

### State and Nation Join to Fight Fire

THE report of a conference on forest fire protection by the various states has just been issued by the federal department of agriculture. This conference was attended by representatives from all the New England states, New York, New Jersey, Pennsylvania, Maryland, Virginia, West Virginia, North Carolina, Ohio, Michigan, Minnesota, Oregon and Washington.

The meeting was called to discuss the section of the Weeks law which authorizes co-operation between the federal government and the states in protecting from fire forests situated on the watersheds of navigable streams. The conference considered not only the details of carrying out the law, but the results which the law has accomplished and the promise which it gives of future accomplishment.

The various subjects discussed included patrol work, co-operation with private owners of timberland, and co-operation with other protective agencies and with railroads. The conference is said to have established beyond a doubt the great value of fire lookout stations and towers, and the imperative need of

telephone communication, as well as other permanent construction work, to include roads and trails. In all of these activities the value of co-operation between the various agencies was emphasized, and it was brought out that efficiency could be raised and expenses lowered when state, nation, lumber companies and private individuals work together in accordance with a plan evolved by all.

It was shown that the disposal of the slash left after lumbering means the elimination of a great source of danger from fires. In some cases it was shown that it was best to dispose of this material by burning it under supervision when there was little danger from fire. In other cases it was proved to be sufficient to lop the branches, so that all would lie close to the ground and decay quickly.

In the discussion of actual fire fighting it was pointed out that the secret of the suppression and control of fires in the woods is not essentially different from that in the city, and lies in having a trained and dependable fire-fighting organization.

### Bees Advised as Money Makers

BEE keeping is the one line of work with insects that is profitable," said Leonard Haseman, assistant professor of entomology at the Missouri university. "The bee is important, not only for its products, but also for its aid in producing fruit by helping pollination."

"The hive is the bees' home," continued Professor Haseman; "make it as convenient as possible. The bee should not be disturbed when there is no need of it."

J. W. Rausch of Mexico, Mo., who has had about thirty years of work with bees said: "You haven't anything on the farm to pay as well as bees do for the time spent on them. There are 40,000 beekeepers with 200,000 colonies of bees in the state, and they produced last year honey worth \$1,500,000."

"If you are just beginning to keep

bees," advised Mr. Rausch, "do not try to take care of more than two or three hives, for they will increase as quickly as you can learn how to take care of them."

Emil J. Baxter, a fruit grower of Nauvoo, Ill., who has kept bees for thirty-six years, said: "I use bees in my orchard and also keep them for the profit they bring. They are an ideal producer in connection with an orchard. To raise bees successfully, always have a good colony by the time the blossoms are out."

"The secret of keeping the bees from swarming is to give them room. During the fall see that the bees have enough food to last all winter. Use sugar syrup if feed is scarce, but never use honey unless you know just where it came from, because it may contain the germs of some disease dangerous to bees."

### Control Smut With Formalin

A NUMBER of cereal smuts carry their spores over the winter on the outside of the grain. The spores germinate in the spring at the same time that the seed germinates. Hence the sprouting seed is infected and later, when the head is formed, its grains become "smutted," says W. W. Robbins of the Colorado Agricultural College.

The following cereal smuts behave in the manner described above: Stinking smut or bunt of wheat, loose smut of oats, hickel smut of oats, covered smut of barley, smut of rye, kernel smut or sorghum.

In such cases as these, where the spores are carried over on the outside of the grain, the formalin dip or sprinkle is to be recommended as an entirely satisfactory control measure. Formalin (a 40 per cent solution of formaldehyde gas in water) may be obtained from the drugist in one pint (about one pound) lots.

Use one pint of formalin in about

forty-five gallons of water. This amount will treat at least forty bushels of grain. Dip about half-bushel amounts of the grain into the solution several times, until quite sure that all parts of the lot have been reached. Allow it to drain, spread out on a clean floor or canvas, and cover for twelve to twenty-four hours, then remove the cover and let the grain become thoroughly dry. Instead of dipping, the grain may be spread out on a clean floor, canvas or wagon box, and sprinkled with the solution as prepared above. Mix the grain and formalin thoroughly by turning the grain over and over as it is being treated. Then cover for twelve to twenty-four hours, after which time it should be spread out in a thin layer and allowed to dry.

