

Return to Florence

BY 1ST LT. BENJAMIN C. McCARTNEY, USAAF

WAS sitting on the cement ledge that runs along the north side of the Arno River in Florence watching some Italian civilians loading the smashed bodies of three of their fellows into a boat moored twenty feet below me. As the three had been trying to cross the broken and twisted rubble of the blown-up bridge, one of them had lifted a wire and set off a German mine.

The day before, I had seen five civilians killed climbing over the rubble at the south end of the ancient and famous Ponte Vecchio, where the Germans had blown up the houses to block the bridge and had then planted mines in the rubble.

All over the city there were mines and booby traps. The British sappers were clearing these up; yet little groups of careless civilians were being blown up almost hourly.

In the hills south of the city a battery of British guns thundered and expostulated at some target in the other hills, far north of the city, where the Germans were. It was almost midday, and the city lay inert under the heat as if poleaxed.

Itulian Partisans Fight Germans and Fascists

Somewhere in the park, a quarter of a mile away, a machine gun rattled briefly and then was quiet. Just beyond me, across the little open square where the jeeps and British cars were parked, the officers and men of the Allied Military Government and the Intelligence Control Unit were coming and going through a hotel doorway.

With them were occasional Italian members of the armed Partisans, wearing brightcolored armbands and feathers in their caps, and sometimes bright-colored scarfs. They were fighting the Germans and the Fascists in the outskirts of the city and often in the city itself. The night before, a Fascist soldier had been killed by the Partisans only 200 yards from the hotel.

Seeing my companion, Capt, Leonard S. Ackerman, coming out of the hotel doorway. I got up to walk over to him. We had been flying together for a year and had come up to Florence to see the bomb damage in the marshaling yards of the city and to inspect what had been one of the greatest examples of precision bombing in the war.

"It's hot this time of day," I told him.

"It certainly is. I'd hate to have to run around the streets much if it's hot like this."

"What did they say inside?"

"The same story: there are still snipers in the Campo di Marte yards. The Germans even have machine guns in all the yards. I guess I'll have to wait."

We walked over to the cement ledge again and looked down on the three dead civilians in the boat.

"Poor guys," Captain Ackerman said. "What a lousy kind of war that is,"

"A civilian was talking to me about the bombing," I told him. "My friend said it was really a beautiful job. He didn't know how we kept within the target area at Campo di Marte where the yards are so narrow. I guess they don't feel too bad."

"I wish we could get in to see it. I'd like to look it over for myself."

"Maybe tomorrow. Maybe our gang will clean them out today or tonight."

We were leaning over the ledge now, looking at the sluggish Arno filled with flotsam from the demolitions upstream. Below us, to the west, inching across the water break from one side of the river to another, was a long, patient line of civilians carrying net bags filled



Shelliberranean Allied Air Forese.

"Civilians of Florence Murmured 'Americani' and Asked a Thousand Questions".

The author (left) and his pilot, Capt. Leonard S. Ackerman, who had been flying together for a year were, in the words of a War Department release, "a perfect team and great friends." In liberated Florence they inspected rail yards they had bombed from the air (page 257). Right: a Partisan's armband.

with tomatoes and cabbages and fruit. Below the ladder on our side of the river they were bunched waiting to climb up. There were six bridges across the Arno, and the Germans had blown up all but the Ponte Vecchio.

"You should have seen it with the bridges,"
I said. "They were as beautiful as any
bridges in the world, all six taken together
like that. But now look at them."

Five Years Ago the Place Was Doomed

I had last seen Florence almost five years before. Then the stifling heat was the same, and the hills were the same. Even the time-lessness was the same. But in that week, five years before, the stage was being set for the broken bridges and the guns in the hills. The radios of Europe and the news tickers were jabbering with the German threats to Poland and with the long speeches of European statesmen.

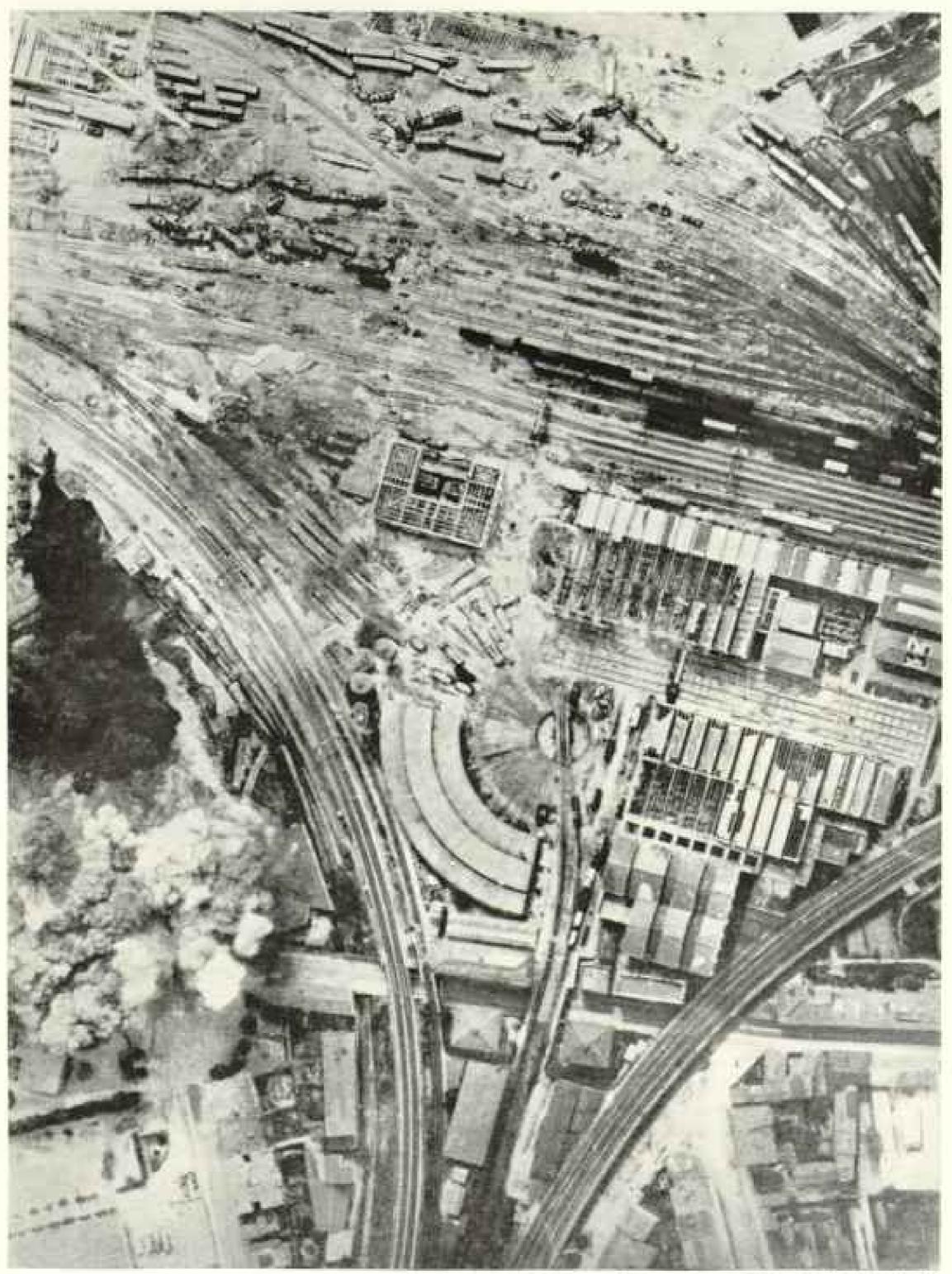
In America the stock market had been jumpy and the ticker had fallen minutes behind, for it was August, the dangerous month. In Florence we had heard the radio only dimly through the heat, and somehow Florence had seemed outside the stream of events, the hurry, and the insistence of the voices. Three

weeks later, September 1, 1939, the German armies had crossed over into Poland.

It was not easy now to identify an afternoon five years before. In five years of war
my mind had jumped too rapidly from one
place, or one event, to another, flicking over
names or countries, over innumerable battles
and incidents. For several days in Florence
now, waiting for the marshaling yards to be
cleared of the enemy, I had been trying to
recall precisely how the city had looked that
week five years ago. But the broken bridges,
the shelling, the military vehicles, the tenseness of the little Allied position on the north
side of the Arno had interfered.

Captain Ackerman and I had been among the first handful of Americans to come into Florence, and everywhere, as we walked around the occupied section of the city and looked at the famous buildings and the lovely streets, little groups of civilians had applauded, had murmured "Americani," and had asked us a thousand questions. "Was Cassino completely wrecked?" "How about Gaeta? Is it possible to go back to Gaeta to live?"

Our pockets were filled with odd scraps of paper on which were written the names of sons and daughters and relatives in America



P. S. Arms Air Forces, Official

"I Seen a Railroad Car Come up End over End!" a Gunner Shouted

Repair sheds are unroofed and the roundhouse battered. Freight cars are twisted as though by a tremendous collision. Their cargoes of German munitions will never kill American boys. Here the Florence marshaling yards, bombed in March, 1944, by the author, are seen on a follow-up raid on which he flew in May.



Florentine Antifascists Engage Fascist Snipers in a Fratricidal Vendetta

On entering south Florence August 5, 1944, the British refrained from attacking the Renaissance art center across the Arno. Germana issued arms to Mussolini's followers and supported them with heavy weapons. Patriots then fought tanks in the streets. Action like this occurred near the author's hotel.

to whom we had promised to write that we had seen mother or uncle or cousin in Florence, that all was well, and that they were full of courage.

Once a woman came up to us with a shy 16-year-old daughter and told us in English that she had waited to speak to the first Americans in Florence. She turned to the daughter and took two almost wilted roses and handed them to us.

"We have been looking for Americans to give these to, and you are the first. We are happy now."

It was with a sense of deep embarrassment and responsibility that we took the roses, for, if we had had a part in the eventual liberation of Florence, we could not be sure precisely to what we had liberated anyone. From what we had liberated them we knew. But to what was still a very searching question.

Perhaps it was best that for the moment only we who were doing the liberating knew

how searching that question would become with time.

Everywhere we stopped to chat and, whenever we offered a cigarette, the crowd increased. With deep grace and beautiful unself-consciousness the crowd accepted our eigarettes until the pack ran out. We got out another and that ran out, too. Here there was none of the fawning disavowal of Mussolini, none of the mendicant cursing of the Germans that we had found in Sardinia. These people knew that we knew how they felt and let the absurd past drop. For us it was a relief.

Five Disjointed Years

Walking farther around the city, we found that most of the famed buildings and the churches had been shut for the period of the emergency. The Cathedral, Santa Maria del Fiore, was open and we went in. But that was all. Most of the beautiful shops for which the city had been famous had been plundered and



U. S. Army Mr Potens, Official.

As Nazis Shell Florence, Dust of Renaissance Architecture Rises above Ponte Vecchio

Palaces, as at the left, have been mined and demolished. Now the enemy, in retreat, bombards famous churches; one shell killed 40 persons leaving Mass. When flying in, the author told a (ellow bombardier, "You can pick up the Baptistery in front of the Cathedral pretty easily. It's very white in the sunlight" (page 279). A pyramided roof is another distinguishing feature. Giotto's square Campanile in center.

the steel shutters blown. There was broken glass everywhere. Either the Fascists or the retreating Germans had done this.

Walking through the streets and seeing the crowds, I still found it difficult to reconstruct the past, the afternoons five years gone. I was impressed at last that it would never be possible, that there was no use trying to go back. Perhaps later, but not now.

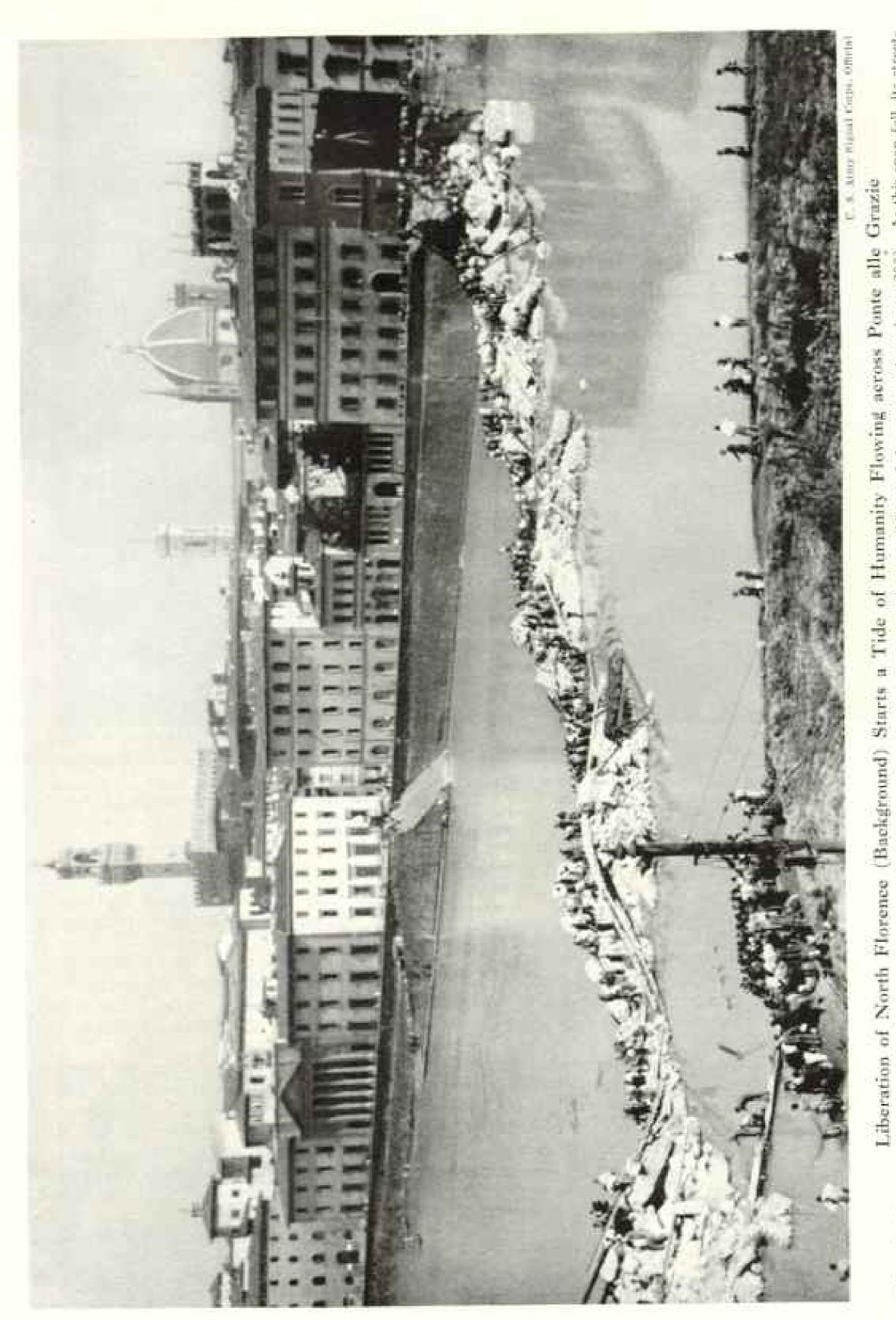
The route by which I had returned to Florence in the hot month of August, 1944, with Britain's Eighth Army sweating and toiling in the streets and up the highway, had been long and devious. I had lived in Grenoble in southeastern France for the year after Munich and had come down to Florence at Easter in 1939, and then again in August just before the war broke out.

I had left Florence and gone up through Austria and Germany to England and had been in London when the Germans went into Poland. A month later I had gone back to France to study at the Sorbonne and had spent the strange winter of the waiting war in France.

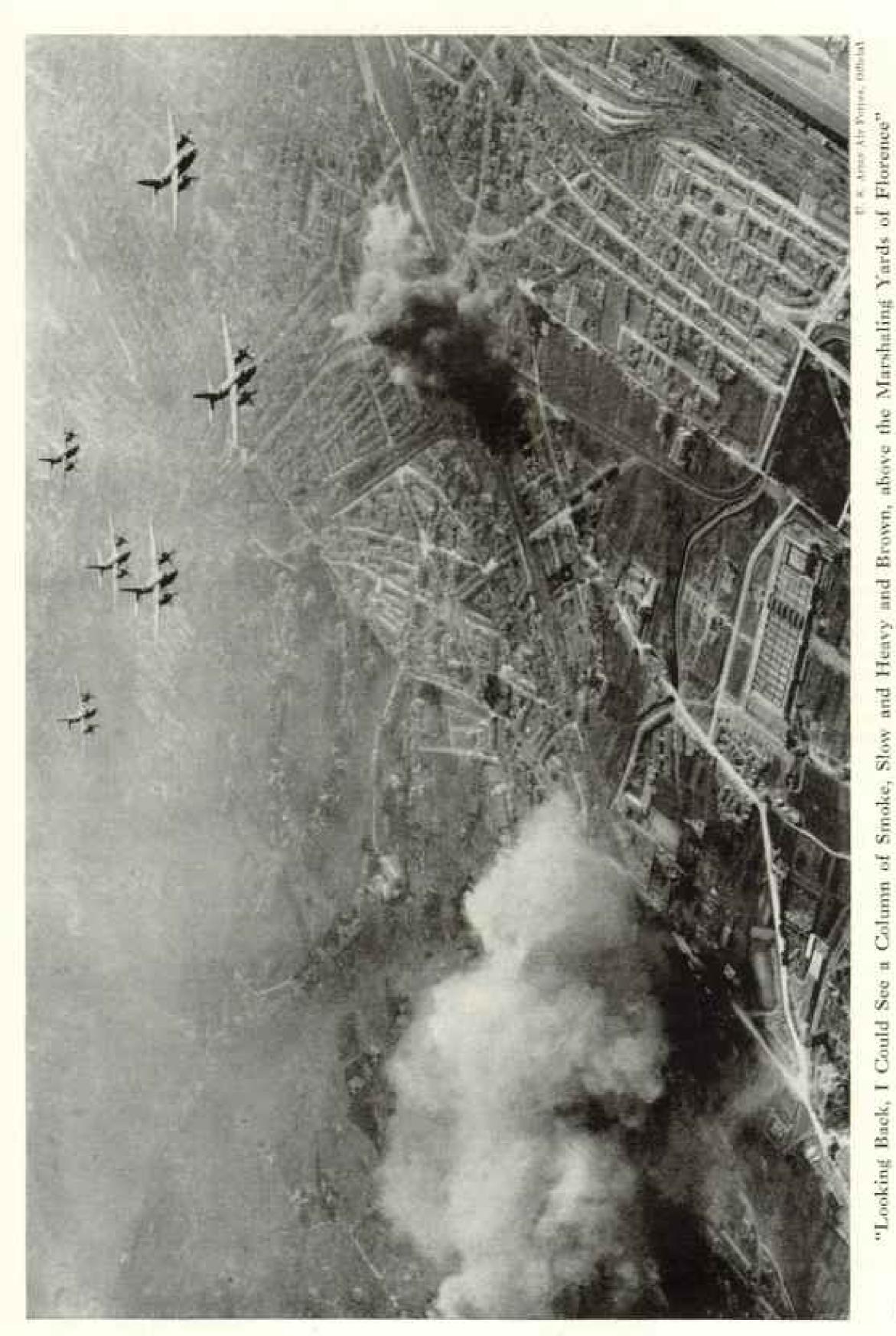
I had been in Oslo when the Germans invaded Norway and had stayed under the occupation for five months before being able to return on a refugee ship which left Petsamo, Finland, for New York.

In August, 1942, I had been in flying school in the West and in October, 1943, had come overseas with a medium-bombardment squadron. In the pause between the fall of France and Pearl Harbor, I had put in a year at Harvard working for my M. A. in literature and another year teaching English at the University of Wisconsin.

There seemed no connection among any of the things I had done or the places I had been in the five years—no connection, but a certain inevitability.



Before the Germann demolished the bridges, they drove 50,000 Arno-side dwellers from their homer. Many of these now return (page 292). As this span fell, its car rails straddled the wreckage. The skyline shows (1.10 r.) Palazzo Vecchio's tall tower, Giotto's square Campanile, and the Cathedral's donne (Plate IV)



These B-76's were assigned to knock out rail traffic without duminging historic munitions in March, 1944. These B-26's were assigned to knock out rail trains without commu-"looked incredibly narrow" (page 296). Like these in Reme, the targets were struck precisely Through this ancient art center, railroad cars carried German buildings. From the air, the 400-foot-wide yards

Out of all the cities of Europe, Florence had seemed somehow always separate and distinct in my memory, not only the most beautiful, but the most aloof and inviolate. I had been impressed by this sense of time-less chastity in the spring of 1939, when I went down to Florence with several other students from Grenoble.

The other students, from all over Europe, had brought to Florence varying attitudes and backgrounds. They had tried to compare it with Paris, or San Francisco, or Oslo, or Edinburgh. Yet Florence had affected them much as it did me. The beautiful city, intricate and lovely and richer than almost any other in the world in art, somehow had avoided our grasp, seeming to belong to time, not to us.

So it had eluded me when I came back again that August with my family. During the months of war while I was still in Europe, and later back in America, I had wondered about Florence. Surely there, I had thought, as to the Vatican City, the tides of war would never mount. I had gone on about the business of learning to bomb over the hot lands of New Mexico.

One morning in March, 1944, I went into the bombardiers' briefing room and looked immediately to see the blue course line drawn on the big wall map of Italy and southeastern France for the day's mission. We had been flying some rough missions over the beachhead at Anzio, and I wondered whether we would go back again that morning.

Orders to Bomb Florence

But today the blue line struck far north, and I walked closer to see what the target was. The blue line ended at Florence and then turned back out toward the coast for the course home to Sardinia.

Florence! We were to bomb Florence! Florence had never been bombed by any other group, had been left untouched in the long, snarling war in Italy.

Another bombardier was standing beside

me:

"We go to Florence. We're going to have to be good today."

"You said it." I was looking at the course in. Florence would be easy to pick up.

"I didn't think they'd let us bomb Florence, It's supposed to be a famous city. Must've

decided they've got to do it."

Back of that decision was the whole history of the German effort in Italy on the one side, and the whole history of the development of a superb technique of precision bombing on the other. This was not just another raid in a long series of raids on targets in Italy and Europe. This was the culmination of all bombing everywhere.

Only a few groups of bombers in the world were capable of doing that bombing. The airplane was the B-26 Martin Marauder medium twin-engine bomber. The B-26 Marauder had come a long way to perform this special mission.

The Marauder had been designed for lowaltitude bombing and for attack. It had been used in this way in the South Pacific over Rabaul and Lae and other targets in New Guinea. It had flown over targets at low altitudes and at speeds often exceeding 300 miles an hour. It had flown in small formations of three ships. Because of its dangerous landing and take-off characteristics, it had remained almost an experimental airplane during the first part of the war.

With the Allied invasion of North Africa, in November of 1942, a group of B-26's had been activated for operational flying in the Mediterranean. But so great were the losses in low-altitude flying that it was necessary to withdraw the group from operations, re-form it, and develop new techniques in order to

return the plane to combat status.

The same story had been true of the first groups to operate out of England over the Netherlands and northern France. The Marauder had seemed completely abandoned as a combat aircraft.

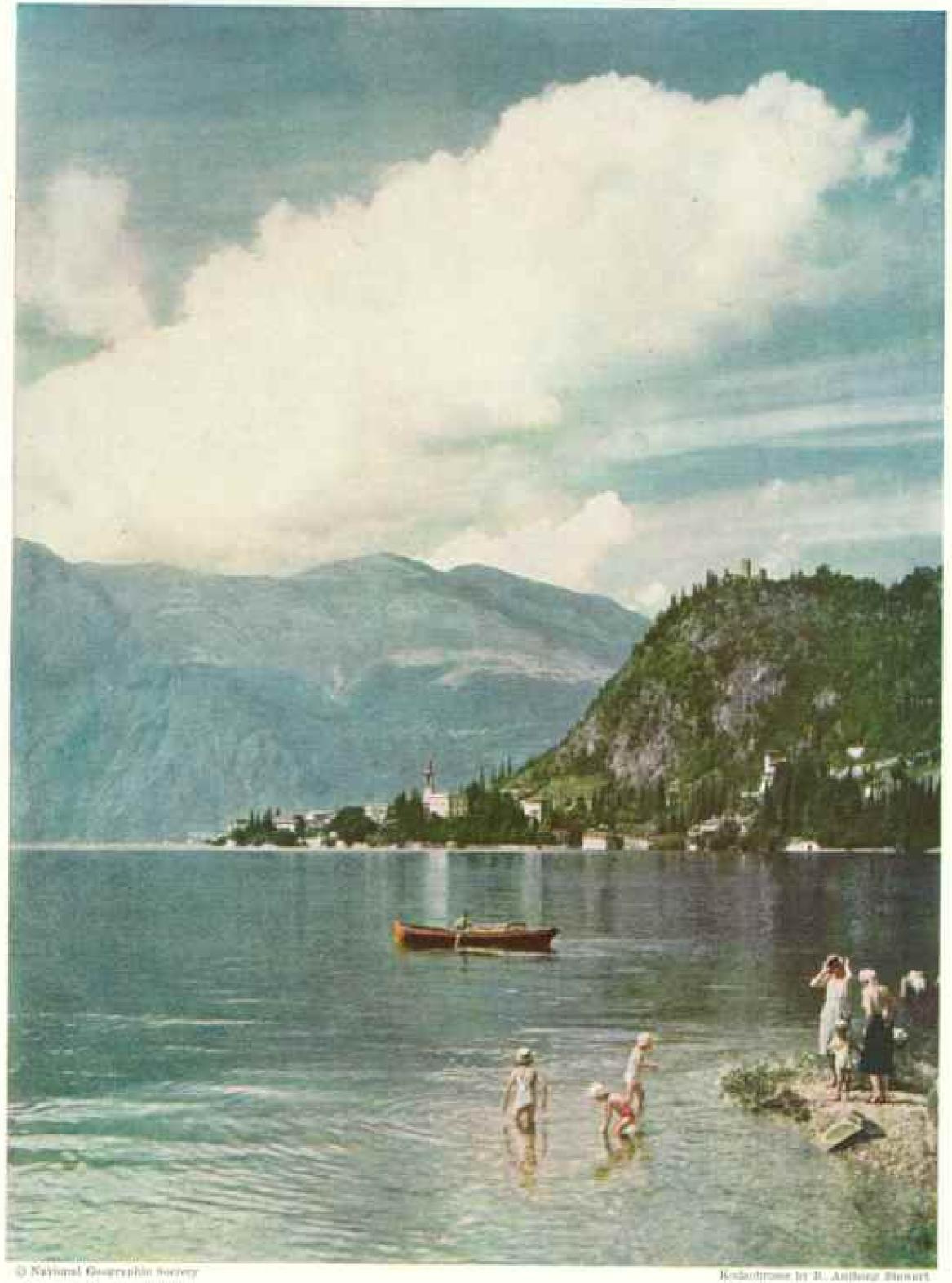
Meanwhile, a second group of B-26's had arrived in North Africa. It was the group with which Captain Ackerman and I eventually were to fig. This group, in experimenting with various methods of bombing and various bombing altitudes, found that fine results could be obtained in bombing at certain heights. The Norden bombight was installed, and the plane was found to be stable enough to make a high degree of accuracy possible.

New and larger bomber formations were developed while another group of B-26's arrived in North Africa. This group, together with others which had been re-formed and returned to operational status, made up a wing which was to become, through the months of flying and fighting ahead, the finest wing of medium bombardment in the world. The wing was under Brig. Gen. Robert M. Webster.

Deadly Precision on Ever Smaller Targets

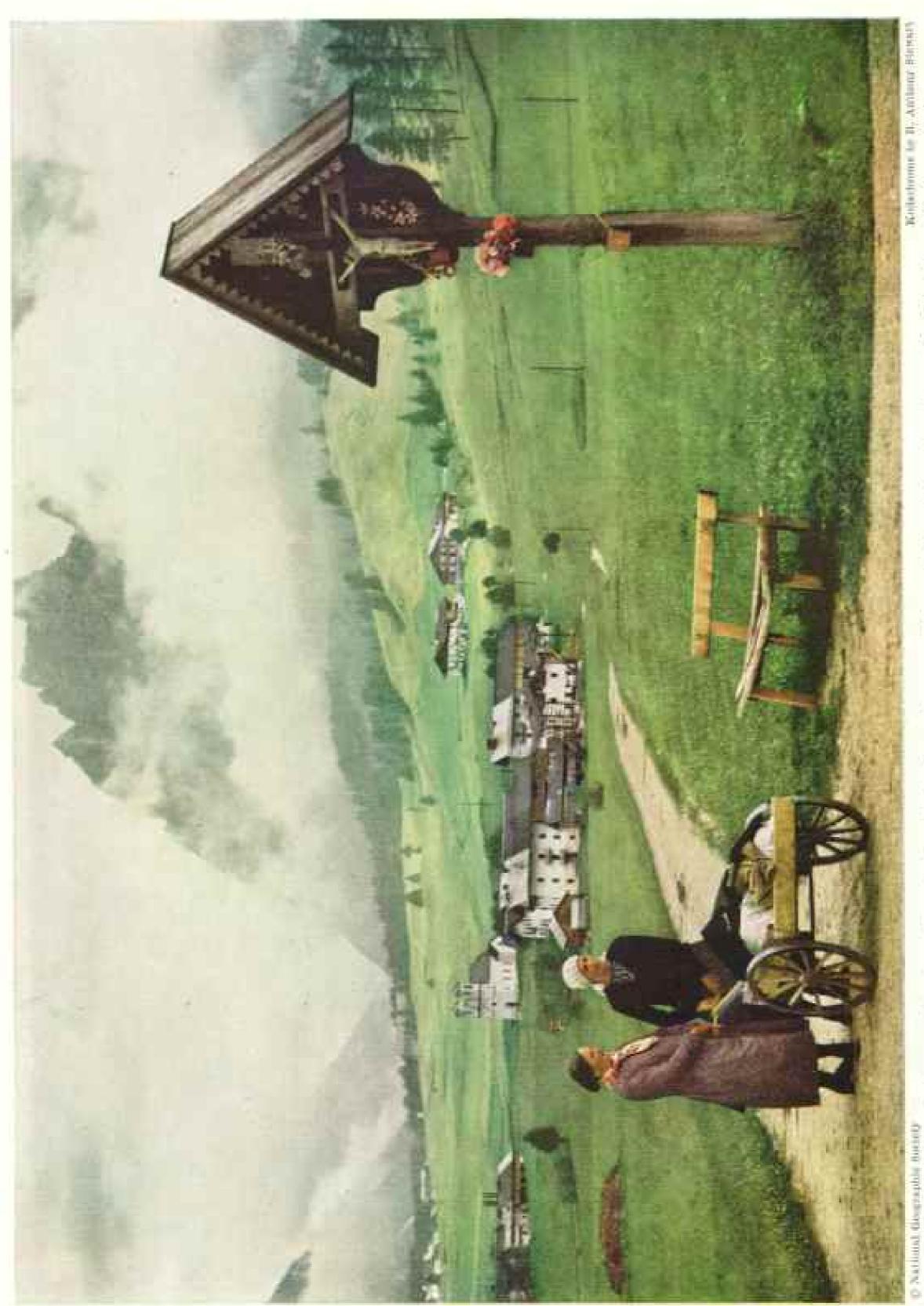
At first the targets which our groups were assigned were harbor and port installations, railway marshaling yards, airfields, and large supply depots. Gradually, however, as the formation was re-formed and tightened and the bombing became more precise, smaller and smaller targets were assigned to the wing.

Northern Italy: Scenic Battleground



For 2,000 Years Fashion Has Decreed Palatial Villas on Fjordlike Lake Como

Pfiny the Younger had in mind such a scene when he wrote: "I have several villas . . . one on a rocky spur, one on the shore." Peacetime's children waded within sight of Varenna, noted for its beautiful gardens and black-marble quarries. Ruined Castle Vezio towers above the hill.



A Wayside Shrine at Cortina-Fog in the Dolomites Shows a Hazard Faced by Americans Raiding Austria from Italy



Apples and Shirt Sleeves Show It's Summer in the Dolomites

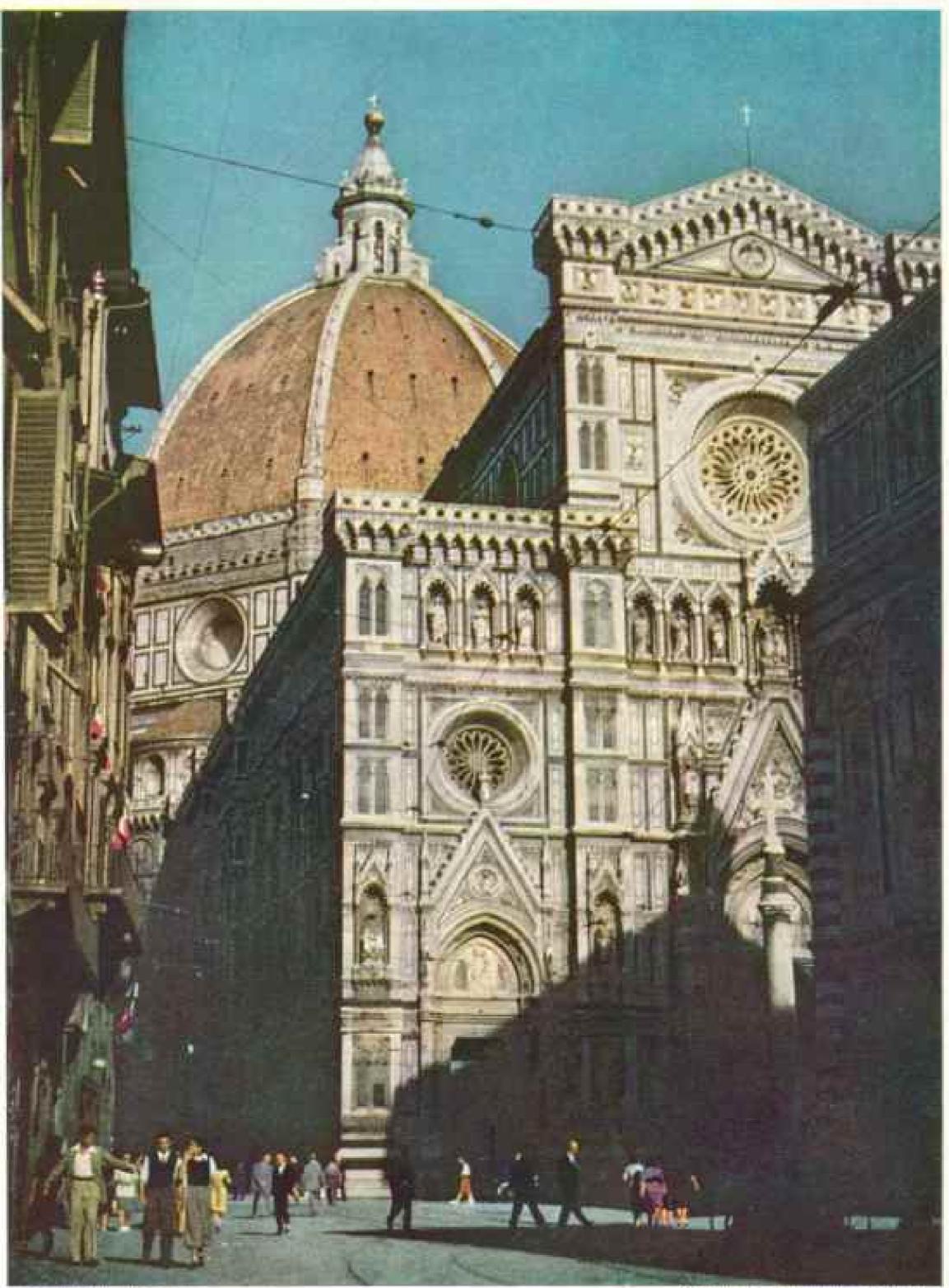
Green cord on a hat indicates a bachelor, red cord a married man. Shortly before the war, the Axis transported many of Italy's German-speaking Tyrolese, funcy waistcoats and all, to Austria.

Carabiniori Stand Guard before St. Mark's Library, Venice

C. Nachalil, Geographie Beginn)

Shorn of dress uniforms and cocked hats, these Italian police may be in the Fascist army while Venice remains in Axis hands. The statue-topped library bus been called the "crowning triumph of Venetian art."

The National Geographic Magazine

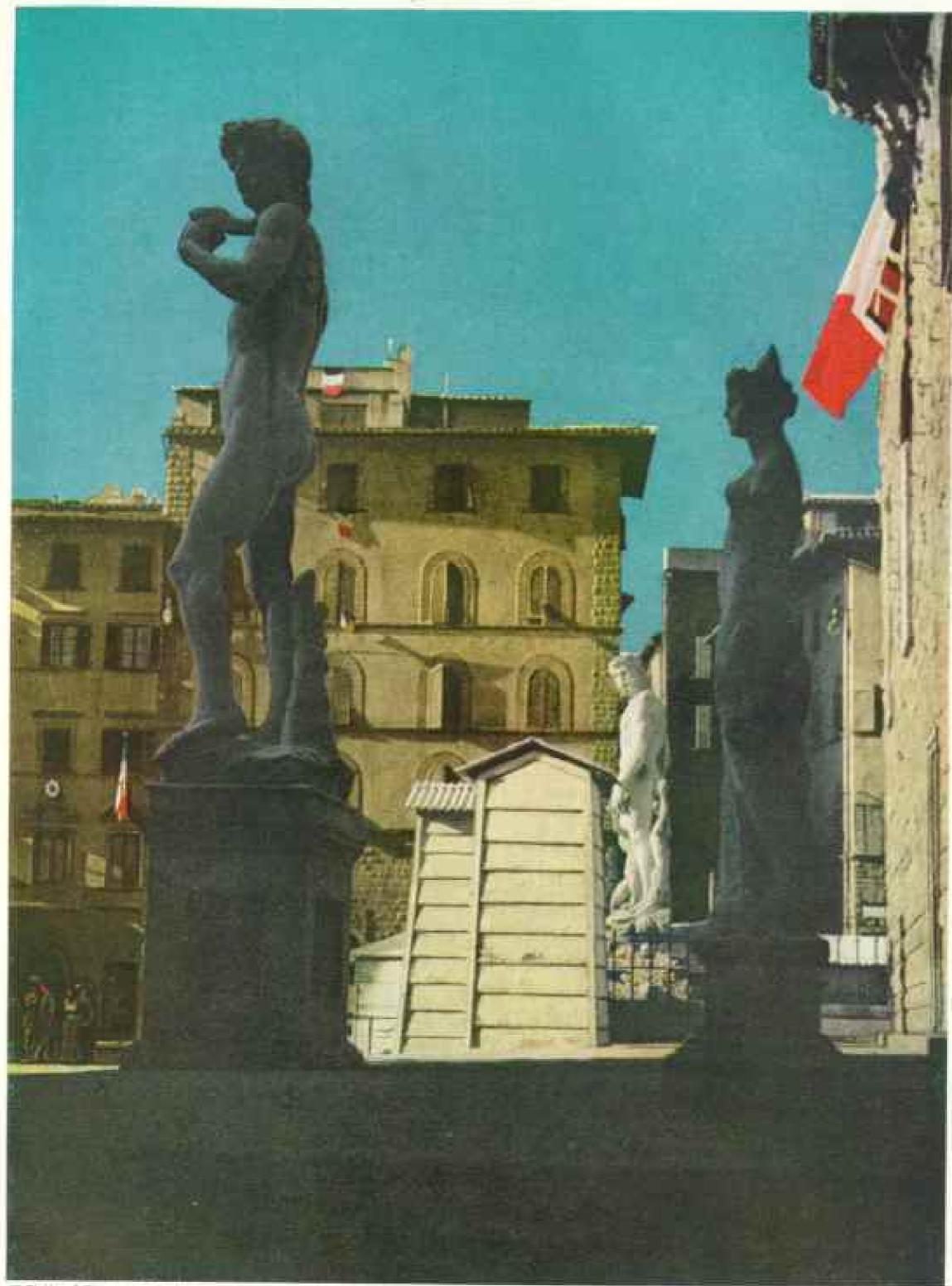


in National Geographic Society

Kodischmens by Lt. Benjamin C. McCartings

Afoot in Florence, the Author Photographed Its Cathedral, His Landmark on an Air Raid While bombing Axis traffic, Americans took pains to spare this medieval structure. Retreating Germans, ignoring their "open city" declaration, shelled Florence, scarring the Cathedral slightly. Madonna and Apostles

PV.

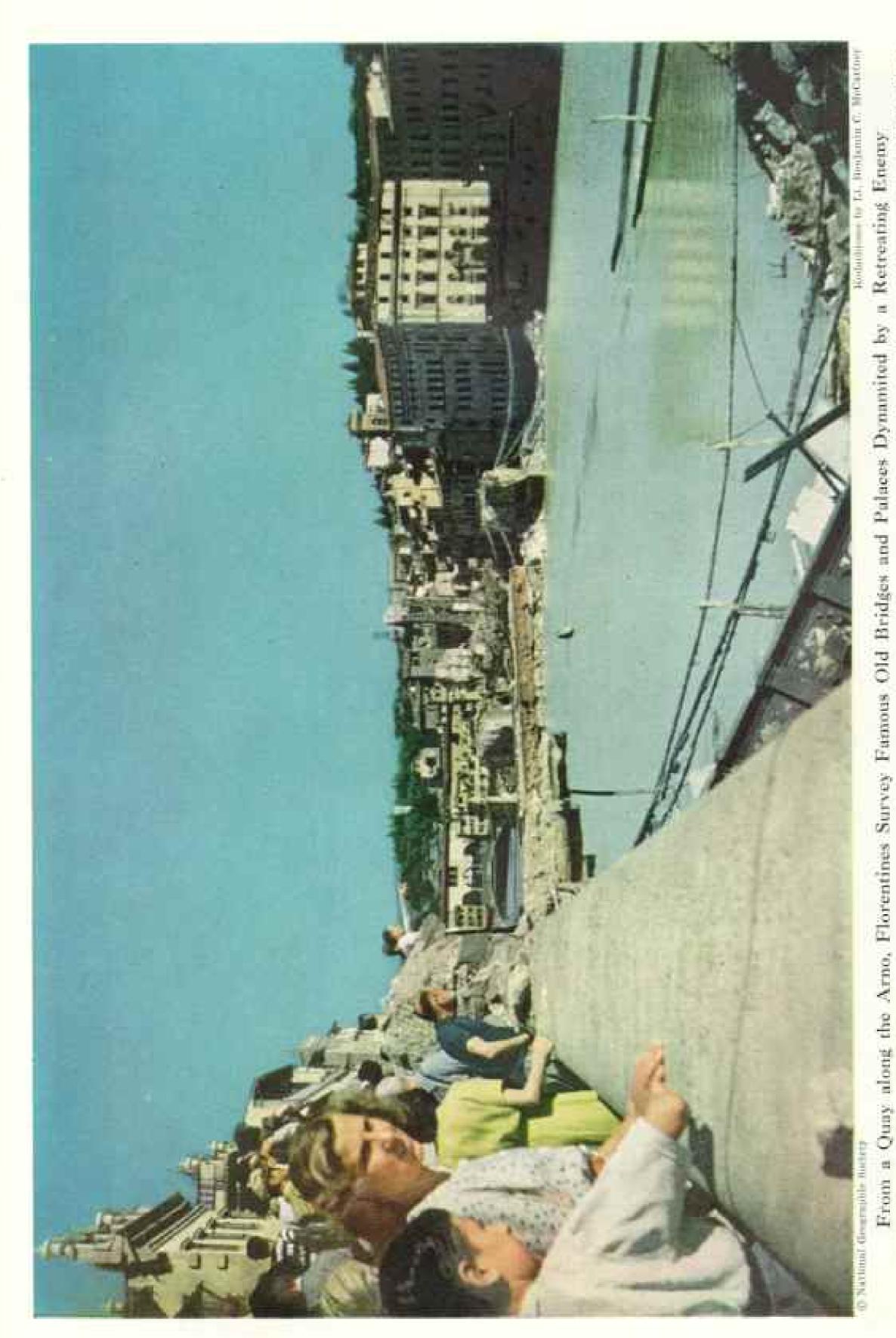


D National Communitie Swinter

Kudashrone by Lt. Benjamin C. McCartner

Historic Palazzo Vecchio (Old Palace) Survives, Though It Sheltered Fighting Florentines

This town hall (right) housed heads of the Republic, the Medici, and modern Florence. Near its door stand (l. to r.) a copy of Michelangelo's "David," Ammannati's "Neptune," and a female figure once used as a chain post. The sheds are bomb shelters for other works of art. In this plazza the reformer Savonarola died by fire in 1498.

