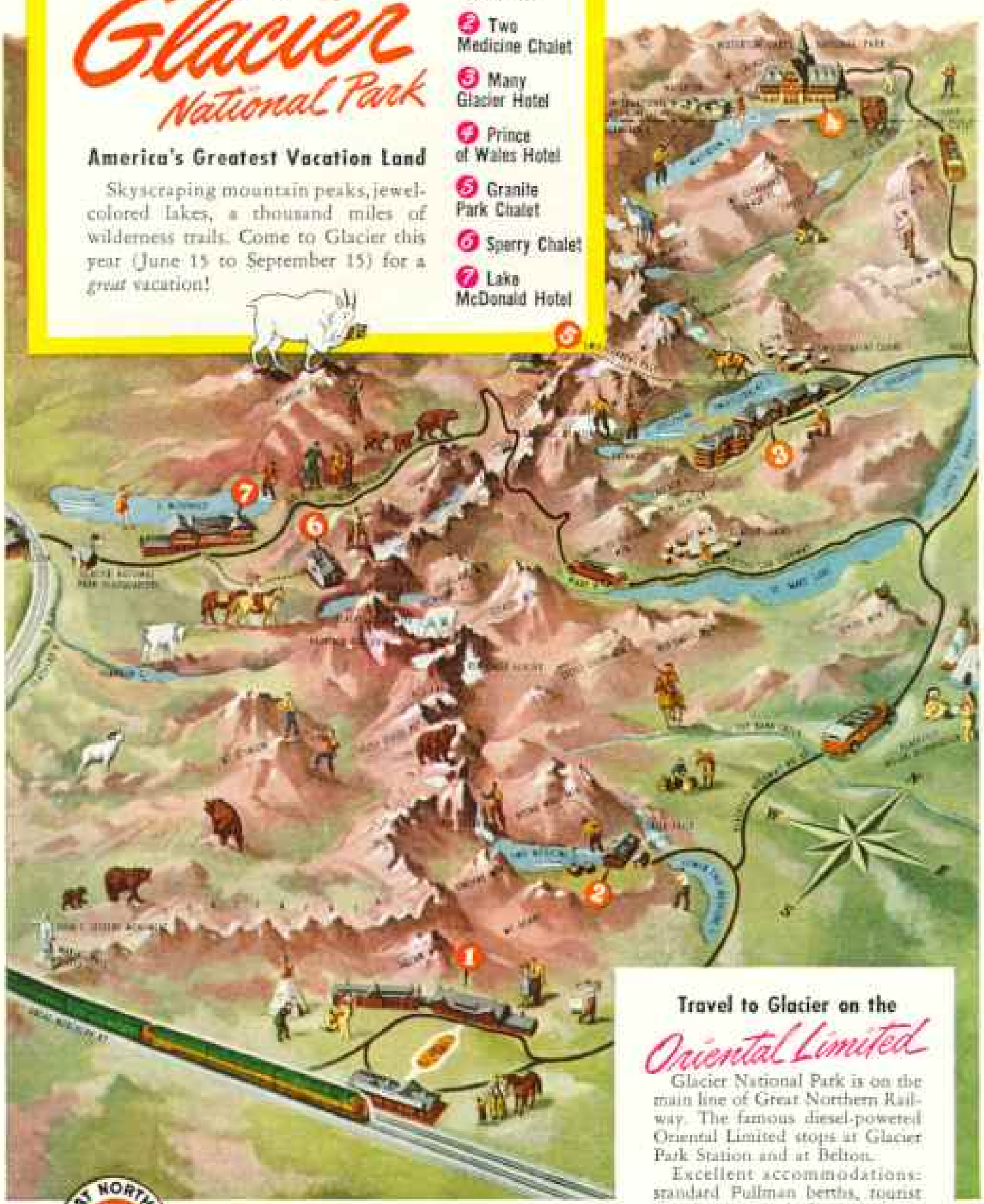
IN MONTANA

Glacier National Park

America's Greatest Vacation Land

Skyscraping mountain peaks, jewel-colored lakes, a thousand miles of wilderness trails. Come to Glacier this year (June 15 to September 15) for a *great* vacation!

