District ranger Frank Delaney shows his primary mode of transportation—a 1928 Chevy coupe

AMERICAN FORESTS
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A Lookout Looks Back

by Victor R. Hake

Mt. Elwell shown from North Point. Circle shows the tiny lookout station in 1932. . . .

Perhaps the summer of 1977 will long stand as California's worst fire year, probably minimizing others once considered unsurpassable. The trouble was largely brought about by a set of extreme conditions. While man himself surely caused his share of problems, the two preceding winters, having been scant of rain and snow, coupled with a series of intense lightning storms during late summer, brought about an imbalance over which man had little control.

Another year of comparable losses was the summer of 1926. Its series of holocausts resulted partly from insufficient precipitation the previous winter, but more from the intense lightning-storm activity that followed. On the Kaniksu Forest in Idaho that summer, a gathering of lightning storms caused over 100 fires in one afternoon. The following year—when I became employed on the Kaniksu—you occasionally could hear some old-timer remark: "If I thought this year'd be another like last year was, I'd quit right now!"

But not until 1931, in California, did I personally experience a bad fire season. Like the others, it too was preceded by mild winter weather, with minimal precipitation. That summer's activities are described in the following article.

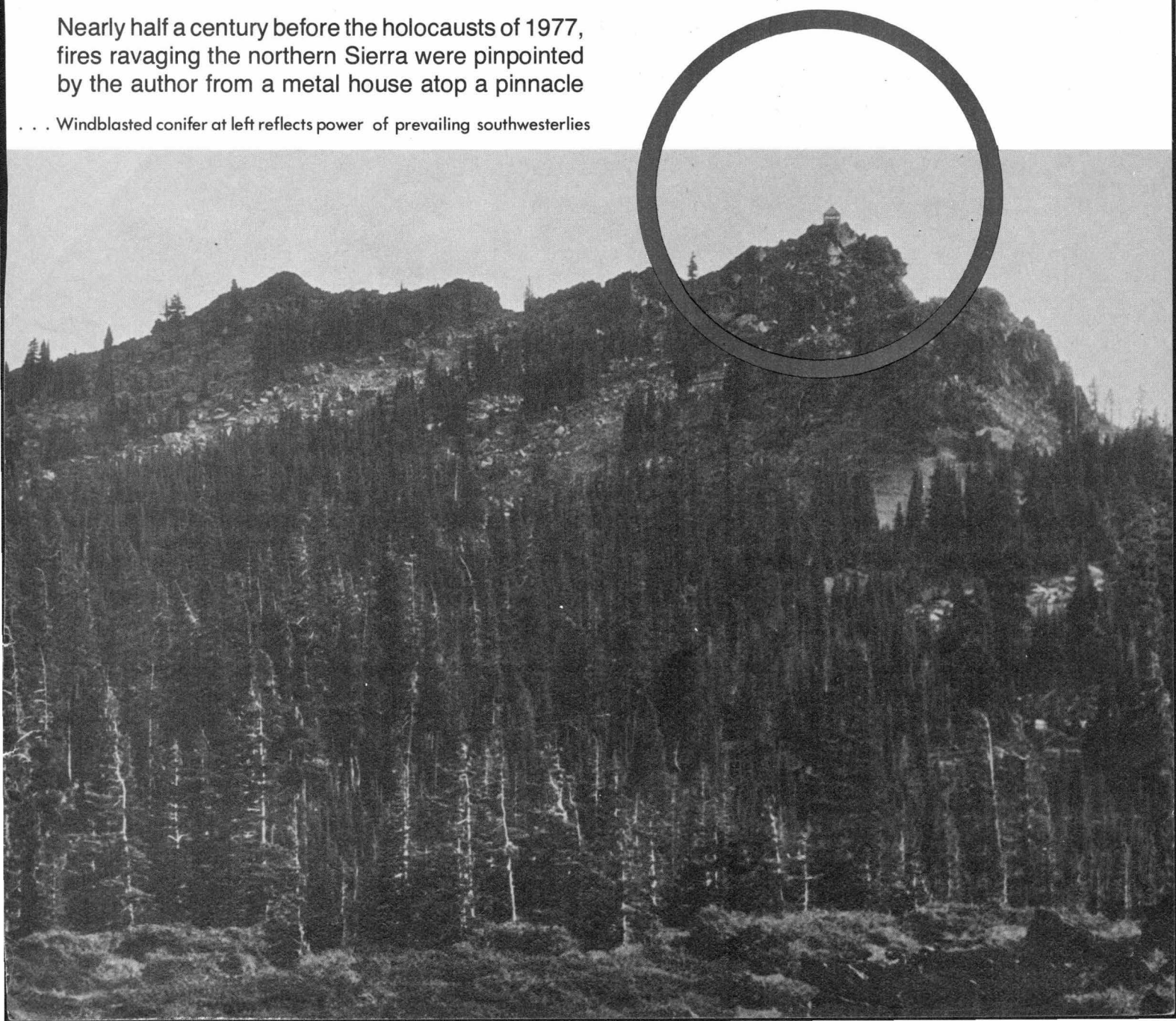
ALONG THE upper reaches of California's Feather River, where the middle fork begins to taper down and become a quiet stream, there is a massive mountain bearing the name of a family which in early times settled in Mohawk Valley.

