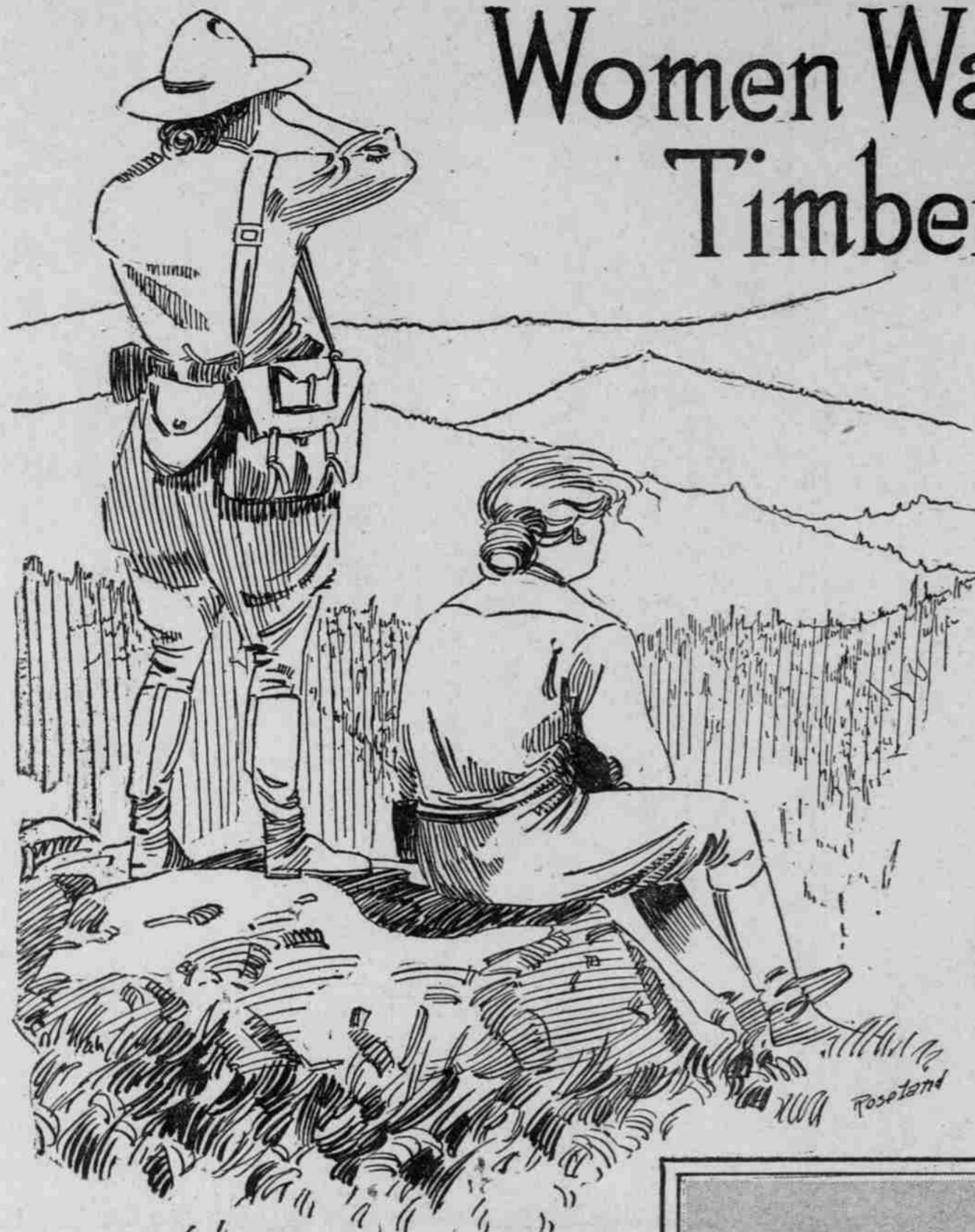




Women Watchmen Guard the Nation's Timber Wealth

Lone, Lofty Outposts of Protection's Army Praised for Efficiency



They Live in a World of Magnificent Distances.

BY DEWITT HARRY.
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THERE has been a great deal of discussion about woman's place, her "sphere" was an engrossing topic in the pre-suffrage days, and now, especially since her great chance during the recent war, when she made so good, she is invading nearly every line of business with varying degrees of success, though it was not admitted that she usually proves more than capable. The object of this article is not to speculate vaguely over feminine possibilities, but to set forth a bit of trenchant history in a manner that almost anyone could grasp; in short, to say that, no matter how much we might debate woman's place, few of us would consider a location on the crest of a high mountain as just the fitting position to install a helpless bit of delicate womanhood.