1. Glacier Park Hotel
2. Two Medicine Chalet
3. Many Glacier Hotel
4. Prince of Wales Hotel
5. Granite Park Chalet
6. Sperry Chalet
7. Lake McDonald Hotel



Travel to Glacier on the *Oriental Limited*

Glacier National Park is on the main line of Great Northern Railway. The famous diesel-powered Oriental Limited stops at Glacier Park Station and at Belton.

Excellent accommodations: standard Pullman berths, tourist sleeping berths, bedrooms, drawing rooms, compartments.

For information on railway and park reservations, see your Great Northern travel agent, or write:

V. J. KENNY
Passenger Traffic Manager
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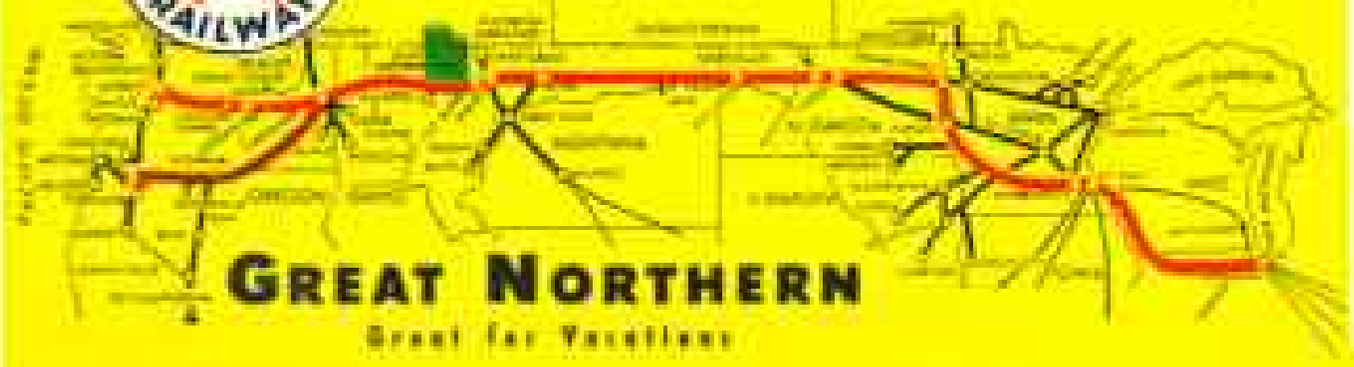
Between Chicago, Spokane, Seattle, Portland via St. Paul-Minneapolis



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Great for Vacations

Make this your *Family Project for 1948*

You're proud of the way your family has grown up together, worked together, had fun together. You certainly want them to rest together in some distinguished plot of ground forever theirs. And you want to know where that's going to be — how it's going to look — well in advance of need.

You'll find pre-need counsel you can depend on where your monument dealer displays the Seal of the Barre Guild, and points it out to you, etched inconspicuously on actual monuments. This Seal is your guarantee of superior quality, design and craftsmanship, backed by the monument industry in Barre, Vermont, "Granite Center of the World". "MONUMENT IDEAS" — *free* — 16 pages profusely illustrated, with more than 40 monument suggestions. Address: Barre Guild, Desk NA-3, Barre, Vermont.

Picture of Eternal Peace. This plot of ground forever theirs . . . where the living, and those yet to live, may stand inspired . . . where those who have passed by may rest in beauty and in peace.