To those approaching the valley from the west, this mountain may not seem too impressive—it tends to blend with other nearby peaks of almost equal height. But seen from the east, its huge bulk stands out impressively. This I know, for I once spent four consecutive summer seasons dwelling atop its highest pinnacle as a forest-fire lookout. The mountain is known as Mt. Elwell.

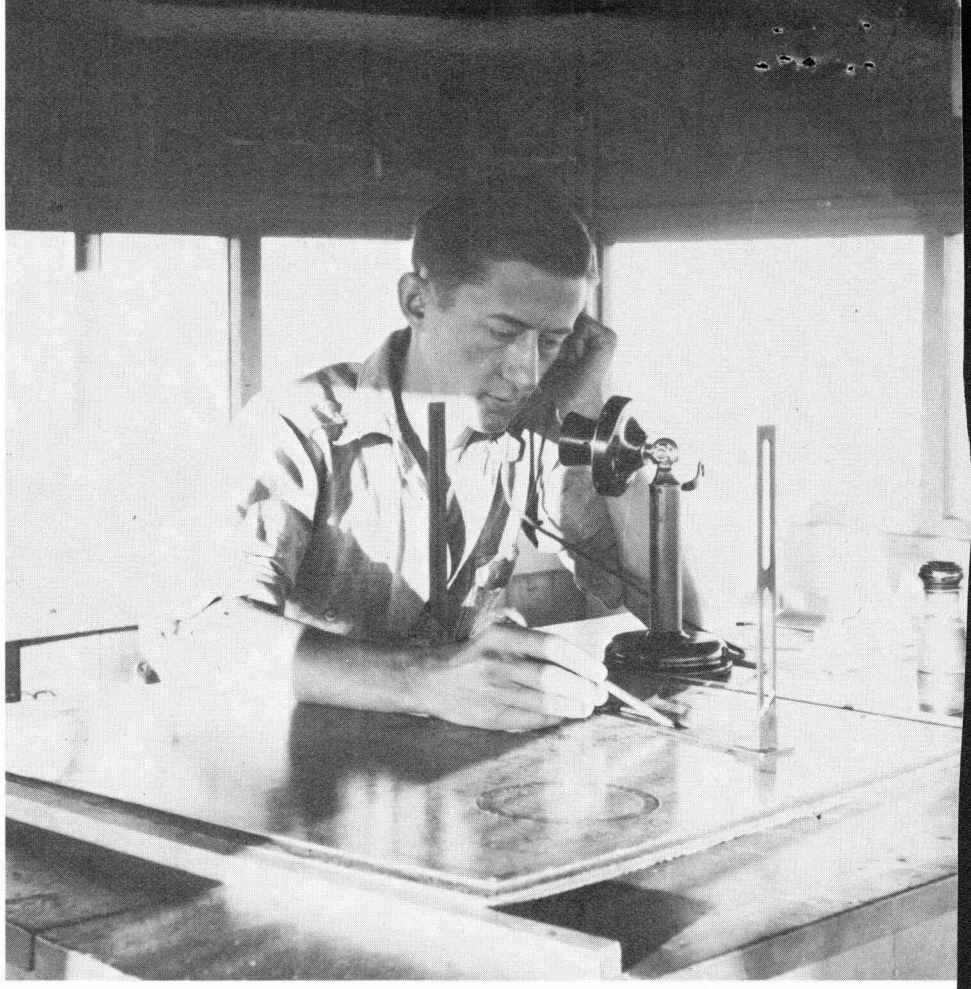
Mt. Elwell overlooks much of the southeastern portion of the Plumas National Forest in the northern Sierra. The Forest then consisted of roughly half a million acres of publicly owned land. I first came there as