However, the United States forest service has demonstrated the contrary. Away goes another set of preconceived notions, and everyone had better begin to realize that woman is not so helpless as she has been painted in past decades. It has only taken necessity to awaken her worth and her ability to shoulder responsibilities in a manner that puts many of the mere men to shame, for today the women of the Pacific northwest have virtually cornered the market when it comes to taking the heavy duty of guarding the great commercial forests of this section of the country from the fire evil.

Keen-Eyed Girls on Guard.

They are not serving, to any great extent, as firemen in the actual grueling labor of extinguishing the blazes when they once get started, but they are doing duty as outposts in the army that Uncle Sam recruits each summer to do battle with the heat hosts. Encompassed on the lonely peaks of Oregon, Washington, Idaho and Montana forests, miles from the nearest settler and without company of any kind save the forest denizens, they stick to their posts and faithfully send in warnings of threatening dangers. Not only are these women alone, but they are confronted by dangers that would appal many an average male heart. Last summer was the first real year that women were placed on this important duty to any great extent, but their great success and faithful work has caused their employment in even greater numbers for the 1920 season.

This year in the northwest forests there are fully a score of these women on guard on the high vertebrae of the continent's backbone, ceaselessly watching the immense wealth of timber that is so essentially needed by the world. While it is yet rather difficult to get any reports of their work this season, the summary of their last year's work is a revelation and even a superficial study of it will show why the forest service was so anxious to place even a greater number of them in the lookouts this year. School teachers, college students, even home women have taken advantage of this opportunity offered to serve their country in a heavy line of defense during their vacation period and at the same time be paid for it. The importance of their work cannot be exaggerated and indeed it

is hard to realize that they serve so well.

Just a partial list of those in the work last season. Mrs. Minerva Bidwell served all last summer at Black Rock lookout in the Umpqua national forest. Her head station was at Roseburg and her home is at Hoaglin. Mrs. P. A. McMillan, an instructor in the Wenatchee (Wash.) high school, served at Devil's Knob, in the crater district of the Umpqua forest. Miss Dorothy and Miss Martha Andrews, twin sisters, served in the Cascade forest. Miss Dorothy at Friswell Point and Miss Martha on Horse Pasture mountain. They could see each other with the aid of field glasses and when loneliness would communicate by means of their field telephone sets. Miss Dorothy is principal of schools at Wendling and Miss Martha taught at McKensie Bridge, near where their stations were located. Both girls live at Eugene. Out of the Roseburg district was also Mrs. William George of that city, who served on the Bohemian lookout. In the Cascade national forest in Oregon was Miss Nell Southworth, a student at the State university, who spent her summer vacation time on Winbury Butte, South in the Siskiyou reserve. Mrs. Nellie W. Milbury kept watch and ward on Mount Emily, and in the same forest was Miss Edna Cornell, now Mrs. Cora Van Loof of Grants Pass, whose station was on Sanger Peak. Mrs. Cora Leland was stationed in the Deschutes forest in Paulina Peak and Mrs. Bertha Covert of Yacum was in the Fremont national forest, 39 miles west of Lakeview, at the Dog Lake ranger station. Miss Gladys Murray of Spokane was in the Colville national forest on Columbia lookout station and Miss Mable McBain of Everett was also on duty. Miss Nita Vogle served on Indian Mountain and other girls and women were at various points.

Most of these feminine guards, even after their first year of service and the experience that they had to undergo, many of them harrowing for delicate women, have returned for a further taste of the work this summer and might be called hardened veterans of the army of protection. Some idea of the value of their work can be had from a short summary of the value of the forests of the northwest.

Forest Wealth Enormous.

Over twenty billions of dollars is estimated as the ultimate potential wealth of the immense virgin forests of the Pacific Northwest by expert foresters and lumbermen, and this enormous natural asset of the United States has been, previous to the fall of 1919, almost at the mercy of the vagaries of fire. Four hundred and fifty billion feet of timber, the last stand untouched by the lumberjack's ax in this great country of ours, almost half the available supply of the nation, stands within the borders of Oregon, Washington, Idaho and Montana.

As this timber on the stump is valued at from \$2 to \$4 a thousand feet, depending on accessibility and ease of logging, the importance of the work can be understood. In the state of Oregon alone there are 17,000,000 acres of merchantable timber and the annual cut for this state runs 2,500,

000,000 feet, valued at \$40,000,000. Foresters estimate that the cut can be doubled, that is, raised to 5,000,000,000 feet annually, and, if the forests are protected and reforestation properly attended to, this immense cut can be continued indefinitely. Huge fortunes are held by private owners in these forests and they are co-operating as far as possible with the government in the work.

