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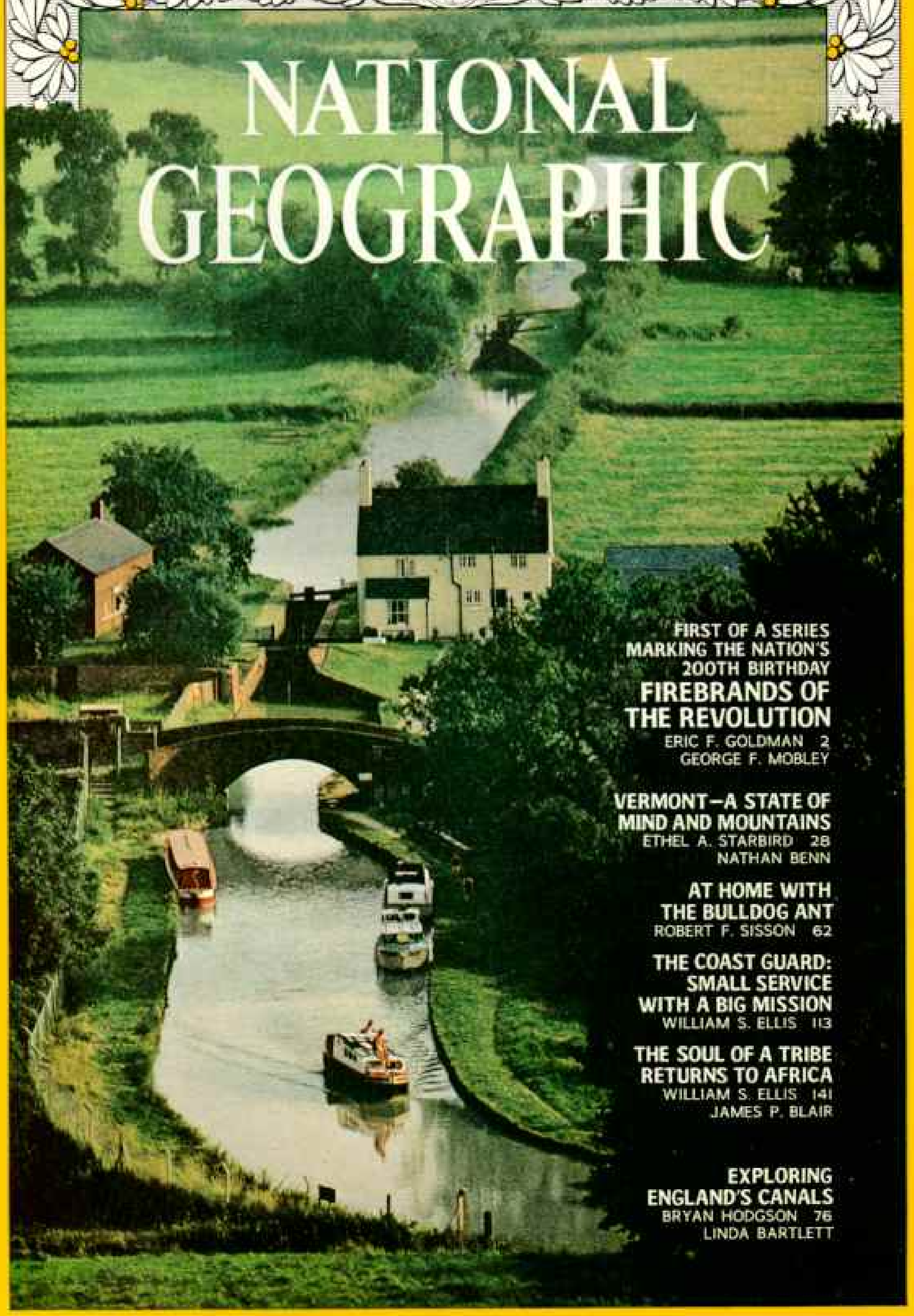

FIRST OF A SERIES MARKING THE NATION'S 200TH BIRTHDAY

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NATIONAL GEOGRAPHIC

July 1974

The Nation's 200th Birthday

IT SOUNDS all too familiar: Voices raised in protest. Confused events. Emotion-charged crowds. Slogans and banners. A populace fearful yet hopeful. The year was 1776, but it could have been many another year since. The issue, instead of independence, could have been secession, slavery, the right to unionize, war in Asia.

Our long and vigorous tradition of dissent is one of the reasons the events and personalities of the Revolution seem so familiar. Those gifted leaders bequeathed not only the precious right to speak freely, but also a system capable of change in the light of such freedom.

We are celebrating, as the Bicentennial approaches, not simply a birthday but a continuing birthright. It is, further, a birthright that much of the world now regards as belonging to humanity. Nearly every government—some cynically, it is true—justifies itself in terms that became familiar to the world in the founding documents of the United States: equality, inherent dignity, and opportunity.

When NATIONAL GEOGRAPHIC began to plan for the nation's Bicentennial, we knew we wanted to convey both the importance of what happened here 200 years ago, and the characters of the men who left such an indelible mark upon history.

Our series opens in this issue with vivid portraits of three leaders who helped create the foment—those Firebrands of change, Sam Adams, Patrick Henry, and Thomas Paine. The article is by one of our country's eminent historians, Eric F. Goldman, Rollins Professor of History at Princeton University.

Dr. Goldman's comments may surprise some readers—and perhaps shock a few, for even now the Firebrands can kindle arguments. So I learned not long ago when my wife and I escorted a lady from Sri Lanka, as Ceylon is now called, on a tour of Colonial Williamsburg. In the rebuilt House of Burgesses we heard quotations from Patrick Henry's flaming rhetoric.

"But it really was treason!" gasped our guest. And, after all, the independence of her lovely island from the same British Crown had come with neither war nor rancor. To her, Patrick Henry seemed a wild agitator.

Future articles will acquaint us with the human side of such men of patience and principle as Franklin and Washington, who first tried to avoid war, and then doggedly fought it to victory.

We will call, too, on the "other side," those sometimes heroic Tories who remained loyal to the British Crown.

The often overlooked role of women in the liberation of the Colonies—epitomized by Molly Pitcher carrying water on the sweltering Monmouth battlefield, then loading a cannon herself—will have a special place.

We will also continue our popular map series "Close-up U.S.A." to help you plan your travels through the nation's historic regions. We hope that by the time our Bicentennial coverage is complete in 1976, you will agree with a fellow member in Winston-Salem, North Carolina. Commenting on the first of the Close-up maps, she wrote, "Thank you for bringing us closer to home."

Gilbert M. Grosvenor

Eyes ablaze, a snow-dusted member of the Charlestown Militia (**left**) glowers as a demonstrator from the People's Bicentennial (**below**) steals the spotlight during the 200th anniversary celebration of the Boston Tea Party. Meanwhile a contingent representing the Disabled American Veterans (**right**) dumps tea chests into Boston Harbor. The peppery pageant saw demonstrators giving voice to their own versions of the spirit that drove the original Firebrands—men such as Sam Adams, Patrick Henry, and Thomas Paine, whose words and acts helped rouse the American colonists to the defense of their liberties.

Firebrands of the Revolution

By ERIC F. GOLDMAN

Photographs by GEORGE F. MOBLEY

NATIONAL GEOGRAPHIC PHOTOGRAPHER

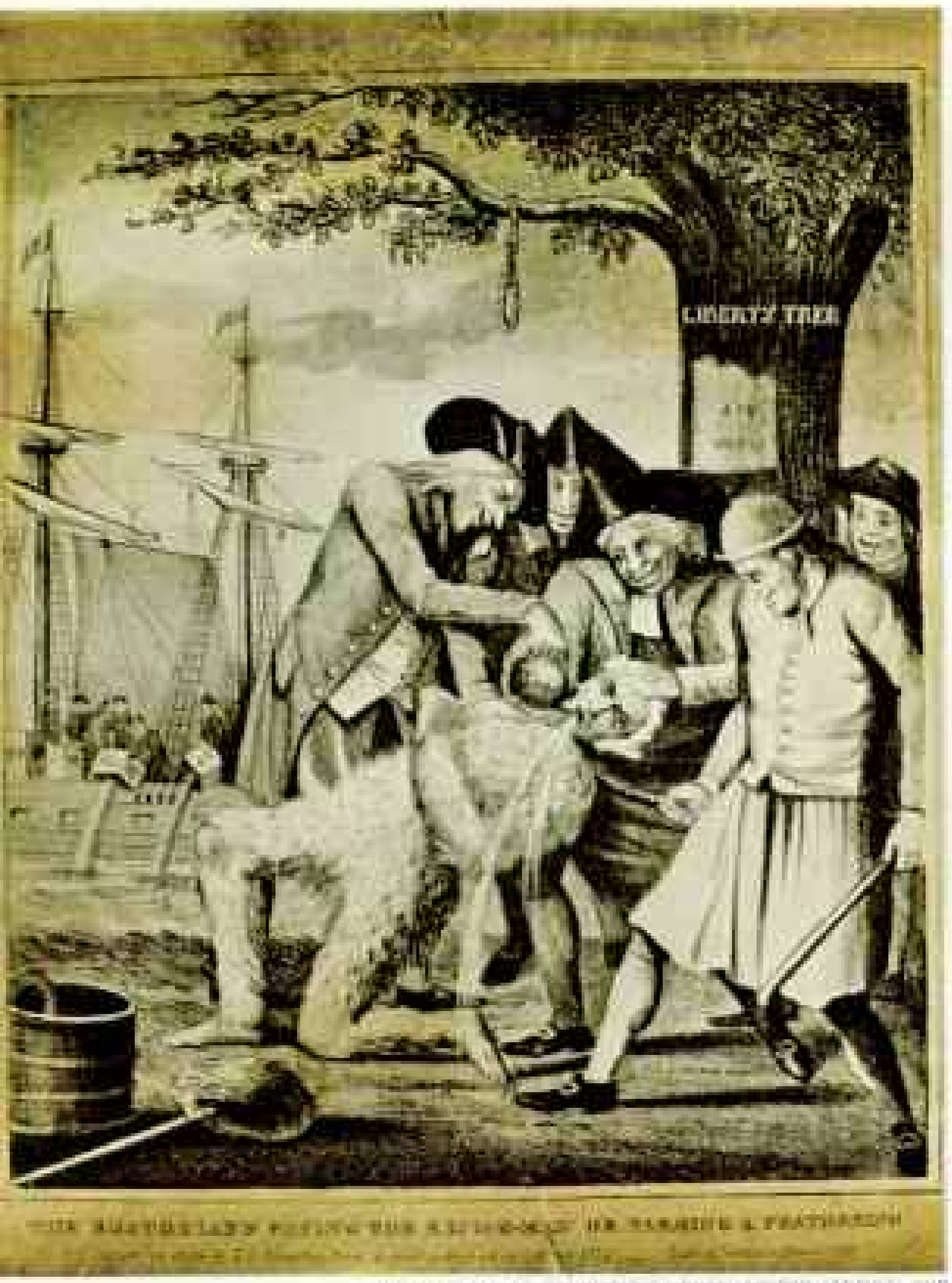
ONCE AGAIN a squat brig *Beaver* lay moored at dockside, laden with tea chests, and once again a clamorous crowd jostled its way down to Boston Harbor.

This time mocking rowboats splashed around the resplendent replica ship. Proclaiming a "Boston Oil Party," demonstrators on the water and land denounced the high cost of gasoline and heating oil, chanting "Freeze prices, not people!" and hurling symbolic empty oil drums into the harbor.

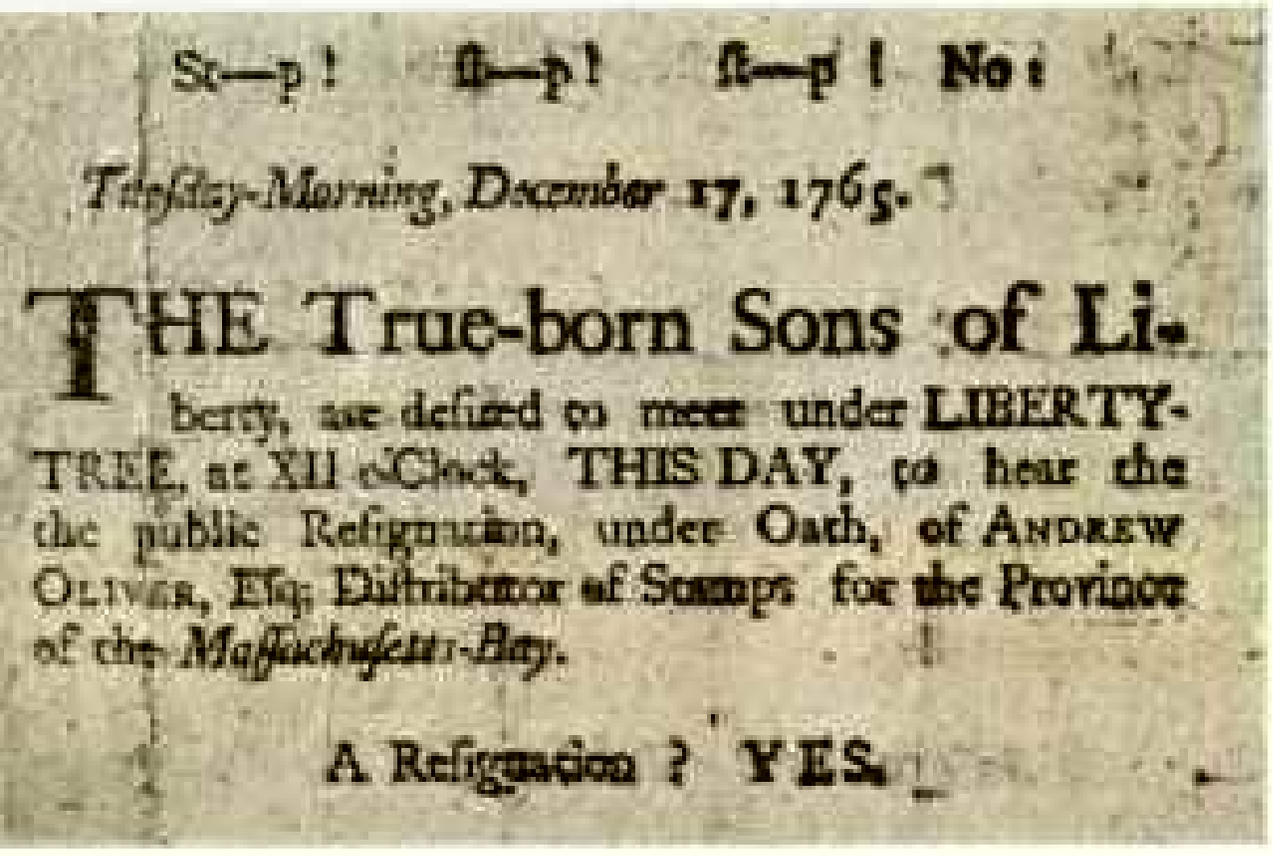
With bullhorns in a nearby warehouse, they called for the impeachment of President Nixon and railed against the International Telephone and Telegraph Corporation. Homemade banners supported grape strikers and Greek students, assailed tax loopholes and U.S. foreign policy. Round and round went the protest posters, including—needless to say—"SAM ADAMS—THINK LIKE HIM."

The Bicentennial reenactment of the Boston Tea Party last December 16 had been meticulously planned to be polite and polished, and the disturbance intensely annoyed many a spectator. But whatever one thought of the demonstration, it was certainly in the authentic hell-raising tradition of Samuel Adams, Patrick Henry, and Thomas Paine, the Firebrands of the American Revolution.

Adams. Henry. Paine. As agitators, the three thrust themselves above all the other



COURTESY OLD SOUTH MEETING HOUSE, BOSTON (ABOVE), AND MASSACHUSETTS HISTORICAL SOCIETY (BELOW)



St—p! ſt—p! ſt—p! No!

Tueſday-Morning, December 17, 1765.

THE True-born Sons of Li-

berty, are deſired to meet under LIBERTY-TREE, at XII o'Clock, THIS DAY, to hear the the public Reſignation, under Oath, of ANDREW OLIVER, Eſq; Diſtributor of Stamps for the Province of the *Maſſachuſett's-Bay*.

A Reſignation? YES.

Tar and feathers and an unwelcome draught of tea reward a customs collector (**upper**) in an angry English cartoon. Samuel Adams, that "Machiavel of chaos," helped stir up such events, one led to the forced resignation of stamp agent Andrew Oliver (**above**), portrayed on pages 6-7.

Boston's destruction of British-taxed tea dealt a heavy blow to Anglo-Colonial relations. *Beaver II* (**facing page**), a replica of one of the original tea ships, heads for Boston to become a museum commemorating the tea party that brewed a tempest.

idealists, braggarts, statesmen, scalawags, ragged soldiers, yearning poets, and plain angry men whose words and actions stoked the revolutionary fires. Anyone who seeks them out today, revisiting the places associated with them, as my wife and I did recently, cannot fail to be reminded of a salient fact: These three very different men, situated by an accident of geography in areas spread almost perfectly through the Colonies, played three very different insurgent roles of the highest importance for the nation a-borning.

Sam Adams of bustling Boston? Something of a humpty-dumpty in appearance, essentially the behind-the-scenes type, he proved to be the nation's first great political organizer and propagandist.

Redheaded, rawboned Patrick Henry from hardscrabble rural Virginia, the poet Byron's "forest-born Demosthenes," commanded any audience he faced with oratory so powerful that even his pauses sent chills up and down backs.

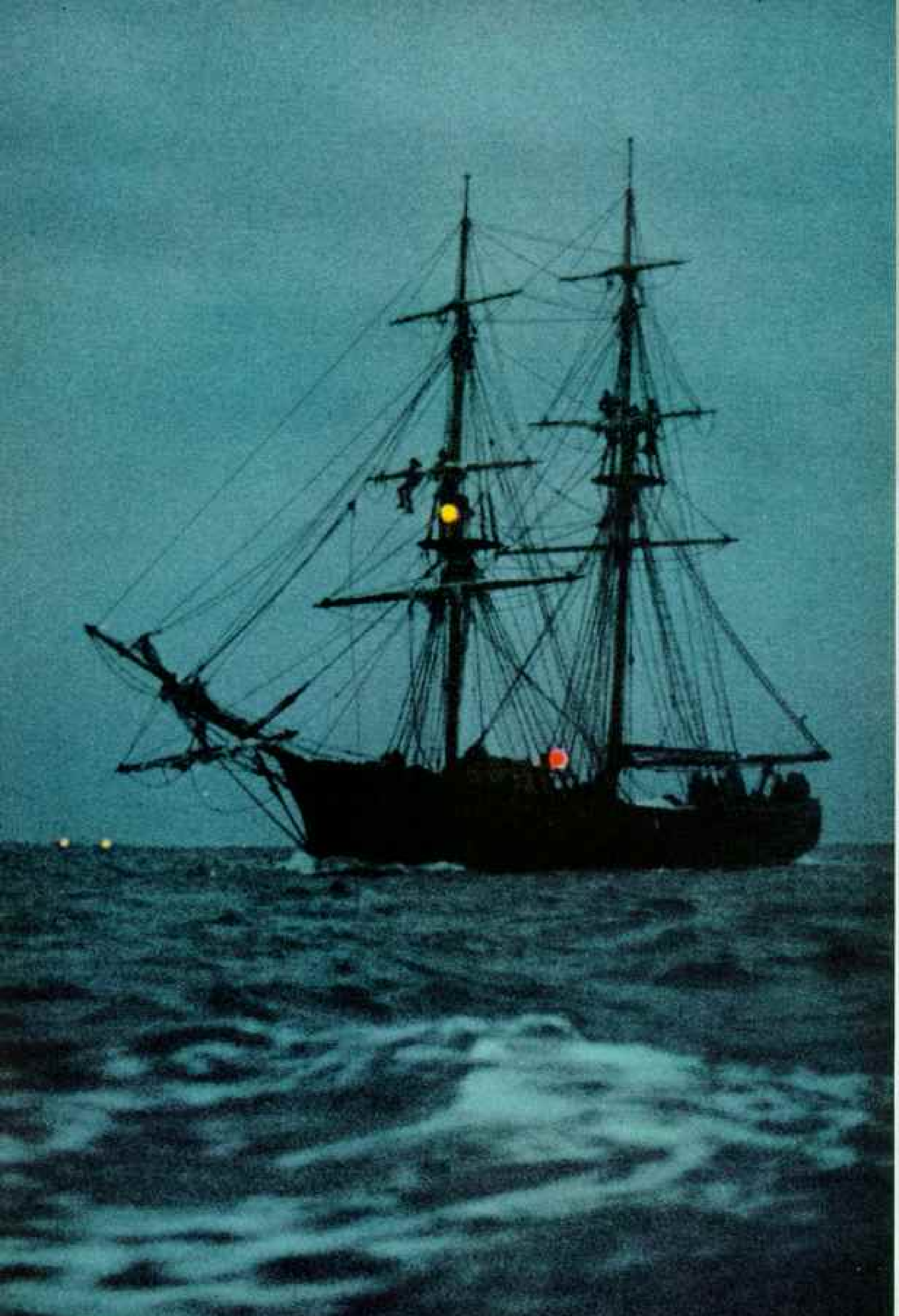
The intense Tom Paine, he of the piercing eyes and combative nose, more or less from Philadelphia, poured out pamphlets that gave the patriot movement an exhilarating sense of connection with the onrushing future of all civilization.

Each of the men had talents akin to genius and fierce dedication to the cause. Each helped to whirl ahead a way of thinking and reacting that was much bigger than themselves or the whole of the American Revolution.

Crime Flourishes Where Rebels Met

Beginning our Boston visit to Sam Adams territory, I gave the cabdriver the address of the Liberty Tree. His look was reproving. "That corner," he declared firmly, "is in the middle of the 'combat zone.'" When he explained that combat zone meant Boston's high-crime area and we explained that combat zone or not, we were heading for a historic spot, he added no less emphatically, "I've been taking people to history places for years and nobody's asked for this one."

We were puzzled. In 1646—Boston was an old town even in Adams's day—an elm was planted in the garden of one Garrett Bourne. By the Revolutionary period its magnificent branches stretched high and far, providing a natural gathering place for crowds. As the rebellious Sons of Liberty emerged, its more militant members proclaimed the elm their "Liberty Tree."



When the British Parliament passed the Stamp Act, the elderly, genteel Andrew Oliver was named Boston distributor. An angry demonstration at the Liberty Tree ended in the vandalizing of Oliver's home and the resignation of the terrified stamp agent. More agitation, and the demand went up that he appear at the Liberty Tree and repeat the resignation. Oliver did, head bowed in a pelting rain, the crowd howling.

Increasingly, Sam Adams became the real leader of the Sons of Liberty, which planned endless activities beneath the Liberty Tree—free food, fireworks, and rousing speeches; roaring songfests and effigy hangings that could lead to more threats and roughhousing; marches, marches, marches to and from the spot to build a feeling of unity and power against the British.

Elm's Fame Reached Distant Shores

Conservatives and some Sons of Liberty shuddered at what they were calling rule by violence. Throughout the Colonies men of militant tendency heard news from the Liberty Tree with huzzahs of approval. Towns up and down the Atlantic Coast jubilantly designated their own Liberty Trees. In England, Philip Billes, Esq., who wanted it recorded that he too was a friend of liberty, promised to leave his considerable fortune to two friends provided they would have his body shipped across the ocean and buried in the shadow of the Boston Liberty Tree.

The great elm was being converted into a symbol of such potency that at their first chance a Boston crowd loyal to the Crown—"after a long spell of laughing and grinning, sweating, swearing, and foaming," one newspaper reported—chopped it down.

The destruction of the tree merely drove its story deeper into the Revolutionary tradition. When the Marquis de Lafayette, the celebrated French friend of the American Revolution, revisited the United States in

Bedraggled stamp official Andrew Oliver, his back to the Liberty Tree, resigns his office before a rowdy Boston crowd. A mob had forced Oliver to give up his office four months earlier, but activist patriots demanded a second, public resignation. Historians differ over whether Sam Adams, here wearing a red waistcoat, encouraged the needless humiliation.

PAINTING BY HUGH E. GLAISTER

1824-25, sweeping through all 24 states to adoring crowds, he made sure to visit the site, raised a glass of claret amid tremendous cheers, and said, "The world will never forget the spot where once stood the 'Liberty Tree,' so famous in your annals."

With a final shaking of his head, the Boston cabbie deposited us at our destination, a tricorner of streets now called Boylston, Essex, and Washington. We stood at the curb and looked around. We saw CANNER'S FURNITURE, the PILGRIM BURLESK, marquee lights blinking at ten in the morning, the KING OF PIZZA, the CINEMA—ADULT FILMS, but nothing remotely connected with the Liberty Tree.

Suddenly my wife, Jo, noticed George Mobley, the NATIONAL GEOGRAPHIC photographer who was traveling with us, on a concrete traffic island in the middle of the juncture, laughing uproariously as he beckoned. He had found a marker of the Liberty Tree all right—a scrawny tree limb about fifteen feet high, with a battered sign nailed lopsided to it, recording in half-decipherable black crayon that some organization had honored the Liberty Tree in some year (page 13).

Further poking around finally revealed, sunk high into an upper story of a building, next to a sign for Papa Spano Pizza, a wooden bas-relief of the elm. It was so covered with grime that it was difficult to make out the somewhat enigmatic inscription:

LAW AND ORDER
SONS OF LIBERTY 1766.
INDEPENDENCE OF THEIR COUNTRY
1776.

Sam Adams spent long evenings in Boston's taverns—counterparts of today's restaurants—which had separate rooms where political maneuverings were planned. Committees too, some extralegal, were major weapons for Adams. Alas, his favorite taverns are gone, but their names come down to us like a wonderful mezzotint of the earthiness of the era (the Bunch of Grapes) and of its hankering for melodramatic literariness (the Green Dragon). We were particularly taken with the names of the Adams haunt where his powerful North End Caucus gathered. Called both Salutation Tavern and the Two Palaverers, it had been located on Salutation Alley at Ship Street, then the last avenue before the water. Salutation Alley still goes its ancient way, though it has become, more decorously, Salutation Street, and Ship Street, less engagingly, Commercial Street.

"New" Bostonians React Differently

But I'm afraid that Sam Adams, who shared an assumption widespread in the Colonies that the only real Americans were Anglo-Saxons, would not feel at home there now. The district is an Italian-American enclave in a none-too-radiant state of partial renewal. Across a parking lot from Salutation Street are the offices of *La Notizia*, "Founded 1916," and at Salutation and North Streets, Carl's Corner, a neighborhood luncheonette.

The owner, Carl Paterna, an abundant fortyish figure, was having an imposing pizza with a younger friend, Sal Petringa, and Paterna's reply was impatient. "Salutation Tavern—sure, it was up the street somewhere. Is *that* what you're here for?"

Sal Petringa took things more in stride. "If you want something historical, go right down the street there. You'll find the old Long Wharf, where the first big load of bananas came into Boston."

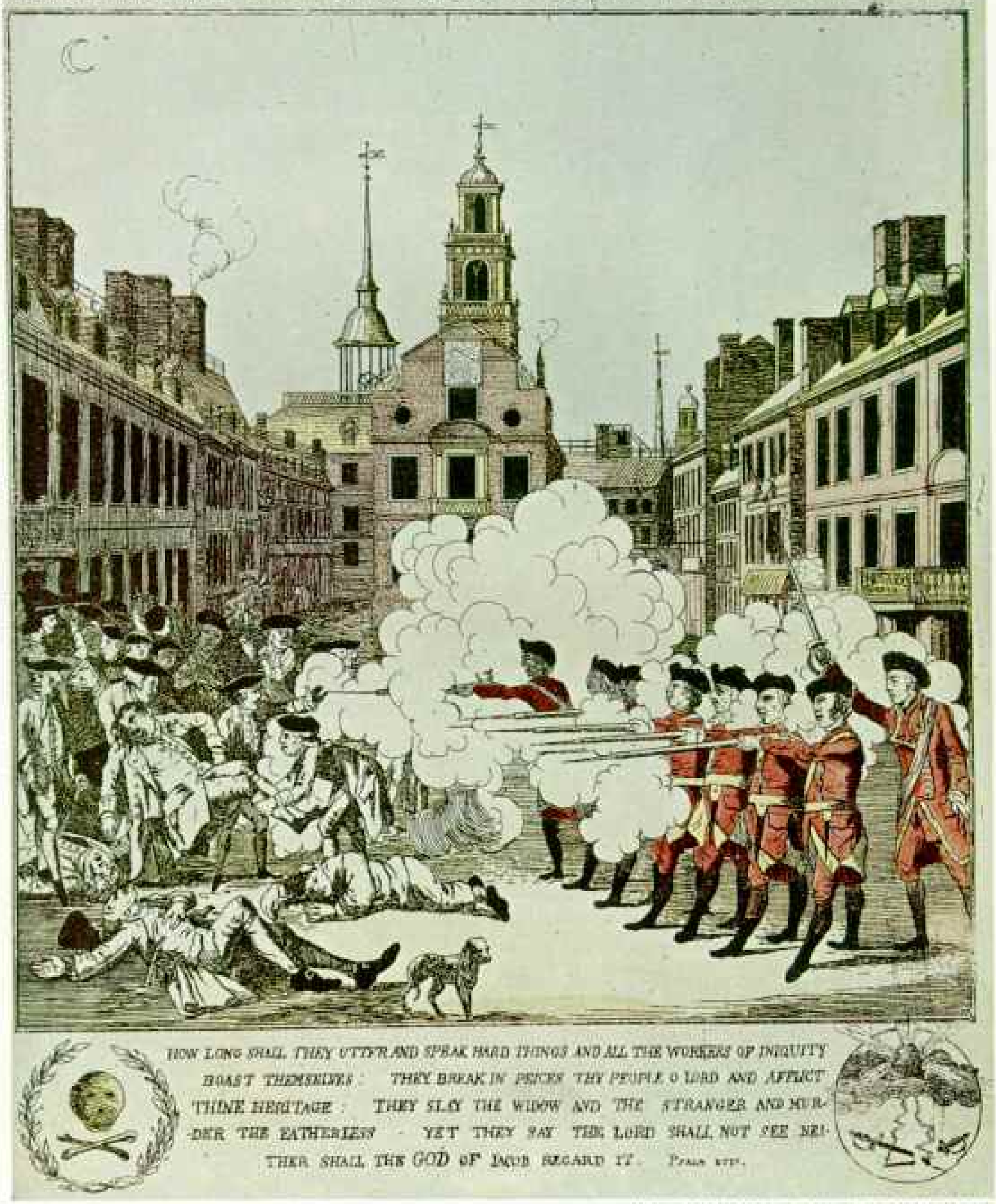
We were beginning to have brought home to us a fact that was ever more plain as we followed the Firebrands. Today any feeling of identity with the figures of the Revolution is much stronger in the old-stock groups than among those whose forebears were part of the enormous wave of migration to the United States from southern and eastern Europe at the end of the 19th century.

As for the Negro, generally he seems little interested in, if not downright hostile to, what he considers a celebration of the black's degradation as a slave. One evening we ended our explorations of the city with dinner at

"The people shouted," Samuel Adams wrote of the colonists' reaction to Britain's passage of the Stamp Act in 1765. Parliament, burdened by the costs of defending the Empire, had sought to raise taxes from the Colonies by requiring that stamps (**right**) be affixed to newspapers, legal documents, marriage and tavern licenses—even to boxes of dice and playing cards. Outraged by this "Infringement of the rights of . . . free Subjects," Adams led in promoting resistance to collection of the tax. Events in Massachusetts set the style for other Colonies, and within months Adams could write that "there is not a Man who dares to put the Act in Execution."

COURTESY MASSACHUSETTS HISTORICAL SOCIETY; A TIMES ACTUAL SIZE


SHILLINGS·III·PEN
AMERICA
V·SHILLINGS



COURTESY AMERICAN ANTIQUARIAN SOCIETY (ABOVE AND LOWER RIGHT)

Eager to condemn British tyranny, zealous propagandists often embellished incidents. Engraver Henry Pelham spiced his version of the 1770 "Boston Massacre" (**above**) with a heady anti-British flavor. Paul Revere went even further, copying Pelham's work and adding "Butcher's Hall" to the Custom House (**lower right**).

More objective accounts told a different story of the March 5 affair. British Redcoats, facing a threatening mob, opened fire. Five rioters died, but not before one testified on the soldiers' behalf. Defended by Sam Adams's cousin, John—future President of the United States—two soldiers received light sentences, the rest went free.

Outside the Old State House (**upper right**), taillights streak where colonists' blood once flowed.

the Union Oyster House (parvenu by any true Boston standards because its oldest boast is of the mid-19th-century Daniel Webster gathering himself in senatorial dignity before its oyster bar for a brandy and water with each half-dozen oysters, and rarely stopping before the sixth plate). We talked with an assistant chef, a black, "Ike" Harrison: bright smile, brightly checkered pants, bright sense of himself.

Harrison was blunt. "I love this job—cooking is creative. About the Revolution and all that, that's somebody else's bag. They kept my people chained down."

Revolutionary Memorials Abound

Over the centuries, Boston has carefully preserved, restored, or marked most of the places associated with Sam Adams, which means many of the sites central to the life of the city. They are within easy walking distance of one another, down slits of streets weaving incongruously through the gleaming skyscrapers, the automobiles honking furiously at their confines.

At the Old State House, Adams as an elected legislator incessantly maneuvered against British authority; it was just outside the building that Colonists clashed with Redcoats in the "Boston Massacre." The structure with its trim gold-crowned cupola stands serene against all the city clatter, yet with more than a touch of its impassioned past. The interior gallery was built at the insistence of James Otis and Adams so that the pressure of "the people" could be directly felt by the legislature.

The Old South Meeting House, similar in setting and architecture except for its tall spire, was both church and town meeting hall. There, in the gathering December darkness, Sam Adams rose to utter the words that are generally assumed to have been the code signal for the launching of the Boston Tea Party: "This meeting can do nothing more to save the country." With a wild shout the Old South Meeting House erupted and its crowd joined the "Mohawks" who were assembling outside for the pell-mell, whooping run to Boston Harbor.

In many ways this consummate agitator hardly seemed the type. Plain and cheerful of face, a puritan of puritans in personal habits, Adams lived routinely in a Purchase Street home with his wife and two children, a slave girl, and a huge Newfoundland dog named—

in some playful memory of his youthful language studies—"Queue," or "Tail."

From his early forties Adams was afflicted with palsy, which at times caused both his voice and his hands to shake and helped make him anything but a charismatic figure. He was no iconoclast cast up from the bottom of society. The elect of Boston went to Harvard, and Harvard seated its students by social status; this student sat fifth out of 22.

His businessman-deacon father, in a way that would always mark some substantial New Englanders, had a propensity for politics and for policies adverse to his own interests, including leadership in a land-bank plan that undercut established economic groups and raised class hackles. Sam Adams was his father's son, carried to the ultimate.

Enemies charged that the younger Adams was embittered by the failure of the land bank; so bad a provider, they said, that at times he and his family lived off what amounted to charity; a prime candidate for jailing because of his curious activities as a tax collector. They regarded him as a rabble-rouser with a jugular, anything-goes hunger for power, the more so because of his paucity of personal charm and his illness. Even Queue, they sourly observed, forthwith took a bite out of any Adams opponent he spied.

Jack-of-Few-Trades, Master of One

All this is accurate, at least to some extent. It is equally true that Adams was so much the failure in ordinary pursuits because he simply was not much interested in them. He had not been rigorous about tax collections in main part because the job bored him and he disliked pressing poor people. His concern, his overwhelming passion, was politics, and he responded to it, as a later generation of Bostonians would say, like McGinnis to the fire bell.

Sam Adams had in abundant measure the vices of the trade. He did manipulate groups of people like so many chess pieces. He did understand and outrageously play upon individual personalities. Most significantly, he perceived that the handsome, finicky John Hancock, perhaps the richest man in New England, had an almost pathetic need for public adulation, and wheedled him into bankrolling the Boston revolutionists. He showed no hesitancy at putting whopping misstatements in his manifestos, or at arousing crowds of wharf hands, rope makers, and unskilled artisans, often already disposed by rum toward violence. But unlike many a figure in the long story of political machinations in the United States, Adams and all his shenanigans or worse were connected with a way of thinking, a credo, an idea of no mean and no small import.

The Idea, and Its Time, Had Come

The Idea was simple—and explosive. It gathered together a dozen strands of dissidence long present in Western Europe and took further shape from the agitation within the Thirteen Colonies. It would soon find expression for all time in the cathedral prose of the American Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.—That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed,—That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it. . . ."

Just before the Revolutionary War, approximately half of the colonists were largely indifferent to the whole clamor. Some 20 percent, including a large segment of the wealthy and better educated, remained actively "Tory" or "Loyalist"—80,000 of them so loyal to England that they would flee the Colonies, helping to fill the vast emptiness of Canada. A final 30 percent were becoming genuinely pro-independence.

To many in the pro-independence category, The Idea meant simply throwing off the rule of England. To others it was clustered about with a thousand nuances; they dwelt upon that peculiarly evocative phrase, "the pursuit of Happiness," and combined a sense of American nationalism with urges for political and social changes within the Colonies.

In this broader sense, The Idea would play an extraordinary role in 18th-century America; it helped to fire major developments throughout 19th-century Western civilization. In the 20th century, it was carried around the world. Apostles of change as different as the revolutionary leader Ho Chi Minh, semi-democratic African leaders, and democratic socialists of India have expressed their programs in a tone, and sometimes in words, borrowed from the Declaration of

Independence. For The Idea was not simply political theory but something far more electric.

After a millennium of locked lives for ordinary men and women, The Idea was creating for them—however corrupted and deceptive some of the forms it was given—the shimmering vision of running their own public affairs, walking head high in the tonic air of self-respect, being able to look forward to a better home, more education for the children, a touch of joy in workaday living.

In his best moments and in his worst, Sam Adams of 18th-century Boston was not only a man of The Idea but also a pioneer in developing and spreading it. So too were his fellow agitators to the south, Patrick Henry and Tom Paine.

Deathless Words Provoke Humor

Late in his Presidency, Lyndon B. Johnson, sore beset by the Viet Nam War, riots in the cities, and sinking Gallup Polls, rumbled off to Patrick Henry's Virginia and enjoyed a moment's respite delivering himself of a story:

"Shortly after his famous liberty-or-death speech," the President said, "Patrick Henry was shown a public-opinion poll from the outlying provinces indicating that 35 percent were for liberty, 31 percent for death, and 34 percent undecided."

A dominant, front-and-center personality, Henry has always provoked a flood of japeries and anecdotes. His crimson-shot place in history has been increased by the drama of social structures in Colonial Virginia. The small farmers, many in the backcountry, were challenging the traditional power of the large-scale planters, most of them along the Tidewater.

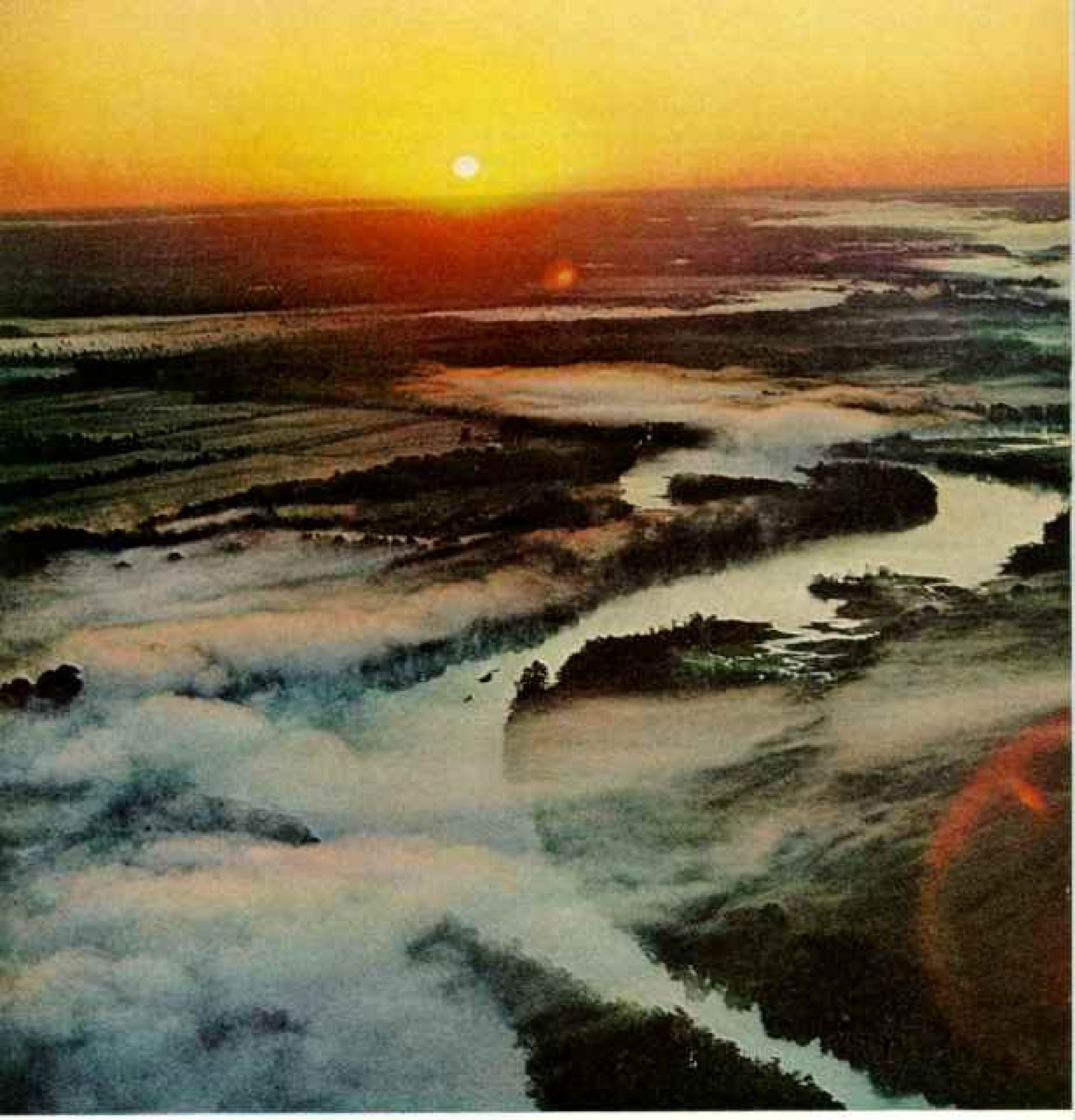
The circumstances of the Revolution would bring a high degree of union against the British. But well before the actual fighting, the small farmers were the more emotionally ready for any talk of taking on the British in proportion as it also smacked of reining in the wealthy Tidewater nabobs.

Patrick Henry's father, a Scottish farmer with his minor acreage deep in the countryside, usually kept his family in moderate circumstances, and he was well enough educated to teach his son to read the great Latin classics fluently. Yet the tall, rugged boy, dressed in the rough clothing of the region, was at the same time being filled with a number of backcountry attitudes.

We found the gray stone marker indicating his birthplace near the village of Studley in Hanover County, which swings north of Richmond. The major crop in the area now is the soybean, not tobacco; the young man who owns the principal store has outside, for the tourists, an old buckboard and for himself, a Lincoln Continental. But Henry's place of origin was so backcountry that two centuries later Studley is still little more than a crossroads, with only a sprinkling of development houses going up in the distance.

At 16 Patrick Henry tried his own storekeeping near Studley, and went broke. A few

Weather-worn reminder of the patriots' dream, a graying sign in downtown Boston stands near the site of the original Liberty Tree; a more permanent monument adorns the building behind author Goldman. Loyalists hacked the elm to firewood in 1775, but its message had been made clear: "The people," Adams had declared seven years earlier, "will boldly assert their freedom."