Nearly half a century before the holocausts of 1977, fires ravaging the northern Sierra were pinpointed by the author from a metal house atop a pinnacle

. . . Windblasted conifer at left reflects power of prevailing southwesterlies



Golden-mantled ground squirrel is a ubiquitous resident



The author phones in a fire report from Mt. Elwell, 1931. The map board and alidade helped pinpoint the fire's position. Photo was taken using a self-timer on the camera

a fire lookout in the summer of 1930.

"To know the woods around us as the seamen know the sea," to misquote, was of first importance in those days, and the principle holds today. In going up on Mt. Elwell, one of my first duties would be to familiarize myself with the surrounding terrain—the mountains, ridges, and valleys; the ranches, towns, and smaller communities; and the sawmills and logging operations, where smoke and clouds of dust might show daily. These features are most easily learned first by covering the terrain by roads or trails and then, once you are established on a mountaintop, comparing such knowledge to the maps of the area.

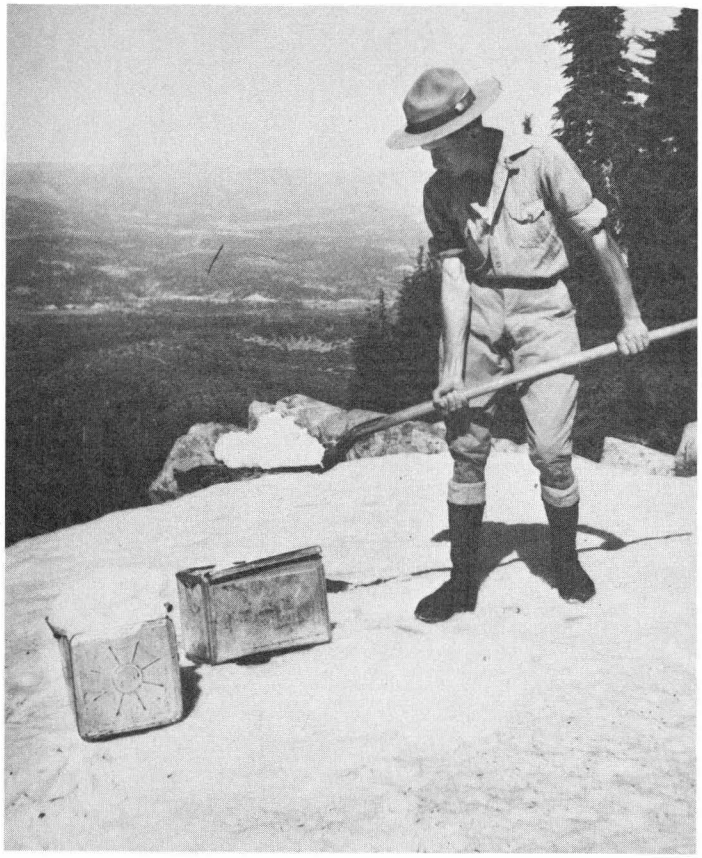
I was given several days' briefing at forest headquarters, and then taken on a short orientation tour through the territory I was to watch over. In early June, I moved up onto the mountain.