The economic loss when a single tree is burned can be fairly visualized when it is stated that the ultimate value of timber is estimated at 15 times the stumpage value. With the major portion of the other forests of the United States either denuded or rapidly nearing exhaustion the imperative need for conservation and every care in protection can readily be appreciated. The almost super-modern methods in vogue during the past season in the Oregon country seem to be but the pioneers for a much greater activity along similar lines in the future.

Plane Patrol Great Aid.

Airplanes manned by crews from the battlefields of France patrol the immense sea of trees, spotting fires before they have an opportunity to get well under way, and report them by radio to the control stations. On the crest of the high mountains, with Mount Hood, Or., as the main station, lookouts scan the timbered mountains for smoke and report by wireless telephone, heliograph, visual signaling and telephone. Motorcycle messengers, carrier pigeons and radio sets keep the stations linked with main headquarters of the United States forest service here, from which the flight is being directed.

In their efforts to save this last stand of virgin timber and to protect human and animal life and property, the armies of protection are making use of equipment undreamed of a few years ago. The situation reached such a dangerous stage during August last year that every available appliance that would aid had to be used.

Thanks to their preparedness in this district, in 1919 they were able

to make an excellent showing in comparison with other regions of the United States. In Minnesota alone 400 lives were lost and the property burned was valued at \$75,000,000, entire towns in the woods being destroyed, including the fair-sized city of Cloquet.

Protection Pays Dividends.

In the Pacific northwest, where the development of forest fire fighting has reached its highest stage, District Forester George H. Cecil has charge of the headquarters at Portland for the forces in the states of Oregon, Washington and the territory of Alaska. The United States aerial forest patrol has its headquarters at Eugene and is commanded by Major Albert B. Smith. In all cities throughout the lumber region from Puget sound and the Columbia river to northern California, and inland to the Rocky mountains, are other air bases.

Large scale maps are located in the chief ranger's office and on these the progress of existing fires, notations of fresh ones and the danger zones are posted from a daily report system. Patrols are ordered out in a similar manner as from an army headquarters.

Central ranger stations are maintained throughout the woods where the crews are held in readiness to answer alarms and go to danger points. During their enforced wait they are employed on work of a preventive nature, such as building clearings to stop the progress of flames, trails for communication, building lookout stations and camps, clearing underbrush and removing deadfalls. On receipt of the alarm they are rushed as close to the fire as possible in motors and then supplied, when in the field, by a highly developed quartermaster department. Ration dumps are established as near the fighting front as possible, and the materials and food are carried through the tangled woods and underbrush by pack trains and men packers.

Frequently the women lookouts report smoke and the patrol planes go

out and investigate. Several times the planes have arrived on the scene so soon after a small fire has started as to be able to locate the people responsible for setting the blaze and put the wardens on their trail. Nearly always the planes return with chart location and authentic information as to the size and seriousness of the blaze. This information, through the use of planes, phones, radio, observers and fast messengers is very rapidly handled, and instead of it taking from one to five days to get locations verified and men on the job, as it frequently did in the past, the ever ready fighters are often on their way in as many hours under present conditions.

Contrast between present day methods of forest fire fighting and those in vogue in prior times is indeed a startling one. When the first fire-fighting appropriation was made by the state of Oregon about ten years ago it amounted to \$250, while the same session of the legislature set aside \$10,000 for coyote bounties. They did not realize the value of their timber and did not take sufficient means to combat the menace of flames. Since then public appreciation of the importance of the timber resources has forced fairly sufficient safeguards and appropriations for the necessary work.