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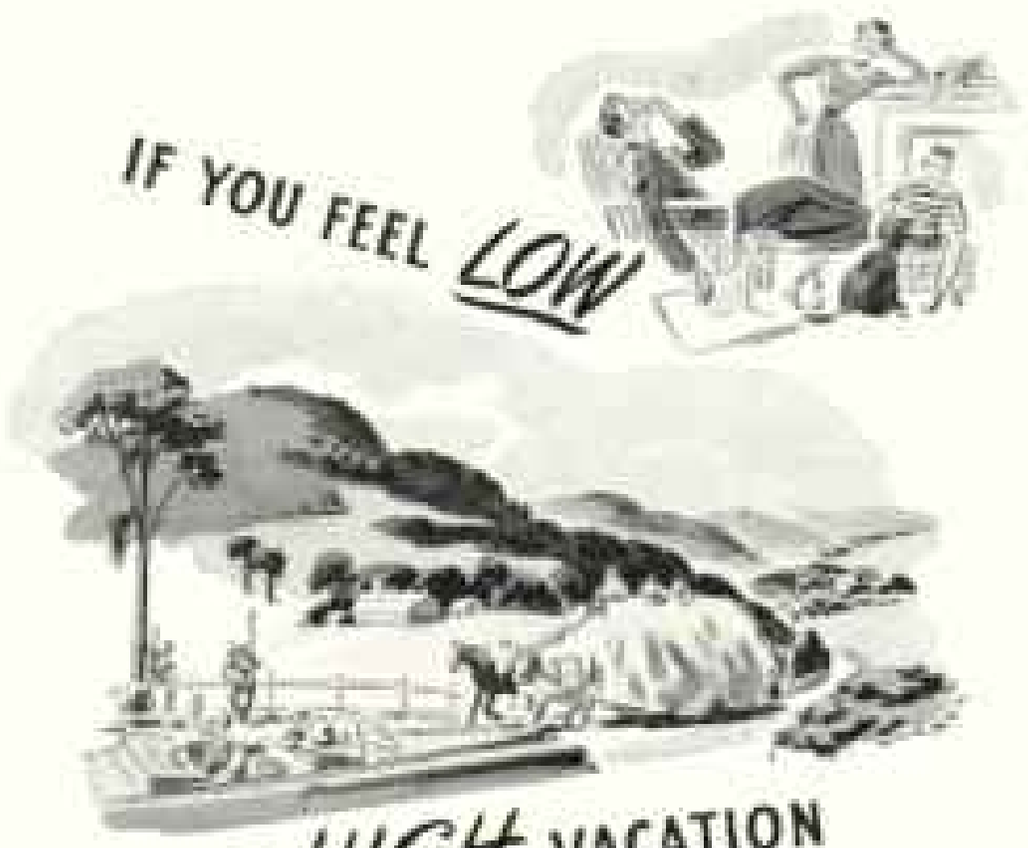

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WATCH YOUR WEIGHT

1. Once you're over 30, it pays to *watch your weight.*

Under 30, a little overweight may be an advantage. But statistics show that when you are older, overweight is often associated with heart disease, kidney ailments, high blood pressure, diabetes, and other diseases.

So, if you're overweight, give some thought to protecting your health by bringing your weight down.

2. See your doctor first, so he can check your physical condition, suggest approved methods for losing weight, and advise you how much to lose.

3. Your doctor will be able to help you work out a tasty, varied diet that will let you lose weight without endangering health or strength.

4. He may also ask you about the type of work you do, so that he can advise you on the kind and amount of exercise you may take.

5. It's wise not to use reducing drugs, or to try special diets unless your own doctor recommends them. They may do you more harm than good.

6. Once your weight is down to normal, try to keep it there. Remember that one step toward a longer, healthier life is *watching your weight.*

To bring you other helpful information about your weight, Metropolitan has prepared a booklet, "Overweight and Underweight." It includes lists of the caloric values of almost 300 foods, suggested low-calorie menus, and reducing exercises. Write for your free copy of this booklet 58-N, today.

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TO VETERANS—IF YOU HAVE NATIONAL SERVICE LIFE INSURANCE—KEEP IT!

When is it swingtime for a bittern?

THE AMERICAN BITTERN (Botaurus lentiginosus), despite his sharp beak, would rather hide from his foes than face them.

To keep from being seen by a sharp-eyed hawk or other enemy while he's feeding among the reeds, he passes himself off as a cattail. He stands with his body stiffly upright, his head pointed to the sky.

Even when the wind rustles the cattails and sets them nodding, Botaurus clings to his tricky disguise. As the reeds start swaying, the bittern begins to swing from side to side with the same motion—first with neck and head and then with his whole body.