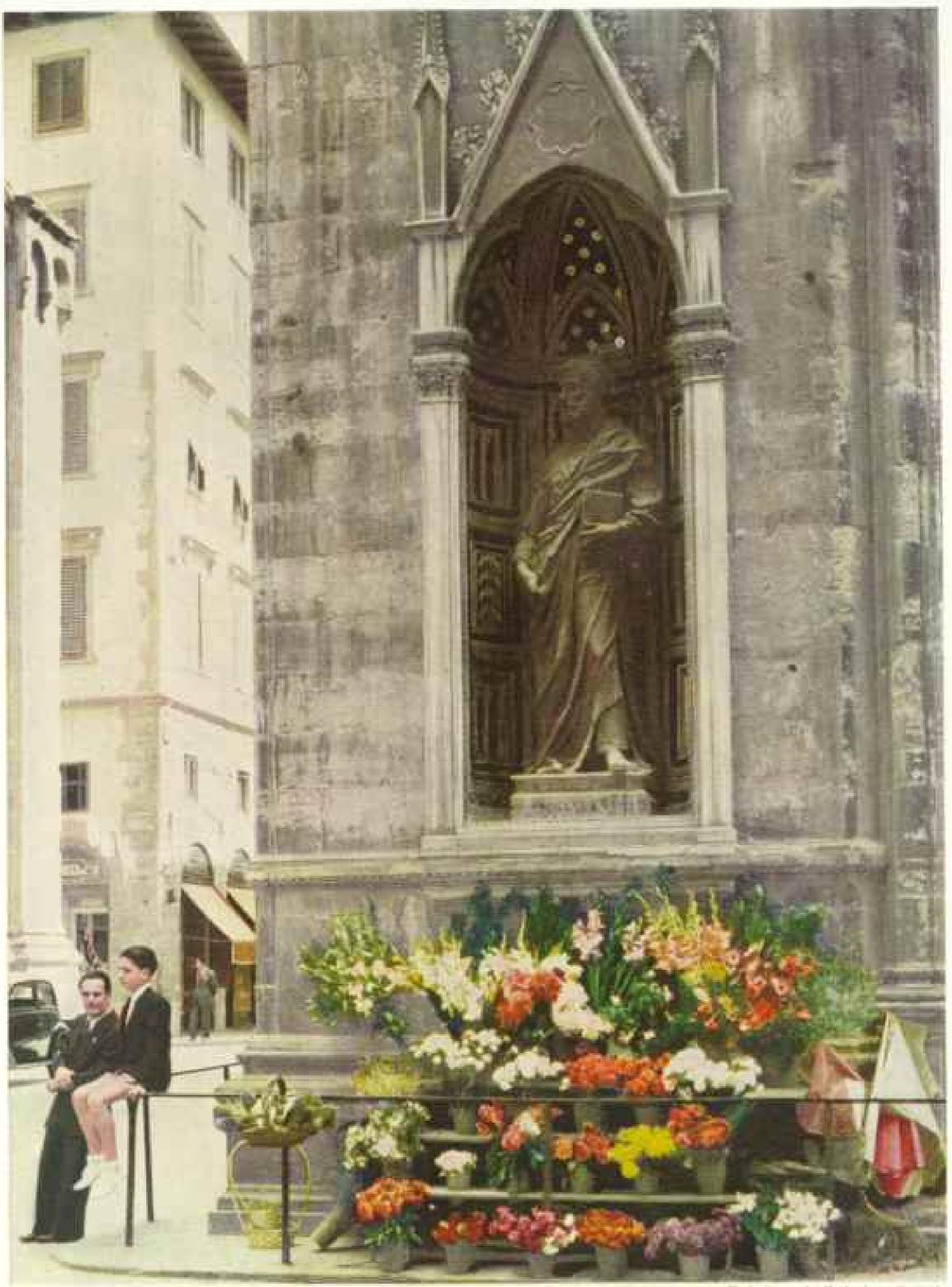


Just so did residents of the north bank gather August 11, 1944, and shout across the river, "Come over, we're free!" Ponte alla Carraia (foreground) and Ponte Santa Trinità (center) are in ruins, but covered Ponte Vecchio, its sides encrusted with shops, stands hooted and damaged. Florence grow up around this bridge.



By such systematic attacks the 15th Air Force strangled German communications, Crossing the Seochia River, the railroad leads to Modena, a mile away to the left, and (right) to Verona. White arreaks are secondary roads, Allied-held Florence is 60 miles to the south, American Bombs, Breaking the Quiet of a North Italian Countryside, Score a Perfect Hit on a Railroad Bridge

The National Geographic Magazine



D Netland Georgania Selett

Konfurbrame by H. Anthony warrant.

With Stone Eyes, St. Peter Saw a "Battle in a Museum" as Nazis Shelled Art-rich Florence Storehouse of Renaissance treasures, the city around 1506 saw Leonardo, Michelangelo, and Raphael at work.

This statue is by Donatello or Nanni di Banco. Gift of a medieval guild, it occupies a niche in Or San Michele, successively a granary, church, and public monument. Flowers belong to a prewar vender.

With these targets, instead of falling off, the percentage of accuracy mounted.

In the spring of 1944, our group was sent after a vital railroad bridge in Italy. The target was only 90 feet long and 25 feet wide, but we destroyed it. In June this bomb group set a record of six 100-percent missions and had a 91-percent accuracy record for the month.

Art Treasures Saved Many Famous Cities from Bombing

Because of the sentiment among the American people for the old and culturally rich cities of Europe and for the religious shrines so numerous in Italy, certain cities were spared from air bombardment.

Rome, Florence, Siena, and Pisa were serving German supply systems and military purposes. But for fear that some precious building, art treasure, or religious monument dear to the Christian tradition might be destroyed, these cities for the most part were spared.

After the Allies landed on the Italian mainland and as the tempo of the fighting increased north of Naples during the winter, it became apparent that some measures would have to be taken to deny the Germans the use of such valuable supply links and storage facilities as the great marshaling yards of Rome. So, in March, our groups were sent against the Tiburtina, Littorio, San Lorenzo, and Ostiense marshaling yards.

So close to the heart of Rome were these yards that we had to make a bomb run which skirted Vatican City. For a time the Colosseum and the great white monument to Vittorio Emanuele II were actually under the cross bairs of my bombsight.*

As we broke from our target and the flak fell off to the right, I called out over the interphone to Captain Ackerman the historical buildings below.

In this succession of raids all four yards were so completely wrecked as to be useless longer to the Germans, and more than a thousand units of rolling stock choking the yards and packed with war material were destroyed. Yet we did not hit any other part of the city and we left untouched every cultural and religious monument!

Afterward, when Rome had fallen, technicians examining the yards were amazed at the accuracy of bombing which wrecked every single object in the yards, twisted the huge gun barrels in the freight cars, and yet did not touch houses lining the slopes above.

When finally it was determined that an attack on the Monte Cassino Abbey was unavoidable because of military exigencies, all types of bomber aircraft were sent against the abbey and it was completely destroyed.

Only our groups of Marauders were sent against the heart of Siena, cultural and historical center famous for its fine examples of 13th- and 14th-century Italian Gothic architecture.

Florence, the source and center of the Renaissance, had never been attacked by Allied bombers. Smaller than Rome, and more compact, the beautiful city along the Arno presented targets that seemed impossible to attack without causing irreparable damage to things long precious to all humanity.

In the case of Florence, the military nature of the target seemed less actual and more remote. Florence was hundreds of miles from the fighting, hundreds of miles from Allied soldiers struggling before Cassino. It was hard to see how bombing the city would save American lives.

Yet Florence was serving the German military purpose far more than the abbey above Cassino. Shells that killed Allied soldiers behind the broken walls of the Continental Hotel in Cassino and on the bomb- and shell-pocked slopes above the town were routed daily through Florence.

At night freight cars filled with shells creaked heavily through the blacked-out marshaling yards of the famous and beautiful city. Far to the north of Cassino, the other city, so ancient and lovely, so outwardly innocent, was actually an instrument of war.

Crack Airmen Chosen to Hit Florence

Ultimately it became necessary to attack the railroad installations inside Florence, too. When the hard decision was taken, the best possible weapon to assure the highest degree of precision was chosen, the B-26 Martin Marauders. We were the only bombers ever to be assigned that target.

In the careful hands and final judgment of a few pilots and bombardiers was to be placed one of the greatest responsibilities of the war, a responsibility felt, but not actually shared, by civilized people all over the world. The attacks to be made against the city would save weeks of bombing on the railroad and highway periphery and up and down the valleys leading south to Cassino.

The destruction of the rail facilities of Florence would increase immeasurably the effectiveness of the whole strangulation technique being applied by the Air Force in Italy.

* See "Smallest State in the World: Vationa City," by W. Coleman Nevils, in the National Geographic Magazine, March, 1939; and "Sojourning in the Italy of Today," by Mrs. Kenneth Roberts, September, 1936.



Mullismanne Alfied Air Firms

On Florentine Shoulders, the Allied Military Government Sends Flour to Former Enemies

Retreating Germans took surgical instruments and anesthetics from hospitals, machinery from factories, and every motorcar. They blew up the power plant, depriving the city of light. During the north bank's siege, food was cut off and water sold for 20 lire a bottle. On moving in, AMG doled out a daily food ration. For a while its mercy workers ran a gantlet of snipers' bullets.

The final pattern of a German defeat in Italy was being stamped out over the broken bridges, the smashed railway yards, and the blasted ports everywhere north of the fighting line.

Preparation for the Attack

Now the war had come full cycle. Ancient Florence had to feel the new war.

Slowly, that morning, the bombardiers' briefing room filled up as the trucks arrived from each squadron. The bombardiers were talking and smoking and discussing the course line on the wall map, and I looked at them.

These men, like the pilots briefing in the next room and the navigators briefing across the room from us, were young men, 18 and 20 and 25—young men who would be far from the peace table when the treaties were haggled over and signed. But they would have known what responsibility was.

We were all dressed in heavy flying equipment for high altitude, and some of us already wore Mae Wests and flying helmets. Several had on parachute harnesses.

These were the men whose skill would determine whether this supreme test of precision bombing would succeed. Behind them were the many raids all over the Mediterranean theater, the long, hot, tedious afternoons and mornings of formation flying in Florida and Louisiana, the hours of flying and bombing back at the flat and dusty airfields of the flying schools in Texas and New Mexico and Arizona and California.

The group bombardier came in with an armful of maps and photographs and data sheets. He crawled under the table and came up in the little open square in the center.

"I guess you guys know what the story is," he said. The bombardiers had all moved over to the square table now. "They decided



Molinersmean Altind Air Pouns

A South African Deactivates a German Mine, Left in Rubble to Maim and Kill All over Florence the enemy planted booby traps. The author saw five civilians killed scaling mine-sown ruins (page 257). Priceless Jurnishings and libraries were fost as medieval palaces blew up.

to bomb Florence and we're the ones to do it. It's a great compliment. The only thing is, we can't screw up. If we screw up it'll really be our necks."

"Who all is going?" one bombardier asked him

"Just us. We got the hardest target, too. So we really got to be in there. Here're the maps." He handed out the 1:250,000 maps of the Florence area of Italy, and we opened them up and folded them so that Florence and the course in were on top.

"A Lot of Things We Can't Hit"

"O.K. Everybody got a map? O.K., here are the target pictures." He handed out the 10 x 10 target pictures of the marshaling yards. "And here's another picture that shows the whole place," He handed out the other pictures.

"Sure got a lot of things we can't hit," a bombardier across from me remarked. He was looking at the white squares drawn in around huildings and objects that were not to be hit-

"You're not just kidding," the group bombardier replied. His name was Bobby Swindler, and he was as good a bombardier as there was in the wing. He had been badly shot up once, but he was all right again. Everyone called him Bobby.

"How about the weather?" another bombardier, who wore his parachute harness, asked. "The weather going to be O.K.?"

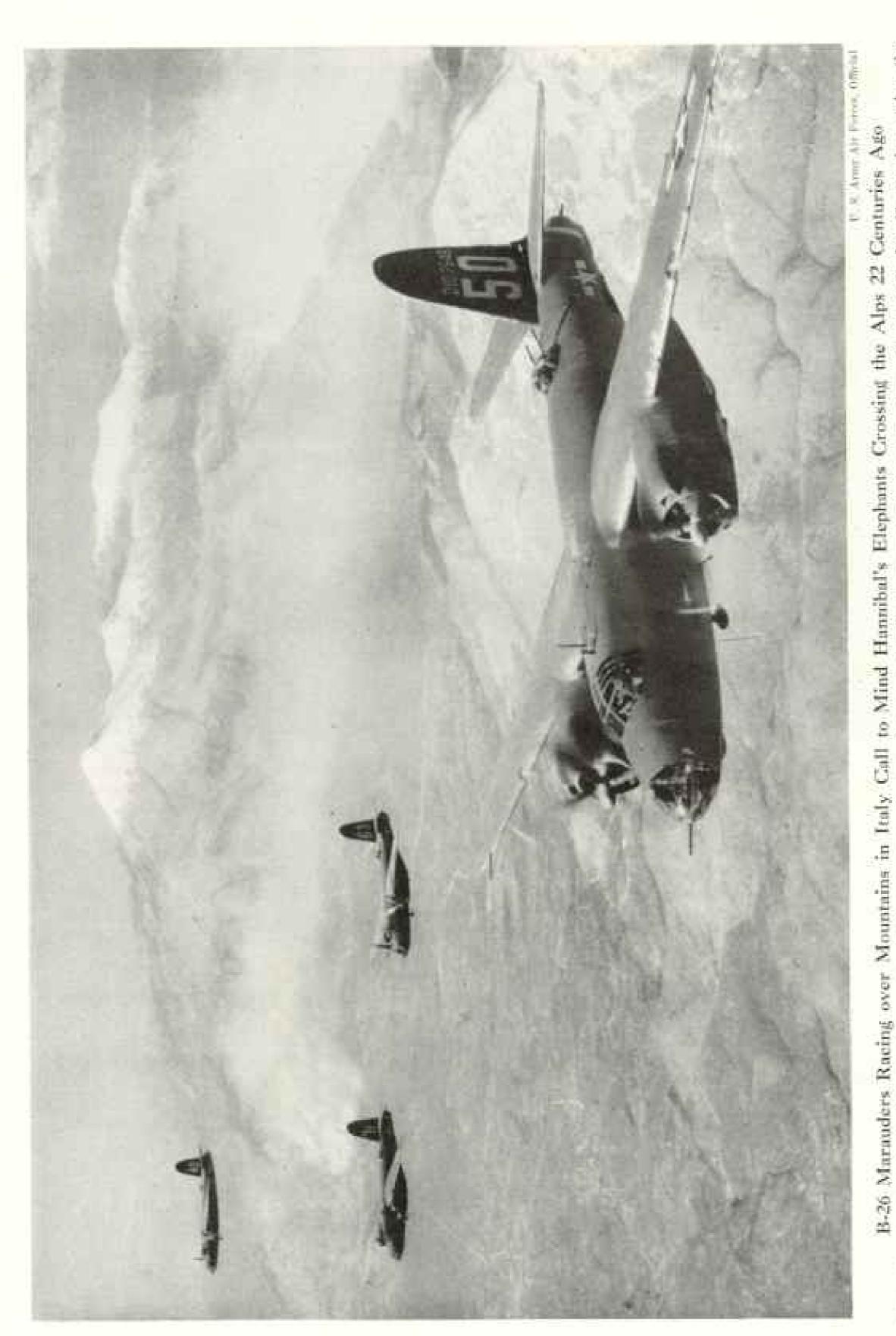
"Fine. We don't have to worry about that."

"How long a run we going to take? Seems we ought to take a long run," a bombardier said. He was relatively new, and I had seen him at briefing only once or twice.

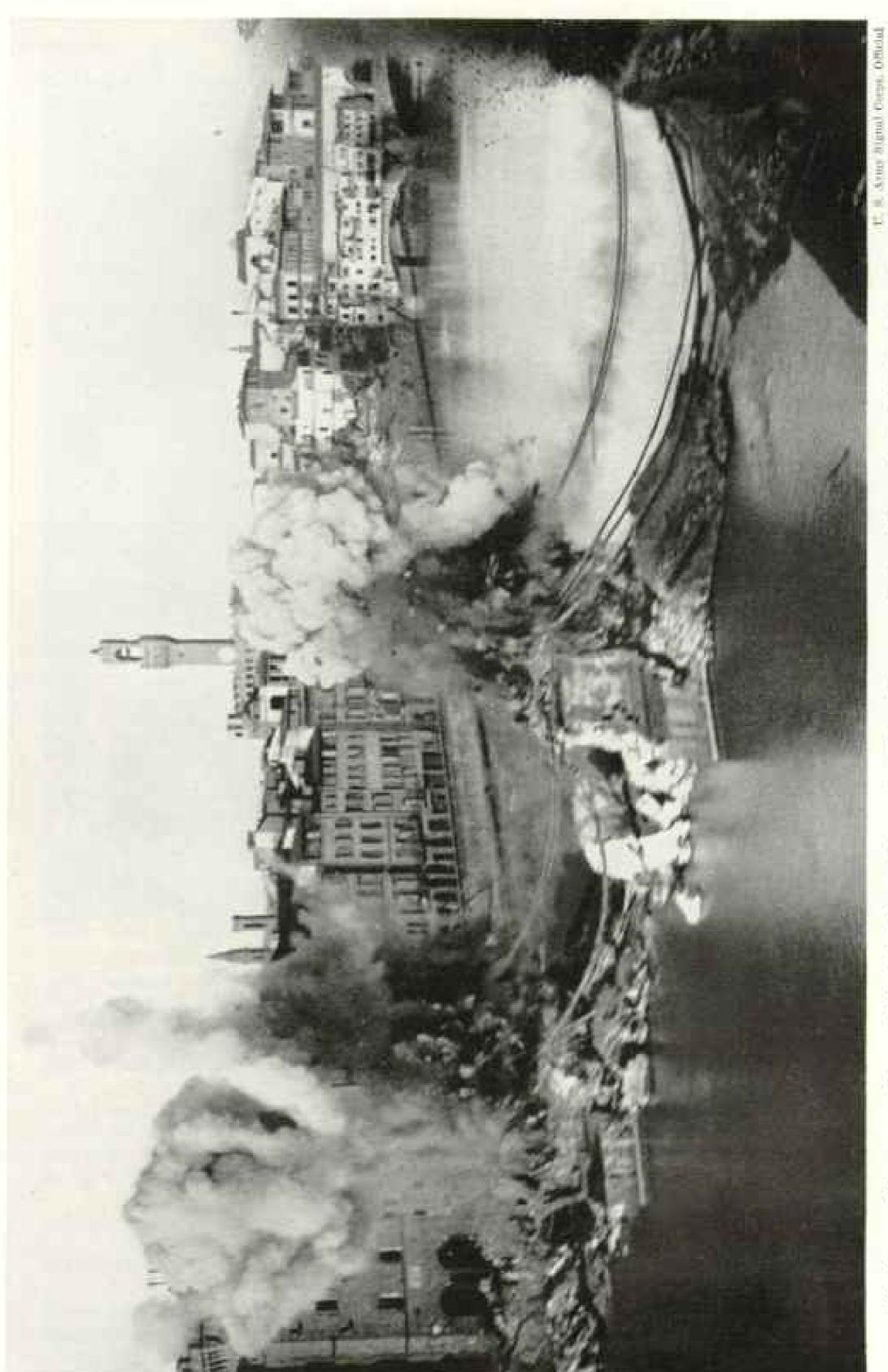
"At least 60 seconds' run," Bobby told us all. "Coming in the way you will, you ought to be on course a couple of minutes, anyway."

"How about flak? They got any flak?" "No flak. At least, as far as we know."

"We heard that one before, too," a couple of the bombardiers laughed,

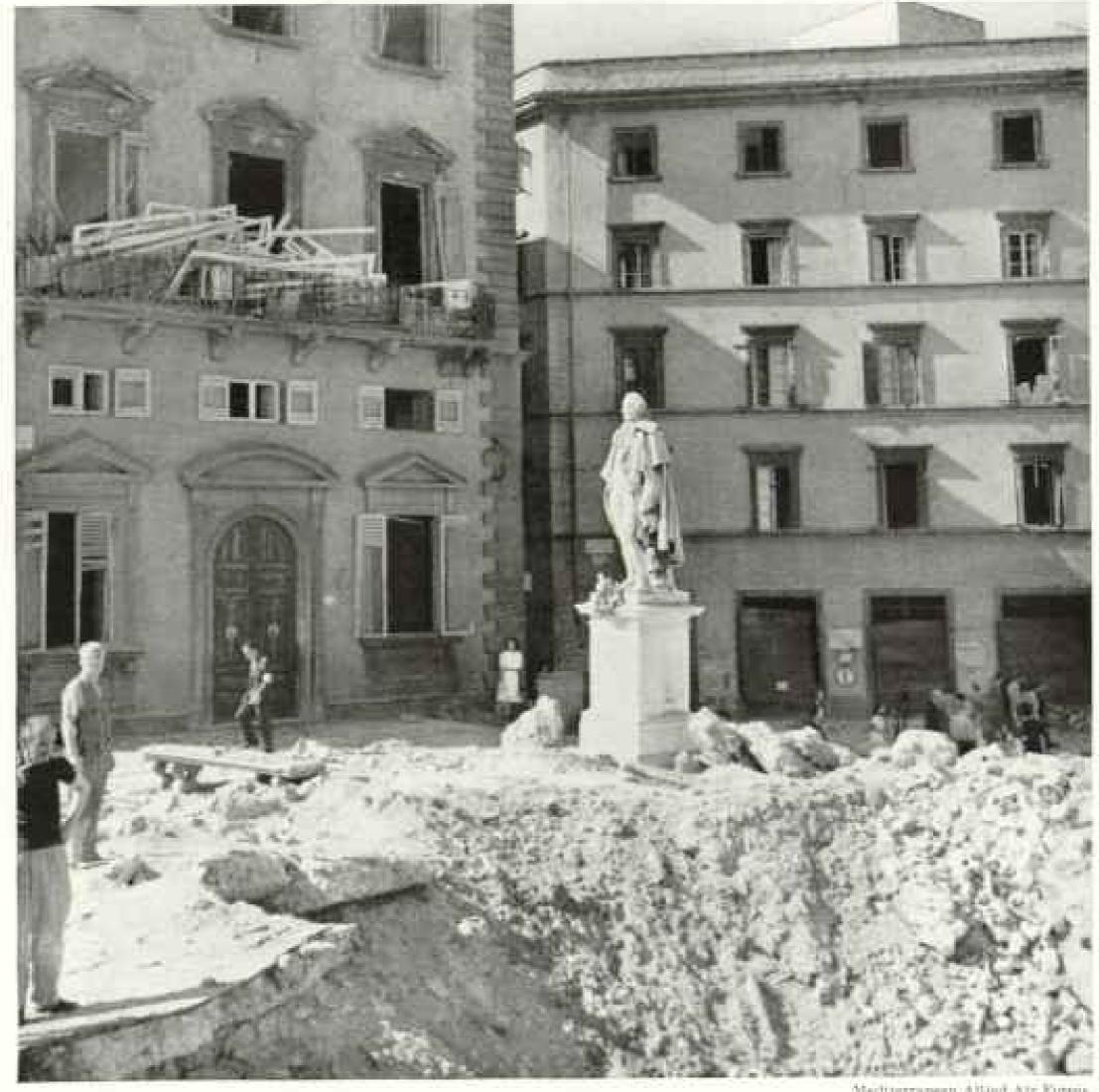


These "arrogant, authoritative" bombers contained the author's contrades. Numbers 50 and 63 are mentioned in his story. His own number 62 may have taken the photograph. Over Florence he "looked around and saw the other bombardlers in their Plexiglas noses; so close they seemed a part of our own ship" (page 293).



To Lay a Temporary Span, Allied Engineers Dynamite What Germans Left of One of the World's Most Beautiful Bridges

Four young Italians died trying to remove Nazi mines from medieval Pente Santa Trimità (page 279). Statues representing the four scavors toppled with the road-bed; fragments were fished out of the Arno. Goldsmiths' shops clinging to Pente Vecchio (right) have astounded travelers by not falling off (Plate VI). Its upper gallery to the partians hid a secret telephone line across it. from Uffizd Gallery to the Pitti. Fighting Partiants laid a secret telephone line across it



German Demolition Spares a Statue But Topples Shutters onto a Balcony

Piazzetta Goldoni, like adjoining Ponte alla Carraia, was blown up to delay Allied entry into north Floronce. With the monument, it honors Carlo Goldoni, a Venetian dramatist, real founder of modern Italian comedy (1707-1793). A pensioner of King Louis XVI, he died impoverished by the French Revolution.

"You might get flak after you break. They might try to reach you from Prato with the guns they've got there. But it's a long shot, and they can't get you on your bomb run." He checked with all of us to make sure we had the maps and the two pictures.

"No alternate today. O.K., look at the

target picture,"

We all got the picture which showed the marshaling yards and a part of the city and looked at the target-a long, narrow band of brown across one part of the picture.

"Your target's the Campo di Marte marshaling yards in Florence. It's about 400 feet wide and about 2,000 feet long. Kind of rough having it narrow like that, but I think we can get it."

We went over the target photo and then over the maps. Then we got the bombing data.

"Be sure you get the altimeter set right with the pilot. We don't want any screwing up on altitude."

"How about ground speed?" a bombardier asked.

"Ground speed 223. You'll have a little tail wind, Not much."

We went on with the briefing and got all the data on the winds. Then we went back to the target photo.

"Be sure you get your drift killed," Bobby



Betiteb Official

Founded in 1252, Ponte Santa Trinità Is "Restored" in 1944 with a Bailey Bridge

This quickly erected bridge is named for its designer, Donald Bailey, a British engineer. Reminiscent of a child's Meccano set, prelabricated interchangeable parts are fastened with simple steel pins. Bailey bridges, fit to bear the heaviest tanks, may be extended almost any length. One in Italy spanned a 300-foot gap, with no central piers, in 36 hours. In France these bridges sped the advance of the American Army.

told us. "Don't drop unless you got your drift absolutely killed. The yards are too narrow."

The Target Divided among Squadrons

The first squadron had the top part of the yards, the western part. The second squadron had the eastern, or bottom half of the yards. The yards ran nearly east and west. We were to go in east of Florence and then turn back 180° and make our run from east to west.

"Going in, you can pick up the Baptistery in front of the Cathedral pretty easily," I told Bobby. "It's very white in the sunlight. I noticed it once when we were going in on Incisa and Florence was just off to the north. You can see it clear back by Pontedera coming in" (page 261).

"Good deal," Bobby said. "You guys see it on your photos?" He pointed it out.

In a few minutes the briefing was over, and Bobby said, "Good luck. They're really counting on you."

We went out and into the end of the pilots' briefing. It was dark in the pilots' briefing room, and the commanding officer was going over a lantern-slide picture of the target. When he had finished, the radio officer went over the radio data, and then we all got a time tick from the group navigator.

"O.K., good luck. Really get in there to-

day, fellows," the colonel told us.

Outside we got into the big trucks and banged and lurched out over the bad roads to the planes.

"This lousy truck ride's what gets me," one pilot said. "This truck ride's worse than flak.

Lasts longer, too."

"We'll be all beat up inside when this war's over," another fiver said. "Me, I'm looking forward to that Buick convertible with springs in it. When I ain't driving it, I'm going to be

sitting in it."

The truck we were riding on lurched slowly over to our squadron area and jerked to a stop by the nose of the first plane. Several flyers got off and the rest began yelling plane numbers to the truck driver: "Sixty-three," "Five zero," "Sixty-two." The driver clashed the gears and the truck moved on to the next plane. Captain Ackerman and I got down.

"See you fellows later," I called back.
"Lay them in there," Combat Lamb called

to us.

"You keep that bald head out of the sun so we can see, and we will," Bob Cooke yelled at him. Bob was our co-pilot. He almost always got out to the trucks early and got into the front seat so he would be warm and the ride wouldn't be so rough.

We had had the same crew for almost a year: Capt. Leonard S. Ackerman (then first lieutenant), Lt. Robert B. Cooke, myself, and three enlisted men. Sgt. Harold Just, engineer-gunner, Sgt. Felton L. Callahan, radio-gunner, and Sgt. Richard Mensch, armorer-gunner. Later, out of the raid on Florence, Bob Cooke and I were to collaborate in writing a play at night in the orderly room and in our tent.

The enlisted men were already out working on the ship and loading the parachutes and Mae Wests and flak vests into the ship. Captain Ackerman immediately began inspecting the ship, and Bob Cooke climbed up into the co-pilot's seat. Sergeant Just, always a bit offhand with officers, called him "Ace."

No Flak-Just a Milk Run

"Where we goin' today, Lieutenant?" Ser-

geant Callahan asked me.

"Don't worry, Cal. No flak. We got a milk run. We're going to Florence." Callahan was deeply impressed by flak, and we often kidded him about being the only man in the Air Corps who could actually hear the Germans loading their 88's. He was from Louisiana and had sold marshmallows before the war; so we referred to him as the marshmallow man from Campfire, Louisiana. In an effort to achieve the debonair dash of a flyer, he had grown a disconsolate sandy mustache on the way overseas and wore a soiled bit of parachute silk around his neck for a scarf.

Sergeant Just came up to me, grinning. The Army had mislaid one of his teeth, and it made his sheepish grin something that was a con-

stant delight to us all,

"You better hit the target. I got cento lire with the waist gunner on Combat Lamb's crew you hit the target. So don't screw up." He grabbed some flak suits from the pile in front of the nose. "Where's the Ace?"

"In the men's lounge, the R. J. Reynolds Room. Where'd you think?"

"How soon we takin' off?"

"About 40 minutes; take-off's at 9:20." I was inspecting the nose Plexiglas for smirches that would make seeing through it difficult.

The armament corporal of the ground crew came around to the nose, wiping his hands on a rag. "O.K., sir? I cleaned her off just a couple minutes ago."

"Looks good," I told him. "How are the

bombs?"

"I been over them. Fins all O.K. Shackles, too." He was very conscientious, and we never had a bomb hang up. When we dragged the field in group formation after returning from a raid, we knew that the ground crew on 62 was watching us and looking intently for the green flares we fired when the mission was a success.

"I didn't bring nothin' but green flares to-

day," the sergeant said,

"Get Mensch and Callahan," I told him, "I'm going to show you guys where we're going and what we're going to bomb."

Grim Business Affects Men Differently

He went around to the tail section where Sergeant Mensch and Sergeant Callahan were going over their guns and brought them around to the nose. I got out the maps and the pictures and showed them the route in.

"See what you can see in the way of rolling stock or traffic on the roads. Call me up and I'll mark it down on the map. Now here's our target."

"Tell me it's a real pretty city," Callaban

said.

"How come they're bombing it?" Just asked. "I thought they wasn't going to bomb it."

"The Germans are using it to get stuff through to the south," I said. "We're the only ones to bomb it. You can tell your family that one."

Northern Italy: Scenic Battleground



@ National Geographic floriety

Moderfrome by U. S. Arroy Ale Pheres, Official:

Masonry Explodes Like a Volcano; Alessandria Loses a Highway Bridge over the Tanaro

Alessandria lies on a main highway skirting the star-shaped Citadel (right), an old fortification, "What a beautiful target!" American bombardiers exclaimed as they regretfully passed it by. Here they also spared the railroad bridge (above). Many an American has worn a Borsalino, the hat made in Alessandria.



Mansions dot the fog-War has changed this picture. Pleasure boats serve occupation forces, Luxudous hotels on the waterfront may have German "guesta." Capped hills. For strollers, an explanade runs beside the seid. Rapallo, a Resort Town on the Italian Riviera, Is Closed to American Travelers This Season!

X



Its Piuzza Well Serves the Alps-girt Village of Gemona

Gemona is girls carry Before the war the town sold copper pails such as these bought Singer sewing machines, whose sign appears on a way miles from Caporetto, scene of Italian defeat in World



Selloumen by D. Anthony Stavesty.

For a Quick Lumch, Genoa Has Its "Meat Tavern"

Signs on the right advertise Numps and a fair. Genon's industries have made it a frequent bomb target. Raiding the city in June, 1944, Thunderbolts bombed an aircraft carrier. Americans would call it a hamburger stand,



(b) National Geographic Society:

Kedurimme hr H. Anthony Service

In Venice, Centuries-old Horses above St. Mark's Door Are Globe-Trotters

Perhaps a part of Nero's triumphal arch, they went to Constantinople when Constantine moved his capital there. Crusaders shipped them to Venice as spoils of war. Napoleon I carried them to Paris; they returned 17 years later. For safety, they spent World War I in Rome. Below: a mosaic of the Last Judgment, done in 1836.

Northern Italy: Scenic Battleground



Surfigure Generaphite Section

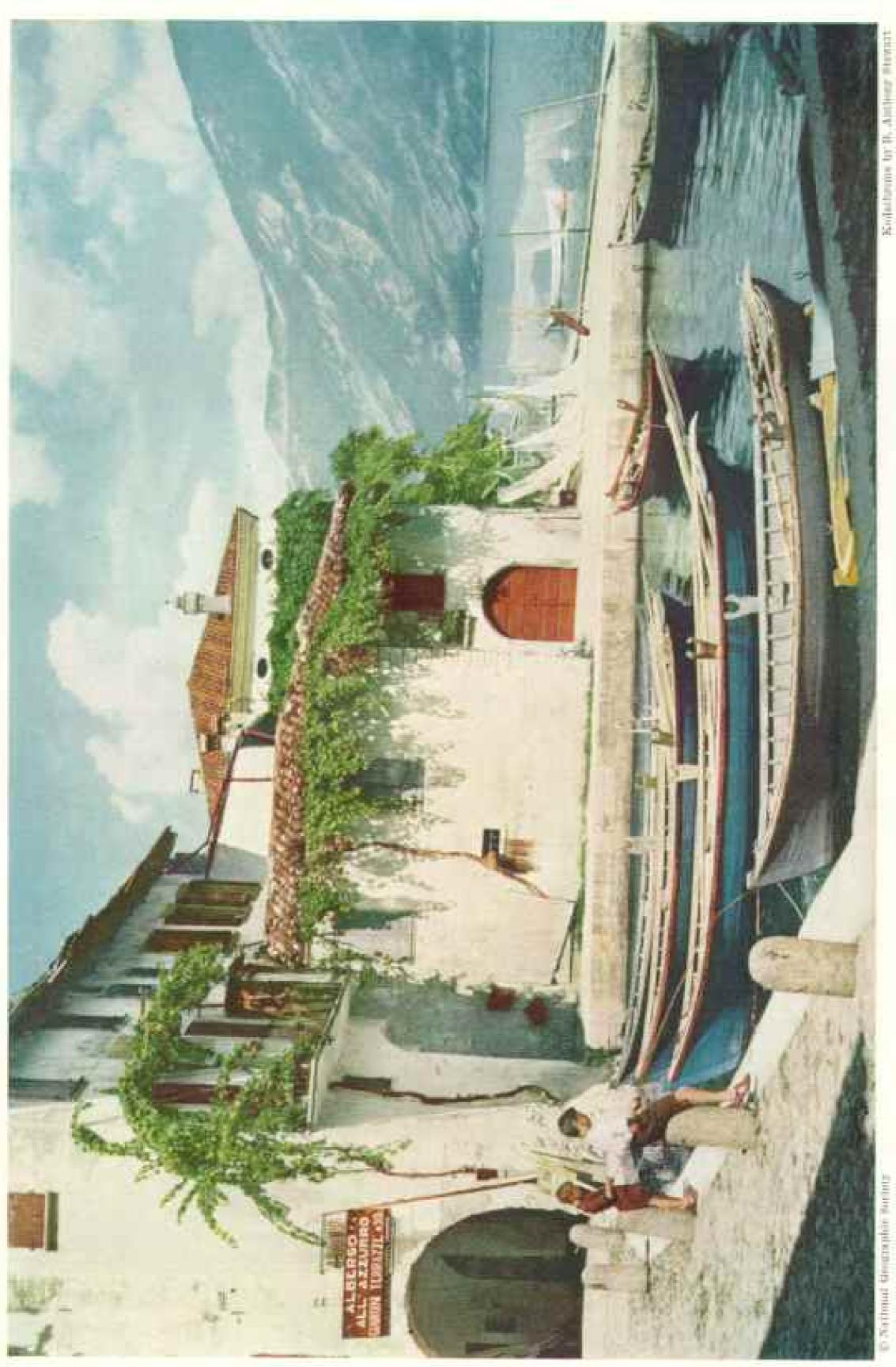
Bullishment he B. Authors Himout

"Barber Poles" in Venice's Grand Canal Are Palace Gondoln Posts with Heraldic Colors

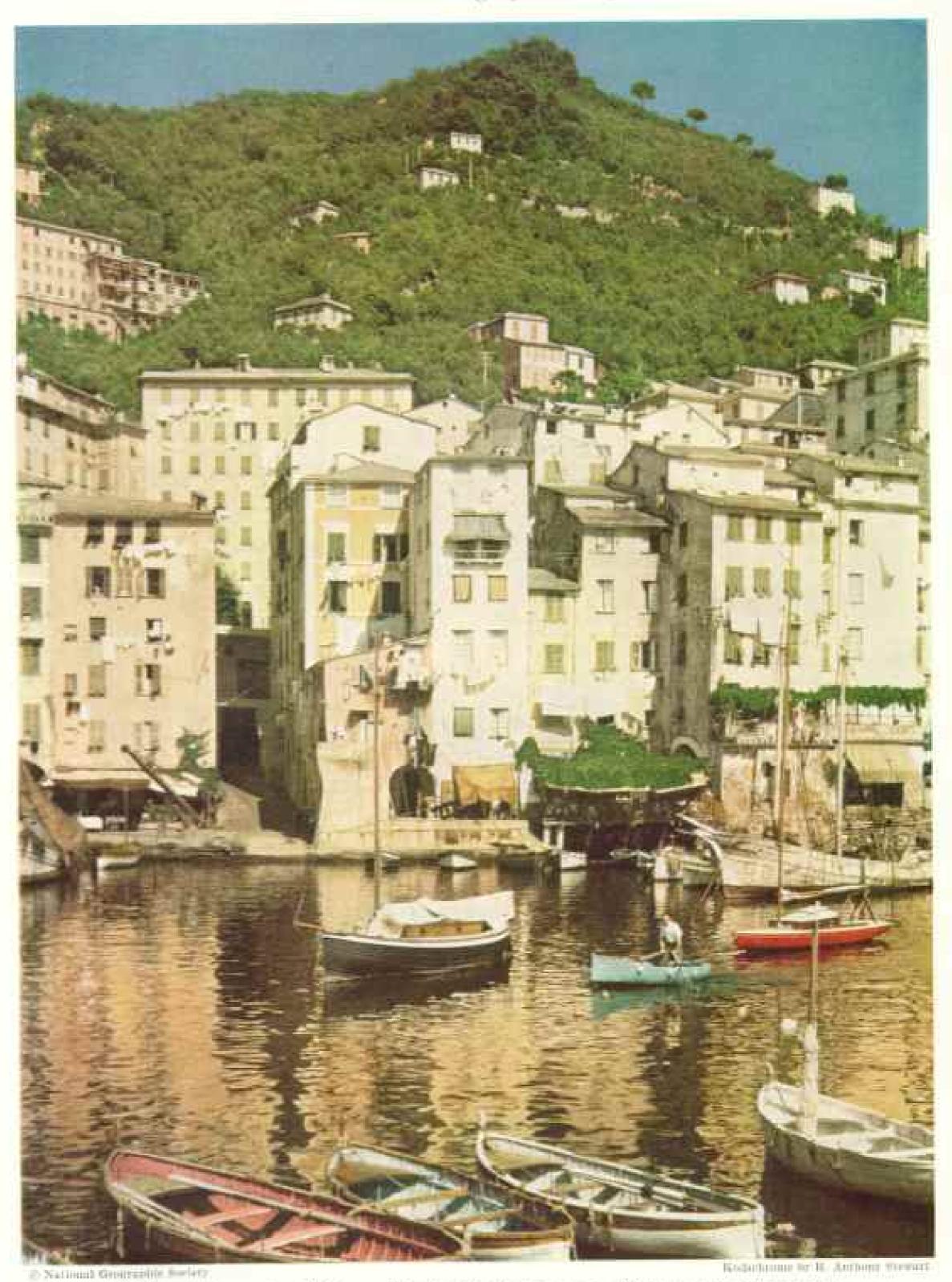
Near the canal's mouth, the large dome crowns a church built on 1,200,000 piles. It was named Santa Maria della Salute (Holy Mother of Health) as an outcome of a plague in 1630. Doge and Patriarch vowed to erect it if the Virgin stopped the pestilence, which carried off 47,000 Venetians.



The Tergeste of the Romans, Triesto was Austrian for five centuries, World War I delivered it to Italy. Raiding the city in May, 1944, Yegoslav Partisans pene-trated deep into Nazi-beld Italy. Sant' Antonio Nuovo stands in the center, Santo Spiridione to the right. Neither church is very old. Austria-Hungary Canal Grande Is Fishermen's Haven in Trieste, Whence Many an Emigrant Sailed to the United States from the Old



Mountain-girt Lake Garda is 213 feet above sea level; its deeps are 900 feet below. Alphne storms still whip up "tempest'our billows," even as Virgil observed 20 centuries ago. The lake is a landmark to American bombers flying to the Brenner Pass. Limone is named for terraced Jemin groves just back of these houses. Wives Run a Hostelry (sign, left), and Sons Fish in Garda, Largest of Italian Lakes At Limone, Fishermen Dry Nets in Their Yard,



At Camogli, on the Riviera, Family Wash Festoons Fishermen's Apartments

About a century ago Charles Dickens called Camogli "a perfect miniature of a scafaring town... Everywhere there is a smell of fish and scawced... Dwellings not abutting the harbor are approached by blind low archways." Lette a cate spreads its linen beneath the awning; Photographer Stewart lunched there before the war.

Mensch looked at the maps and the photos intently, but said nothing. In a year we had not heard him speak more than three or four words in any one day. He was our tail gunner, but not small, rather powerful. He never wore his headset; so there was always a lot of trouble getting him to tell us whether everything was all right back there after we had been through bad flak or had been jumped by fighters.

He was the opposite of Callahan, who was usually so happy to be alive when he came off the target that he filled the interphone with enthusiastic little observations and drawling Southern speech, generally until we reached the coast on our way out.

When I had finished showing them the target and the things to look for, I inspected the bombs to see that they were hing right and that the fins were straight so that they would fall true. Then I squeezed past Bob Cooke, who was reading a book by Thurber he had read five or six times before, and crawled up into the nose.

I checked my bombsight to make sure it would operate correctly and ran through my bomb racks. Finally Stan Ackerman climbed into the pilot's seat, and Just and Callahan got into the navigator's compartment.

I was testing the bombardier's interphone, and when it came alive I could hear Bob Cooke talking in a mimic radio voice: "Ladies and gentlemen, from the smart Mercator Room of Martin's Old Marauder, we bring you the supper music of Cal Callahan and his Debonairs. . . ."

"O.K., Bob, get off the interphone. Let

me check with Ack."

I checked with Ack in the pilot's interphone and then crawled back out of the nose and into the navigator's compartment. We started our engines and Ack gave them a long power check. The ship shuddered and whimpered, bucking against the big brakes, and then the propellers eased off again.

The Start of a Deadly Mission

"Boy, have them new engines ever got the power!" Just yelled to me. He was intensely proud of the ship. We all were. On the side, by the nose, it had a very good painting of a supine girl, which had been put on before we got the ship.

Whoever had put it there had run out of imagination after the effort, and the ship had never had a name. I always thought of the ship as "Manon"; a B-26 has certain of the fascinations of a Manon, and certain of the

infidelities, too.

At last we taxied out and swung into posi-

tion. When the four ships were lined up side by side and all running up their engines, we got the signal to go. I felt the brakes ease off and we started down the runway.

The ship rocked back off the nose wheel and the air-speed indicator began jumping; 80, 100, 120. At 130 miles an hour, nearly a mile down the runway, we bumped slightly once and were airborne. In twenty minutes all the flights had joined, and we were on course heading north-northeast.

In an hour we picked up fighter escort, and, when we had gone three-quarters of the way up the coast, Callahan called in to say the Spitfires were coming up. We swung to the right and headed for our landfall. I crawled out of the nose, where I had been running through my bombsight and studying the map and photos, and went back into the navigator's

compartment.

Just had the bomb pins pulled. I counted them, and then he helped me into my parachute harness.

I put my parachute on top of the navigator's table and said to Just, "See that the hat-check girl is back here. I may want to get that

chute in a hurry."

Then I tapped Bob Cooke on the shoulder and he slid his seat back to let me by. By the time I was back in the nose, I could see the smoky blue of the Italian mainland ahead of us. Coming in over the coast I went through everything once again and made a practice run on a farmhouse on a hill far below. I noticed that we were climbing a little to get above bombing altitude. The sight was working perfectly, and I checked my data again. I was ready.

I called Ack on the interphone: "O.K. We're at bombing altitude. Weather looks

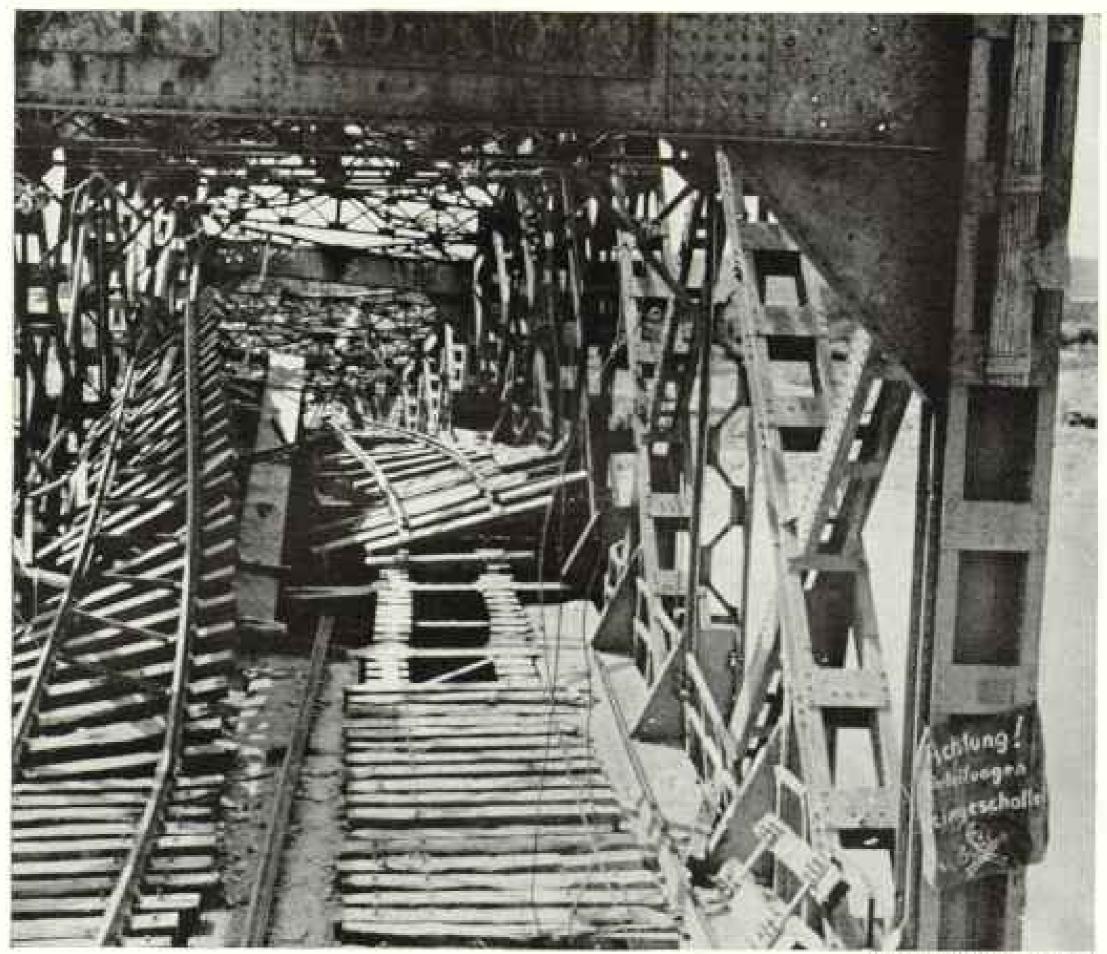
good."

"O.K. I'll give you another level in a

minute when we finish climbing."