Then, as now, the menace of fire was the primary concern of forest protectors, and the first step was to establish a dependable means of early warning to allow the dispatch of adequate manpower at the earliest possible moment. That was the thinking of the early-day forest planners, and the records show that by the time the first decade of this century had passed, Plumas Forest had seven or eight primary lookout posts serving that purpose. Mt. Elwell was one of them.

By 1910 or soon thereafter, workmen and materials had been carried up to its summit by pack animals. After blasting away the tip of the highest pinnacle, the men installed a 12-foot-square house, metal-framed and metal-covered, with wooden floors and walls to give some semblance of warmth and comfort. Full window exposure was made along each side, giving visual coverage of the entire surrounding area. This would serve both for observation and as meager quarters for the person residing there each summer season.

A sturdy stand was placed at the center of the room, high enough to be above the windows' lower levels. On this was a partial map of the forest with Mt. Elwell, reasonably well-centered, indicated by a pin embedded in the map base. An azimuth circle was centered around this pin, with the zero facing true north. By sighting with an alidade placed against this pin and reading the corresponding degrees along its same side, a lookout could get a bearing of sufficient accuracy on any given point in any direction within reasonable visual range. Simple but effective, this method allows the determination of the location of any object through readings from two or more known points.

A telephone line had been built up the north slope from Mohawk Valley. Some years earlier heliographs had been used, but their effectiveness was questionable. The telephone system continued down the south slope, thence on to the Sierra Buttes, another lookout point on the



Author shovels a day's supply of snow to melt and use for dishwashing, laundering, and cleaning. Drinking water was packed in

District ranger Frank Delaney and forest guard Russell Godfrey nail up a fire-prevention poster in Plumas Forest, 1930

Tahoe Forest, some miles away.

Having been exposed to often-violent weather for upwards of two decades, the Mt. Elwell station seemed remarkably well preserved. The building was still firmly anchored to the rocks. I found no broken windowpanes, and the galvanized metal exterior was bright and free of corrosion.

One morning, not more than a week after my arrival on the mountaintop, I was aroused before 5 a.m. by a group of YMCA youths who had hiked up before dawn to see the sunrise. There were upwards of 20 in the group. Others came and went during the day, and almost 100 new names, both young and old, appeared on the visitors' register by evening. Not every day would be that heavy, but regularly throughout the season someone would hike or ride to the summit.

Every visitor, of course, was curious, and a barrage of questions would follow the arrival of a group.

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Woodland Mammals and the Gypsy Moth *(From page 24)*

are common inhabitants of gypsy-moth-infested forests are the smoky shrew and the masked shrew. Both are effective predators of gypsy-moth larvae and pupae where these stages are found in the litter. Their feeding behavior is similar to that of the short-tailed shrew. The long-tailed shrew, although not found in our Connecticut study areas, is suspected of being an important predator when its range and the gypsy-moth infestation overlap.

Although skunks and raccoons have not previously been recognized as predators of the gypsy moth, they are capable of eating large numbers of caterpillars and pupae. They seem to locate the gypsy moth by chance rather than by stimuli emitted from the prey. For example, skunks, while eating all the caterpillars they encounter under a stick or small log, were often found to miss caterpillars that had moved only a few inches from their resting place. When a skunk eats a gypsy-moth caterpillar, it beats the caterpillar with its forepaws, rolling the caterpillar toward itself while it backs up. When the caterpillar has been turned into a pulpy mass, the skunk eats it.

Raccoons eat gypsy caterpillars in much the same way, but their forepaws are more dexterous. They pick up individual caterpillars and roll them in their forepaws, sometimes mashing them against a log or a stump. This rolling process practiced by skunks and raccoons takes only a few seconds.