The bittern's reed dance is a good example of the clever ways that nature equips many wild things to dodge trouble. But at best these natural protective devices are only preventive.

In providing protection for himself and his family, man has gone a lot further. He has figured out a way to keep trouble from costing him a lot of money and needless worry when it does hit home.

This device is insurance; and what a weight of worry insurance can lift from your mind!

A skid on a scatter rug may lay you up. But accident insurance will handle your medical bills and keep you going until you're well again.

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The Travelers

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The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, The Charter Oak Fire Insurance Company, Hartford, Connecticut. Serving the insurance public in the United States since 1864 and in Canada since 1865.

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Only a few of Spring's attractions are listed below. You can think of dozens more—but *think first of Greyhound* when you plan your trip.

Transportation for ALL the Nation

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M A Y

entucky Derby Day, Louisville . . May 1
otton Carnival, Memphis . . . May 9-16
ulip Time, Holland, Mich.
and Pella, Iowa . . . . . May 14
old Rush Revival, Auburn, Cal., May 14-16
ach Music Festival, Bethlehem, Pa., May 15

eason Begins at Grand Teton, Wyo.,
Mesa Verde, Colo., Grand Canyon
(North Rim), Ariz. Nat'l. Parks, May 15
eason Begins at Lassen Volcanic
National Park, Cal. . . . . May 16
rld-America Expo., Cleveland, O., May 20
umping Frog Jubilee,
Angels Camp, Cal. . . . . May 21-25
eason Begins at Rocky Mountain,
Colo. and Kings Canyon, Cal.
National Parks . . . . . May 25
pple Blossom Celebrations:
Kentville, Wolfville, Grand Pre,
Nova Scotia . . . . . May 27
isconsin Centennial, Madison . . May 29
dianapolis Speedway Auto Races, May 31

J U N E

Blessing the Fleet, Gloucester, Mass. . . . June 8
Rose Festival, Portland, Oregon . . . June 9-13
Nat. Open Golf, Pacific Palisades, Cal. June 10
Rhododendrons Bloom, Carolina Mts. . June 10
Buccaneer Days, Corpus Christi, Tex. . . June 12
Flag Day Celebration, Betsy Ross House,
Philadelphia . . . . . June 12
Season Begins at Acadia, Glacier and
Crater Lake National Parks . . . . June 15
Bunker Hill Celebration and Parade,
Charlestown, Mass. . . . . June 17
California Rodeo, Salinas . . . . . June 17-20
Season Begins, Isle Royale
National Park, Mich. . . . . June 18
Season Begins, Yellowstone Nat'l. Park, June 20

Republican National Convention,
Philadelphia . . . . . June 20
Indian Ceremonial Dances, LaJunta, Colo., late June
Hawkeye Holidays, Des Moines, Ia. . June 22-27
Redwood Empire Cent'l., Eureka, Cal., June 23-27

J U L Y

"The Common Glory" Pageant
opens Williamsburg, Virginia . . July 1
Black Hills Round-Up,
Belle Fourche, S. D. . . . . July 3-5
World Championship Log Rolling,
Gladstone, Mich. . . . . July 4-5
Stampede, Calgary, Alberta . . . July 5-10
Blue Water Festival, Pt. Huron, Mich., July 15

Folklore Celebration, Cerro del Fortin
Oaxaca, Mexico . . . . . July 16
Country Dance Festival,
Amherst, Mass. . . . . July 20
Aquatennial, Minneapolis . July 25-Aug. 1
Days of '47, Salt Lake City . . July 18-29
Annual Pony Penning,
Chincoteague Island, Virginia . . July 26
Ste.-Anne de Beaupre Pilgrimage,
Quebec City, Canada . . . . . July 26
Frontier Days, Cheyenne, Wyo., July 27-31
"Lost Colony" Pageant
Roanoke Island, N. Carolina, July-August