I got the other level and then, with the map, concentrated on following the swimming ground and hills and valleys and little villages and rivers beneath us. Ahead the weather was perfect and the visibility unlimited. I was surprised to find there was no haze at that time of day. Finally, looking ahead, I could see the dim hills above Florence. I could not see the city itself.

Sergeant Just got on the interphone and I could bear him, remote and fuzzy, telling me about a truck convoy. I marked the position on the map and went back to watching the ground. The formation began to weave slightly, hunting and swinging over the ground. I knew that the lead navigator and lead bombardier in the first squadron



U. S. Arme Ale Forces, Official

"Beware! Wires Connected!" A German Warning Left on a Bombed Bridge South of Orvieto

On June 15, 1944, South Africans captured this double-tracked bridge, on the Rome-Bologna main line. The author flew on the raid that damaged it. Afterward, the Germans put up the sign, which apparently refers to live wires (center). Twisted steel illustrates the effectiveness of the Air Forces' operation. By cutting the enemy's communications, they deprived him of munitions.

were looking for the precise villages over which we were to pass to be on our true course in. The faint jockeying and weaving ceased, and we were coming in. Off to the left now I could see Pontedera and the airstrip and I knew where we were.

"There It Is! We're Coming In!"

I watched the formation ahead now: the big-bellied ships with the huge pendulous engine nacelles and the arrogant, authoritative tails. Behind them all were the great names of the past year: Naples, Rome, Salerno, Messina, Bizerte, Sousse, Sfax... the history-making names. Now this was what all the other raids were for, all the other hours and the training. We were coming in.

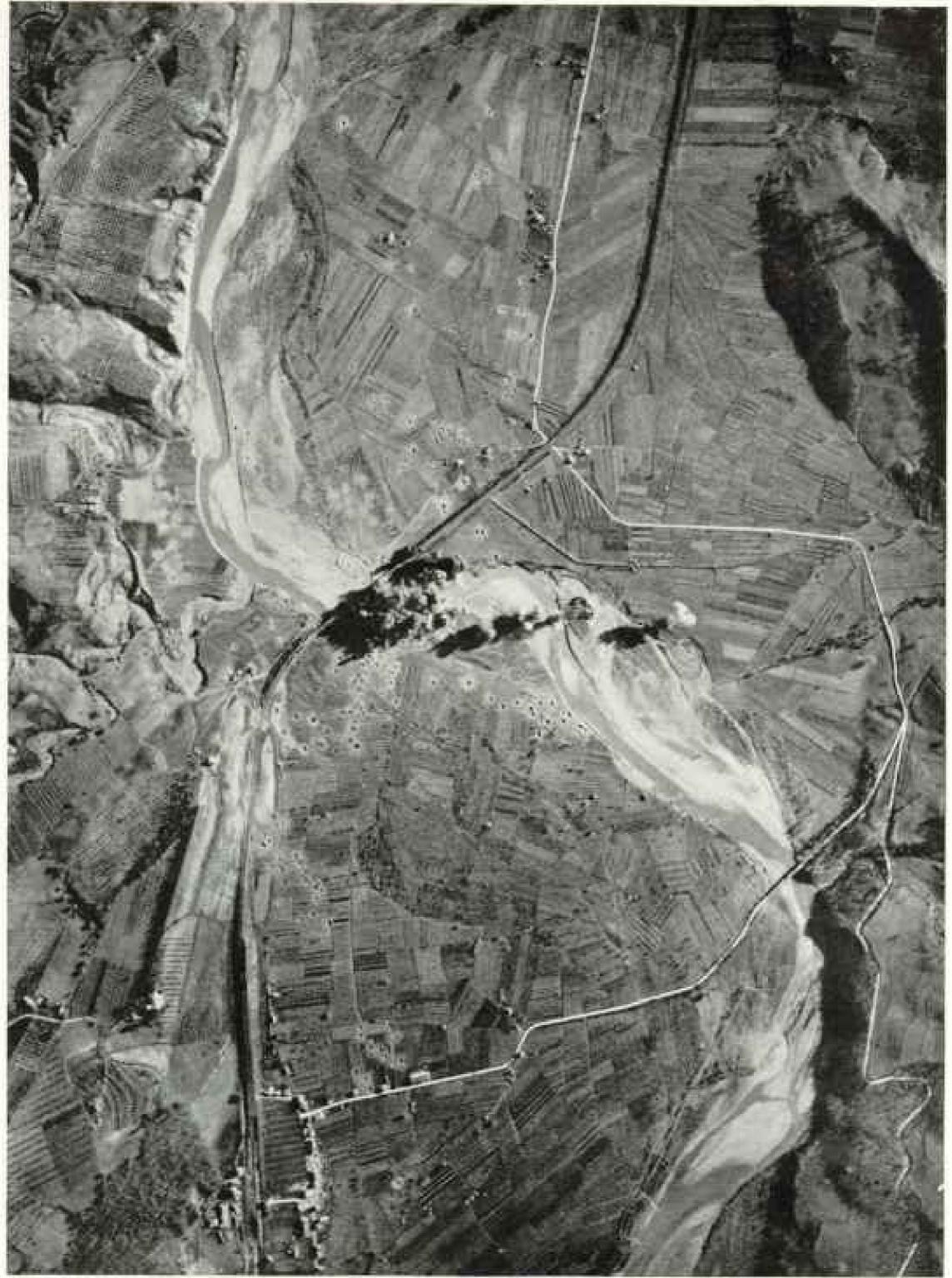
Then, far ahead, and so pale it was almost indistinguishable, I saw Florence at the foot of the green hills. I had noticed before that Italian towns, on the ground brown and drab, seemed white in the distance. Seen from this height, Florence was so pale it was almost luminous beneath the darker hills.

I pressed my microphone button. "There it is, Ack."

The interphone buzzed alive: "It's beautiful. Look how white it is." Ack was watching it, too.

From far back, and still fuzzy on the live interphone, I could hear Just saying, "Jeez, it's a big city! Must be a lotta people there."

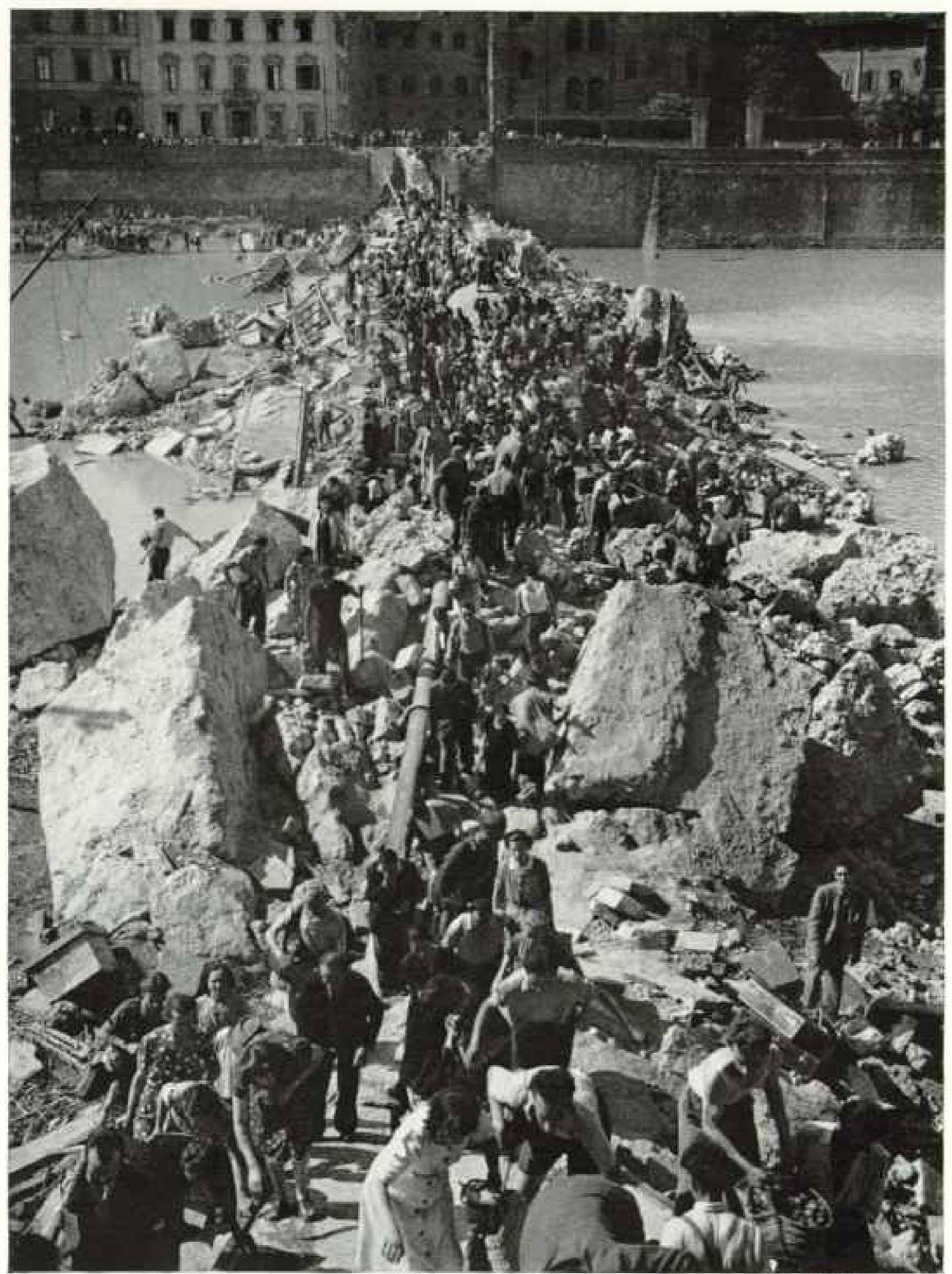
Florence swam nearer through the slow Plexiglas, and now the whole intricate sprawl of it was clear. I saw the sharp line of houses and buildings along the Arno. I could not see the stone wall I remembered from almost five years before, but I could see where it was.



U. H. Arren Air Florers, Official

How to "Strangle" the Enemy-B-26's Cut His Bridge-borne Supplies North of Orvieto

While bombing this span on another raid, the author's squadron "hit the jack pot," a 40-car train; hundreds of Germans jumped for their lives. This raid spared the highway bridge (right). The altitude is around 10,000 feet, as antiaircraft guns prevented a low approach. Craters show pattern bombing by "heavies,"



U. R. Army Blanch Corps, Official

On Ponte alle Grazie, Famed for Its Loveliness, the Dispossessed Stagger Home

Suitcases, groceries, and liberty are the only belongings left to some. Left: a man walking as if into the river actually takes a short cut (page 295). On shore, hundreds line the quay (Plate VI). Below them, traffic starts by way of a sandbank. Germans dynamited this and four other bridges August 4, 1944.



Mediterraneus Attled Air Popes

An Admirer of Florence, the Author (Right) Maps the Raid on Its Rail Yards

First Lt. Benjamin C. McCartney, a bombardier, was a veteran of 48 combat missions. Of these, he led 12. On September 22, 1944, he was mortally wounded by flak near Milan. In spite of his wound, he and his navigator directed their B-26 over the target, leading the other planes in. His pilot, Capt. Leonard S. Ackerman (left), then flew him to Corsica, where he died (page 296).

Then, very clear, and whiter than all the rest of the city, I could see the little Baptistery, San Giovanni Battista, a hundred feet across from the Cathedral. I began to search for the street with the pension (boardinghouse) I had stayed in, but ahead the formation was making a beautiful wide turn to the southeast, and we were preparing to come around onto our axis of attack. Now the whole course of the Arno was clear, and I could see water in the river bed.

I pressed the microphone button. "There she is. Take a good look at her in this turn. That white thing is where the Cathedral is. Just, see if you see any trucks or anything." I watched the city again.

We completed the slow, deliberate turn and came into our axis of attack.

"On course," I called to Ack over the interphone. Instantly, after we came upon our course for the run, the formation began to tighten up, and the wingmen moved in closer.

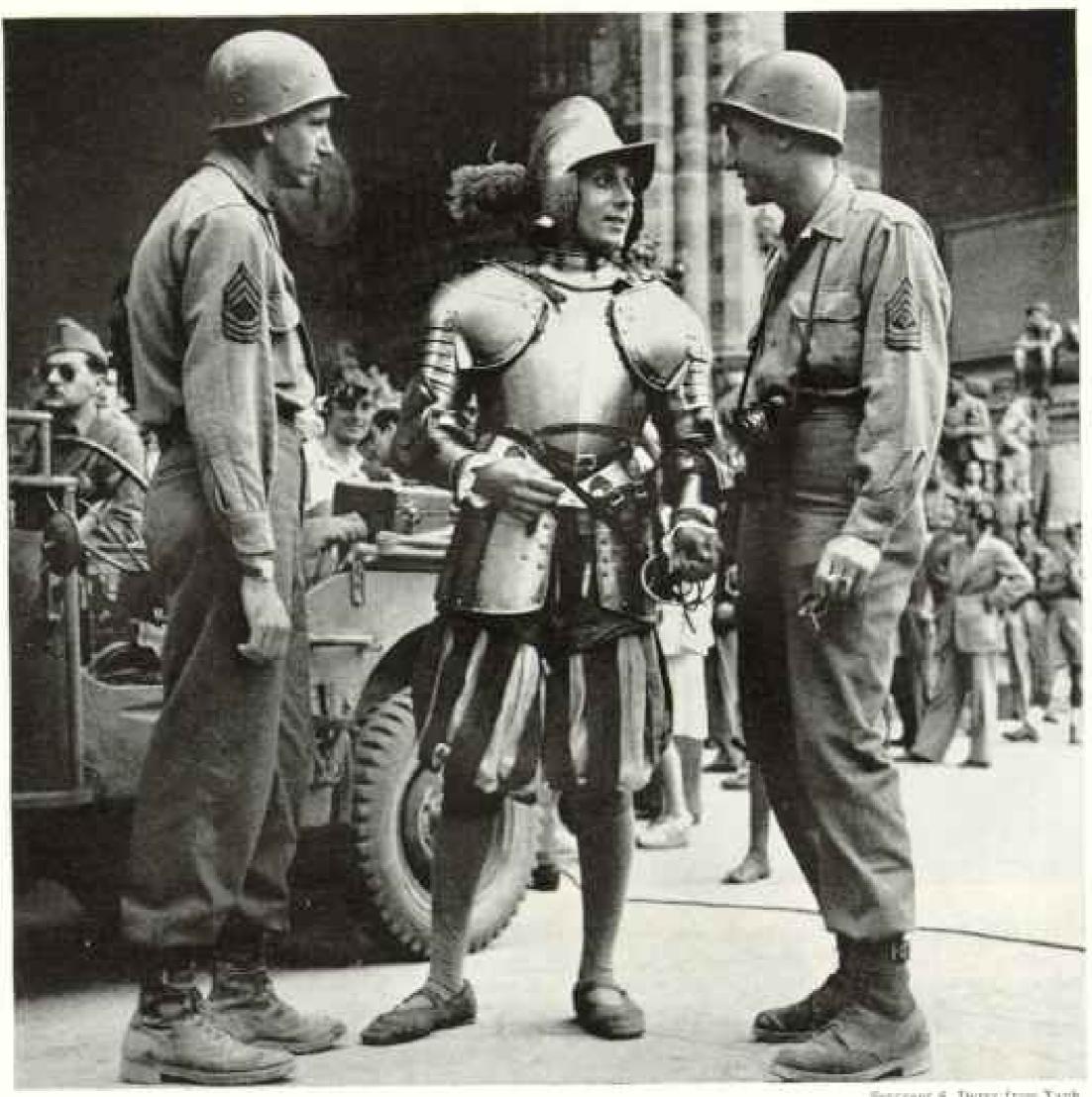
I looked around and saw the other bombardiers in their Plexiglas noses, so close they seemed part of our own ship. They were bent intently forward, too. What formation flyers, I thought. You couldn't find formation like that anywhere else in the world.

The target was not yet clearly visible, but I could see a brown stretch where it would be. The tight, intent formation, long and uneasy, weaved slightly once and straightened out. Ahead the bomb bays of the higher ships slowly craned open.

"Bomb-bay Doors Open"

I pressed my microphone button, "Bombbay doors going open. Bomb-bay doors going open,"

I pushed the bomb-bay door lever forward and waited for the little red light to flash on when they were completely open. The ship



Seegeant S. Derry from Turk

A Costumed Florentine, Celebrating Liberation, Compares Helmets with American GI's

This Italian is perhaps one of those who ride in armor each year in the Festival of St. John. His suit is in the style of 1360, but not entirely authentic. Shoulder pieces are reversed. The visorless burgonet was devised to give unhampered vision against users of fivearms. In modern times body armor lost the race against arms and was discarded. World War I revived steel belmets. Now even sailors and bomber crews wear them in action. Flak suits of steel plates protect flyers' bodies. These men wear the liners of their "tin hats."

shuddered momentarily, and remotely I could hear a dull roar where the air rushed in through the open belly.

The air speed slowed slightly, and then the little light glowed red, and I pushed the lever forward all the way. Behind me the co-pilot increased the revolutions per minute in the engines; for an instant the propellers whined higher.

Ack was squeezing his throttles forward to increase his manifold pressure. The throb of the propellers quickened, and a kind of intensity came into the sound and into the vibration. The whole ship under the added power seemed to tense and actually to gather all its forces into an immense animal concentration.

Now we were losing altitude at 500 feet a minute and coming down to bombing altitude. The weaving had ceased, and the whole formation now was intent on flying straight down the bomb run. Occasionally a ship fluttered and then leveled out quickly, keeping in perfect formation.

And now I could see the target instantly clear and long ahead of us-a brown, straight band in the city.



C. S. Alvey Signal Corps. Official

Led by a Priest, Teetering Florentines Inch across a Foot-wetting Short Cut

Their precarious perch leads to show from Ponte alle Grazie, one of Florence's oldest and proudest possessions (built in 1237). Streetcar tracks have been heaved to one side. Watching a scene like this, the author saw civilians carrying "net bags filled with tomatoes and cabbages and fruit" (page 292).

I pressed the microphone button. "On target, Ack. Coming in good."

I got down upon the bombsight, and instantly clear and nearer than I had imagined it I saw the bottom of the target, familiar from the photo. I saw distinct railroad cars, small like other European railroad cars, just beyond a road. As the ship swung for a moment in formation I saw distinctly in the upper corner of the sight the white spot near the Baptistery. I called to the pilot, "Fifty seconds left."

"Level." Ack was fighting the ship absolutely level.

I synchronized the sight and watched the cross hairs ride on the target for a moment.

"There she is. Level now, Level." The ship was level; we were at bombing altitude,

I went over the sight clutches and pins with my hands while I watched the target grind nearer. The yards looked incredibly narrow. I glanced up at the air-speed indicator. On the money!

I went back into the sight, made a slight correction, and felt the ship swing almost imperceptibly. The target rode slowly nearer toward me under the cross hairs and I could see more railroad cars everywhere on the tracks in the yard.

Sure looks untouched, I thought. I pressed the microphone again.

"Steady. Steady. Looks good. Looks good."
I checked the time quickly and called, "Fifteen seconds."

The cars and tracks were very near now under the absolute black cross hairs—all freight cars, I noticed. Then, still watching the judgment of the cross hairs riding evenly, slowly on one car, I felt the ship jump, and pressed the microphone button. "Bombs away! Bombs away! Bombs away! Bombs away! Bombs away!

I pulled the lever back as the lights on the panel flicked successively off. Then I lunged forward over the sight to watch.

Far ahead and all through the air the bombs were falling in languid, reluctant strings; everywhere under the bellies of the planes the bomb-bay doors slowly closed. Beneath me now the bombs from my own ship fell away slowly, fat and yellowish. Now beside them were the bombs of the other ships in our flight.

All the bombs were flinging along beneath us, twisting slightly, keeping up with us, and then slowly straightening out, dropping away and sliding fast, far down until I lost them. The ship swam slowly across the bottom of the marshaling yard. Ahead in the yard, halfway up, there was already a brown broil of smoke from the first bombs

of the planes in the other squadron.

I waited while we came over the bottom of the yard and then suddenly, just inside the yard, there was the instant rip and black spurt of my own bombs down among the railroad cars.

I pressed the microphone button violently.
"We hit it! We hit it! We got it dead
center!"

Ack called back: "Good. Good deal. That's the stuff!"

The interphone was full of talking now, and I heard Just, still fuzzy but yelling, "I seen a railroad car come up through the smoke end over end" (page 259).

The target was out of sight beneath us now, and I looked at the city and tried to find the buildings I knew. I found several, but, searching too quickly, missed most of them. I could not find my pension, or even where it was, and then we were gone over the city. I heard only remotely the faint brush of flak. I hoped we would break sharply to the left so that I could see the city again, but we did not.

Later we made a swing south and, looking back, I could see a column of smoke, slow and heavy and brown, above the marshaling yards (page 263). Underneath it Florence was still very pale. Suddenly I realized I had felt no emotion whatsoever. It was best that way.

The day after Lt. Benjamin C. McCartney's manuscript was received by the National Geographic Magazine, the gallant young aviator's death from wounds received in action over Italy was announced by the War Department.

He was flying as lead bombardier for a B-26 Marauder formation attacking the Cassano d'Adda rail bridge, east of Milan, September 22, 1944. As his plane leveled off for the bomb run, it was heavily hit by flak. Lieutenant McCartney was mortally wounded, and the bomb-release mechanism was damaged, making it impossible for him to drop his load,

Lieutenant McCartney realized that the success of the mission depended upon the continuation of the bomb run by the lead plane; therefore, despite his wounds, he directed the pilot, Capt. Leonard Ackerman, Rockville Centre, Long Island, over the target.

The remainder of the formation scored excellent results. All turned homeward. Captain Ackerman led the squadron to friendly territory, then broke off and flew to a near-by Coesican airfield where Lieutenant McCartney could receive immediate medical attention.

There his comrades gave their blood for transfusions, but nine days later he died of severe intestinal wounds. While he was being buried in a small American cemetery in Cornica, an honor guard from his squadron was in the skies overhead.

Lieutenant McCartney, 28 years old, was the son of the Reverend Dr. Albert Joseph McCartney, pastor of the historic Covenant-First Presbyterian Church, Washington, D. C., and Mrs. McCartney. He had flown 48 combat missions in his overseas duty, which commenced in November, 1943. His pilot and he, a perfect team and close friends, led either his Marauder squadron or the entire formation on every mission they flew.

He considered two of his early missions the best. On January 13, 1944, his plane led a B-26 formation which destroyed 18 German planes on the ground at Ciampino airfield, Rome. This attack crippled the Nazis just before the American landing at the Anzio beachhead. He received the Air Medal for this.

Later that month Lieutenant McCartney flew with Marauders which attacked an Orvieto rail bridge, striking the bridge and a 40-car train which was crossing. Hundreds of soldiers, trying to escape, were shown in the photographs as they jumped from the cars and ran along the railroad tracks, but the bombing pattern subsequently covered them up.

On September 5, 1944, his lead plane was enveloped in heavy flak as it approached the Pavia road bridge in the Po Valley. The tail turret was shot off and the rudder control was jammed. McCartney had commenced the bomb run when he saw that the pilot was unable to control the plane. Turning the formation in a wide circle, he allowed the pilot to regain control by freeing the sudder cables. Then he made a precision run from a different direction, dropping a perfect pattern and destroying the bridge.

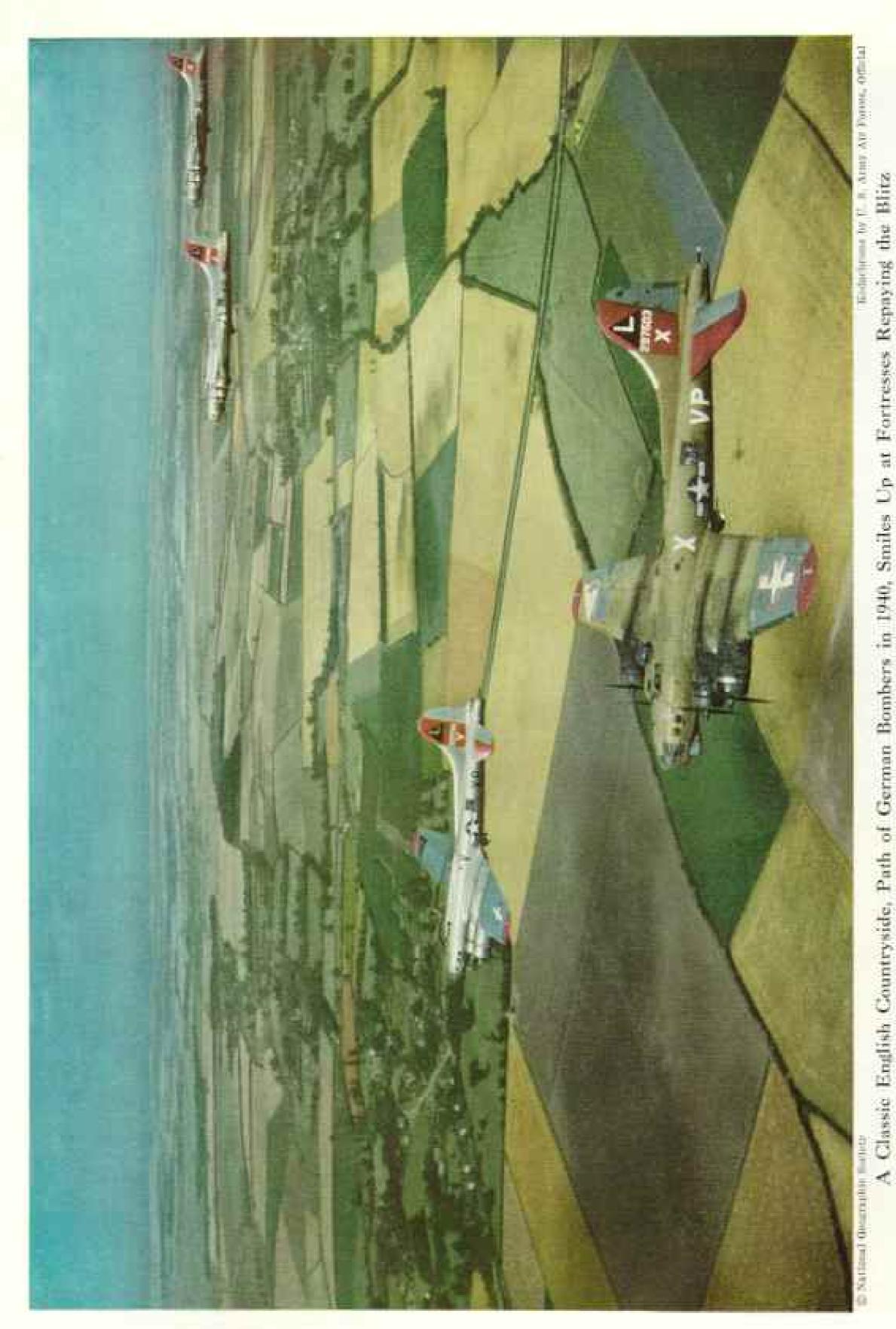
For this achievement he was awarded the Distinguished Flying Cross which, along with the Purple Heart, was awarded posthumously.

Also serving in the Mediterranean area is his brother, Lt. Albert N. McCartney, on duty with the U. S. Navy landing craft. When Lieutenant Mc-Cartney was bombing the Germans around Anzio, his brother was helping put American troops ashore on the beachhead.—The Editor.



At Final Briefing, Ten Young Americans in Britain Scan a Map of Their Nazi Target

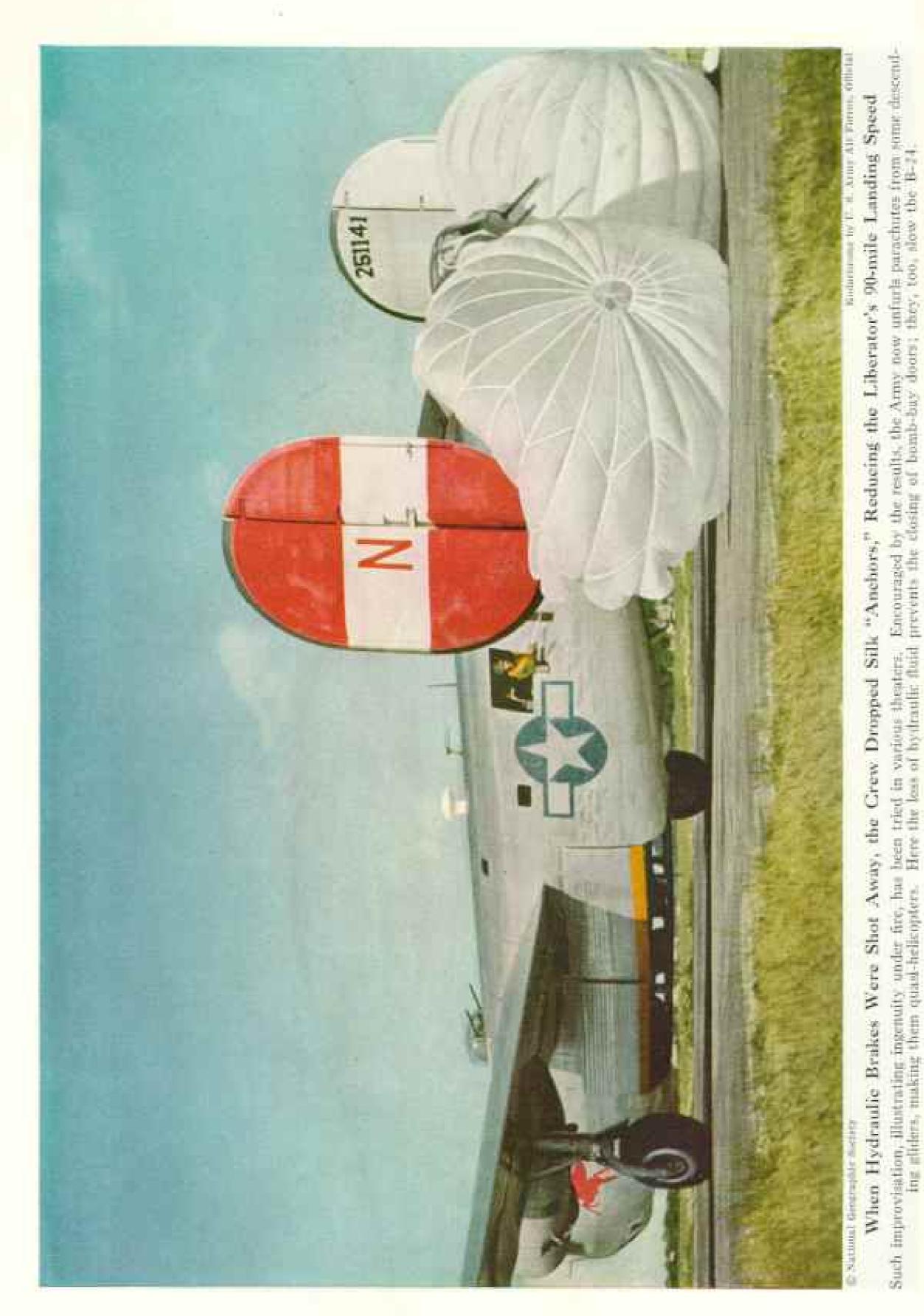
The chin turnet, a deadly addition, shows this Flying Fortress is a recent model. With twin 50's, it covers front and sides. Plexiglas reveals the hombardier's cushioned seat up front. Button Nose may refer to the pilot's snub-nosed girl. Soon the B-17's belly door will close on hombs, and 4.800 "horses" will spin the motors.



Where once the B-17 was vulnerable, tall guns now bristle. A failure as camouflage, war paint is discarded, adding coughly five miles to air speed. Permanent serial numbers bers, painted in the factory, identify the ships wherever they go. Letters are local recognition signals added at the airbase.



Many others sit beside the service road (center). Though medium bombers have moved to France, the heavies remain in England. From that base they have delivered concentrated attacks on the enemy's oil refineries and front-line communications. Lately a lack of fuel has often grounded the Luftwalle. Picture of Overwhelming Power, B-17 Replacements in a Grassy Meadow Await the Hour of Take-off from Their Strip (Upper Right)



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C Switning Geographic Bertelle

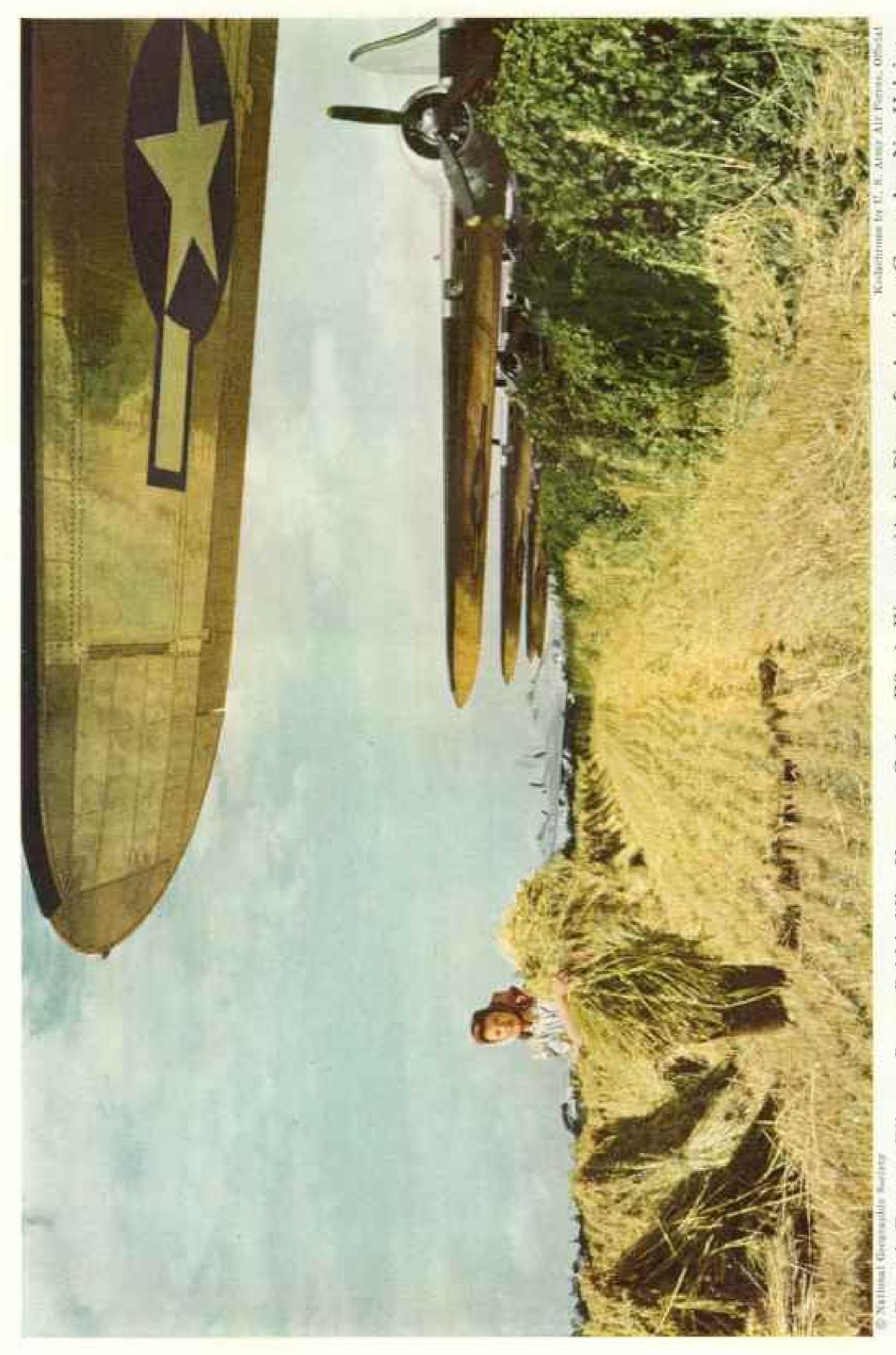
Through Flak Though Badly Wounded, She Carried Them Home

s quite vulnerable, d boots ward off The stabilizer (left), controlling the B-17's course laterally, is One fiver still wears his parachute harness. His fleece-lined winter's 54 degrees helow zoro in high altitudes.



A Sheet-metal Crow Mends a B-24's Flak-punctured Rudder

A glance at the opposite page shows where this rudder fits. The "ladder" is a stabilizer frame shorn of its metal skin. B-24 is not as swift as B-17, but it carries nione bombs. Longer range makes it most useful in the Pacific,



A typical English hedgerow divides farm and alrifold, as in Plate III. In wartime Britain every available acre is in farms, training camps, and flying strips. Long ago the RAF pre-empted regular fields; now flying space has expanded to accommodate the USAAF. Close formation indicates contempt for raiders. American Crews Are Not Helping Beneath Fortress Wings a Pretty British Miss Harvests Grain. What's Wrong with the Pieture?



Life in the Substratosphere Depends on Oxygen Tests at Base

Men on a heavy homber start taking oxygen at 18,000 feet; they usually bomb around 10,000 and may rise to 40,000. Hoses from those tanks lead to seat positions. Flyers on the move use "walk-around" bottles,

Over France He Takes the First Invasion-Day Photos

Cartillod Constructive Beatery

Quite a few bave Combat photographers cover every theater of the war. (given their lives. Most are qualified as emergency gunners, through his still comern's wire view finder.

The National Geographic Magazine



@ National Geographic Sariety

Kedathrone by U. S. Army Alt Ferres, Official

Toy Fortresses on Music Stands Teach Pilots How to Bring the Most Guns to Bear

Battle tests prove that this deployment, first worked out on paper, is the strongest defense against any interceptor formation. Similarly, the spacing is good insurance against accidental bombs and bullets. It does not sacrifice mobility. Even in 1.600-homber raids, units fly in elements of threes.

What Luzon Means to Uncle Sam

By Frederick Simpich

OW that our forces are back on Luzon, its strategic importance to America increases as our fight against Japan mounts in fury. Here decisive battles of the Pacific war are being fought.

The Japs needed this big island to protect their long sea lane to the Netherlands Indies, and as a base from which to control the rest

of the Philippines.

Largest of the Philippine group, Luzon is only 225 miles south of Jap-owned Formesa and a 485-mile hop from Hong Kong.

In whatever direction our land forces move, whether against Formosa, the China Coast,* or the Island empire of Hirohito, Luzon must stand as a powerful bastion on that far-Pacific frontier with which, for better or worse,

destiny now links us.

Big as Kentucky, rich in farms, gold, iron, chrome, copper, and lumber, and with hosts of skilled workers among its 7,375,000 people (about 45 percent of the population of the Philippines), this island is destined to be a huge, convenient, Far Eastern base for American airfields, reserve troops, supplies, naval installations, and repair shops for planes, ships, and other fighting equipment.

Until the Japs bombed Manila in December, 1941, and later drove Uncle Sam out of the Philippines, most Americans at home had lost interest in these islands. Few editors wanted any stories about the doings of Filipinos; the islands were on their way to enjoy full freedom, as an independent republic, in July,

1946. Congress had so voted.

Now the eyes of our whole nation are fixed again on these rich, historic islands, as we fight our stubborn way to Japan and the China Coast,

Already, by Joint Resolution of Congress, we are planning to build a series of permanent Army and Navy bases and airports at strategic points on Luzon and elsewhere in the Philippines, after negotiation with the head of the Philippine Government. That, in itself, shows how this war has changed our Pacific aims.

"Today on the China Coast," by John B. Powell, National Geographic Magazine, February, 1945.

* Members may obtain additional copies of the new map of "The Philippines" (and of all other maps published by The Society) by writing to the National Geographic Society, Washington 6, D. C. Prices, in United States and Possessions, 50¢ each, on paper: \$1 on linen; Index, 25¢. Outside of United States and Possessions, 75¢ on paper; \$1.25 on linen (postal regulations generally prohibit mailing linen maps outside of Western Hemisphere); Index, 50¢. All remittances payable in U. S. funds. Postage prepaid.

Also, if Uncle Sam sees fit, he may under this Resolution give the Filipinos full freedom

before July 4, 1946.

By another Resolution, approved June 29, 1944, a joint Filiping-American commission is authorized to study postwar island economy, trade, finance, and damages done to people and their property by enemy attack and occupation.

That commission is now at work. It has nine American and nine Filipino members; the American section includes three Senators and three Representatives.

New National Geographic Map Shows Strategic Philippines

Besides big, rich, populous Luzon, there are 7,082 other islands—many small ones uninhabited—in this archipelago. Its strategic position, extent, and character are vividly shown on a new 7-color map supplement of the Philippines, with this number of The Geographic.†

This map shows the Philippines in detail, with an inset which pictures their setting between western New Guinea and enigmatic Vladivostok, and their geographic relation to Japan, the Marianas, western Carolines, the Netherlands Indies, and the China Coast. On the map are 3,787 names.

Slightly smaller than the British Isles, with an area of 115,600 square miles, the Philippines stretch from latitude 21°07' N. down to 4°40' N.—a distance of about 1,150 miles from north to south.

For centuries most Philippine invaders have landed on the big northern island of Luzon. Chinese, Spaniards, Dutch, British, Americans in 1898, and Japs in 1941, all came ashore on Luzon.

But when our Army and Navy hit the Philippines on October 20, 1944, our forces landed on the east coast of Leyte, about the center of the group. Conquering that island during weeks of typhoon season, flood, and mud, the Americans soon moved a little over 200 miles northwest, to take Mindoro and then tiny Marinduque isle. Today, as this is written, the largest American army ever assembled anywhere in the Pacific has landed on Luzon, north of Manila. Opposing it are Jap forces of equal or even greater strength.

Never in all their stormy history have the Philippines seen battles of such magnitude as rage there now, on land, on the sea, and in

the air (page 308).



Thomas L. Shafer from Acror

Capt. Truman Heminway of Rutland, Vermont, Helped Guerrillas Harass the Japs

As an enlisted man in the United States Army, Heminway escaped from invading Japs in Mindanao. For two years he was a coast watcher; then he became a captain in the daring Filipino guerrilla forces. After four years in the islands, he is home with his family. Now that it can be told, American Intelligence officers heartily praise the guerrillas' work after Bataan fell, especially their clever and always hazardous espionage work (page 324).

Jap ships and barges have been sunk by hundreds all around the islands. In Manila Bay alone so many vessels have gone down that now its muddy bottom must be strewn as thick with wrecks of ships as many suburban fields in America are strewn with worn-out automobiles.

Manila Bay Charted in Detail

In an inset with this new polyconic-projection map of the Philippines, Manila Bay is shown in all its details, together with Bataan peninsula, Corregidor Island, and our former naval stations at Cavite and at Olongapo in Subic Bay. Another large-scale inset shows the Lingayen Gulf area where the Yanks carved out a beachbead for their return to Manila. Our original Army airfields are shown in red. These have been bombed, over and over again, by both our own planes and those of the enemy. Jap aircraft based on them have been shot down or burnt on the ground by hundreds. On the whole of Luzon the Japanese built about 100 military airfields, large and small.

In drawing this new large-scale 47-miles-toone-inch Philippine map, the latest geographic findings of the United States Coast and Geodetic Survey and Army Map Service were used.

Some of this carefully compiled cartographic material was hurried from Manila to Corregidor in huge cases when the Japs first attacked. This precaution was by order of Comdr. George D. Cowie, last Director in the Philippines of the Survey, who was killed at his Manila post by the Japs on Christmas Eve, 1941.

Our submarines later rescued these detailed charts and maps from Corregidor under the



Birth Allen

Attention, Hollywood and Paris! Here's a Hint for Easter Bonnets!

Big-brimmed, made of split bamboo and pulm-leaf strips, these cart-wheel hats are fancied by Luzon women of the rice fields. Those are utility searfs, too; they protect the neck when the girls lean over to cut sharp-edged rice stalks. Women workers cut the stalks one by one with a small knife, placing handfuls in the baskets. Men swing a sicklelike blade and cut a whole handful at one stroke.

very noses of the attacking Japanese.

Such charts are the net result of forty years of work along the 21,000-mile coastal area of the Philippines.

Rear Admiral L. O. Colbert, present Director of the Survey, Rear Admiral J. H. Hawley, Assistant Director, Capt. C. L. Garner, and Comdr. F. S. Borden are among those who mapped this vast archipelago. All of them, at one time or another, served on various charting ships, two of which, the Fathomer and the Pathfinder, were sunk by the Japs early in this war.

Japs Made Secret Peacetime Maps of the Philippines

Even in peacetime, surveying Philippine waters wasn't a quiet, leisurely job. Typhoons had to be figured on—and even crocodiles!

One Survey officer, Lt. Comdr. John A. Bond, will never forget the crocodiles. One

day he was leaning on a launch's awning support, studying a shoreline through his binoculars, when a croc reached up and grabbed him by the leg. Happily, the saurian also got his jaws about an iron stanchion, which saved Bond's leg and probably his life!