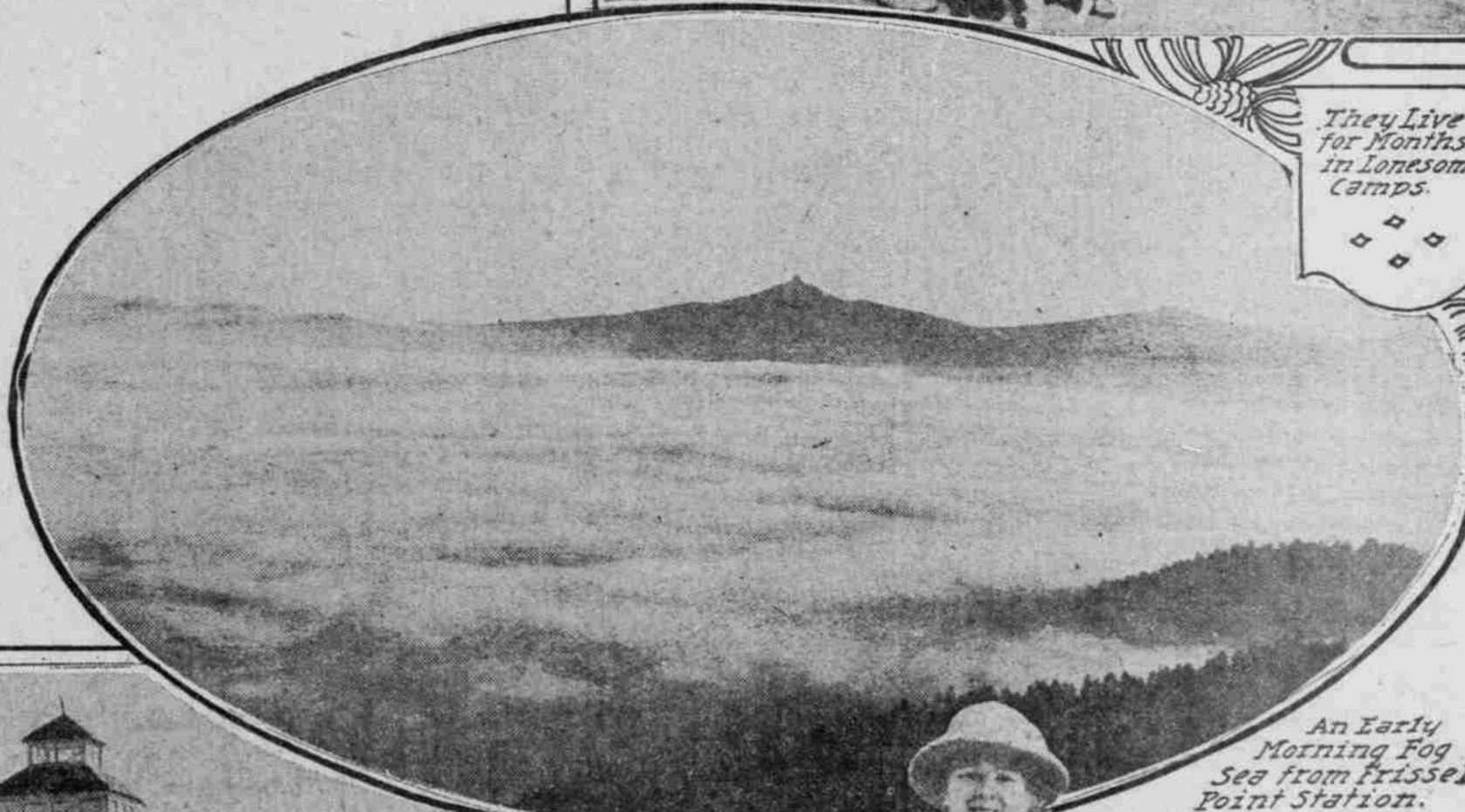
But let's have some of the women who were engaged on this duty tell of their experiences first-hand. Mrs. McMillan says:

"We went to Devil's Knob, which is located in southern Oregon, about two miles from the Crater forest in the Umpqua forest, on July 8, 1919, first spring August 29. It was my first experience of packing in the mountains. We had to pack nine miles up a gradual incline, which was indeed a picturesque trip, winding in and out on the narrow trail between the huge trees and skirting around deep canyons. Finally we reached the spring and looking up nearly a half-mile saw our cabin on the top, a half-mile distant.