The highest mountain in Montana, Granite Peak, with an altitude of nearly 13,000 feet, is in the Beartooth National forest.

### Free Corn Seed To Be Obtained

INSISTING that corn for ensilage can be grown in Eastern Washington and Eastern Oregon in large proportions, R. B. Miller, general traffic manager of the O. W. R. & N., is sending out twenty-four pounds of acclimated corn seed to each applicant from his offices in Portland. This lot is sufficient for two acres. "The amount of corn already furnished this year and the large number of applications still unfilled," says Mr. Miller, "justifies the belief that interest in corn raising has become general, and interesting developments may be expected. The seed distributed by our line represents only a small amount of the acreage planted."

The fruitage of the planting is to be shown at a corn show to be given in December, and the company has hung up cash prizes of \$500, with smaller trophies in addition, for the best displays. The awards will be divided for corn grown on irrigated and non-irrigated land, with special prizes for boys under 18 years of age.

Mr. Miller contends that should Washington farmers rotate crops and develop the possibilities of the soil in corn growing, this state would within a few years not only raise enough beef for its own consumption, but would have a surplus for shipment to other markets.

Canada has established a forest products laboratory in connection with McGill University of Montreal, on the lines of the United States Institution of the same sort at the University of Wisconsin.

New Jersey is said to have the greatest proportion of railroad mileage of any state in the country, or one mile of railroad to every three square miles of territory. This makes an unusual risk of forest fires set by railroads.

### Forest Lands Put To Many Uses

ALMOST every conceivable use to which land may be put is represented in the permits reported by the forest service for special projects on the national forests. Some of the uses shown range, alphabetically, from apiary through brickyard, cannery, cemetery, church, cranberry marsh, fox ranch, marine railway, rifle range and turpentine still, to wharf and whaling station.

There are 15,000 permits in force for such special uses, which are distributed geographically from Alaska to the Mexican line, and east to Florida. This figure does not include any of the 27,000 permits in force for grazing cattle and sheep on the forests; nor the 6,000 transactions for the sale of timber, and the more than 38,000 permits issued last year for the free use of timber by settlers, miners and others in developing their homesteads and claims; nor the nearly 300 permits for water power development.

California led all the national forest states in the number of these special use permits, followed by Arizona, Colorado, Montana and New Mexico in the order named. The largest single class of permits was for special pastures, or corrals, to be used for lambing grounds, shear-

ing pens and the like. Next came rights of way for conduits, ditches and flumes, practically all of these being free. Various agricultural permits come third, telephone lines fourth with more than a thousand permits for 6,500 miles of line, and drift fences for the control of grazing animals, fifth. In both of these latter classes, too, practically all of the permits are free. Reservoirs for which more than 600 free permits were issued for the occupation of more than 100,000 acres come sixth. The rest of the uses are not classified though there are a large number of apiaries, camps, summer hotels and schools. The use of the government's lands for schools is given free; for hotels a charge is made.

The principle which governs the charge is based, according to the forest service, on whether or not the use of the land is sought by the permittee for a commercial purpose. If it is the intent of the user to make money from a resource which belongs to the whole people, the service holds that he should give a reasonable return for that use. If, on the other hand, farmers want to use government land for their own telephone lines, irrigation works and schools, the government gives them that use without cost.

### Verses Grave and Gay in Tone

WHERE DID IT GO? What became of the Star, the Bethlehem Star, That was followed by kings and sages As they journeyed o'er desert and mountain far To find the Pearl of the Ages? Did the angels quench its torch of fire, In the first sweet Christmas dawn, When they sang to the world of the world's desire, Ere the night from the hills had gone? Did it suddenly vanish into space, Blown out, when its golden ray Had bathed in glory the lonely place Where the Child and Mother lay! Oh! Star that over the manger stood The night when Christ was born, When the Only Potent, the Only God Came down to this world forlorn. Still shine in the heart of Mother and Child, Wherever love reigns and sings, And the face of a little one undefiled, Hath that which may conquer kings. Oh! Bethlehem Star, through pain and loss Still over the cradle shine, And comfort us if a shadowy cross There glimmers in faint outline. —Margaret E. Sangster.