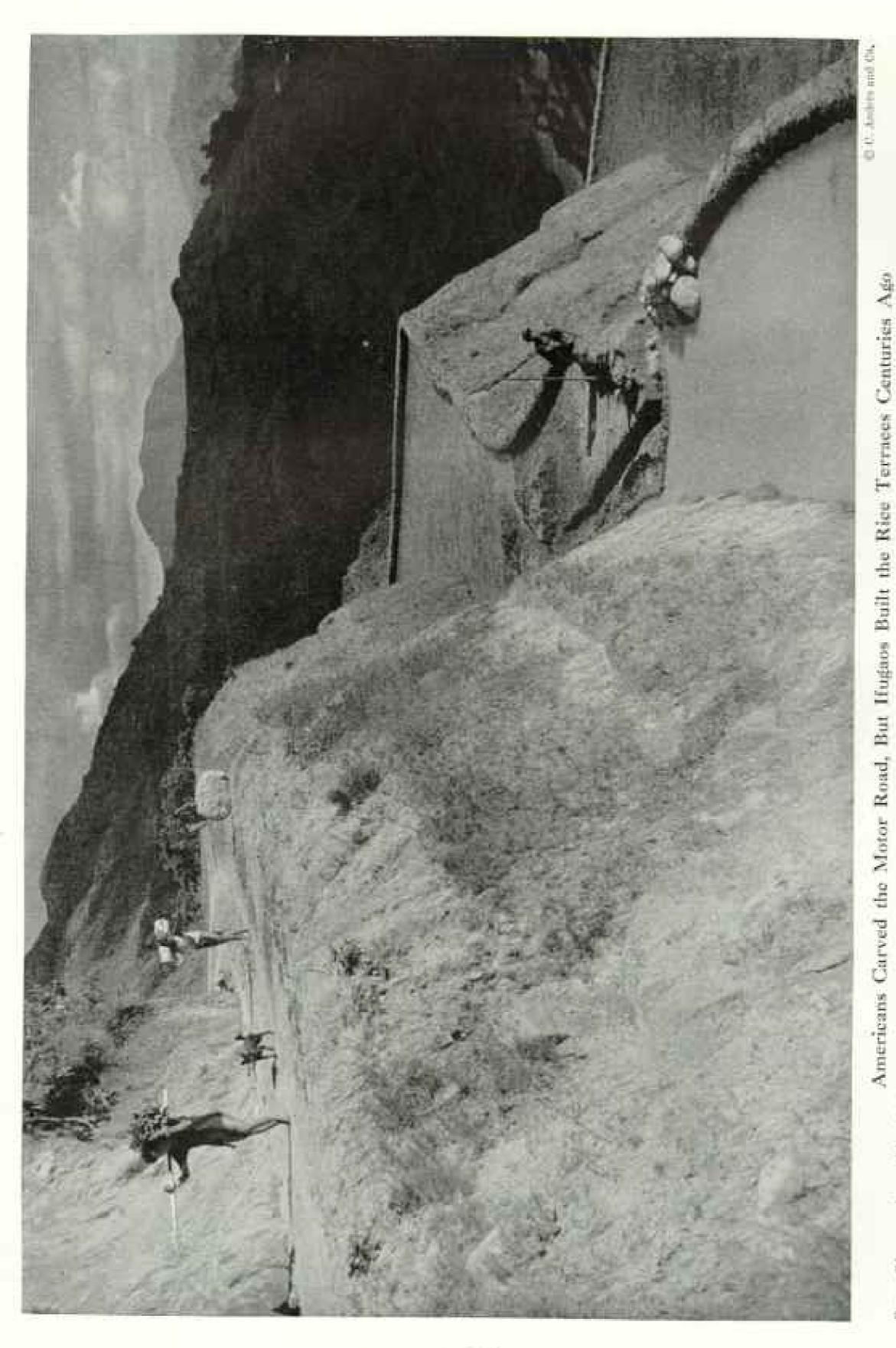
Though in peacetime anybody could buy our charts in Manila, the Japs, pretending to be fishing, made their own surveys. In charting waters within sight of land, our men got a fixed location for the Survey ship through triangulation with shore points, which they marked by conspicuous objects.

But, sneaking in close to shore to do their work, the Japs didn't make use of any obvious markers; instead, they twisted limbs of trees into loops and other shapes and sighted on them.

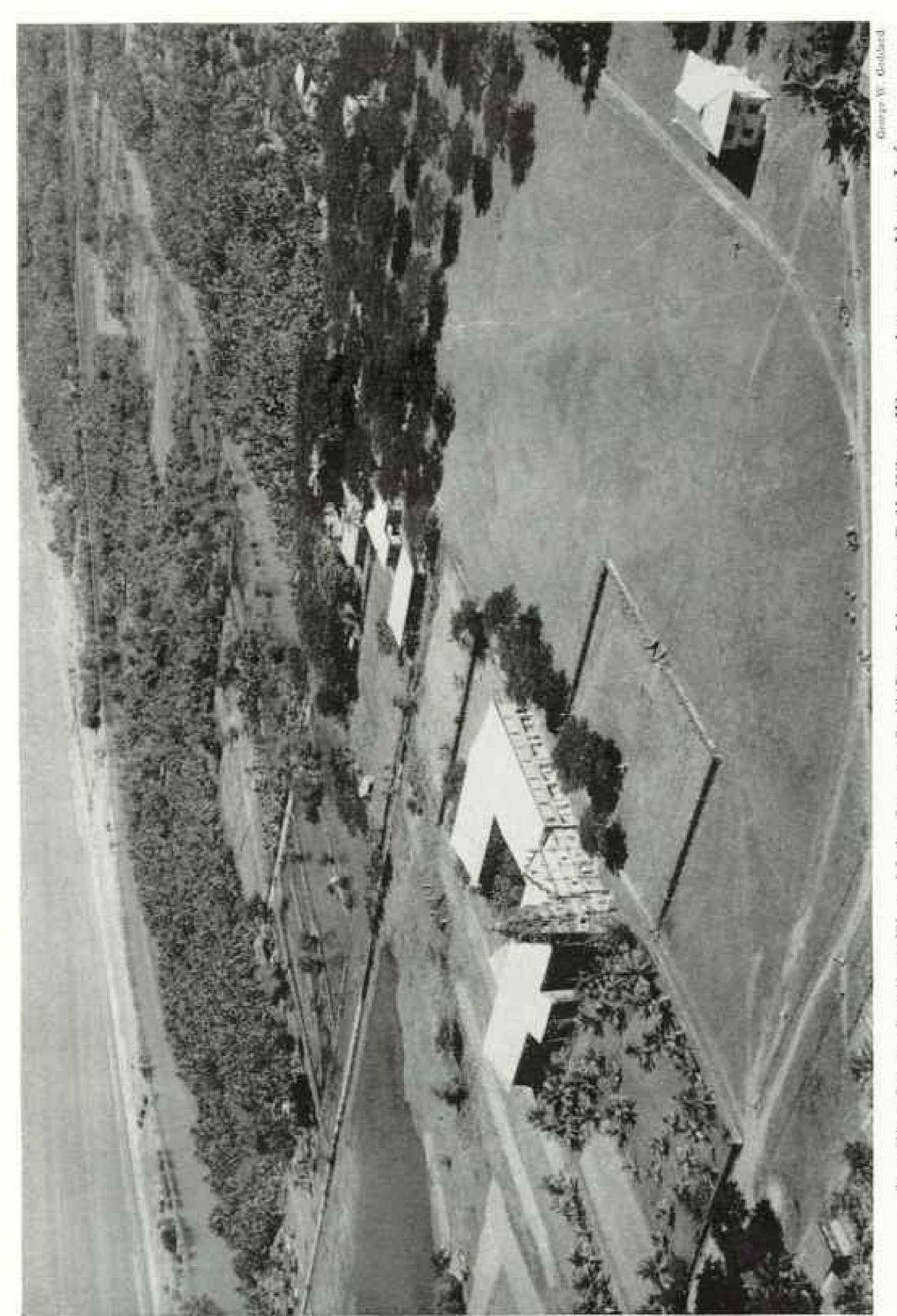
Whether the Japs depend on their charts or use ours, they know their way about in San Bernardino and Surigao Straits, Lingayen



The ancient Wallod City, former Spanish fortified stronghold, is the fan-shaped section at left, from which smoke funnels like steam from a whistle. Black he is from a ship, probably a tanker, hurning at a pier. Behind the breakwater, wheels lie in the large white Philippine Capitol, at left, the gress meets. Dewey Boulevard, now given a Jap name, leads straight up from the Pasig River along the bay (page 305). 30 Up in Smoke, as Carrier-based Bombers Pound Japs at Manila, November 13, 1944 Ships Burn and Sink, Doeks and Warehouses C smoke is from a Congress meets,



That three-legged black dog may Some Hugaos do nothing but carry down such big logs from the forest. They have calluses on their backs where the logs rub. That three-legs some soon be somebody's Sunday dinner. Igorota import dogs from the lowlands for food. The man at the right repairs a break.



went ashore at four different points, on a sandy stretch about 20 miles leng at the bead of this gulf, Our First Luzon Landings Were Made January 9, 1945, on Lingayen Gulf, Whose Waters Appear at Upper Left An American sea-borne force from some 800 venuels



it is a sort of national dress, Most of the girls are dressed in modern style, but the laughing one at dress. English is the common language of several million Filipinos, especially of those under 30 or 35, and Soul" as High School Graduates Hold a Class Rounion Dance established here (page 314). dress. Wearing the shirt with the tail out is a Filipino custom; right center wears a characteristic upper-class Filipino party educated after the American-style public-school system was Soft Saxophones Croon "Heart



Staff Plentigrapher J. Baylor Beberts

Strenmlined Trains Whistle Where Once the Bullcarts Squeaked

This motor-driven train takes off from the main line, north of Manila, to serve the town of San Quintin, Luxon has some 700 miles of railroads; it also has 7,250 miles of highways (page 317).

Gulf, the Sulu Sea, and other coastal waters; they're also familiar with the currents and tide tables.

"We shall soon know what influence the geography of Luzon will have on Jap strategy in this war," said Col. Charles A. Romeyn, veteran of Philippine campaigns.

"Study of your big new Philippine map will also explain what use our own forces have already made, and may still make, of Luzon and certain other islands.

"In 1941," continued the colonel, "the Japanese made their principal landing on Lingayen Gulf, near the head of a broad valley extending to Manila, about 100 miles to the south. Here, too, on the flat, sandy beaches at this same gulf, is where some 800 ships landed our forces on January 9, 1945 (Philippine time), for our long-planned Luzon invasion.

"In the dry season, from December to May, armies can freely move across this great valley, except for swamps about the delta of the Pampanga and Pasag Rivers. Good highways and a railway lead south through this valley to Manila.

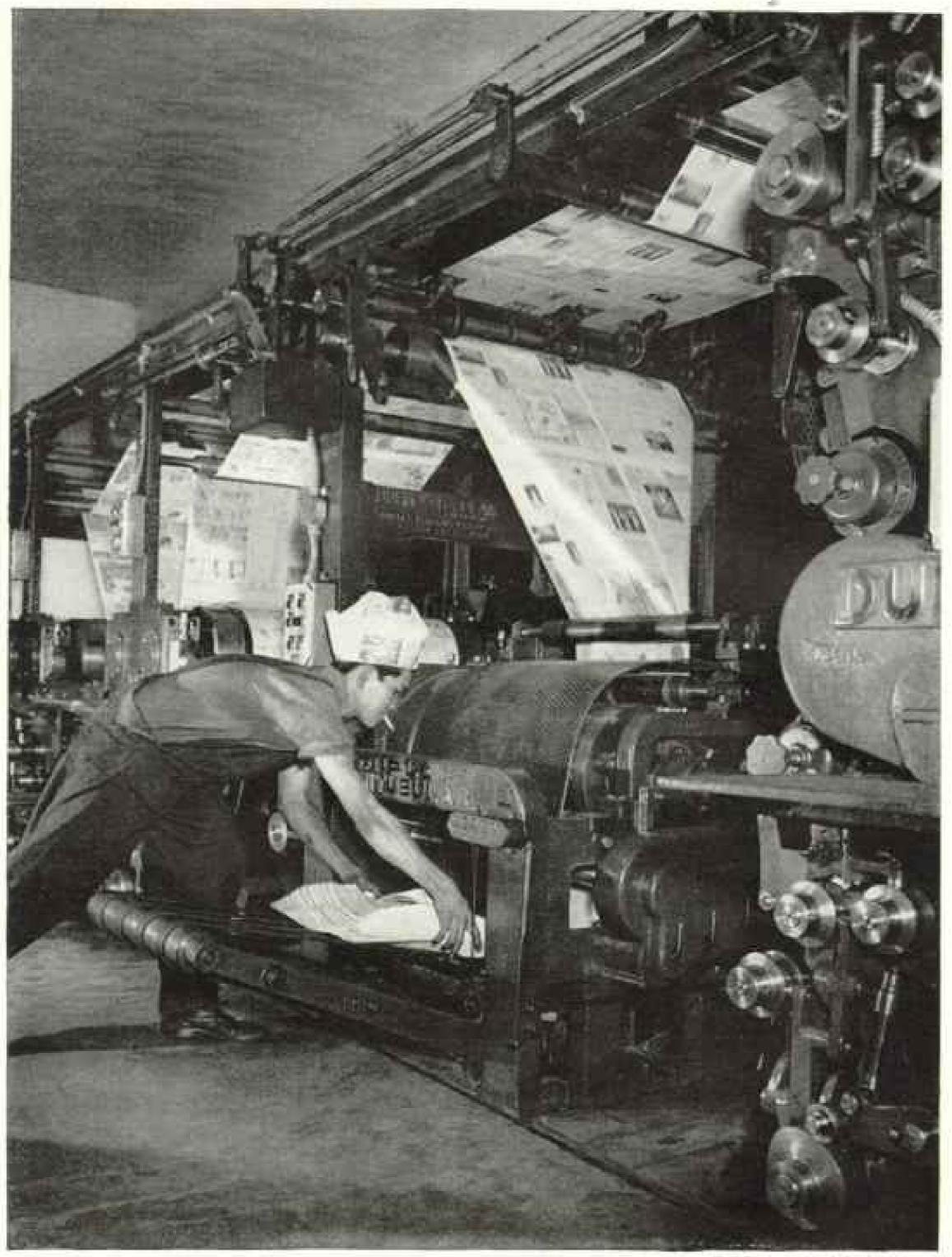
"But in rainy months this region is watery as a wet sponge; troops and their vehicles can't move in it if they get off the roads or away from foothills. "We must disabuse our minds of any idea that the Philippines are mostly swampy jungles, such as have been stressed in news dispatches about our fights in some Pacific isles farther south. I would estimate that 80 percent of all land in the Philippines lies at an elevation of better than 1,000 feet."

Luzon's position deep down in the Tropics affects the character and physical vigor of its people.

Military experts know how climate affects soldiers and figure on that in this Philippine campaign. Armies tend to slow down when heat, rain, and insects keep men from getting a night's rest.

In his good book, The Philippines Past and Present, Dean Conant Worcester says: "In the Cagayan Valley (Luzon) we had a taste of real tropical heat. . . . The air was suffocating. My bed was in a corner. I dragged it out between a window and a door and threw both wide open. . . . Slipping off my pajamas, I seated myself on a broad window sill. . . . I poured water over myself. . . . The water would not evaporate. I sat there until morning, as I could not endure the heat lying down."

That is the kind of Philippine heat our soldiers have to fight in now.



Staff Photographer J. Burior Roberts

Filipinos Print Their English-language Newspapers on High-speed American Presses

The pressman wears a hat made from folded papers, just as his colleagues do in the United States. In 1941 the islands were publishing about 360 papers and magazines, 167 in English. In Manila, Filipinos owned and edited most of the city's 15 or 14 dailies, a majority of which were in English. One of these was the Philippines Herald, shown here rolling off the big modern Duplex American press (page 314).

Clean, healthy, bustling Manila, capital of the Commonwealth, was the Far East's most Americanlike city when the Japs came bombing it that fatal day in December, 1941.*

Air-cooled hotels, neon lights, daily papers and news broadcasts in English, boys and girls on roller skates, beauty "shoppes," women dentists, big ice-cream works, and even its own motion-picture studies—it had them all.

It had great universities, too, and business colleges; polo, golf, and country clubs; buslines and air-cooled trains that connected with other Luzon cities (page 312), interisland airlines, and Pan American Airways service to

America and China.

English and Spanish were official languages. In the Philippine Congress, corresponding to our Congress, English was the common tongue: but if an excited delegate relapsed into his native Tagalog, Visayan, or even Moro chatter, nobody objected.

Taft's Genius Worked Out "New Order" in the Philippines

And all this social and economic metamorphosis, mind you, had come about under little more than forty years of American guidance. To a singular degree, also, this amazing progress, without parallel in the history of Far Eastern colonial governments, was the result of one man's patient, tireless genius. His name was William Howard Taft, the greatest missionary we ever sent abroad to instill American ideals of universal education, good government, and better public health (p. 332).†

When I worked my way down from the China Coast to Luzon in 1902 as clerk on an Army transport, Mr. Taft was already installed in Manila's Malacañan Palace as first civil governor of the islands. Facing him was the task of working out a really "new order in the Far East," a plan for dealing successfully with a people largely uneducated, threatened by recurrent epidemics of cholera, plague, and smallpox, by outbreaks of a cattle disease called rinderpest that swept away thousands of farm animals, such as carabaos, and by the raids of bandit gangs then over-running many provinces.

Fruits of Taft's early-day sound policies were reflected in the people's good health and high degree of literacy, and in the economic stability of the islands and their government

when the Japs attacked.

I was there myself some months before Pearl Harbor. Like other old-timers returning after a span of years, I was dumfounded at the transformations.

I knew from many sources that Manila had changed, just as even Baghdad and Jerusalem have in late years become somewhat modernized. But I was not prepared for all the hard, smooth country roads, the concrete bridges, modern lumbering methods, big goldmining camps, mechanized plantation machinery, nor, most of all, for the change in the

people.

Even the children in provincial hamlets, who often in old days knew not even a word of Spanish, now spoke to us in English. I heard them and thought of Taft. He brought thousands of pioneer American schoolteachers from the States; they braved the malarial jungles and the monotony of small country villages where week ends offered only Mass or cockfights, and gave our speech to millions.

Today, especially in the larger islands, nearly every Christian Filipino under 30 speaks at least a little English. Englishspeaking people from other lands, hearing this Filipino English for the first time, may not easily understand it all at first, but the Fili-

pinos understand each other.

American soldiers landing on Leyte were astonished to find the Filipinos shouting at them in English and to hear school children singing "God Bless America." In a letter to Miss Katharine Corbett, of the Geographic staff, her nephew, a lieutenant with our forces on Leyte, wrote: "It has been a pleasure to engage in the liberation of the Philippines, since the people are so sincerely and intensely grateful. They speak English as it is written in the book, only with a Spanish accent. . . . They are very friendly, and a number are better educated than the average soldier. They most certainly respect America and Americans."

No transplanting of a foreign tongue on such a scale, in such a short time, has taken place before. Take the case of Germans in Alsace-Lorraine. After 1871 they tried in vain, forcibly, to abolish the French language. Here in the Philippines we helped the people learn English because many wanted to learn it.

All early-day island newspapers, except the few published by and for Americans, were printed in Spanish, or in Tagalog or some

other island language.

But by 1941, of Manila's dozen or so daily papers the leading ones were not only printed in English, but were edited and managed entirely by Filipinos. At that time, in all the

*See, by Frederick Simpich, in the NATIONAL GEOGRAPHIC MAGAZINE, "Return to Manila." October, 1940, and "Facts about the Philippines," Feb., 1942,

TSee, by William Howard Taft, in the National Geographic Magazine, "Philippines," August, 1965; "Ten Years in the Philippines," February, 1908; and "Some Impressions of 150,000 Miles of Travel," May, 1950.



Staff Photographer J. Baylor Roberts

Tiny Hemp Threads Twisted Together Make a Ship's Hawser

To navies and merchant fleets the world over, most useful Philippine product is abaca, or Manila hemp. No other rope compares with this. Here in the big Elizalde factory at Manila, scores of strands are being threaded into a yarn-twisting machine. They then form one of the three strands which, again twisted, make a big hawser of incredible tensile strength.

islands, some 360 publications were being issued, and 167 of them were printed in English (page 313).

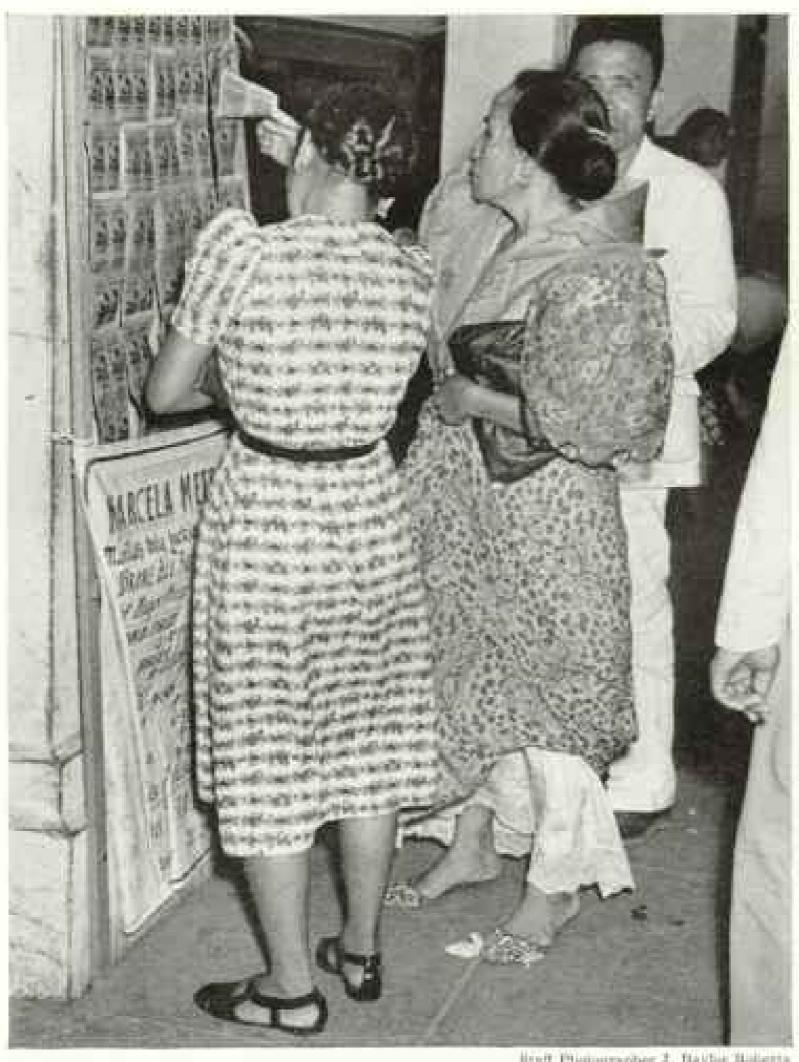
Filipino boys read the pulps and the "funnies" by the carload; Filipino women and girls went for the fashion magazines, style books, and articles on beauty hints, and revamped themselves accordingly.

American Sports-and Slang Spread

One of the greatest changes I met, as compared with the Filipino way of life I knew in the early 1900's, was the spread of American sports. I remember when Sunday to most young Filipines meant going to the cockpits, getting a haircut or playing pool, or just sitting around picking a mandolin.

But by 1941 baseball and basketball had so swept the islands that teams played rival teams from the China Coast. American slang was current, especially that of our outdoor games.

The rise of outdoor sports, and improved public health because of better medical services and a higher standard of living due to better wages, have actually increased the stature and muscular structure of the Filipinos. Army measurements showed this,



Harf Philographer 2, Baylor Roberts

Mama Picks Her Favorite Bangtail to Win

Horse racing at Manila's Santa Ana track, with Government-run sweepstakes, paid prizes every two months totaling as much as half a million dollars. Profits went to build playgrounds and public charities. Japs did not interfere with gambling. Filipinus make excellent jockeys. Most racing ponies are native-born. Occasionally one is brought from Australia.

Today's University of the Philippines, with all its coeds, its college sports, glee clubs, dances, and debating societies, is very much like any State university in America.

Filipino Bobby-soxers Bombard Author with Questions

Venerable University of Santo Tomás was for three centuries a for-men-only seat of learning. Imagine my own astonishment, then, when I stood up to talk to its School of Journalism and saw that more than half the students were short-haired, bobby-sox girls! After my talk they all wanted to ask questions.

How do you write a full-page ad for a department store? Who writes the travel folders for the American President Lines? What does THE GEOGRAPHIC DAY its writers and cameramen? What kind of article on Manila could I sell to the New York Times? To the New Yorker?

When I first saw Luzon its women seldom read a newspaper. They had a voice, decidedly audible, in domestic affairs: but of government and its problems they knew absolutely nothing. But in the last free election in the Philippines, approximately 500,000 women voted!

My first newspaper job in the islands was as a waterfront reporter on the pioneer Manila The first American. week, I went out with Admiral "Fighting Bob" Evans' fleet for target practice off Olongapo.

As our big guns mared, we could see through glasses that many Filipino fishermen grounded their boats and started running across the beaches for the jungle.

But men from this

same walk of life, trained by MacArthur, dragged their own short-nosed howitzers along the beaches in 1941 and slammed back at the invading Japs.

When I rode out to Manila's San Lazaro Race Track in Manila's first automobile. which ran on steam, wayside natives backed off into rice fields or ran along beside our wheezy car, shouting their astonishment.

But when, on my last visit, our engine went dead as we drove around to Cavite to visit an admiral, a peasant boy leading a team asked me to hold his horses while he blew out an obstruction in our gas line!

The Manila of Taft's time was a Malay-

mestizo-Spanish place, its polyglot peoples new and strange to us.

Once I got an order from homeland Sunday papers for articles on "How the Filipinos Live." To gather needed material, I took a three months' job as teacher in a night school. It proved such a mine of information that I held it two years.

So eager to learn were those Luzen folk that many parents, uncles, and aunts of my young pupils came every night and stood at the door or edged into rear benches to pick up a few words of English.

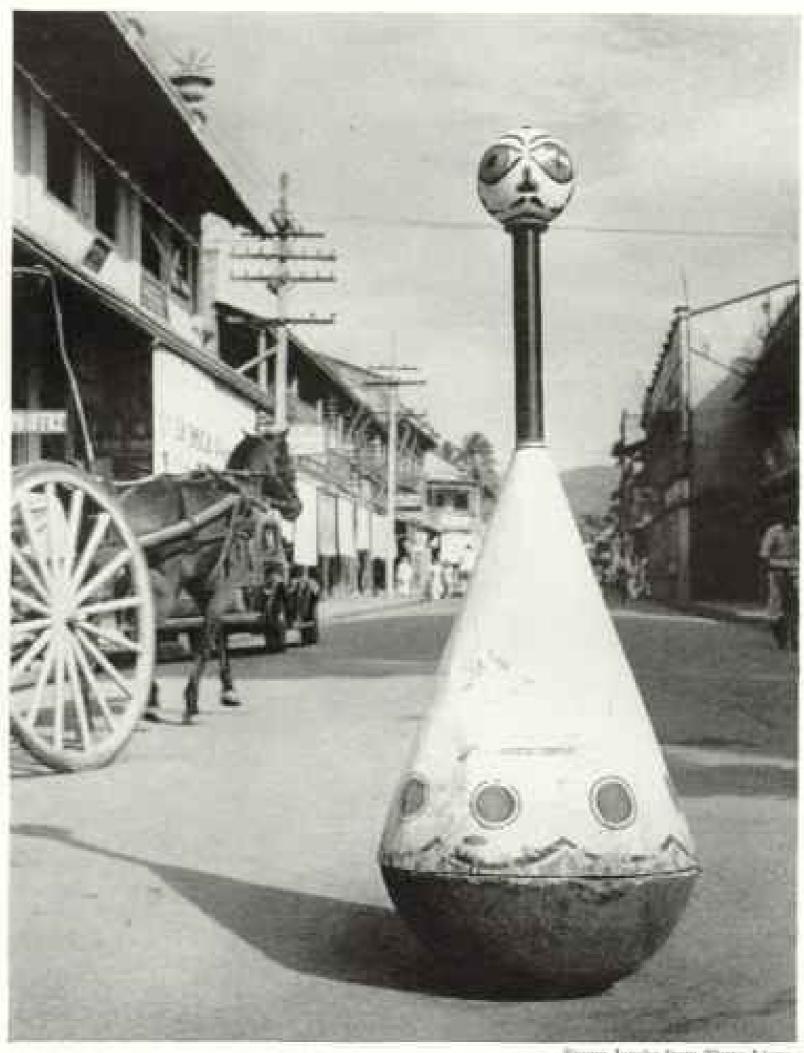
Friendly families invited me to dances, weddings, and fiestas, once even to see a stallion fight. Sometimes I slept in humble nipapalm huts, with the whole family snoring about me on split-bamboo floors and with pigs grunting under the stiltborne house. I came to appreciate the generous, responsive nature of the kindly Tagalogs, dominant group of Luzon.

The first electric goldfish eyes, helps kee streetcars I recall see- drawn vehicles still dising in the Far East were brought to Manila. I owned the streetcar advertising concession. Filipino passengers packed the cars and rode just for the pleasure of riding.

But my customers complained, "Sure," they said, "crowds with cash to buy our goods ride in your cars, and in the racks overhead our advertising cards look fine. But the Filipinos never look up at them; they look out at the street scenes."

All that changed. Manila, in time, became an advertising solicitor's paradise. But even there, listeners learned to turn off their radios when the commercial "plugs" began!

Filipinos I knew often took me on trips into the provinces.



Framo Jacobs from Three Lions

Knock This Traffic Cop Down, and He Jumps Right Up Again!

Built like an old-time "Susie Damn" or "Roly-Poly" doll, his center of gravity is so low he can't lie down. This wooden-headed policeman, with goldfish eyes, helps keep the tangles out of Manila street traffic, where horsedrawn vehicles still dispute the right of way with motorcars.

> No good highways existed then. The only Luzon railroad was a British-owned short line from Manila up to Dagupan. On any rainyseason country trip by 2-wheeled carromata, we usually got stuck in the mud and had to hire a pony, get out and walk, or take to a banca if there was a stream running in the right direction.

Luzon Has Half of All Philippine Roads

Today, as the map shows, Luzon has 50 percent of all Philippine highways, or about 7,250 miles of road. It also has upwards of 700 miles of railway. Already some of this network is familiar to thousands of invading American soldiers.



Giorge W. Guidderd.

This Family Sailed 50 Miles to See the "Big White Bird" of Army Pilots

They belong to the wandering Negrito tribe of mountainous, largely unexplored eastern Luzon. Casiguran Bay, where they visited the plane used by Col. George W. Goddard years ago, is the only safe harbor of any considerable size on the steep, rough eastern shores of Luzon. In these hills live also some 7,500 Ibilaos (Hongots), of whom little is known.

Bus lines use all these main roads. On their tops and rear racks Filipino passengers pile their baggage, baskets of fruit, and coops of chickens and live pigs, their feet tied. Such a bus is usually merely a chassis with a long wheel base, with a locally built body set on it—a body with a roof but no sides, like an open streetcar. On the tall of some buses an English sign says: "Toot Your Horn Clearly and We Will Move Over."

But if anyone can drive on Luzon without human or animal slaughter, he can drive safely anywhere in the world. What with stray pigs, chickens, children, dogs, bullcarts, and pedestrians walking in their sleep-and

another car rushing at you with its driver half asleep—Luzon motoring is never dull!

American soldiers now marching these roads are traversing many regions familiar to veterans of Philippine Insurrection days, when Funston was chasing Aguinaldo and when General Lawton was killed.

What Luzon's Riches Meant to Japan

Besides its military value, you can see what Luzon's natural riches meant to Japan in her scheme for empire expansion.

Hot Cagayan Valley grows some of the world's finest leaf, and Manila's great cigar and cigarette factories are among the best. At this very minute, in Washington's Army and Navy Club, many a grizzled old colonel wearing Philippine service ribbons is pining for an after-dinner Manila cheroot! Especially for one of those that come in a little wooden barrel, very long, brown ones, with a knot like the curl in a pig's tail at one end!

Coconut groves on Luzon cover more than 1,000,000 acres. Nearly all soap made in America before this war used Philippine coconut oil as a base. One-third of all Filipinos, normally, are supported by the coconut industry.

Sugar is an old, old Luzon crop. It was the money crop, and the United States was the chief market. When the Japs came, they plowed up much sugar land, planted cotton, and shipped in textile machinery; but for many reasons this effort failed.

Luzon gold mines made millionaires of some Americans and Filipinos. Some of the richest mines are in the Mountain Province, in the Benguet region near Baguio (page 322).

One rainy night years ago I slept in a flimsy but with a lone American pioneer miner who had an Igorot squaw. All night it rained, till my blanket on the dirt floor was soaking wet. For breakfast the Igorot girl, under the dripping roof, tried to make hot cakes from a soggy bag of pancake flour. The whole mess tasted of smoke and was gritty with asbes.

"Nobody'll believe me or advance me money for a big stamp mill," said the lone American, "but some day there'll be thousands of miners working in this Benguet canyon, in one of the richest gold camps the world ever saw. It's another Klondike—the rocks are yellow with gold." He was right!

In 1940, Luzon gold mines yielded \$30,-850,000, of which more than \$21,000,000 came from that very Mountain Province where I'd eaten the horrible hot cakes made by the halfnaked, shivering pagan girl.

Japs Wanted Philippine Copper

Before the Americans fled in 1941, they flooded the gold mines. Japs didn't seem to care. They didn't want gold, but copper; so they stripped the American-owned mines of machinery and moved it to the copper mines.

From Luzon come nearly all Philippine copper concentrates; its oldest copper mine is the Mankayan, in Mountain Province.

Retreating Americans in 1942 sabotaged many mines. But Japs brought trained mining crews and rehabilitated many of them, especially those yielding manganese, copper, chromite, and iron.

About the finest piece of furniture in the

Naval Academy at Annapolis is a big table of polished Philippine hardwood, which stands in Bancroft Hall. It was presented by Col. Arthur F. Fischer, long chief of the Philippine Bureau of Forestry.*

American lumber importers and all makers of fancy doors and better furniture know and prize these Philippine hardwoods. On Luzon, when the Japs landed, one of their first predatory acts was to grab and ship home all the cut lumber they could find. What they did about operating the sawmills is not clear. But when Luzon business resumes, one of the biggest potential sources of this island's wealth will be vast forests of giant trees which stand along its eastern coast.

For those who like to hunt, Luzon is a Daniel Boone's paradise. Today Tarlac Valley is filled with fine farms. But I saw it when much of it was wild, when naked little Negritos hunted here. I saw them build a traplike net of leafy vines across a deer run, then take their dogs uphill and drive a deer down against the net, where hunters speared it.

Once from a distance I saw an almost leafless tree that seemed to hang heavy with big fruits. Excitedly, the Negritos pointed and made the food sign.

Nearing the tree, I saw that the "fruit" was dozens of big fat fruit bats, also known as flying foxes, hanging by their feet. I shot some for the wild men's food. After I'd fired, the other bats volplaned from the tree, screaming like troubled rats; they sailed about for a bit, then returned to their peculiar positions in the naked tree.

When we wanted water, the little people brought it in bamboo joints. They helped us, too, in making hammocks from vines.

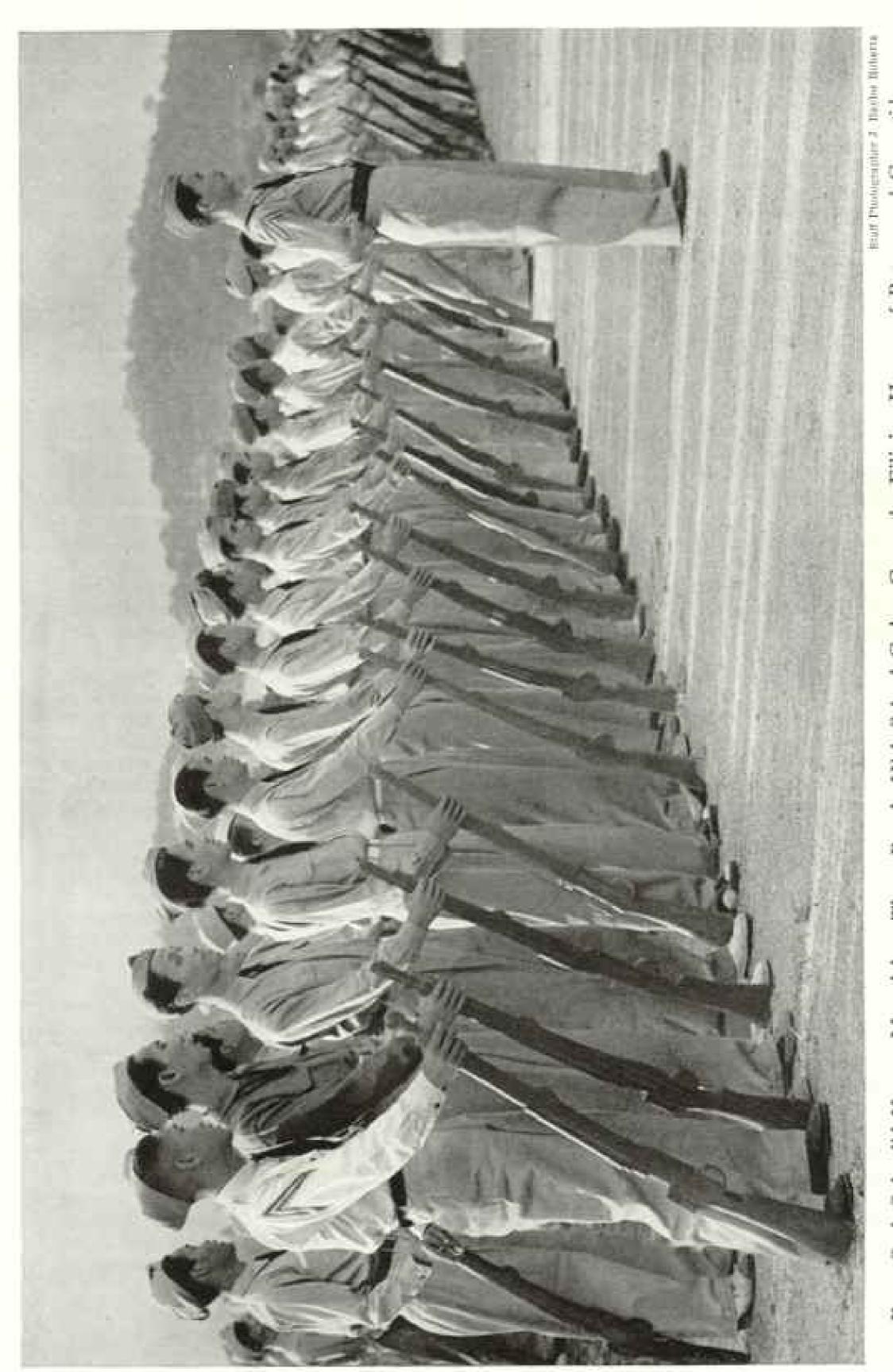
If we tossed away a tin can, an empty shotgun shell, or even a cigar butt, they'd fuss over it like dogs fighting over a bone. They possessed almost nothing.

Amazing to me, always, was the way these Negritos could disappear. If one quit our camp, he simply blended into the jungle, hiding like a quail. A Tagalog guide we had said there were always Negritos following us, whether we saw them or not (page 330).

Japs Set Up a Puppet "Republic"

That Tarlac country was thinly peopled then, but alive with game. Now country homes abound. By 1941 gasoline tractors puffed where the deer used to bark, and about big sugar centrals rose the neat, modern cottages of the mill hands.

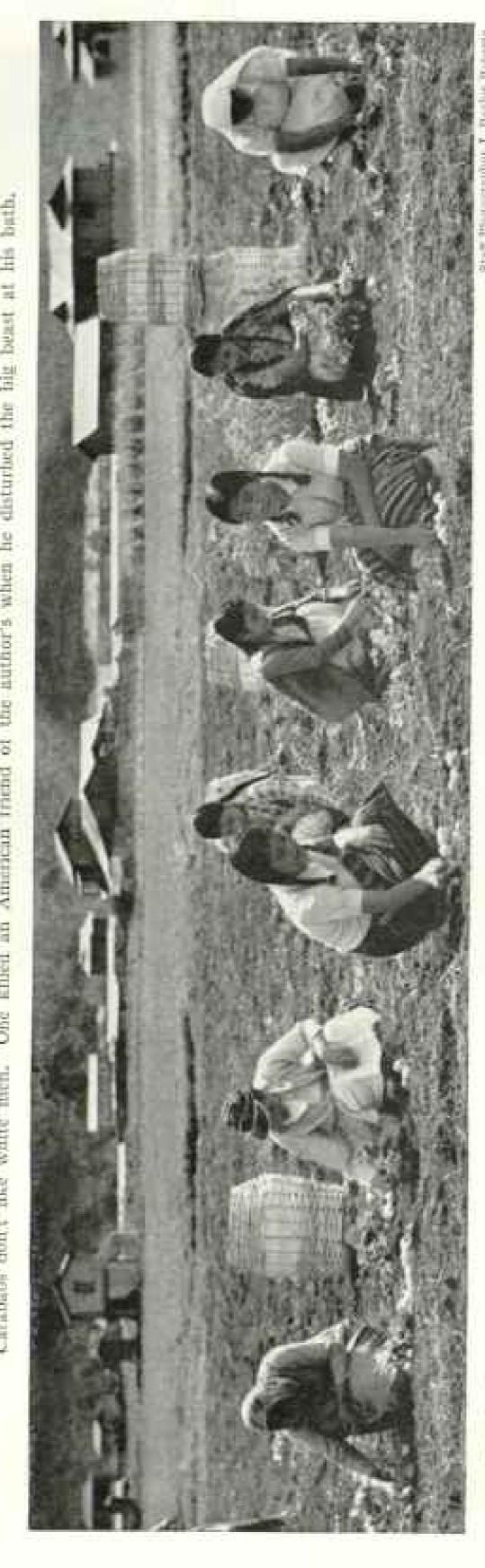
* See "Mindanao, on the Road to Tokyo," by Frederick Simpich, NATIONAL GEOGRAPHIC MAGAZINE, November, 1944.



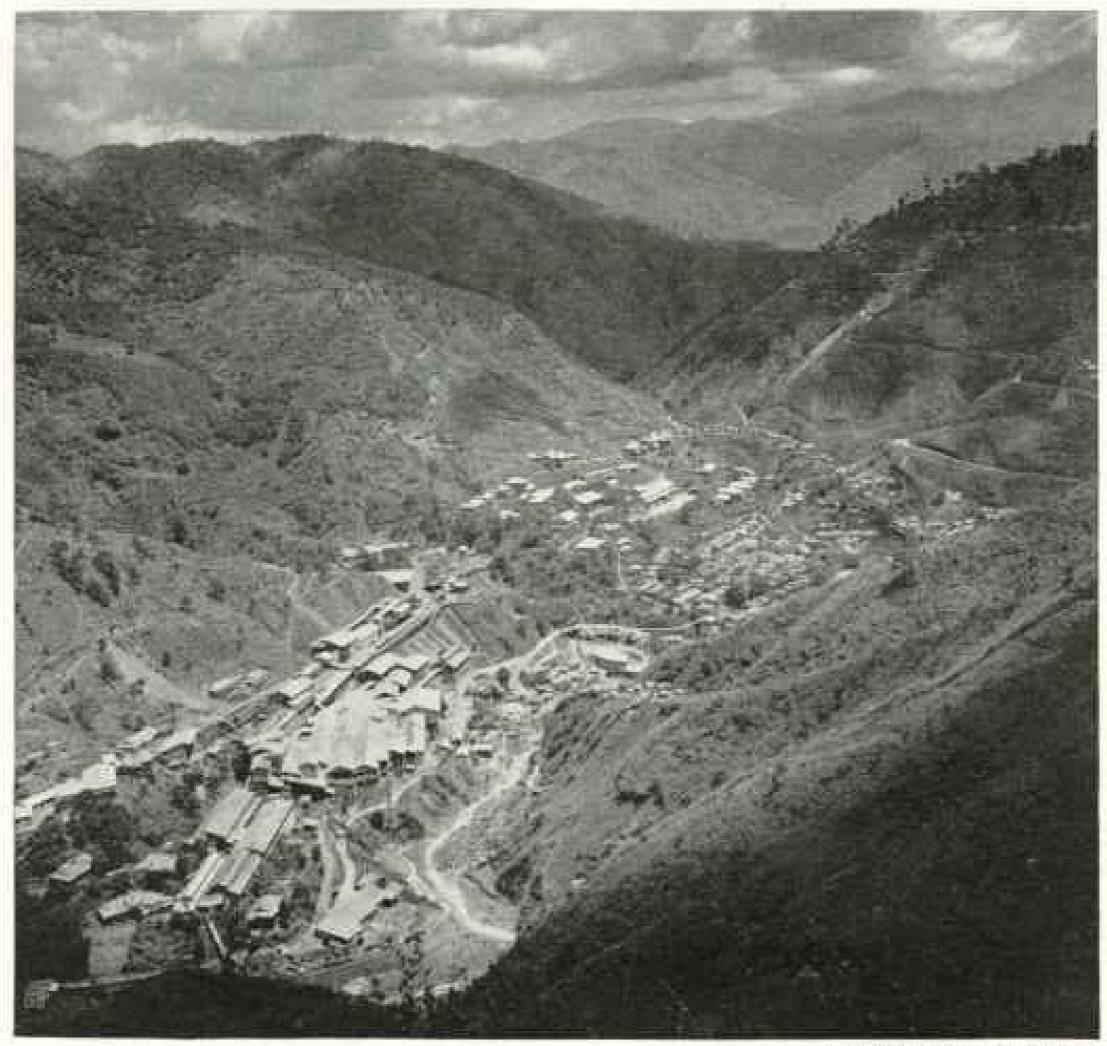
They trained as youngsters with wooden guns, but fought and died bravely when the Japs came. Courageous, quick to learn, fond of athletic contests, these schoolboys exemplify the best type of Filipino—Tagalogs, Incanos, and Visayans. Thousands have taken to the hills as guerrillus, wrecked bridges, cut telegraph lines, destroyed supplies, and, above all, by secret radio and grapsvine sent out reports on Jap strength and movements (pages 324, 331). Baguio High School Cadets Came the Filipino Heroes of Bataan and Corregidor From Such Splendid Human Material as These



One killed an American friend of the nuthor's when he disturbed the big beast at his bath, Surly, Temperamental, the Carabao Goes Crazy Unless He Can Soak in Mud and Water Carabass don't like white men.



Girls take home economics and normal Nearly Dressed Daughters of Once Head-hunting Wild Men Dig Potatoes in the Gardens of Trinidad Agricultural High School Bullt especially to train students from some of the mountain tribes, this school, near Hagnio, gives a free four-year course, Girls take home econor school coursest boys get one year of practical farm work before graduation. At one time 500 "wild" children were enrolled here.



Haff Photographer 3, Baylor Bobers

From This Humid Canyon Americans and Filipinos Have Taken Fortunes in Gold

Till Japs stripped it of its machinery, for use in getting out copper from another region, the mine employed 10,000 people. It had its own hydroelectric works, hig Diesel engines, and a truck line down to the coast. Philippine annual gold output, in pre-Jup days, almost equaled that of California in 1940.

Over the islands as a whole, population has more than doubled since Admiral Dewey's guns bored big holes in the mossy old stone walls of Manila's Fort San Antonio Abad.

On Luzon the Japs, after taking Manila, set up their own puppet "republic." Most of its officials, from President José P. Laurel down, were chosen from men prominent in business and public life.

In fairness to some, it must be said they felt that by service under the invaders they might keep hospitals open, food markets supplied, waterworks and light plants going—in fact, prevent that chaos and starvation which might have ensued had some 16,000,000 Filipinos staged a sit-down strike all at once.

Japs sought to reduce Luzon labor stand-

ards to Japanese home levels by repealing all Commonwealth minimum wage and hour laws.

When the Japs landed, they brought their own ready-made invasion currency, a crude, worthless paper money. But to refuse to accept this "Mickey Mouse money," as the Filipinos dubbed it, meant severe punishment. American money was declared illegal, but the Japs themselves wanted our money so badly it soon went to a premium. Coins of all kinds vanished utterly (page 331).