Seedbed of resistance, the level fields of Patrick Henry's native Hanover County border on the sleepy waters of the Pamunkey River. When Lord Dunmore, Virginia's royal governor, confiscated 15 half-barrels of gunpowder from the Magazine in Williamsburg (**left**), cautious Tidewater politicians counseled patience. But Henry marched the Hanover militia downriver and forced the English to make payment for the seizure. Despite Dunmore's condemnation of such "outrageous and rebellious practices," Henry's feat demonstrated the vulnerability of the British and brought added support for the activists' cause.

miles down the road, at Rural Plains, John Shelton had a substantial number of acres, which interested Henry, and a pert brunette daughter who interested him still more. The 18-year-old Patrick married the 16-year-old Sarah, the ceremony taking place in the Shelton home that is still very much there in little-modified form.

Ninth Generation Preserves Old Home

An unassuming, almost-square brick structure, with a more-than-200-year-old sycamore standing amid farm machinery and other tools of modern living, it remains a private home. The historic dwelling is now owned by the proprietor of a plant nursery, William R. Shelton, Jr.

Showing us around in her pleasant way, Mrs. Shelton pointed out that the old house has been continuously occupied by the Shelton family for nine generations but, she added a bit wistfully, the line was ending because her only two children were by a previous marriage.

An antiques enthusiast, she has filled the home with memorabilia ranging from a high-back bed of the days of Queen Elizabeth I to an early Singer sewing machine. Naturally, she reserves her greatest zest for the parlor in which Patrick Henry and Sarah Shelton took their vows, and the original black fireplace, with its striking white mantel, before which the couple stood.

The house, Mrs. Shelton added, was in the direct line of heavy fighting during the Civil War and the parlor was used for an extensive period to care for the wounded. "Years after the war, it took my husband's mother days of scrubbing to get the bloodstains completely off the floor."

Sarah Shelton's bridegroom was not much of a farmer; besides, their house burned down. While attempting to make a go of another store, by some instinct young Henry turned to reading for the law, burning candles far into the nights.

At the county seat of Hanover, about eight miles away, his father-in-law owned the Hanover Tavern, located across from the courthouse. There Henry established himself, his practice, and his rapidly increasing family.

Today the Hanover Tavern stands on the village's sparsely built main street, a rambling yellow-clapboard relic distinguished by huge brick chimneys. The owner is an avant-garde group, the Barksdale Theatre, established 21

Mixing pills and politics: In the dim light of John Galt's Apothecary Shop **(upper)** in Colonial Williamsburg, Howard Atkins and his assistant practice the 18th-century art of "rolling pills" for colds and fevers. The store's 200-year-old account books record Patrick Henry's purchases during his eleven years as a member of the Virginia House of Burgesses, which met at Williamsburg.

years ago by six young actors from New York City.

As one of them, Muriel McAuley, told us, they went south to Richmond, then stumbled upon Hanover Tavern, "a magnificent derelict, with spongy floors and listing porches, without heat or plumbing, so we naturally fell in love with it."

In their publicity the Barksdalers do not neglect the fact that Washington, Jefferson, Lafayette, and Cornwallis slept there. But clearly their hearts, which they like to think of as rambunctious, belong to the memory that Patrick Henry, whom nobody doubted was rambunctious, lived there.

A Man of Ideals—and Ambitions

The young man who vaulted from the Hanover Tavern into so large a place in American history had absorbed from his readings a full quota of The Idea. Perhaps as much as Adams, he took it to mean independence plus political and social churnings. Yet Henry was as eager for money and status as any young Virginian of his day.

He spoke in moving and undoubtedly sincere words of his love for mankind and often he was, in the words of a friend, "gentle, gentle" in personal relations. Less admiring acquaintances handed down stories of how he would ride off for considerable periods of self-aggrandizement, leaving an ailing wife and a brood of children to be cared for by relatives.

Henry would rise to commanding political power in Virginia; he did it largely as a loner, giving himself little to the Adams-like wheeling and dealing.

Essentially Patrick Henry was—out of the abrasions of his background, soaring idealism, and rampant ego—the popular tribune, satisfying inner needs and outer hopes simultaneously by storming against the status quo. Not surprisingly, the high points of his career came in three speeches of torrential assault.

The first was delivered in the Hanover courthouse, situated far back on a broad, lovely greensward. Built about 1735, it continues to be used with no important alteration in its tidy red-brick design.

Inside, large squares of slate support a place of dignified simplicity for the judge, jury, and eight rows of solid-oak benches. In the 18th century the Hanover courthouse looked the way a courtroom should look; it looks that way in 1974.

As soon as Henry began practicing, he scored an impressive series of victories, but his real chance came in 1763 with the case that the county was avidly discussing as the "Parson's Cause." Henry was only 27; the issue was a complicated one. He represented a group of small tobacco growers who had become embroiled with the Anglican clergy over details of salary payments they made to preachers of the established church.

The courtroom was packed. At the beginning of his presentation, the young counsel seemed abashed, awkward, almost confused. Then the powerful body straightened, the angular head went back, the deep-set blue eyes shot fire.

The voice began to ring out, one of the great voices in the history of oratory, now commanding, now mellifluous, now insinuating, perfectly attuned to each turn of his argument. More and more he shucked complexities and turned his argument into a philippic against "tyranny"—over political liberty, over the minds of men, over the poor. When the jury brought in what amounted to a verdict for the growers, transfixed spectators broke into yells. Hoisting Henry to their shoulders, they carried him to the courtyard in shouting triumph.

People besieged him to take their cases and his income soared. He began a lifetime of land speculation, and won election to the Virginia House of Burgesses, which took him to Williamsburg, the capital some 50 miles to the southeast.

A Pensive Generation Looks Back

Williamsburg today offers the most complete historic restoration in the United States, the 90-million-dollar "Colonial Williamsburg." Walking around it, we were struck by the great number of young people in the crowds—not the captive schoolchildren being deposited by giggling busloads, but college types and young marrieds in their carefully battered jeans and anti-Brooks Brothers corduroy jackets. It was a phenomenon we had observed in Boston and would note throughout our travels. Was this the generation that, to so many ringing pronunciamentos, had renounced history as "irrelevant"?

Colonial Williamsburg also brought heightened reminders of the incandescent Patrick Henry personality, especially as we reached the reconstructed capitol, which contains on its first floor the chamber where the House of Burgesses met. The speaker's 247-pound chair and the stately brass chandelier only emphasize the smallness of the room and the narrowness of the green-baized benches where legislators sat.

Fiery Words Chilled Conservatives

The Colonial-gowned hostess points out to visitors that in 1765, after news of the Stamp Act, Patrick Henry, in the first month of his first term, a day past his 29th birthday, rose for his second great speech:

"Tarquin and Caesar had each his Brutus, Charles the First his Cromwell, and George the Third . . ."

From conservative burgesses came the shouts, "Treason! Treason!"

". . . and George the Third may profit by their example. If *this* be treason, make the most of it."

If ever there was a classic scene of the eternal stuff of human history—youth against age, severe tensions between men of different backgrounds and temperaments, the crash of new ways of thinking against the molds of tradition. . . .

The worried British governor immediately dissolved the House of Burgesses, a measure that would be repeated several times in succeeding years. In 1775, defiant Virginians sent delegates to a convention of their own calling, to meet in Richmond at Henrico Parish Church, now often called St. John's Episcopal Church.

Built on what had been a choice hill of the city, the original plain wooden building, with its little bell on top, substantially remains as part of a larger structure. Money for upkeep has been scarce, and a clutter of antiquities has grown up from efforts to attract tourists. Yet the pine pews in which Washington, Jefferson, and Henry sat are there, and we walked on some of the same pine flooring from which Patrick Henry delivered the words that are surely among the best remembered in the American tradition.

Dispatches about increasing British restraints on Boston were reaching Virginia, and Henry made up his mind that it was high time for bold action, whatever the consequences. Before visiting St. John's, my wife and I reread several old accounts of the ensuing speech at the church, passed down from men who were present.

Standing in a pew three rows from the

pulpit, Henry "commenced somewhat calmly, but the smothered excitement began more and more to play upon his features and thrill in the tones of his voice. The tendons of his neck stood out white and rigid like whipcords. His voice rose louder and louder, until the walls of the building ... seemed to shake and rock.... Men leaned forward in their seats, with their heads strained forward, their faces pale...."

Approaching the end, Henry stepped from the pew to the aisle, paused a long few seconds, turned slowly toward a group of conservative delegates. He "stood in the attitude of a condemned galley slave.... His form was bowed; his wrists were crossed; his manacles were almost visible." His words were a low rumble.

"It is vain to extenuate the matter. Gentlemen may cry peace, peace, but there is no peace.... The next gale that sweeps from the north will bring to our ears the clash of resounding arms. Our brethren are already in the field. Why stand we here idle? What is it that gentlemen wish? What would they have? Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery?"

Then the slave demeanor was gone. Patrick Henry stood "erect," "defiant," "radiant," his arms stretched far upward, the ring of his voice like a "Spartan paean."

"Forbid it, Almighty God! I know not what course others may take, but as for me, give me liberty, or give me death!"

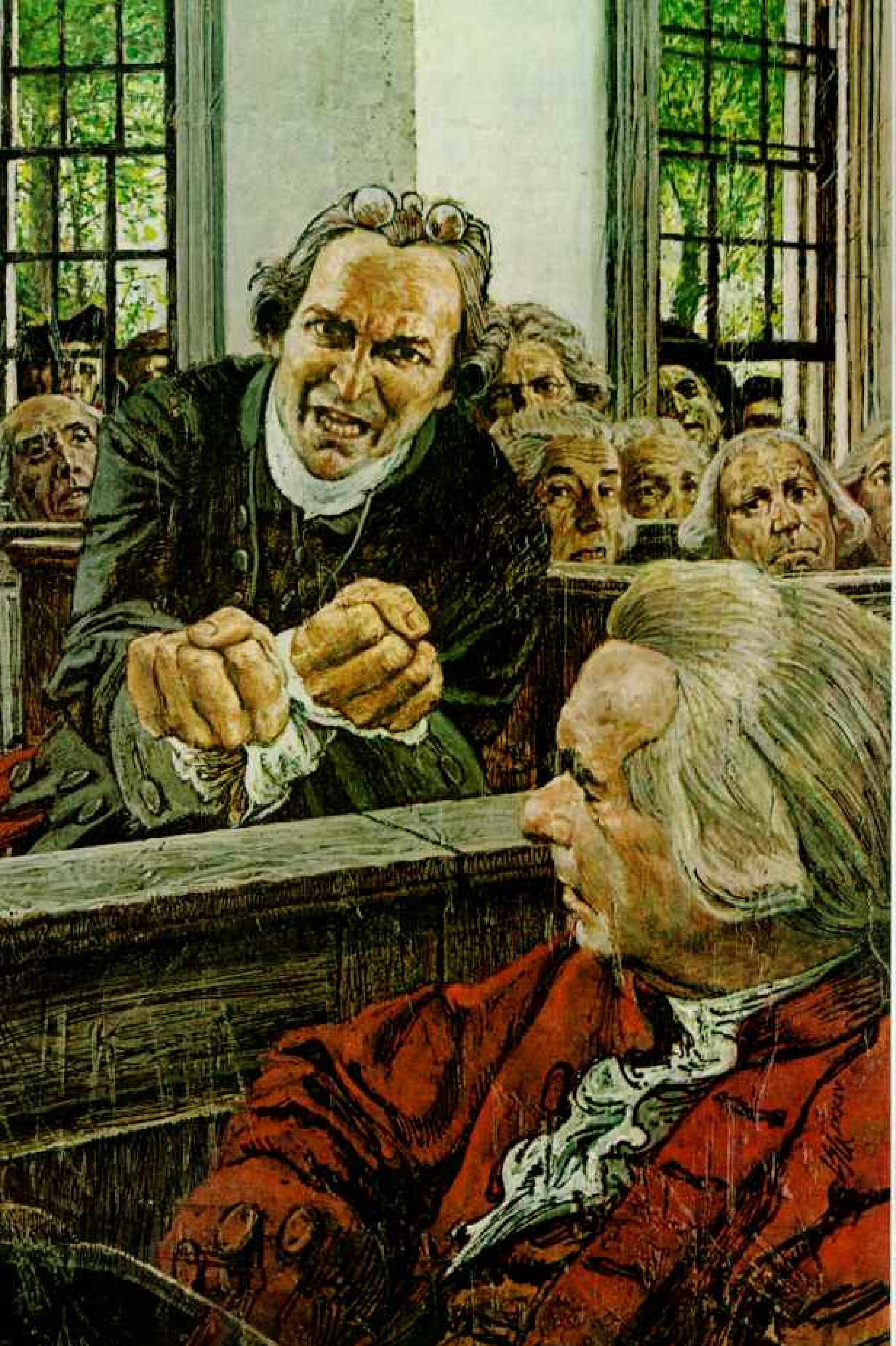
My wife and I walked slowly to our car, saying little.

Traces of Paine Scarce in Philadelphia

Back northward, now, to old Philadelphia, to the blocks extending immediately away from the river that were the stamping grounds of Tom Paine. We wandered these streets with no small sense of frustration.

Paine had only a short pre-Revolutionary period in the Colonies, not migrating from England until 1774. His first job was at a

"Our chains are forged," thunders Patrick Henry in his famous "Give me liberty or death" speech to Virginia delegates in March 1775. "There is no retreat but in submission and slavery." The volcanic orator from the backcountry helped convince less emotional Virginians such as Washington and Jefferson, in background, to defy the armed might of Great Britain. LOUIS S. GLANZMAN



print shop near Market and Front Streets; Paine lived in several lodging houses in the neighborhood. They and the print shop have all disappeared. He delighted in the taverns near the wharves that had been filled with political and book talk since the days of William Penn. His two favorites, the London Coffee House and the Indian Queen, have long since vanished, and much of the area is scheduled for demolition to make way for Interstate 95. He spent whole days in the two rooms of the Library Company of Philadelphia, on the second floor of Carpenters' Hall; the Library Company moved in 1790.

Tom Paine's Philadelphia, a beehive of printing houses, taverns, bookstores, and shops with bright signs of red, yellow, and blue swaying outside, is now a dingy collection of wholesalers, eateries, discount houses, and mottled stores, with no emanation of the 18th century.

Genius Forged by Adversity

"You'll have to get Tom Paine in Philadelphia by historical osmosis," a newspaperman friend assured us, and that you do. After all, you know that somewhere nearby he wrote those spectacular 79 pages, *Common Sense*. The pamphlet was Patrick Henry on paper. Five hundred thousand colonists—proportionate to 45,000,000 Americans today in terms of total population—bought it. The grave George Washington, who had been decidedly reserved toward talk of independence, spoke for thousands when he pronounced *Common Sense* "sound doctrine and unanswerable reasoning." The pamphlet was that rarest of writings: words that demonstrably changed minds wholesale.

Whence came this bombshell human being? His life had seemed just another drab story of the poor in 18th-century England. Paine started as an apprentice corset maker, ran away to sea, tried his hand as teacher, exciseman, tobacconist, groceryman, and rarely was far from debtor's prison. He haunted bookshops and lecture halls; people shrugged at his yearnings. A young widower, he married again only to have the union end in separation.

With a hapless middle age approaching, he did what so many other down-on-their-luck Englishmen were doing—scrounged together enough money to sail for the Colonies. In transit, a "putrid fever" struck; at Philadelphia he was carried off the ship half dead.

Joining ranks: A drummer (**above**) from Colonial Williamsburg's militia of today falls in beside his girl after the town muster (**below**), where the cloudy breath of "Brown Bess"

muskets shrouds the scene in smoke. Harness maker Irvin H. Diehl, an officer of the militia (**above**), chuckles at the proceedings.

Henry became commander-in-chief of the Virginia militia in 1775. "The war is inevitable," he forecast a month before the battle of Lexington and Concord. "An appeal to arms, and to the God of hosts, is all that is left us."

But Tom Paine had always been tough, determined, aggressive. Pulling together his wracked body, he set to scrivening in his barren rooms. Only 13 months after he was taken from the ship he published *Common Sense*. He had a formidable tool, a skill akin to magic, as he bent over the rough buff paper on his wobbly table. With a formal education which had ended at age 13, Paine could state complicated public affairs in language that read as easily as a child's primer. He could make words march, cajole, taunt, singe, and summon.

Paine Gave Voice to a Dream A-borning

Largely undistinguished in looks—only those eyes and the nose relieved the ordinariness of his build and face—he cared nothing about dress. Sometimes he would appear with the midday's soup on his neckpiece because he had been so preoccupied writing he forgot to change.

Even more than Adams, Paine was indifferent to money. He made no effort to profit from *Common Sense* and subsequently lived largely on government grants, refusing all royalties from his patriotic writings on the ground that payment would demean them. At social gatherings he could be charmingly warm and witty. Most of the time he was neither, waiting until the conversation turned to a serious point and then dogmatically hammering home his own opinion.

Tom Paine was a man of The Idea almost to the exclusion of everything else, and of The Idea swept to implications well beyond those of either Adams or Henry. He drew from it a variety of doctrines ranging from antislavery to criticism of organized religion as an ally of social oppressors. In *Common Sense* he broadened it in a way that mattered a great deal. "We have it in our power to begin the world over again," Paine wrote in his fevered prose. "A situation, similar to the present, hath not happened since the days of Noah until now."

"I thought it very hard," wrote transplanted Englishman Thomas Paine, "to have the country set on fire . . . almost the moment I got into it." Arriving in Philadelphia in late 1774, Paine launched a series of brilliant, inflammatory articles and pamphlets. "The great American cause," a contemporary later wrote, "owed as much to the pen of Paine as to the sword of Washington." LOUIS C. KLEINMAN


Pennsylvania

Independence, he more than implied, was needed not merely to end tyranny over the Colonies; it would permit a free United States to lead in reforming all civilization. Here was a doctrine that would permeate the national mind and, for good and for woe, profoundly affect future world affairs.

With the spread of the Revolutionary fighting, the restless Tom Paine volunteered and soon found himself an aide to a key American general and having contacts with his admirer, Gen. George Washington. The year 1776 brought one disaster after another for the Americans, near-annihilation in New York, then a long retreat through a savage New Jersey winter. Washington was desperate; he wrote to a cousin at Mount Vernon that the end might be near for the cause. Perhaps the general made the suggestion, but at any rate Tom Paine was writing again.

He began when the Revolutionary army was in Newark and kept on through the retreat, in sequestered houses, around campfires in the snow, "at every place we stopt." On December 19, 1776, *The Crisis* was published in Philadelphia.

General Washington had made his decision. The enlistment time for many of his half-starved, half-frozen troops—hundreds had no coat or shoes—would be up on January 1. A resounding victory was the only hope of holding the army together.

He gathered his remaining soldiers on the Pennsylvania side of the Delaware River. His plan went into effect: Cross the river on Christmas night 1776 to surprise Britain's Hessian mercenaries, so confidently camped across the water in Trenton, New Jersey.

Washington Crossing, Pennsylvania, is now a 500-acre state park with an air of utter beauty and tranquillity. The Delaware is not even polluted at this point. A copy of that massive banality, the Emanuel Leutze painting "Washington Crossing the Delaware"—placed in the Memorial Auditorium—dominates everything with pleasant absurdity

Peaceful retreat from worldly strife, Paine's New Rochelle cottage, built by the patriot in the 1790's, casts a warm glow into the November dusk. The study displays Paine's writing kit and copies of his pamphlets (**right**). With the advent of war, Paine strove successfully in his famous tract, *Common Sense*, to convince colonists of their need for independence. Ever a stormy figure, he later carried his message of radical reform to England and France, spreading his belief that "The cause of America is in a great measure the cause of all mankind."


COMMON SENSE;
INHABITANTS
AMERICA,

and children continue to enjoy asking, "Why didn't he sit down?" The acres where Washington assembled his men, along Pidcock Creek, are a delightful nature preserve.

But the grimness of Christmas, 1776, is not lost. You visit the graves of the men who were dying while still in the camp, 21 of them, only one identified, the rest among the nation's first unknown soldiers. And amid all the serenity and the skillfully manicured restoration the nonmanicured, strident Tom Paine breaks through again.

General Washington received a copy of *The Crisis* immediately upon publication. Just before he sent his army into the ice and howling winds of the Delaware River, he ordered it read to every corporal's guard. The troops heard the purest Tom Paine: "These are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of their country; but he that stands it *now*, deserves the love and thanks of man and woman." There was the prospect of a whole new era coming, a "glorious" one, when tyrants would flee "with terror from the orphan, the widow, and the slain of America."

The effect of the *Crisis* reading was no small one. With a considerable shove from Paine's bulldozing words, Washington's army made it to Trenton, devastated the enemy forces, turned the tide of the war. As for Tom Paine, before many years he was back in Europe, a missionary of revolution to both England and France, producing more arresting, questing, incendiary writings.

Seeds Planted by Firebrands Still Grow

We ended our revisitation to the three Firebrands with Paine and look back on the trips in a rush of memories, musings, impressions. The dominant thought is that The Idea is still very much in formation in the United States, still the focus for deeply felt debate, the more so because the issue is rarely clearly stated. Sam Adams, well-born, not venturing too far into social and economic heresies concerning internal American affairs, is more or less accepted into the pantheon of Boston Adamses. But Patrick Henry and Tom Paine are a different story.

Paine, of course, wanted to upset all kinds of status quos. If in fact Henry was a great deal more the patriot against England than the political and social agitator within the Colonies, he has passed into the popular tradition as a general shaker of things as they were. For many Americans, the two men represent The Idea as a two-pronged war, one for freedom from Britain—settled two centuries ago—and the other an attack on established classes and fixed ideas at home, as alive as today's headlines and anything but settled.

As late as 1942, the Fairmount Park Commission of Philadelphia turned down a statue of Paine because some of his "reputed" views might make the memorial "objectionable to many Philadelphians." Today a number of upper-class Virginians are not too happy about too-sweeping praise for Patrick Henry. As one member of the group remarked to us, "My kind of people are leery of Henry, the 'frontier upstart,' and his 'upstart ideas.' They prefer to stay with solid Randolph types who were for independence but didn't go around shouting about the equality of man."

The most enduring significance of the Firebrands of the Revolution is that they loosed into American discussion the full glories, complexities, and inherent antagonisms within The Idea, which unending generations—each in its own way—will have to face, battle over, and seek to compromise.

A Philadelphian Looks at Freedom

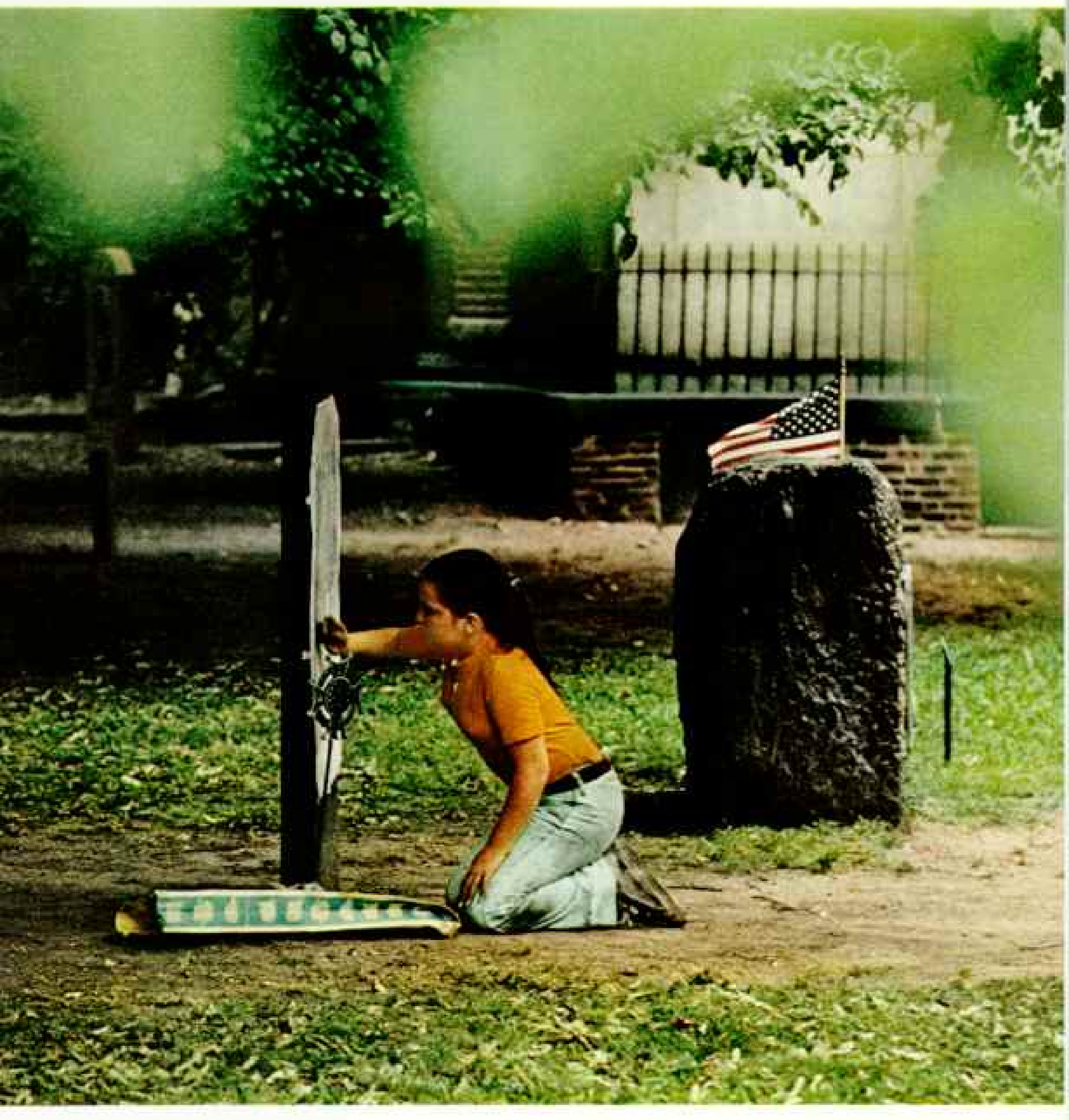
One of the last people we talked to during our journeys was Lew Lerner, proprietor of Lerner's Cafeteria Delicatessen in the old Philadelphia area. Lerner is straight out of Damon Runyon—hefty, outgoing, affable, a man with pride in his cheesecake and his ability to turn a dollar.

He purchased the place at 134 Market Street oblivious to a dirty plaque outside and subsequently discovered—to his astonishment—that he is serving his cheesecake on the precise site of the Dunlap & Claypoole printing house that published the first copy of the Declaration of Independence, of the Constitution, and of Washington's Farewell Address.

Lew Lerner is pleased. It will be good for business and besides, "I'm an American and it smacks me right here"—a thump on the chest—"that all that stuff happened at my place." But sometimes, as more and more people come to his delicatessen because of its historic interest, he grows pensive.

"They all talk freedom, freedom. But you know damn well some dowager doesn't mean the same thing by 'freedom' as a poor guy.

"Freedom," said Lew Lerner, "is a complicated thing." □



Touching the past, a young historian takes a rubbing from the tombstone of the Boston Massacre victims in green-shaded Old Granary Burying Ground. Sam Adams's headstone looms behind her.

Not themselves the Revolution, but only its harbingers and early leaders, Firebrands Adams, Henry, and Paine depended on a receptive public for their success. At no point could the eventual outcome of their struggle be clear. Events unfolded fitfully, and as agitators, spokesmen, and ideologues, they could only try to harness the shifting flow of history to their hoped-for goals.

As the Revolution took hold and led first to war and finally to independence, the personal importance of the Firebrands faded. But the potent ring of their words, the ideals and yearnings to which they gave voice, remain a force to be reckoned with. As Adams declared in 1772, "Where there is a spark of patriotic fire, *we* will enkindle it."

Vermont

A STATE OF MIND AND MOUNTAINS

By ETHEL A. STARBIRD
NATIONAL GEOGRAPHIC STAFF

Photographs by
NATHAN BENN

"LOOKIN' for Poultney, y'say?" The old man shuffled closer to the car. "Well, you're in it now. 'Less ya want East Poultney. Which is where Poultney used to be. When Poultney was West Poultney, that is."

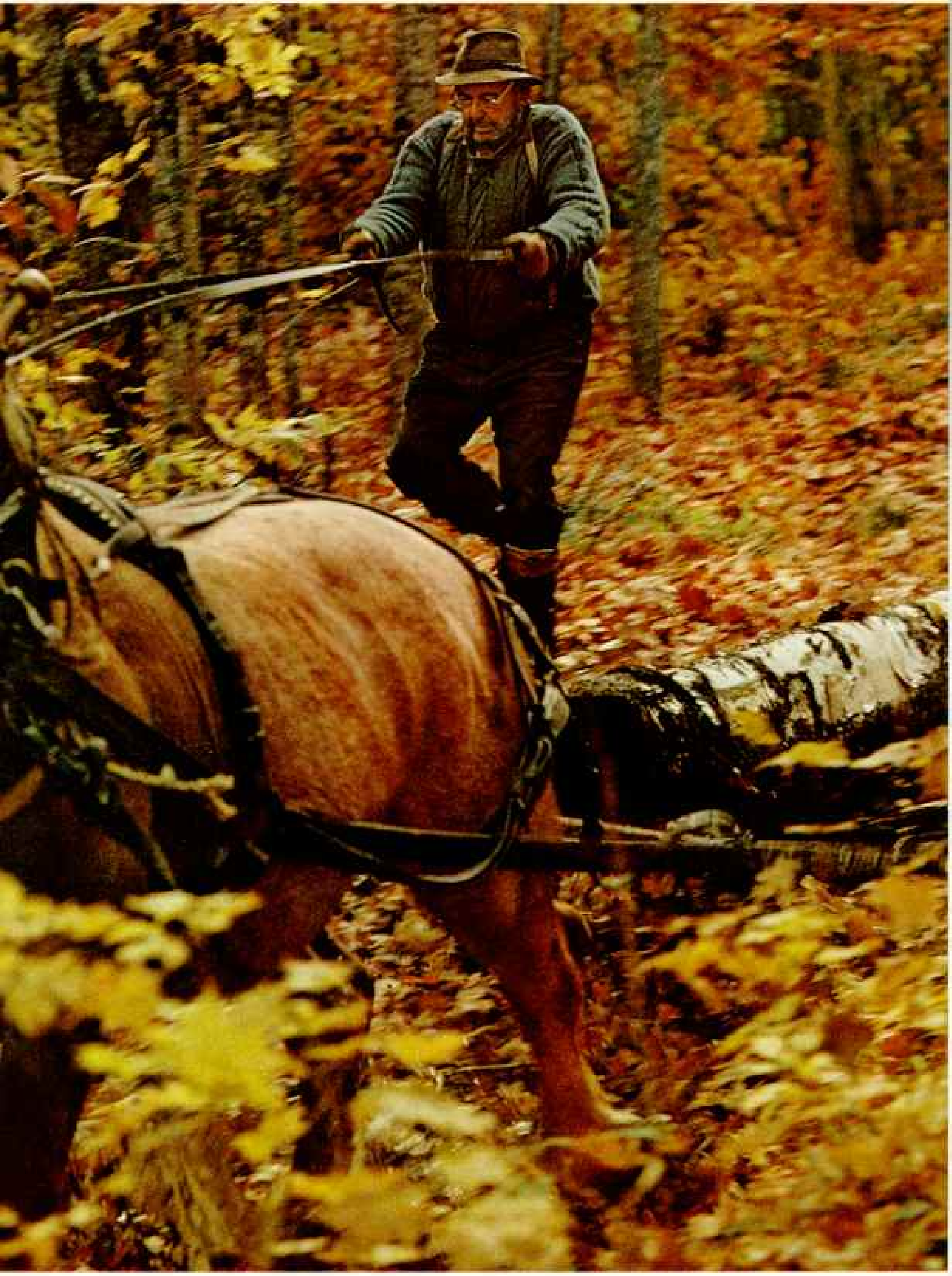
I knew I had crossed the line into my home state. This is the kind of conversational web Vermonters delight in weaving.

Did he know the way to the Greeley place?

"N'body by that name 'round here," he assured me. "Better try up to East Poultney. May be one of them city folks that keep movin' in."

Horace Greeley was, indeed, a city man, but he was raised a country boy, in New Hampshire and then in West Haven, Vermont. In 1826—at the age of 15—he sowed the seeds of his journalistic career apprenticing on the *Northern Spectator*, a Poultney newspaper. East Poultney has

Hard as a birch knot, Chester Grimes at 69 still hauls his logs one at a time with draft horses. Chester doesn't much care for big tractors skiddin' timber out and tearin' up the land. Everybody's got strong opinions about Vermont, from those who want to preserve the past to those who want to subdivide the future.



"Tain't quaint, it's home," say Vermonters to tourists charmed by the swelling landscape and crisp white towns. Villages like Strafford (**right**), with their plain grace, draw out-of-staters who now own more than half of Vermont. Practical as the Model A chugging across it, this covered bridge at Brandon was put up to keep snow off, not to bring skiers and sightseers in.

changed little since it was Poultney, and Greeley worked in a white clapboard house still facing the village green.

The blood of a Vermont printer flows in the veins of present owner Helen Hackett Cahill, who—in her words—"come by my interest natural." Pert and pin-curled, she showed me through rooms that she has tastefully refurnished with reminders of the great editor's era and presence.

"Wasn't much more than a decade after learning typesetting right here," said Mrs. Cahill, opening the door on a fascinating jumble of memorabilia, "that Mr. Greeley founded the *New York Tribune*. He urged young people to go West, y'know."

SOME VERMONTERS WENT—like Brandon-born politician Stephen A. Douglas and Rutland's steel-plow pioneer John Deere. Others would follow. But many would not.

There were fields to clear, Merino sheep to shear, and a demand for wool and wood in mills along Vermont's many rivers. Fortunately, early Green Mountain boys—who broke the wilderness, turned off trespassers, and twice beat back the British—had sired a hardy breed.

In doing so, they endowed this wrinkled little state with a strength, stubbornness, humor, and individualism that—despite dilutants—still make a zesty brew. Today outsiders come miles and spend millions just to sample its unique flavor.

A few months earlier I had traveled a winter road, slick as wet chamois, to Burke Hollow to see if time had tempered that lively local forum called town meeting. This annual March rite, where any voter's voice may be heard, often generates enough heat to hurry spring thaw.

The solemn tone, set by opening prayer and pledge of allegiance (pages 32-3), was soon shattered by a slip of a woman who shot to her feet, brandishing the year-end summary of town affairs. "When do we start objectin'?" she shrilled.

Her wait was short. Moderator James Sanderson allowed a burly fellow in boots and mackinaw to speak.

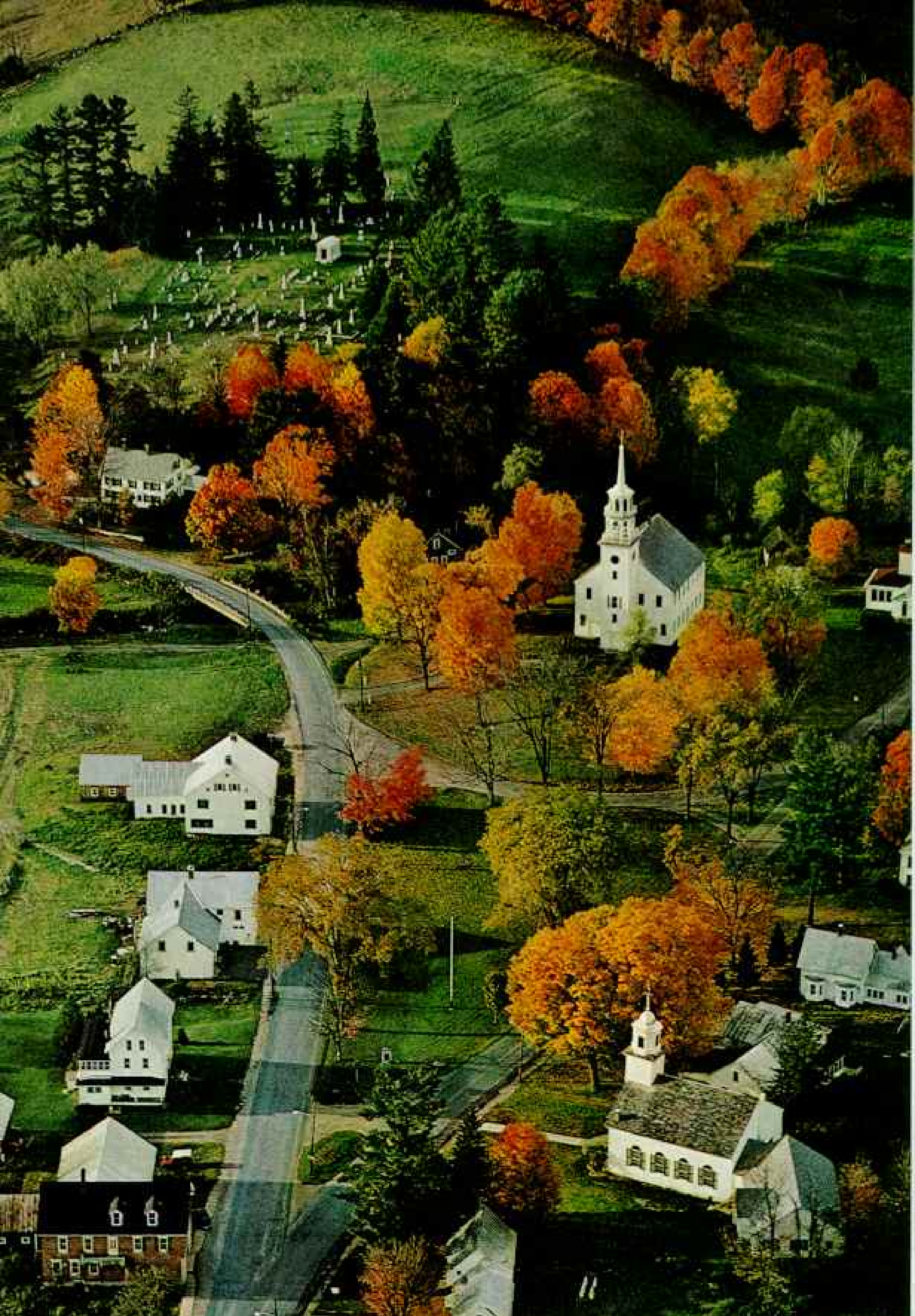
"Lookee here, Jim. On page ten. Those figures don't make sense. There's a mistake in there, I can tell you."

Jim's eyes raced down the page. "Maybe so, Harry. But didn't you ever make a mistake?"

"If'n I had, I sure wouldn't publish it in the town report."

I left the arena, reassured.

Vermont's natural aptitude for dissent has been honed by years of practice. Almost as soon as settlement started—around the



Under a canvas sky, the Burke Town Meeting pledges allegiance before getting down to its

yearly grass-roots business. In speak-your-mind democracy, all can have their say—and most do.

mid-1700's—powerful, neighboring New York Province claimed property already sold to homesteaders on the authority of the New Hampshire governor. Rallying behind the irrepressible Allen brothers—namely Ethan and Ira—the Yankees stood their ground.

Disaster loomed larger when the Continental Congress sided in 1777 with member state New York. Rejected for statehood themselves, Vermonters forged an independent republic, thus thwarting outside claims.

"Even then, Vermonters had a knack for shrewd trading," said Burlington author Ralph Nading Hill. "After Yorktown, they hinted broadly that they might join British Canada. No one knows to this day if they were serious. But they won their point. In 1791 Vermont was admitted into the Union as the 14th state."

Ralph and I agreed—perhaps through mutual memories—that our favorite dissent came in September 1941. Anticipating the nation's stand against Nazi tyranny, Vermont declared war (the legislature labeled it "a state of belligerency") on Germany three months before Pearl Harbor. The ghost of Ethan Allen slept easier that night.

SINCE WORLD WAR II the population has changed considerably; so, too, have certain attitudes. How much—and how little—I took time last summer to learn.

Looking closer than I ever had before, I saw, in the comfortable sameness of our scenic state, regional differences I had never recognized.

In the north gently folded farmlands cultivated largely by Canadian-Americans meld, east of Lake Memphremagog, into a vast evergreen empire where woodsmen reign.

Below Mount Mansfield's long-lipped profile, the Green Mountains rise in regal splendor, bowing only to the Winooski River that links Burlington with the capital at Montpelier. Westward the high peaks subside into ripples, then into flat calm where apple orchards flourish. To the east more pronounced contours cloister snug little towns of great age and charm. The range is more than a geographic barrier, for people on the Connecticut River side feel little kinship to those along Lake Champlain.

Rutland, pacesetting city of the south, marks another break in pattern. Here Vermont begins to billow in green waves all the way to Massachusetts. Common interests and short distances have created a personal closeness lacking in the upper tiers.

Early in my reappraisal I learned one useful lesson: If the town clerk doesn't know it, it probably never happened. A credit to her kind, Mrs. Rena B. Reed welcomed me in the sunny front room of her home in Dummerston Center, where she has kept Dummerston town records for 43 of her 45 years in elected office. Her books show Rudyard Kipling once lived here, that Ambassador Ellsworth Bunker still does.

At 81—but looking more like 60—Rena told me she'd soon be retiring. "But it's no botheration working this way. I can take care of folks whenever they call and still keep up with household chores." The spicy smell of pickle making filled the air; Rena stepped into her kitchen and stirred the pot.

"There's talk of a new building for this office. Regular business hours, too." Her eyes twinkled. "Next thing we'll be hiring a town manager. After all, we're growing fast; pretty soon we may have as many people here as we did in 1810—1,700 then, 1,285 now."

Back in that period of peak population, a local storekeeper named Hayes moved to Ohio, so his son Rutherford missed being a Vermonter by five years. But the boy managed to overcome this handicap; in 1877 he became 19th President of the United States.

More fortunate—in Vermont terms, of course—were two native Presidents from opposite ends of the state. Chester A. Arthur was born in a one-room cabin outside Fairfield; Calvin Coolidge arrived under more comfortable circumstances in the hilltop hamlet of Plymouth Notch.

When Arthur moved to New York, his Vermont roots withered. But Coolidge, who rose to prominence in Massachusetts, never severed his Vermont connection. He lies buried in his beloved state but a short walk from his birthplace.

I found a distinguished-looking gentleman trimming grass around the President's gravesite. I mentioned how much I admired Mr. Coolidge's ability to say a lot with little language. As when a White House guest told him she had bet she could make him say more than two words. His answer was, "You lose."

My companion countered with other Coolidge quotes. "But the one I like best," he said, "happened up here when a peddler fast-talked my mother into buying a book of home remedies. My father found it and penned this

Vermont

STRONG SPINED and rock ribbed as its people, the state took the name Verd-Mont (Green Mountain) from the French, who first saw it in 1609. After the Revolution it knew boom years, but the 19th century brought periods of hard times when many heeded Vermont-trained editor Horace Greeley's advice and went West. Lately the tide of people has run the other way, as city dwellers "go north."

Ski area — Dam — Railroad

Elevations in feet

0 — 25 STATUTE MILES

message on the flyleaf: 'I don't see any cure in here for suckers.'"

John, the President's son and last of the Coolidges who pioneered Plymouth in the 1780's, went back to his clipping.

Many of us like to think Calvin Coolidge represents the true Vermonter: taciturn, dry of wit, conventional. But I know some who can outchatter an angry squirrel, others so sour they might have been weaned on green crab apples. And the large number of free spirits lodged in communes hereabouts gives us our share of nonconformists.

I visited several of these informal households, asking neighbors later how they felt about the new brand of togetherness. The prevailing sentiment: "Long's they don't bother me none, what they do is their own durn business."