BARGAINS. Spring spreads her pedlar bags to view And bids us choose what choose we will; Then I pick out a bud or two, And one half-opened daffodil. Spring holds her hands outstretched until I pay her for the flowers, and go, I gave Spring all my heart; but still I haven't half paid all I owe.

MINE. Life is a wonderful thing And it's mine, mine, mine! A rose, and a song, and spring! It is mine! Death is a wonderful thing And it's mine, mine, mine! The last gift, and all it may bring, It is mine! —Mary Carolyn Davies.

BELLS. They check us on the groveling way— A gauntlet thrown, a challenge hurled, Music is smitten out of clay, The Spirit breaks out into the world. Out of the metal cold and dumb Men call a soul, a singing bird; What may he himself become In foundries of the Eternal Word? The vacant bells hold hidden chimes, So secret is Emmanuel; Oh, heed the lesson, learn betimes Of Angelus and sacred bell. Oh, heed and kneel, for every morn Great Gabriel comes down from Heaven, Of you a Child would fain be born, To you, to you a Son be given. —Anna Bunston.

THE KETTLE'S SONG. I wish the kettle would sing again, Just as it used to do. I wish it would sing of a lion slain— With a cabin boy, and the boy was I— Of a pirate crew on the Spanish Main— Of a clipper ship on the seaway high With a cabin boy, and the boy was I Just as it used to do. Just as it used to do, Of a little girl in a bonnet red, Saved by a prince from a hydra head That lurked in the corn that towered high— And the girl was Sue, and the prince was I— Just as it used to do. I wish the kettle would sing again, Just as it used to do. The lyrics it crooned and the tales it told— But the hearth is chill and the years are old; The fancies it whispered have all taken wing, And never again the kettle will sing, Just as it used to do. —John D. Wells.

The heavy storms in Southern California drying the past rainy season wiped out many miles of trails in the National forests of that part of the state. They are now being rebuilt for the coming summer, for use in fire protection. They are also of great use to tourists, campers and prospectors.

### Dairying and Beet Growing

IN MANY sections of the west, dairying and beet growing seem to go together almost perfectly in making the farmers prosperous, says A. E. M., in Kimball's Dairy Farmer. Originally some of the farmers were grain growers strictly; then they took up beet growing as a more intensive line. As with all other crops they found that diversification and rotation were necessary. Under the single crop plan the yield gradually decreased, diseases came in, the quality of beets was lowered. Dairying offered the diversification needed. Alfalfa was the legume crop needed to restore nitrogen. Alfalfa would give its greatest returns when fed to dairy cows. Alfalfa pasture and a year of grain with a covering of manure from the cow yard would restore the productivity of worn out beet fields. On the other hand natural evolution has changed some former range mes into dairymen. Beets as a crop bring them a nice lump sum of money appealed to them. They were not ready to devote all their time and energy to dairying. There was

more money to be made in beets than in grain. Beet tops and low priced beets made excellent cow feed. Beet fields made profitable places for the disposal of barnyard manure. The income derived from beets and from dairy products supplement each other nicely. The lump sum derived from the beets in the fall is very useful in paying off the mortgage or to meet any large obligation. The regular weekly or monthly check for milk products keep the families in plenty or very nearly in luxury and relieves them of all worry as to the source of their daily living. Really this latter is one feature of greatest merit in favor of the farm dairy. At one place farmers were paid last year \$50,000 by the sugar factory and \$70,000 by the milk condensory. The immense satisfaction and security brought by the regular checks from the condensory made the \$70,000 from that source equivalent to twice as much as the \$50,000 from the beet factory in producing human comfort.