The opossum simply grasps and eats the whole caterpillar. This mammal strikes quickly, grasping the caterpillar in its mouth, chewing and swallowing it in a few seconds.

Woodland mammals have in the past and will continue in the future to be important in the population dynamics of the gypsy moth. Gypsy populations in this country are usually in either a harmless or a damaging outbreak phase. One of the major keys to keeping the moth in harmless numbers is the naturally occurring predation by woodland mammals and birds.

Since the best way to cope with a problem is to prevent it, we feel that it would be wise to enlist birds and mammals in future attempts to control gypsy outbreaks. Their use is certainly one of the most promising biological control agents being considered. Birds and mammals are interesting, naturally occurring, and effective predators of the gypsy moth. ■

A Lookout Looks Back *(From page 15)*

Usually the conversations were pleasant and pertinent. But occasionally questions would hinge on the ridiculous—someone in all seriousness might ask: "Do you live here all winter?" or "How do you take a bath?" or even "Do chipmunks lay eggs?"

One hiker in a sizable group seemed quite interested in the mountainous terrain, especially the higher, more rugged peaks and the deeper canyons. Just to the west is a scattering of prominent points, among which are Mt. Washington, Eureka Peak, and Mt. Fillmore to mention a few, all of a height about equal with Mt. Elwell.

Some distance southeast from Mt. Fillmore, on what is known as McRae Ridge, is a rocky pinnacle, not a mountain in itself, just a sizable upthrust. The hiker asked about it, and I told him it was shown on the maps as Gibraltar. That seemed to fascinate him, and he studied it for some minutes. Then, turning, he remarked in all earnestness: "I always thought Gibraltar was somewhere in Europe!"

The summer of 1930 passed pleasantly enough. Numerous fires occurred, but none of major importance. The season ended around mid-October. But the summer of 1931 was different.

The preceding winter had been mild, and the moisture content was extremely light. Spring had opened early with clear, warm days. Large fires began occurring in the southern part of the state at least a month ahead of the normal fire season, and this pattern edged northward. The Santa Barbara Forest (the Los Padres Forest today) had a major brush-and-timber fire about mid-July. A couple of days later its smoke drifted in so thickly that it virtually nullified all lookouts' effectiveness, reducing visibility to less than 10 miles.

Perhaps a week later, just when the atmosphere was beginning to clear, another bad fire broke loose, this time in the vicinity of Mt. Diablo. For the first few hours it was visible from Mt. Elwell, but its own smoke soon blotted out the entire southwest. The fire continued along a limited range for the next several days. In the meantime other fires, large and small, broke loose in many sectors.

During that time the Plumas Forest got its first major fire of the season. I no longer recall the exact date and, due to the smoky atmosphere, could not even see it. It started one afternoon in the Keddie area, swept up Cashman Creek, and before evening, if I remember correctly, topped the eastern slope of Mt. Hough, a distance of some few miles to the summit.

Possibly due to some change in the upper atmosphere, the smoke suddenly cleared a couple of days later, and I got my first look at the Cashman Creek fire. It covered an area of perhaps 2,000 acres, mostly fine timberland. As the day progressed, two more major fires became visible, both some distance to the west, in the vicinity of the Coast Range. By late afternoon a fourth fire could be seen somewhere in the Lassen Forest. Before sundown there appeared two more large fires one in the Tahoe Forest and the other in the El Dorado Forest.

All of these were major fires, all had burned for several days and consumed considerable acreages, and all were possibly within a 50-mile radius of most lookout stations on the Plumas Forest. Yet because of the smoky atmosphere, none became visible until that morning.

For the next couple of weeks the atmosphere cleared and events eased off somewhat. Then, in the early afternoon of August 24, began the largest fire the Plumas Forest would have that year. This one started alongside a logging railroad track, a short way north of the town of Beckwourth. As a loaded train of several cars slowly braked its way down the gentle grade before swinging out across Sierra Valley, a hot

spark may have blown from the engine's stack, or possibly a fragment of metal flaked off a hot brake shoe. In any event, minutes later a flame was kindled by the brisk breezes, and it quickly spread across the grass and sagebrush flats.