"They got one queer idear, though," a fellow down Woodstock way added. "Some of 'em's got the same address but not the same nayum. Seems to me that could make a peck of trouble."

An unconventional life-style once caused more than caustic comment. In the 1840's the southern town of Putney became embarrassed, then angry, by the presence of John Humphrey Noyes and his Perfectionist society. Believing that he had attained a sinless state, the ex-parson encouraged "complex marriage," partner exchange, and selective breeding within his flock.

"Naturally," my author friend Ralph Hill said, "Noyes considered himself the ideal candidate for this program."

After a tumultuous ten years in Putney, the colony resettled in New York State, where the experiment finally ended. But not before the launching of a tableware-making sideline that became Oneida Community Plate.

Unorthodox beliefs kept two other Vermonters on the move. An impressive shrine in Sharon Township marks the birthplace of Joseph Smith, founder of the Church of Jesus Christ of Latter-day Saints. A modest monument in Whitingham honors Smith's successor, Brigham Young, who fathered Salt Lake City—and 56 offspring by 16 wives.

I drove a rutted road and groped among weeds to find a simple slab nearby that marks where Young was born. No one could tell me who set the stone; it reads: "Brigham Young Born On This Spot 1801 A Man of Much Courage and Superb Equipment."

Many Vermonters achieved fame in far places, but the ones remembered best are those who came and stayed. While Ethan Allen's crowd stalked Yorkers in the west, Green Mountain boys with a burr in their speech broke virgin ground around Ryegate and Barnet on the eastern side of the state.

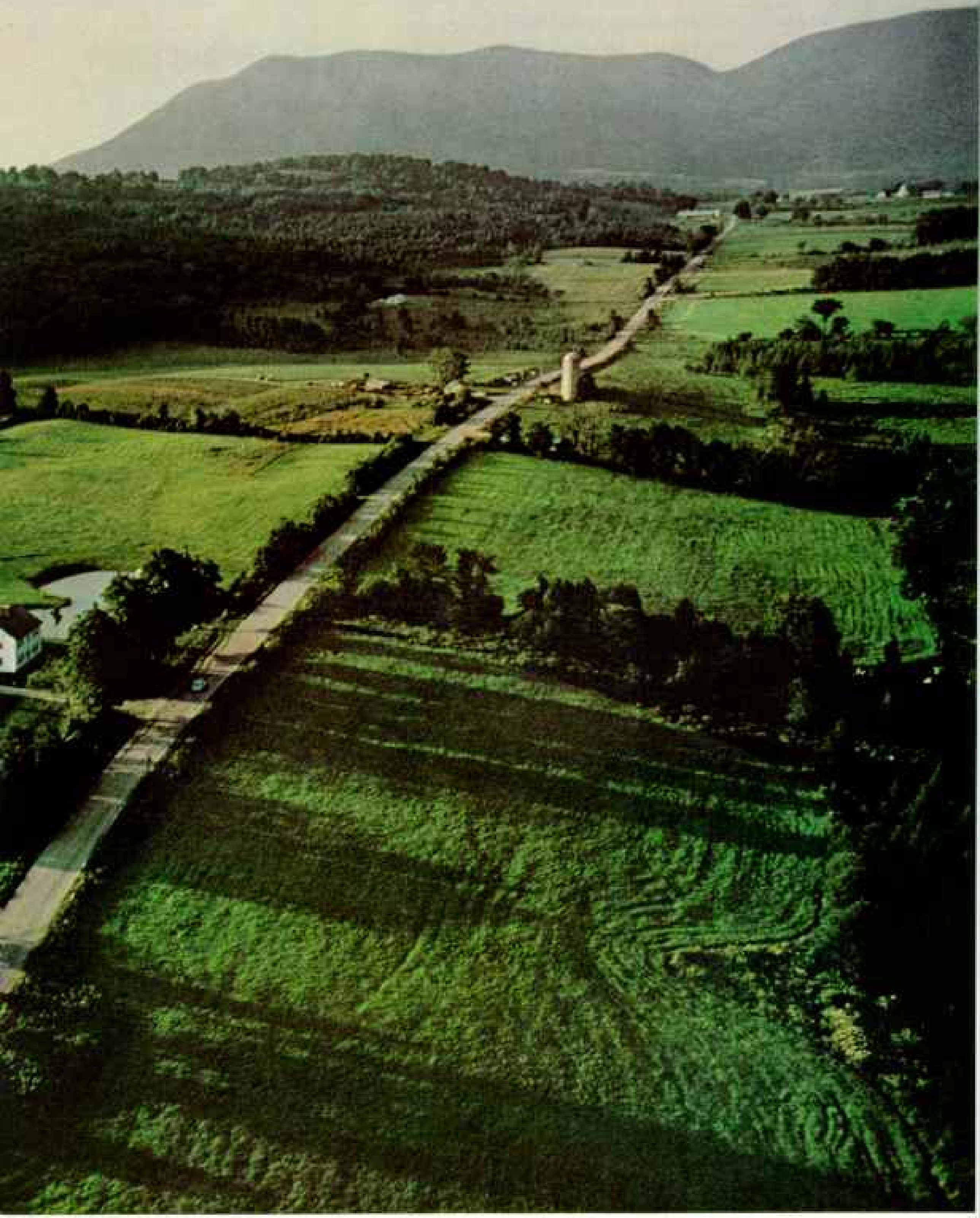
"Most of them—my ancestors included—migrated directly from Scotland," Theresa Gutterson told me as we admired Ryegate's rolling countryside, now generously slathered

City settlers, country slickers

BUCKING HAY BALES and the trend toward agribusiness, Karen Rabinovich and Peter Smith (**facing page**) share the work of a small diversified farm near New Haven with others raised amid concrete and crabgrass.

Auctioneer Willis Hicks (**left**) sells off stock and machinery for a Boston attorney who found that farming by proxy was a losing proposition. Local farmers bought up livestock and tractors at very agreeable prices. The lawyer and his family still have their dream, however—a weekend place in Eden. Eden, Vermont, that is.

Rhapsody in green, scored by morning shadows, unfolds southward from Tinmouth. Here family farms bead a country road as it swoops toward the Green



Mountains. Other mountains soar higher, other valleys grow lusher, yet Vermont's countryside seems to exert a peculiar power over natives and newcomers alike.

with wild mustard. "They planned to build a major city here, the equal of any in America. Thank heaven they never succeeded."

At home in this setting of woods and water, crofters cleared high mowings; they raised oats to feed their bodies and unpretentious churches to nourish their souls.

Trees have reclaimed most of the meadows; stone walls that once fenced well-kept fields are almost lost in forest. But the look of Scotland still lies across a landscape that summer's vetch and vervain blossoms brush with hues of heather.

SKIRTING TICKLENAKED POND (so named, some say, by early skinny-dippers dunking in its plant-filled waters), I turned toward Barre. Here an imposing midcity statue of poet Robert Burns reminded me that not all Scots lingered in lower Caledonia County.

"My grandfather came straight from Aberdeen to work granite here," said Frederick S. Ralph, a pit-to-vice-president executive at Rock of Ages Corporation. "Holding down a job in those hand-tool and horse-drawn days required a rugged sort. It still does, but now the descendants of Italians and French-Canadians outnumber the Scots."

Riding a derrick-controlled grout bucket, operations manager John Fondry and I dangled 400 feet above the quarry floor on Millstone Hill (following pages). Below, beetle-size men with torches segmented the blue-gray stone into 40-ton blocks. Under extreme heat the rock expands, then flakes off, creating a narrow channel that can be etched to any depth within flame's reach.

"Quicker and neater than dynamite or drill," John said. "Still we lose 80 percent of the rock in cutting and finishing."

Even so there is little danger that Barre will soon run out of granite. Geologist Mal Heyburn gave me his calculations: "After chipping away for more than a century, we've removed about 7.5 percent of the reachable supply. At this rate the last block should be coming out around 4 p.m., October 2, in the year 3206." I decided not to wait.

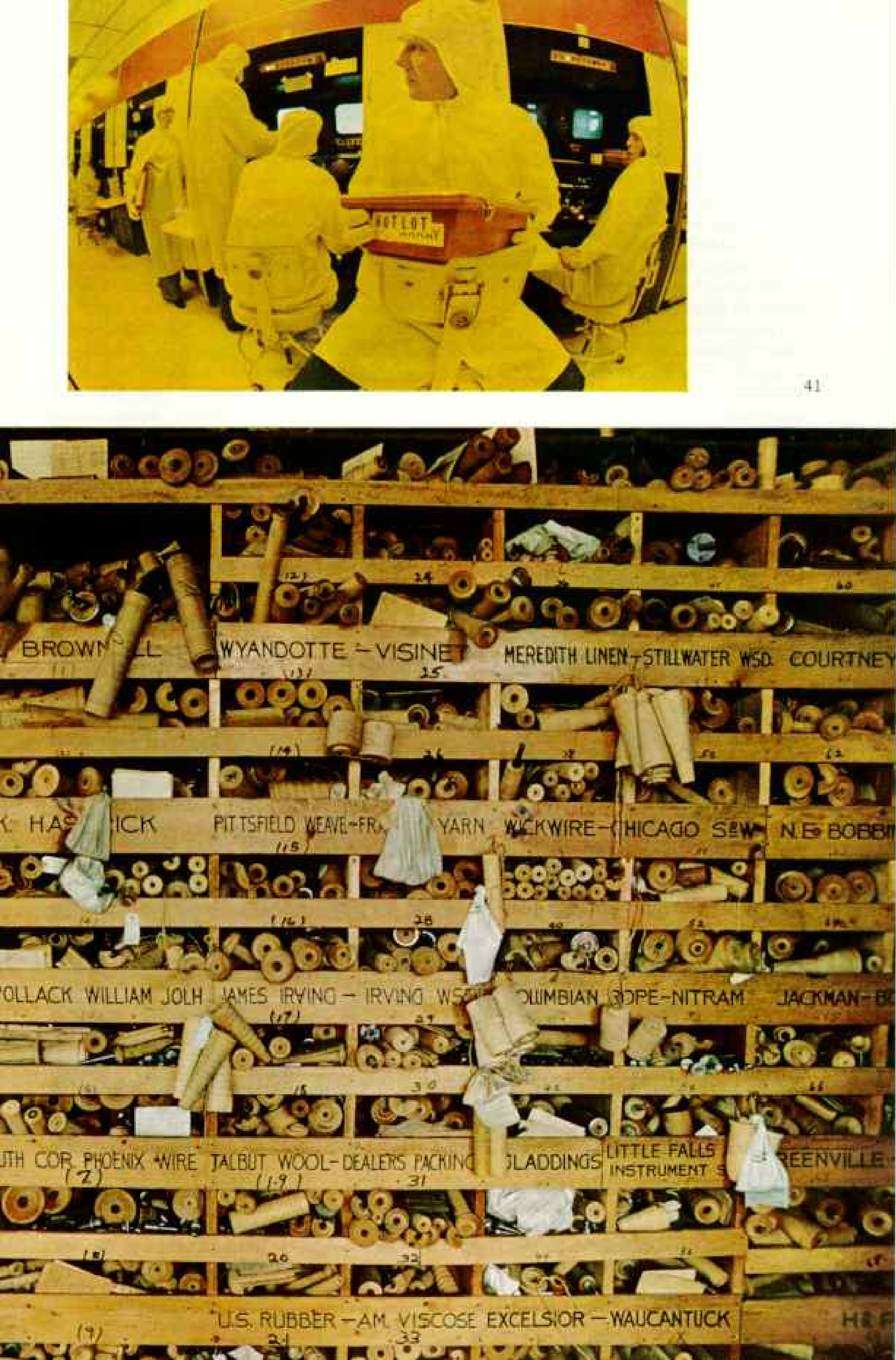
While early Vermonters reaped meager rewards from the rocky soil, later ones found riches under it. The state has long been among the nation's leading producers of marble as well as granite, and of asbestos, talc, and slate.

Threading a maze of tunnels, I followed

Industry, plain and fancy

IN BURLINGTON sample bobbins of hardwood (**below**) fill bins bearing customers' names at Vermont Spool and Bobbin Company. Designed for the weaving industry, the cylinders have become popular with collectors, and many now find their way into antique shops.

At an IBM plant in Essex Junction, technicians in futuristic smocks (**right**) fashion wafers—computer memory circuits—with the aid of TV cameras aimed through microscopes. The box marked HOT LOT holds a test batch requiring special handling.


BROWN
WYANDOTTE – VISINE
MEREDITH LINEN – STILLWATER W'SD. COURTNEY
PITTSFIELD WEAVE – FR
YARN
WICKWIRE – CHICAGO S
POLLACK WILLIAM JOLH
JAMES IRVING – IRVING W
COLUMBIAN ROPE – NITRAM
JACKMAN –
PHOENIX WIRE
TALBUT WOOL – DEALERS PACKING
GLADDINGS
LITTLE FALLS INSTRUMENT
U.S. RUBBER – AM. VISCOSE
EXCELSIOR – WAUCANTUCK

assistant foreman Maurice Price through the Vermont Marble Company mine deep inside Dorset Mountain. In eerie light dimmed by dust, shadowy figures extracted famous Danby marble, distinctively streaked with clouds of color. I asked Maurice, first quarryman in his family, why he went underground.

"My dad wanted me to stay on the farm, but I couldn't see being bossed by him and the weather. No rain, snow, or crop failure down here. And you can't beat the climate: about 50 degrees year-round."

Less comfortable conditions prevail in another Vermont quarry, an open-pit operation at nearby West Pawlet, where a long line of Welshmen have helped keep the slate industry alive.

Jack Williams held a chunk of stone between his aproned knees and skillfully cleaved slates, slim as a silver dollar, for my farmhouse roof. In 1948 this barrel-chested bachelor left the quarries of Wales for those of Vermont and a new life that closely resembles the old.

"I been working slate since I was 14," he said. "But I'm topside now instead of closed up in a mine like at home. My sister feeds me on good Welsh cooking, and there's plenty to lift a glass with come St. David's Day."

Fair Haven, another Welsh stronghold, lies a few miles north, in the center of the nation's major colored-slate belt. But the town owes its origin to a fiery, self-starting Irishman who, as the Revolution ended, shaped a raw site into a thriving community. In the process, crusading Matthew Lyon was twice elected U.S. Congressman from western Vermont, once while jailed for sedition. Ever restless, he moved on to Kentucky, which sent him to Congress four more times. Lyon barely missed another congressional term when he ran again—this time from Arkansas.

Not far from Fair Haven, wedge-shaped Lake Champlain starts inching toward Canada where it spills, 107 miles later, into a river route to the sea. "It's been a long time since you and I caught perch off Porters Point and sold them for admission money to 'big-band' shows at Malletts Bay," Ralph Hill reminisced as we cruised familiar shores. We regretted that Benny Goodman never knew he cost us 60 fish.

Cleft for thee, granite from the Rock of Ages quarry in Barre marks the final resting-place of countless Americans. Some 250 feet above the quarry floor, riggers prepare to anchor a pulley. Rows of mining pins hold safety lines or keep slabs from falling. Drills used in former years have grooved weather-darkened walls; today workers cut the stone loose with torches. Italian-born craftsmen (**above**) sculpture memorial statuary with pneumatic chisels.

"**We were all excited,**" begins a camper writing about a climb up Mount Mansfield, Vermont's highest. "Harold Vance didn't stop. He said, 'Resting is no good for you, especially when you're tired.'

"... Sidney and Mat led us up the trail; they got us lost so we cut right through the woods and made a new trail that was very rocky, wet, and full of weeds and bushes [**left**]. The going wasn't easy. ..."

Climbing a 4,393-foot peak isn't easy for anyone, and these campers will probably never forget it. Since 1938 Camp Wapanacki has been serving youth such as these, who are blind.

Climbing the crumbling lighthouse on Juniper Island, we watched white butterflies settle, like early snow, on a tangle of thistles below. "I remember rowing out here in 1932 to see old Captain Perry, one of the last of the lightkeepers," Ralph said. "He gave me some rum-soaked fruitcake made in pre-Prohibition days. I didn't know whether to eat it or drink it."

Long before black limousines loaded with illegal liquor sneaked in from Canada, smuggling had been a popular Vermont pastime. The contraband then was potash and traffic ran the other way.

From potash came lye soap, vital in finishing British woolens. Thomas Jefferson's 1807 embargo on exports to Great Britain threatened potash making in the Green Mountains and the cash it brought to hard-pressed farmers. So, under cover of darkness, producers boated and backpacked their output into Canada. As Ralph points out: "Vermonters always knew—better than any President—what was good for them. We were 'anti-establishment' up here 200 years before the word was invented."

INSTEAD OF POTASH, the problem now is people. During the past year Border Patrol agents of the U.S. Immigration Service in Swanton have apprehended 4,000 aliens attempting unlawful entry.

"Lots of Latin Americans and Portuguese these days, but we get a sprinkling of others," I heard from Jack E. Gorman, Deputy Chief Patrol Agent. "They pay from $350 to $1,000 for a border crossing—in advance and no refund if it fails. It's a big gamble."

In the sparsely settled, heavily wooded corner of the state known fondly as the Northeast Kingdom, the Nelson sisters of Norton have no trouble crossing between Vermont and Canada; the border neatly splits their store in two.

"Canadian goods on that side; American, on this," Ruth sang out, ringing up a sale in Quebec as she reached for the phone in Vermont. Behind an L-shaped counter, Miriam discharges her duties as Norton town clerk. Both women—single and middle-aged—admit they seldom leave their hometown or Nelson's store, a third-generation enterprise.

"No need to go travelin'," a customer chimed in. "They's plenty entertainment right here at Nelson's, and if you should miss church, Ruth preaches plenty every day."

A bearded youth sauntered in through the south door and slouched down across the international boundary. He could have been one of thousands of young people who drift into the state each summer to live off the land. For them, welfare officials advise: "Keep Vermont green—bring some with you."

"War's over," Ruth called to him, "so come on home. Besides, you can't cash your food stamps over there." The boy grinned, uncurled, and reentered the United States.

"Nothing new about defecting to Canada," Miriam commented, peering over her bookwork. True to town-clerk tradition, she knew her facts. According to an epitaph across the line in Stanstead, Vermonter Eleazer Albee of Rockingham "went into Voluntary Banishment from his Beloved Native Country, during the Reigning Terror in the Third Year of the Misrule of Abraham the First."

There were defectors before Albee rebelled against Lincoln's policies. I have crawled into many a secret closet and chimney corner where runaway slaves found safety in their freedom flight through Vermont, a hotbed of abolitionist sentiment.

"When civil war finally came," Joan Landon said, "Vermont lost more of its sons in proportion to population than any other state. That's why Decoration Day retains its original importance around these parts."

We were walking along Main Street in Grafton, one of many 18th-century villages that cherish a patriotic past (following pages). Beside us, wreath-bearing youngsters, undaunted by a downpour, struggled to keep step behind Grafton's century-old cornet band and a contingent of latter-day veterans still able to wriggle into wartime uniforms.

Parson Charles Parsley joined us on the bridge spanning Saxtons River where—after a hymn and a prayer—two small children tossed spring blossoms into the stream. A rifle volley signaled the end of this short but solemn service for fallen seamen.

In a mist-shrouded cemetery, with wreaths resting beside mossy headstones, a similar ceremony honored such heroes—I read from a faded inscription—as Myron Chapman, killed in the Battle of the Wilderness, May 5, 1864. Taps echoed down the valley.

Roy Rice spelled out his feelings about this day in fourth-grade language: "It's like sluting the ded soldier and sluting the flag and to soldiers who fight for the country we sud pray." Grafton grown-ups agree.

Memories forever

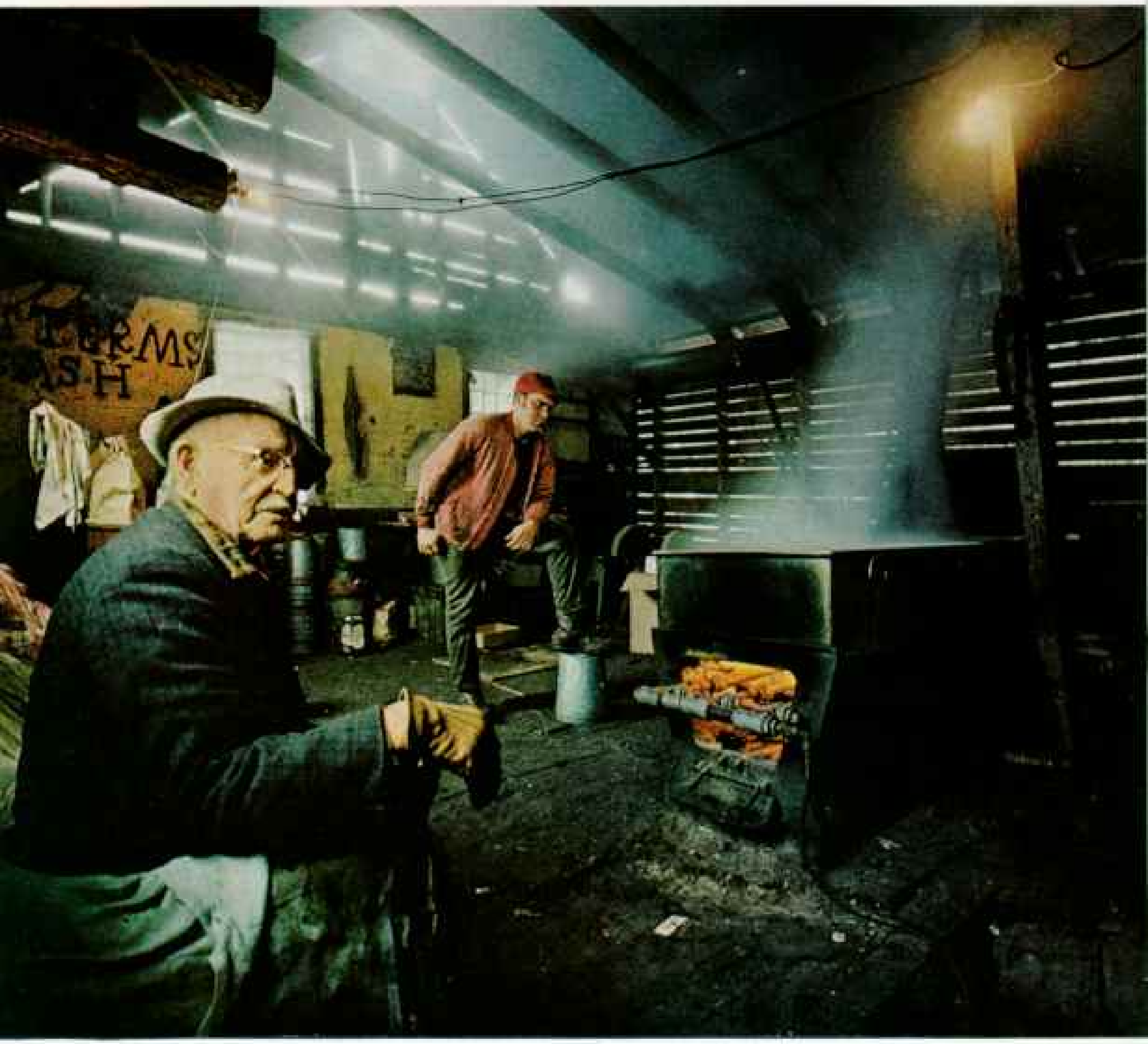
WITH GOOD REASON Grafton has observed Memorial Day, still known fondly as Decoration Day, since 1868. The village claims that proportionally more of its men served the Union cause than from anywhere else in the North. The town band marches informally (**below**) but no less solemnly. And schoolchildren decorate the graves of the fallen with awe and innocent understanding (**right**). One wrote: "To me Memorial Day is a day to remember all the soldiers that put their life into a war."

Vermont knew little peace in its early years. A corridor of conflict in the French and Indian War of the mid-1700's, "the wilderness" became disputed ground between New York and New Hampshire. Ethan Allen and his Green Mountain Boys first harassed the Yorkers and then, during the Revolution, the British. An independent republic from 1777 to 1791, Vermont joined the Union in the latter year as the 14th state. First to forbid slavery and to allow all its adult males to vote, Vermont alone in New England felt the sting of Confederate "invasion," in a combination raid and bank robbery launched against St. Albans from ostensibly neutral Canada.

Sugaring weather

WHEN NIGHTS STILL FREEZE but days are warm and the sap rises, it's time for Richard Hutchinson to go out to the maples (**left**) and begin sugaring. In place of buckets, some sap collectors now use plastic pipelines leading to a central tank. About 40 gallons produce one gallon of syrup after reduction by boiling.

Charlie and Ray Colton (**below**) tend an evaporator in a converted smithy, itself converted from the first schoolhouse in Pittsfield. The sugar maple gave pioneers a staple sweet; now it yields seasonal "tax money."



A few miles to the southwest, Wardsboro celebrates July 4th on a livelier note—with a parade, fireworks, food sales, and a daylong street fair. I found several thousand shoppers milling around curbside booths, looking for bargains in house plants and handiwork.

In one stall a grandmother in gingham and a willowy girl in patched jeans traded tips on how to crochet and make macrame. Next door a crusty codger—his face as crinkled as a dried-apple doll—looked askance at a long-haired craftsman tooling leather. "No wonder we got so few caows left in Vermont," he mumbled to no one in particular. "Kids is makin' 'em all into belts."

Wardsboro has seen at least one busier time. In July 1840 some 15,000 enthusiastic Whigs poured through town to hear Daniel Webster address their outdoor convention on the slopes of Stratton Mountain.

NO PLACE BETTER KNOWS the impact of crowds on small communities than Wilmington, halfway between Bennington and Brattleboro. When snow and gasoline are plentiful, it bears the brunt of hordes heading for Haystack, Carinthia, Mount Snow, and resort points north. Roads adequate for 1,500 full-time residents and a trickle of tourists have been choked with as many as 15,000 skiers a day in winter and a rising tide of second-home owners year-round. Water supplies, designed for the permanent population, suffer contamination from ever-expanding developments at higher elevations. Chalet and condominium owners clamor for town takeover of their roads and sewage-disposal needs.

"We were naive," said selectman Merrill Haynes at the country homestead his family acquired before the Civil War. "A little ski business looked like a good thing, and still does. But being so near Boston and New York, we soon had a snowball we couldn't control. And drugs, disease, and crime problems we'd only read about before investors decided this was the promised land."

Here, as elsewhere amid the Green Mountains, property has become highly coveted, exploitable, and expensive. Extra services required because of the current buying binge have saddled Vermonters with some of the highest taxes in the United States.

This burden has helped hasten demise of the family farm. Today at least half the state's residential and agricultural land belongs to outsiders; the names sometimes read like a "Who's Who" of Wall Street.

In the past generation prices have soared from $50 a tillable acre to as high as $20,000 for an uncleared quarter-acre lot. The difference between then and now is further emphasized by a personality change in many places, notably along the Green Mountain ski corridor that runs the length of the state.

For years we enjoyed happy, undemanding relationships with our summer people. I improved my tennis on their courts; fished and swam on their unposted holdings. Our part-timers then baked for church suppers, supported local activities, and took Vermont as they found it. Some still do.

But many newly purchased properties are fringed with no-trespassing signs, and the imported sophistication behind them leaves no time for town affairs.

In balance we owe a great debt to outsiders. Robert Frost left San Francisco to become, in his latter years, our poet laureate; in the village of Barnard, Sinclair Lewis and Dorothy Thompson fueled our fondness for letters. Painting his Arlington neighbors, Norman Rockwell captured our character for all the world to see. And in Landgrove a soft-spoken New Jersey man named Samuel Ogden breathed new life into a dying village.

"I'd summered in Vermont before moving permanently to Landgrove in 1929," Sam said, stroking a black retriever lying across his feet. "Only two old brothers lived in the whole village then. All 11 other places were for sale, so I bought the lot for less than $9,000. I fixed up the buildings and sold them at cost to people who shared my affection for this area—as it was and still is."

Like others along Landgrove's single unpaved street, Sam's house—uncompromised by "restoration"—nests in a natural setting of maple trees and lilacs.

Long a Vermont legislator, Sam told of a college professor who, while running for governor, advocated abolition of towns, calling them "barnacles on the ship of state."

"Didn't go down too well with the voters, I'm glad to say. You start eliminating the local unit and there's no end to it. Like the schools. Before they consolidated, kids used to walk to class, smelling the sweet fern. Now they ride, smelling gas fumes. That's progress?"

Not all Vermonters agree on the present approach to education—or any other subject, including development.

"**Money!** Thought they was gettin' a big price, but they didn't." Theron Boyd (**below**) gives his version of what happened to neighbors when a land-development company bought up 5,500 acres around Quechee. The village was dwindling away after losing its last mill, so most folks sold gladly. But not Theron, who predicted that land values would go even higher. Anyone who offered to buy his 35 acres aroused his Vermont caution. "I didn't know whether they was daaamn fools or they thought I was one." Theron

speaks with A's broad enough to build leisure homes on.

Now the vacation homes and condominiums go up—and Theron's land valuation and taxes have risen almost threefold. But he still will not sell his woods and weathered house, once a stage station and a stop on the Underground Railroad to Canada, a route to freedom for escaped slaves. He'll mind his business and hope others mind theirs.

Theron Boyd (preceding pages), a gentle, bewhiskered septuagenarian, has lived all his life in a weathered roadhouse, once a stagecoach stop between Quechee and Woodstock. Today he is almost surrounded by 5,500 acres of former farmland that Quechee Lakes Corporation has subdivided into 2,000 recreation homesites. His place, unencumbered by electricity, phone, central heating, inside plumbing—or debt—is not for sale at any price.

Theron leaned on his scythe and expressed his views on the Quechee Lakes venture. "They're puttin' in a fake village daown on what they call the common. Built themselves a bran'-new covered bridge, too. Seems like people 'd rather go where them things come natural 'stead of payin' all get-out for a copy."

Theron is unswayed by the fact that the covered bridge duplicates one that stood on the same site until the 1930's, or that the "fake" village includes a restored mill and vintage homes. But other Vermonters, including three governors, praise Quechee Lakes for its faithfulness to the look of the past.

Dairyman Earl Hackett of Derby Line advocates developments, which his northern Vermont area knows only on a limited scale: "I say let 'em come. They've got to have money to get here, and some of it's bound to rub off on the rest of us."

A good share of the wealth of Orleans County has rubbed off on Earl in 60 years of cow keeping; he ranks as New England's largest independent milk producer. At 79, he is also the busiest bantam in the barnyard, working 14-hour days without fatigue.

"Growing up, we didn't know anything but hard times. Once in a while, father and I picked up a little profit smuggling hogs into Canada. One year I counted the cat as 'stock' just to make things look better. We had the first flush toilet in Holland, though. Father put the privy over a stream. Folks called him clever then; they'd lynch him today.

"Luckiest thing ever happened to me, I got run over by a tractor. Laid me up for four years. Couldn't do much but think. My doctor was a nice fellow but a little careless about collectin' bills and, sometimes, about makin' house calls. I said if he collected half his bills, I'd pay him half the price of a new Cadillac. He couldn't let me die or he'd lose out on the car deal, and money from his patients was slow comin' in. So I got the best of care. That's the kind of thing you can work out in your head if you have the time to use it."

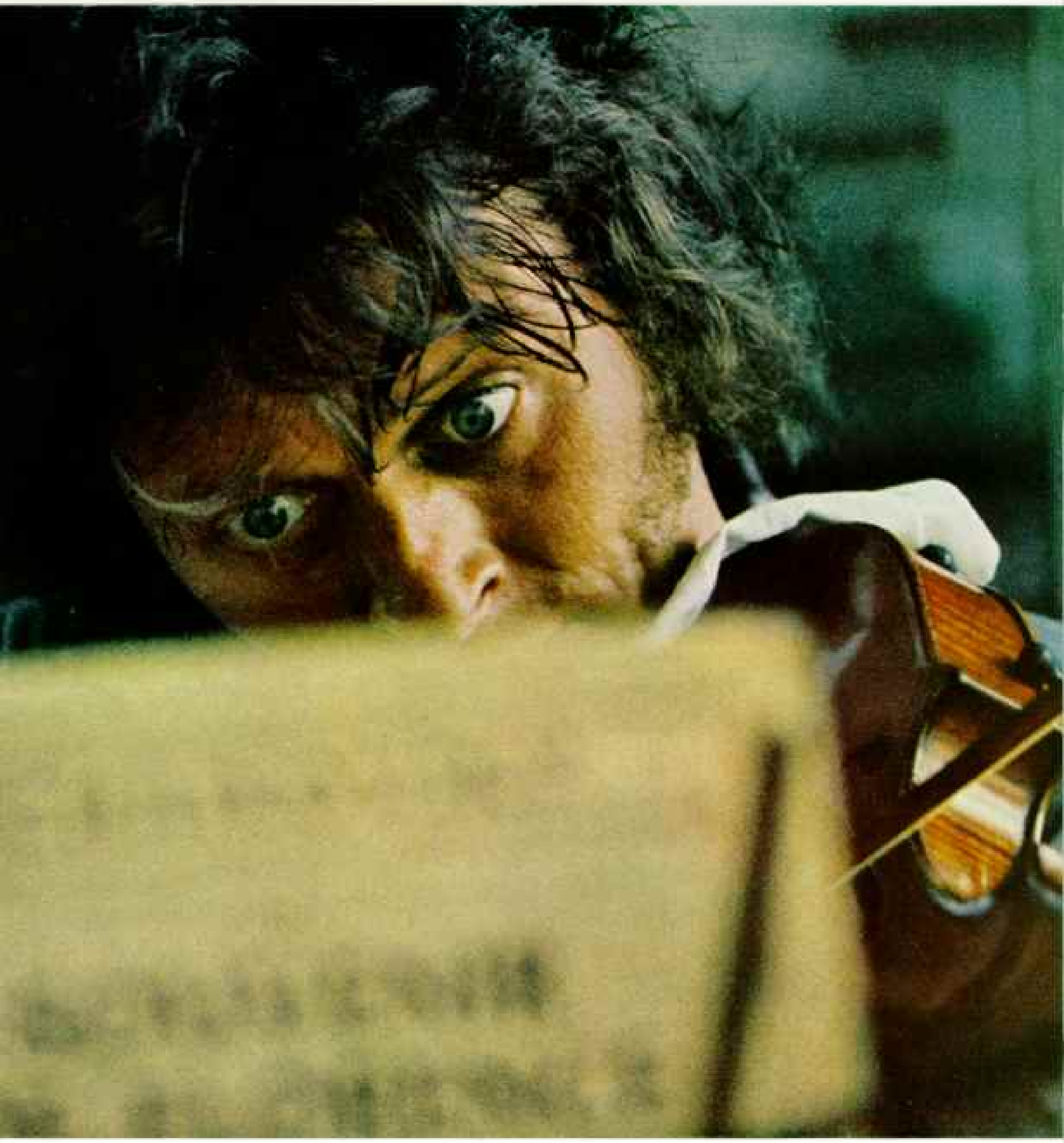
Earl takes that time. When land prices and taxes began to rise, he owned 50 farms covering thousands of acres. Today he runs two farms and a 30-acre feedlot where modern methods get maximum yields from 1,200 cows.

"Get all the hay I need from folks who can't use it," he said. "Pay for some, cut the rest as a favor. Works well all around."

Vermont dairymen may have to adopt Hackett ways if *(Continued on page 56)*

Astride his shaving horse, Peter Murray rolls his own on a break from chairmaking. He began his craft simply: "I got what I could from a piece of wood, when I was living in the woods with nothing to sit on." He hand-fashions rockers without nails, screws, or glue. Others at Mad Brook Farm, a community of craftsmen near Island Pond, work leather, weave, throw pots, make quilts, and publish the *Green Mountain Trading Post*, a kind of "Whole Vermont Catalog."

Crafts of the 19th century (**left**) are on display at the Shelburne Museum. "Naughty Nellie" served as a bootjack. To crimp their ruffles, Victorian ladies heated the bullet-shaped iron and applied the fabric to the tip.



Intensity mounts as German violist Eckart Schloifer (**above**) plays Tchaikovsky at the Marlboro Music Festival, where the aspiring and the great study and perform together.

Gesturing pianissimo, Dr. Edwine Behre (**right**), musical director of the Adamant Music School, coaches one of her students. Dr. Behre is part of a student-teacher chain going straight back to Beethoven. Her teacher's teacher's teacher was the master himself.

In 1942 townspeople pitched in with Dr. Behre to convert a crumbling parsonage into a rural conservatory. The musicians repaid as they could—with concerts. The music of Debussy and Ravel helped buy an ambulance; Beethoven's music helped dig a new septic system.

This spirit might not have fitted the town's original name, Sodom, which was changed in 1905 to Adamant —"a name perhaps as hard but not as wicked."

they are to survive. Which means the familiar sight of Holsteins grazing in lush meadows may soon be only a memory.

Rural life already has a new look. Bullet-shaped metal silos replace sagging ones of wood; low-slung prefabricated structures find favor over high-peaked barns with lofts.

But a reassuring sameness remains. In summer common wild flowers lend an uncommon beauty to this land where rabbitfoot clover lays a lavender haze along the roadside. White-throated sparrows still call from field and forest—and it's a "mighty fur piece" between gas pumps. Most general stores retain their original purpose, purveying a little of everything but not a lot of anything. A request for 20 light bulbs may still elicit the reply, "We don't sell wholesale."

AN EXCEPTION is Freddie Miller's store in East Topsham: it carries everything—in gross, barrel, and carload lots. Biggest attraction here is Freddie himself, seated behind a cluttered counter, dispensing wares and wisdom.

"How many calls you get for those cider-barrel spigots?" I asked.

"Plenty. Ain't nobody else got 'em. Tell customers that and they buy a half dozen not knowin' 'tall what to do with'm."

"How about horse collars?"

"Sell a good lot. You always want to keep somethin' the other fellow doesn't have."

"Must take a month for inventory."

"Not by a darn sight; we just estimate it. Ain't makin' enough to hair up Internal Revenue. They send in an investigator, he'd likely come up missing in this mess."

"Got any stove blackin', Freddie?" a friend called from the town's minuscule post office, tucked behind braided rugs and bridles.

"Yup. You want two cans?"

"Nope. Only got one stove."

A stranger asked if he could just look around. "Go to it, mister," said Fred. "Ain't no charge for that." His apparent disinterest paid dividends: The visitor left with a fish creel, bean pot, four pounds of caramels—and a bewildered expression. He had only stopped by for a bottle of soda.

Vermont's switch to the soft sell, after its too-successful "beckoning country" campaign, brings similar results; "lookers" can't resist the urge to buy. Insulating themselves with as much land as they can afford, part-timers have no need to worry about the income level—far lower than the national average—or unemployment, higher than in 80 percent of our other states. Nor are they concerned with the nation's highest death rate from respiratory diseases, or a cost of living that in my experience compares with Washington, D. C. Those who seek surcease from such problems will find only a bagful in Vermont.

"We manage on less but it's worth it," said Conrad Chaffee, who took a considerable cut in salary to come back to his native Pownal. "Vermont is where it all hangs together—appealing surroundings, low-pressure pace, easygoing friendships, unlimited opportunities for no-cost recreation. If we didn't have something special, why the rush to get here?"

"We're bound to grow," said 41-year-old Governor Thomas Salmon, a newcomer himself 16 years ago. "But in doing so, we've got to preserve the character of our countryside. We're willing to share—but only on terms consistent with our traditional values and way of life."

Landmark legislation helps achieve this goal. A major step (Act 250, passed in 1970) set up a permit system requiring strict environmental safeguards in new construction. More recent laws specify rapid phaseout of billboards and ban sale of no-deposit beverage containers. To discourage land speculation, the state levies a capital-gains tax on property sales that, based on profits and length of ownership, can run as high as 60 percent.

Vermont needs a broad economic base to support its chosen life-style. Tourism contributes heavily; until the gasoline shortage, it was pouring in 250 million dollars a year.

But ours is a fickle climate; it doesn't guarantee bright fall foliage or snow and sunshine on schedule. Accept this local comment as gospel: "One thing about our weather, we got plenty of it. Some say they's only two seasons—winter and two months of poor sleddin'. Truth is, we got all four seasons, but they don't allus know whose turn it is."

In the final analysis, Vermont must depend on its own resources—natural and human. Fortunately, it is well favored with both.

From Depression days to mid-century, changing times and trends stripped the state of many basic industries. Textile mills grew silent along the riverbanks; woodworking plants closed as they lost markets for spools and bobbins, heel taps and clothespins.

Yet few Vermonters thought of moving elsewhere, and many wartime workers wanted

to remain. Vision and vigor among both sparked new enterprises, rekindled dying ones, attracted others from outside.

Benefits of this upsurge settled unevenly across the state. Burlington, long our largest city, kept growing. Today, the immediate area thrives on four colleges, the biggest medical center north of Boston, and high-employment branches of General Electric Company and International Business Machines. Among its other assets are myriad smaller industries, heavy tourist and shopper input, and an urban sprawl that threatens to swallow all Chittenden County, where almost a fourth of the state already lives.

To the southeast Bellows Falls burls a steep cleft carved by the Connecticut River. In recent years the town has lost population—and a water-polluting paper mill. "We smell a whole lot sweeter now," said a bench warmer in the park, "but that don't do much for business. All the same, there's no place I'd rather be."

A bell tolled. "That's our Paul Revere bell," he said proudly. Across the river, a melancholy wail warned that the down train out of Windsor was on time.

In the classic design of Vermont's major Connecticut Valley towns—Brattleboro, White River Junction, and Windsor—Bellows Falls ripples over residential, commercial, and industrial terraces on its way to water's edge. It is, for me, a stereopticon of nostalgic scenes. It is not, however, a place I would readily associate with a multimillionaire businesswoman, who made her home for many years in a gloomy brick pile on upper Westminster Street.

Well before women could even vote, Henrietta Howland Robinson Green liberated herself into Wall Street. Using an inherited million for openers, she began, in the 1870's, collecting railroads and real estate as proper ladies of her day collected teacups. Loathe to part with a penny, Hetty acquired a reputation for weird ways—and a hundred-million-dollar estate. Her grave lies close to the Episcopal church she joined—so the story goes—because members received free burial space. Her home is gone now, replaced by a more fitting memorial—a bank.

IF MONEY MOTIVATED all Vermonters, Raymond D. Towne would have forsaken Underhill long ago. Instead, this affable country doctor has always preferred his rural

NATIONAL GEOGRAPHIC PHOTOGRAPHER WINFIELD PARKS

Gentle ways of country doctor Raymond Towne help reassure yet another generation entrusted to his care. In 1973 some 1,500 people gathered in Jericho to celebrate his 33 years of doctoring with thanks, mementos, speeches, love, and a tomato plant in a gilded bedpan.

practice to more lucrative alternatives. I know him well; he knows me inside out.