The Japs failed in attempts to make all Filipinos learn Japanese. Japs themselves had to use English to deal with the natives.

What will happen now to Filipino quislings and collaborationists? Mr. Sergio Osmeña, now President of the Philippine Commonwealth—the real, constitutional one and not the puppet "republic"—landed on Leyte in October last, with General Douglas MacArthur. From there he broadcast an address to all Filipinos.

President Osmena paid tribute to the millions of Filipinos left behind after the fall of Corregidor to face the ire of the Japs. He said they had to submit to Jap rule or perish, because our army and theirs, in the islands, had been de-

stroyed.

Not all public officials, President Osmena pointed out, could take to the hills or turn guerrilla. Some had to stay on the Job, to keep some kind of government machinery running. These officeholders under the Japs fall into three groups: those who honestly wanted to help protect the people; those moved by fear of enemy reprisals; and those "motivated by disloyalty to our government and cause."

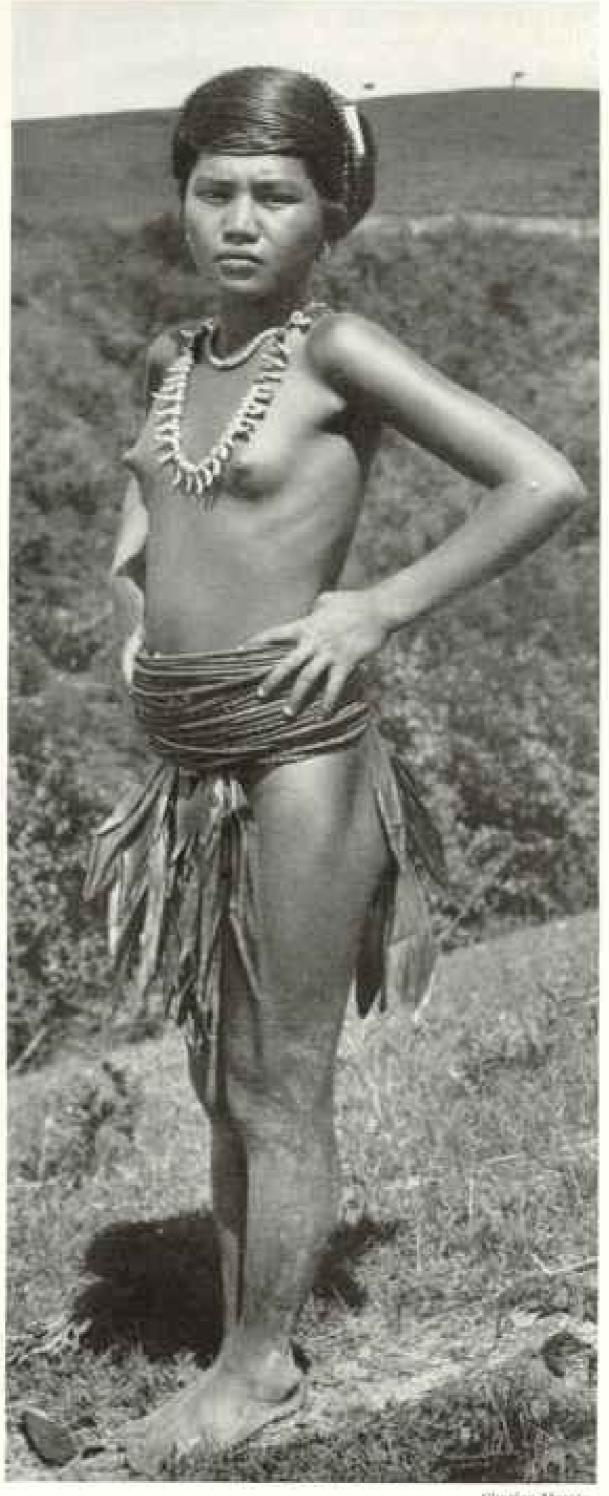
We can't let these disloyal men's acts lead us to acts of personal revenge, the President continued. But all traitorous Filipinos charged with giving aid and comfort to the enemy, whether office-holders or private citizens, will be dealt with according to law.

Quislings Present Grave Problem

To grasp the gravity of this task, you have only to read an English speech made by Jorge B. Vargas, long secretary to the late Fresident Manuel Quezón. On May 18, 1942, after a parade celebrating the Japs' capture of Bataan and Corregidor, a parade led by the Philippine Constabulary band, and one in which many Filipino girls marched carrying Japanese flags, Vargas said:

"We are grateful for this victory because of the new perspective it has given us. It has made us feel, more than ever before, the fraternal ties that bind us with the peoples of East Asia, particularly the great Japanese people. By carefully checking on our bearings, we invariably discover—perhaps to our amazement that we scarcely realized it before—that our geographical position, far from making us a far-flung outpost of the distant West, rather makes us the natural frontier of the Great East.

"We have gone a long way in the last forty years. Traveling in the direction of the West, following its pleasant call,



Charles Matthe

Dressed in Not Even a Smile!

A boar's tooth necklace, a hair-do, and a few leaves, modestly placed, form the party dress of this Igorot girl. Made about 40 years ago, this picture is from the famous Charles Martin-Philippine collection, now in the archives of the National Geographic Society at Washington, D. C. we have gone through a superficial metamorphosis. We have been obliged to alter our mode of life, our conventions, and our institutions, to suit the Occidental pattern.

"Essentially, however, and intrinsically, we remain irrevocably cast in the mold of our ancestors, and the spirit of the East that we have inherited cannot be changed. Immutable and ageless, it defies all the forces and all the subtleties of Western civilization.

"Now we have reached a point in our odyssey as a people where we can no longer look to the West. Now, under the inspiring leadership of Japan, we must return to the course from which we had been driven by the storms of international events, for that is where our happiness, prosperity, and well-heing safely lie."

"We Had Known Only Friends"

I know, as do thousands of other Americans who lived long in the Philippines, that Vargas did not speak for most Filipinos. The large majority like us. They like to speak the English we taught them. They like our way of life—our sports, dress, freedom of speech, and democratic ways.

"It's not fair," Brig. Gen. Carlos Romulo said in a speech to the American Congress on September 21, 1944, "to say that most Filipinos sided with the Americans in this war only because they thought we were

stronger and would win in the end.

"From my country on the rim of Asia it seemed to us [in 1942] that the tremendous tide rising in the Far East would wash us out, along with our dream of democracy.... The white man was whipped and disgraced in the Far East. The dream of Asiatic empire was dinned into our ears by Japanese propagandists. 'Rise and avenge yourselves against the white despots now,' they told us. But in the Philippines we did not know any American despots. We had known only friends."

General Romulo, long editor and publisher of a Manila daily, fought with MacArthur on Bataan and is now the Philippine Commonwealth's Resident Commissioner to the United

States.

Heroic Deeds of the Guerrillas

Most Filipinos resented the Japs and remained loyal to us. Their heroic deeds are in striking contrast to the behavior of the quislings. In a speech on Leyte, October 25, 1944, General MacArthur paid tribute to the guerrilla underground movement and to the valuable work of our spies.

For a long time after the disaster at Bataan, said General MacArthur, a deep silence engulfed the Philippines. No news of their fate reached the outside world. Then, late in 1942, came a weak radio signal from Panay, picked up by listening posts of the War Department. That "lifted the curtain of silence..., and disclosed a human drama with few parallels in military history." Resistance had started.

To aid the Filipino underground workers, we began to send submarines to secret landing places, arranged by radio, taking spies, both American and Filipino, arms, ammunition, and medical supplies. Later, four submarines were used regularly, and clandestine arm and

supply shipments greatly increased.

"For many months," said MacArthur, "our plans of campaign have benefited from hazardous labors of a vast network of agents numbering hundreds of thousands providing precise, accurate, and detailed information on
major enemy moves and installations throughout the archipelago. Through a vast network
of radio positions extending into every center
of enemy activity I have been kept in immediate and constant communication."

On every major island the spies have one or more weather-observing stations, which flash out weather data morning, afternoon and night. This information is useful to our troops already in the islands, to the Navy, and especially to our airmen raiding enemyheld positions.

Spies and informants, also from hidden radio sets, flash out news of Jap airplane and fleet strength and movements. Such information has helped Americans sink many Jap ships

and shoot down many planes.

Americans Aid the Irregulars

Americans led many of the irregulars, who sank enemy boats, tore up railroads, blew up bridges. Some of these Americans were civilians who took to the hills when the Japs invaded; some were aviators who had been forced down in the islands, sailors who had been wrecked, or soldiers and officers who had escaped from prison camps. From these secret sources the Navy got word of enemy naval concentrations off the Philippines during the Marianas operations (page 306).

Conspicuous in this daring work were American and Filipino residents of the United States, who volunteered to infiltrate into the islands to carry out military missions.

Many American airmen forced down in the islands have been saved by the guerrillas or by the civilians who sent out radio appeals to cruising rescue boats; usually at night, our stranded pilots have been picked up from some lonely beach.



Biaff Photographer J. Baybe Buberta

They Seem to Sell Everything in This Baguio Market But Shoes

The fat Igorot boy's mother, in the white blouse, dresses as did most domestics employed by American families living in Baguio; hence the child's American-style calico breeches. Sunday, at the public market, is Baguio's Roman holiday. Since Dewey's day, Baguio has grown from a mountain hamlet into the luxurious summer capital of the Philippines. Several hundred Americans were interned near there.

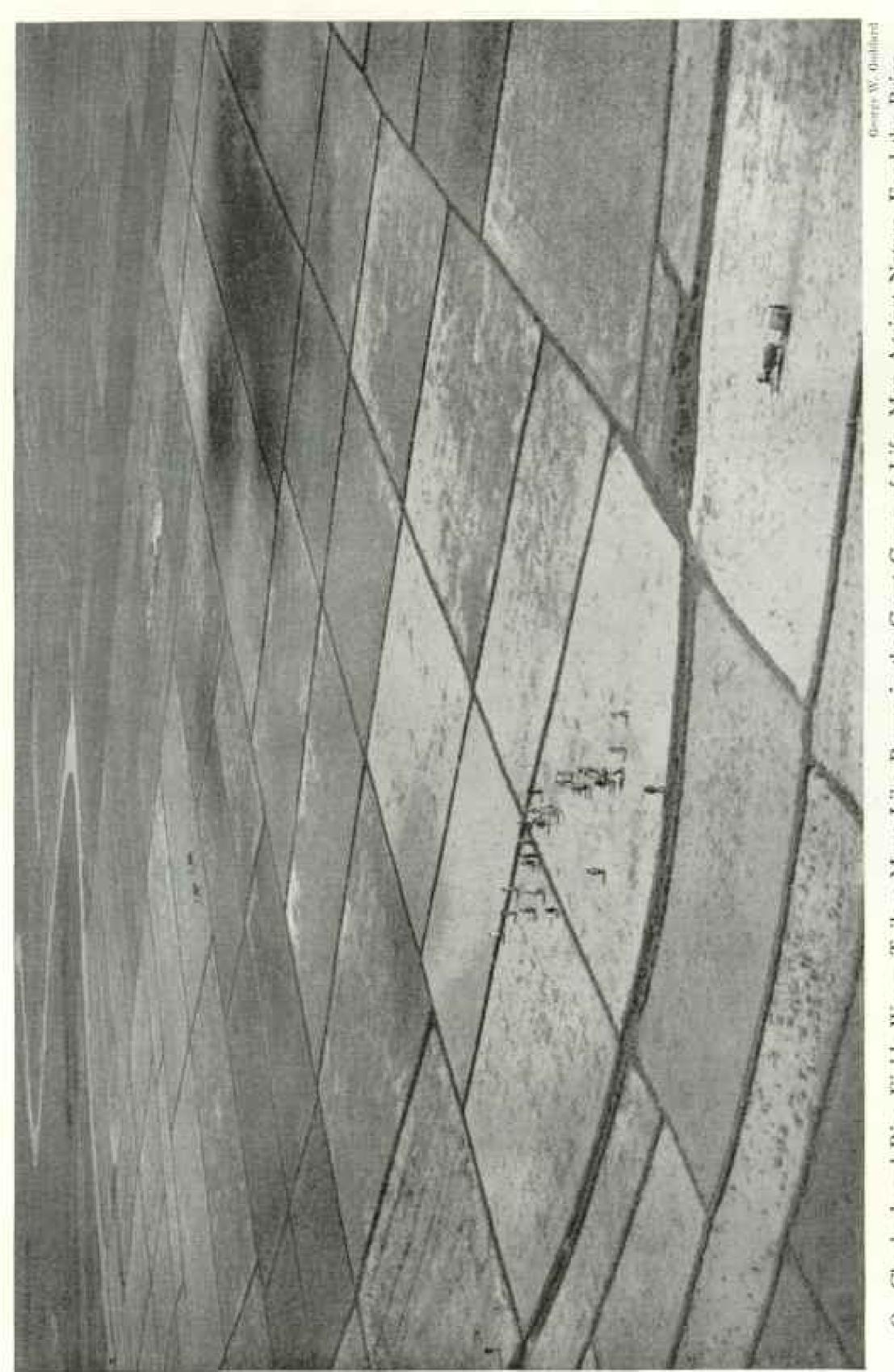
Heroic beyond any call of duty were the exploits of these Filipino irregulars. They performed feats of incredible endurance and calmly went forth on certain sublime adventures where death was inevitable.

Historic is the Black Hole of Calcutta. There was Libby Prison, in the War between the States; there was Mexico's San Juan de Ulia—and there's Bilibid, Manila's ill-famed prison, and ancient Fort Santiago at the mouth of the Pasig, with its dark, damp, rat-ridden, vermin-infested dungeons where Americans have been held.

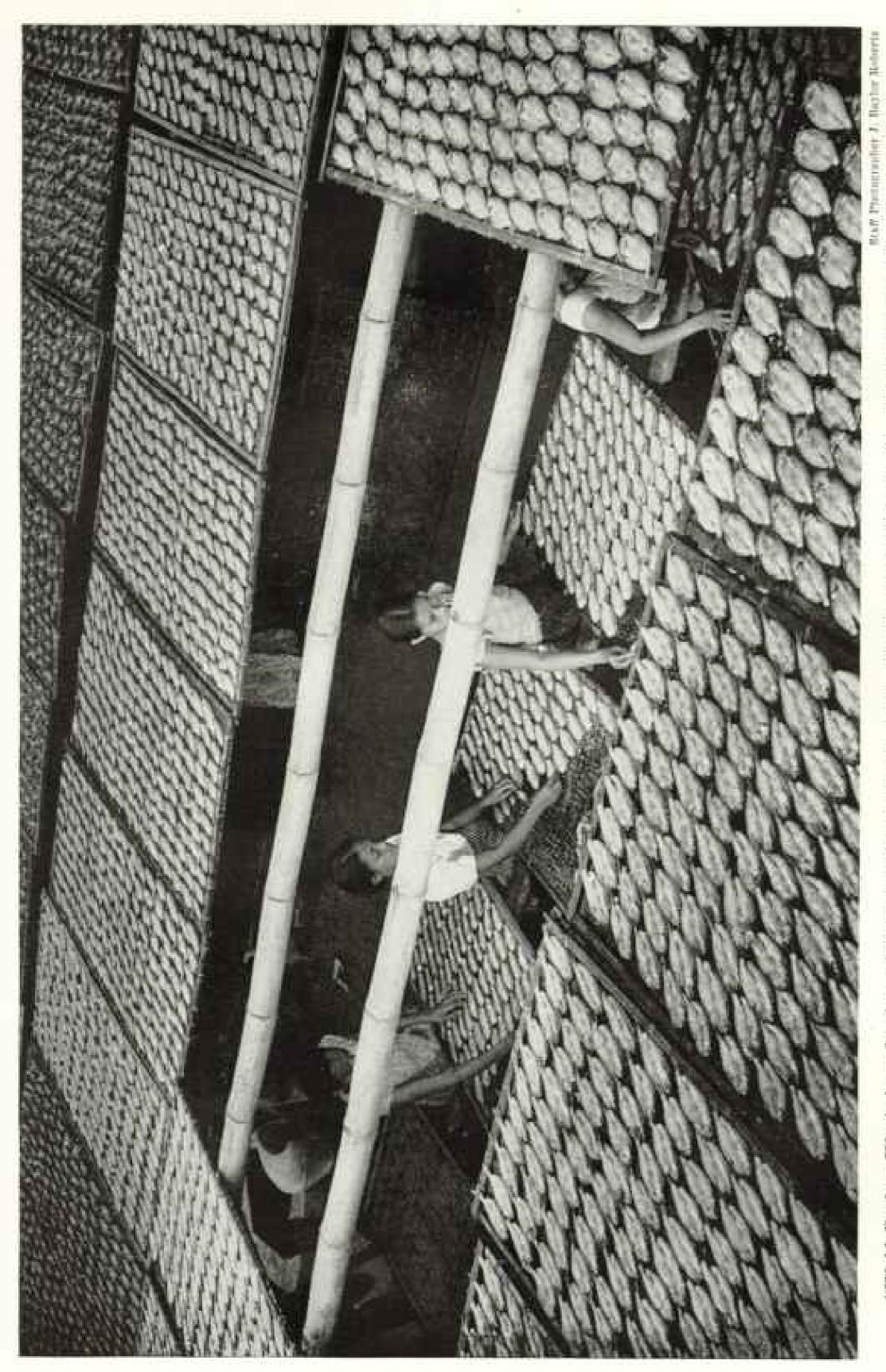
Former French Consul Gaston Willoquet,

long stationed at Manila and seized by Japs early in 1942, was thrown into Fort Santiago and crowded into a small cell with certain American journalists. He showed me a sneak picture of two Manila newspapermen I used to know—R. McCullough Dick, editor of the Philippines Free Press, and Roy Bennett, editor of the Manila Daily Bulletin. This picture showed them naked, thin as living skeletons. I was astounded when Consul Willoquet told me who they were.

I've talked with Americans, long prisoners of the Japs in the Philippines, who finally either escaped or were released and came home

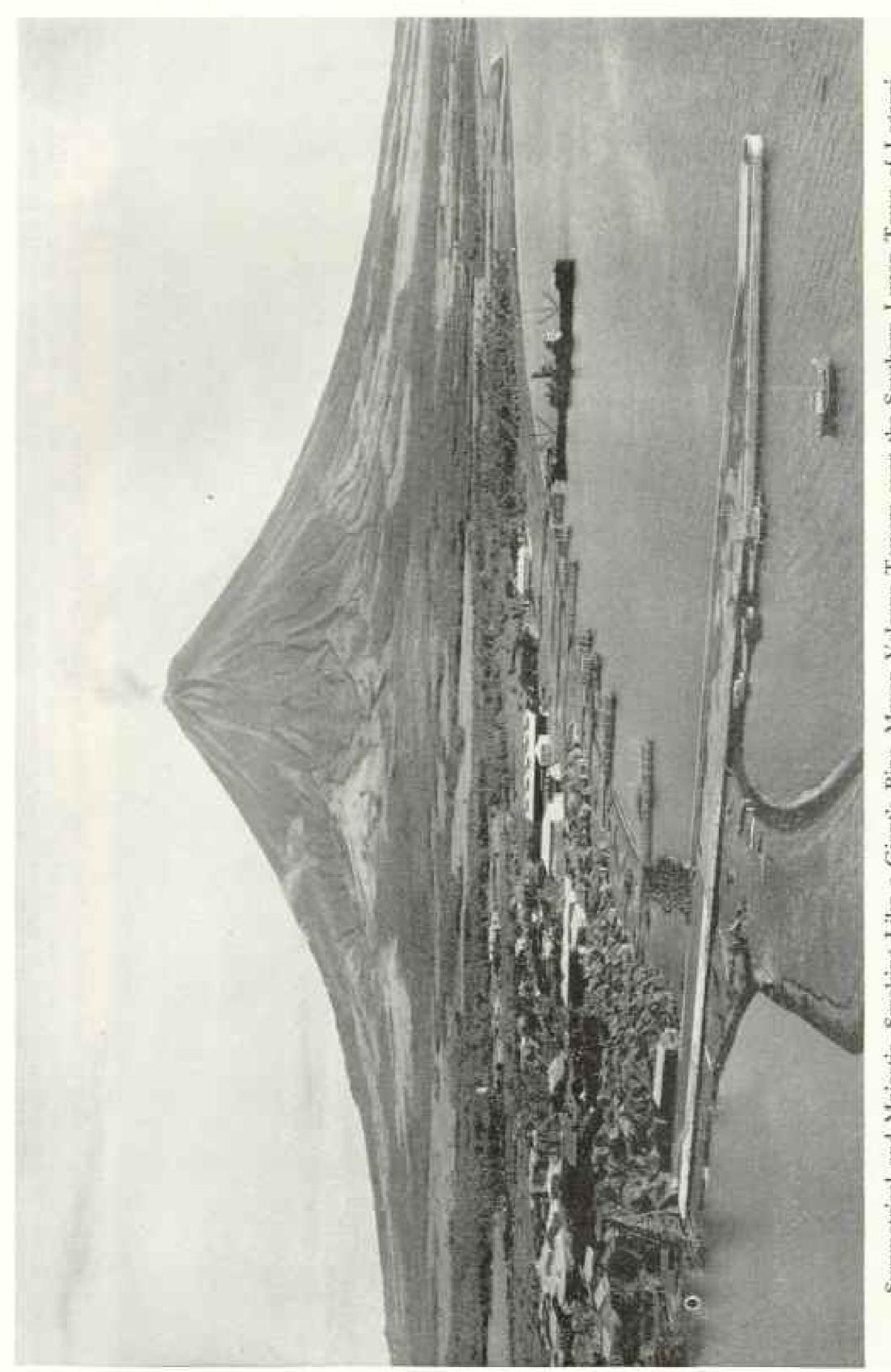


Though central Luzon is one big food backet, the all-important rice crop is often short and grain must be imported. Food got so scarce late in 1944 that pupped Luzon is appeal to the Japanese Government for sid. Pilots say forced landings are dangerous in such mud-and-water rice fields; here the ground was dry. Our invading army marched into country like this after landing at Lingayen. Man Against Nature, Food the Prize Move Like Pawns in the Great Game of Life, On Checkerboard Rice Fields Weary Tollers

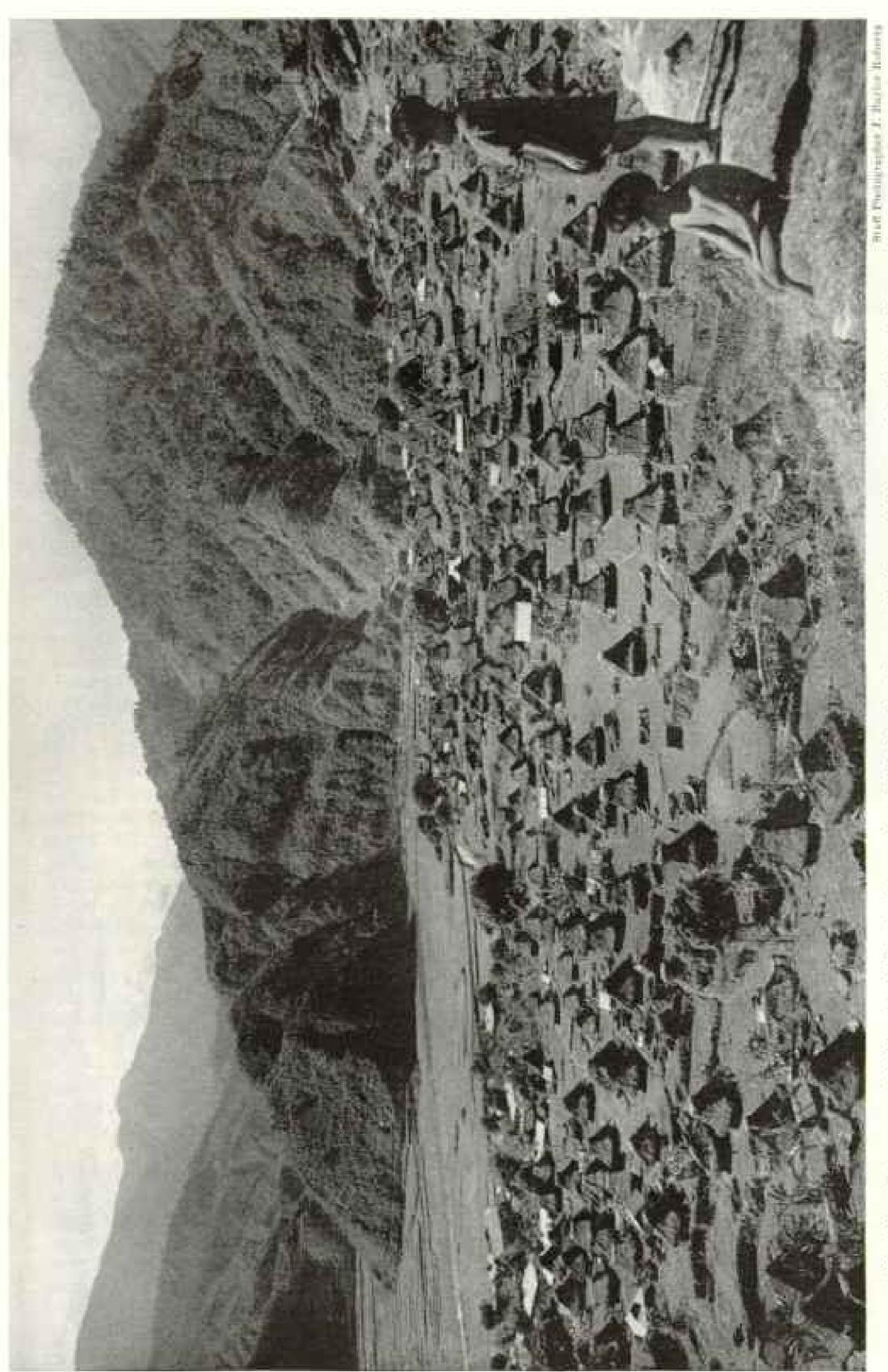


"But Someone Has to Do This!" "We'd Rather Work in a Perfume Shop Than Smell Dried Fish All Day," Said One Girl.

Fish and rice are a favorite lowland Luzon dish. Corral-like fish traps, made by driving fences of poles into ticle flats, take many fish, though trawling has larged. At night fishermen set note and drive fish into them by waving torches and beating on duyout sides with clubs. Japanese fishermen for years before the war monopolized many Philippine waters. One big job in Philippine rehabilitation will be the restoration of the fishing industry.



Prof. Carl N. Taylor, who efferbed this volcano about 10 years ago, said that from its peak be enjoyed magnificent views of surrounding seas and distant blands, including Samar and Loyte. The earth about the crater shook beneath him. Brush was so thick on some slopes that his party had to cut its way with bolos and nucleus from lack of water. Luren has two well-known active volcanoes, Mayon and Taal. The latter's cruptions have caused enormous devastation. Giant's Pipe, Mayon Volcano Towers over the Southern Luzon Town of Legaspi Prof. Carl N. Taylor, who elimbed this volcano about 1 including Samar and Leyte. The earth about the crater ab-Symmetrical and Majestic, Smoking Like



orm the Old, Native Igorot Section of Bontoc, Capital of Mountain Province Toylike Houses with Thatched Roofs

Rocots to partly has government buildings, stores, and madem bouses. a background. Despite chill mountain sit, many Igor of Mountain Province. are employed in peacetime in the gold mines like dog ment, Igarets are very industrious, and thousand Children gaze from the edge of the city reservoir.



Frederick Simpleh (Left), Hunting with a Negrito

That big bow the native holds was so long he had to stand one end on the ground to shoot it. When a deer was killed, he are its entrails raw (p. 319). Philippine population more than doubled during the American occupation.

on the prisoner-exchange ship, the Swedish Gripshalm. But they don't talk much. They're afraid that, if they do, the Japs will hear about it and make prison life even more horrible for those abused, starving Americans still held in Jap prisons in the Far East.

Little Is Known about Internees on Luzon

We know, through the Red Cross, that most American soldiers captured in the Philippines have been sent north, to Japan and possibly to Manchuria or to Formosa. Lt. Gen. Jonathan M. ("Skinny") Wainwright, who stuck by his men on Bataan, was last reported held on Formosa.* Imagine the thoughts of this brave American general and his companions as they look up into the sky during an American Army or Navy raid on Formosa and see all those Yankee planes overhead—all so near and yet so far! How they must rejoice, secretly, when they hear an awful blast from

an exploding Vankee bomb and see Jap buildings, guns, and trucks flying high in the air!

Near Cabanatuan,
Luzon, Camps 1 and 3
once held more than
12,000 American soldiers taken on Bataan
and Corregidor. Thousands of these died, and
the rest were shipped
to the north. From
southern camps, near
Davao and at Malaybalay on Mindanao,
still more American
prisoners of war were
sent north.

Here in the States, as this is written, we all wonder what the Japs will do or may have done to all the American and British civilians known to have been interned on Luzon. As of December, 1944, according to Red Cross reports, some 4,000 whites were interned at the University of Santo Tomas, in Manila. About onefourth of this group were British subjects. Still more American civilians were held in

Manila's Holy Ghost Convent and Hospicio de San José, in Sulphur Springs Hotel, and at a Y. M. C. A. and other buildings in Los Baños.

I talked with Dr. Harry Kneedler and many other Americans who had been interned at Santo Tomás Camp. It covers about 50 acres. Internees live in University buildings and in some 600 huts built on the campus. Though husbands and wives may not occupy the same quarters, they may visit in certain huts which prisoners have dubbed "love nests."

Food is mostly rice, fruit, and vegetables, plus what prisoners may buy through faithful old Filipino servants or through camp committees of older Americans who are permitted to leave the stockade and go to market.

More Americans are known to be confined in Camp Holmes, near the summer capital of Baguio.

* See "I Lived on Formosa." by Joseph W. Ballantine, National Geographic Magazine, January, 1945.

These are the longimprisoned whites our soldiers will set free, when they drive out the enemy Japs and hand back to President Osmeña his delectable isle of Luzon, the 7,082 other islands, and their millions of Americanized Filipinos, so long enslayed.

Of these loyal Filipinos, it can be said that our colonial rule has bred freedom-loving, self-reliant folk. That's why the Filipinos started the great underground movement and gave their lives in guerrilla jungle fights; they want to get back to that democratic way of life we taught them. They don't want to live like Japs.

General MacArthur, then Field Marshal of the Philippine Army, told me that his highly trained Filipinos were born fighters. They proved that; they died bravely beside American infantrymen on Bataan. The thousands now enlisted in the American Army prove again their loyalty to us (page 320).

These are the people who, after they get their complete independence, want to continue trading with us. They want to sell us their sugar, coconut oil, hemp, and tobacco. They hope that the commission of nine Americans and nine Filipinos set up to study this question will not interfere too much with our former flourishing trade relations by loading on too many high customs duties (page 305).

More immediate, however, is President Osmeña's task of healing the grievous economic and social wounds his country suffered under the Japanese. Fishing craft and interisland shipping, now almost wiped out, must be rebuilt. Farm machinery is worn out, and many carabao work animals have been killed for meat.

Plantations that grow sugar, rice, coconuts,



Filipinos Call This "Mickey Mouse Money".

The Japs took invasion currency with them when they drove south. Their paper "pounds" and "shillings," for example, were issued the day they landed in Singapore. Java got paper money printed in Dutch, and Manila got currency in denominations as low as one centavo. Honest money, previously in use, immediately went to a premium, and much was hoarded. All coins vanished. Jap money depreciated; prices shot up (page 322),

> and hemp must be restored as quickly as possible. Most cash came from these.

> But this is a young man's country, of vast natural wealth and infinite recuperative powers.

Significantly, a number of American sailors and soldiers who've seen Pacific service are already writing letters to the Bureau of Foreign and Domestic Commerce at Washington. Later, young veterans of the Philippine campaign will want to know about postwar chances for mining, starting a plantation, or going into business in the Philippines.

Thus history will repeat itself. Most Americans prominent in Philippine business life when this war began were Spanish-American War veterans (and their ranks were getting thin by 19411) who cast their lot years ago with the rich, fertile Philippines.



C Underwood and Underwood

William Howard Tuft, as Secretary of War, Visits the Philippines

The girl in the big straw hat and black tie is Mrs. Nicholas Longworth, then Alice Roosevelt, daughter of President Theodore Roosevelt. The mustached officer back in the doorway is Maj. Gen. Clarence Edwards (then colonel). Behind the Filipino lady in striped skirt stands Miss Mabel Boardman; next to her at right, facing the camera, is Miss Amy McMillan. Seated is Secretary Tait, fanning himself. Next to him is former Senator Nathan Bay Scott of West Virginia. Hung on the walls are pictures of George Washington and President Theodore Roosevelt. This photograph was made at San Fernando, Luzon, in 1965.

Uncle Sam himself will spend uncounted millions and hire armies of workers, ranging from engineers to pick-and-shovel men, on his new bases. Their building may take years, and Manila will swarm with contractors.

You can look at the big Philippine map, with its vast valleys, their hillsides for underground hangars, and spacious harbors for docks and anchorages, and figure for yourself where at least some of these public works may take shape.

Indisputably, inevitably, the Philippines are linked again with the United States. When these enormous works get started, Uncle Sam will stage another construction drama as spectacular as the digging of the Panama Canal. One can imagine even the wild men, Igorot, Ifugao, Kalinga, and Ibilao, trooping down from the mountains and ditching their head axes for picks and shovels.

Then we shall have a chain of defensive outposts—Hawaii, Wake, Guam, Saipan, the Philippines, possibly Manus in the Admiralty Islands—stretching 7,000 miles across the Pacific.

All this when the Japs are driven out.

Then, said soft-spoken, partly Chinese President Osmeña in a radio speech from Leyte, "We shall be redeemed from slavery. As a crowning glory to Philippine-American collaboration, we shall become a full member of the concert of independent nations."

Heroes' Return

By WILLIAM H. NICHOLAS

cold winter day, I could see in the harbor a huge red cross, aglow with electric lights. The cross beamed from the smokestack of a ship which lay still in the rippling waters. More lights twinkled here and there from bow to stern, dimly outlining her hull in the semidarkness.

She was the U.S. Army hospital ship Saint Mikiel, back from Europe with a precious cargo of 493 wounded American soldiers. Late the night before she had slipped into the harbor and was waiting for daylight to push seven miles up the Cooper River to the docks of the Charleston Port of Embarkation.

Through the courtesy of Brig. Gen. James T. Duke, commanding officer of the Port, I had received permission to join the boarding party of Army Transportation Corps and Medical Corps officers about to put off from

a wharf close to the Battery.

The sun silhouetted Fort Sumter to the east as we drew alongside the Saint Mihiel in an Army tug. Despite the cold, heads of GI Joes bobbed from the portholes. A few more hardy "walking" patients, fully dressed at that early hour in eager anticipation of home-coming, leaned over the rail to josh the tugboat crew and give unsolicited and unprofessional advice on tying alongside.

From the Battery the ship had seemed almost deserted. Once aboard, I found every ward was humming. Each patient had eaten his breakfast, stowed his treasured souvenirs and other meager possessions in soldier kits and small boxes, and was waiting expectantly.

"Wisecracks" Ring in the Wards

Walking patients moved around, elbowing for room to peer out at the Battery, now fully visible in the broad light of day. Those to be carried from the ship on litters lay on their bunks and "wisecracked." All were in high good humor.

With Capt. Elizabeth MacDonald of the WAC I walked into a ward and instantly discovered that no introduction was necessary to strike up conversations with these GI's.

"Where are you from?" I asked a lad on a lower bunk far removed from portholes, who was quietly awaiting the time to leave ship and see the United States again.

"Pennsylwania," he answered with a grin. "York, Reading, or Lancaster?" You couldn't fool a fellow Pennsylvania Dutchman with that pronunciation.

"Reading," he replied, grinning even more broadly.

"What's your home town?" the WAC captain asked another, grotesque in his casts and bandages.

"Belfast, Maine," he replied.

"Why, I've been in Belfast lots of times." said the captain. "Used to buy antiques there."

"Belfast ships antiques everywhere," he answered proudly.

"Sure," yelped a comrade from an adjoining bunk. "That's where we got him."

Every ward has at least one such GI clown or comedian, sometimes two, sometimes half a dozen. Unknowingly and naturally they are the morale builders of the wards, who keep spirits from drooping and make everyone laugh at his troubles.

The most serious cases imaginable come in for their share of joshing and thrive on it.

Has a lad lost both feet? Then the ward comedians diagnose his ailments as "ath-alete's foot," and even the subject of the jest has a lot of fun over it.

Is that boy's leg in a cast because he stepped on a land mine? "Why didncha look where you was goin', soldier? Be more careful next time."

In the next ward I encountered half a dozen paratroopers, some pretty badly used up, some merely bothered with casts. All were cheerful and enjoyed a veteran's privilege of reminiscing,

"We were at Nijmegen," a tough little lad from Brooklyn, all neatly done up in casts, told me, "One company of us held a bridgehead three days, waiting for the tanks to come up. Wish Patton had been bringin' them tanks up. He'd a been there on time if he'd only had a half-track left when he got there."

"He sure would," echoed another,

"I was in Patton's Army," called a Kansas

City boy from a near-by bunk,

"So was L" shouted another two rows away. "He's O. K. 'Old Blood and Guts.' Our blood and his guts." There was a murmur of admiring approval.

Wallet Saves GI's Life

Every GI has a story to tell, but if it concerns personal bravery, you usually can't pry it from the soldier involved. You have to get it piecemeal from his buddies. One of the most thrilling tales told on this cruise of the Saint Mihiel was about a lad from Dearborn,



Home Again! Walking Patients Descend the Chateau Thierry's Gangplank

Each is followed by a Medical Corpsman (Red Cross brassard) carrying the seldier's personal effects (page 340). In foreground, litter bearers remove to the waiting ambulance at the Charleston Port of Embarkation a soldier in need of immediate medical attention. Such patients always are first to be evacuated when an Army hospital ship docks.

Michigan. He was walking proudly through the ward on crutches, and it was only a matter of time until he would be in good shape once more (page 340).

He neared the WAC captain and me.

"Show 'em your wallet," a GI urged. Sgt. Don Schlaff did. This is the story of the wallet:

Don enlisted 10 months before Pearl Harbor and was in Iceland when the United States declared war, but he did not get to France until June 13, a week after D Day. He was in command of a trench mortar squad of six men.

On July 27 he and his men found themselves in the front lines outside a Normandy village ten miles from Caen. Another Yank trench mortar squad was about 25 yards away, across a hedgerow. They were blasting at the Nazis at close quarters and the Nazis were

hitting back.

Suddenly the German barrage ceased, indicating that a counterattack was in the making. Don checked his ammunition and found he had only seven rounds left. About that time, the sergeant in charge of the other squad called to him and advised that he was entirely out of shells. So the two met at the hedgerow to discuss what action they should take. Almost immediately an S8-mm, shell landed in the ditch where Don's squad was located, killing every other member.

A flying piece of shrapnel cut an angry gash in Don's left arm. Its course led straight toward his heart, but it encountered the leather wallet in his breast pocket. The steel sliver plerced the leather and cut the cellophane wrapping on a Sacred Heart religious emblem inside, but did not pierce the emblem. Then it cut back out of the wallet, shattered a pair of field glasses the boy was carrying, and tore across his right forearm.

At about the same instant another piece of shrapnel struck him in the right leg, causing a compound fracture. He dropped to the ground, bleeding profusely, and tried painfully

to stop the flow.

While he was thus engaged, the Germans attacked. Two SS troopers came upon the group and rifled the bodies of the dead soldiers. They also took from Don a jeweled cigarette case and a valuable watch, a present from his father, but left the wallet.

Later a German company aid man devoted a few moments to binding up the boy's wounds, but soon left him without applying a tourniquet. He lay there for 17 hours while the fighting veered back and forth. Finally, our own "medics" found him, just in time to save his life.*

A few weeks later, back in a hospital, Don began to take an interest in life again. He found there was a shortage of toilet articles in his ward; so he wrote to another sergeant in his outfit, asking him to try to find his personal possessions and send them to him.

A week later a box arrived. He opened it and found not only his toilet articles and other possessions, but the missing watch, too. A letter from his buddy informed him that a few hours after he was wounded, a platoon from his company had captured the very Germans who had rifled the bodies of the soldiers in Don's squad and had recovered the valuables, along with Don's watch. The jeweled cigarette case had not been found.

Don showed me the shrapnel-torn wallet and the small religious medal, with its torn cellophane wrapper.

"It's a Beautiful Country"

While the captain and I were talking to the boys in the wards, the Saint Mikiel began to move up the Cooper River.† At length we went on deck and found most of the walking patients along the rails, for the sun was shining brightly now and the chill of early morning was disappearing.

"It's a beautiful country, isn't it?" remarked one GI wistfully to a buddy, although about all he could see was a row of busy docks,

*See "Healing Arts in Global War," by Albert W. Atwood, in the National Geographic Magazine, November, 1943.

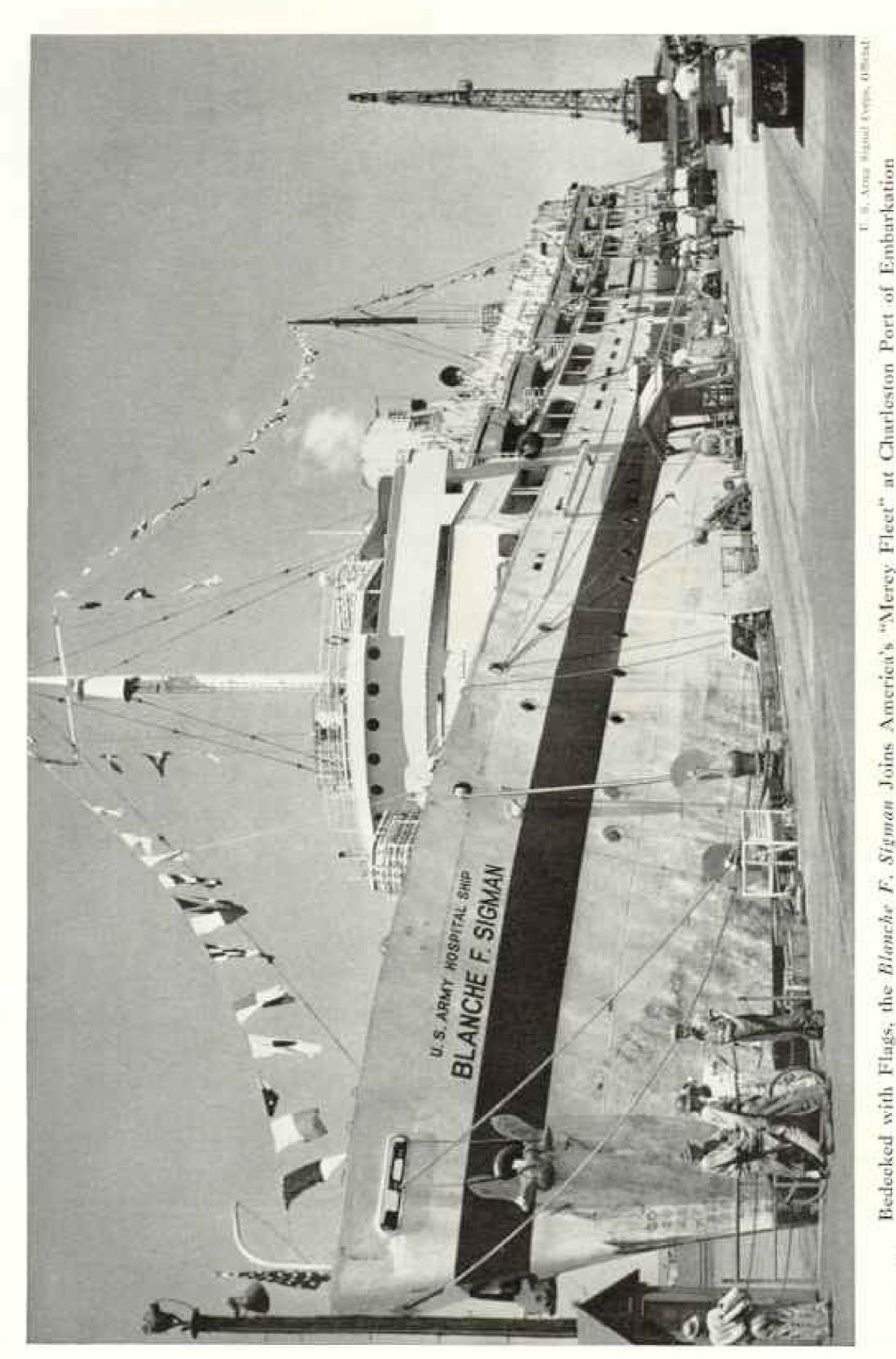
† See "Charleston: Where Mellow Past and Present Meet," by DuBose Heyward, in the National Geocouring Magazine, March, 1939.