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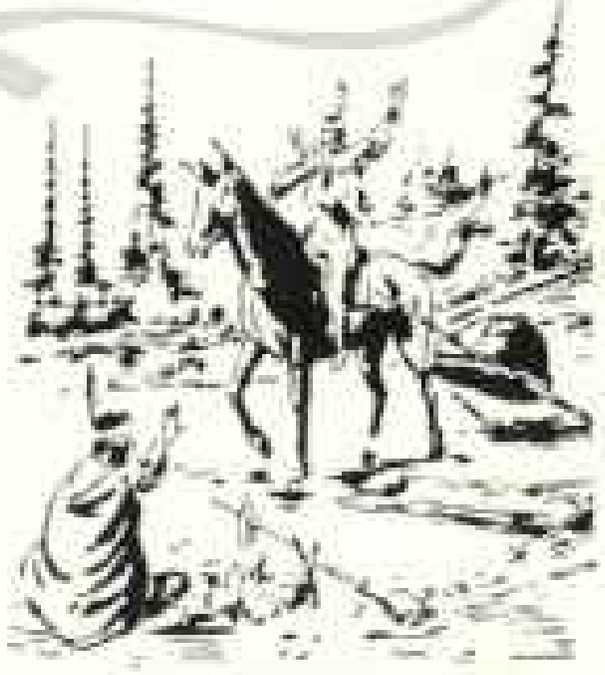
As thrillingly inviting as in the days Indians roamed its forests and lake regions is the Wisconsin wonderland of today ... maintained in much of its primeval glory through a long established conservation program.



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Recreational Div., State Office Bldg.
Rm. 75, Madison 2, Wisconsin

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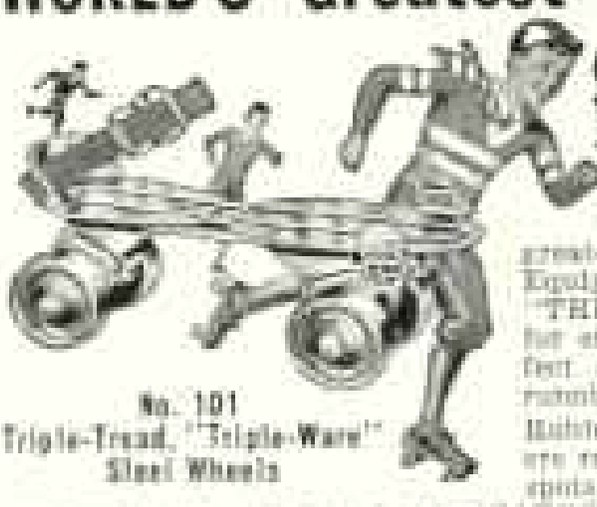

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Steel Wheels

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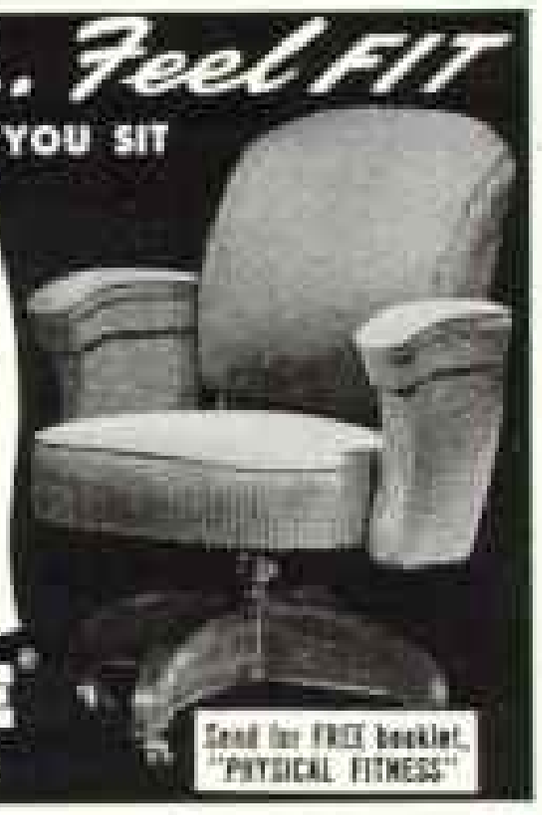

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