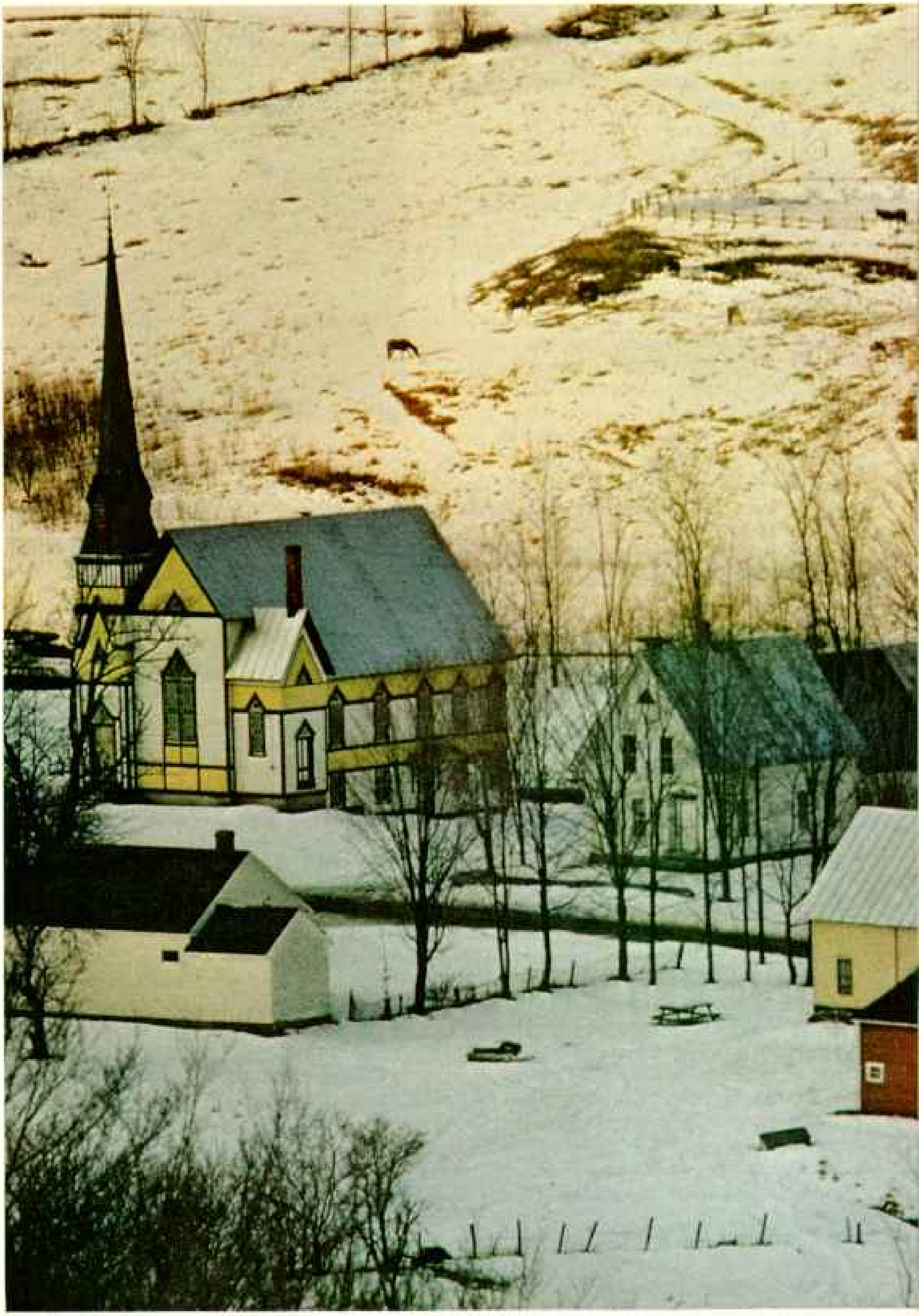
For a third of a century, Raymie has toted his battered black bag through our valley, curing and comforting at a pace reassuringly calm. He still keeps open-end office hours and makes house calls 20 miles away.

What holds him here?

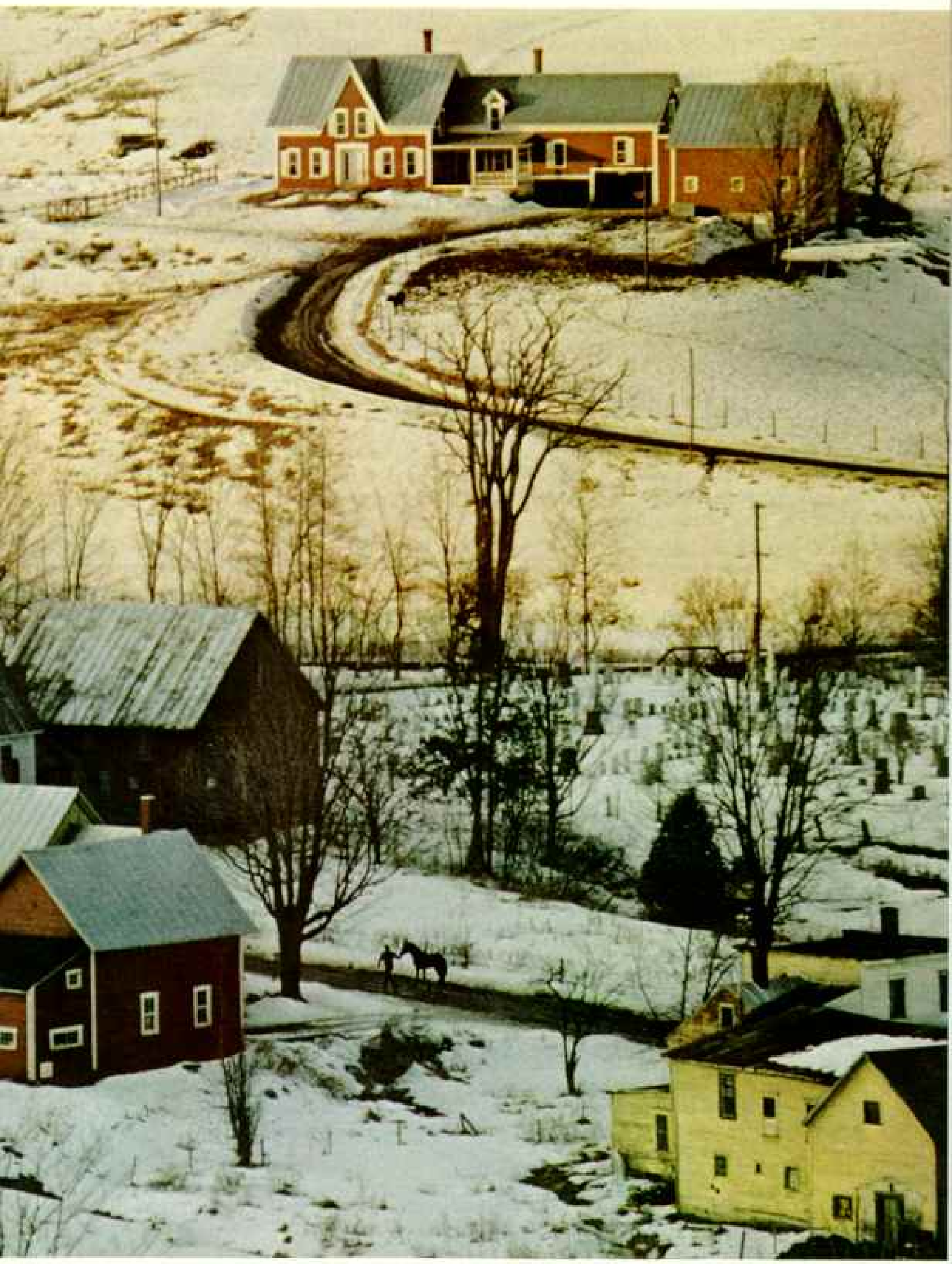
"Personal relationships, mostly," he told me as we drove toward West Bolton to visit two aging sisters. "My patients are my friends, not just cases. You don't desert them because they're housebound. Truth is, seeing them at home can say a lot about how to treat them. Sometimes the conditions there are mainly what's wrong. Besides, look at my fringe benefits."

He parked beside a brook and reached his fishing gear out of the back seat. "The girls won't mind if I try a few casts; there just might be a keeper behind that log." There was.

Come hunting season, a rifle replaces the rod. Raymie feels no envy for city colleagues with larger incomes but less diagnostic talent with deer and trout. Rather, they might envy him. Last year school kids draped their gymnasium with signs that read "We love you, Doc," and 1,500 friends, flocking in from



Tucked under winter's shawl, East Orange seems a tintype of another age.



Yet a snowmobile waits in left foreground, ready to startle the horses and end the illusion.

such places as Poker Hill, Skunk Hollow, Snipe Island, Pumpkin Harbor, and the Dugway, by their very presence proved it.

Jericho farrier Leo Carrier also makes house calls and sees Doc more than he likes. His misshapen elbows, missing teeth, and well-marked skull attest to painful encounters with skittish horses. Happily they have not impaired his patience or good nature.

Fire glowed in Leo's tailgate forge when I spotted his truck outside Essex Junction. Hammering a shoe into shape, he plunged it, sizzling, into a milk can of water. "Sure I got time to talk," he said. "Charge by the job so it don't cost no one 'ceptin' maybe me."

Many of Leo's customers descend from a sturdy little stallion that made horse history around Randolph and Montpelier in the early 1800's. Gifted with unusual strength, stamina, and speed, Justin Morgan founded a famous bloodline that perpetuates his name. Morgans remain the most popular saddle horses in the state, but they've lost a fan in Leo.

"Use t' be the greatest, they was. Real powerhouses, but gentle, too. Soldierin' with the old Third Cavalry, I see them mounts maneuver all day with scarcely a sweat. Now most of 'em's bred for show; twice around the ring gives them the tuckers. Owners make me let their hooves grow to give 'em a prancin' gait. That's like wearin' snowshoes to a square dance." The brawny blacksmith gathered his tools and headed for home.

LEO, RAYMIE, AND I all live in the long morning shadow of Mansfield, which at 4,393 feet outsoars our other mountains. Rising abruptly above our pastures and woodlots, it appears—in any of many moods—much higher than it measures. To know Mansfield is to climb it often, and in every season.

Long before lifts, I labored up on skis to marvel at the splendors of an endless sea of frosted peaks. From the rocky, windswept summit, I have watched autumn transform treescapes into mounds of colored gumdrops; seen the smoke of burgeoning leaf growth herald a coming spring. Last year mine was a summer pilgrimage shared with eight young campers and four counselors with "Wapanacki" written on their shirts.

The youngsters stumbled often, righted themselves, and kept going—up Chin Clip's steep pitch. When they rested, I thankfully followed suit. When they talked, I listened.

"Hey, Charlie, we're going to the top, huh? Bet it's really beautiful up there." David Clyde smiled in anticipation.

"My folks won't believe it, me doing this by myself," said Vicki Hoegler, who had learned to tackle tougher spots on all fours.

"Joan, is this thing a flower? It sure feels soft and fuzzy."

"It's called an Indian paintbrush," counselor Joan Alexander answered.

"I like it," said Lynn Chiasson, rubbing the blossom across her cheek, then handing it to her twin, Lori, to try.

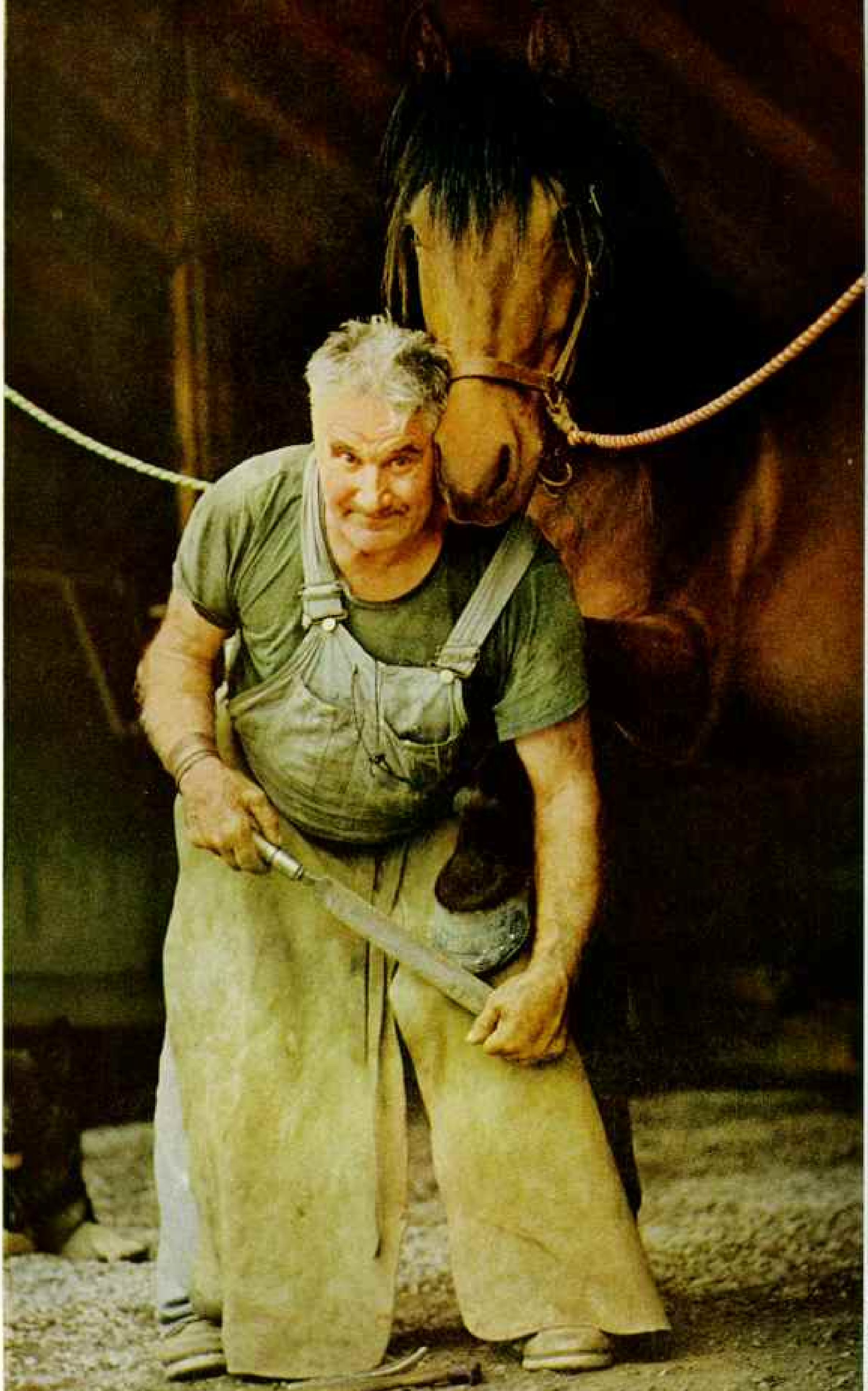
As we reached Taft Lodge on a rough and tumbling traverse, the day's overcast erupted into storm. Tilting his head back, Guy Cornils curled his tongue to catch the rain. "This is really neat," he said. "And tonight we're going to build a campfire and live like pioneers."

It was time for me to leave, I told him; otherwise I might have to grope in darkness down my side of the mountain. I realized then that this was a lame excuse to give a bunch of blind kids.

Once I was over Mansfield's crest, the skies cleared. Lake Champlain shimmered beneath a lowering sun; the Adirondacks beyond humped like blue whales to the horizon. Distant spires of Burlington reminded me that Ira Allen bought the site the city stands on for only $40. As land speculators go, no one today can hold a hand-dipped candle to the freewheeling Allen brothers. But when it comes to pioneering, those children on the mountaintop might teach Vermont's founding fathers a useful thing or two.

Superficial changes separate these people and their centuries, but I found the changes no more substantial than veneer. I daresay that when the last chunk of granite comes out of Millstone Hill, Vermonters will still be bargaining, bickering, defending their basic rights—and dulling any sharp blade that tries to cut against their grain. □

Leo Carrier patches up horses, and Leo's neighbor, Doc Towne, patches up Leo. The blacksmith has taken a lot of lumps in 72 years. "Somehow," he says, "when even a gentle horse spooks, a part of me always seems to get in the way." Vermont, too, is getting in the way of some problems. High taxes and unemployment are two of them. But it also has Vermonters. They'll do.



At Home With the

BY NATIONAL GEOGRAPHIC NATURAL SCIENCE PHOTOGRAPHER ROBERT F. SISSON

Bulldog Ant

A LOW MOUND OF SANDY SOIL rose amid the eucalyptus trees. "Don't get too close or even cast your shadow on the openings," Australian scientist Robert Taylor warned. But my photographer's curiosity got the better of me.

Suddenly a stream of inch-long ants boiled out of the entrances. A few managed to climb my pants legs before I escaped the pursuing furies. Dr. Taylor—who had told me that thirty stings by these bulldog ants could kill a man—carefully plucked them off with long tweezers. But one eluded him. I felt something like a hot needle on my knuckle and looked down to see tenacious jaws grasping my flesh as a poisonous stinger stabbed deep. I felt waves of pain that would stay with me for ten days.

"I warned you," reminded Dr. Taylor, one of the world's authorities on ants, including *Myrmecia gulosa*.

I had come to Australia to try to capture on film the fascinating and little-known home life of these giant ants. While I nursed my wound, we returned to Dr. Taylor's laboratory in Canberra to set up a colony I could study and photograph over the next ten weeks. With glue and sand, we patiently formed tiny chambers and tunnels for a glass-fronted plywood nest. Hypodermic needles, some mounted through the back of the home, provided water for drinking (**left**) and for humidity.

Some 200 bulldogs took to our idea of what a nest should be. Soon the labyrinth of galleries looked like a tiny Grand Central Station. The ants scurried about, excavating, cleaning, and repairing; nurses tended the young; foragers hunted for food.

At the hub of activity was the queen, a matriarch of absolute power. Without her tremendous egg output, the colony would expire; she alone lays eggs that hatch workers and daughter queens. Once a year the ants produce a few males for the sole purpose of joining virgin queens in a once-in-a-lifetime nuptial flight. The young queens leave dying lovers in their wake, then discard their temporary wings and go underground to found colonies of their own.

DEVOTED MIDWIVES to their monarch, workers gently stroke the shiny abdomen of the queen with their antennae. Larger than any of her subjects, she dominates the egg-laying chamber.

Finally a tiny white egg appears (**above**). A worker takes it from the queen and gently carries it to an ever-growing pile (**left**). There small nurses constantly lick the eggs with saliva containing a chemical that prevents fungus growth. These nurses, who seldom see the light of day, often transfer their charges from one level to another to keep the eggs at suitable temperature and humidity as changes occur in the weather.

For four days I recorded the queen's egg production—an average of one egg an hour. Perhaps one in twenty will produce a male (**below**). I noticed that the three extra eyes atop the head were much larger in the male and wondered if that might not be to help the little fellow in locating a mate. During her soaring flight the young queen accumulates enough spermatozoa to last all her life—about a decade.

BENT LIKE A JACKKNIFE, a worker delivers a trophic egg (**right**); it will feed an offspring, not produce one. Most ant species depend on food gathered by nest mates and later regurgitated from their crops. But the bulldogs and a few other ants lay some of their own food. Such

nutritional eggs are important contributions to the sustenance of the colony.

Workers and larvae both signal when they are hungry. Adults can stimulate egg laying by touching one another with their antennae. The eyeless, gourd-shaped larva bobs its head from side to side as it begs for food (**above left**). When a trophic egg is offered in an adult's mandibles (**bottom left**), the larva pierces it and gobbles the contents, usually completing the meal within half a minute. Larvae also are fed the meat of insects, but adults consume only the prey's body fluids, which they use to produce trophic eggs.

"HOW do ants 'talk'?" I asked biologist Caryl P. Haskins, a former President of the Carnegie Institution of Washington, who has studied the bulldog for 25 years. "How do workers know when to assist a larva in cocoon building or when to help the adult ant out of its silken shell?"

"Basically they signal with odors," Dr. Haskins told me. "Adults, of course, also communicate by sight and touch, but scents—scientists call them pheromones—seem to be the chief trigger of ant behavior. Probably the young larva produces one of these chemical messages when it is ready to spin its cocoon."

A bulldog larva needs a framework to help build its new home, so older sisters cover the creature with twigs and sand (**left, upper**). The larva attaches strands of silken thread, extruded from glands below its mouth, to the grains of sand. Weaving its head back and forth, it completes its home beneath the growing pile of debris (**center**).

After a few days workers unearth the freshly spun light-yellow cocoon (**bottom**), which will soon darken to match the older cocoons in the back of the chamber. During the next two months the larva will slowly change into an adult ant.

Starting life backward, an ant emerges from its cocoon (**above**), assisted by a worker who has scissored the case open. Usually the young ant, called a callow, comes out headfirst.

Fastidious housekeepers, workers pile empty cocoon cases in a corner (**left**); later they will be hauled to a trash pile outside. Here a worker, laboring alone, nudges past a sister to discard a cocoon containing the dried-up remains of a pupa that died. The ant above the pile clings to the chamber wall in the usual resting position.

A FRANTIC CHASE ERUPTED when I dropped a live roach into the colony. Forager workers alert for food chased the insect back and forth. The roach fought back by spraying some substance at its pursuers. It was obviously irritating, causing the ants to shake their heads and rub their jaws on the ground. Finally one ant, biting repeatedly at the roach's legs, brought it down. She locked her victim in a death grip (**left**), then flipped her abdomen forward and injected venom with her retractable stinger, magnified five times (**below**). The roach died within ten minutes and the ant began extracting its juices.

Waiting for the poison to take effect, the lady very carefully cleaned herself (**lower left**). She drew each antenna through a comb-and-brush device on her front legs and then pulled each leg through her retractable mouth parts. I noticed that when an ant has nothing else to do, it grooms itself.

"What happens below ground," I asked Dr. Taylor, "when an enemy approaches, such as an anteater?"

"Thump loudly on the top of the colony case, and you'll see."

The reaction was instant. A force of guards sallied forth to do battle and to sacrifice themselves for the colony if necessary. Simultaneously the queen headed for the safety of the depths, and nurse workers began carrying the pupal cocoons to the bottom of the nest. Last to be saved were the larvae. "In order to more rapidly replace guards killed in defense of the colony," explained Dr. Taylor, "it's more important to save the teen-agers than the infants."

Face-to-face with a world of ants

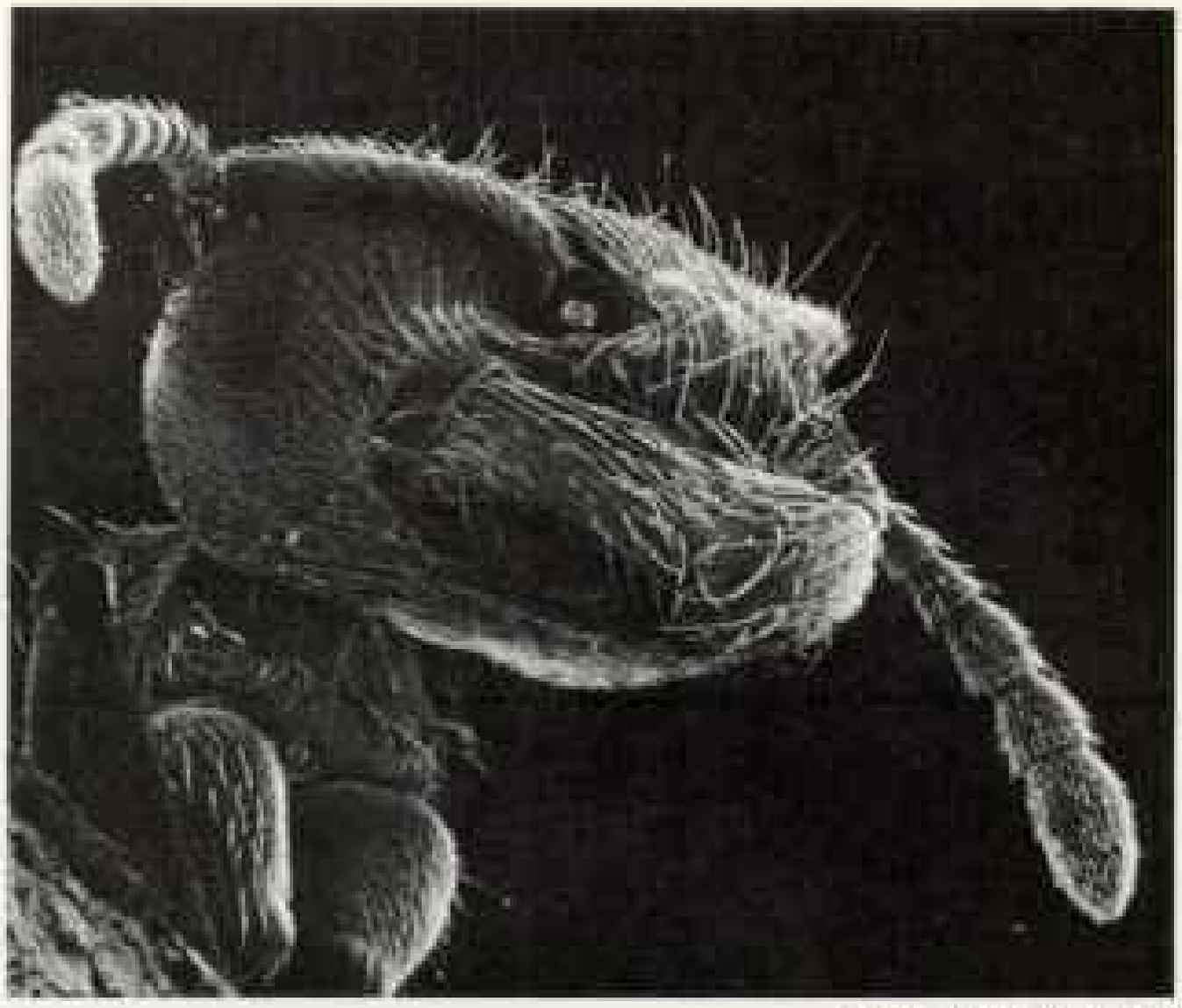
A gallery of portraits made with a scanning electron microscope

I FELT LIKE a Hollywood director as I picked the angle for each face. I nudged the magnification knob and the ant's features leaped at me from the screen.

Dr. Taylor was bringing me trays of ant specimens from the huge National Insect Collection at the Commonwealth Scientific and Industrial Research Organization in Canberra. His colleagues, Dr. Barry Filshie and Mr. Colin Beaton, manned a scanning electron microscope and tripped the "shutter"

ONYCHOPSIS HADDONI, 3X TIMES LIFE SIZE

Grasshopper look-alike makes its home in nests underneath termite mounds in Australia. Many ant species develop symbiotic relationships with other insects, acting as guests, slaves, or herders.



TETRAMORIUM CRESPITUM, 5X

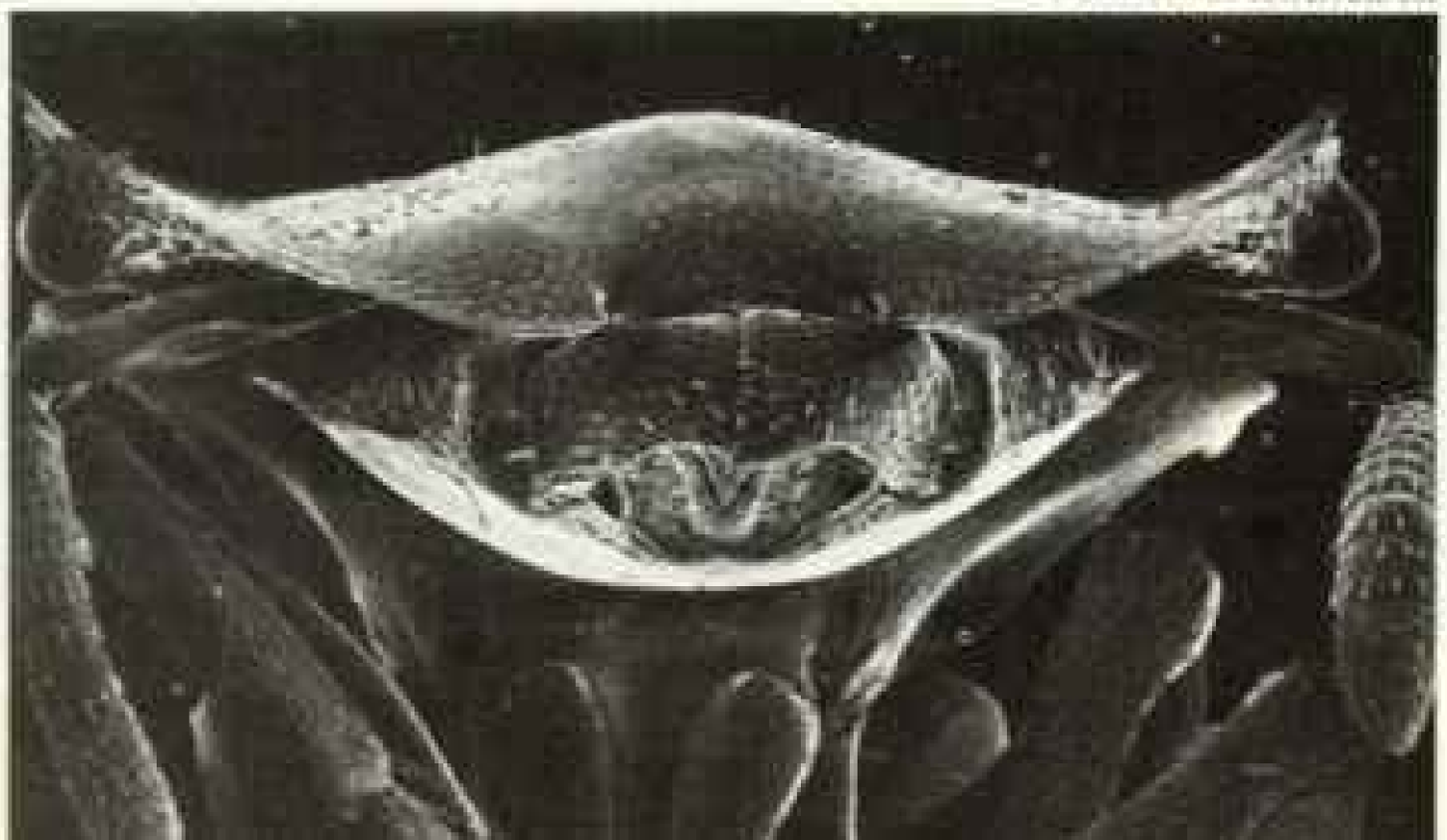
Skinny rabbit ears are actually the antennae of the common pavement ant (**upper right**), which nests under city sidewalks. This European species stowed away aboard ships bound for the New World.

Huge pincer jaws suit the blind army ant of Panama (**left**). Following chemical trails blazed by scouts, soldiers go forth in large battalions after prey as formidable as small lizards. Nomadic creatures, army ants bivouac in hollow trees where they clutch each other to form a protective mass around the queen and her brood.

ECITON HAMATUM, 4X

Crablike carapace shields the head of a rare South American ant (**below**) from enemy ants and wasps.

ACROPYGIDRUS CLYPEATUS, 10X

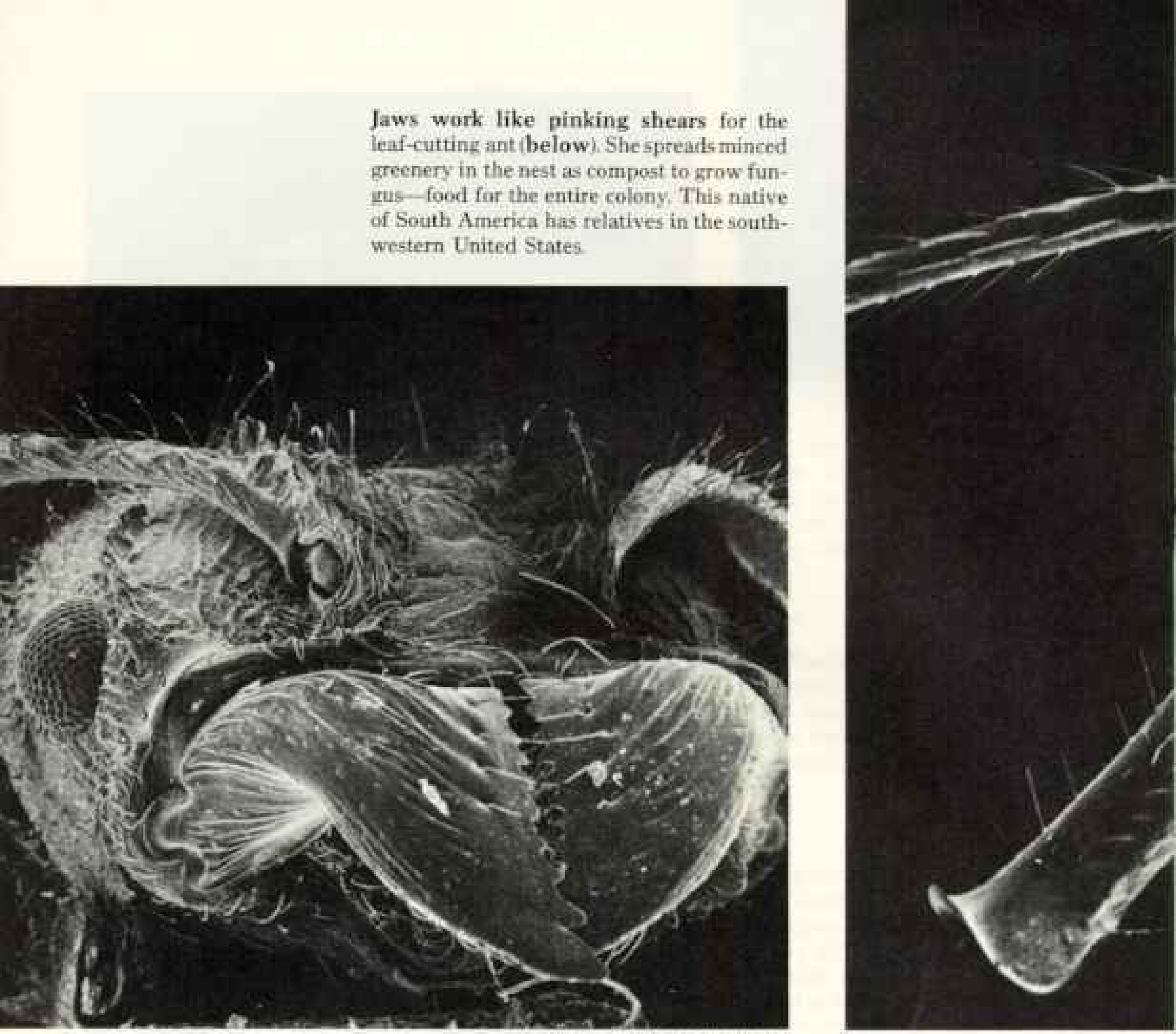


NEORAGLIUS SPINOSUS, 6X

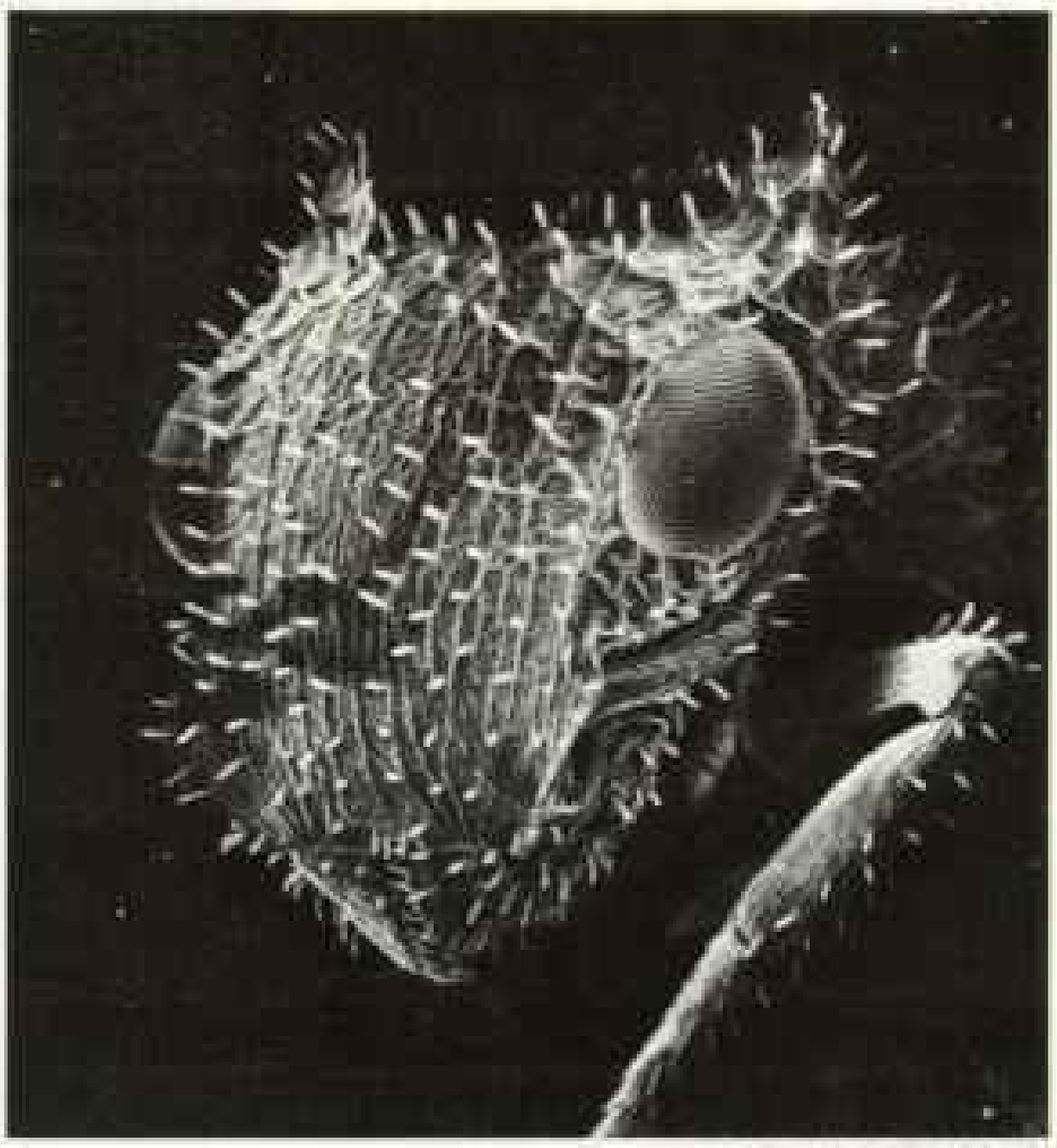
Bristly New Guinean deters rain-forest foes with a faceful of spines (**above**). Some of her cousins from more arid climes harvest and store seeds for a winter food supply.

Jaws work like pinking shears for the leaf-cutting ant (**below**). She spreads minced greenery in the nest as compost to grow fungus—food for the entire colony. This native of South America has relatives in the southwestern United States.

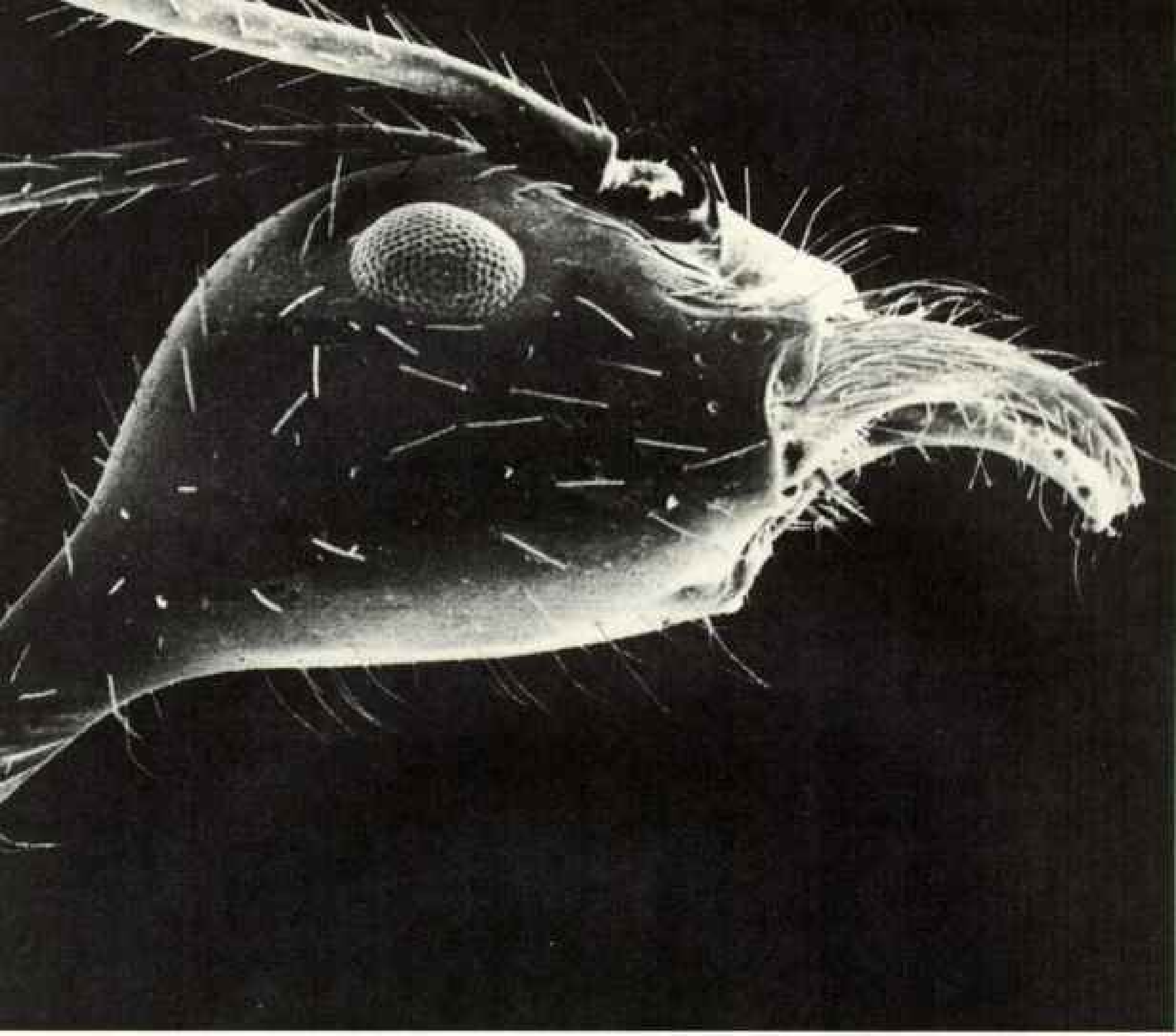
ACROMYRMEX CORONATUS, 4X TIMES LIFE-SIZE



THAUMATOMYRMEX ZETEKI, 8X



CATAULACUS IRREGULARIS, 8X



PHAENOGASTER BROMEDARIUS, ??

Goosenecked carnivore of New Guinea prowls the jungle floor alone in search of insect prey. It takes its name—*dromedarius*—from a camel-like hump on its back.

Basketlike mandibles probably evolved to help this rare species (**far left**) seize fast-moving prey. It has been found only on Barro Colorado, an island created by the flooding of the Panama Canal.

Cactus face of this ant from the island of Borneo (**left**) has finely faceted eyes, a clue to keen vision. It nests in colonies in rain-forest trees.

when I had the image and size I wanted. What had been only a speck at life-size now acquired fascinating individual characteristics. Once, as I examined an image, I seemed to see a kangaroo staring back at me. And why not? I was still in Australia.

The variety overwhelmed me: 10,000 species of ants—including some 65 types of bulldogs—inhabit our world. The more I studied them, the more I recognized individual adaptations that help them survive in different locales. Always I saw something else. "Don't you see a face within the face of this ant?" I asked. The men of science just gave me strange looks. But in time they too admitted recognizing a toothless old man (page 72).

In the past, ants for me were small, feisty insects that went on all my picnics. Never again will I step on an ant—I will step around, for now I have looked long and hard into their many faces. □

Exploring England's Canals

By BRYAN HODGSON
SENIOR EDITORIAL STAFF

Photographs by LINDA BARTLETT

WE HAVE SAILED TOO FAR. All day the canal has carried us through gentle English countryside, but evening finds us in a wasteland of abandoned factories. We plunge beneath dank, echoing bridges and scrape over reefs of drowned rubble. In the bone-gray dusk a single human figure hurries along the towpath, eyes downcast as if we did not exist.