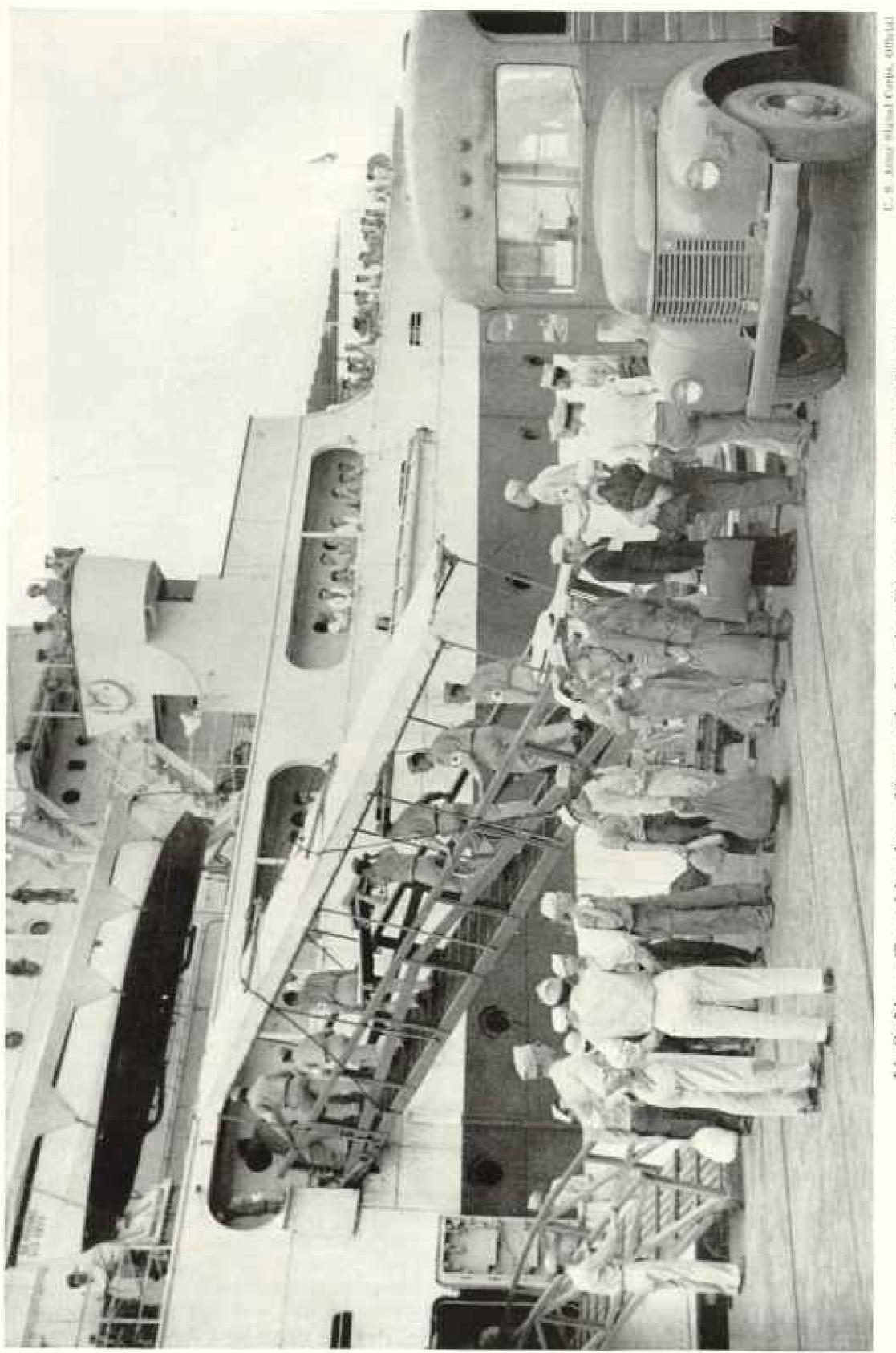
U. S. Army Shrud Corps, Official

Nazi Mortars Stopped Lt. Reid Durbin

Before he was hit, this Infantry officer from Connellsville, Pennsylvania, participated in four major engagements and won both the Silver and Bronze Star Medals for gallantry in action. Here he is ready to disembark from the Army hospital ship Saint Olaj.



First Liberty vessel to be converted into an Army hospital ship, she is named after Lieutenant, Army nurse, who with her colleague, Lt. Carrie Shretz, was killed when a Nazi plane bombed their hospital on the Anglo beachhoad. They were the first Army nurses to die of events action in this war. Our hospital ships, easily identified by a wide green band painted around the bull and an illuminated Cross on the smokestack, sail across the Atlantic unceented, with all lights hurning.



U. S. Navy Casualties from Normandy Invasion Waters Disembark at Charleston

Some were wounded white on shote duty in Cherbourg. They have returned on an Army bospital ship, the Wisteria, Going aboard are Medical Corpsmen who will exceed the Normandy coust, court, "walking" patients (page 340). The Navy hospital ship Refuge brought back many soldiers who were wounded on the Normandy coust,



U. S. Army Signal Corps, Official

Autographs of This Army Nurse Are Prized War Mementos

Second Lt. Honita Gelber, of Los Angeles, inscribes copies of the Saint Olaf's ship paper for two of her patients, Pfc. Alvin N. Galtman, fellow Californian, and Sgt. Myron N. Ranney, right, paratrooper from Sheldon, North Dakota. Medical Corpsmen and crew members on Army hospital ships publish mimeographed daily newspapers for their patients (page 349).

cranes, derricks, and tugs. His friend could think of no response. He just kept on looking.

Soon the Port of Embarkation docks came into view. Then, a little later, faint snatches of music could be heard. The Joes on deck listened attentively. As the ship drew nearer it became unmistakably evident that they were hearing "Stars and Stripes Forever."

"Oh, boy!" shouted a GI, "It's a band!"
As a matter of fact, there were two bands,
the 381st and 711th Army Bands. The
famous WAC band from Stark General Hospital also participates in these greetings (page
344).

The hospital ships have been coming to Charleston since November, 1943, and up to January 12, 1945, had brought home 34,396 patients. Every time one docks it is a new story, not only to the GFs immediately affected but to everyone else.

"Something about this terrible anxiety to

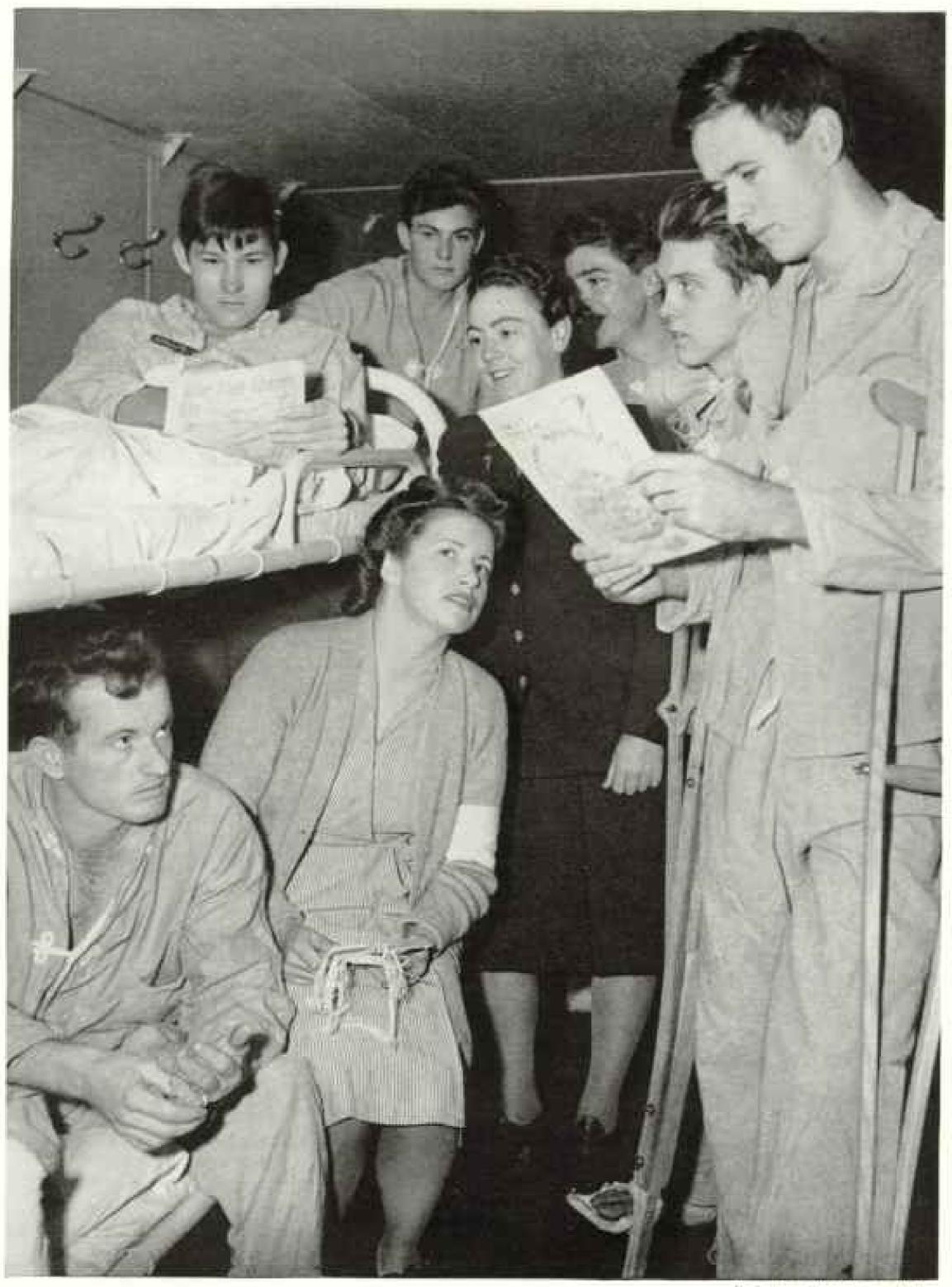
get home is transmitted from the men to everyone connected with the ships and their evacuation," Captain MacDonald told me, and I was soon to see this for myself.

The dock was a scene of orderly activity. The band swung into "Roll Out the Barrel." Down the street, stepping smartly, came two platoons of Negro litter bearers, on their way to the litters neatly stacked behind the band-stand. Over at one side stood the ambulances and buses, each driven by a WAC, waiting their turn to line up near the gangplanks.

Near the edge of the dock a small derrick stood by to lift the gangplanks up to the ship.

Now all the rails on the land side of the ship were crowded with boys. Heads stuck from every porthole. Slowly the Saint Mihiel drew alongside and was made fast. Up went the gangplanks and soon they were secured.

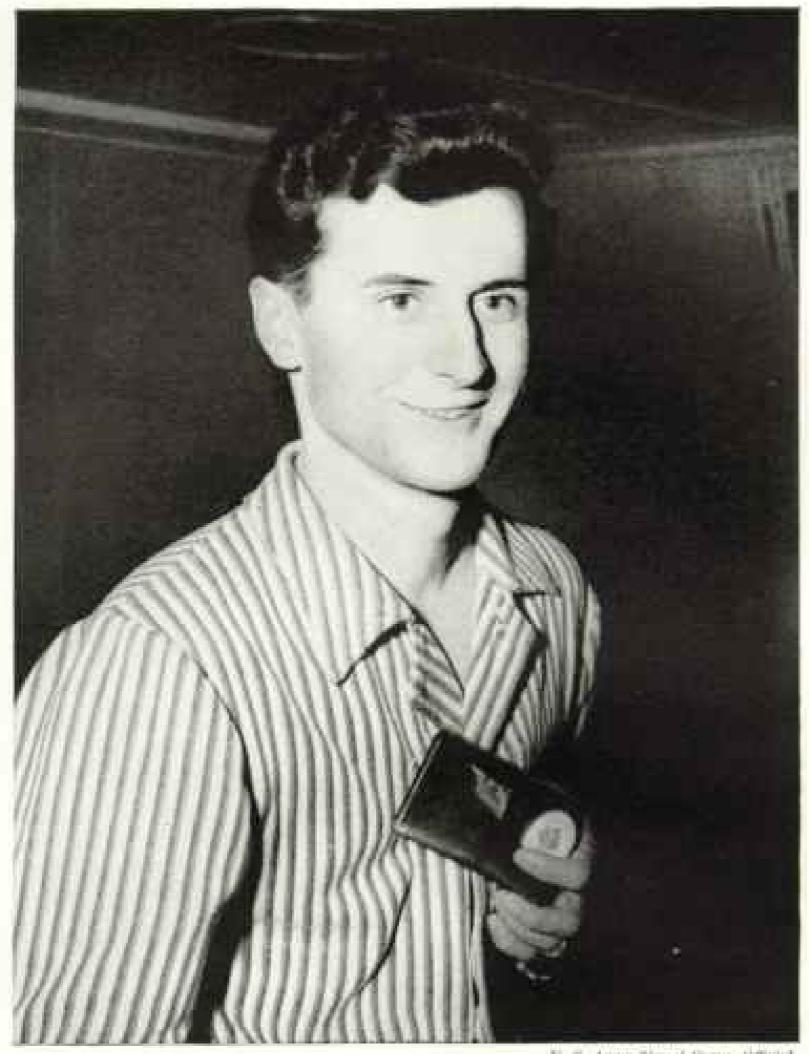
General Duke boarded the ship. With him as guests were Rear Admiral Jules James,



P. S. Army Signal Corps. Official

Signature Swapping by Nurses and Patients Keeps Alive Shipboard Friendships

Soon litter bearers will enter this ward of the hospital ship Wisteria to take the boys ashore. Many litter patients could walk down the gangplank, but their casts and bandages make donning of uniforms impracticable. Best way to keep them warm on route to Stark General Hospital is between blankets on a litter (page 334).



U. S. Army Signal Corps, tifficial

Sgt. Don Schlaff's Leather Wallet Saved His Life

He was wearing it in his breast pocket, over his heart, during an engagement near Caen in Normandy. A piece of Nazi shrappel tore across his left arm, penetrated the wallet, cut the cellophane wrapper around a religious medal within the purse, then ricocheted across his right arm (page 334). He is holding the medal with the wallet. Schlaff wears the top piece of a suit of German Army hospital pajamas. It was among supplies captured by American soldiers in their swift drive across Normandy last summer and was quickly put to use.

commandant of the Sixth Naval District, which includes the Charleston Navy Yard; the Governor of Georgia, Ellis Arnall; and Mrs. Duke and Mrs. Arnall.

No time was lost in removing the boys. From the moment the boarding party reached the ship, the medical officers had been tagging the patients. Surgical cases wore blue tags; medical cases, red; and neuropsychiatric cases, green,

First to land were a half-dozen litter patients who were seriously ill and needed immediate hospital attention. They were placed in special ambulances and whisked off to Stark General Hospital three miles away. This hospital also was the destination of all the other patients. From there they are sent to hospitals equipped to supply the specialized treatment necessary to recovery, Efforts are made to place them as near their homes as possible, but placement, of course, depends entirely on availability of treatment.

Relatives are not advised of the arrival of wounded soldiers at Charleston, Speed in evacuation is all-important to the patients when the ship docks. To have relatives present at such a time would throw the whole rapid unloading system into confusion, with serious effects on the hoys themselves. Few visitors are permitted at the Port under any circumstances.

Hold That Soldier Kit!

By the time the emergency cases have been removed, the first man in a file of walking patients has reached the gangplank. His soldier kit and other meager belongings are

handed to an escort, who carries them down the gangplank, follows him to his bus, and then puts his possessions back into his hands.

Our wounded GI's demand very little. Only clothes the walking patients have when they leave ship are the uniforms they are wearing. Litter patients have only pajamas. They care nothing about this. Aren't they going to get whole new issues of clothing at the hospital?

But look out for those soldier kits. Within them are those all-important souvenirs GI Joe is taking home to the folks. Also within them are little articles, Testaments, all sorts of items sent to him by Mom, or Dad, or his sweetheart, maybe.

Joe has learned that this is a big army and even a general's baggage can go astray. So he is taking no chances and, at the Charleston Port of Embarkation, General Duke backs him up. It's a cardinal sin to let a man get separated from his personal effects there.

That is why the escort trails his patient down the gangplank. For when the GI finally steps on the Charleston dock (and sometimes he pauses to pat the concrete or even kneels to kiss it), he is directed to one of three buses, depending on whether his ticket is blue, green, or red. If the escort goes ahead of him, he may wander to the wrong bus, but if he trails him, that valuable soldier kit is sure to be restored to its rightful owner.

While the walking patients are disembarking to the tune of "There'll Be a Hot Time in the Old Town Tonight" and other stirring old-time favorites, the litter bearers are entering by the second gangplank and preparing to remove

the boys who cannot walk.

Then abruptly the band stops. In the sudden hush, a handful of mental cases leave the ship. All the other wearers of green tags have departed to the tune of martial music. Some have had the run of the ship throughout the voyage home. Battle fatigue, constant exposure to shellfire and bombing, and all the other horrors of modern warfare have affected their stability, but a large proportion will "snap out of it" and completely recover.



U. R. Army Highal Corps, Official.

No More Room for Service Stripes, George A. ("Pop") Sheridan Comes Home

Star-spangled ribbons on his chest cover service in World Wars I and II and in the Mexican Border Patrol. On his sleeve, from top to bottom, are Army Service Forces insignia, staff sermant's chevrons, three inverted chevrons for one and one-half years' overseas service in the first World War, six bars for three years' overseas service in the present war, and service stripes representing 27 years in the Army. It regulations did not forbid, and if there were room, he could wear more service stripes for 14 years in the National Guard. "Pop," a patient aboard the Chateau Thierry, comes from Pittsburgh.

> Upon the nervous systems of a few, war has been much harsher. For them band music upon their home-coming would be too much of a strain. Down the gangplank they come, silently, an escort on either side. Into a bus they clamber, and they are driven away. The band begins to play again.

To the tune of "Ciribiribin" the procession of litter patients begins. No matter how .. seriously injured a boy may be-and some of them are hurt terribly—each promptly



Less than two hours after un Army hespital ship ties up at the Port of Embarkation, all the patients abound have been evacuated and are en route to Stark General Hospital, these miles away. Ships of Uncle Sam's "mercy fleet" have carried from 285 to 790 patients on their trips from Europe.



Uncle Sam's "mercy fleet," (page 349). Today 51,000 Army and Navy nurses are in service at home and merican casualties. With the nurses is Mrs. W. G. Cronk, of Norwalk, Otio, aunt of Lieutenant Sigman. S. Army Hospital Ship Blanche F. Sigman Here the nurses turn out to help dedicate the new addition to Uncle Sam's "mere abroad, but 22,000 more are needed to care adequately for American casualties.



Wounded Soldiers Descend the Gangplank to American Soil at Charleston WACS "Strike Up the Band" When

The WAC musicians from Stark General Hospital, led by Warrant Officer Florence A. Love, supplement the music of two Port of Embarkation bands in greeting GF's when hospital ships dock (page 338). The WACS have four other bands—two at Des Momes, lown, one at Fort Oglethorpe, Georgia, and one at Fort Hamilton. Brooklyn, New York. The Chateau Thierry in bankground is one of 19 hospital ships operated by the Army Transportation Corps. Home port for 17 of them is Charleston; Los Angeles. Some are new Liberty ships, others and Army transports, all converted into modern floating hospitals. a one of 19 hospital ships operated by the Army Transportation Corps. Home port for 17 of them is erty ships, others prewar freighters and Army transports, all converted into modern floating hospitals.



This Soldier Built Ship Models to Pass the Time at Sea

The Wounded in one leg when a German SS-mm, shell came through the side of after the tank at Anzlo, Staff Sgt. James J. Telchman, of Novelty, Oblo, is a patient out aboard the Army hospital ship Thistle. Fellow patients, Army nurses, and doctors autographed the sails of the four-masted schouner in his right hand.

He Destroyed Two Nazi Machine Gun Nests Singlehanded

So Staff Sgt. Albert S. Hudgeons brings back a Silver Star for gallantry in action in the face of the chemy. Here aboard the Army hospital ship Salut Olaf he looks forward to returning to his San Antonio, Texas, home as soon as possible. Awaiting him is a seven-months-old daughter he has never seen



U. S. Army Signal Corps, Official

Infantry, Armored, Airborne, and Air Forces Officers Earn a Trip Home

Wounded in action, they were on the Saint Olaf when it docked at Charleston. Back row, (l. to r.), Lt. Joseph Paris, Rochester, N. Y.; Lt. Reid Durbin, Connellsville, Pa.; Lt. John G. Getsinger, Polkton, N. C. Front, Lt. Paul Fellman, Montreal, Wis.; Maj. Edward D. Taylor, Durant, Okla.; Lt. Charles R. Gaudio, Sacramento, Calif.



U. S. Arms Signal Corps. Official

A Red Cross Assistant Field Director Abourd the Wisteria Turns Newsboy.

Miss Joan Peterson, of Minneuta, Minnesota, hands a copy of the hospital ship's paper, the Sult Shaker, to Pic. Gabriel S. Garcia, of Stafford, Texas. Reading his copy in the lower berth is Pic. Ivan Walth, of Mobridge, South Dakota. Aboard each Army hospital ship is a Red Cross representative (page 348).

raises his head to look about and grin broadly as he sees America once more.

Particularly gentle and careful are the Negro bearers. Four men to a litter, they descend the steep gangplank warily, keeping the litter perfectly level. Seven ambulances are drawn up in a line. Four patients are placed in each for the three-mile journey to the hospital. As one ambulance is filled, its WAC driver pulls away and another takes its place.

A Red Cross "Handout"

There is one welcome interruption of the procession as it leaves the dock. A hundred yards from the gangplank each bus and ambulance stops at a Red Cross hut, where the patients are treated to doughnuts and milk. Experience has taught that, despite the eagerness of the boys to be on their homeward way from the moment the ship leaves its European port, this halt for refreshments

is welcome. It is, for one thing, definite proof to the boys that they are really back in the States.

The Red Cross "handout" gives them a little further boost in morale. Members of Charleston's Red Cross Chapter man the hut. The luncheon also fills a little gap between meals.

The time of debarkation is based on two factors. First, evacuation of the ship must start soon after a meal, so that the last boy off the ship gets to the hospital in ample time for his next meal. No one goes hungry while leaving ship.

Second, evacuation must be timed so that the procession of buses and ambulances will not encounter Charleston's rush-hour traffic, when 35,000 war workers are driving madly between their homes and their jobs.

When one of the first hospital ships docked at Charleston, the train of wounded did encounter rush-hour traffic, and a bus bearing a group of patients was damaged in collision with a truck. Attendants lined the patients up on the sidewalk to await another bus. Suddenly two Navy seaplanes passed over the scene. Instinctively, and without warning, every patient flung himself into a near-by ditch for shelter from an imagined attack from the air.

From that day on, debarkation schedules have been adjusted to avoid any such disturbing incident.

While the litter patients were being removed, I went back onto the ship and talked to Miss Norma Alice Thompson, Red Cross Assistant Field Director assigned to the Saint Mihiel. Miss Thompson had just completed her tenth crossing of the Atlantic in this capacity. She was very busy at the moment, sewing a hook and eye on a soldier's uniform, finishing touch to make him spick-and-span when he went ashore.

During this crossing, she had arranged symphony concerts which were broadcast to all wards. Before the concerts, mimeographed sheets containing descriptions of the works to be played and brief sketches of the composers were distributed to all patients. One typical concert included Franck's Symphony in D Minor; Beethoven's "Ode to Joy" from the Ninth Symphony; selections from Richard Strauss's "Der Rosenkavalier"; and Ravel's "Bolero."

Another event in which scores of patients participated was an art exhibit. The prize winners were sketches of exceptional artistic merit.

To learn more about routine aboard ship during crossings, I visited another hospital ship, the Chateau Thierry, which had arrived the day before and had discharged all its patients. Here I could chat with the head nurse and the chaplain at some length, an impossibility on the Saint Mihiel where everyone was thoroughly occupied with the unloading.

Milk and "Eggs with Shells On" Captivate Patients

Although she understands myriad things about wounded doughboys, Capt. Ruth B. Anderson, the head nurse, still marvels at

their capacity for milk and eggs.

"The first three days the boys are aboard ship," she said, "they just can't drink enough milk. Some of them haven't had fresh milk for more than a year, and they want to drink it almost continuously. We stock up our refrigerators when we leave the States and freeze the milk to keep it sweet until we start back from Europe. Then the boys go after it by the gallon. "'Eggs with shells on' are another wonder for the boys, who have been limited to the use of powdered eggs for many months. About the fourth day at sea their appetites begin to taper off slightly, but still they cat enormous quantities of food all the way home. It is not uncommon for them to gain from eight to ten pounds while aboard ship."

Captain Anderson and the 33 other Army nurses aboard the Chateau Thierry were unanimous in praising the spirit of the wounded American soldier. But the patients were just as emphatic in expressing their ap-

proval of the nurses.

"They couldn't do enough for us," one sergeant told me, "If a GI wanted a roast-beef sandwich at 3 o'clock in the morning, all he had to do was to ask for it. The nurses seemed to work 24 hours a day during the crossing."

Medical Department enlisted personnel also are a vital factor in keeping the patients contented and well on their way across the ocean. Usually, in addition to 20 or 25 Medical Department officers—physicians, surgeons, psychiatrists, dentists—there are between 125 and 150 enlisted medics aboard.

The masters and crews of the Army hospital ships are men of the Merchant Marine, employed in Civil Service status by the Transportation Corps. The Medical Department, working hand in glove with the Transportation Corps, makes available the medical personnel, officer and enlisted, and the nurses. The Chief Surgeon aboard one of the mercy vessels always is the hospital ship commander. All personnel is under the commanding general of the home port.

In addition to their regular duties, the medics and Merchant Marine crewmen everybody aboard, in fact—contribute to the entertainment of the patients. Very often such contributions are made in the "off time" allotted to such personnel. But they

love it.

The Special Services officer, whether he is chaplain or a Medical Department officer, finds plenty of assistance among the enlisted medics and the crew. They take care of motion pictures, showing them in the wards on a translucent screen set up in a central location. The picture can be seen from either side of the screen, and every patient thus gets a good view from his own bunk.

Enlisted men with musical talent, augmented sometimes by crew members, form strolling troupes, which pass through the wards playing and singing. Sometimes talented patients, who before the war belonged to symphony orchestras, dance bands, etc., or who



C. S. Acons Manual Corps, Official

"Happy Landing"

Army Nurse Grace E. Rossiter, of New York City, in her serrsucker hospital uniform, says goodbye to a patient, First Lt. Dalton W. Smith, of Sacramento, California, as their Army hospital ship Algonquin docks at Charleston. Above them on the wall are a Distinguished Flying Cross, an Air Medal, and a Purple Heart, awarded to Lieutenant Smith for his combat flying over Europe in a B-24.

were amateur or professional entertainers, swell the ranks of the "strolling players."

The medics, or other groups aboard the ships, also publish a daily paper for the patients, printing late war bulletins, "scuttle butt," wisecracks, and GI banter.

Each ship has aboard a dietitian, whose attention is directed to a few patients needing special diets. Second Lt. Margaret C. Fogarty, the Chateau Thierry's dietitian, added to her duties on a recent trip the planning of a special all-American dinner for patients on the evening before the ship docked at Charleston.

The menu included Florida fruit cocktail, roast Vermont turkey, Virginia ham, mashed Georgia yams, baked Idaho potatoes, Hawaiian pincapple, and gallons of fresh milk. Capt. Edward J. McTague, the Chateau Thierry's chaplain, was enthusiastic over an altar, adaptable to Catholic, Protestant, and Jewish services, which the crew had built for him on this trip in one end of their mess hall.

"It is a great convenience aboard ship," said he, "When you try to conduct a service on deck in rough weather, you often find your chaplain skidding one way, the service skidding another, and the congregation ducking."

Uncle Sum's Mercy Fleet

The Saint Mihiel and the Chateau Thierry are part of a mercy fleet of seventeen hospital ships which bring wounded soldiers, and sometimes sailors, into their "home port" of Charleston. Five others are operating in the



Twice Pvt. Mark R. Gadd, of New York, Received the Bronze Star for Gallantry. The 20-year-old "veteran" impatiently waits for fitter bearers to remove him from the Shamrack.



U. S. Army Stgnal Corps, Official

Firsthand News for His Home Folks in Wayeross, Georgia

Sgt. James E. Smith, who fought in General Patton's Third Army in France, talks with WAC Capt, Elizabeth MacDonald at Charleston. Injured by a German burp gun (Schmeisser machine pistol, similar to our Tommy gun), he is waiting his turn to disembark from the Saint Olaf. Cartoons enliven his bandages.

Pacific, with the Los Angeles Port of Embarkation their home port.

These ships are floating hospitals with
equipment and medical
staffs matched only by
the most modern land
hospitals. They are
outfitted with modern
operating. X-ray, laboratory, dental, and
dressing-station rooms;
recreation rooms; bakeries, pantries, diet
kitchens, and vegetable
and butcher shops.

Huge freezing units are stocked with milk and eggs, and also with tons of fresh meat and hundreds of gallons of ice cream.

Large vacuum systems ensure circulation of cool or warm air. Lifeboats are especially designed to permit easy, speedy, and safe launching.

Our hospital ships, painted white with a 5-foot green band running around the hull, sall with lights burning at night. There are no weapons aboard. They are recognized by friend and foe, in effect, as neutrals and are protected by civilized nations at war.

The first ship converted to hospital use in this war was the Acadia, of the Eastern Steamship Lines, on

April 28, 1943. Her name has been retained by the Army.

The Saint Mikiel is a former U. S. Army troop transport, which had been in service since 1920. The 8,000-ton vessel, 437 feet long, joined the hospital fleet in May, 1944. The Chateau Thierry also is an ex-Army troop transport.

Others are former de luxe passenger liners, such as the *Emily H. M. Weder*, formerly the American President Lines' *President Bu*chanan. Still others are new Liberty ships.



U. S. Army Signal Corps. Official

"My Hair Has Been Standing Up Like That Ever Since They Got Me"

That's how this 24-year-old paratrooper, Pfc. James R. Mylett, of Peoria, Illinois, preferred to explain his unruly locks. He was wounded on invasion-day morning, when he landed in the camouflaged bivouac area of the 704th German coastal defense division in Normandy, and underwent two operations in German Army hospitals. A German medical officer amputated his left leg below the knee. An "A-1" job, American Army doctors called it. Here in his bunk aboard the Wisteria, the boy holds a panel from a German paratrooper's white chute and a strip of his own mottled American silk.

The Jarrett M. Huddleston is named for Colonel Huddleston, of the Army Medical Corps, who was killed in action in Italy in 1944.

The Blanche F. Sigman is named for one of the first two U. S. Army nurses to die of enemy action in this war (page 336). Lieutenant Sigman also met her death in Italy.

The Larkspur once was the Breslau, a German Navy tender ceded to the United States after the first World War and used until the outbreak of present hostilities as a freighter. Two new Army hospital ships soon will be added to the Army Transportation Corps fleet. Five troopships also are being converted into new ambulance-type hospital ships.

Five hospital ships are operated by the United States Navy—the prewar Relief, the Samaritan, Refuge, Solace, and Bountiful. Six more, 15,000-ton new Haven-class hospital ships, will be added during 1945. The first of these, the Tranquillity, was commissioned in February.

Patients' Roster Radioed to U. S.

Getting wounded soldiers from hospitals abroad to hospitals in this country is the job of the Army Transportation Corps, commanded by Maj. Gen. Charles P. Gross. To do it rapidly, efficiently, and in the best interests of the patients requires a tremendous amount of detail work.

Twenty-four hours after a hospital ship has left a European port, plans for its reception begin. Medical classification of each patient is radioed to the Charleston Port of Embarkation. Also included are rank or grade, name, serial number, military occupational specialty, and arm of service of each man.

Specific plans for each individual soldier's care thus can be completed before the ship docks.

Only through experience can such plans operate smoothly. When the Acadia first docked at Charleston Port of Embarkation, the Port authorities were happy to be able to evacuate her in five hours. Today a hospital ship is completely evacuated in from one and a half to two hours.

General Duke, whose distinguished Army career goes back nearly 30 years, has been in command at Charleston Port of Embarkation since June 29, 1942. Ever since it became the home port for the hospital ships, the commander and his staff have sought to improve evacuation methods. They are equally anxious to continue improvement of service on the hospital ships.

To this end, they invite criticisms and suggestions from the returning wounded. These are carefully studied and in many instances have resulted in better service.

"There is one goal, however," General Duke told me, "that we will never attain. We never will be able to get the boys home fast enough. If we could cut the whole trip from the European hospital to their home firesides down to two days, it would still seem too long to them. But we do try to shorten that trip in every possible way, and we try to make it as pleasant as possible."

General Duke's insistence on criticism and suggestions, however, has had another result not anticipated. Instead of criticizing the attention which they have received on their homeward voyage, virtually all the wounded soldiers write letters of praise and thanks.

Frequently one man in a ward will be selected to write such a letter to the commanding medical officer on the ship, and then every man in the ward will sign his name. Often an individual soldier, impressed by the care and attention he has received, will write his own personal letter of thanks.

Homely Thanks from Private Hensley

Some of these are beautifully phrased; others are drawn almost in the form of resolutions. But none better conveys the heartfelt sentiments of the patients than a homely letter which Lt. Col. Boen Swinny, medical officer in command of the Saint Mihiel, received from one of his patients, a boy from Knox County, Kentucky. It was written by Pfc. J. H. Hensley, who was a litter patient with a fractured foot. The letter follows:

Sunday Sep 24 1944

Dear Frends:

Just a fue lins to say how much I rely thank you all for the good cear and I thank the chaplan for the nise words and the sweet prairs that He brought to us each morning. And I want to thank the cooks for the good mess the have repared for us all and my bes wish to them all.

And I want to thank the ship comander for the nise words he has spoke and the nise things He has don for us all. My bis wish for him and the ship pilout. I want to thank the ward boys for the tims they have wated on me and the good things the have don for me.

My best wishes for them all and I want to thank all of the Doctors and M.D. for ther nise cear the have give me. My bes wish. And I want to say that I rely preshate my sweet and kind nurses for the times the wated on me and the things the have don for me, my best wishes for them and may God Bless them all.

And I want to thank the specal service and the Red Cross for the things the have gave me, my best wishes to them all.

From your truly
FFC J. H. Hensley
35706243
Elys, Ky
Knox County

Battleship Missouri Comes of Age



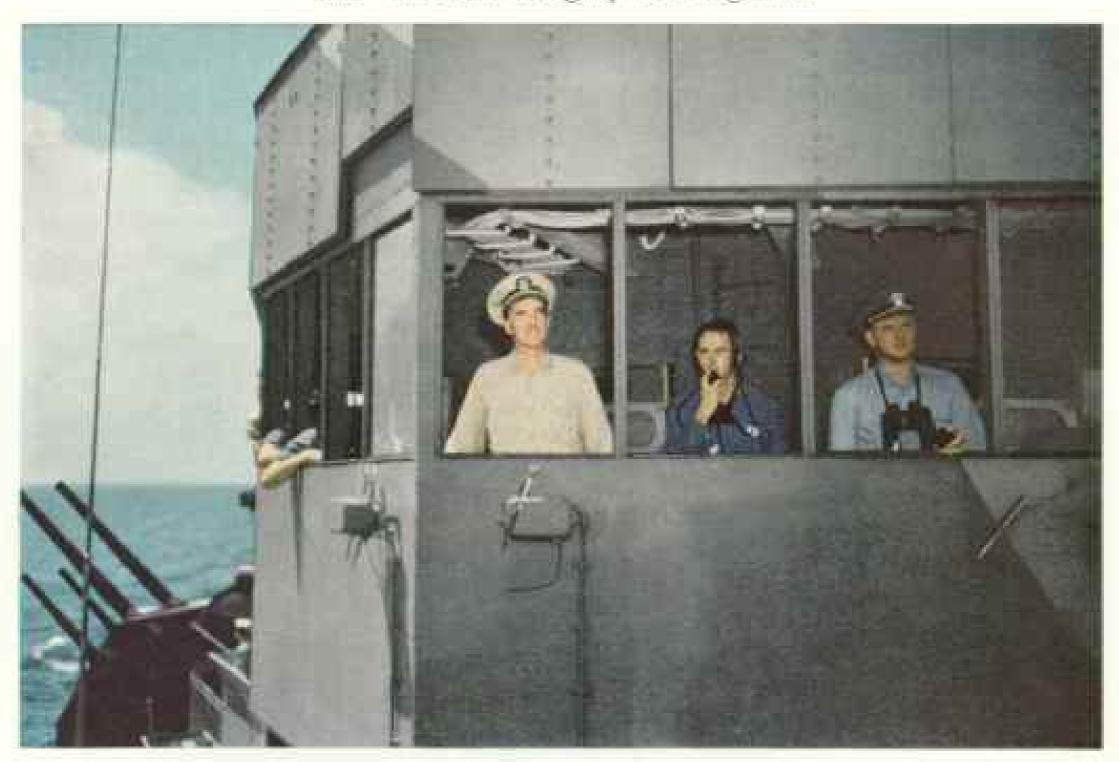
C National Geographic Foreign

Kodarhiome, U. S. Navy, Official

U. S. S. Missouri in Battle Dress Gets Under Way to Meet the Japs

Like a lady's flat hat, a gun tub perches saucily on her high-set bow. Fourth of the Navy's bargest, newest battleships of the Iotog class, she bristles with antiaircraft and 16-inch guns. When a "battle wagon" lets go at enemy planes, she becomes a mammoth Fourth of July "flowerpot," spouting flames, tracers, shells, and smoke with a terrifying roar. With top speed of 30 knots, she can croise with carriers, giving antiaircraft and surface protection. Missouri's upswept prow throws off spray and waves, making gunnery efficient even in rough head seas. Rarely, she buries her bow in a wave, flooding forward "bathtubs," as gunners call splinter shields.

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From the Bridge, the Missouri's Brains and Eyes Constantly Search for the Enemy

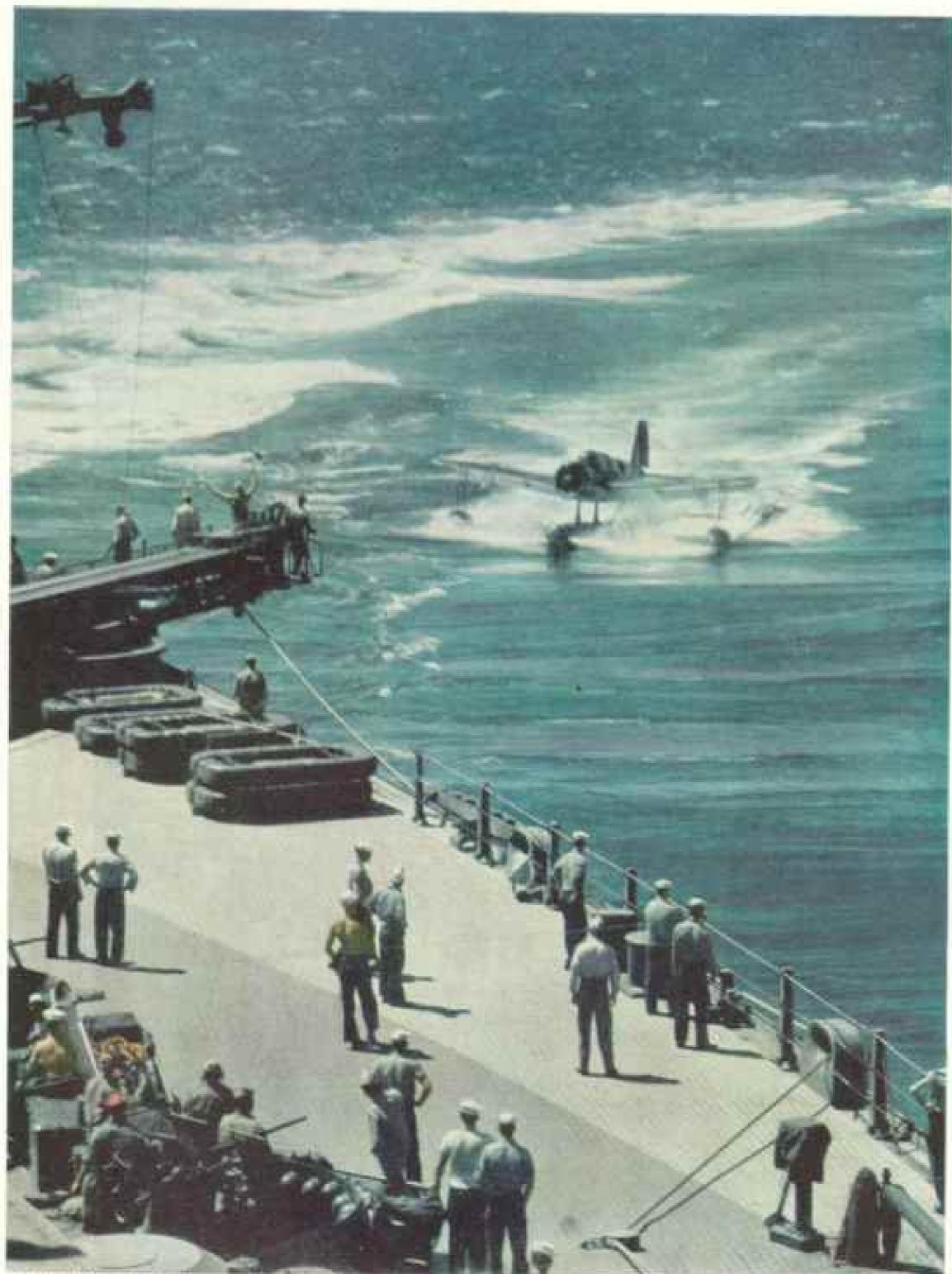
Any Navy man can spot the captain by his keen look and confident alr and the officer of the deck with his ever-present binoculars. Behind splinter steel these two direct the colossal ship by the yeoman talker (center) and electric controls, like the nerve system of a human. Note windshield wipers and 5-inch AA guns.



D National Generalitie median

Kedathroma, P., S. Neep, Official

"Hooking On!"—A Scout Plane Nestles to the Mother Ship after Spotting Gunfire Swiftly, lest plane be dashed against ship, radioman connects the book to a lifting bridle, the crane whisks the plane overside. To protect fragile wings, men turn the plane with gays, push it off with a pole.



Stational Generaphia Society

Kedarhione, U. S. Ney, Official

As the Missouri Turns, Her Kinglisher Lands in the Slick, Taxies to Her Side

Even in heavy seas, a battleship can pick up her scout planes at high speed by swinging across the wind and making a lee with smooth water for the planes to land on. Perched on the catapult, a signalman with flags guides the pilot. In the foreground, snug against 20-ram, AA gun tubs, hang new-type float-net life rafts. Beside the catapult nest doughnut life rafts. Battleships in wartime carry no lifeboats.



With a fremondous flash, Minone's two forward turnets let go at the far-distunt target. To prevent the one-ton shells from "kissing" (interfering with) each other, the guns are not fired at exactly the same instant; hence the regularly spaced interval between the shells. Here the ship uses smokeless powder. At night, when smoke is no telluale, she expends flashless powder. Blust chains the water in front of the gunz, If the after turnet were firing, the even would strike, or lower, the came. One of the Most Extraordinary Color Photographs Ever Taken-Six 16-inch Shells Caught as They Fly Through the Air



as They Wind the Missouri, Turning Her in a Narrow Channel Six Tugs Puff and Groan

At quarters, Marines and saffors are drawn up on the long "plowshare" bow, which distinguishes the Jours-class battleships and gives them high speed. One big turnet with its three 16-inch, 66-foot-long rifles, heavy armor plating, barbette, and machinery weighs more than a destroyer. Each gun can five a one-ton shell 20 miles.

The National Geographic Magazine



D Nictional Geographic Burkety

Ristlamfitume, U. S. Navy, Official

Next Time Missouri Anchors, "Her Hook May Be Frozen in the Hawsepipe"

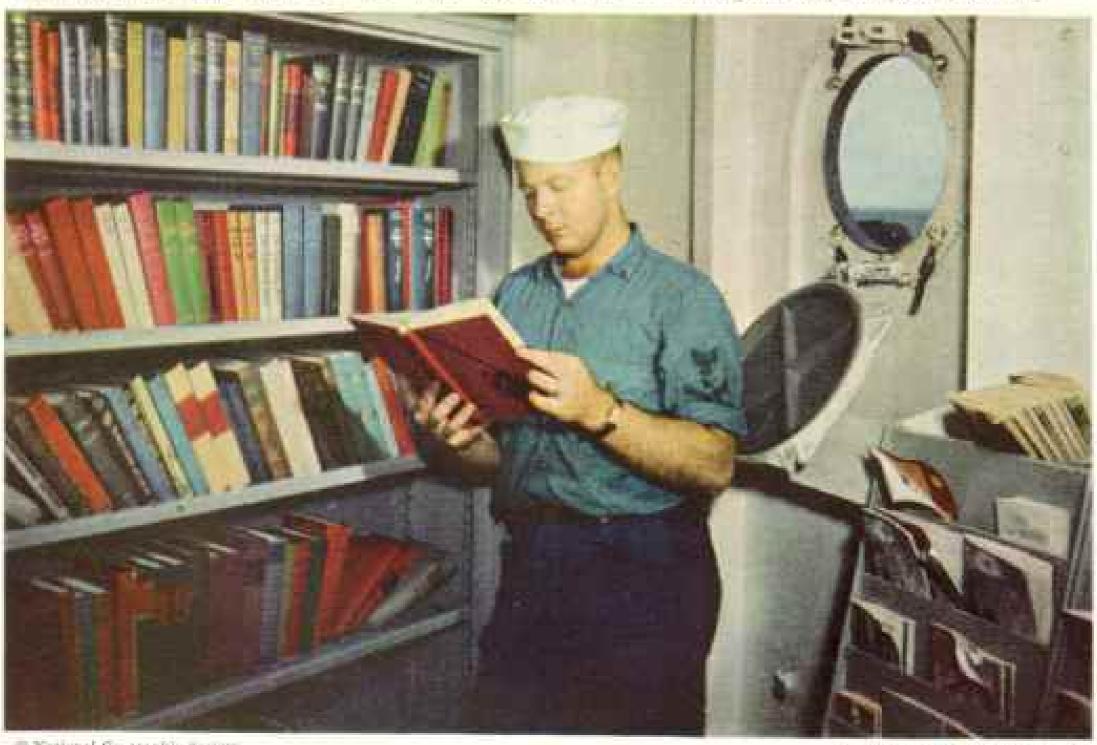
So self-sufficient are such big ships that they can remain at sea as long as three months without putting into port for fuel, food, and ammunition. In fact, the sailors' saying about the anchor, here being boxed and housed after weighing, often comes true; it sticks in the hawsepipe from rust and salt spray. The smooth flow and easy entrance of the bow is shown clearly in this unusual view.

Battleship Missouri Comes of Age



Here the Navigator Tracks the Ship's Course and Plots Her Position

On the bulkhend (upper left) a dead-reckoning recorder indicates latitude and longitude, figured automutically from the ship's speed and her gyrocompans courses. As errors occur, because of currents and drift, the navigator corrects them with his "fixes," worked out from shooting the sun, stars, or landmarks.



National Geographic Society

K-metromes, U. S. Naty, Official

A Battleship's Library May Contain 2,000 Books, in the Chaplain's Charge

Libraries are kept up-to-date by monthly shipments. A glassless porthole is permitted in this cabin in the superstructure, which need not be watertight. The port is dogged (clamped) light-tight at night,

The National Geographic Magazine



If This Metal Piano Got Loose in a Storm, It Would Become a Wild, Butting Ram Pianos are morale boosters for the seamen on long cruises. Helmets are kept ever ready in racks all over the ship. These are painted red to identify damage-control men who stop leaks and fight fires.



@ Nathand Gromunite Society

Sick Bay Can Handle Twoscore Stretcher Patients

The primary purpose of the ship's hospital is to care for routine sicknesses and injuries of crewmen. In hattle, large crew living spaces with tiers of bunks are converted into temporary sick bays. Several emergency operating rooms are provided in different parts of the ship. Patient at right receives heat therapy.

A City Learns to Smile Again

By Maj. Frederick G. Voshurgh, AC *

SLOWLY, heart-warmingly, before our eyes, a city is coming back to life after years under the German jack boot. It is like a hardy wild flower, bent but not crushed by a careless heel.

After the first wave of hysteria with which Nancy, hub of the Lorraine region, welcomed the liberating Americans, it became apparent that this was a city which had forgotten how to smile. Dreary years under Nazi rule leave marks which cannot be erased in a day.