When I first saw this fire it couldn't have been more than a few square rods in area. Other lookouts reported it almost simultaneously. But due to the flat openness of the country and the brisk winds, it was perhaps half a mile in length before the first crews arrived. Before evening it had reached the edge of the forest; then it swept up over a cone-shaped mountain known as Sugar Loaf. I well remember that late evening. The outline of Sugar Loaf, completely aflame, was clearly outlined in the darkness, although it was 20-odd miles away.

I believe this fire ran loose all that night, something that seldom happens except when the humidity is quite low. The next day it swept over a second and larger mountain known as Reconnaissance Peak, the following day over still another known as Bald Rock, and so on.

At that time there must have been a few hundred men on the miles of fire lines, all of which were built by hand. That was some time before the technique of bulldozing fire lines had been given much thought. What few tractors may have existed were small and narrow-tracked, with high centers of gravity—not suited for use on terrain that sloped to any extent. Pumper trucks had hardly come into use; had any sizable number been available, they would have been of little use, since virtually no roads penetrated the area to make it passable to machines.

The fire split into two main heads. The smaller one, pushing due east, was controlled perhaps 10 days later on what is known as Little Last Chance Creek. The larger head, continuing northeast, swept over the mountainous terrain down into an area known as Frenchman Cove, and was finally controlled along the upper reaches of Little Last Chance, in a valley that now forms the basin of Frenchman Lake, a reservoir built some 20 years later. Today those who camp or fish at Frenchman Lake may still see scars of this old 1931 burn.

I have no figures on the amount of timber that may have been destroyed, but I do know that this fire

consumed vast tracts of mature pine and cedar, that it raged for fully three weeks before final control was accomplished, and that it burned a total of 22,000 acres, making it one of the largest fires in the state that year. This fire was officially designated the Bonta Fire.

As the season of 1932 approached, serious thought was given to the visible coverage of the existing lookout system. The previous season had demonstrated on several occasions the lack of full visual coverage in some of the more vulnerable areas. This was a big problem on Mt. Elwell, mainly because it is a little too far from some of the more highly rated fire-danger areas. Another reason lay with the North Point of Mt. Elwell itself. The North Point is about half a mile from the main peak, almost at the same elevation, blocking from view much of the areas most susceptible to fire.

Intensive studies were carried out that summer, and visibility maps were made from a number of different peaks. It was finally determined that too few lookout stations existed to give adequate coverage, that one or two of those existing should be abandoned, and that new stations should be established elsewhere. Mt. Elwell was one of those stations chosen for abandonment.

It was decided that Mills Peak, several hundred feet lower but more prominently positioned, could better serve the purpose of early fire discovery in certain immediate areas, such as along the highways and the railroads, around certain resort areas, and at other places of habitation.

In 1934 I was transferred to the lower edge of the forest, and another man took my place on Mt. Elwell. He would then move to the new station when construction was finished, perhaps by midseason. He would be the last to serve on Mt. Elwell and the first on Mills Peak.

Today Mills Peak is still a primary lookout post, being one of 18 or so on the Plumas Forest. Mt. Elwell is no longer used, a "victim" of improved forest-fire control. The fire station I occupied during four summers, in which I even spent a honeymoon with my new bride, is now abandoned and stands empty on the mountaintop. But the mountain itself, looming massively above the Mohawk Valley, lives on. ■

Commission Abolished

(From page 21)

proved production of timber, that Congress was able to place over 196,000 acres in 16 wilderness areas in 13 eastern states in 1975. An additional 125,000 acres were designated as wilderness study areas.

The Commission consisted of the Secretary of the Army or, as an alternate, the Chief of the Army Corps of Engineers; the Secretary of the Interior, the Secretary of Agriculture; two members of the Senate selected by the President of the Senate; and two members of the House of Representatives selected by the Speaker. *—Gerald Van Gilst*