We moor beneath towering smokestacks whose fierce breath once blackened the city. As our engine dies, only a drab wind gutters in their throats. Chilled and silent, we hasten below to the cabin's cheerful warmth.

My wife Linda and I are unlikely mariners on a strange voyage. Our track is the Trent and Mersey Canal, part of a 2,500-mile network of man-made waterways that lace the heart of England, from London and Oxford through Birmingham to Leeds, Manchester, and Liverpool.

It is late October, and the weather has been bad. But there have been consolations. Yesterday we awakened to the squabbling of wild geese on a misty lake. Last night we baked away the chill before a blazing fire in a 16th-century pub. This morning a kingfisher escorted us for half a mile, etching its skyrocket brilliance of green and

Two's a crowd as aptly named narrowboats squeeze through a lock at Stoke Bruerne on England's Grand Union Canal. Skippered by proud boatmen who still decorate cabins, gear, and lanterns (**above left**) with bright designs, the craft once carried coal to fuel England's Industrial Revolution. Now pleasure boaters use them to trace the old routes that vein the island heartland.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blue across the mournful day. And tonight, in the comfortable cabin of our chartered cruiser, we feast on new-laid eggs, fragrant country ham, and crusty bread bought just hours ago in a tiny village store.

Before turning in, I take a last cup of tea and stand on deck in darkness. Beyond the ruined factories the modern industries of Stoke on Trent cast their fiery light upon the clouds. To the north the sky is clearing. Slowly my tumbled thoughts begin to clear as well.

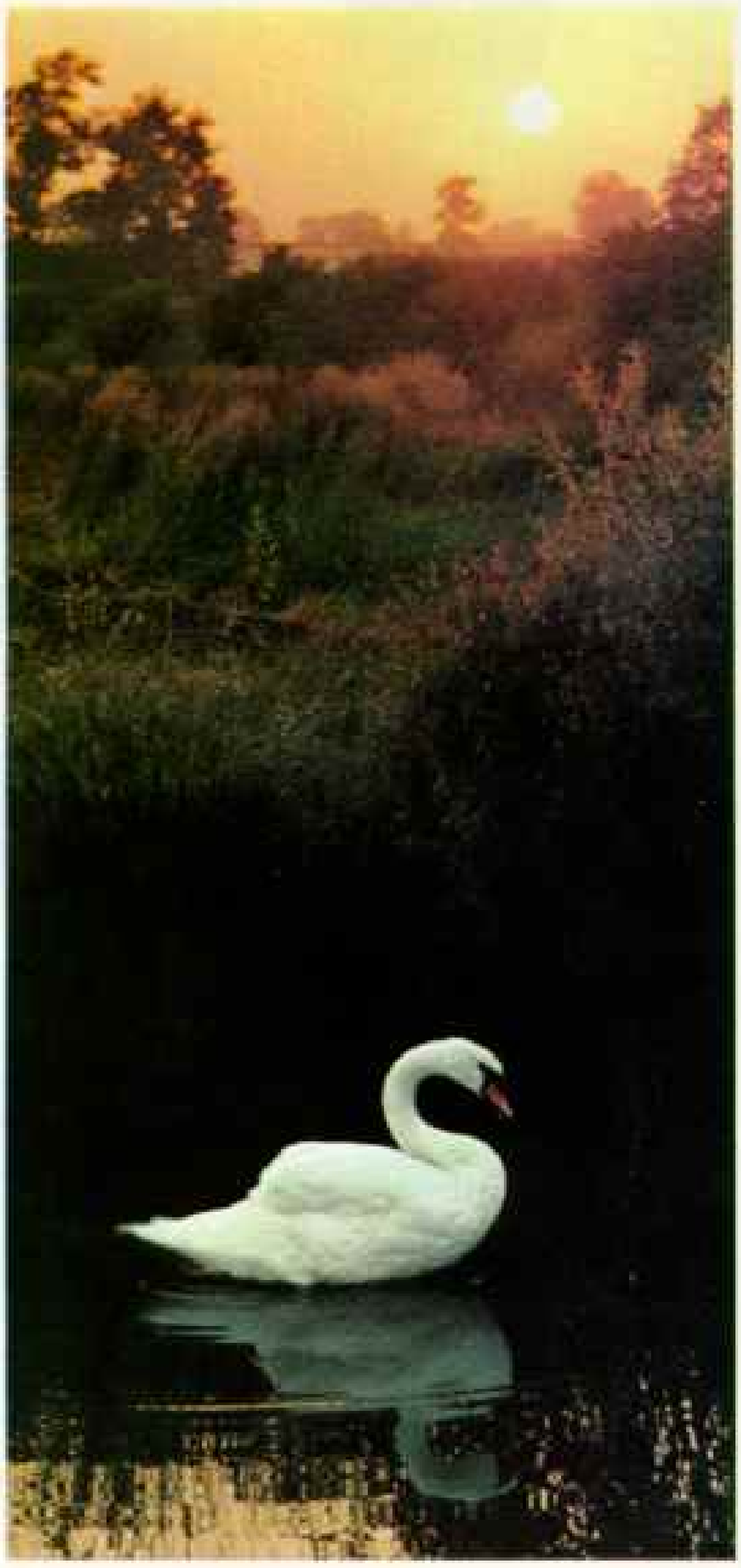
I was born in this land. My childhood memories are hazy, except for the vivid images of Spitfires and German bombers swirling like toys in the autumn skies above my home; and later the sirens in the night, and the ring of fire, like angry dawn, that was London burning. Now, after 33 years in America, I have returned to explore a country that has changed as much as I.

TWO CENTURIES AGO England's canals were engineered as the superhighways of the Industrial Revolution. The first opened in 1761. By 1850 five thousand miles of waterways linked the four great estuaries—Mersey, Severn, Trent, and Thames—with the potteries, textile mills, collieries, and ironworks of sprawling new cities in the Midlands and the North (map, page 83).

A generation ago the canals were almost dead, their narrow locks and shallow channels inadequate for modern needs. Before nationalization at the end of World War II, some fell into disuse except for drainage or industrial water supply. But a passionate conservation movement led by the Inland Waterways Association awakened citizens and government alike to the unique recreational value of the canals. Today, the cruising waterways controlled by the British Waterways Board have become pathways to peace and pleasure for millions of boaters, hikers, and fishermen each year.

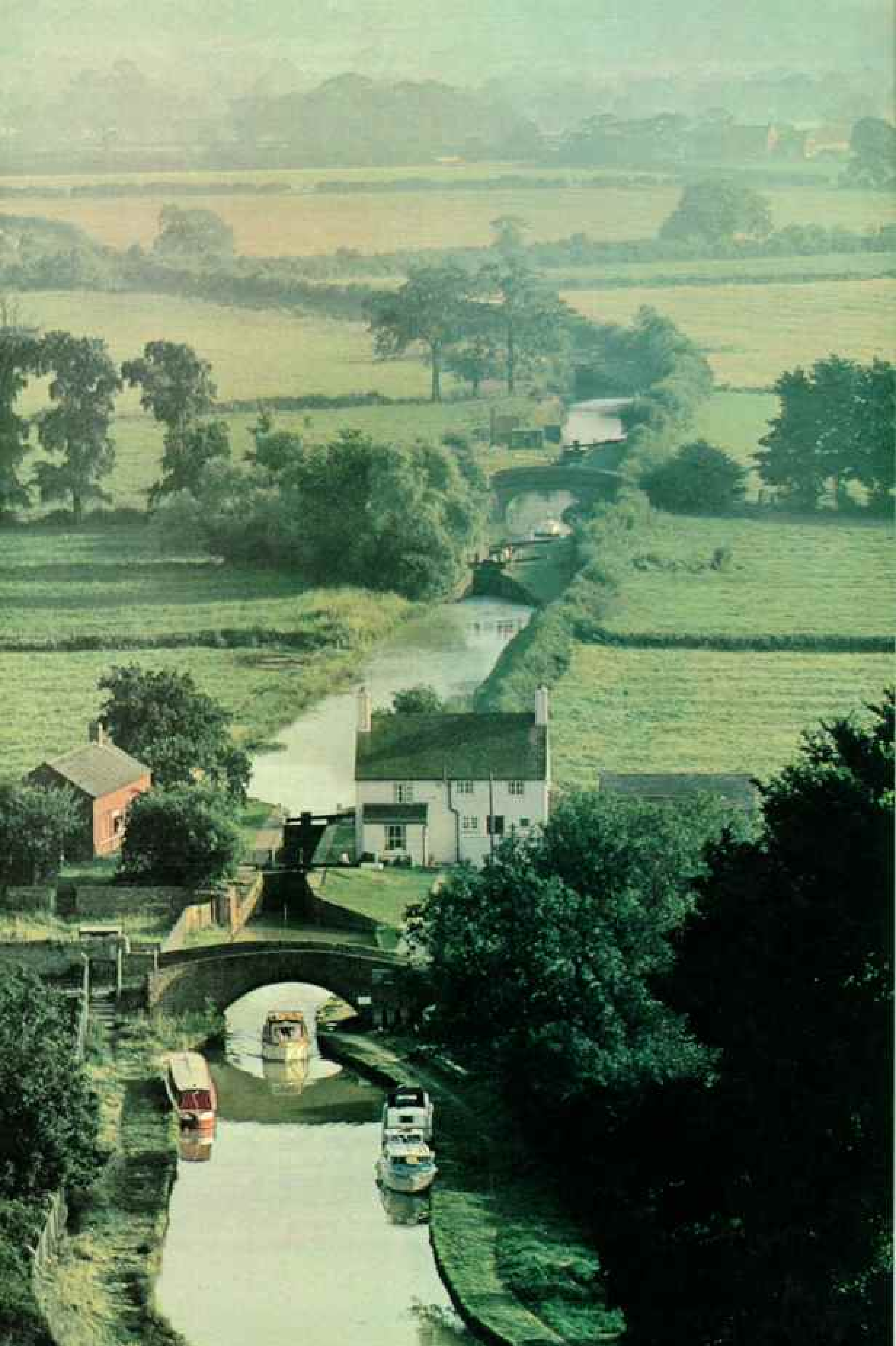
We embark on our own adventure at Fradley Junction, an old canal port at the intersection of the Trent and Mersey and Coventry Canals ten miles northeast of Birmingham. Today its warehouses and stables serve as headquarters for the Swan Line Cruisers Ltd., one of scores of boat-charter companies now operating on the canal system.

Mrs. Helen Theakston, the owner, proudly introduces us to *Fradley Swan*, a steel-hulled 36-foot diesel cruiser with accommodations for four. The carpeted cabin glows with



Taking its good old time, the Oxford Canal (**right**) browses through farmland near Napton on the Hill. Its gently winding course makes it one of the most popular for boating.

Silent as a sigh, a swan idles on the canal at sunset. Haven for birdlife, England's waterways lure herons, coots, mallards, wary kingfishers, and the darting swallows that search the dusk for an insect supper.



hand-finished wood cabinets. A shower, chemical toilet, and galley equipped with gas stove, water heater, and refrigerator indicate we will not be forced to rough it.

"Diesel fuel is aboard, and bottled gas—more than you'll need in two weeks," says Mrs. Theakston. "She's a beautiful boat. I'll be taking her out myself this winter—the only time our boats are free. The summer season is usually fully booked by mid-March."

With our gear and groceries stowed in *Swan's* commodious lockers, we are ready to get under way. One of the Swan Line dockhands comes along to see us through the first lock, a chamber somewhat like a giant bathtub with gates at both ends. Filling and emptying it raises and lowers boats from one canal level to another.

The principle is simple, the practice arduous. Gingerly I attach our "key," a large windlass handle, to the ratchet gear that raises the "paddles"—sliding panels in the bottom gates—releasing 25,000 gallons of water to boil beneath *Swan's* bow as Linda struggles with the unfamiliar controls to keep the boat in place. When the chamber empties, I heave on the giant beams to open the gates. Linda steers into the lock, I heave the gates closed again, wind down the paddles, then wind up similar paddles at the top gate to send another 25,000 gallons surging into the lock. Five minutes, one blister, and a slightly strained back later, we are seven and a half feet higher and ready to cruise.

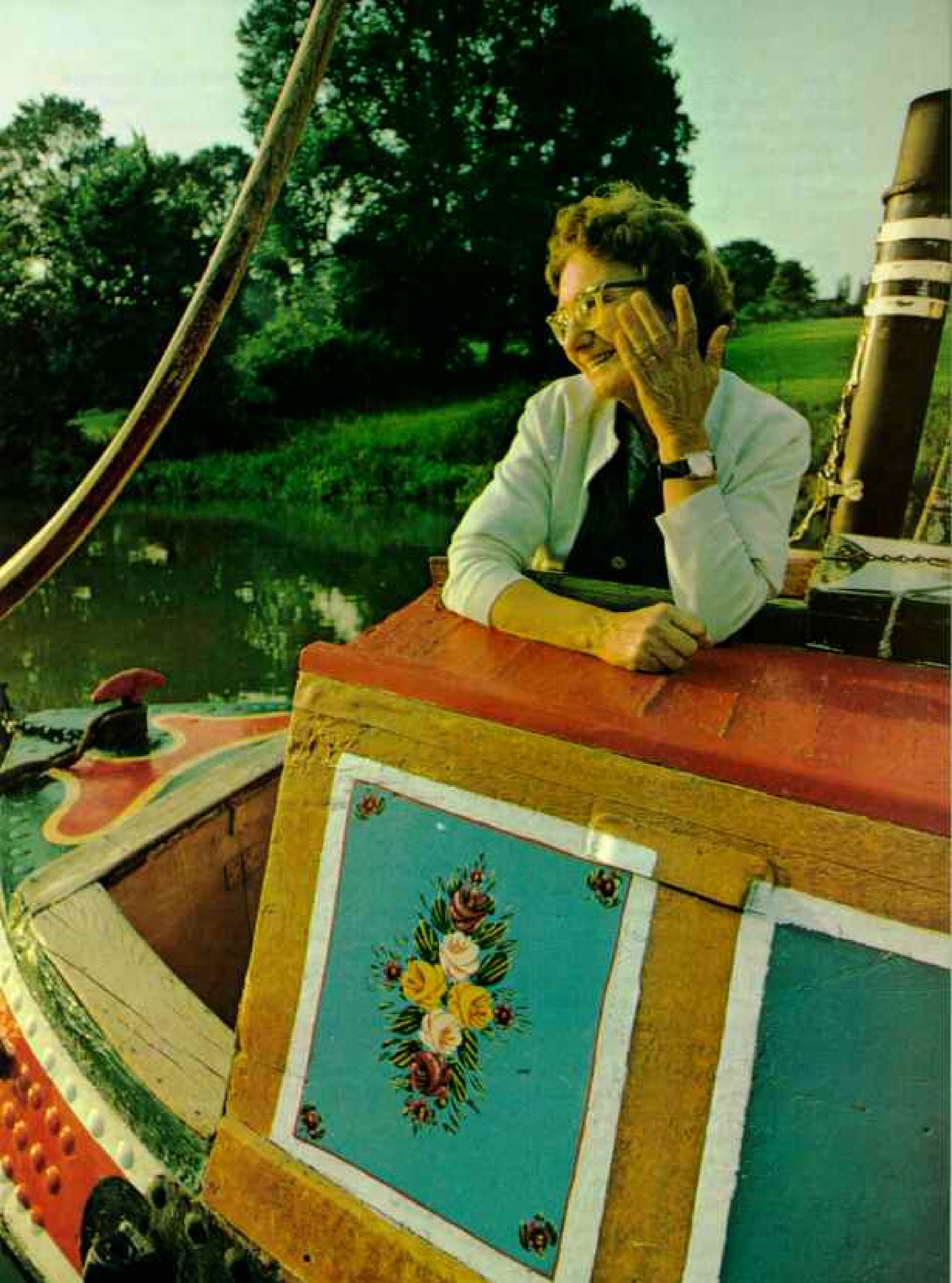
"You'll get the hang of it," our instructor says cheerfully. "Just remember to close everything behind you—leave a paddle open and you can drain a whole section of canal."

As he bids us farewell, threatening clouds deliver their first spattering of rain. We cruise northward at four miles an hour under a canopy of trees. The rain begins in earnest. Soon it is dark. We moor in a meadow, utterly alone in the heart of England's countryside, and utterly at peace.

LINDA AND I are novices on the canals. But in a way we are veterans. For six weeks we have surveyed the canal system by car—a journey that would take a year or more by boat. Our driver's-eye view of modern Britain is one of teeming motorways, juggernaut lorries in narrow-laned villages, and hordes of tourists whose gaudy buses surround beauty spots and historic sites like squadrons of jukeboxes on wheels.

"I raised two children on the canals," says Mrs. Doris Collins with a smile as bright as her boat, the *Belmont*, moored at Braunston (**facing page**). "Gave birth to them right on board. I'd lie in for ten days, then the family was off again, carrying coal."

"Number One"—a canal man who captained his own craft—Jack James made the run from Coventry to Oxford for 34 years. Fancy ropework and a model of his boat adorn the porch of his Stoke Bruerne cottage.



Amid this furor, we have found the old world of the canals, followed their gentle wanderings through farms and woods and villages, climbed staircases of locks across the Pennines, cruised the hills of Wales, and entered crowded cities through forgotten byways of the past.

JACK JAMES is a man of both eras. At 78, he is almost the last of the "Number Ones"—the independent skippers whose gaily decorated 72-foot narrowboats were once the clipper ships of the canals. Now he is an honorary custodian of canal history at Stoke Bruerne, a busy boating center on the Grand Union Canal midway between London and Birmingham (page 80).

"I was born on a boat on the River Thames near Oxford. In 1896 that was. There were ten of us kids. No school for us—we learned our letters off the sides of railway wagons. Earned our keep as soon as we could lead a horse or handle a tiller. I was a skipper at 17, with two of my sisters as crew.

"Met a pretty girl named Emma Bray goin' through a lock one day at Rugby. Courted her three years, up and down the canals. Spent our honeymoon haulin' coal to Oxford. Raised six kids of our own, all on the boats. Emma's gone now—died one afternoon while having a cuppa tea. We never even had a chance to say good-bye."

Declining business forced Jack to sell his boats, but he captained a pair of Grand Union Canal Co. boats for the Ministry of War Transport during World War II. In 1947 he became lockkeeper at Stoke Bruerne.

"The place was a proper eyesore then. I painted things up, started a little museum with some of my own bits and pieces. Then the pleasure people began to come. It was them that saved the canals. It was sad to see the working boats go. But now—well, I've got more friends than I ever had. Put m' feet up in the evenin', have a yarn and a pint or two, and I'm my own gaffer still!"

Jack's "little museum," enlarged by the Waterways Board, now attracts crowds of sightseers eager to learn the history and lore of the canals. The most popular display shows the life of canal families—their costumes, tools, and the intricate ropework, bright brass ornaments, and traditional paintwork that decorated their floating homes.

At Braunston, where the Grand Union joins the Oxford Canal 20 miles northwest of Stoke Bruerne, Rose and Bill Whitlock can show you the real thing aboard *Lucy*, their traditional narrowboat. *Lucy*'s sleek 72-foot hull glistens with fresh tar, and crisp new canvas shelters the 30-ton cargo hold. Bow, stern, and cabin sides sparkle with painted roses, castles, and curlicues.

"Mind your head—it's a bit cramped down here!" With one wave of her arm, Rose gives you a complete guided tour of her 7-by-9-foot stern cabin. Forward, a screened-off sleeping area occupies half the space. The "living room" contains a tiny coal stove, miniature china cabinet, a settee, and multitudes of drawers and cupboards. Every spare inch of bulkhead gleams with brass ornaments and gay decorative plates.

"I've lived afloat for 50 years—wouldn't know what to do if I had to move ashore," she says. "Course, in the old days, a family'd have a second boat—a 'last,' or butty, boat—and you could fit a lot of kids into two cabins. We lived small, you might say. But we had the whole country to call home."

THE OXFORD CANAL was a main route of the Number Ones, whose horse-drawn boats took four or five days to make the 77 miles to Oxford from the coalfields north of Coventry. Today's diesel-powered skipper can "fly" it in three days.

"And I suppose there are some damn fools who do it," growls John James. "But they miss half the pleasure. Might as well drive, and be done with it." John is a canal man like his father, Jack. For 22 years in London he combined careers as an artist and skipper of the tour boat *Jason*, which has ferried hundreds of thousands of tourists from Paddington's Little Venice to Camden Town on the Regents Canal.

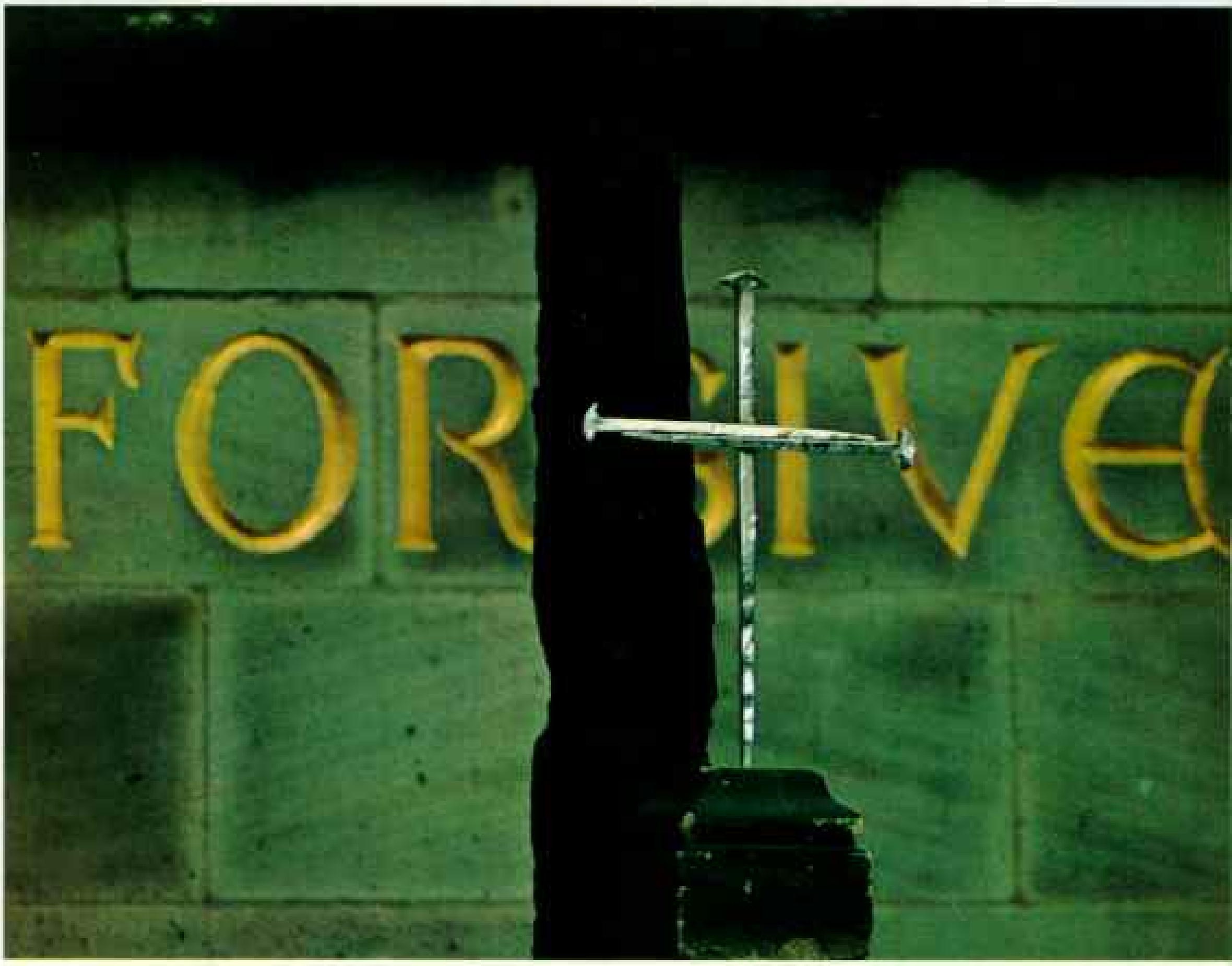
Now he paints full time in his studio at Napton on the Hill, near the Oxford Canal. His favorite subject is canals, and his favorite viewpoint is a hilltop meadow beneath an old windmill that looks out over Warwickshire. Below, the canal wanders amiably through woods and meadows. Toylike boats move slowly through locks and under bridges to disappear in summer haze toward Oxford.

"The canals really are magical," John says quietly. "They reflect and enhance their surroundings—a perfect marriage of nature with man's necessities. I think we've forgotten how to do that now."

Travel a few miles south and you can get

Yesterday's superhighways

ONCE BUSY with cargo, the canals and navigable rivers of England today form a 3,500-mile pleasure-cruising network that links countryside with industrial centers. More than 300 miles still carry some commercial traffic. Many derelict canals are scheduled for renovation.



Cross of nails gleams in the ruins of the old cathedral in Coventry. As the church roof blazed during one of the worst air raids of World War II, hand-forged 14th-century nails rained into the sanctuary. Parishioners fashioned three of them into the cross.

some tips on gardening from Sidney Feltham, a young ex-Coldstream Guardsman who has marshaled regiments of marigolds and mums around his lockkeeper's cottage at Cropredy. You can also learn some military secrets.

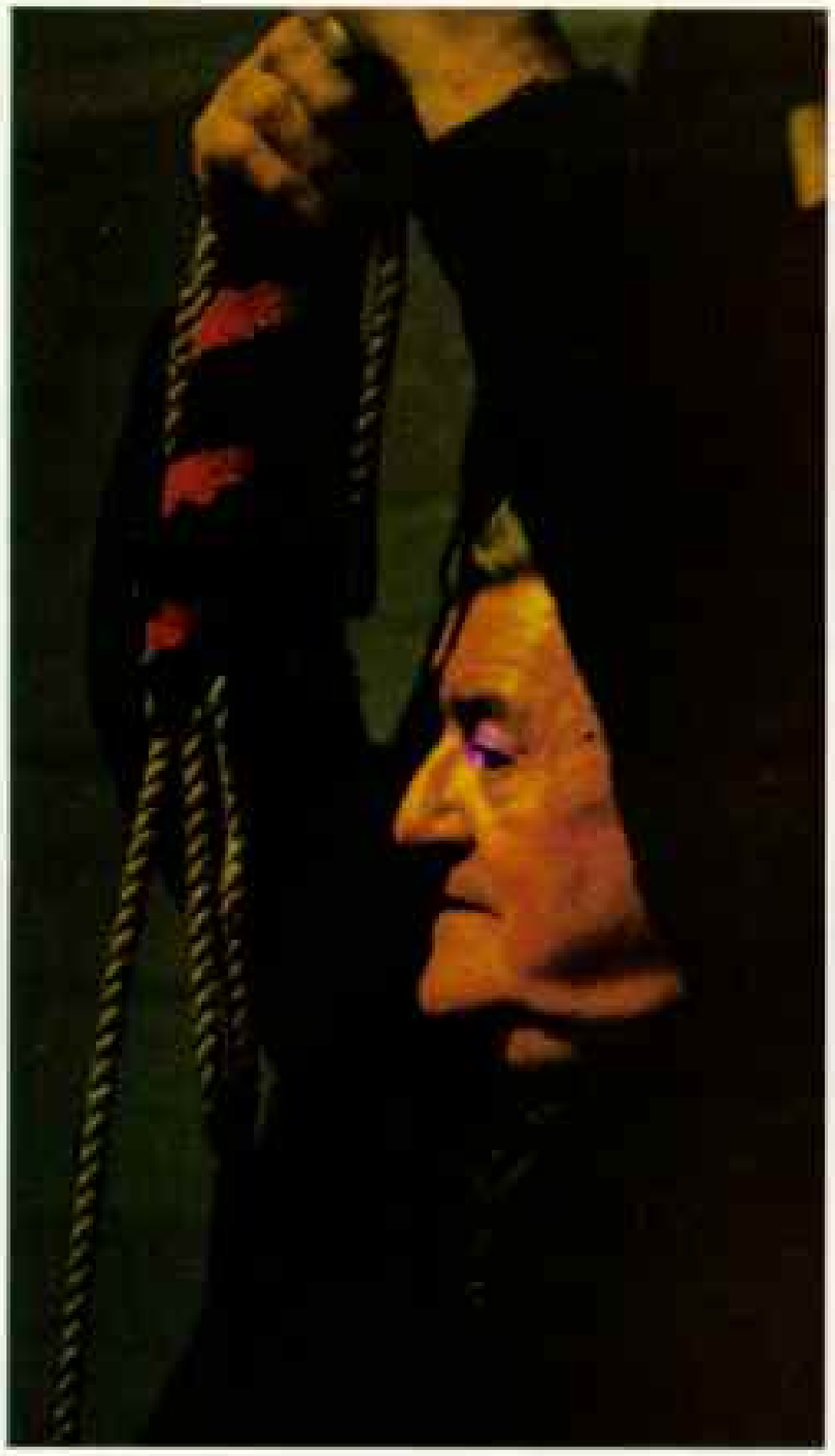
"We did lots of ceremonials in the Guards —troopin' the color, guardin' the Tower of London, and whatnot. Stood on parade four and five hours at a time—with a 14-day detention if you fainted. The trick is to keep your weight off your heels. That's why Guards' boots bulge in front—lots of room to wiggle your toes without anybody knowin'."

At nearby Banbury, toes are part of history. The lady of the nursery rhyme who rode a white horse to Banbury Cross wore rings on her fingers and bells on her toes—but very little else. She was in reality the symbolic earth mother, or goddess of fertility, in pre-Christian times. In 1600, Puritans destroyed the original cross; its replacement overlooks a giant parking lot.

So it is a pleasure to visit Aynho, where the village green is still intact, and citizens espalier fruit trees along walls of Cotswold stone.*

In Oxford itself, where the canal joins the Thames, you can spend a day and see too much, or a year and see too little. We climb the 14th-century steps of Carfax Tower to look over a panorama of spires, many of them belonging to the 34 colleges of Oxford University. In a quiet cloister at Balliol College, we see the names of hundreds of students who died in the trench warfare of 1914-18. Their deaths prompted the Oxford pacifist movement that helped make England so ill-prepared for Adolf Hitler. Perhaps tragedy is the mother of chivalry—a shorter list of

*James Cerruti described the Cotswolds in the June 1974 NATIONAL GEOGRAPHIC.



Hands and mind poised, a bell ringer at St. Michael's Church in Stone, on the Trent and Mersey Canal, prepares to join in a tuneful chorus of the church's eight bells.

World War II casualties includes names of Germans who studied at Balliol.

Later, near the northern end of the canal, we visit Coventry's modern cathedral, built as a symbol of renewal beside the shell of the 14th-century church of St. Michael. The old church was burned on November 14, 1940, in a massive air raid that destroyed much of the city and killed 554 of its citizens.

Amid the ruins of the church, a blackened altar bears a small cross made of nails from the charred beams. Carved on the wall behind it are two words: "Father Forgive."

"BIRMINGHAM'S an engineer's town," says Alan Green as we sit chatting on the *Brummagem Fly*, his floating pub and tour boat. "Building cars is what we're good at, so of course we're rebuilding the city for cars, not people."

Alan, a sandy-haired young lecturer on urban planning at the University of Aston, is sympathizing with our harrowing encounter with the city's new Inner Ring Road—a high-speed maze of roundabouts, forks, and underpasses totally devoid of meaningful directional signs. We had whizzed around it like prisoners on a toy racetrack, passing our hotel four times before finding a way to reach it. Later we shuddered through a matching maze of gloomy pedestrian subways, strewn with windblown rubbish and providing a sinister forum for Birmingham's graffiti artists.

"God knows, we need urban redevelopment. But why put motorcars on the surface and people underground? Ring roads are destroying half the cities of England. Whoops! Excuse me a moment!"

Alan dives for the throttle, throws it into neutral, and gently eases the *Brummagem Fly* to the bank of the Birmingham Canal. Leaping ashore with a barge pole, he untangles a large bedspring from the propeller, and then we continue our cruise through the Black Country—so called for the scores of iron smelters that once spewed smoke and ash over 50 square miles around Birmingham.

"I think every old bed, bike, and pram in the city winds up in the canal," Alan sighs. "There are a hundred miles of navigable water here, priceless recreation space. But for years we've turned our backs on them, fenced them off, dumped our rubbish in them."

We glide past towpaths purple with fireweed—the rosebay willow herb that lends strange beauty to silent factories and warehouses. Graceful arches of cast iron and brick carry roads and other canal levels across the channel. At Tipton we tie up alongside the main street to buy fish-and-chips worthy of three stars in any gourmet guide.

At lunch Alan tells of taking up boating three years ago as a hobby. It became much more—today he and his partner, architect Barry Stanton, operate two tour boats and a fleet of rental dinghies. Last year they carried 30,000 passengers. In 1974 they hope to launch six 40-foot charter cruisers.

"Ready for the next treat?" he asks. We reembark and soon plunge into a 3,027-yard torture chamber called Netherton Tunnel, which carries the canal beneath Rowley Hill. The eerie darkness thunders with our exhaust, while icy water cascades on our heads from ventilation shafts. After about half an hour we emerge into *(Continued on page 90)*

In bowler and bonnet and vest and shawl of the canal people of old, Charlie Alldrick, his wife, Marjorie, right, and Mrs. Betty Foakes stroll along the Birmingham Canal at Smethwick.

Seeking relief from the day-and-night demands of his job as an electrician, Charlie hired a canal boat and took his wife on a weekend trip. The ride turned into a hobby, then into a crusade. When the government threatened to close most of the city's canals, he and hundreds of other canal lovers joined ranks to fight the plan.

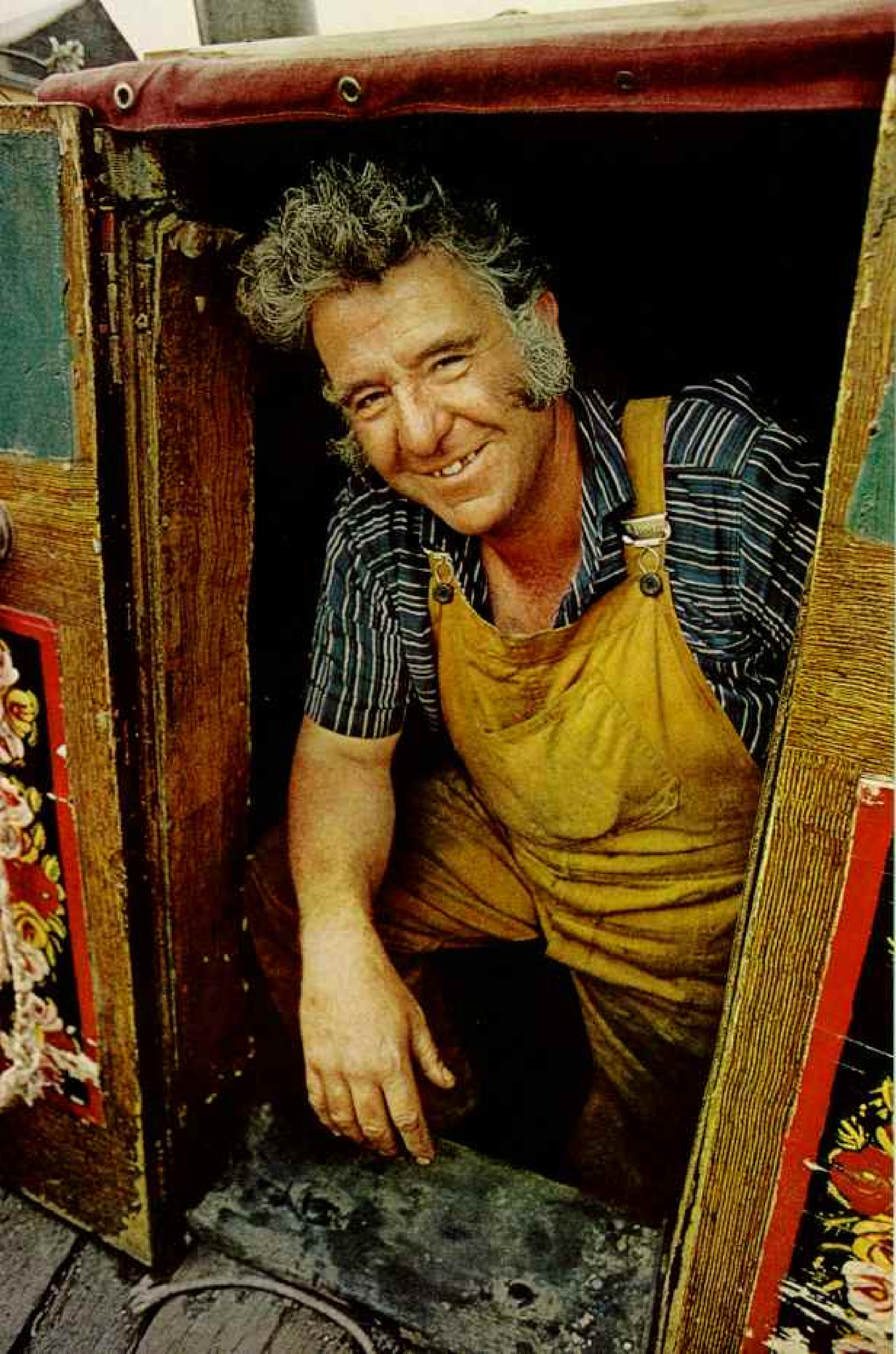
"The canals are still on the map," Charlie says, and he is still on the canals, managing a fleet of tour boats and cruising the waterways. "There's lots of restrictions on cars and such here in Birmingham," he says, "but on the canals you're as free as the wind."

Flames warm the spirits as well as the bodies of Birmingham boys after a swim in the canal at the city's Hockley Port (**above**). Crowded into the slums, the boys formerly had no place to play. Gangs roamed and fought in the streets. Crime and vandalism flourished. Then the Hockley Port Trust, a group of concerned citizens, leased the disused basin and gave the youngsters a place to let off steam.

During his 14-month stay as youth adviser, Tom Hodgson (**right**) counseled and consoled hundreds of teen-agers such as freckle-faced Kathy (**left**).

"We took down the fences and cleaned up the rubbish," says Tom. "Everybody pitched in. Volunteers hauled debris away in their own trucks. They took the boys and girls on canal and hiking trips, taught them how to paddle canoes, and to repair boats."

The result? Tensions eased, crime fell. As police superintendent Frank Broadbent observed, "Kids do not get into trouble when they are messing around with boats."



Savoring a moment of solitude, the author stands at the entrance to Birmingham's Gas Street Basin. Here narrowboats rest near warehouses and

open country, where green fields have replaced abandoned collieries.

Nearby, in 1619, "Dud" Dudley tried to solve Britain's first energy crisis. Ironmasters were depleting the nation's oak forests to get charcoal for their furnaces. Dud made early experiments in using coal. He failed—partly because of the ironmasters' fear. They destroyed his furnaces and prevailed on Parliament to revoke the patents it had granted him. Not until 1709 did Abraham Darby develop the smelting process that was to help catapult England into the Industrial Age and give the Black Country its name.

"Not so black now, though," Alan says. "People are surprised to see open space so close to the city. Speaking of blackness, I hope you like tunnels, because we're going to give you an encore. It's another day's trip if we go back to Birmingham by way of Wolverhampton." So we plunge through Netherton again. It hasn't changed.

At dusk we tie up at Cambrian Wharf, our starting point nine hours earlier, and go ashore to the Long Boat pub, cheerful centerpiece of Birmingham's first canalside redevelopment. Tall apartment houses overlook terraces of restored 18th-century cottages, and throngs of Brummies—as Birmingham's citizens call themselves—stroll around the basin.

"This is just a sample of what the canals could be," Alan says. "There are dozens of old dock areas like this. Come on—I'll show you a better one."

A 300-yard voyage takes us under Trinity Church on Broad Street Bridge, and we emerge into Gas Street Basin, home port of the *Fly*. Old warehouses form a comfortable

workshops little changed over the past century. Families still live aboard boats moored at Gas Street, where a woman (**above**) bathes her doleful pup.

wall of brick against the city's glass-and-concrete skyline. The basin is crowded with colorful old working boats, many occupied by young families. Children and dogs scamper among the boats, and smoke from cooking stoves spirals from brassbound chimneys.

"It's another world here, almost another century," Alan says. "It will be redeveloped someday. But I hope they don't tart it up too much. We may not be able to build things like this anymore—but we can still keep them part of our lives."

"SO YOU'RE A HODGSON, eh? Don't find too many of us this far south, but it's a good Yorkshire name. Means 'strong spear.'" The speaker is Tom Hodgson (page 89), whom we meet as he deftly coaxes an ailing engine back to life at Gas Street.

He is a master boatbuilder, served five years in the Queen's Household Cavalry, earned a divinity degree at London University, and has spent 12 years as a counselor in an "approved school"—as the English call reform schools. For 14 months he won the trust of hundreds of slum children as director of Hockley Port, a youth center on the Soho Loop of the canal a mile from Gas Street. He still serves as volunteer counselor.

"Name a problem, we've got it. Poverty, racial tension between whites, blacks, and Asians, uprooted slum families, 'aggro' [for aggression] gangs, vandalism, crime. Come and visit—you might call us the citizens of Birmingham's second city."

On a gray Sunday in a neighborhood of deserted buildings and raw new housing developments we find Tom surrounded by

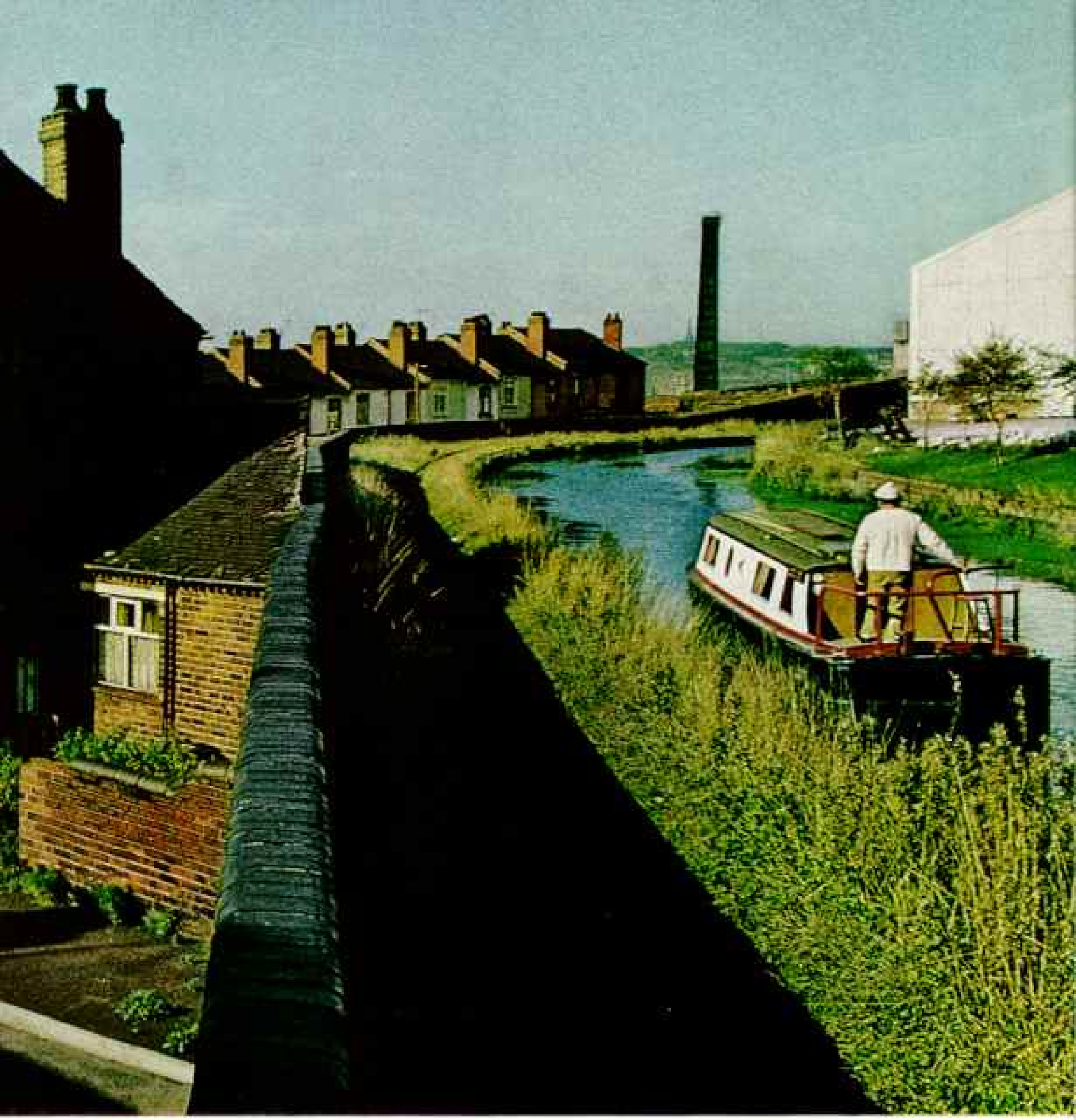
youngsters at the basin. Noisy groups stage mock battles in battered canoes. Others learn the rudiments of boatbuilding in a new workshop built by the Hockley Port Trust, a charitable organization of Birmingham citizens.