If for four years, day in, day out, you had been walking your streets with sober dignity in the presence of the conqueror, never smiling nor chatting lightly with the enemy, then you could not, in a single day, learn to walk with laughter again.

We have been here for many weeks, and now, suddenly, I am aware of a change. Doubtless it has been going on all the time, too slowly to be perceptible unless one looked back to a few weeks ago. It is not one thing, but the sum of many.

Omens of Normal Living

A small boy clattering along on woodensoled shoes, his bare knees purple in the cold, hails an American soldier with a bright "Hello" or "Goodbye"—they sometimes get the two mixed. He shakes hands in the formal French manner, finds a stick of gum in the soldier's big palm, shakes hands again, exclaims "Merci!" (Pages 366, 381.) And he goes his way with jaws beatifically moving, like those of our gum chums in England of old.†

A storekeeper puts hand-carved toy jeeps in his window and sells them all before he even has time to raise the price. I doubt that anybody ever got rich trying to sell a wooden Volkswagen here.

At a newsstand, post cards show a handsome Yank driving away a loutish Kraut and rescuing a fair maid of Lorraine, who on

* Member of the Editorial Staff of the National Geographic Magazine now on leave of absence, Major Vosbuegh has been overseas since September, 1942. He is author of a number of important articles for The Geographic. His exceptional reportorial ability and knowledge of mapping particularly qualified him for his duties with the Army Air Forces. He is now in France with the XIX Tactical Air Command.

† See "When GI Joes Took London," by Maj, Frederick Simpich, Jr., in the National Geographic Magazine, September, 1944.

See, in the National Geographic Magazine, February, 1940, "France Farms as War Wages," by Harrison Howell Walker.

tiptoe rewards him with a kiss. These post cards in praise of the Americans, I notice, are mostly sold to the Americans.

Girls are seen jitterbugging with as much gusto as any bobby-socked U.S.A. sophomore. Good French girls never danced with the Germans, and many are dancing now for the first time in years (page 384). Even yet, the curfew makes such occasions rare.

Downy-cheeked young Frenchmen are jitterbugging, too, though more of them are drilling with rifle on shoulder, grimly, but as if they enjoyed it.

More people are carrying big brown loaves of French bread as they walk home to lunch or dinner—crusty, submarine-shaped, two-foot loaves, unwrapped, or bread in the form of a ring hanging from the handle bars of a bicycle. The Germans blew up the city flour mill as one of their parting "acts of war."

Townsfolk are looking a little less starved. I hope that is not my imagination. Nearly all have been undernourished for years. Many adults have lost 40 pounds or more and seem deathly frail in their too-big prewar clothes.

In the country districts of Normandy and Brittany, out of easy reach of the rapacious Reich, I got the impression that the French had eaten better than the English.; Transport troubles worked to the advantage of farmers, leaving the food in the region where it grew. But in Nancy most people are hatrack thin.

Not Enough Food for Pets

Why, I wondered at first, are there almost no dogs? Then I knew: Children must eat before chicus.

Milk here has been a luxury known to few but small babies, invalids, and the very old. The Germans took many of the cows, and countless others have died ponderously in their pastures—true innocent bystanders of war. I have seen their bodies from St. Lo to Metz, riddled with bullets or blasted by bombs.

Beside a single bomb crater I once counted eight, knocked dead in "mid-cudchew," somehow giving an impression of mute, monstrous amazement. Legs stuck out stiffly, like the legs of toys, and bodies were balloonlike in the summer heat. The less penetrating power of aromas is one of the few advantages of a winter war.

Then, the other day, not far from here, a German patrol came probing through a mine field, pushing a hapless cow as a mine detector. Result: hamburg steak.



L'Est Bépanleann

"Miss Lorraine" and "Miss Alsace" Dress Up for the Newly Arrived Americans

Traditional Lorraine costume (left) is seldom worn today, but the Abatian dress and black bonnet are still seen in rural districts. The GI jeep driver poses with the girls in this Nancy street, but U. S. Signal Corps men in background go right ahead with their urgent wire-stringing job.

"Too bad they don't use pigs and chickens," one GI said. "Then we could have ham and eggs every time we put on a counterattack."

Considering what has happened to "the friendly cow," it is hardly surprising that the average citizen has had no milk to put into his "coffee," as the wartime beverage of roasted barley is quaintly known.

Vivid in my memory is the sight of a wellto-do woman drinking her first cup of real case au lait in months. "Mon Dieu!" she softly exclaimed. (It has been carefully explained to me by my French friends that "Bon Dieu" is swearing, "Mon Dieu" is supplication. Hers was definitely supplication!)

Even more important to most Frenchmen has been the shortage of wine. Under the Germans they were allowed one liter (about a quart) every ten days. Just at present, because of the lack of transport, they get considerably less than that. Knowing that Frenchmen ordinarily consider water suitable for exterior use only, I asked two of them what they were drinking during the drought of wine.

"Sirop du parapluie," said one with a grin, while the other answered, "Vin de la pompe."

They added that they would willingly go on drinking "umbrella syrup" and "wine of the pump" indefinitely if doing so would help win the war.

Since Lorraine is not a wine-growing area, its supply of the vintage must come by road or rail, and there are many higher-priority cargoes now.

Trains Reappear

As we followed our fighter-bombers across France, we saw few locomotives and rail-road cars that were not as wrecked as the trucks, half-tracks, and tanks that littered the enemy's every road of retreat.

But now, like extinct animals resurrected, a few trains are appearing, though not nearly enough to meet civilian as well as military needs.

Meanwhile, Jean Frenchman, flotsam of war, goes home, or tries to, as best he can. I have seen him with his family on all the roads, pushing his poor belongings in a homemade cart or driving a nag so scrawny the Germans did not want it. If he is lucky enough to have a car, he stops to try to swap a long-hidden bottle of cognac for a few liters of gasoline.



It's Always Easier to Hoe in Someone Else's Potato Patch Pvt. William Wiggins, of Columbus, Ohio, leads a helping hand to this Lorraine farmer and his daughter,



U. S. Arroy Highal Corps, Official.

Shaped Like a Giant Derby, a Maginot Line Pillbox Hugs the Ground near Verdun

Lt. Margaret White, Army nurse, examines this outpost at Fort Donaumont, one of the major defense points of the stronghold where the slogan "They shall not pass" became famous. Many such modern emplacements were built on the foundations of World War I defenses. Lt. White's right hand rests on her helmet.



Dark Days of 1940-From Nancy's City Hall Balcony Hangs the Swastika

Shortly after the collapse of French arms in June, German armor and troops formed a hollow square in Stanislas Place. They surround the huge bronze statue of Stanislas, exiled Polish king and father-in-law of Louis XV. These German mobile gums are comparable to our own 105's. Medieval Lorraine now is a regional name covering an area far beyond the political boundaries of the former Alsace-Lorraine (map, page 367).



1.7 The Bliggablinght

Gargoyles and Blondes Take a Good Look at the Passing Yanks

A United States tank rumbles through Nancy's streets, its 50-caliber machine gun bedecked with a Tricolor and battered field bags slung on its side. It is part of the contingent of Third Army troops which liberated the city.

Slowly families are being reunited—those not broken forever. Perhaps that was the reason for the smile I saw on a woman's face this afternoon—a smile like the expression that transfigures a mother when she knows her travail is over, her baby born. Many of these people sent their children to the country, some of them many months ago, only to have war in its horror roll over those farms and towns -and no word.

But every day now brings reunions, and news that makes some human heart beat again. "He is alive and well." What ghosts of agony those trite and simple words have laid!

But to some comes the other sort of word, falling like a clod rolling into a grave. And to others there is more of the interminable torture of waiting for the word that never comes. Many loved ones are prisoners in the crumbling, crashing fortress which is Germany.

No, Nancy is no city of laughter yet, though the first rays of freedom are warming her heart and teaching her, slowly, to smile again.

To a French friend I commented on the gradual change I had seen.

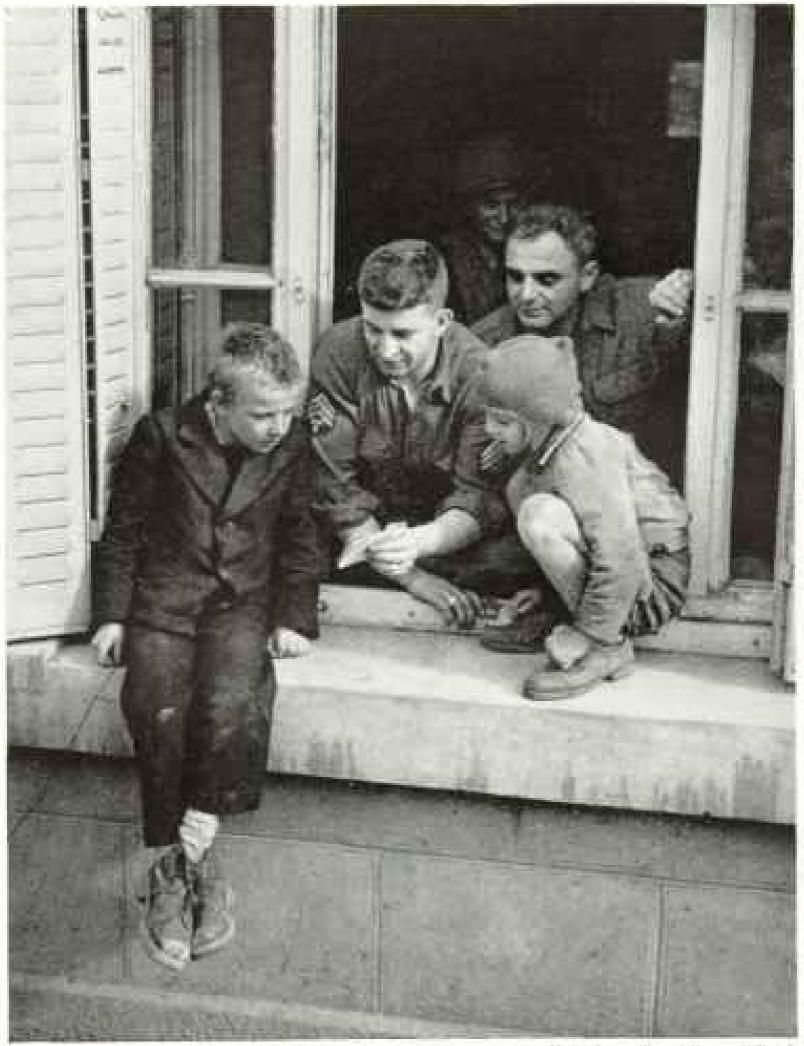
"Yes," he said, "it is true. Habits formed during four years of suffering do not drop away in a moment. The return to normal living takes time.

"When the Americans first arrived, the enemy was close. Many probably feared that he might return. Their spirits rise with every mile that he is pushed away.

"Also, it should be remembered that the people of Lorraine are naturally reserved, less demonstrative, at first, than those of the south of France, or even Alsace."

Origin of the Curfew

Many restrictions still apply, for this is the borderland and the enemy has left agents behind. As a brother officer of mine waited for



U. B. Army Simul Corps, Official.

"T-h-a-n-k Y-o-u' Means Merci"

Two French boys increase their GI vocabulary. Almost instinctively they learn "O.K.," "chewing gum," and "candy." Here Sgt. John A. Williams steps up instruction by explaining a few more words as his buddy looks on. American doughboys and French youngsters of a generation ago held the same informal language classes.

a bus the other night, a bullet spanged into the doorway behind him.

An 8 p. m. curfew has been in effect ever since we arrived. All civilians must be indoors:

Incidentally, our word "curfew" was born in this country, from the French couvre-feu, meaning "cover fire."

"It dates back to the Middle Ages," explained my French friend, "when fires were covered or banked in the evening so that sparks during the night would not burn down the town."

He and his family speak very slowly and distinctly, in deference to the limits of my high-school French of 20-odd years ago, never used till now. He speaks a little English and we get along well, with the aid of two big dictionaries.

Sometimes they lead us astray, as when his wife referred to him, because of his quickness, as "comme l'éclair" (like lightning). He looked up éclair in his dictionary and exclaimed to me, his eyes crinkling with humor, "I see that I am not only like lightning; I am also like 'a little chocolate cake!"

Comparatively few of the French in Lorraine speak English. Most of them have studied German instead, since Germany is near by and there is more use for the language. On the English Channel coast, for a similar reason, most of the French have English as their second language.

One of my fellow officers here asked the French waitress for his dessert, using the English pronunciation instead of the French "des-air." To her the word, in his Michigan accent, was indubitably "des œufs." So she

went to the kitchen and requested an omelet.

If one of these unpredictable Americans wanted to conclude his meal with eggs, who was she to say him nay?

One way to refurbish an ancient and inadequate knowledge of French is to read the local newspapers. Doing so, I noted in L'Est Républicain a front-page editorial headed "En Regardant Les Américains," and began to see ourselves as others see us. In translation the article said:

LOOKING AT THE AMERICANS

The soldiers of the United States Army have come to deliver us. (We have not forgotten, because of that, the troops of other nations who are taking part in the fighting on our soil.)

We have admired, among our friends from across the Atlantic, their powerful organization, their splendid and simple material, their discipline, strict but invisible; the suppleness of their activity and of their walk, their silent manner of giving orders.

How many words, for example, would a French military policeman utter to regulate traffic at Nancy if he were in their place?

How many blasts of the klaxon would French military vehicles give if they had to make the journeys which the Americans carry out? Better: do you know the sound of an American klaxon?

We know very well that these are little things, but put them all together and ask yourself what mentality and what method have been responsible for all this organization.

Among themselves their comportment is remarkably human; save when, now and then, a little high from a glass of good cognac or champagne (and it is mire enough), it is difficult to hear a voice raised above a normal tone. Is this a lack of temperament? That is hardly admissible, for the American soldiers have sprung from twenty different nations, either directly or through their parents.

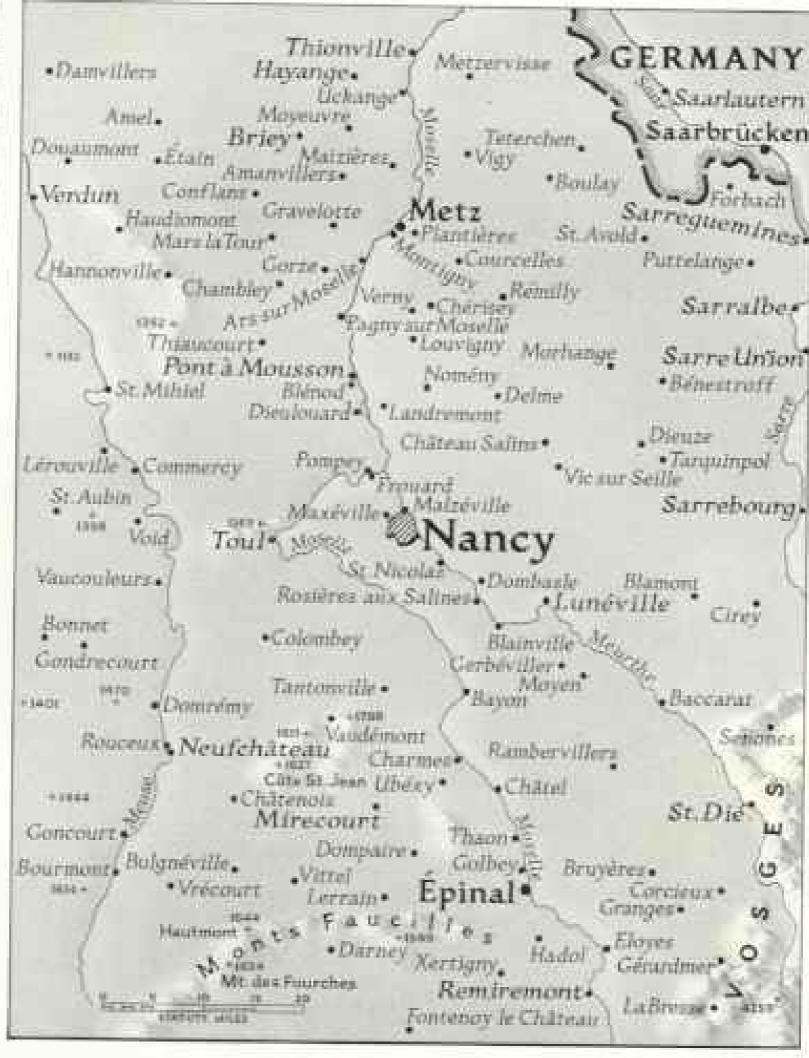
Without practice we cannot distinguish the officers from the men: no haughtiness, no riding whips, no showy headgear whims, no lavish braid. Alongside the simple soldier, the general differs only by a slightindication of grade on the

shoulder and perhaps also by a certain air of having a strong will.

Many Frenchmen have been struck by the simplicity with which the commanders get into their jeeps, those little vehicles with such a rapid gait, which have all the same color and carry no distinctive insignia—unless it be the name of a young girl, the name of a town, or a name full of humor suggesting some incident of the war.

While they work, the Americans do not talk at all, or very little, only as much as is necessary to give essential orders.

They drive by night with a dizzy sureness, all lights out and in the deepest darkness. At road intersections only a luminous signal by a military policeman indicates the direction to take. There are very few accidents. When they require that on the Route Nationale the way be cleared, it is because they wish to hasten the arrival of supplies for their troops and



Sweeping Across France, General Patton's Third Army Liberated Nancy

Through cities and towns where Yanks made history a quarter of a century ago, GFs pushed into the heart of the Lorraine region last September. Then they by-passed, encircled, and captured the stronghold of Metz and pushed into the German Saar.

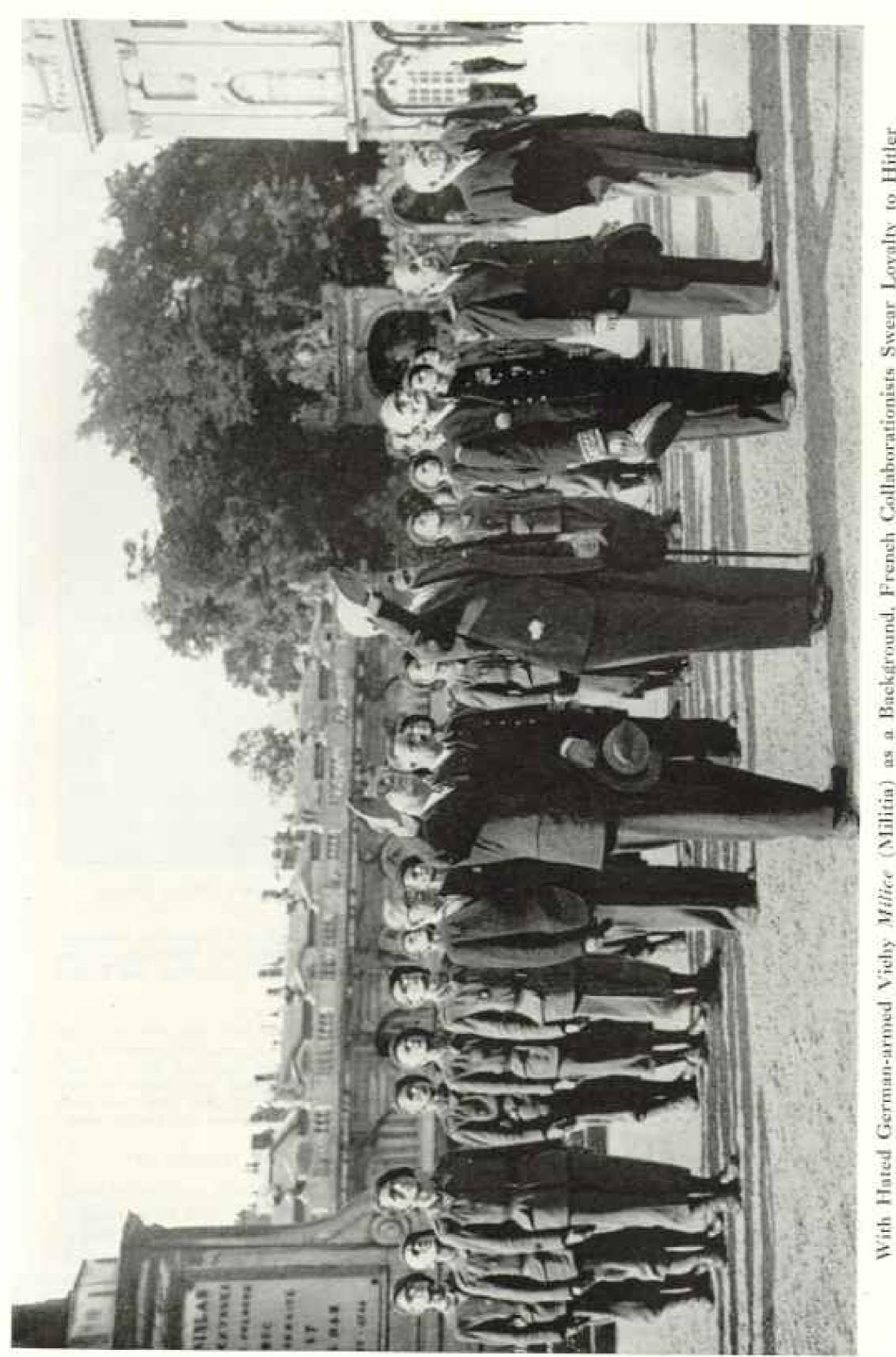
assure the continuity of the flow from the sea to the front. Does their way of regulating traffic seem bard? As Clemenceau said, they "are making war."

They know very well that the French employ against them the System D, and they sometimes show themselves vexed, but not before the French themselves.

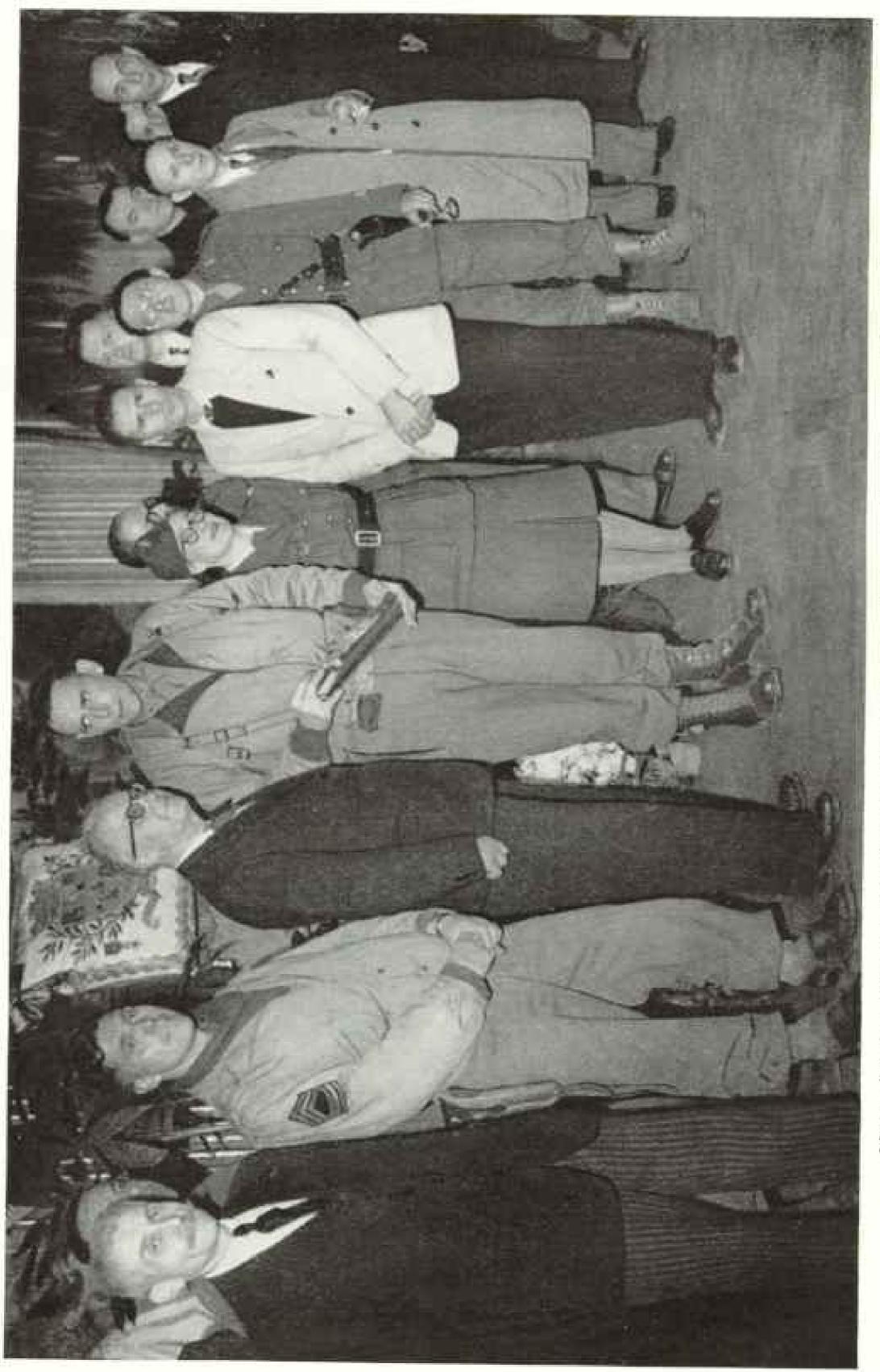
The Working of "System D"

Most of this I understood and appreciated, especially the part about "those little vehicles with such a rapid gait" and "a name full of humor." How many jeeps named "Mild-and-Bitter," I wonder, have been renamed "Embrassez-Moi"? But what on earth, I asked myself, is "System D"?

That night, at the home of my friends, I

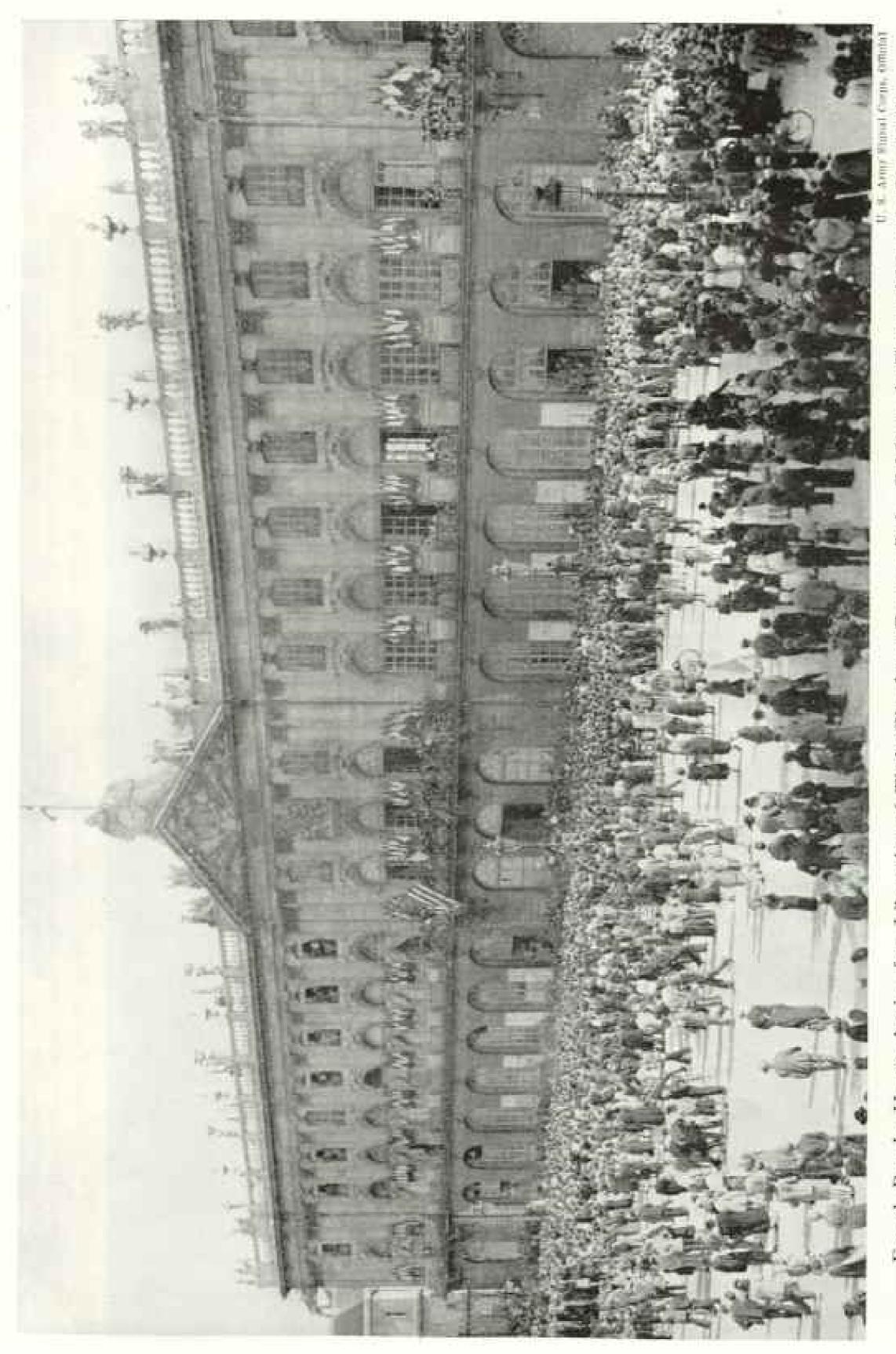


elt of Fernand de Brinon, Vichy cabinet minister (front row, second from right). Pro-Nazi leadors of (Militia) as a Background, French Collaborationists Swear Loyalty to Hitler ncy putriots, Namey participate in the ceremony in Stanislas Flace. Today graph, and others made before the Allied liberation, from Na This Nari occupation photograph was made during a vi-



Nancy Patriots Honor a Nebraska Colonel for Helping Liberate Them from Nazi Dominution

Col, Butler B. Miltonberger (center), communding officer of the 134th Infantry Regiment, 35th Infantry Division, receives a scroll from M. Jacques Zenner, editor of Nancy's L'Est Républicain (page 366). Wearing a vehite cont is Nancy's new mayor. Others are interpreters and prominent Nancy citizens. M. Zenner explained to the author that the Nancy cost of arms, behind his head, bears the thistle insigning of Lorraine and the motto, "It Pricks Whoever Touches It,"



Its furnous grand salon was the scene of more formul rejoicing over the city's liberation, French People, Happy Again after Liberation of Their City from German Rule, Celebrate in Front of Nancy's City Hall building. The 18th-tentury City Hall is Nancy's most omate



More than four years of German occupation ended in September, 1944, when motorized infantry entered Stanislas Place to the choers of civilians (contrast with Illustrations on pages 572 and 573 when the Nazis entered). Men in foreground wear armbands showing they are members of the French Forces of the Interior (FFI). France, and Great Britain Replace the Swastika as GFs Roll into Nancy



Through Nancy's Arc de Triomphe German Troops March Soon after Occupation in 1940

Standing beside the statues atop the arch, Nazi lookouts watch the bousetops for possible suipers; others are hidden in the balconies. But French onlookers are conspicuous by their absence. The arch, known as the Porte Royale, was built by Stanislas in 1751 to honor Louis XV (page 364).

learned the answer. They laughingly explained that "Système D" or "See-stem day," as they pronounce it, comes from the word débrouiller, meaning to unravel, to disentangle, to make do, to find a way around.

Thus System D is the French method of circumventing unpleasant rules by resourceful improvisation, by methods usually more clever than legal. It is one of the things they have in common with us—as witness the U.S. reaction to certain laws—and it is the despair of the stolid, compliant, subservient Germans.

In answer to my request for specific examples, Jacques stepped into the next room and got a flashlight.

"Look it over," he said. "Do you see anything unusual?"

Although I examined it closely, it appeared to be eminently ordinary—a somewhat worn and battered pocket flashlight of familiar French type with three small batteries.

"But look," said its owner, and, extracting

one battery, he showed how its interior had been hollowed out so that a small roll of bills could be slipped inside.

"On a certain occasion," he said, "I wished to transmit some money to a friend of mine who had been taken to Germany. This was strictly forbidden by the German authorities, who well know that money is a useful tool in effecting one's escape.

"At the border I was thoroughly searched. The guard took this little flashlight, examined it carefully, and then, as the final test, pushed the button. It lighted—thus. What he did not know was that only two batteries are needed to make it light. That's Système D!"

As another example Madame B showed me a small, cylindrical cardboard container, somewhat like those used for packing a quart of ice cream in the United States.

"During the six months my husband was a prisoner of the Nazis here, before the arrival of the Americans," she said, "it was



German Troops Parade in Stanislas Place, But Nancy Failed to Turn Out

This photograph was made soon after the occupation in 1940. When General Patton neared Nancy, the Nazis published an article in their controlled newspaper saying the Yankees would tear down the city's beloved plaza and move it bodily to the United States. This gave Nancy's citizens one of their best laughs in months. Stanislas Place was built nearly two centuries ago. Ornate public buildings enclose it.

my custom to take him nourishing soup or stew to augment the prison fare. Each time the guard would take this container, look it over carefully, and even dip a knife into the contents to make sure no note was concealed therein, finally muttering, 'Sehr gut.'

"He never knew that the bottom was double—like this—concealing notes by which my husband and I were able to keep in constant touch. Système D, again."

"But how have you worked System D against us, as the article says?" I pursued.

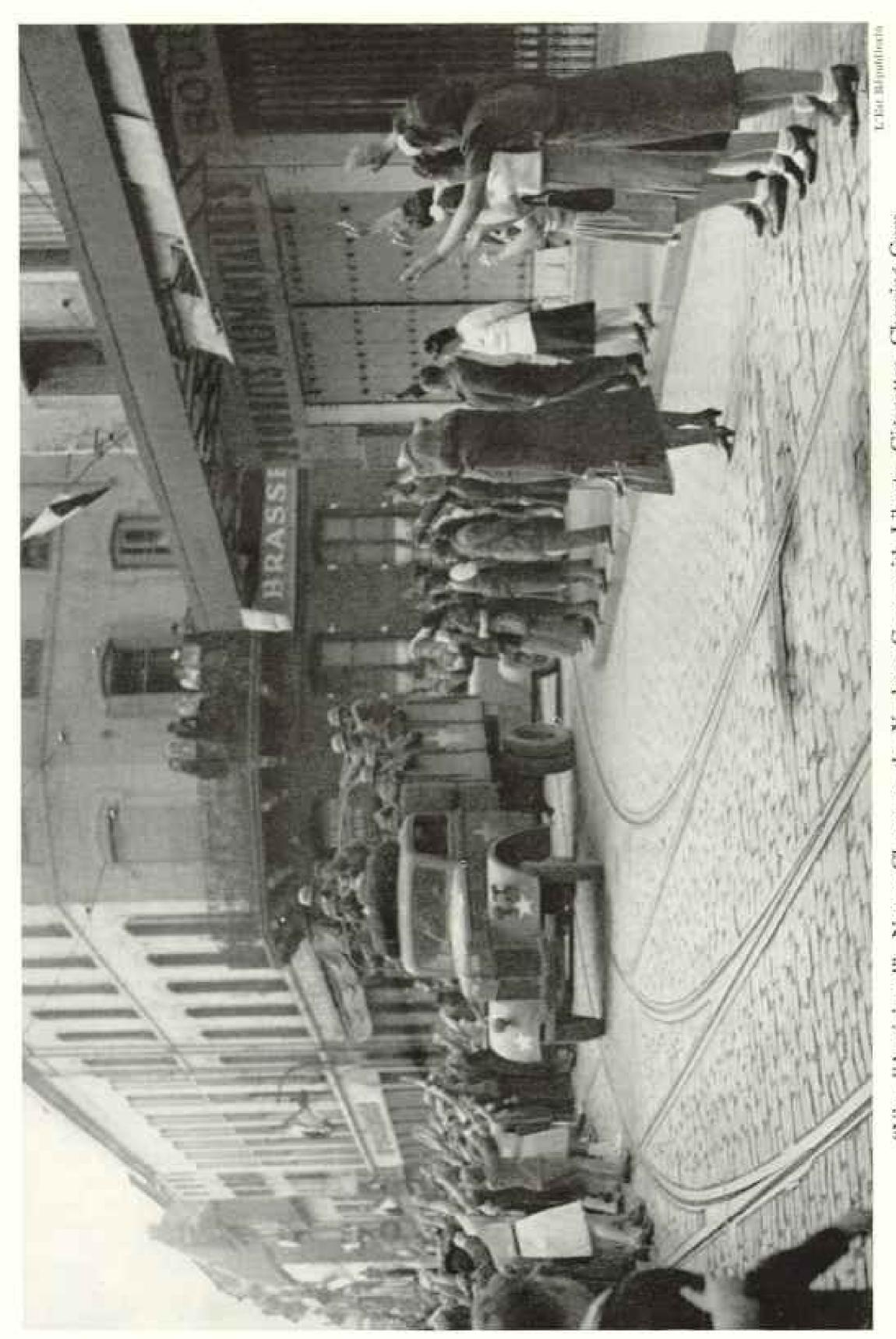
"Well, the other day," said Jacques, "I wished to go to a small town near Metz. There was fighting around there and civilian travel was forbidden. An American military policeman stopped me and told me I would have to turn around. I did so, but by using back roads and driving 40 kilometers (25 miles) out of my way, I reached my destination. Système D!"

The French delight in detailing the infinite ways in which they worked System D against the Germans. It is funny now, as they tell it—the guard looking everywhere but in the right place. But it was a game in which the lot of the loser was imprisonment, brutal beating, and even death.

Surely Fate and Geography were in sardonic mood when they decreed as perennial next-door neighbors the independent, gay, freedom-loving French and the arrogant, humorless, uniform-loving Germans, who like nothing better than to follow a leader and who glorify war—until they begin to get licked.

To Lorraine that cosmic prank of fate has meant cycle after cycle of death and sorrow.* Almost every generation the ravisher comes— 1871, 1914, 1940. Hitler had "no more

*See "In French Lorraine," by Harriet Chalmers Adams, in the NATIONAL GEOGRAPHIE MAGAZINE, November-December, 1917.

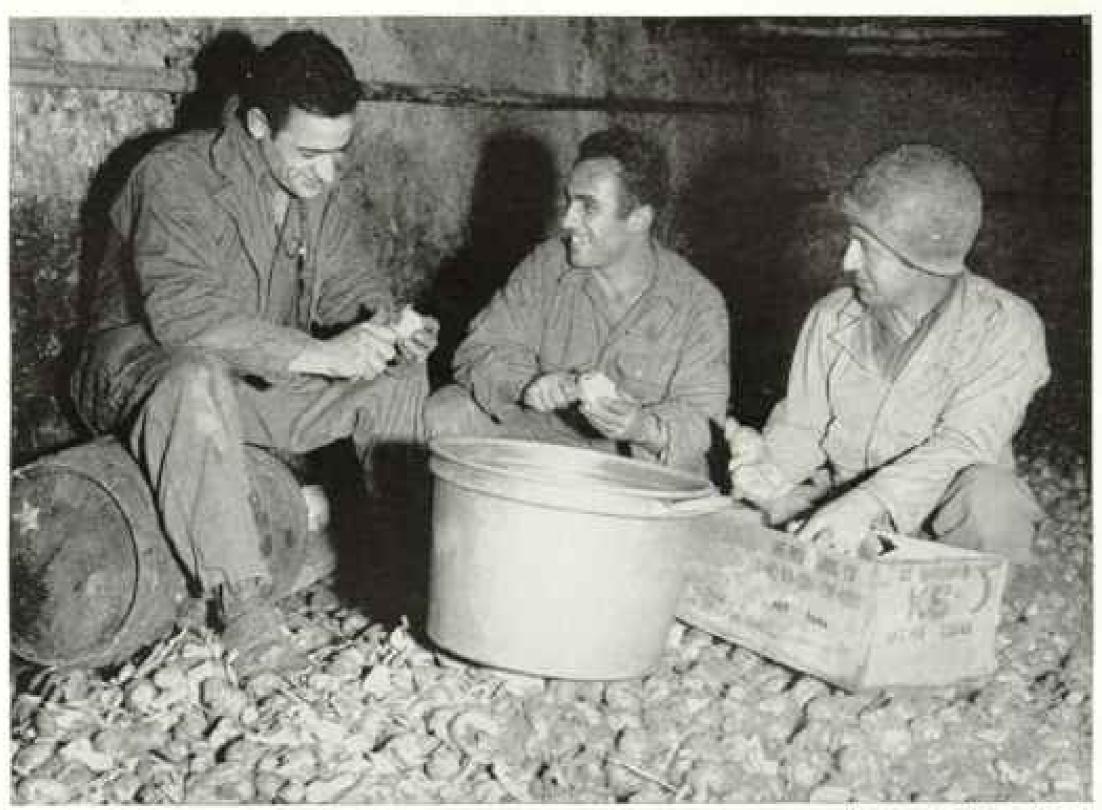


Civilians packed the streets and greeted Yank motorized infantrymen with hysterical joy in September, 1944. But dreary years of privation and rigid rafe undor the Nazi conquerors had left their mark. Only now has Nancy learned to be her old-time self and "to smile again" (page 361). heers as the Yankees Come with Liberty, Cigarettes, Chewing Gum "Vive l'Amérique!"-Nancy C



GI's Turn a Shell-wrecked House in Metz into an Army Barber Shop

A sergrant from Tennessee suips the locks of a Wisconsin noncom in the window of what once was a bedroom. Beside him a buck private, who is "next," improves his time by cleaning his BAR (Browning automatic rifle). Metz was by-passed by the U. S. Third Army and fell as General Patton's men pushed into the Saar (p. 382).



U. S. Army Signal Corps, Official

Retreating Nazis Left These Potatoes Behind-But Unpeeled!

So a KP detail from Headquarters Company, 134th Infantry, goes to work in the time-honored manner. The spuds are part of a huge pile captured in the U. S. Third Army drive northeast of Nancy.

territorial claims to make in Europe"; yet when he overran France he claimed a large part of Lorraine as German territory.

Around Metz, before that fortress city fell, I saw the guttural German names on the little French towns—as if calling Verny "Werningen" and Chérisey "Schersingen" would make them any less French.

Hitler especially wanted Metz because it was a fortress and because he had a guilty conscience.

With the Metz area in German hands and Nancy beld by the Americans, Nancy was a city literally under the enemy's guns. One night 16 heavy-caliber shells cracked into the sleeping city. But before long the big German railroad guns were put out of business by reconnaissance plane and artillery teamwork and by XIX Tactical Air Command fighter-bombers, which skipped heavy bombs into their railroad-tunnel lairs.

"Patton Was Attacking"

Well do I remember the day from which dates the liberation of all Lorraine.

Patton was attacking! Everybody knew it

now. On the raw November air came the sound of many planes, that deep droning hum that means the heavies are here.

When last I had heard that bass song of many motors pervading the heavens and the earth, insistent as the voice of doom, it had heralded the coming of the massed air power that shattered the enemy defenses along the Périers-St. Lô road, smashed the enemy's deadly 88's, turned disciplined soldiers into blithering wrecks of men, and let our armor through at last to put an end to the Normandy stalemate and make that great end run through France.

For weeks now we had lain along the Moselle where the momentum of that thrust had left us. At the very borders of Germany supplies had failed, giving the enemy the little time he needed to build up his defenses centered on the mighty Moselle River fortress city of Metz.

Since then the Third Army and the opposing German First Army had been leaning on each other like a couple of weary, clinching prize fighters, pushing here, shoving there, giving a little, gaining a little. For this is



D. H. Army Wignel Corps, Official.

French Refugee Mother and Baby Find Shelter in a Cow Stall

They fled their home in Corcicus when the Germans burned that Vosges Mountain town along with others (page 383). Heinrich Himmler, Nazi Gestapo chief, became enraged when Frenchmen in the area defied his demand for labor on fortifications.

the way of armies, until one or the other has gathered the wherewithal, the guns, shells, tanks, trucks, and food, the endless quantities of supplies, the trained teams of fighting men, and the air power, that it takes to launch a modern offensive.

Now that fateful moment had come again. It had come, in fact, on the previous day, November 8, the anniversary of Hitler's petty beer-hall putsch of 1923—action speaking far louder than all the words Hitler had spouted on that occasion ever since the start of the war, until this one; this time he had been silent.

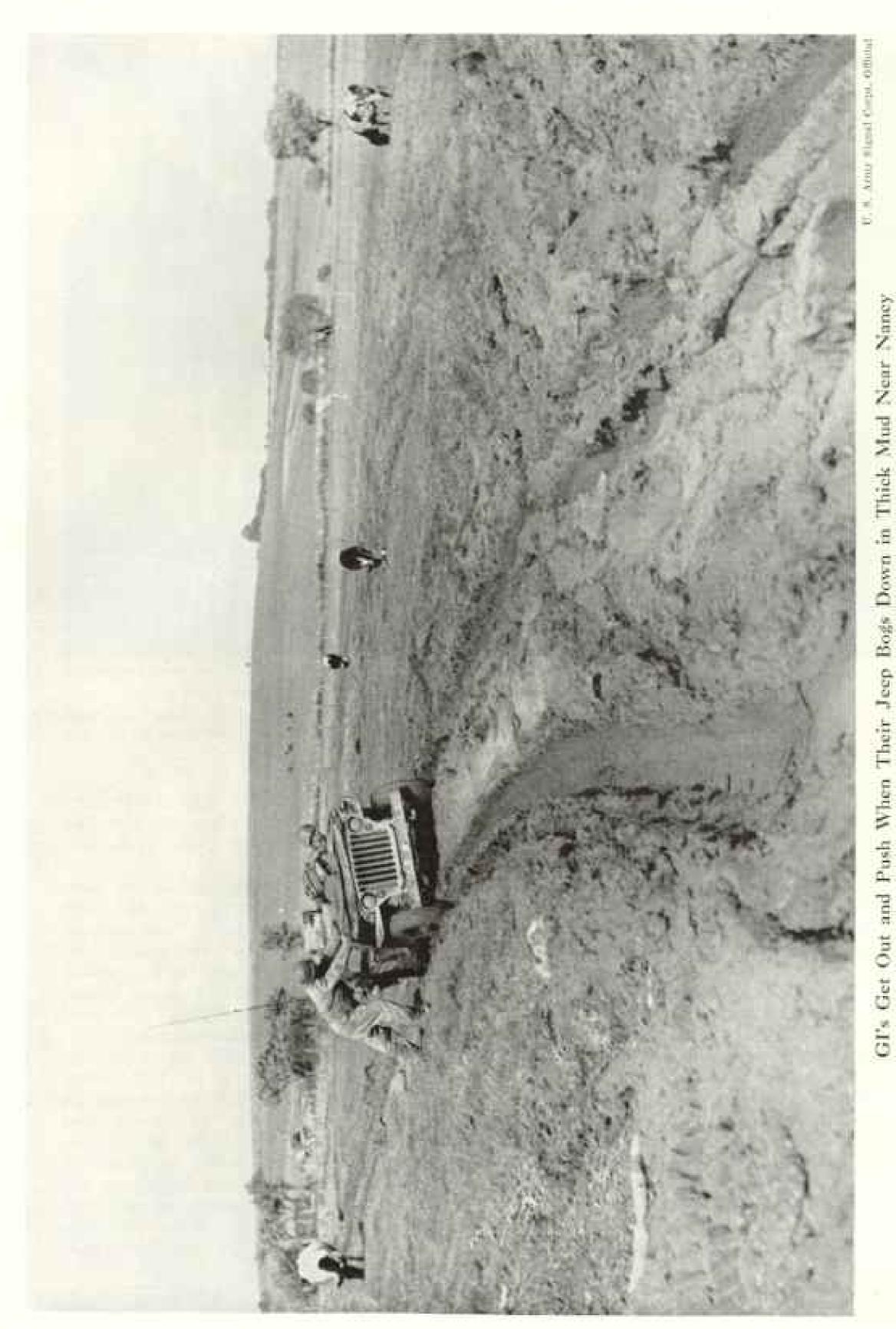
And now the Patton offensive was 24 hours old, gathering scope and momentum, both on the ground and up in that cloudy sky. As we sped toward the front in a jeep, people in Nancy were craning their necks out of windows and stopping dead on the street to look up, seeking the source of that insistent drone.