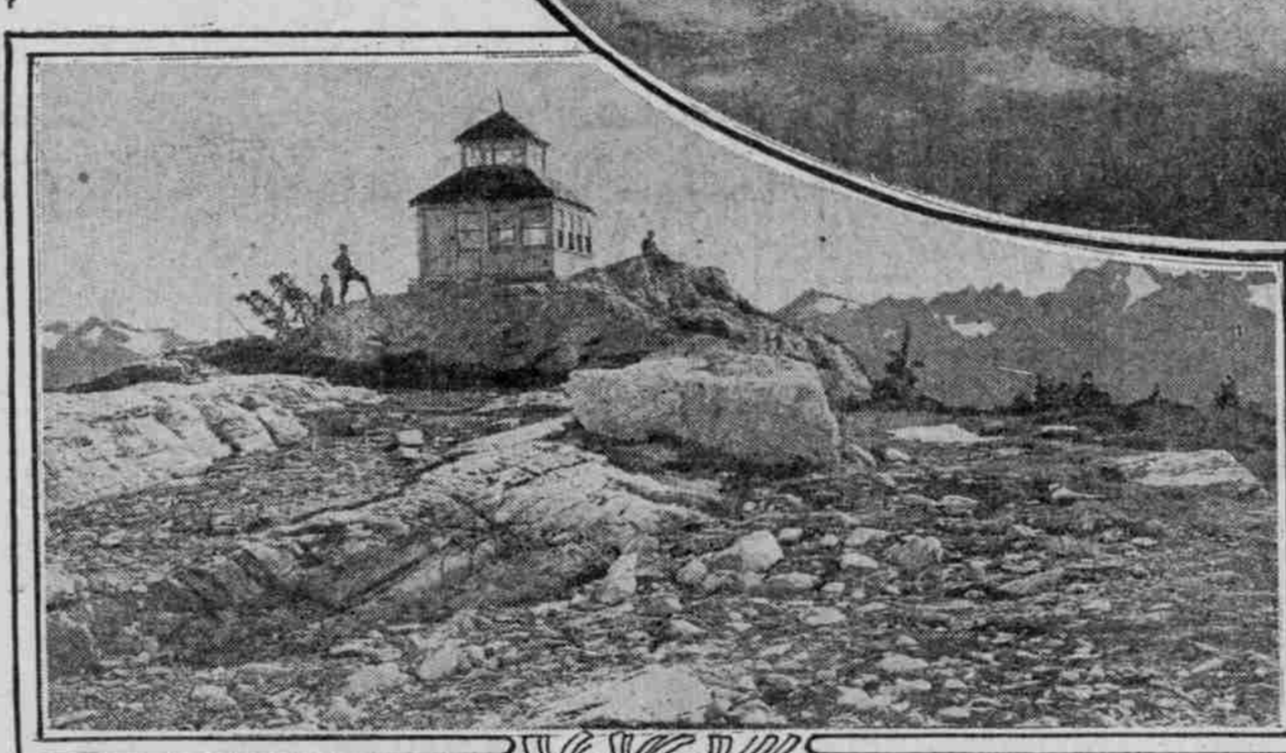
"I was out there three weeks without seeing another woman, and once during that time the packer brought



They Live for Months in Lonesome Camps.



An Early Morning Fog Sea from Friswell Point Station.



Sourdough Lookout Serves a Large Area.



Dorothy Andrews spots fires for the Government.

at Tillier, Or., where Mr. McMillan was the fireman and would go to any fires near us.

"Should anyone spend a summer that way I advise them not to attempt to wash dishes on the stove as an electrical storm approaches, as I did, and receive a shock from the water. That is a good time to put off dishwashing.

Honeymoon Site Ideal.

"Finally I would say for those who love the out-of-doors life and living next to nature, it is an excellent place to spend one's honeymoon."

Mrs. Minerva Bidwell of Hoaglin, who spent last summer in the Umpqua forest, says:

"In the first place, the reason I happened to have the position I attribute to the fact that it is my policy whenever possible to accompany my husband. For two years he was a captain in the aviation corps and I was with him most of the time. While traveling with him I learned the use of meteorological instruments, so with the discharge and our coming west he was offered work in the forest, and through the courtesy of Mr. Bartrum, the forest supervisor, I was given the position of lookout."

"Second, as to Black Rock itself, I believe it to be the highest point on the west coast at which a permanent lookout station has been established by the forest service—75 miles from Roseburg at an elevation of 6200 feet and in the heart of the finest timber in this reserve.

Visitors Are Rare.

"Although the trails to Black Rock are exceptionally good for a place so remote from a town, it is very seldom that one has any visitors. During my summer there, aside from the government packer who came through each week, one visit during the season by the district ranger and a sheep herder going out for supplies were about the only people I saw.

"The work consists primarily of spotting, locating and reporting forest fires. This is done by means of a telephone system which is run from the lookout to Roseburg. During the fire season in one day I counted 16 fires.

"The balance of the work is of a meteorological nature for the weather bureau. The station is equipped with an anemometer, psychrometer, rain gauge, barometer, etc.

"Ordinarily one would judge it to be a lonesome summer, but I found it far from that. I had several pet deer that came to the cabin daily, counted 40 different kinds of birds and saw several bears.

"On the whole I had a very enjoyable summer, as it was an entirely new experience for me. It being my first stay of any length on the coast. For several years prior to the war we lived abroad.

Wolves Howl Near Cabin.

"I don't want to pose as any heroine in a melodramatic sob story, for Mr. Bidwell was with me all the time with the exception of nine nights when he was working on fires. I'll admit it was rather an unpleasant experience on the nights he was away to hear the coyote or an occasional wolf howl.

"My position was to watch for fires and report them to the ranger station

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