"Should have seen this place at first," Tom says. "It was ten feet deep in rubbish. The kids helped clean it up. Most of them had never seen a boat, let alone sailed in one. They're tough kids. A lot of 'em will get drunk, steal, break things. And you'll hear a lot of lies.

"But, if you listen, you'll hear a lot of 'em lying about good things—like having jobs, or good homes, or doing well in school.

"Maybe if somebody believes them enough, some of those lies will come true. You can't run a place like this without the necessary idiot adult."

A TWO-DAY VOYAGE along the Stratford-upon-Avon Canal takes you from the Dickensian grime of Hockley Port to the Elizabethan quaintness of Shakespeare's birthplace. The trip took David Hutchings three years—but he had to dig



much of the way. An architect by profession, he quit his job with the city of Coventry in 1961 to direct a successful volunteer effort to restore the derelict canal.

We found him knee deep in mud, helping workmen wrestle with dredging machinery on the last stretch of another project—the four-year, $750,000 restoration of 17 miles of the upper River Avon. This summer boats will sail to Stratford from the River Severn for the first time in a century.

"We've dredged 14½ miles of river bottom. Built nine locks out of scrap steel and sweat.

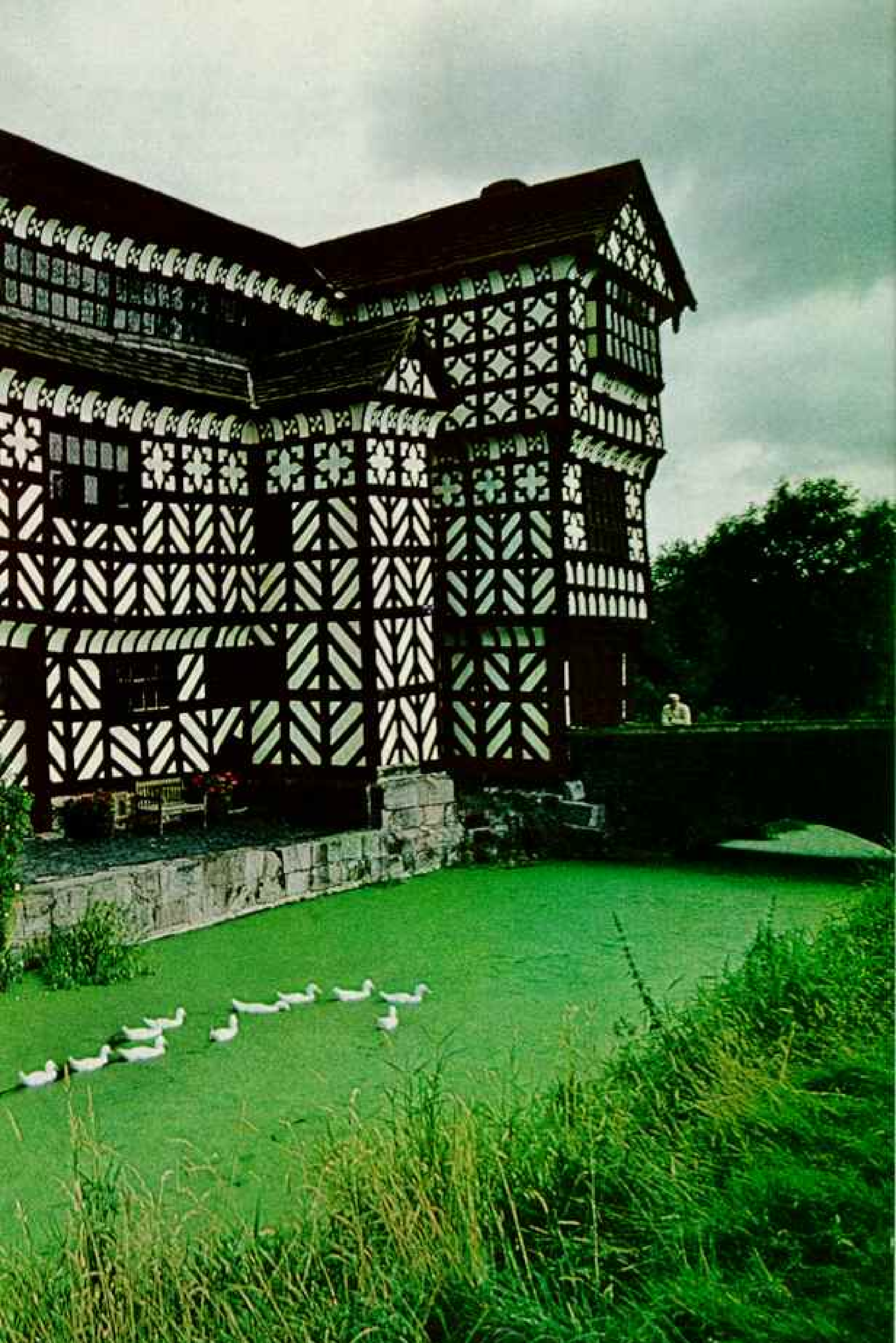
At the speed of adventure—four miles an hour—the author steers his chartered boat, *Fradley Swan*, through Stoke on Trent. Here in 1759 Josiah Wedgwood first crafted his distinctive earthenware and revolutionized England's pottery industry.

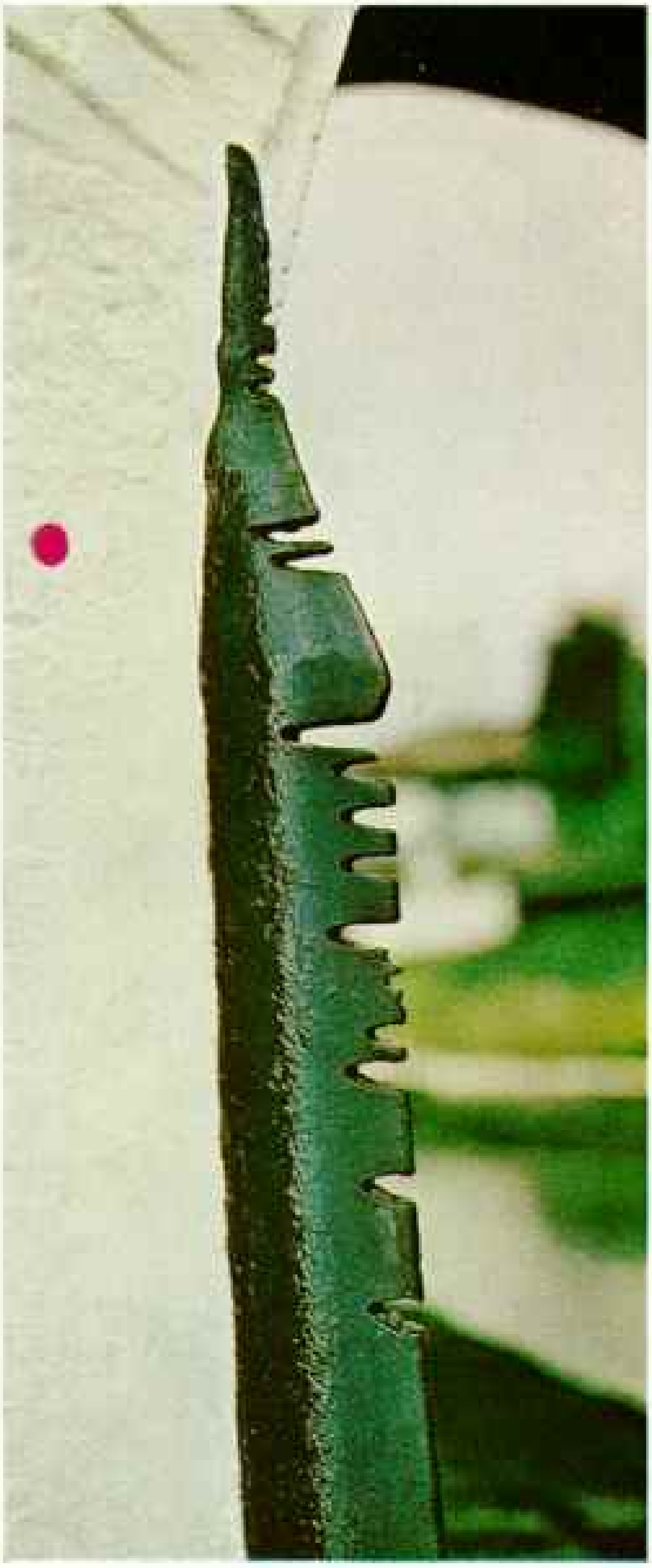
Wedgwood wares still travel on the Caldon Branch of the Trent and Mersey aboard two specially built narrowboats that ply between plants on the canal.

Elizabethan elegance in plaster and black oak, Little Moreton Hall looms above its moat near the Macclesfield Canal. In 1514 owner William Moreton quarreled with his neighbor Thomas Rode "concerning which of theym should sit highest in churche and foremost go in procession." Local records fail to disclose the outcome of their dispute.

Now throngs of summer visitors tour the restored 15th-century residence administered by the National Trust, which preserves some 200 properties throughout Britain.

Tree, spare that woodsman! A sign cautions visitors to the gardens of the Shugborough estate at Great Haywood near Stoke on Trent.





Worn by countless tow ropes, this old iron bridge guard still protects the masonry at the base of the Autherley Junction span. For more than a hundred years after the first of England's canals opened in 1761, traversing them was literally a long haul. Men aboard the boats "legged" them through tunnels by pushing with their feet against the walls; horses labored on towpaths.

Each of them cost us about $25,000 and six weeks' work—five times cheaper and five times quicker than the government could get it done. But we don't have a staff of consultants or labor bosses to tell us how to do the job—just a few hundred volunteers and a small crew of professionals. So of course we're right on schedule and budget."

The Stratford Canal project was a notable victory for canal enthusiasts. A government decision to close the southern stretch of the canal brought agonized protests from the Inland Waterways Association. The National Trust came to the rescue with private funds to take over the waterway and restore it.

Shortly afterward the British Waterways Board was formed, with the task of administering the canals. And now organizations such as the Navvies (named for the laborers who dug the original "navigations"), part of IWA's Waterway Recovery Group, recruit thousands of weekend workers to help dredge channels and repair locks.

"We've seen the last canal close," Hutchings says. "We need to reopen more. We could do it a lot faster if they were in private hands."

Before leaving Stratford, Linda and I stroll along the restored canal, which drops almost secretly through the town, hidden from the tourist throngs. A final lock opens on the broad basin near 15th-century Clopton Bridge. We leave sight-seeing to the restless souls ashore and spend a pleasant hour rowing among the swans that live in the gentle reflection of Holy Trinity Church.

JOSIAH WEDGWOOD was another of those Englishmen who, like David Hutchings, believed in dirtying their hands for an idea. He dug the first shovel of earth to start the Trent and Mersey Canal in 1766, a gesture in keeping with the long years he spent at potter's wheel and kiln to develop the techniques that revolutionized the ceramics industry. Self-educated, he became a friend of the greatest minds of the age; his independent soul exulted at the victory of George Washington's do-it-yourself armies: "I bless my stars . . . that America is free!"

Appropriately enough, the Stars and Stripes floats beside the Union Jack as we enter the Wedgwood pottery at Barlaston, on the Trent and Mersey south of Stoke on Trent.

"We always fly the flag of visiting buyers, and you Americans are our biggest overseas customers," says William Billington. He leads

us through the company's museum, with its exhibits of Josiah's handiwork—each a landmark in potters' history. There is his reproduction of the pre-Christian Portland Vase, which took him four years and hundreds of experiments to create; it was the culmination of his famous line of jasperware. There is his original earthenware, so elegant that royalty preferred it to porcelain.

In the pottery-throwing room, where Billington began his own career 50 years ago, we watch malleable mixtures of powdered china stone, flint, clay, and coloring blossom into graceful jasper vases under the skilled hands of potters at a battery of wheels. In another building scores of women apply printed patterns to dinnerware, or hand-paint designs with tiny brushes. The room is silent as a library; workers paid by the piece find that silence is golden.

Our tour ends in the cafeteria. Billington brings us tea in elegant Wedgwood cups.

"Company policy," he smiles. "Wouldn't do not to use the best."

STOKE ON TRENT is a municipal conglomerate of six towns—Burslem (where Josiah Wedgwood was born), Tunstall, Hanley, Stoke, Fenton, and Longton. Traditionally called the Potteries, it is an endless sprawl of gray roofs, chimney pots, and factories interspersed with the volcano-like slag heaps of North Staffordshire coalpits.

The Trent and Mersey threads Burslem near the early home of Arnold Bennett, whose novels—such as *The Old Wives' Tale* and *Clayhanger*—immortalized what he called the Five Towns at the turn of the century.

We visit the tall Victorian house at 205 Waterloo Road, with its horsehair divan, ponderous cabinets, and heavy drapes. Gray light filters through lace curtains that were flags of respectability in an age of soot. Surreptitiously, I heft the author's fat gray fountain pen, hoping for inspiration in my own scriblings. Bennett was among the first British writers to treat tradesmen and working people as humans of dimension and feeling rather than caricatures or figures of melodrama.

The custodian is Mrs. Irene Hoult, pert and practical image of a Five Towns housewife. She prepares tea for us and tells us her own tale—one Bennett might have relished.

"I'd never heard of Mr. Bennett until the council advertised for a live-in caretaker. We needed a place to live, so I stayed up till three one morning reading one of his books and the family history. They picked me from 20 applicants.

"I was born in the Potteries. We were poor, but we didn't feel poor. I painted cups, freehand—four colors for threepence ha'penny a dozen. Granny dressed us by sewing. If we didn't have a penny for the gas meter, we read by candlelight. And we'd make our own pretty things for the house. It's a lovely feeling to make something out of nothing.

"During the war I worked in London—my daughter was born in a cellar during an air raid. Everybody helped. When you're poor, or there's a war on, people seem closer. Now it's different. It's 'I'm all right, Jack,' and everybody out on strike."

"ENGLAND CAN SHOW nothing more beautiful and nothing uglier than the works of nature and the works of man within the limits of the county," Bennett wrote of Staffordshire. The scenic route of the Macclesfield Canal bears out his brighter judgment as it leaves the Trent and Mersey a few miles north of Stoke and passes Mow Cop, ". . . a hill famous for its religious orgies."

Primitive Methodists held their first camp meeting there in 1807—a 14-hour marathon of hymn singing and gospel shouting that shocked the pale rectitude of conventional divines who preached acceptance of poverty and hunger as the price of sin.

Stand on the 1,100-foot summit and you can understand why the Primitives found it a suitable spot. Gazing over the panorama of industrial gloom, perhaps they felt that if they could shout away sin, they could also shout away the grimness of their lives.

Today much of the smoke is gone. The slag heaps are being turned into parks. On a clear day you can see across the Cheshire Plain into Wales.

Below the hill Jack Whitaker still dispenses refreshment and acerbic wit in the Bird in Hand pub, just as he did to generations of working boatmen.

"Very down-to-earth, those old canal men. Settled their differences with a round of damns, then came in to share a pint.

"But you young people, hurryin' around—why, you haven't stopped long enough to see anything properly. I'm 70, and I've lived in this house all my life, and my father and grandfather before me—and none of us have seen all the *(Continued on page 102)*

Darkened with the patina of time, bronze maidens valiantly lift their lamps in the city square of Leeds (**left**).

"There is energy and cheerfulness here," says the author. "The north-country voices, broad and low, are full of personality. It is nice to be called 'luv' instead of 'sir.' Traffic is dense but marvelously patient. I never hear a horn."

At Keighley, railroad nostalgia reigns as an antique locomotive (**above**) chugs into the station. Operated by a group of rail buffs, the Keighley and Worth Valley Light Railway offers visitors a five-mile trip to Oxenhope, including a stop at Haworth, where the Brontë sisters lived.

"**High as your elbow**, that's the best length for a walking stick," says Frank Meeson, who stands among his hand-carved specialties.

After a bracing trek along the canal towpath or through the Yorkshire Dales, foot-weary hikers hole up at Meeson's hostelry in Gargrave.

"They come in looking like tramps," he says. "Then they dry out before my fire to become doctors, professors, scientists, and other respectable people."

DAY COMES TO A DREAMY END
at Kildwick on the Leeds and Liverpool Canal, where a family of swans gathers near a venerable boat moored for the night. The rugged Pennines etch the skyline.

things there are to see beneath Mow Cop."

The Bird in Hand is a free house—meaning that Jack is an independent publican not contracted to a single brewery. He prefers to accommodate the varied tastes of his small group of regulars. He fetches their pints from kegs in the cellar.

"None of them fancy pumps here. No barmaids, either. Let a woman in, and there'll be arguments." He catches Linda's eye: "And any bloke who'll argue with a woman is devoid of common sense!"

NEAR CONGLETON we find hospitality of a different order at Little Moreton Hall (pages 94-5), an Elizabethan fantasy of black timbers and white plaster owned by the National Trust.

George Belfield, a ruddy-cheeked retired farmer, is superintendent and guide. He shows us through the age-tilted rooms. We admire the skill of one of the builders, who in 1559 signed his work: "Rycharde Dale Carpeder made thies windous by the grac of God." Beside the weed-filled moat, we cater to the endless appetite of resident ducks.

Then, in the huge old kitchen, Edith Belfield gives us afternoon tea. Her homemade jam of strawberries, gooseberries, and rhubarb stimulates an endless appetite of my own, which I discipline by eating twice as much as I should and half as much as I want.

Thus fortified, we follow the Macclesfield to its end at Marple, where restoration work on the Ashton and Peak Forest Canals would enable boats to reach Manchester.

With silent apologies to loyal Mancunians, Linda and I skirt the city to make a pilgrimage to Worsley, where the Duke of Bridgewater built England's first major canal in

Old soldier entertains passersby on the River Dee at Chester (**left**). "I taught m'self, and I'll play just about anything you want," says World War II veteran Dominic Deponio. Wolfie, part airedale and all patience, sits by his master.

Somber centerpiece recalling the bloody days of England's Civil War, a carving of King Charles I adorns a Chester furniture shop, formerly an art gallery (**right**). From a tower in Chester, Charles watched the defeat of his cavalry during the Battle of Rowton Moor. A frieze of Biblical figures appears below the king.

Mouth-watering display in a Chester shop (**far right**) tempts the hungry. The array includes traditional dishes, pork-and-egg gala pies, Cumberland sausage, and two mavericks from the Continent—French liver pâté and Danish salami.

1761 to link his collieries with the lucrative markets of Manchester.

More remarkable than the canal itself were the 46 miles of underground waterways on which miners sailed in small boats called "starvationers." Local legend tells of a certain Mr. Withington who disappeared from view in mid-halloo while fox hunting, having ridden into one of the colliery's air shafts. He was rescued by miners in a passing boat.

The Bridgewater provides convenient access from southern waterways to the Leeds and Liverpool Canal, which arches across the Pennines, England's backbone. The convenience, Northerners will tell you, renders their southern brethren fortunate indeed.

IN THE NORTH, people "luv" one another. When you hear the greeting, "How are you, luv?" spoken in the rich accents of Yorkshire and Lancashire, you know you have entered a different world.

In Leeds we sense a different mood.

Perhaps it is the chorus line of eight bronze ladies, scantily clad in rose garlands, who raise their torches in the city square (page 98) and seem the true forebears of platoons of miniskirted girls who teeter past on incredibly tall platform shoes.

Perhaps it is the old buildings, whose sandstone fronts glow like faces of fresh-scrubbed youngsters as workmen sandblast away a century of soot. Or perhaps it is the people themselves, tough and cheerful descendants of Englishmen who endured the ordeal of the Industrial Revolution.

It was in northern towns like Leeds and Bradford, Burnley and Preston that the invention of water-powered looms and spinning jennies brought mass production of textiles

in the mid-18th century. Millowners found mass labor in a peasantry driven from cottage looms by the new machines, or forced from the land by Parliament's sale of the traditional common fields to the gentry.

The new city dwellers, including tens of thousands of Irish refugees from the potato famine of the 1840's, battled to survive in disease-ridden slums of "back-to-backs"—brick boxes 12 feet square, unventilated, unheated, undrained. As many as 50 children in every hundred died before the age of 5. Others labored 15 hours a day in clattering mills under the eyes of "strappers," who whipped them awake and fined them sixpence if they still had the spirit to laugh or sing.

The rage of loom-smashing Luddites and Chartists gave birth to the labor movement here and in the northern Midlands. Karl Marx and Friedrich Engels nourished their hatred for capitalism amid the awesome wealth and epic misery of the North. And a new literature was born in books like Dickens's *Hard Times*,* written about Preston in 1854, and the Brontë sisters' *Jane Eyre* and *Wuthering Heights*, which excoriated the ruthless propriety of the rich.

Some back-to-backs still exist beside huge developments of tidy council houses. In an older section we walk a tiny grid of streets called Hope—Hope Crescent, Hope Place, Hope Avenue, Hope Mount, Hope Grove.

THE NORTHERNERS engineered the Leeds and Liverpool on a more heroic scale than most southern canals. Sixty-foot boats of 14-foot beam plied the 127-mile channel, begun in 1770. Today its path across the Pennines makes it popular for cruising.

On our way to Gargrave, the northernmost point of the canal, we stop at Bingley, where a battery of five cavernous locks carries the channel 60 feet down a hill overlooking an old mill. There, munching superb cream pastries from the village bakery, we watch as boaters perform the arduous 30-minute ritual of swinging huge lock gates open and shut, and cranking the heavy paddles.

At Keighley, a few miles northwest, we discover the Keighley and Worth Valley Light Railway (pages 98-9), which sends antique steam engines puffing five miles to Oxenhope, stopping at Haworth, home of the Brontë sisters. We climb the steep cobbled main street

*The April 1974 NATIONAL GEOGRAPHIC featured "The England of Charles Dickens."

Yesterday's facades mask today's fads along Chester's "Rows." The Tudor and

Victorian buildings house boutiques and restaurants. Founded by first-century Romans and ringed by a Saxon wall that still stands, Chester strives to keep its historic heritage.

There's a good meal waiting along the Llangollen Canal. Mike and Carole Gregory serve up steak-and-kidney pies, spice cakes, and scones to those who moor beside their dairy farm. Here they take a break with their children Helen

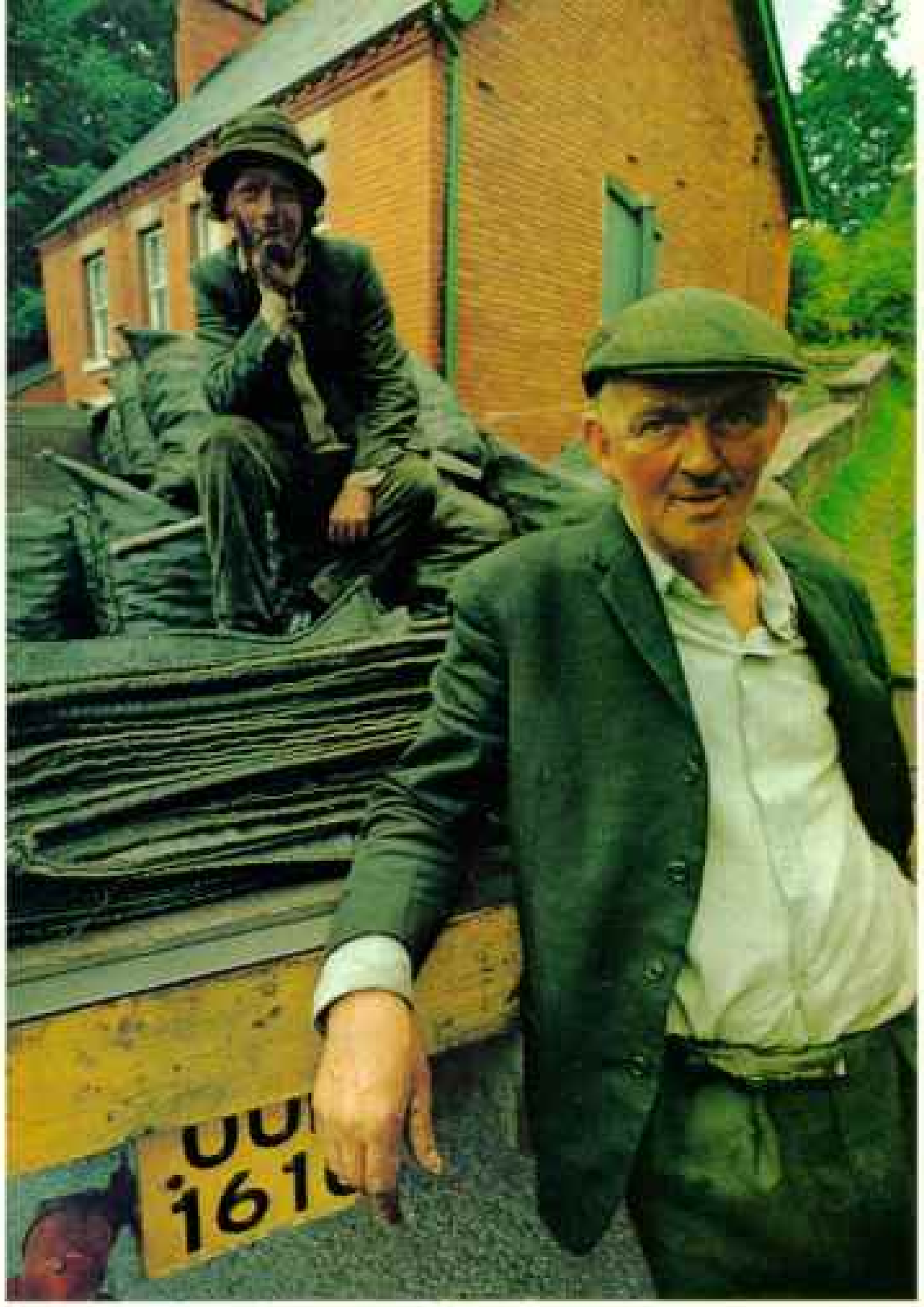
to the Parsonage, where Charlotte, Emily, and Anne lived their brief, passionate lives. Then we walk the nearby moors. In silence we watch a hawk fluttering delicately in perfect stasis with the wind, a small angel of death seeking prey in the purple heather.

"THESE MOORS give us all a bit of the country that can't be taken away," says Bryan Pearce, a 30-year-old Leeds factory worker. He lowers his heavy pack and stretches out for a breather on the Pennine Way, which briefly follows the canal towpath near Gargrave. There is a crash behind us, and Bryan's 17-year-old nephew, David Minter, ruefully surveys the wreckage of his pack, fallen from a low wall.

"Sounds like scrambled eggs for breakfast," Bryan laughs. "David, here, is a world traveler—just got back from Spain. Wants to be a scientist, and he'll do it, too. The schools are better now. When I came up, there wasn't much chance to go on."

Comparing Bryan's teen-age experience with David's tells much about recent change in England. Money is spent now on things undreamed of in the postwar years of austerity. But inflation and high taxes are eroding the gains, and British workers are no longer stoic. In the canal towns of Burnley and Wigan, you'll still hear the miners' complaint: "The muck stays north, the money flows south." Bryan's factory produces undercoating for automobile bodies. His job is threatened by the strikes and slowdowns that plague the auto industry—but he also suffers from rising costs. Like millions of other Englishmen, he is caught in the middle.

"Ah, but we shall survive," he says. Shouldering their packs, he and David march off,



and Mark, and Widge, their Welsh Mountain pony. This canal ends at the Welsh town that gives the waterway its name. Arthur Jones and son Philip (**above**) deliver 112-pound sacks of coal to heat the homes of families in the Llangollen area.

singing a sentimental Gaelic ballad of unrequited love:

" 'Oo owns that horse outside the door
Where my old horse should be?"

Bypassing Liverpool, the Beatles' birthplace, Linda and I cross the Manchester Ship Canal and journey to Chester, where the 66-mile Shropshire Union Canal presses like a moat against the last medieval city walls preserved intact in England.

Walk the two-mile circuit of those battlements, and you might well proclaim, "Two thousand years, and all's well!" Historians will quibble that the Roman founders didn't arrive until after A.D. 50, and that the walls weren't built until 907. But even they might agree that the city that repulsed the Vikings and the Welsh, and was one of the last to fall to the Normans, is fighting well against today's barbarians of "progress." The walls shelter streets of half-timbered buildings with two-level arcades of shops and restaurants. Some are Tudor originals. Others, of Victorian vintage, have outlived their sin of imitation. A huge new shopping center is screened by ancient buildings, and the visible modern architecture shows elegant restraint.

We spend a blissful day testing our appetites against food shops fragrant with Cheshire cheese, noble pork pies, fresh-ground coffee, and smoked fish. Our budget suffers in the antique shops, and our feet in a series of exquisite museums in the old watchtowers.

At length we escape to the banks of the River Dee and relax to the strains of a street musician's accordion as we watch flotillas of small boats cruising on the broad stream. Across the river lies Wales, whose land and language have resisted England's mastery since Roman times.

Drivers beware! Motorists risk a dip in the drink where the road rims Ellesmere basin on the Llangollen Canal.

A helmsman guides his motorboat atop the Pontcysyllte Aqueduct (**facing page**), which soars 120 feet above the River Dee. Pausing along the aqueduct's towpath, passerby G. A. Williams (**below**) tells the author: "Never knew anybody to fall off. Heard of them fallin' in, though, while takin' a shortcut home from the pubs."

"NO, NO, MAN! You're not listenin'! It's thLLANGOTHLLEN! Put your tongue to say 'l,' but just breathe it, not say it. thLLANGOTHLLEN!"

Our teacher, an affable Welsh bobby, is trying hard to help us pronounce the name of the Llangollen Canal, a 46-mile branch of the Shropshire Union that runs to the upper reaches of the Dee.

Welsh is a language whose written form, with its profusion of w's, ll's, dd's, and tongue-boggling diphthongs, seems to the uninitiated like one gigantic typographical error. Spoken, it is sweet and musical.

"Better if you just listen," the bobby says. "If you try to read it, you'll go *gwyllt*—mad. But anyway, *croeso i Gymru*—welcome to Wales."

The Llangollen's final welcome for boaters is *godidog*—fantastic. Near the end of its course, it crosses 1,000-foot-long Pontcysyllte Aqueduct, which carries boats in a narrow cast-iron trough high above the Dee. The dizzying experience is one reason for the canal's popularity.

Another reason may be Carole Gregory's cooking.

She and her husband, Mike, live beside the canal at Hindford in Shropshire (preceding pages). Ten years ago Mike was the county's youngest farm manager, introducing new dairying techniques with old-fashioned energy on a 1,000-acre estate. He struck out on his own, buying a 20-acre farm and a herd of animals. When hoof-and-mouth disease swept the area in 1967, Mike's skill kept his herd healthy.

"But I couldn't sell them because of the quarantine.

I was forced to try my hand at something else," he remembers. Opportunity—in the form of four soaking-wet girl canoeists—knocked at the door of Yew Tree Farm one stormy night in 1968. The girls sought food and shelter. "We fed them and let them sleep on the floor. That night Carole and I said simultaneously, 'I wonder if we could do anything on the canal?' "

Mike invested in a small stock of staples, and Carole put to use the farmhouse cooking skills of her childhood. They hung a sign on the canal towpath modestly announcing teas and snacks.

Today, Carole's cooking is famous among canal connoisseurs. Her kitchen performance smacks more of legerdemain than cookery. She darts around like a purposeful wren, and in her wake appear superb breakfasts, lavish teas, and mounds of cakes, scones, and steak-and-kidney pies—all produced with a lively running commentary on children, customers, husbands, and the problems of the Gregorys' 18-hour day.

Mizzling mist veils a solitary traveler on the Macclesfield Canal towpath at Bosley locks.

"It rained during much of the trip," recounts the author, "but rain or shine, you always have a sense of privilege to be on these canals, so perfect in their settings. You never want to stop. There is always the fascination of what lies around the bend."

CAROLE'S BREAKFASTS inspire me to heights of cookery in the galley of *Fradley Swan*. No day of our voyage is complete that does not begin with bacon, eggs, grilled mushrooms, tomatoes, strong tea, and fresh bread. And no day ends without some gentle revelation.

We travel at foot speed. Sometimes, on the Trent and Mersey's open reaches, it seems we do not move at all, that England herself turns past us like some patient wheel rimmed with quiet villages, with hills plowed smooth as cats' backs. In deep woods we moor by a tiny amphitheater of rock, dappled with fallen leaves. In a village church we watch blithe old men ring changes on bells whose tongues have shouted centuries of England's joy and sadness.

The weather relents, and gives us three days of autumn glory. It ends too soon, but I am well content. I have met that child who lived in England once. The past is not so long ago.

And tomorrow may be fine. □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COAST GUARD

The Coast Guard

SMALL SERVICE WITH A BIG MISSION

By WILLIAM S. ELLIS

SENIOR EDITORIAL STAFF

THE SEA HAS GONE MAD tonight, roiling and raging until I am certain that this ship is going to break apart. One minute we're lifted so high on the crest of a black swell that the props slice air; the next wave brings a stomach-wrenching drop and the bow slams down with a clap like thunder.

We are searching for a fishing boat out of Portsmouth, Virginia, feared lost in the storm. When word is received that the vessel has arrived safely back in port, I return to my bunk (only in a prone position can I appease the demons of nausea) and long for blessed morning. By then, I know, the sea will have spent its fury, and I will have disembarked before another night falls.

"Sure, I get seasick, too," a crewman told me, "but then I remember that people in our business used to go out in storms like this in open boats with oars. So it's not too bad."

Men Who Go Down to the Sea

For this crewman and the others, there will be more storms, more punishing seas, before their tours of duty end. They will take their ship out when other ships are seeking safety in port, for they are United States Coast Guardsmen aboard a Coast Guard cutter. No matter what the risks, they go, just as Coast Guardsmen have been going since 1790, when the service was founded.

I have gone to sea with the Coast Guard many times: to the Atlantic, to chase killer icebergs; to the Pacific, to call at far-off U. S.

BOTH BY NATIONAL GEOGRAPHIC PHOTOGRAPHER JAMES L. AMOS

Smashing a channel through Lake Superior's winter armor, the icebreaker *Mackinaw* plays Pied Piper to ore-carrying merchant ships. On the vessel's bridge (**above**), Capt. Lilbourn Pharris scans the bleak horizon. With such tough ships and able mariners, the U. S. Coast Guard fulfills its many missions. Only 38,000 men make up this smallest of the nation's military services.

islands; to the Arctic, and to warm Gulf waters; to inland rivers, and to mountain lakes.* These missions represented a wide range of Coast Guard activities: search and rescue, environmental protection, aid to navigation, icebreaking, oceanography, and others.

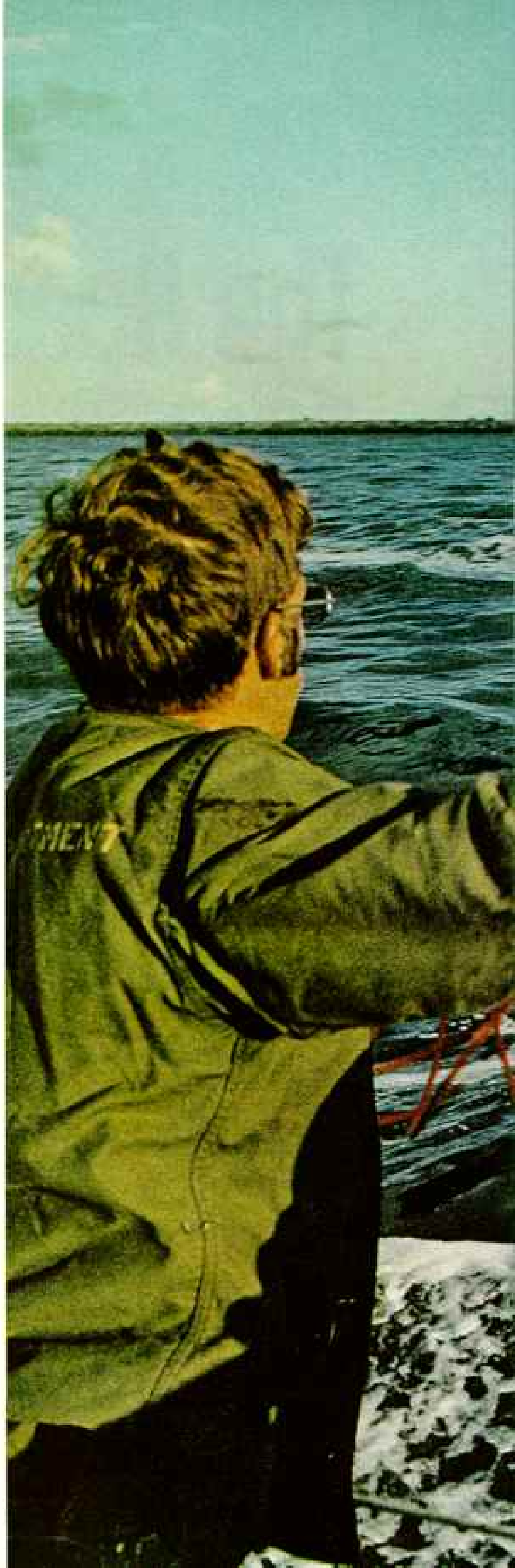
Because the service, an agency of the Department of Transportation, operates on a budget of less than 900 million dollars a year —the Navy will spend more than that just for the ten Trident missile-firing submarines now under development—Coast Guardsmen have become master improvisers.

"If we haven't got it, we'll make it," a chief boatswain's mate once told me, "and if we can't make it, we'll show you how to get along without it."

Or, as a young officer said, "We're doing more and more with less and less, so I guess that sooner or later we'll be doing everything with nothing."

Coast Guardsmen often make do with old equipment—and still save a life. Such was the case on a Saturday in October at the Coast Guard Air Station in San Francisco. It wasn't a fit day for flying, not with lightning ripping through the sky while winds mixed a batter of heavy turbulence. Still the men raced to their aircraft. One of the two engines failed to start. Known with dubious affection by the crew as the "Goat," the 20-year-old plane, an HU-16E Albatross, was showing its age. But the Coast Guardsmen speedily patched and fixed and finally got it in the air,

*The author described his experiences on ice patrol with the Coast Guard in the June 1968 GEOGRAPHIC.



Stay with your vessel! A life ring arches from a patrol launch to a capsized boat in the Columbia River mouth—a routine event for the Coast Guard, which rescued 64,182 people in 1973. The service promotes safety courses that teach boatsmen—such as these two—how to handle trouble. Established in 1790 to catch smugglers, today's Coast Guard also acts as arbiter and constable of maritime law, agent of oceanographic research, keeper of lights and other navigational aids, and, when needed, as a potent military force.

The Coast Guard Auxiliary, a voluntary, nonmilitary group of some 39,000, helps patrol and make safety inspections as well as educate boaters. The Coast Guard Reserve, 34,500 strong and ready for service in emergencies, aids in disaster-relief efforts.

MICHAEL MAYMAN

setting a stormy course for the Eel River in northern California, where a sailboat lay smashed against the rocks.

And having dropped survival gear to the man and young boy clinging to the stricken boat, the Goat sputtered back to its base.

Midgetts Have Played a Mighty Role

Search and rescue (SAR) is among the most visible activities of the Coast Guard. Last year the service responded to more than 64,000 calls for assistance. The number of lives saved exceeded 2,900.

The history of the service is rich with the drama of rescue—of a cutter steaming to meet the rafts from a torpedoed ship; of a helicopter venturing beyond the bounds of safety to snatch someone from the grip of death; of a huge HC-130 Hercules aircraft landing on an island, with only 30 feet of clearance between wing tip and trees, to evacuate a gravely ill islander.

In early years it was the surfmen who brought distinction to the service. On foot and by horse they patrolled the beaches. They went out in little lifeboats, pulling on oars against the terrible force of walls of water that rise and curl and rumble to shore.

Surfmen worked up and down the Eastern Seaboard, but it was off the coast of North Carolina that they performed their finest heroics. It was there that men named Midgett made themselves a legend to the Coast Guard. Rasmus Midgett, for example, in 1899 single-handedly saved ten men of a grounded barkentine by carrying them ashore on his back.

In 1918 John Allen Midgett ordered his crew to launch a surfboat in the Atlantic at a time when a 30-knot northeaster hurled tall waves at the beach. It was a year of World

War I German U-boat activity along the coast. Seven miles out, the British tanker *Mirlo* had either taken two torpedoes or hit two mines, and the crew, having abandoned ship, was trapped in a ring of fire.

Feeding on the *Mirlo*'s cargo of oil and gasoline, the flames rose hundreds of feet in the air. Midgett brought his boat as close as possible, waiting for the wind to push an opening through the sheet. Night was coming on, and for many miles around the dark waters glistened under the incarnadine sheen of the fire's reflection.

Midgett found an opening and ordered his boat through, aware that if it closed before the rescue was completed, he and his men probably would die. They took six survivors aboard the lifeboat. Continuing to search, they came upon a boat from the *Mirlo* with 19 crewmen aboard. They took the boat in tow, and the British seamen were led to safety.

For this action Midgett and each member of his crew received a medal by command of King George V of Great Britain. In this country they were honored with the Gold Lifesaving Medal. The latest honor for Midgett came in 1971, when the Coast Guard gave his name to one of its new 378-foot-long high-endurance cutters (next page).

John Allen Midgett was not there. In December 1937, he had been fatally injured —not at sea but in a car wreck.

Lonely Life of a Beach Walker

Men named Midgett—in some cases Midgette—have served in the Coast Guard for scores of years. Twenty-five are on active duty today. Among the 58 of them in retirement is Truxton E. Midgett, who lives on the Outer Banks of North Carolina.

BOTH BY NATHAN BENN

Smog, not salt spray, blows across the deck of the Coast Guard buoy tender *Oleander* (**left**), nudging a boom-equipped barge through the industrial valley of West Virginia's Kanawha River. Perched on a light tower in a corn patch, *Oleander* crewmen replace a lamp in a navigational beacon that helps heavy coal barges stay in the channel. Another rugged river sailor (**above**), hard hat emblazoned with insignia of his own design, shoulders a bush hook used to clear undergrowth from shore markers.


USCGC MIDGETT
WHEC 726

"Twenty-five of my 30 years in the Coast Guard were spent on the beach, and most of that right around here," he told me.