Only for brief moments could the planes be seen through holes in the big gray clouds squadrons of barrel-chested fighter-bombers, boxes of mediums and lights, whole divisions of beavies, white trails of fighters like scars across the rare patches of blue. But still their throbbing voice was heard, ear-filling, airfilling, everywhere.

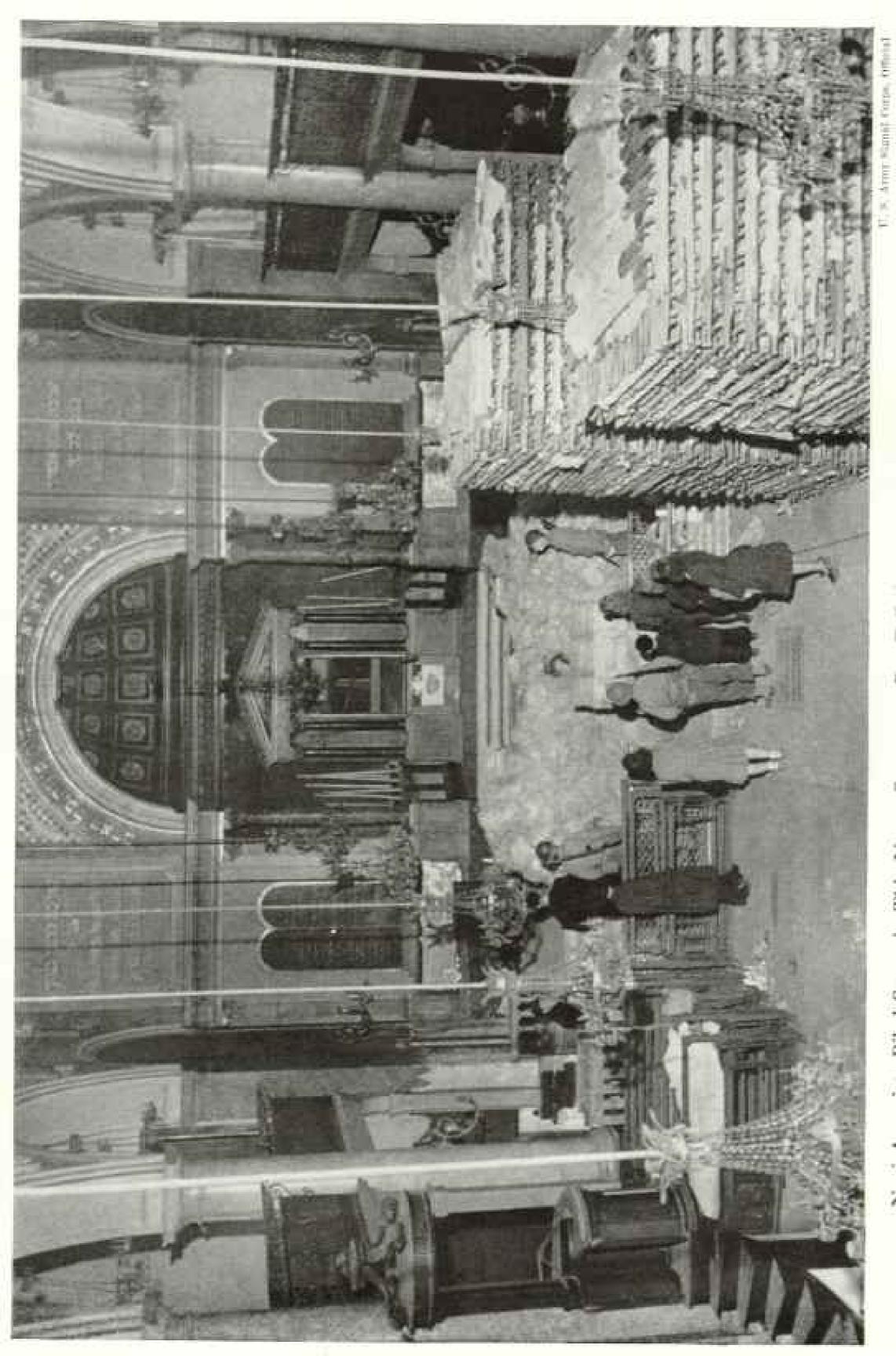
At Corps headquarters an officer said, "When our troops out there hear that, their morale goes up 50 percent." You could see them in imagination, the tankman in his turret, the doughboy beside his rain-soaked pup tent, looking up at those resonant, planefilled skies and thinking, "Thank the Lord those babies are for us, not against us!"

Employment of so much air power—at least 2,000 planes in front of the Third Army that day—is an operation of such magnitude that no man can see it all. All the way from the Moselle to the Rhine, at specially selected points where they would do the enemy the most harm, bombs were falling on the enemy's fortifications, his command posts and other nerve centers, his bivouacs, barracks, and concentrations, his gun positions, rail-road yards, trains, tanks, and trucks.

Demolition and fragmentation bombs, incendiaries, machine-gun bullets, and rockets,



Their vehicle is well fourled, making even rougher, but the grazing cows are unimpressed. Windshield is down and encased in a convex cover, with gear piled on top of it. The U.S. Third Army overran the entire countryside in its lightning dash into Loratine in the full of 1944.



GI's and civilians inspect the Germans' preparations to destroy the building just before they retreated. During occupation, the Nazis used the synagogue as a hospital supply depot. Piles of litters (right) and other equipment were abandoned in their frantic haste to fire Nancy. Nancy Synagogue, But Failed to Ignite It-the Yanks Arrived Too Soon! Nazi Arsonists Piled Straw in This



U. S. Army Wigned Corps, Official

"Come and Get It!"

Two cooks of a Field Artillery unit operating in the Nancy sector in November, 1944, set up their "kitchen" in a barn doorway and get ready for a hungry GI chow line.

all were doing their utmost to convince the war-loving Germans that war is not so wonderful after all.

Weather Handicaps Attack

The weather could hardly have been worse for an attack. This became increasingly clear as we drove north along the Moselle and saw what the recent heavy rains had done to that usually placid river. It rolled along now like a minor Mississippi, turbid and turbulent, swollen far out of its banks. Most of the rise had come since morning.

Mute, tragic testimony to its suddenness were the horses and cattle marooned on the flooded flats of the river, spiritless, dejectedlooking clumps of them, with icy water beginning to lap at their feet.

Army trucks and tents, too, had been caught

in the flood and some were half submerged.

At the point where we had expected to cross to the east side of the Moselle the bridge was covered with several feet of water and all traffic was being diverted. Farther north we crossed, but a low spot in the road near the eastern approaches was three feet deep in muddy water.

As we waited for our turn to ford the stream, a jeep bearing three stars appeared, being pushed through the flood by a sixwheel-drive truck. Despite the immense complications caused by the untimely flood, General Patton grinned as he returned our salute, as if to say, "It will take more than hell and high water to stop this attack."

Water bubbled up through the floor of the ieep as we were towed across, but the engine responded without so much as a cough, and



U. S. Army Signal Corps, official

"One Stick Apiece as Long as It Lasts"

Cpl. Henry Stilley, of New Bern, North Carolina, member of an American mechanized cavalry unit, was stranded in German territory when his armored car was destroyed by advancing German columns. He escaped to the Lorraine town of Moyen, where he came across these French evacues children from Nancy. He had a pocketful of chewing gum, so he instantly became the most popular GI in town.

we rolled on across wet, soggy country teeming with tanks and guns.

The wind had grown colder and sleet was blowing into the open ends of pup tents. The cold ate into the marrow, through the thick GI underclothes. It turned the metal parts of tanks and trucks to an icy vindictive substance which ripped off the skin if you touched it with bare hands; it transformed the feet into blocks of ice, and wet blankets offered no warm haven. But the troops along the way did not look downhearted. The long waiting was over and another big push was on.

"Only fools would attack in this weather," one astonished German said to his captors,

"You're wrong," was the reply. "Fools—and Americans."

The town of Landremont perched halfway up the side of an incredibly high and steep hill. On the summit long ago a religious statue had been erected, as if to watch over the town below. But the town was largely ruined, nevertheless, most of its buildings smashed by high explosive, for this hill was a nature-made observation post, prized by Germans and Americans alike.

In one house, its whole side open to the winter wind, a middle-aged Frenchwoman was pottering about the half of her living room that remained.

Watching War from a Hill

To watch the bombing we headed for the top of the hill in our jeep, climbing almost straight up, as only a jeep can. The summit



U. S. Almy Stand Copp., Official

Patiently a Pennsylvania GI Coaxes Two Turkeys within Ax Range

The wary birds seem to know he is out of place in this French farmyard near Nancy. If he fails, he still has a chance at pigeon potpie, for the raw material is plentiful on the barnyard roof at left.

was littered with German equipment—gas masks, helmets, ammunition, and miscellany, tossed about in confusion at the feet of the saint who gazed down on the scene of war in the village-dotted valleys below.

Behind us to the west lay the Moselle, like a huge, tawny, swollen snake. To the northeast gray smoke was rising from the wreckage of what had been German-held towns.

As I scanned the horizon with glasses, I saw to the north the skyline of a considerable city. Through a rift in the clouds sunlight fell upon it, giving the city the quality of a mirage. In the center rose a cathedral.

Seen thus, there was nothing about it to suggest a fortress—no grimness, no air of impregnability. Yet I knew that this city 18 air-line miles away was Metz, the key to all the German defenses on the Moselle.

Its strength lay in fortifications deep in the ground, a ring of "fortified groups," as the French call them, of massive concrete and steel. To assault them directly would be the way of a fool, playing the Germans' own game.

General Patton's Army was going around

Metz, by-passing this great carbuncle of strength and its venom-filled forts dug deep in the earth.

A little while ago, I knew, those forts had been bombed by hundreds of Flying Fortresses and Liberators, to render them partially paralyzed while the by-passing proceeded.

The Advance That Cut Off Metz

Now before my eyes it was happening the advance that would cut around Metz as a scalpel excises infection. Both to the south of the city, in my plain sight, and over the horizon to the north, Third Army troops were edging forward in the classic pattern of encirclement.

Near the base of our hill was a "Long Tom," which spoke now and then with emphatic voice. Its shells were landing on machine-gun nests up beyond the burning towns. There, seeming motionless against the sky, was a little Cub plane spotting the bursts.

Closer at hand, down on the soggy slopes, were small shapes bearing splashes of bright color. Under the glasses they resolved them-



P. S. Army Signal Corps, Official

Refugees from Corcicux, Lorraine Village, Eat Their Noon Meal in a Courtyard

On orders from Heinrich Himmler, a Vosges Mountain area 11 miles by 8 miles, including Corcieux, Gérardmer, and several hamlets, was fired by the Nazis in November, 1944. Two days after the wholesale destruction, the Germans fled and French troops marched in 24 hours later (page 377).

selves into tanks carrying identification panels. In endless numbers they were creeping out of their hideaways and debouching into the roads. General Patton's armor was moving up.

But where was the air part of the airground team?

We saw them now, on the eastern horizon, the XIX Tactical Air Command fighter-bombers which had teamed with the tanks all the way across France. They were over enemy territory now, flitting like small malignant wasps above the long dark hogback of Delme ridge. Black smoke rose as they wheeled away.

The end of that story is now well known—
the by-passing and ultimate fall of Metz and
the Third Army's push into Germany's Saar,*
shoulder to shoulder with the hard-driving
Seventh U. S. and First French Armies to the
south.

When advance elements of a Third Army unit rolled through a Lorraine town near the German border, one tot was heard to shout "Heil Hitler!" His horrified mother promptly and roundly spanked his little fundament. When one of the officers returned a short time later, the youngster was shouting "O.K., Roosevelt!" My researches have not established definitely whether the quick conversion was due to the maternal attack on his rear echelon or to a GI stick of gum,

With the liberation of Lorraine, Nancy began to breathe naturally again. In her stone and stucco houses, with their red-tiled roofs, people even drank "umbrella juice" without making much of a face. Some, in the city's many churches, had their own private thanksgiving day.

"Dangerous French" Return

Many residents, refugees from Metz, happily planned an early return to the city from which, as "dangerous French," they had been expelled by the Germans years before with 30 kilograms (66 pounds) of baggage,

* See "What Is the Saar?" by Frederick Simpleh, in the National Geographic Magazine, February, 1935.



In a Day or Two, These Girls Will Be Expert Jitterbugs

When this U. S. troop convoy, on the heels of the Nazis, stopped momentarily in their small village near Verdun, the accordion and a willing partner resulted in an impromptu street dance (page 361).

2,000 francs (about 40 dollars)-and half an vado-have been known to dive under the hour to pack.

Children and adults alike began looking forward to their first free Christmas since 1939.

A prelude to Christmas in Lorraine is St. Nicolas Day, December 6. On the eve of that day St. Nicolas arrives, leading his donkey. My Nancy friends had never heard of a St. Nick who came by reindeer.

A Foil for St. Nicolas

Along with the good saint comes a far less genial character called Père Fouettard (Father Whipper). He carries a fouct (whip).

At his approach, children with guilty consciences—despite previous expressions of bratable and hide.

But Père Fouettard never uses the whip, thanks to the intervention of St. Nicolas, and the fete winds up with gifts and cakes-if, in this fat-starved, war-bit land, enough shortening for cake can be hoarded or found.

Monsieur B invited me to attend one of these fetes, but work prevented. On return to my quarters on St. Nicolas Day, I found a cardboard box which my friend had left. Inside were cakes of the occasion, in the shape of St. Nicolas and his donkey.

To me they were a symbol of the joy and peace which are descending upon this land, now that the Pere Fouettard of Allied power has scourged the enemy from Lorraine and let Nancy smile again.

Notice of change of address for your NATIONAL GEOGRAPHIC MAGAZINE should be received in the offices of the National Geographic Society by the first of the month to affect the following month's issue. For instance, if you desire the address changed for your May number, The Society should be notified of your mere address not later than April Arst. He sure to include your new postal zone number.

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ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

To carry our the purposes for which it was tounded fifty-seven years ago, the National Geographic Society publishes its 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 edjectives.

The Society's mutable expeditions have pushed back the historic horizons of the southwestern United States to a period marrly eight centuries before Cedambus crossed the Atlantic. By duting the ruins of the wast monumumal developes in that region. The Swiety's researches solved secrets that had puzzled historians for three hundred years.

In Mexico, The Society and the Smithsonian Institution, Juniary 16, 1939, discovered the oldest work of man to the American for which we have a date. This slab of stone is engraved in Mayon characters with a date which means November 4, 291 n. c. (Spinders Correlation). It unterlates by 200 years anything bersto(ore dated in America, and reveals a great center of early American culture, previously unknown. On November 11, 1935, in a flight sponsored justily by the National Geographic Society and the U. S. Army Air Carps, the world's largest balloon, Explorer II, ascended to the world almude record of 72,395 feet. Capt. Albert W. Stevens and Capt. Orvil A. Anderson took aloit in the gondola nearly a ton of scientific instruments, and obtained results of extraordinary value.

The National Geographic Society-U. S. Navy Expedition camped on desert Cauton Island in mid-Parific and ancreasinily photographed and pharived the solar eclipse of 1937. The Society has taken part in many projects to increase knowledge of the sun.

The Society cooperated with Dr. William Beebe in deep-was explanations of Bermuda, during which a world record depth of 3,025 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 sequeta trees in the Giant Forest of Sequeta National Purk of California were thereby saved for the American people.

One of the world's largest idefields and gladial systems outside the polar regists was discurved in Alaska and Valon by Brudford Washburn while exploring for The Secrety and the Harvard Institute of Exploration, 1938.



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Luckheed Aircraft Corporation, Burbank, California

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IT was at Tarawa — on the beach at Anzio — in Normandy — in bombers over Berlin — in tank battles, dog fights, and on the high seas — on every fighting front.

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THEY SAY a baby has only two instinctive fears: that of a loud sound and that of loss of balance. You've seen a baby "jump" at a big noise—you've felt his baby hands clutch tight from fear of falling.

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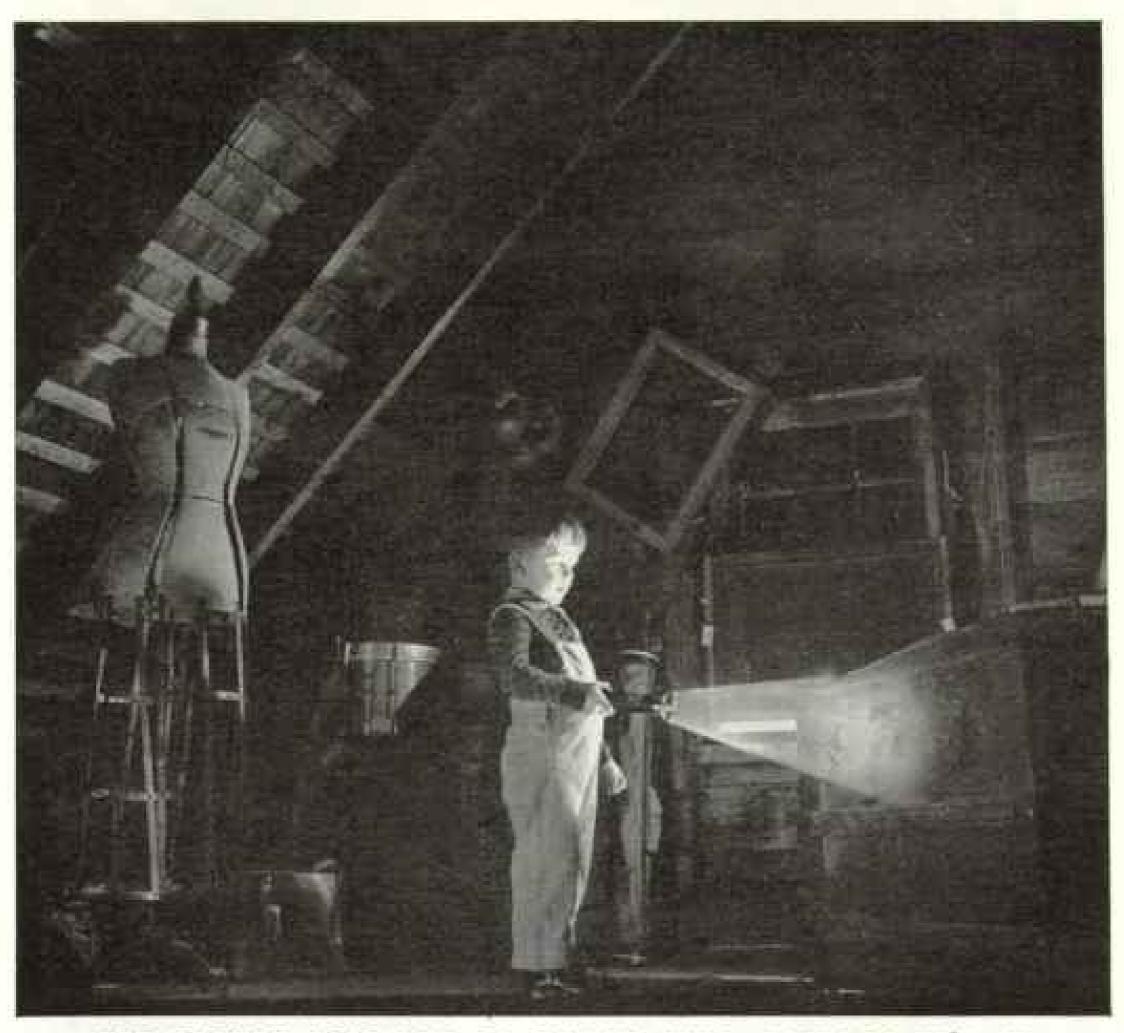
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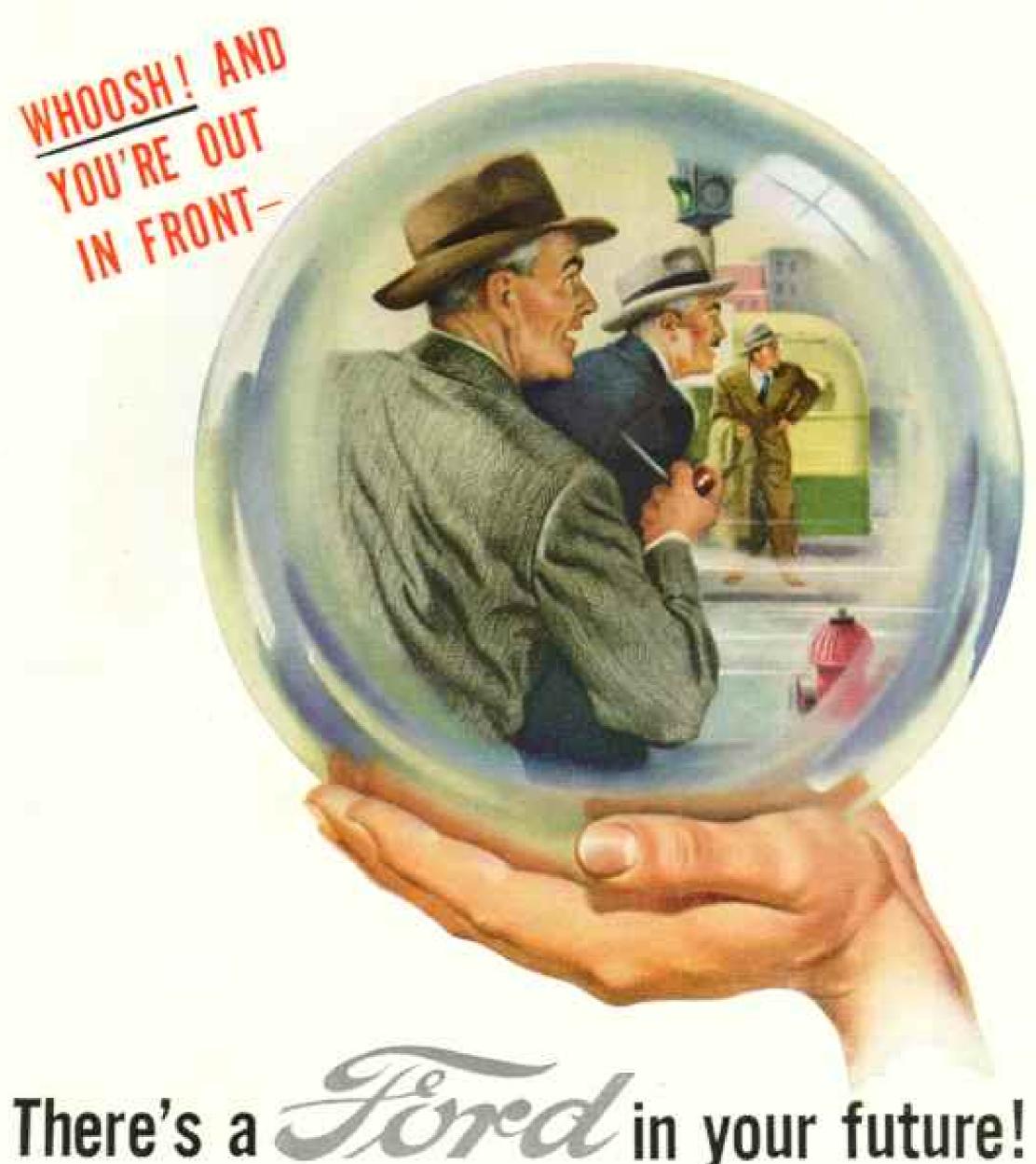
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The homes of tomorrow will demand mittent heat supply. Instead of overheated ceilings and cold floors, you will be complete-Iv surrounded with a cozy blanker of warmth at just the comfort temperature from head

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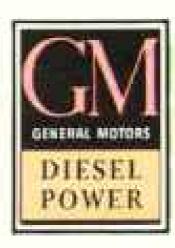
It's called the "Quad," and two of them power each of the famous LCI landing boats. Quads save space and weight so more troops, equipment and fuel can be carried.

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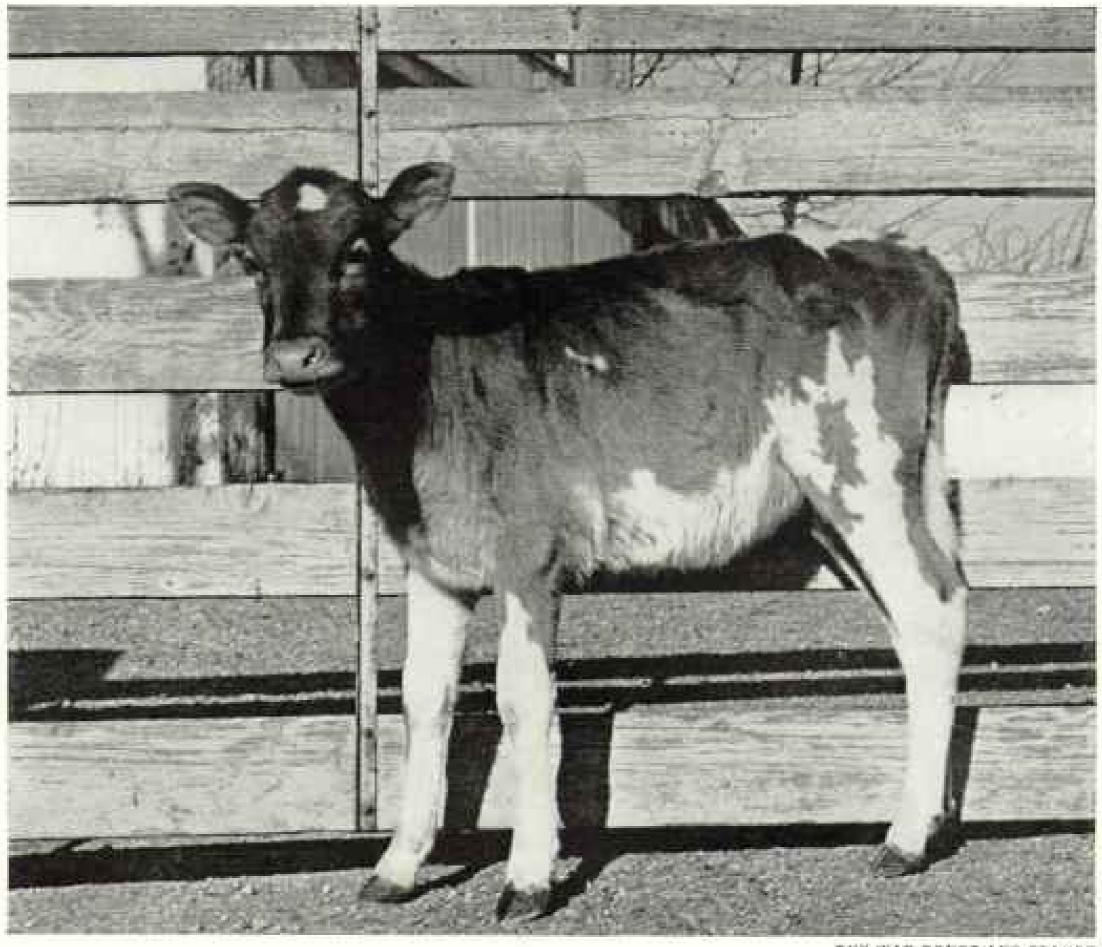
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BUY WAR BONDS AND STAMPS

New milk factory being built

The other fellow's job often looks easier than your own. Like the city man who said to the dairy farmer, "All you do is put fodder in one end of the cow and take milk out of the other!"

Actually, of course, dairying is a complex business. It takes careful breeding, feeding and about two years' time before a four-legged milk factory even begins to produce. It takes hard work and every scientific safeguard to keep cows healthy and productive.

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NATIONAL DAIRY

AND AFFILIATED COMPANIES



... and the hours shall become minutes

-As Guy Lombardo Found!

"Twe wanted so much to hear the Meioiner . . . but I must leave for rehearsal in five minutes . . . "

Guy, himself, touched the burton starting the automatic record changer and watched the metallic arm as it quickly, silently selected a record and gently placed it on the turntable. He saw how the Meissner could play both sides of a record in sequence or repeat any record, "It's amazing," Guy said, "but now let me hear this Meissner play..."

All else was forgotten, now, as the music took command... with each note as clear as if the musicians had been in that very room. There were no "missing elements" here to annoy the experienced listener—nothing blurred or adulterated.

"You know," said Guy, "it's hard to believe that good reproduction alone could make such a difference. I've heard those records before—but never have they sounded like this . . . "

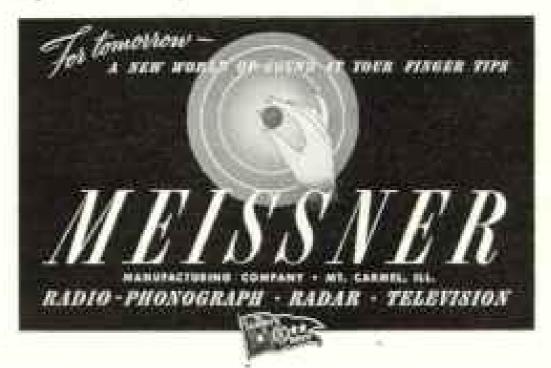
Later, much later, Guy Lombardo looked at his watch, "Well, I guess the band got along without me,"

he grinned, "But they'll forgive me when I tell them about the Meissner, What a set it is!"

存 存 存

Guy Lombardo had been listening to the only Meissner radio-phonograph in existence—perfected just before the war—now on loan "for the duration" to the high school in Meissner's home community.

Your postwar Meissner, in a distinguished cabinet, will combine unexcelled reproduction and completely automatic operation with Frequency Modulation, Super Shortwave, and other advancements.







Your floors get protection from dirt and wear when you keep them gleaming with Johnson's Wax. Wax-protected floors grow more beautiful with each application, are easier to keep clean!



A waxed home is a clean, healthful home! Keep woodwork and kitchen equipment shining-clean with Johnson's Wax. So easy — because dirt and dust don't cling to waxed surfaces!



Conservation through protection is a "must" today! The tough film of Johnson's Wax preserves lovely furniture through many years. And it's so easy to use, so simple to renew!



Preserve the beauty of parchment lamp shades, leather goods and many other things in your home with Johnson's Wax! Today you want things to last . . . so you can buy War Bonds first!







HE WATCHED THE SEA ... SHE THOUGHT OF A QUIET PLACE IN THE PINES ...

What moved them as they listened was a song they had danced to the week-end they first met. A song that rooted deep in their memories . . . just as some song, some piece of music has become part of your life.

Even when you share that music with someone who feels as you do . . . what you think about, what you see, what you dream is yours alone. Because so much of the pleasure you share and so much of your inner satisfaction depend on how well the music you like is played . . . you will want FM more than you have ever wanted any other kind of radio.

As Stromberg-Carlson will bring FM to you, you will hear the full range of musical tone for the first time. Virtually without interference or static! Reproduced flawlessly as only Stromberg-Carlson has learned in 50 years to reproduce music!



IMPORTANT: 200 broadcasters have applied for license for FM radio stations. Within 18 months after war's end, this new, clearer, better kind of radio will be available to 100,000,000 Americans, Strumberg-Carlson will offer FM receivers over a broad range of prices.

For the main radio in your home STROMBERG-CARLSON ... there is nothing finer than a

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In your hands. An Open Letter



Fellow Employes of The Milwaukee Road:

In the urgency and magnitude of our war work it is sometimes difficult to give our patrons the high standard of service and personal attention on which our good name is founded.

Service is our entire stock in trade. We must zealously guard against any let-down that depreciates it. Our obligations to each shipper and each traveler remain constant, even under the pressure of total war.

In fulfilling these obligations we must never forget that in railroading the human element is even more important than the mechanical element. Public opinion is the sum total of what each patron thinks of our personnel and facilities.

Let's keep our friends and make new ones.

Let's continue to make shipping on The Milwaukee Road a satisfaction and traveling on The Milwaukee Road a pleasure. In this way alone can we maintain our reputation for friendliness and efficiency.

Such a reputation means much to The Milwaukee Road's future, and it's IN YOUR HANDS and mine.

Mambell

WAR JITTERS! Our booklet "War litters" is addressed to our employee but if you'd like a copy write Mr. P. R., The Milwaukee Road, 356 Union Station, Chicago 6, III.



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Stand where you can look at one single part of the Boeing B-29 Superfortress... the huge tail, tall as a three-story house. High above you are the deadly hooded guns and the tail gunner's compartment of bullet-proof glass. Horizontal tail surfaces reach out on either side, wider than the wing-spread of what was once considered a good-sized airplane.

Size alone is not the remarkable thing about the B-20, however; there have been big planes before.

But there has never been a plane that would carry as heavy a bomb load so far, so fast, so high.

Nor has such an airplane ever before been successfully designed, tested, and manufactured in quantity . . . in time to get into action during a period of war!

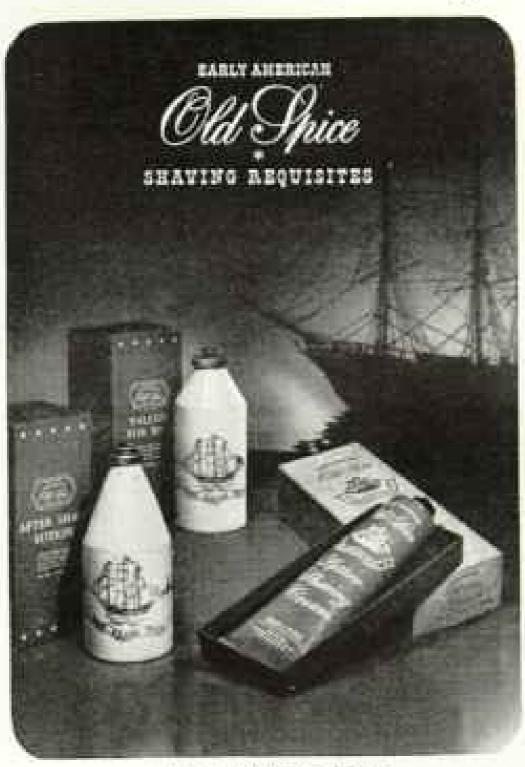
Boeing measured up to this huge task which included engineering the B-29 so it combined high-performance characteristics with great load-carrying ability; manufacturing it on a scale never before thought possible for so large and potent an aerial weapon.

This latter meant the blazing of new trails in tooling and production planning. It meant the originating of new facilities and processes. It meant not only the making of the manufacturing plan and putting it into operation in Boeing's own plants, but assisting the which were chosen by the Army to help Boeing build the B-29's. And it meant doing all these things while the Superfortress itself was still in the development stage!

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KEEP ON BUYING WAR BONDS - KEEP ON KEEPING THEM!

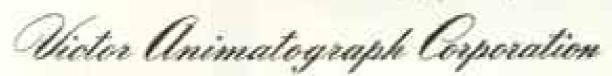
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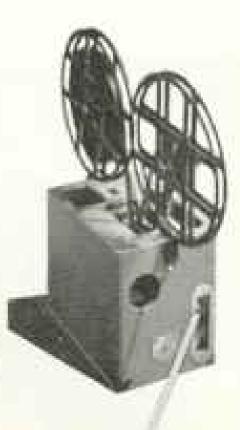
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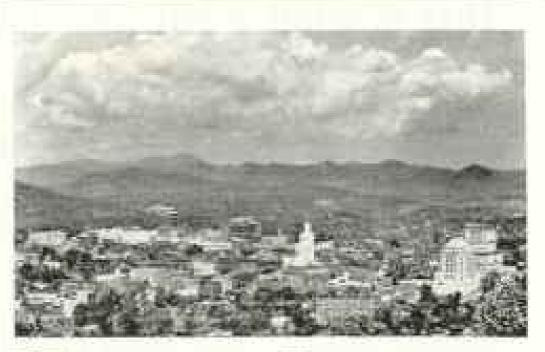
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If your diet is average, you're not likely to be a victim of "deficiency diseases" like beri-beri, pellagra, or scurvy. You are not apt to die of malnutrition, either.

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and gums...or other minor troubles.
You may think this is only natural.
But it isn't.

Actually, a hetter diet may make

you feel better - and look better too!

Consult this chart of basic daily requirements. Does your diet contain them all? It's a balanced diet that counts. Not a lot of some foods this week, and a lot of others next week—but all of them regularly!

Proper cooking is vitally important to nutrition, too. The new Metropolitan Cook Book contains many suggestions for making food healthful and attractive. Write for a free copy of Booklet No. 35N.





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Adults ened a pint, chilfren a quart, as a beverage
or in liveds



POTATOES

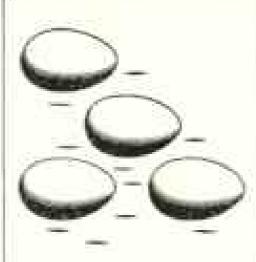
The normal requirement is one or more servinus



Two servings — some raw, some cooked — fresh or canned. One green-less vegetable



A sitrus fruit -- orange or grapefruit. Other fruits, raw and cooked, including tomatu



For an efficient diet at least four seps a week



AND CHEESE
As least one healthy serving
a slav

MEAT, FISH OR POULTRY



BREAD AND CEREALS One or both at every meal, either whole-grain cereals or enriched becast



BUTTER
AND OTHER FATS
Two or three tablespoon-

fulls as a spread or la confe-

WATER
Sex to eight glasses through-

Health authorities believe that all these foods are needed to fulfill normal nutrition requirements. If your diet contains them all, and you still feel tired, nervous, and lack resistance, then you should have a thorough physical checkup by your doctor.

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She's at home on a raft

THE PIED-BILLED grebe, Podilymbus podiceps podiceps, has a preference for quiet shallows in fresh-water lakes and ponds.

Best-known of the American grebes, her nickname, "water witch," is well chosen. She is an expert swimmer and can lower her body in the water to any degree, both while swimming and remaining still.

Often when danger is near, she sinks until only her bill and eyes show above the surface. Safe in this position, she can remain until the baffled hunter or hawk goes on his way.

But the most remarkable thing about the grebe is her choice of a home. For, unlike most water birds that build their nests in the sand or rocks on shore, she builds on the water.

From buoyant atems of water plants she makes a small, floating platform with a slight depression in the middle for her eggs. This raft is generally attached to living reeds so it can float up and down but not move away.

When the grebe leaves her nest, she covers up the eggs, and her home is safely disguised as a small mass of floating green.

Thus the pied-billed grebe's home is well adapted both to her convenience and her ability to protect it. With wild creatures protection is instinctive. But man must protect himself deliberately.

Yet he can protect himself more effectively than any wild thing. For after he has taken every precaution he can to safeguard his home and possessions, he can do one thing more.

He can protect himself, through insurance, from the financial losses following mishaps which may occur, despite the most careful precautions.

If a fire or windstorm destroys your property, fire or windstorm insurance helps you rebuild. If burglars break into your house, theft insurance pays for your loss and damage.

Since there is no way of foretelling such mishaps, and since the losses involved can be extremely heavy, no man with the responsibility of a home can afford to be without protection. Your local Travelers man will help you solve your problem.

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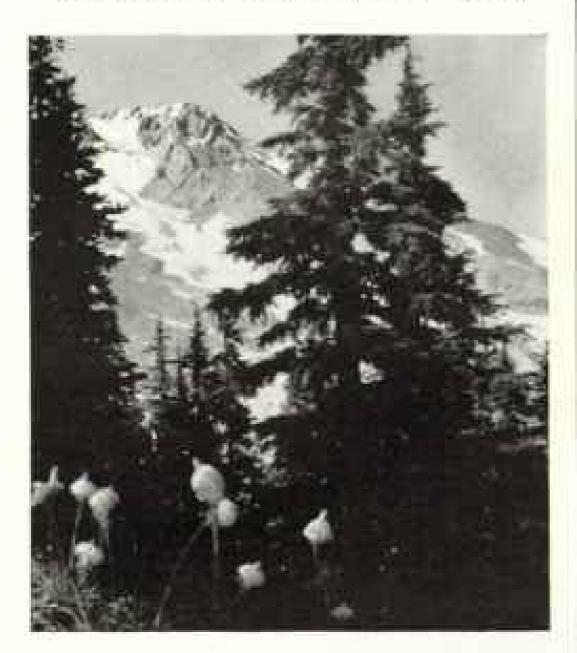
And because military requirements vary with the progress of the war, it is impossible to tell, from month to month, whether or not there will be any Ciné-Kodak Film left for you.

But against the lucky day when you will find a roll at your dealer's, it's a good idea to keep your Ciné-Kodak in perfect picturetaking trim. If you haven't had your dealer look it over recently, better take it to him, sometime soon . . . Eastman Kodak Company, Rochester, N. Y.

...once more, scenes like this on your own home movie screen



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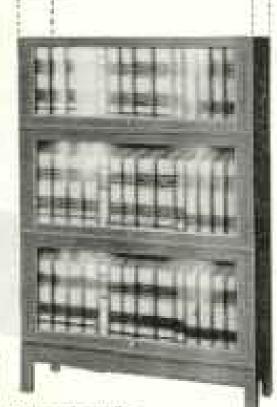
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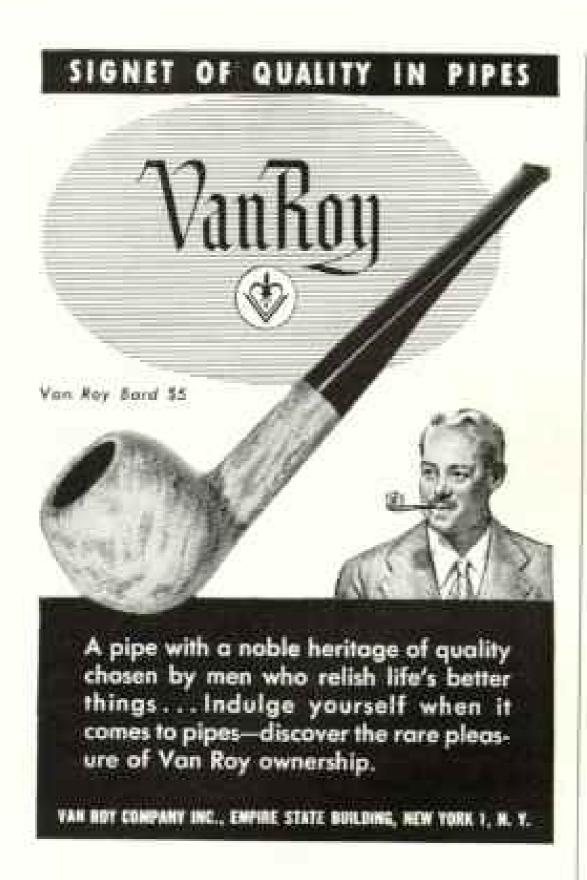
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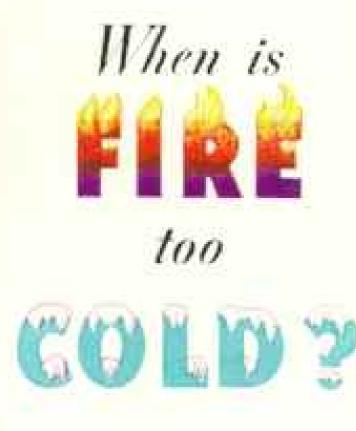
This evening thousands of service men will be asking for the Long Distance lines that connect them with their homes all over America.

You'll be doing them a real favor if you help keep the lines open from 7 to 10 P. M. They'll appreciate it.

BELL TELEPHONE SYSTEM







FIRE was both a tool and a limitation for the ancients. With it they made things of tin and lead, silver and gold. But their fires were never but enough for the aterner metals.

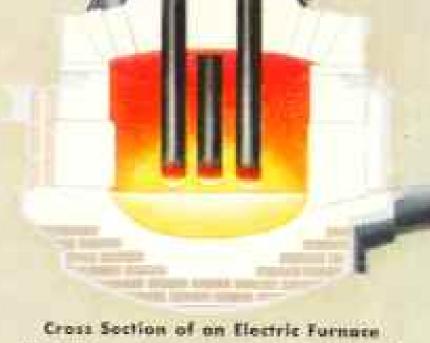
Man's progress through the ages has been accelerated each time be has learned to create and control a higher temperature.

With the electric are come heat butter than any fire. And, by means of carbon or graphite electrodes—deceloped by research of NATIONAL CARBON COMPANY, INC., a Unit of UCC—man put the electric are to work in formsees such as the one you see above.

Born in the terrife heat of the electric furnace are many of the alloy steels used in ships, trains, plants and other equipment, and also the ferro-alloys that give strength, toughness, hardness—or the quality of being stainless—to these steels. These materials and the intense heat that produces them—are vitally necessary to American industrial progress.

Coming from the electric furnace—in addition to allow steels and force-allows—are phosphurus, observes, culcum embide for acceptons used for webling and curting, and many special allows.

For further information write for busides E.S. "The Story of the Carbon Air" ... there is no obligation.



Electricity comes so the formuce on motal bars. It is carried into the formuce by earhors (or graphine) electrodes, which you are projecting down into a brick lined bowl. Carbon is used because, malike metal, it will not melt.

You see carbon in many forms other than electrodes. Diamonds are pure carbon, Graphite, which is the "lead" in pencils, is carbon—and or are cake and charceal. This material is the subject of according research by the National Lexion Unit of UCC.

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