Truxton Midgett will soon be 87 years old. He is a gentle man, and he says that the many years of lonely vigil he spent on beach patrol brought him inner strength. He walked alone with the sea, and those who do that often give their thoughts over to the wonders of creation. He now lives with a daughter, and the first 30 minutes of each of his days are spent reading the Bible.

"Walking those beaches could be hard on you," he said. "When the wind was blowing, the sand could cut you good. And I'm going to tell you something about walking on the beach when it's windy. Always walk with your hands behind your back. You wouldn't believe how much wind those arms catch when they're hanging loose."

Midgett entered the Coast Guard in 1917 and retired in 1947 with the rank of lieutenant commander. His most hazardous rescue, he recalled, occurred in November 1939, when a Navy destroyer went aground at the mouth of Chesapeake Bay. Midgett and his men went out in a motor surfboat and pulled some of the crewmen out of "the tallest seas I've ever seen."

"When that rescue was over," he said, "one of my men said to me, 'Cap, you know for a while there I thought my wife was going to collect some insurance.' I told him, 'Why, shoot, I didn't even think of that.'"

Surfboats That Can Roll Like Kayaks

Coast Guardsmen no longer walk the beaches on patrol, no longer punish their bodies with the torture-rack pain of rowing through a heavy surf. They go out now in boats such as the one that can right itself in a 360-degree roll when it capsizes.

Few experiences can rattle the nerves like that of having your boat caught in the curl of a breaker and slapped so hard that it turns completely over. Tom McAdams has done it while smoking a cigar.

A master chief petty officer and possibly the most skillful boatman in the country, McAdams has achieved fame in the Coast Guard for his handling of the 16-ton, 44-foot-long, self-righting and self-bailing boat.

"I won't kid you, going over in a boat is a frightening thing," he said. "You look up and see a 20-foot-high breaking swell, and you say, 'Oh, my God.' It's like being on a freeway and seeing a truck bearing down on you. After the comber hits, I look straight up over my shoulder, and if I see daylight I know we won't go over."

He paused, and his thick reddish eyebrows bunched close together. Then he continued: "But if I see a wall of water, then I have about two seconds to take and hold as much breath as possible because I'm going to be underwater from eight to thirty seconds while the boat self-rights."

I asked McAdams if the engines continue to run while the 44-footer is upside down. "I've been rolled over six separate times," he said, "and never had an engine quit."

Fisherman Makes a Last Voyage

Chief McAdams works his boats in one of the most savage of all surfs—on the coast of Oregon and Washington. He talked about the violence of water there. "The average swell moves at 25 to 30 miles an hour. It gains weight as it nears shore and starts to run uphill. At the same time, the bottom of the wave slows down until almost all the weight is topside. That's when it breaks—VHOOM!"

He walked to the window and watched a cutter from the station head out into the Pacific. "Know what that mission is?" he asked. I said I didn't.

"The family of a local fisherman who died called and asked if we could take his ashes and scatter them at sea. The cutter is going out now to do that."

Tom McAdams was silent for a few minutes, and then he returned to talk of the things he loves. "Now if it's more than a 12-foot breaker, the best thing to do is put the 44-footer so she takes it bow on; otherwise, that's when you roll over."

Giants of the Coast Guard. Midgetts crowd the deck of a new cutter named for John Allen Midgett, one of ten Coast Guard heroes with the same name who have won Lifesaving Medals of Honor. Since the 1790's, Midgetts have been saving lives on North Carolina's Outer Banks, "Graveyard of the Atlantic." Lt. Comdr. John C. Midgett, Jr., foreground, the family's only Coast Guard Academy graduate, heads the reunion at Morehead City, North Carolina. NATIONAL GEOGRAPHIC

As improvements were being made in search-and-rescue procedures by vessel, so were they by air. For a time the service depended heavily on the seaplane. This had one major drawback, however: the danger of putting a plane down on the open sea. Even a gentle swell could tear off a wing if the approach speed and pattern were not just right.

The helicopter brought an added measure of success to search and rescue. In many cases men offered to the sea hardly had time to panic before hearing the wop-wop of the rotor above and seeing the retrieval basket drop at their side. Late last year a Coast Guard helicopter was already on the scene when a Navy pilot and his navigator ejected from their crippled jet fighter and landed in the Columbia River, near the coast. I was at a Coast Guard station in the area at the time, and followed the rapid sequence of events as they were relayed by radio and teletype:

10:33 a.m.—Coast Guard helicopter has responded to Mayday from Navy jet.

10:34 a.m.—Station Cape Disappointment watchtower reports aircraft crash between buoys 11 and 12, Columbia River. Helicopter on scene waiting for parachutes to land.

10:39 a.m.—Navigator retrieved.

10:45 a.m.—Pilot retrieved.

The rescue took less than 15 minutes.

Welcome Sight in Mid-ocean

The range and capabilities of the helicopter are limited, and therefore the Coast Guard cutter continues in its SAR workhorse role. It was the cutter *Pontchartrain* that passengers aboard Pan American Flight 943 saw as the Stratocruiser descended from 21,000 feet for a ditching far out in the Pacific.

In the early morning of October 16, 1956, the engines of the plane began to go bad. Below was the *Pontchartrain* on weather-station duty. Daylight was three hours away, and although the plane was shuddering, its captain decided to try to hold out for a ditching after dawn. The 24 passengers prepared themselves, removing jewelry, shoes, and sharp objects, positioning pillows in their laps, cinching up their seat belts. Praying.

Meanwhile the *Pontchartrain* was getting ready too. She marked off a landing lane in the Pacific with floating lights, and then covered it with foam to calm the sea and smother fire. Preparations were made to get away the lifeboats. Stacks of blankets were placed on deck for survivors coming aboard.

Helmsperson-in-training. One of five women in the first coed Officer Candidate School class in Yorktown, Virginia, Bonnijill McGhee mans, er . . . handles, the wheel of the training vessel *Cuyahoga* (**above**). An unlikely helmet warms the curls of candidate Sheila Denion (**right**), cleaning her M-1 rifle. Trained for everything but not eligible for sea duty, aviation, or isolated duty, 20 women—all college-educated or otherwise qualified—have now completed the 18-week course and won commissions.

Before the sun rose, the cutter was visible to those aboard the plane as nothing more than a patch of light in the dark sea. But that was enough for one woman passenger. "God bless 'em," she said. "They're down there."

The plane hit the water, bounced twice, and skidded for a moment or two. Then the left wing dipped. The plane was jerked to port so violently that the tail broke off. When the passengers began to evacuate, the Coast Guard was waiting. It was a crisp, speedy rescue. By the time the sea had swallowed the plane and belched its last bubble, all the passengers and crew members were safe aboard the cutter.

Protecting Boaters Who Can't Swim

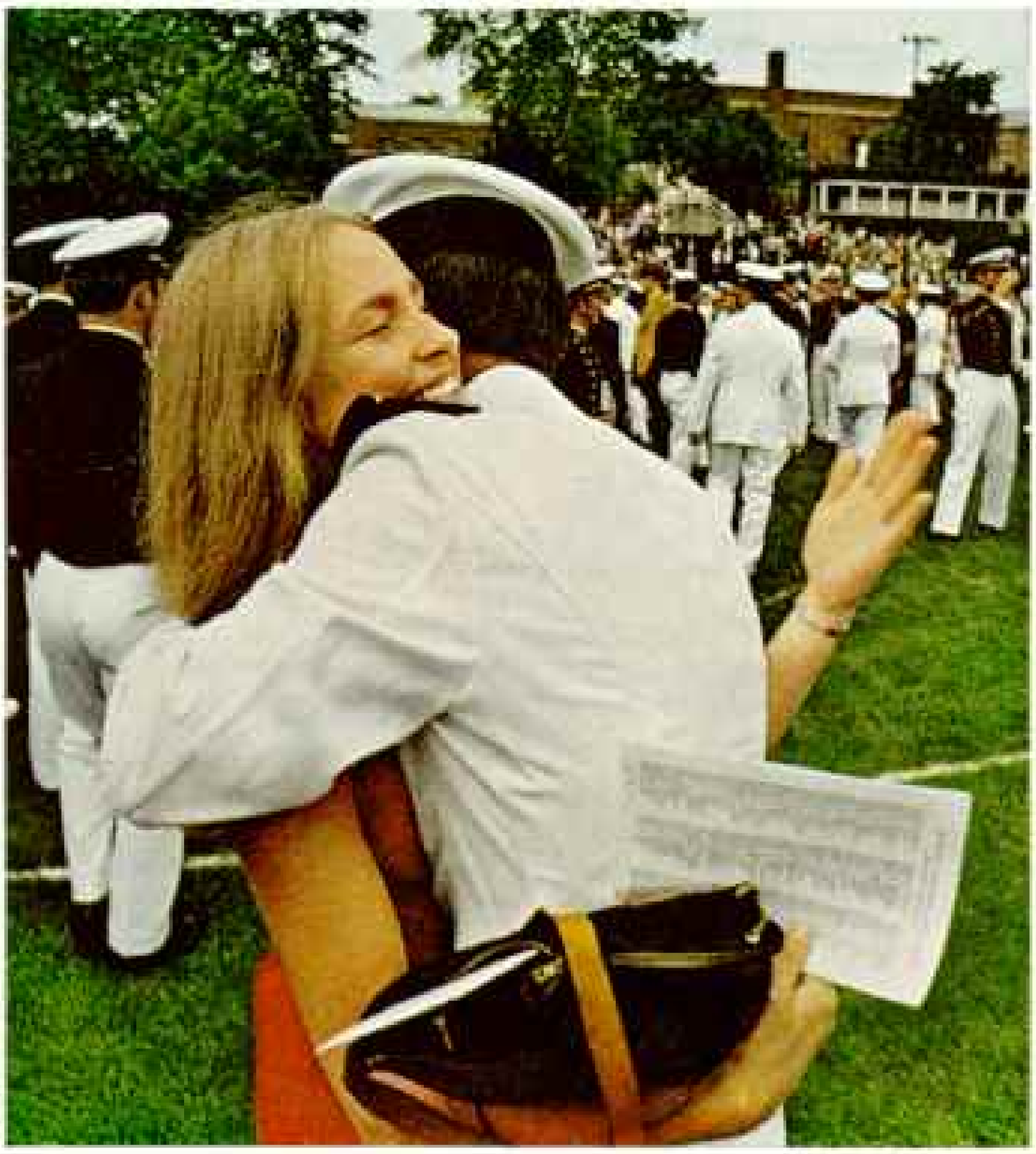
Long ago rescue was mostly winter work. Weather was the chief enemy of the mariner then. Those were also years when someone could go to, say, the Chesapeake Bay off Annapolis on a Sunday afternoon and find water that flowed free and clean. Today, with an estimated eight million pleasure boats in the country, parts of the bay, like most navigable waterways, are heavily freighted with fiberglass and teak. Weekend sailors by the millions are tacking and throttling. The beery argot of deck-chair camaraderie has become a sea chantey for our times.

Thus the typical search-and-rescue operation no longer involves a merchant vessel at the mercy of a winter sea. "Much of our assistance now is directed toward the small pleasure boat taken out on a summer weekend," a chief petty officer said. "The boat is overloaded and not properly equipped with safety devices. When it starts to swamp, there may be a lot of panic because some of those aboard may not know how to swim."

As a preventive action the Coast Guard maintains safety patrols in waters with heavy pleasure-boating traffic. Vessels may be stopped, boarded, and inspected, and if they fail to meet prescribed standards of safety, the service is empowered by federal law to issue citations. However, the emphasis in this area has always been on educating the boatman rather than punishing him.

"Most of those we stop welcome the inspection," Alvin Firth told me, "but now and then we come across one who is resentful."

Firth gave a light touch to the wheel as the 19-foot-long patrol boat we were on raised its bow and cut through Florida's Biscayne Bay. His partner, Roger Wild, surveyed the many



Present arms! Four years of hard work culminate in a joyous June embrace for a Coast Guard Academy graduate (**left**), one of some 200 officers commissioned each spring at New London, Connecticut. Candidates for the highly selective program are screened through nationwide tests.

Necks craned in formation, Coast Guardsmen at dockside in St. Petersburg, Florida (**right**), kiss last good-byes to wives and sweethearts before a three-week patrol in the Caribbean on the cutter *Steadfast*. Absence from home stretches to six months on icebreakers and a year at isolated navigational-aid stations.

boats around us and chose a large cabin cruiser for a check. Speaking into a megaphone, he instructed the skipper to stop his engines and stand by for boarding.

A common danger associated with pleasure boating is the buildup of explosive gasoline fumes in engine compartments and bilges. Having determined that the engines of the cruiser were in safe working order, Wild examined life preservers and other required safety devices.

Back on the Coast Guard patrol boat, Wild took the wheel. His partner's attention was drawn to another cabin cruiser. "Bikini bow riders," Firth said, referring to two girls in swimsuits who were sitting on the front of the cruiser with their legs hanging over the side.

"Nice to look at, but dangerous," Firth said. "If that boat lurches or hesitates for a moment, those girls could fall off and end up in the propeller." He cautioned them to pull their legs back.

To further check the rising number of boating accidents each year, the Coast Guard Auxiliary conducts boating safety classes in cities and communities in many parts of the country. In 1972 a special boating course called SOS, for Saturday Outboard Special, was introduced in certain locations. Although judged a success, the program drew less response than expected because, for one thing, Saturday is a good day for boating.

Watchful Eye on Foreign Fishermen

In deeper waters and for a different purpose, the Coast Guard dispatches another kind of boarding party. Foreign fishing vessels are inspected to determine if they are in compliance with international fishing agreements.

The ships are from the Soviet Union, Japan, Spain, Poland, West Germany, and other countries. Many are stern trawlers and have been at sea for so many months that, battered and messy, they seem as one with the derelict flotsam borne on tides.

Some of the boardings are made in waters off Alaska, but most take place in the rich fishing grounds off the coast of New England (page 135). Inspection parties are made up of Coast Guard officers and agents of the National Marine Fisheries Service.

Foreign fishermen, bikini bow riders—certainly Alexander Hamilton had other things in mind when he sought Congressional authorization for a fleet of armed cutters. The

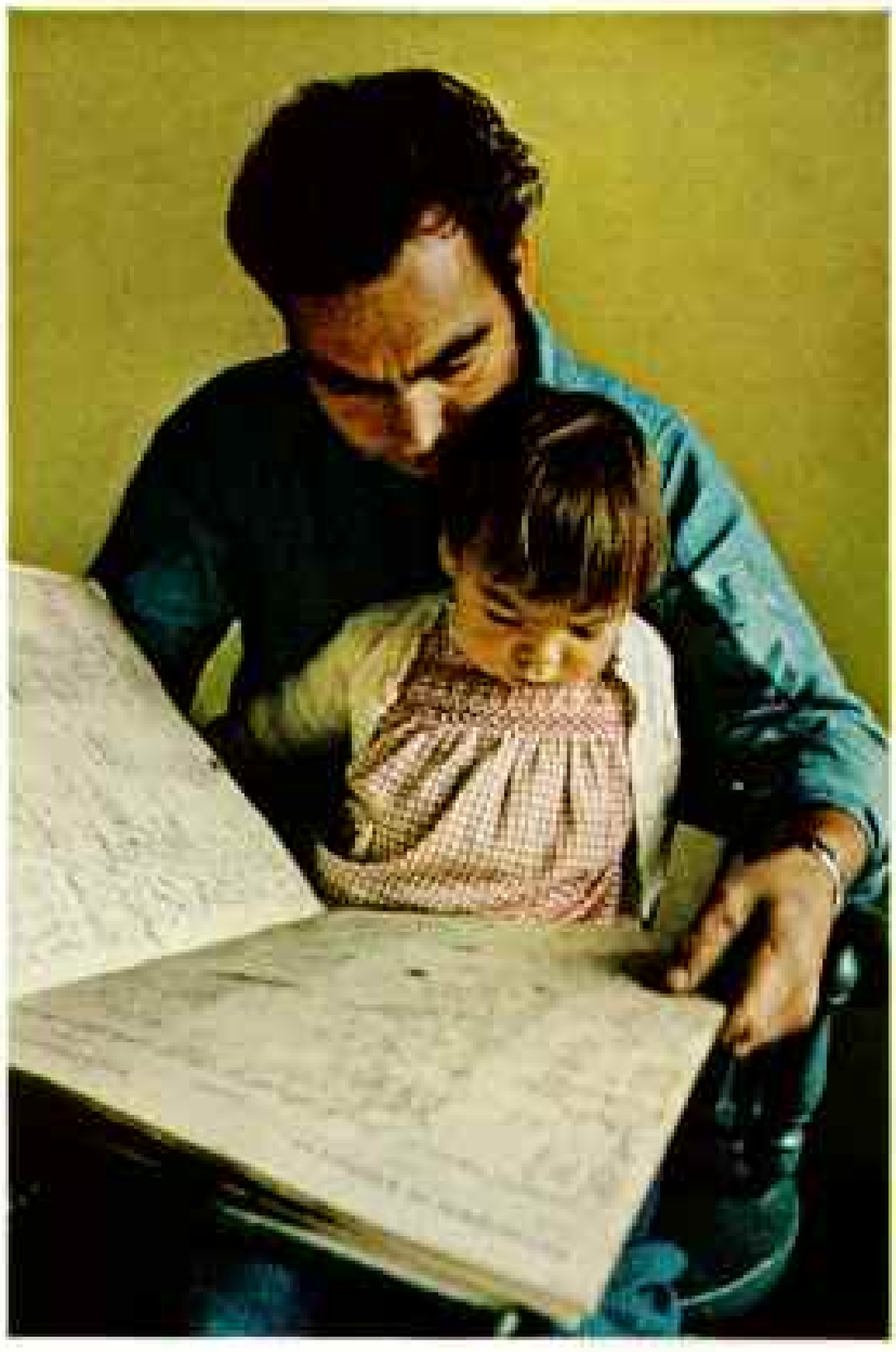
RANDY EDMONDS (LEFT) AND MICHAEL HAYMAN


40501

"**Please help. Am going crazy,**" reads the register at the Cape Flattery Light Station for January 25, 1943, penned by a lightkeeper in a moment of desperate loneliness. A less anxious lightkeeper wrote: "It would be a great pleasure to take this place home with me. I wouldn't trade my experiences out here for anything."

Recent officer-in-charge David Trujillo and daughter, Lisa, scan the revealing pages (**right**), kept continuously since 1896. Four families are now assigned to the outpost on Tatoosh Island, Washington, a fortresslike rock endlessly lashed by heavy seas, which in winter almost top the 100-foot-high cliffs.

Wives and groceries dangle above the breakers of Tatoosh (**left**), lifted from a Coast Guard utility boat by a giant cable hoist—the safest way up and down the precipice to the station. Happily, isolation often brings people closer together. Station couples enjoy an evening of quiet harmony by a snapping driftwood fire (**below**).



ALL BY MICHAEL HAYMAN

request was granted, and on August 4, 1790, President George Washington signed a bill providing for construction of ten boats.

What Hamilton *did* have in mind was putting a stop to the smuggling of goods into the newly independent nation. Of course smuggling was regarded as a patriotic duty before the Revolution; but now it was the national treasury, not His Majesty's coffers, being denied the import duties.

Ten two-masted cutters were authorized at $1,000 each. They were deployed from Massachusetts to Georgia. At first they were part of a service called the Revenue Marine, and, later, the Revenue Cutter Service. In 1915 the name was changed to the Coast Guard, and it was clearly set forth by Congress that it was to be a branch of the Armed Forces. The service remained in the Treasury Department until 1967, when it was transferred to the Department of Transportation.

From 1790 to Viet Nam, the Coast Guard has performed valiantly in times of warfare. Eleven German submarines were sunk by the service in World War II and the lives of thousands of victims of torpedoings saved. Coast Guardsmen manned many of the landing craft that carried troops to Iwo Jima, Guadalcanal, Saipan, Normandy, and other bloody beaches.

Guarding the Sea as Well as Seamen

For all that, the Coast Guard is a service geared for noncombatant duties. The number of responsibilities charged to the 38,000-man force has increased steadily through the years until, today, they include an odd paradox: The Coast Guard helps man survive the sea, but now it also helps the sea survive man. In these peacetime years the Coast Guard's war is with those who pollute the waterways.

"Our environmental duties include prevention of pollution, cleaning up an oil spill or seeing to it that someone else cleans it up, and enforcement of laws related to pollution control," said Capt. Sidney A. Wallace, head

SCOTT DINE (ABOVE) AND HARDY YORKSHIN

When disaster strikes, the Coast Guard's protective umbrella unfurls far inland. Bucking a Mississippi River flood in 1973, Senior Chief Boatswain's Mate Joseph Crapia ferries Mr. and Mrs. Rollin Picou and their daughter, Sandy, through the inundated town of St. Marys, Missouri (**above**). Coast Guard reservists in the area were put on active duty for the crisis. In Pennsylvania a Wilkes-Barre mother and son flee the ravages of 1972's Hurricane Agnes (**right**) in a Coast Guard helicopter.

Probing earth's icy scalp, Coast Guard researchers measure the movement of Greenland's Harald Moltke Glacier (**left**) with laser beams. An amphibious helicopter drones above, waiting to lift them from the barren moraine. Part of an ongoing study of the island's ice cap, laser measurements help predict iceberg drift into North Atlantic shipping lanes. The tragic sinking of the *Titanic* in 1912 led to the establishment of the International Ice Patrol, operated by the Coast Guard. While it has been in active service, no ships have been lost to icebergs in the area patrolled.

Icebreakers labor as platforms for oceanographic research as well as for rescue work. In Robeson Channel (**below**) between Greenland and Canada, a crewman buries an explosive charge, hoping to free the icebreaker *Westwind*, stopped by a stubborn ice floe. Off another icebreaker in the Bering Sea (**right**), biologist Terry Hall totes a moon-eyed seal pup.

PETER V. MARRA (LEFT AND ABOVE) AND JOHN A. BURNS (TOP)

of the Marine Environmental Protection Division in Washington. "Of course the Coast Guard has been in the pollution-control business for years—since passage of the Refuse Act of 1899—but it wasn't until the late 1960's that we really got going."

There were 3,700 reported oil spills in 1970. In 1973 there were an estimated 14,000. The Coast Guard attempts to place responsibility for a spill and then get the polluter to clean it up. Sometimes this is not possible. One cleanup of a spill in Pennsylvania cost three million dollars, but the polluter was bankrupt. In such cases the Federal Government pays for the work out of a special fund administered by the Coast Guard.

"Once the oil is in the water, there's really no easy way to remove it," Captain Wallace said. While research in this area continues, the Coast Guard works to contain a spill once it occurs. In some cases the oil will remain in the tanks after a ship goes aground or starts to break up. When this happens, specially developed pumping equipment may be brought in, either by aircraft or by ship. Once aboard the distressed vessel, the pumps transfer oil from the ship's tanks to barges or other ships, or to special containers.

Rainbow Tint of Trouble

Lt. Rodger Logan took the helicopter up a thousand feet and put it on a heading for San Pablo Bay, north of San Francisco. We were making a patrol flight for pollution surveillance and detection.

"Down there," he said, "that discoloration. Let's drop down and take a look." Since any visible trace of oil may be a violation of federal law, most breaks in the color pattern of the water are suspect.

There was no oil, however, so Logan turned south. Soon we were over San Francisco Bay, and this time there was no mistaking the rainbow-hued blotch below: 20 yards wide and 700 long.

Logan reported the spill to the Marine Safety Office at San Francisco. He also radioed the information that there were two tankers in the area.

"Weather permitting, we make these surveillance flights every day," Lieutenant Logan told me. "We just fly and look, and, believe me, sometimes flying and looking is like patting your head and rubbing your stomach at the same time."

In addition to helicopter patrols, the Coast Guard uses planes equipped with infrared and ultraviolet devices to detect the presence of oil. The sensors can detect an oil slick as small as 50 feet square from an altitude of 5,000 feet.

In the case of major spills the Coast Guard sends out highly trained pollution-fighting units called the National Strike Teams. Members of these mobile units set up and coordinate all the emergency actions needed to control and clean up the spill.

"We have four people ready to go within a two-hour notice," Lt. Comdr. John H. Wiechert said. "Since the establishment of our team in 1973, we have helped clean up eight major spills." Wiechert is commanding officer of the Pacific Strike Team, headquartered in San Francisco.

Other teams are at Elizabeth City, North Carolina, and Bay St. Louis, Mississippi. It was the former that responded on June 6, 1972, after two vessels collided on the St. Clair River, near Port Huron, Michigan.

The 2,000 gallons of diesel oil carried by one of the ships spilled immediately into the river. Another 49,000 gallons of bunker oil began to seep out. The strike team set up an operations center at the Port Huron Coast Guard Station. Pumping equipment was rushed to the scene. Coast Guard reservists were called up to aid.

The 2,000 spilled gallons had already been swept away by the strong current, but the team prevented an even greater disaster. In a little more than a week all the oil had been pumped out of the ship and safely contained.

Radar Helps Control Harbor Traffic

While ready for emergencies, the Coast Guard is also putting great effort into preventive actions, such as regulating harbor traffic to reduce the possibility of collisions.

"On January 18, 1971, two tankers collided at San Francisco, spilling 840,000 gallons of bunker oil. It cost four million dollars to clean it up. Now if one of those ships had been carrying aviation gas or ammunition, the collision could have caused an explosion that would have destroyed the Golden Gate Bridge."

Comdr. Frank E. Thrall jabbed a pointer at a map of the bay area, and continued: "The fog here is like mashed potatoes. And here, at Raccoon Strait, there are so many pleasure boats that you can walk across without touching water."

Years ago a man with a telescope atop

Telegraph Hill would set arms of a semaphore according to the type of ship entering the harbor, and thus inform the rest of the city. Though harbor-traffic monitoring improved somewhat over the years, it wasn't until 1969 that the Coast Guard instituted its Harbor Advisory Radar system.

One radar unit was positioned on Yerba Buena Island, in the middle of the bay, another not far from the Golden Gate Bridge. Between them, they monitor the entire harbor area. The movements of all ships are tracked, and the information is relayed by radio to their pilots and masters.

"It was essential that something be done," Commander Thrall said. "Sometimes there are swimming races across the bay, with 25 or 30 swimmers, each accompanied by a rowboat. Can you imagine what it's like to have 25 or 30 swimmers and as many rowboats going across the bay at the same time that a big ship is coming in?"

The Coast Guard also set up a traffic separation scheme for the harbor. "We simply laid out traffic routes as you would on a highway," Thrall told me. "Ships now keep to the specified lanes. We ask operators of small pleasure boats to stay out of the way of large commercial vessels. It can take a supertanker two and a half miles to come to a full stop, you know."

Land-based Computers Keep Tabs on Ships

Because it has to do so much with so few and so little, the Coast Guard has turned more and more to the computer. Many of the new duties represent radical changes from the past. The service is being drawn closer to the nation's shores, away from the high seas and the tradition of far-distant ocean-station patrols.

Still, the Coast Guard has not abandoned its responsibility for the safety of the mariner. Indeed, if anything, it has strengthened the chances for his survival through the use of a computer and an international program of action called AMVER, for Automated Mutual-assistance Vessel Rescue system.

A merchant vessel about to get underway files a sailing plan with the AMVER center on Governors Island, New York. The information provided by the ship includes course, speed, medical and communications facilities, and other data. This is fed into the computer, which then maintains an automatic track of the voyage.

MICHAEL HAUBEN

Suspended like jellyfish, recruits in a swimming pool practice the dead man's float, a survival technique. Intermittently bobbing up for a large gulp of air, they can remain in the water for hours without tiring. An exhaustive ten-week regimen that begins each morning at 5:15 toughens trainees at the Coast Guard's Cape May, New Jersey, boot camp, preparing them for the hazards of their jobs.


COAST GUARD
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JOHN MESSINA, BLACK STAR (ABOVE AND LEFT) AND NATHAN BENN

Leaden smoke belches from an offshore oil well 70 miles south of New Orleans (**above**). The Coast Guard cutter *Reliance*, responsible for rescuing survivors and controlling pollution during the 137-day blaze, stands by. In the ship's wardroom her captain, Comdr. Paul Anderson, center, chairs a daily conference with representatives of the Shell Oil Company and the Environmental Protection Agency (**left**).

In the harbor at Portland, Maine, a Coast Guardsman holds an oil-soaked duck (**right**), victim of a tanker spill. Congress recently gave the Coast Guard new powers to penalize polluters, and money to combat spillage.

"Let's say that our cutter, the *Munro*, now on ocean-station duty halfway between San Francisco and Hawaii, has a medical case requiring the attention of a doctor," Comdr. Joseph H. Wubbold of the San Francisco AMVER office said. "I'm going to ask the computer for a surface picture of a 200-mile radius around the *Munro*."

Within three minutes the computer was tapping out a reply. It listed eight vessels in the 200-mile range, giving their positions, speed, course, and radio call signs. It also revealed which ships had doctors aboard.

Typical of the more than 5,600 requests for AMVER surface pictures received in 1973 was the one for the *Nectarine Core* while en route from West Germany to Panama. A crewman was gravely ill with appendicitis. The computer readout revealed no ships with a doctor in the 200-mile radius.

The picture was broadened to 500 miles, and, again, no doctor. The crewman's condition grew worse. Finally, twelve hours later, a new computer readout listed a ship with a doctor that had entered the area. The *Nectarine Core* contacted the vessel, and a short time later the crewman was receiving medical attention.

Ships Must Meet Rigorous Standards

Just as the Coast Guard is often attendant at a ship's death, so is it at the birth. Blueprints for construction of merchant vessels in the United States must have Coast Guard approval. The service's Merchant Marine Inspection offices are heavily staffed, for there are thousands of determinations to be made. Are there imperfections in the pipe welds? Will the design ensure stability at sea? Are the materials fire resistant?

No flags are unfurled, no bottles of champagne raised for launching until all specifications are met. And even after it slides down the ways, the vessel is never completely out of the shadow of Coast Guard care until the day when the scrap dealer turns his cutting torch on the rusted hull.

Marine inspection is Coast Guard work amid a setting of nautical smells and sounds and sights: the shipyard, with a voice of clanking couplings, and the presence of riggers who pass signals to crane operators with the grace of symphony conductors; squawking gulls, and the death-dance flapping of a beached flounder; frothy, dirty lips of harbor water pecking at pilings.

Chief Boatswain's Mate Harold Rodgers encounters little of that on his duty with the Coast Guard. The view from the bridge of the boat he commands is of cows, and hills of red clay, and the menacing skies of tornado country. His vessel is a Coast Guard river tender, the *Patoka*, and she sails on waters in Oklahoma and Arkansas.

I boarded the *Patoka* near Spiro, Oklahoma, on a day heavy with the pressing heat of summer. The landing was at lock and dam No. 14 on the now-navigable Arkansas River. The mission of the voyage was to check buoys and other navigational aids along a 220-mile stretch of the river.

"Some days we make 50 miles," Rodgers said, "and others, not even 20. If we have good water we can move along at ten or eleven knots, but going upstream it's usually closer to five."

The 75-foot-long riverboat, powered by two 300-horsepower diesel engines, pushes a barge loaded with buoys. "We have about 700 buoys to maintain in the stretch of river we cover," Rodgers said. "Our hardest work comes after the river gets very high and washes the buoys out of their positions. That happened several months ago, and only now are we getting everything back in order."

When the temperature reached 97° F., I took refuge in the boat's air-conditioned wheelhouse. There, Rodgers was looking through binoculars at a small tree-shaded cove about a hundred yards downstream.

"That looks like a stray buoy," he said, dispatching a small boat with three of the *Patoka*'s 12 crewmen to check.

In addition to buoys, the Coast Guard maintains navigational aids on the shores of the Arkansas—battery-powered 12-volt lights. Still, barges plying the waterway sometimes go aground or crash into a dam.

"Our main function," Rodgers told me, "is to keep the tows going up and down the river. When a six-barge tow goes astray, it can tie things up for a long time."

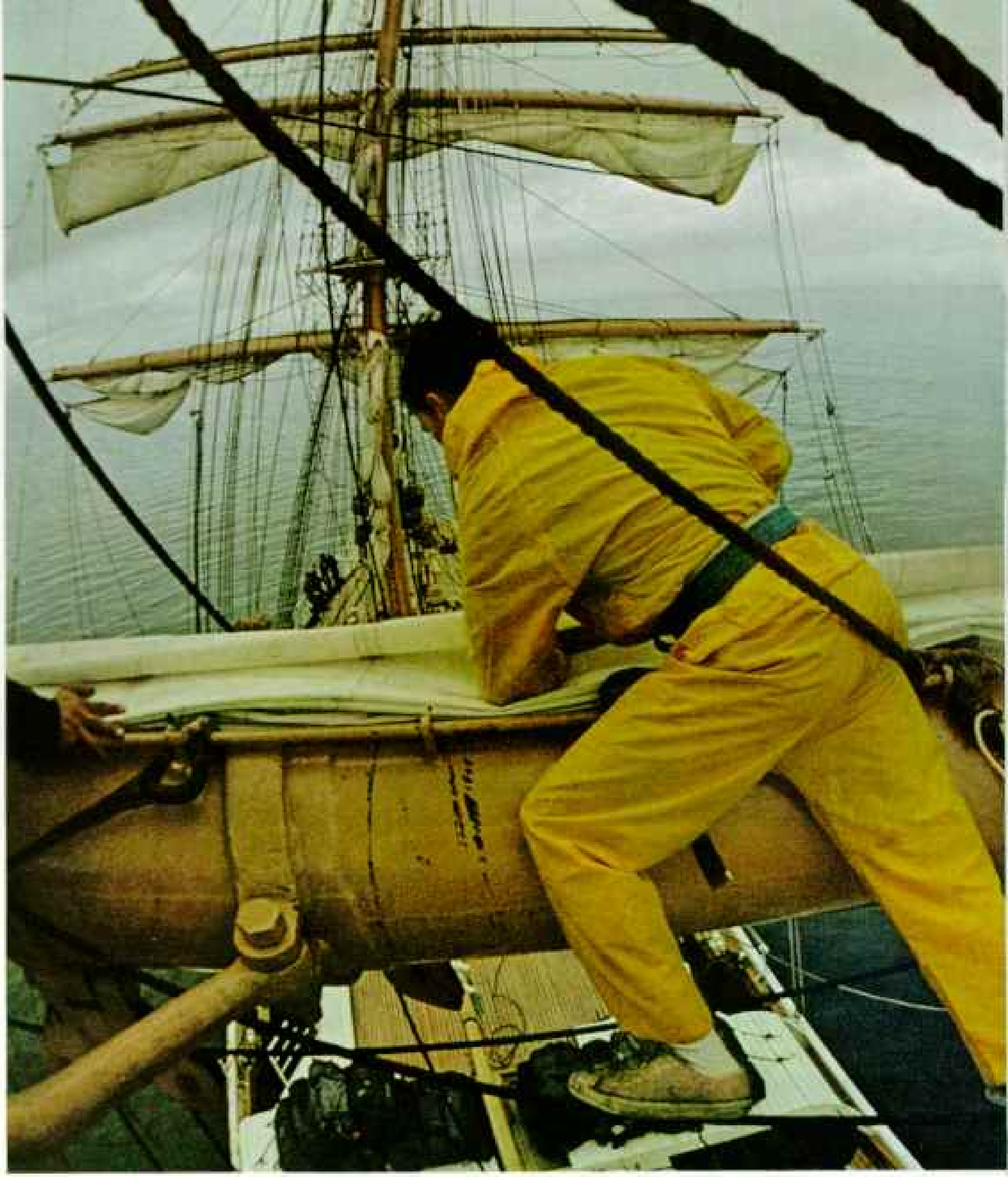
Tall Candles Beside the Sea

The Coast Guard's aids-to-navigation activities reach far beyond the Arkansas. A lighthouse perched atop a rocky pinnacle in the Northwest, an isolated loran (long-range navigation) station in the Pacific, a tower on stilts of steel in the Atlantic—all are outposts of the Coast Guard.

Lighthouses constructed as long ago as the

BOTH BY CHARLES RYE

Fishing-trawler diplomacy often hinges on finding the right word in a Russian-English dictionary (**above**). Here a Soviet trawler's mate, left, consults with Lt. James T. Cushman. A fisheries agent (in checked shirt) and a helicopter pilot complete the inspection team from the Coast Guard cutter *Vigilant*, out of New Bedford, Massachusetts. Aboard a West German vessel (**below**), inspector Ens. James Andrews, left, makes a point to the ship's master, second from right. Inspection teams check the legality of nets and catches, ensure compliance with treaty provisions, and establish emergency aid procedures.



Tightroping a ride on a yardarm, safety-belted Coast Guard Academy cadets furl a square sail as their three-masted training bark *Eagle* heads home to New London (**above**).

During summer cruises to European and Gulf Coast ports, 150 future officers learn seamanship, stand watches, and gain respect for American sailing traditions. Deck mops are dragged behind the 295-foot bark to wash them (**right**). Built in Germany in 1936, the *Eagle* (**left**) came to the United States as part of a reparations agreement after World War II.

JAMES L. ARCH (ABOVE) AND ROBERT JONES

late 18th century are still in service. Few structures incorporate such beauty of simplicity in design. Like candles resting in their fatty melt, they rise in progressive slimness to throw beacons of light over the sea.

Of all the lighthouses I visited, none was more dramatic in its setting than Cape Flattery. Built in 1857, it sits on top of Tatoosh Island, Washington, marking the approach to the Strait of Juan de Fuca.

Life on a Lonely Rock

Tatoosh Island is a rock rising 100 feet above the Pacific. There are virtually no slopes to its stony shores, and only one winding trail to the top. To reach the light, I was first brought to the base of the island in a Coast Guard cutter. Then a box was lowered on a cable from a boom (page 124). And finally, rocked in the wind, it was up and up until, looking down, I saw the 40-foot-long cutter as a stick boat in a curbside swirl of rainwater.

I walked around the 18-acre island with Gregory Swaney, a boatswain's mate first class and one of the four Coast Guardsmen stationed there. Cold rain beat down, and the scraggly brush bent in the wind.

"The weather can get very bad here," Swaney said. "In one storm not long ago, the winds got up to 80 knots. And the thunder was so loud that the buildings shook."

Swaney and the other Coast Guardsmen live on the island with their families. They maintain the light and keep the buildings in good repair.

"It's lonely," Swaney told me, "but my wife and I like it. If you know what to look for—birds, including six or seven bald eagles, and wild flowers—it's a beautiful place."

In a few years the Cape Flattery light will be automated. And then the loneliness will be complete.

To provide navigational aid when a mariner is at sea, beyond the reach of lighthouse signals, the Coast Guard maintains a vast network of loran stations. The pulsed signals sent out by the loran stations enable a navigator to compute his position.

One such station is on Kure Island, an atoll at the farthermost western reach of the Hawaiian archipelago. Although it is 1,350 miles from Honolulu, it is nevertheless part of the State of Hawaii.

I flew to Kure from Midway. Less than two miles long and half a mile wide, the base islet is enclosed by a lagoon and coral reef. The beaches are white, the bushy growths green and waxy. It is a place of solitude and sunshine. The loran tower on Kure rises to 639 feet, and the signals it sends out reach a thousand miles.

Of the 25 Coast Guardsmen who are stationed on the island for a tour of duty lasting a year, one told me, "After a while here, you get very introspective." He, like most of the others, spends much of his free time swimming, playing softball, and marveling at the annual invasion of Hawaiian monk seals that come to Kure for the birth of their pups.

The Guard Changes, but Not the Sea

While one Coast Guardsman gets a tan on a sunny beach, another exercises to keep warm on the deck of an icebreaker opening a path in one of the Great Lakes or in waters of the Arctic or the Antarctic.

Yet another, a cadet at the Coast Guard Academy at New London, Connecticut, hugs a yardarm of the academy's training bark, *Eagle*, while learning to furl a flapping sail (preceding pages).

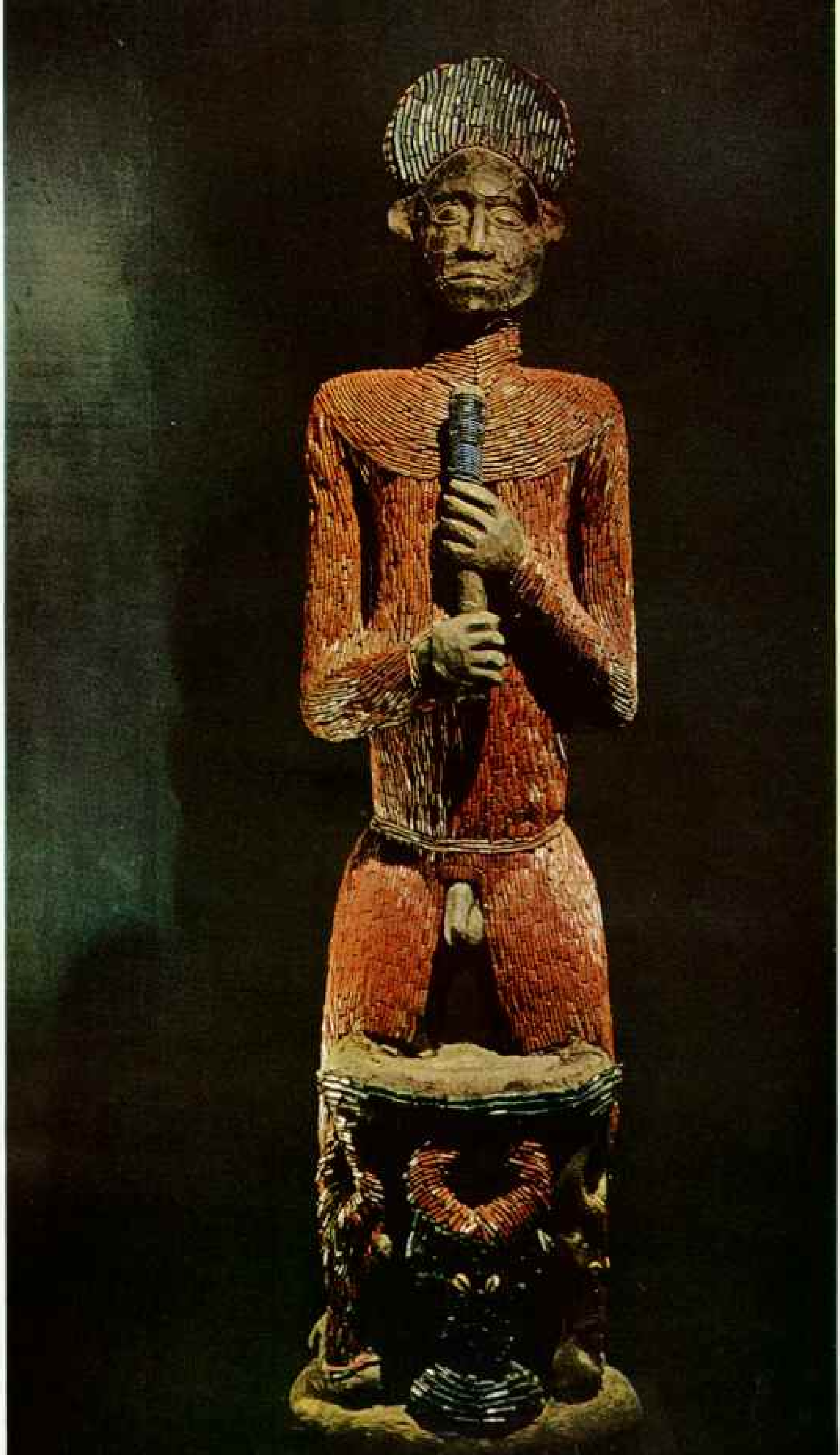
On shore, a recruiting officer smiles as a young high-school graduate approaches his desk. The potential enlistee is a girl, but she is nonetheless welcome. In December 1973, the regular Coast Guard went coed for the first time in its history.

Indeed, many changes have come to the Coast Guard in recent years. But the sea is still the sea, and until that changes, Coast Guardsmen will continue to risk their lives going out to save others.

"The rules say we have to go," a chief once said to me, repeating a time-honored Coast Guard adage. "But there's no rule that says we have to come back." □

Watchdog for ocean aristocrats, the Coast Guard cutter *Vigilant* makes spectator boats keep their distance from the racing yachts in the *America's* Cup challenge match between Australia's *Gretel II*, closest to the cutter, and the United States' *Intrepid*. With high standards, versatile personnel, and multi-use equipment, the service lives up to its motto, "*Semper Paratus*—Always Ready."

NATIONAL GEOGRAPHIC PHOTOGRAPHER ROBERT W. MADDEN



AFO-A-KOM

A Sacred Symbol Comes Home

By WILLIAM S. ELLIS

Photographs by JAMES P. BLAIR

BOTH NATIONAL GEOGRAPHIC STAFF

IT WASN'T ENOUGH to have heard the message of the drums carried on the gritty winds of November. They had to see to believe. And seeing, the people of Kom rejoiced, until the green and lovely grasslands of their kingdom seemed to tremble under the stomp of tribal dance.

They sang, and feasted, and drank enough palm wine to call down the curse of tomorrow's regret. The festivities continued for four or five days—brief enough, considering that they were celebrating the end of seven years of grief. For it was in 1966 that the tribe's most revered statue, the Afo-A-Kom (literally "the Kom thing"), disappeared from the royal compound.

Now it was back, and Nsom Ngwe, the Fon (or King) of Kom, decreed that there be gaiety in his domain. A month or so earlier, when he first learned that the statue would be returned, he said that until the Afo-A-Kom was before him—until he could look

Rescued soul of the Kom people of Cameroon, the bead-covered Afo-A-Kom represents the African tribe's political, spiritual, and religious heritage. Stolen in 1966, it surfaced seven years later in a New York City art gallery, and negotiations were begun for its return. In Yaoundé, capital of the United Republic of Cameroon, the Kom ruler feels the recovered statue to make sure it is not a copy.

at it, feel it, yes, even smell it—he could not express his full emotions. Yet some say that the Fon wept even then; but he is an old man and his eyes are often watery.

Kom is in the United Republic of Cameroon, in equatorial Africa, spread across a mile-high plateau in the mountainous northwestern hump of the country. It has been recorded that the kingdom encompasses 280 square miles. But boundaries scratched in the dirt with a stick are likely to blow away.

Legacy of an Unknown Artist

The dry season arrived on schedule last year, and by early December the road to Fundong was overlaid with dust. We were in a caravan of about a dozen vehicles, but our pickup truck drew the attention of the crowds along the route. We carried the Afo-A-Kom.

"You must wonder," said our driver, a Kom with the given name of David, "why there are so many of our people out to greet us, why they are so happy. And I will tell you that the homecoming of the statue is like the return of the crown jewels to England. Yes, that's it, the return of the crown jewels to England if they'd been stolen and kept in hiding for seven years."

Although considered sacred, the Afo-A-Kom is not an object of worship by the Kom. Rather, the 62⅛-inch-high wood carving is invested with symbolisms. Assigned to the care of the Fon, it becomes a symbol of royal authority and the promise of continued succession within the dynasty. Put on public display, it becomes a symbol of the history, culture, and traditions of the Kom people.

And when the central government of the country tries, and fails, to give the statue a national identity—"It belongs to all of the people of Cameroon," I was to hear a minister say—it becomes a symbol of the endurance of African tribalism.

It is not known exactly when, or by whom, the piece was carved. Best estimates place its age at a little more than a hundred years. Around that time, mallet and chisel were raised against a block of iroko, a hard and heavy wood marbled with the rich browns of a bruised banana. When the carver was finished, when the last chip had fallen away, the piece stood as a throne figure—an upright man, crowned and holding a scepter.

Positioned before the figure, at knee-high level, was a stool, or throne, supported by three carved buffalo heads. Later the face would be sheathed in copper, and the rest of the body, except for the hands, toes, and genitals, covered with opaque beads of reddish brown and dark blue.

The carving is stylized, with large ears and a long torso. There are only three toes on each foot. For all that, however, the artist gave to his work a certain grace. It shows best when the piece is set on open ground in the high Kom country, out where snakes slither in elephant grass.

Our truck stopped briefly, and the sweaty face of a short and weighty man pushed on the windshield. "Welcome to our Mbang!" he shouted, fogging the glass with his breath. Mbang is a Kom word for the statue.

Embroidered in white on the breast pocket of the man's shirt was a large cross. "Christian?" I asked. His cheeks rose and ballooned on the swell of a broad smile. "Yes, Christian. My father and mother, too."

Missionaries have been active in the grasslands for more than fifty years, and today nearly half of the some 100,000 people in the area are Christian. However, the shake and rattle of the diviner's tools is still heard in the performance of such services as having thunder and lightning visited upon the house of a customer's enemy.

Now our truck was surrounded by dozens of schoolchildren, straining and shoving for a look at the precious cargo. Nearby, six men—three on each side of the road—took a signal and fired off ancient muzzle-loading guns. The noise shook the mango trees, and smoke engulfed the men until they disappeared like toy soldiers sinking in the marzipan of a boy's birthday cake.

And the women trilled a joyful sound, while the brown, bare feet of dancers dogged the beat of a frenzied rhythm.

Speeches Mark the Statue's Return

That's the way it was all along the road, all the way to Fundong. When we reached the village, there were nearly 5,000 persons gathered on the edge of a soccer field. The crate containing the Afo-A-Kom was unloaded from our truck and carried to the head of the field where Vroumsia Tchinaye, Cameroon Minister of Information and Culture (page 141, left), was preparing to speak.

He whispered and shouted, smiled and frowned. The statue, he said, is a national treasure, not just a Kom one. A tall man of impressive bearing, Mr. Tchinaye is not a

Homeward bound, the crated Afo-A-Kom flies as a passenger from the United States to Cameroon, riding beside the author. Behind sit two of the men chiefly responsible for the statue's return—Warren Robbins, right, Director of the Museum of African Art in Washington, D. C., and Lawrence Gussman, of Scarsdale, N. Y., a collector of African art.

Kom, and he feels that tribalism is a hindrance to the development of his country. The Fon, seated nearby, was impassive as the minister spoke.

There were several more speeches before the Fon stepped to the microphone. He walked slowly, as men over 70 are wont to do, but he stood tall and straight, and when he whisked a white handkerchief over his brow, it was with great flair. He wore a splendid robe of black and red checks. A long strand of beads hung around his neck, and there were rings on most of his fingers.

Among those attending him was the royal chair bearer. Of course the chair, one of those metal patio pieces with a seat that springs up and down, is not borne while the Fon is in it. Instead it goes where he goes, and is available for his use at all times. This is a royal prerogative of some importance; public benches are hard to come by in the African bush. Men of lesser station generally hunker.

The Fon spoke in his tribal language, while an interpreter relayed the words in English. After a short time, however, the interpreter lapsed into pidgin English, a common form of communication in western Cameroon. Thus, when the Fon said that the road to the royal compound at Laikom was not good, but those with Land-Rovers were welcome to visit him there, it was interpreted as:

"Di Fon bin invite all people we dem de get Land-Rover fo come fo palace."

No one moved. Not yet. Not until the crate was opened and the Afo-A-Kom lifted out. And then the thousands of people lining the field rushed forward. Children were lifted to fathers' shoulders for a view. One elderly man, who later told me that he had never seen the carving, got a flashing glimpse before the crowd closed in. It was enough to fill his soul with happiness.

"Mbang! Mbang!" they shouted, flooding the field with wave after wave of unrestrained exhilaration. Some, but not many, got close enough to touch the statue before police restored order. Then the Afo-A-Kom was put back in the crate and sent off to its final destination, the royal compound at Laikom. Once there, the journey home would be over.

Politics May Have Led to Theft

And the first journey, the one *away* from home—how had that come to pass? The story heard most often in Kom is this:

On a summer night, probably in July 1966, the Afo-A-Kom was stolen from a storage hut at Laikom. It was taken to Douala, the country's largest city. From there it was routed, eventually, to New York City where it appeared last year for sale in an art gallery. Asking price: $60,000.

A new Fon of Kom had succeeded to the kingship just before the statue's disappearance. The previous Fon was named Lo-oh. He died shortly before the statue was taken.

Before that, however, a council of elders known as the Kwifon had started to evaluate

RYAN SCHNEIDER (BELOW)

Warbling calls and clapping hands signal the joy of women welcoming the caravan carrying the Afo-A-Kom. Dressed in their traditional best, men fire guns skyward (**left**) as the motorcade rolls toward the Kom capital of Laikom. Thousands of Cameroonians walked miles from their homes to greet the long-lost statue.

Many of these proud tribespeople are Christians, but they cling to deep-rooted traditions. Here, as elsewhere in West Africa, their forebears created works of art sought after today by museums, collectors, and contemporary artists.

possible candidates for the kingship. Kom is a matrilineal society with only brothers or sons of sisters of the Fon eligible to succeed him. In addition to the present Fon, there were two or three others in the running.

"When one of those being considered realized he would not be named, he arranged to get the statue out," a member of the royal family told me. "In this way he hoped to weaken the authority of the new Fon."

In that regard, the maneuver was somewhat successful. There were reports of frequent quarreling among the people and a reluctance to participate in community work projects. Hoping to bring peace to his kingdom, the Fon had a replica of the Afo-A-Kom carved, but the people refused to accept it.

Peace Corpsman Makes a Find

Then, last year, Craig Kinzelman, an American working with the Peace Corps in the grasslands, saw a catalogue of an exhibit of Cameroon art at Dartmouth College. The piece pictured on the cover was the Afo-A-Kom. He wrote letters and made the story of the missing carving known to newspapers. Before long there were offers of contributions to purchase the statue from the New York art dealer and return it to the Kom people.

The dealer agreed to sell the Afo-A-Kom for less than half the $60,000. Among those who made major contributions for the purchase were the pharmaceutical firm of Warner-Lambert, and Lawrence Gussman of Scarsdale, New York, a collector of African art and a man moved to good deeds by humanitarian zeal. Warren Robbins, director of the Museum of African Art in Washington, coordinated negotiations for return of the piece. The National Geographic Society offered its help in assuring a safe and speedy passage back to Africa.

The crate traveled in the passenger compartment of airliners all 6,000 miles between Washington and Yaoundé, capital city of Cameroon (page 143). It was a long, tiring journey, but Lawrence Gussman, who went along, said it was worth it—worth all the many miles and thousands of his dollars just to be present when the Fon saw the statue for the first time after its return. He saw it and ran his fingers over the face, and then there was no mistaking the water in his eyes; this time, for sure, he was crying.

There is a belief among the Kom that long ago the tribe was led to Laikom by the track

Exuberant emotions erupt when Cameroon soldiers ease the Afo-A-Kom from its wooden case (**below**) during a celebration in Fundong. Waving locally made muzzle-loaders (**left**), spectators stamp to the rhythm of drums. A royal messenger bellows praise on an elephant-tusk trumpet (**bottom**).

More than a century ago an unknown village artist carved the statue from a single log of teaklike iroko. Ceramic and glass beads, once a medium of exchange, cover the body; copper sheathes the face of the five-foot sculpture. The stool at its knees symbolizes the throne, and its scepter connotes sovereignty. The Kom normally display the statue only at the installation of a new Fon.

JOAN SCHNEIDER (LEFT AND BELOW)

Fearsome comedian of the king, a court jester masquerades in feathered cloak and bedaubed face to amuse the crowd at the celebration of the Afo-A-Kom's return to Laikom. Now, with their treasured figure returned, the Kom expect healthier children, better crops, and a harmonious life.

of a python. The road we now traveled to the royal palace was no less bedeviled by corkscrew turns as it wound up the mountain.

The Fon was on his throne in the royal courtyard when we arrived; that is, he was sitting on a carved stool on a slightly raised platform surrounded on three sides by walls of cinder block. The throne was shaded by a large sidewalk café umbrella emblazoned with a beer advertisement. Some of the Fon's dogs (he is an animal lover) lounged on the throne with him. Flop-eared and listless, they stirred from their sleep only to make occasional spasmodic, teeth-clacking swipes at troublesome fleas.

The crate with the Afo-A-Kom rested on the ground in front of the throne. Before long, however, it was removed to a secret place, and I would not see it again. Nor would it be shown to the people of Kom again until it had undergone elaborate purification rites.

The Fon rose from his stool, stepped over the sleeping dogs and approached those who had accompanied the statue from the United States. Warren Robbins was called forward to receive a stool. George Spicely, also of the Museum of African Art, and Lawrence Gussman both were given robes.

Finally I was summoned. The sun was high and hot, and my feet stirred up swirls of dust as I walked toward the Fon. An attendant presented me. "Alice Williams," he said.

"No, William Ellis."

The Fon smiled and touched my shoulder. He wrapped a cloth around the front of me, and another around the rear. Then a cotton and silk robe went over my head.

Trumpeters sounded a flourish on elephant-tusk horns as we started down the mountain through an arch of raffia fronds. □

NEW VOLUME OF *RESEARCH REPORTS*

The seventh in the National Geographic Society's series of *Research Reports*, containing résumés of 35 projects supported by the Society in 1967, will soon be available. The volume continues the publication of abstracts and reviews resulting from nearly 1,400 grants for research and exploration made since 1890. Typical of the wide range of these projects, the 1967 volume includes reports on Middle East "devil worshipers"; prehistoric desert markings in Peru; giant stone heads and spheres in Mexico; glaciers in Alaska; archeological expeditions in Turkey, Africa, and the U. S.; underwater explorations in Turkey, Cyprus, and the Bahamas; and studies of bluefin tuna, migratory pink shrimp, African primates, American bison, grizzly bears in Yellowstone, marine mollusks of Polynesia, African turtles, Asian storks, the giant pied-billed grebe, and the kiwi.

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COVER: Boaters on the Oxford Canal cruise gently through England's past (pages 76-111). LINDA BARTLETT

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YOUR HOUSE IS COVERED.
YOUR CAR IS COVERED.
YOUR LIFE IS COVERED.

PRESENTING:
THE COVERED MONEY.

How do First National City Travelers Checks cover your money?
Completely, that's how. 100% refund in case of loss, theft, fire, floods, storms, or mysterious disappearance.

Where do you get First National City Travelers Checks?
Ask for them at your bank—in your home town. In short, just about anywhere.

Where can you use them?
At millions of places . . . airlines, hotels, motels, restaurants, shops and other retail and service establishments in the U.S. and all over the world.

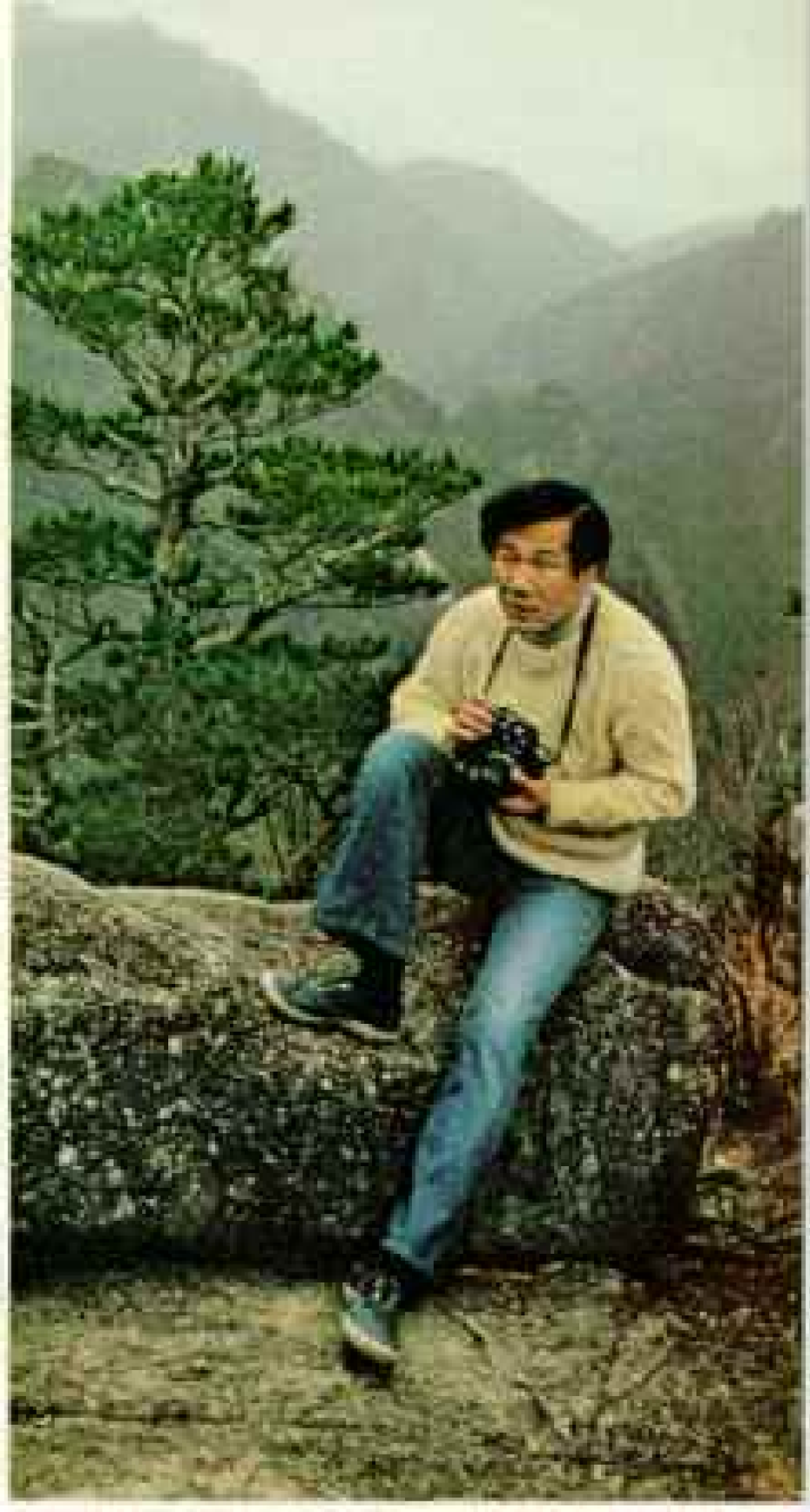
What do you do if you lose them?
There are more than 35,000 places in the U.S. and around the world where you can get them replaced on-the-spot.

How much do they cost?
A fee of one cent for a dollar's worth. There is no better way to protect your money.

So, before you take off around the world or just across town . . . make sure your money is covered.

First...get First National City Travelers Checks

Sold at banks and savings institutions everywhere



KIM (ABOVE) AND PARK (RIGHT)

Getting the story in Pyongyang and Peking

FOR ED KIM it was a sentimental journey to a place he'd never seen. North Korea's hills and blue October sky reminded him of home—the South Korean landscapes of his childhood. In a dawning of hopes for better U. S. ties, North Korea admitted Ed and his cameras, and the GEOGRAPHIC layout editor explored a land long closed to U. S. photojournalists. One stop: the capital, Pyongyang, where a billboard proclaims the nation's pride (**left**). Another: the heights of Kumgang San, a special goal for Ed (**right**). His article will appear in the August issue.

From Pyongyang Ed flew to Peking with a coveted visa granted after many requests. In China's capital he pursued a fascinating story that appeared in the May issue—the opening of a 2,100-year-old tomb in Hunan Province that yielded an archeological treasure trove.

Let friends share in such journeys to understanding by nominating them for membership.

Readers of the National Geographic are invited to

Enjoy collecting a stirring panorama preserved for future generations.

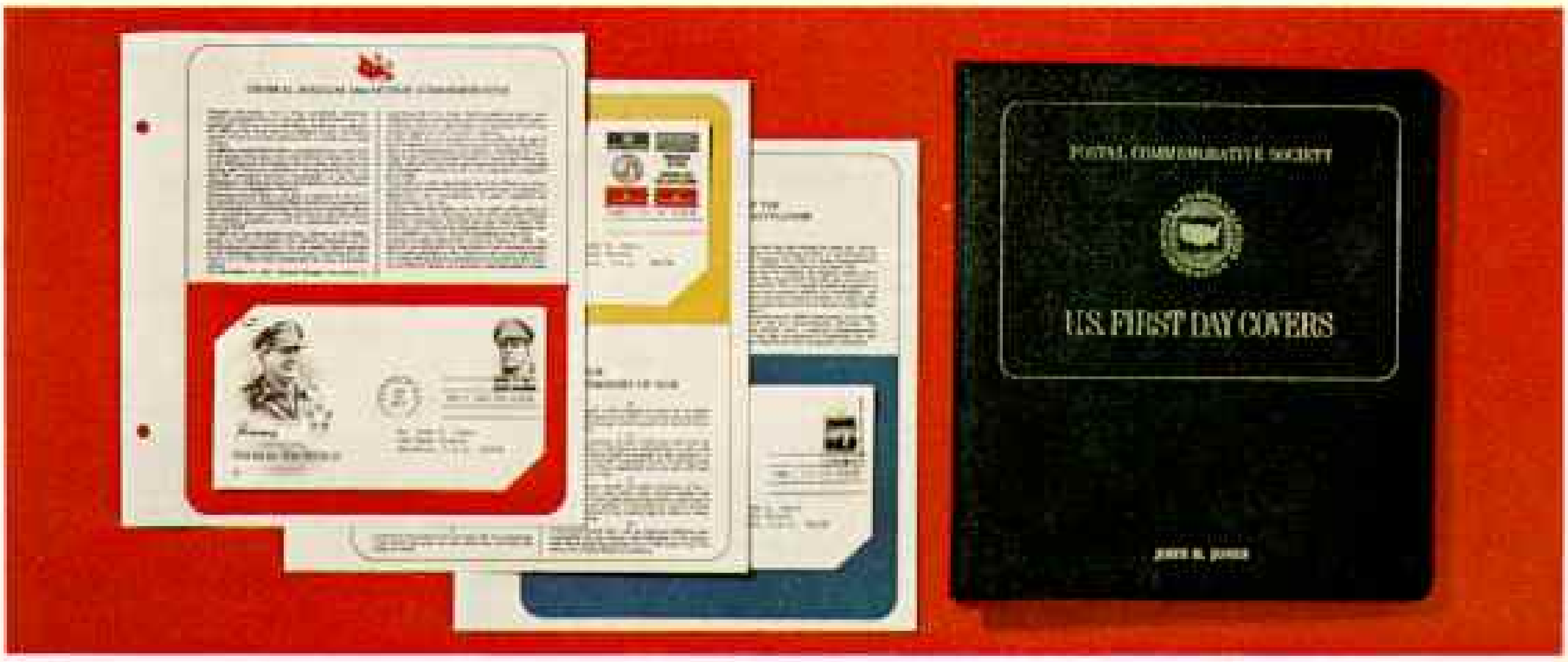
- At a surprisingly modest cost, you can receive official First Day Covers for each new commemorative stamp issue of the United States.
- Each First Day Cover will be individually addressed and sent automatically to the name and address you designate.

WHAT IS A FIRST DAY COVER?

The United States regularly honors the important men, events and places in its history through the issuance of official U.S. commemorative postage stamps. When a new stamp is to be issued, one, and only one, post office is officially designated to provide . . . on one day only . . . the authentic "First Day" cancellation. The specially designed envelope bearing the new stamp, cancelled on the exact date of issue at the officially designated post office, is a First Day Cover.

First Day Covers are fascinating collectors' items. As you can well imagine, the combination of a historic stamp, cancelled on the first day of issue at an officially designated post office on a specially designed envelope, results in a collector's item of the first order. One that has been prized by collectors like Dwight D. Eisenhower, George C. Marshall and Franklin D. Roosevelt, plus others with the foresight to preserve yesterday and today for tomorrow.

The best time to obtain these prized collectors' items is when they are issued. This is now made easier than ever by the Postal Commemorative Society.



Postal Commemorative Society members receive everything they need to build and maintain a personalized "mint condition" collection of U.S. First Day Covers. For each cover issued, the Society provides an exclusive custom designed display page, especially made for the member's personalized album.

# of U.S. history. To be treasured now and

First Day Covers combine art and history in a tribute to our American heritage. Eisenhower . . . The Battle of Bunker Hill . . . the writing of the Star Spangled Banner . . . the landing of astronauts on the moon . . . such are the subjects chosen by the United States for commemorative postage stamps. Nothing trivial or unimportant or dull is ever chosen for national honor.

Further, the post office chosen for a first day of issue usually bears particular significance to the subject commemorated. For example, a first day cover of the Eisenhower stamp was one cancelled at Abilene, Kansas.

The nation's leading artists and designers are called upon to portray the subjects chosen. Such commissions naturally are highly prized, and bring forth the best efforts of the artists involved.

Membership in the Postal Commemorative Society makes it possible to easily collect First Day Covers as they are issued. The Society will guarantee your receiving a personally addressed First Day Cover of every U. S. commemorative stamp issue. All details of arranging for your First Day Covers to be sent to you will be handled by the Society.

Commemorative stamps normally are issued by the United States at the rate of about 18 a year. You will receive up to this many issues at a basic cost of just $14.50 per year plus an annual membership fee of $5.00 (total yearly cost of $19.50).

As a member, you will also receive the Society's exclusive display page for each new issue. Each beautiful, specially designed page is die-cut to hold the First Day Cover, and contains a full description with all important historical information about the subject of the commemorative issue. *These pages are available only to members of the Society.*

Becoming a member now brings you an important collector's bonus at no additional cost. The Postal Commemorative Society makes available to its members a handsome collector's album with the member's name hand-embossed on the cover. This album, specially designed to hold the Society's display pages, makes it possible for members to keep each new First Day Cover in "mint" condition. *It is yours free, if you join now!*

MEMBERSHIP APPLICATION NG 7-74

Postal Commemorative Society
1 Glendinning Place
Westport, Conn. 06880

Enclosed is $19.50* for a one-year membership, and First Day Cover Service. Send me the collector's album which is free to new members. My First Day Covers should be addressed as follows:

Mr., Mrs., Miss _____

Address _____

City _____ State _____ Zip _____

Please emboss the personalized album as follows: _____
(Print name to be shown on album)

This is a ☐ Personal Membership
☐ Gift Membership

(If a gift membership, please provide your name and address on a separate piece of paper. A card announcing your gift will be sent to the member.)

*Connecticut residents add $1.17 tax. Make check or money order payable to Postal Commemorative Society.

We agree—when you recover from a long illness, your wallet should be healthy, too.

Medical bills are the problem, but not everyone agrees on the solution.

Some people think that it is government's job to keep you from going broke while you're getting better. With your tax dollars paying the cost. But there's another way. The insurance companies have already started to solve the problem quietly and efficiently.

Everybody can be protected.

Two years ago, Ætna became the first company to provide a $250,000 catastrophic medical benefit on a broadscale. At a modest additional cost. Today, many companies offer similar coverage. And millions of Americans have it through their group plan or individual insurance.

Build on the present system. Insurance companies recognize the need to extend their coverage to low-income families and to improve the quality of community health care. With government support, we can provide broader protection and help organize better health services.

Congress is studying the problem. And we're anxious to help. We believe that making our $250,000 catastrophic medical protection available to everyone is a positive step. But we're working on other solutions, too. Because more needs doing. Health care isn't your average-sized problem, but Ætna's not your average insurance company.

Ætna
LIFE & CASUALTY

You get **action** with Ætna

How to get to Nova Scotia in spite of everything

In most cases, Nova Scotia is a lot closer than you think. And we've got gas to fuel up your car when you arrive here and wherever you travel in our province.

Or how about taking a plane so you'll have more vacation time to enjoy? There are direct, non-stop, daily flights from New York and Boston. (Don't forget to have a rented car waiting for you at the airport.)

You might even think about floating your car to Nova Scotia. Yes, floating your car!

You have a choice of three, large and modern car-ferries for the relaxing trip. For your enjoyment on board each ferry there's a fine restaurant and bar, a duty-free shop and a casino.

The car-ferry "Bluenose" sails daily in the summer from Bar Harbor, Maine to Yarmouth, Nova Scotia. "Prince of Fundy" and "Bolero" also sail daily from Portland, Maine to Yarmouth.

Now that you know there are different and interesting ways to get to Nova Scotia, you might be asking yourself why Nova Scotia is worth getting to.

The fact is, Nova Scotia is worth getting to if all you wanted to do was look around.

You could wander through the antiquity of Annapolis Royal and escape through the centuries at the Port Royal Habitation, a perfect recreation of the oldest white settlement in North America north of Florida. At Louisbourg explore the reconstructed fortress.

And Nova Scotia has history you can drive through as well as walk through. Try the Evangeline Country of the Annapolis Valley, the famous South Shore Lighthouse Route, the Eastern Shore Marine Drive, the spectacular Cabot Trail and our Sunrise Trail boasts some of the best beaches in Nova Scotia.

If you want to swim, scuba dive, sail or deep sea fish, Nova Scotia has nearly 5,000 miles of picturesque, indented coastline with more quaint harbours than you'll ever be able to count.

There are acres of secluded park lands with hiking trails, more championship-calibre golf courses than you'll be able to challenge in one stay. There are horses to ride and boats to rent.

You'll find the shopping interesting, the resorts and hotels very accommodating, the dining rewarding and the evening entertainment exciting.

But then again, just about all of Nova Scotia is a must.

So why not start making plans to get here?

We're certain you'll have the kind of vacation which will make you want to come back again and again.

For more information on Nova Scotia vacations, write Nova Scotia Information Offices: 616 Forest Ave., Portland, Me. 04101. Telephone 1-800-341-6709 (Toll free in New England except Maine.) In Maine 772-6131/630 Fifth Avenue, Suite 3115, New York, N.Y. 10020. Area Code 212-581-2420/P.O. Box 130, Halifax, N.S.

Nova Scotia

COULDN'T YOU USE A LITTLE NOW?

"I can't believe this is possible."

"Wow, did my family and I need a vacation. Boy, did the economy say stay home. And we were going to, until Eastern showed me a great low-cost vacation that was just right for us. We had a ball. And have I got a fish story to tell everyone back home."

Eastern's Florida Keys.
8 days/7 nights. Only $111.*
You gotta believe!

Take a family vacation with something for every member of the family. Stay six nights at either the luxurious Tarpon Lodge or Hurricane Motel and get the 7th night free. A Hertz sub-compact car with unlimited mileage is yours for the week. Gas and insurance extra. A welcome drink awaits you. Eighteen holes of complimentary golf. Six hours of tennis. And of course two half-days of fishing. Plus some sightseeing extras. Up to three children under 12, sharing room with parent, only $5 each child. The kids can choose either an hour of horseback riding, or join you for golf, or on one of your fishing outings. They also get admission to Flipper's Sea School.

"I can't believe this isn't a dream."

"I've been craving a vacation like this for a long time. And for a long time inflation has stopped me from going. But through Eastern I found this low-cost vacation fit for a gourmet."

Eastern's Vacation Islands.
8 days/7 nights. From $95 to $105:
You gotta believe!

Here's your chance to savor more than one Caribbean island.
Begin your vacation with a 2-day stay at San Juan's beachfront Holiday Inn. Admission to El Commandante Racetrack is included. Then spend your next 5 days at a Holiday Inn in either Antigua, Aruba, Barbados, Curaçao, Jamaica, St. Lucia, St. Thomas or Trinidad.

*Prices do not include airfare, meals, local taxes, transfers, service charges or departure tax. Hotel rates are per person, double occupancy. Prices in effect until 12/15/74. And you can charge the whole vacation on the American Express Card. Why not let us plan a Personalized Vacation™ and make all your vacation plans come true. Just call Eastern. Or see the travel specialist, your travel agent.

EASTERN THE WINGS OF MAN

Minolta helps you understand courage.

Smile at the challenges of everyday life. All it takes is a sense of humor and a responsive camera to see the pictures that are everywhere.

If you have the insight, a Minolta SR-T could be the camera. This is a 35mm reflex you'll be comfortable with from the moment you pick it up. It lets you concentrate on the picture, because the viewfinder shows all the information needed for correct exposure and focusing. You never have to look away from the finder to adjust a Minolta SR-T, so you're ready to catch the one photograph that could never be taken again.

And when subjects call for a different perspective, Minolta SR-T cameras accept a complete system of interchangeable lenses, from "fish-eye" wide angle to super-telephoto.

Next time you see the funny side of life, be ready with a Minolta SR-T. For more information, visit your photo dealer or write Minolta Corp., 200 Park Ave. So., N.Y., N.Y. 10003. In Canada: Anglophoto Ltd., P.Q.

Minolta SR-T 101/Minolta SR-T 102

When identified by a factory sealed "M" tag, Minolta 35mm reflex cameras are warranted by Minolta Corp. against defects in workmanship and materials for two years from date of purchase, excluding user inflicted damage. The camera will be serviced at no charge provided it is returned within the warranty period, postpaid, securely packaged, including $2.00 for mailing, handling and insurance.

Welcome news from the Welcome Home people: Kids 18 and under free.

Got a kid 18 or under?
Two? Three? How many?
Well, kids are home free at all the more than 550 Ramada Inns coast to coast, under our Family Plan.

They'll share your room; cribs for real little guys are free, too. There is a charge for rollaway beds if there are *that* many of you though.

More welcome news—for information and reservations simply dial toll free 800-228-2828* and book your whole family for one night or every night you're on the road.

So when you get there, you've really arrived. Because you'll find special play areas just for kids, swimming pools for the whole gang, terrific restaurants that can serve up delights for most any family's scale of tastes, plus lounges for more uptown relaxation while you're out of town.

Fact is, we think you'll find everything about your visit at a Ramada Inn welcome news.

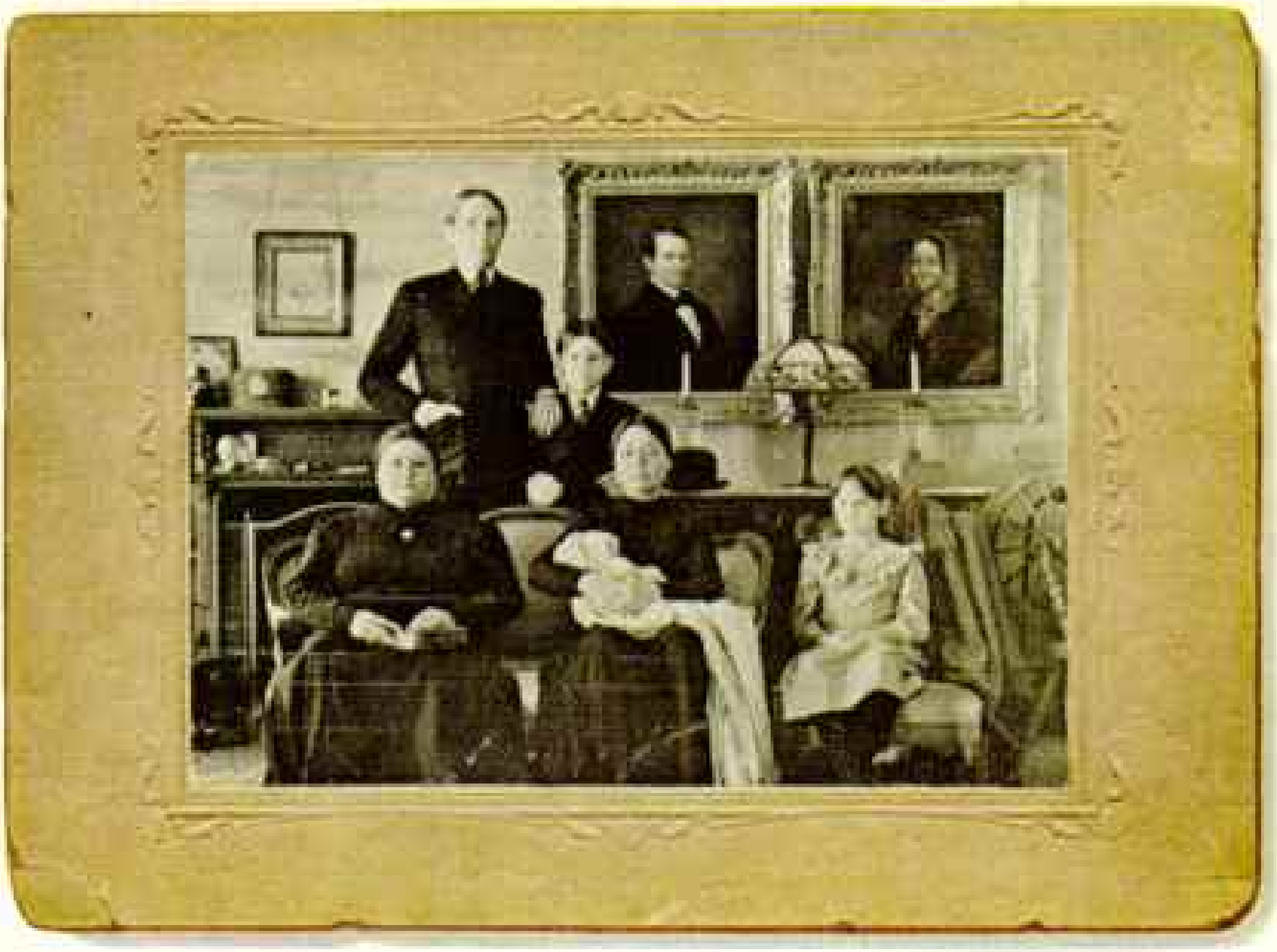
RAMADA INN

Welcome home.

*In Nebraska call 800-642-8543

RAMADA

photographer: marty evans



The real

Our election laws and traditions reflect the country as it was decades ago. The time has come to ask some basic questions.

How long should elected officials serve?
Is there still a need for the electoral college?
Should taxpayers foot the bill for election campaigns?
Does our present system truly provide one vote for each person?
Is our political structure so big that officials are too far from those who elect them?

The ideal

A nation in which those elected truly represent the will of those who elected them– for the good of all.

AtlanticRichfieldCompany

artist: per volliguarra "government: triangle and people"

The Everything Pocket.

It's packed with everything you need to take big, sharp pictures.

A superb 4-element *f*/2.7 Ektar lens, for example. Automatic exposure control, and automatic "low-light" and "used bulb" signals in the viewfinder. Even a precision-coupled rangefinder to take the guesswork out of focusing.

The name of this peerless Pocket? The Kodak pocket Instamatic 60 camera. Less than $138. A black-chrome version is available in a special deluxe outfit for less than $156. See them at your photo dealer's.

Prices subject to change without notice.

Kodak pocket Instamatic® 60 camera.

Kodak

FIGUREHEAD OF JOSEPH CONRAD AT MARINE HISTORICAL ASSOCIATION, MYSTIC, CONN.

Woodcarver's art rode with captains courageous in the days of sail.

Figureheads are almost as old as sailing itself. Early Egyptians used them. So did Phoenicians and Vikings. They decorated prows of their ships with carved heads of horses, birds, and wild-eyed dragons. These, the ancient mariners believed, invoked the protection of guiding spirits.

Dawned the age of exploration, the spirits were largely forgotten. But not the figureheads. In England trained hands carved everything from Poseidon with his trident to St. George in wooden armor.

Colonial craftsmen brought the skills to America. In a vacant sail loft near the wharf the shipbuilder would chalk on the floor full-scale plans for the figurehead he envisioned below the bowsprit. The carver marked out the design on a block of seasoned wood and shaped it with mallet and chisel. Some figureheads he drew from live models, perhaps the shipowner's daughter.

Often a carving personified the ship's name—*Twin Sisters*, for example. Or *Joseph Conrad*, whose figurehead is portrayed here.

A tribute to the renowned writer-seaman by another of the same breed, the magnificent head came into being shortly after Capt. Alan Villiers acquired the old Danish square-rigger *Georg Stage* and renamed her in honor of Captain Conrad.

"A sailing ship had to have a figurehead," he declared. "The lovely sweeping lines of her cutwater looked wrong without one." So he asked his friend Bruce Rogers, the renowned typographer, to carve the bearded likeness.

Captain Villiers sailed *Joseph Conrad* around the world—a 57,800-mile voyage that lasted 555 days. He followed in the wake of early navigators, rounding Cape Horn under sail, as they did, and with their zest for exploration.

Villiers described the voyage in the February, 1937, GEOGRAPHIC, echoing a haunting passage from an even earlier issue: "The unchangeable sea preserves for one the sense of its past, the memory of things accomplished by wisdom and daring among its restless waves."

The writer? Joseph Conrad. To Conrad those restless waves were peopled "with unforgettable shades of the masters in the calling which . . . was to be mine, too."

And so they also are to Captain Villiers, as witness his many adventure-filled narratives about men, ships, and the sea. In August, 1968, he took GEOGRAPHIC readers to Mystic Seaport, Connecticut, living museum of America's sailing past.

"I rubbed my eyes and looked again," he wrote. Among a maze of spars and rigging he had spied the jutting figurehead of the *Joseph Conrad*, now permanently moored as a training vessel.

It was a memorable moment he shared, this sequel to a saga that appeared more than 30 years ago. But such moments have come to be expected in the pages of NATIONAL GEOGRAPHIC.

Rod Ailinger's mother works for an insurance agent. And Safeco isn't the only company the agent handles. So, when Rod needed car insurance, his mother told him about all the companies he could choose from. He went with Safeco.

Mostly for one good reason: we showed him how he could save a few bucks.

Safeco may be fast and fair about claim service, but mainly we try to save you money on any kind of insurance.

So, look in the Yellow Pages for the number of your local independent Safeco agent. He can give you all the motherly advice you need about insurance.

"I'd say you should go with Safeco because they saved me $71 on car insurance. And don't let the fact that my mom works for them influence you."

You can smile when you're with Safeco.

Faraway faces

A squirrel monkey cavorts in the tropical trees, his expression curious yet cautious, his eyes darting about in excited animation. Elsewhere, a parched-faced mariner gazes out to sea, his eyes reflecting a lusty past.

The world is filled with unforgettable sights. But sadly, too many cameras fail to do them justice, either because the camera is too limited or cannot cope with difficult lighting or climate conditions.

Not so with the Canon F-1 for this is no ordinary camera. The F-1 is the world's only 35mm single lens reflex camera *system* designed all at one time. Body, lenses, viewfinders, motor drives—everything is made not only to work together beautifully but to work *better* than any other camera ever created.

It's manufactured to rigorous standards of precision and quality control. It's tested beyond the limits of most people's endurance. And human engineering is ideally realized, with controls placed where they're most natural and comfortable.

With an unusually sensitive central area spot meter built into the camera body, over 40 superb Canon lenses plus more than 200 other specialized accessories, the Canon F-1 is the only system you'll ever need to handle any photographic assignment.

See your dealer and examine the complete line of Canon cameras —movie, rangefinders and SLRs— from the makers of the best selling cameras in Japan.

Canon®

F-1

Canon USA, Inc., 10 Nevada Drive, Lake Success, New York 11040
Canon USA, Inc., 456 Fullerton Avenue, Elmhurst, Illinois 60126
Canon USA, Inc., 123 East Paularino Avenue, Costa Mesa, California 92626
Canon Optics & Business Machines Canada, Ltd., Ontario

DATSUN

The luxury car that isn't a luxury.

Datsun 610 for '74 combines the engineering sophistication and economy of an import with the luxury of a large car. Compact outside, the 610 has a family-sized interior with full carpeting, reclining bucket seats, tinted glass, clock and more, all standard equipment.

In motion, there's a big car ride with fully independent suspension on the Sedan and Hardtop. Performance is everything you want it to be... including Datsun's great fuel economy.

Datsun 610. A luxury economy car. An idea whose time has come!

Datsun Saves