THE SECOND MILE UP IS FORESTED

By J. L. DEEN

PEOPLE who live in Colorado, and many outsiders as well, agree that this state has everything. Wonderful scenery and pure air of the high mountains, yet a mild climate withal; these are certainly advantages. Because there is water to irrigate its fertile soils and a great abundance of minerals, it has gained importance in both agriculture and industry. And Colorado is a great forested state. Between 5,000 and 10,000 feet elevation, there are no less than 19,000,000 acres of timberland.

In respect to its natural resources, Colorado presents certain interesting contradictions. For example, there is estimated to be within the state 19,000,000,000 board feet of commercial sawtimber, yet the lumber output in 1943 was only 89,000,000 board feet. In the forests the annual excess of growth over drain is around 360,000,000 board feet, with softwoods alone growing nearly
four times as fast as they are being cut.

The eastern one-third of Colorado is level or gently rolling grassland with an average annual rainfall of fifteen inches. Wheat growing and cattle raising are its chief industries, unless and until water shall be brought from the mountains to irrigate the deep and fertile but thirsty soil. In the neighborhood of Denver the prairie, already a mile above sea level, rises into a series of foothills and long east-west valleys. Natural shelter from the northern winds makes these valleys excellent for farming. This is the tension zone between forest and prairie. Cottonwood grows along the stream bottoms; pinon and juniper appear on the hilltops. At 7,000 feet, ponderosa pine occurs in open, park-like stands.

Here is the eastern fringe of the Rockies which runs north and south through the middle of the state in a chain of granite domes 100 miles wide and often three miles above sea level. Colorado is the highest of all states; it has fifty peaks over 14,000 feet. Thirty inches of precipitation falls yearly upon these elevations, making this the principal forest region and chief source of water. No streams flow into the state from outside its borders, yet Colorado is the mother of four large rivers; the Arkansas and Platte in the east, the Colorado and Rio Grande in the west.

In the Central Rockies there are mountain-walled plateaus, the flat, alluvial bottoms of which are often two miles above sea level. These are locally called parks and are of great value for farming and grazing. Three such large and many smaller parks occur in this part of Colorado.

To the west of the Continental Divide lies a belt of broken plateaus, steep canyons and jagged peaks bordering on the Great Basin. This region is wealthy in minerals—the country in which Socialite Evalyn Walsh McLean's father "struck it rich." In places orcharding has been outstandingly successful, and always there is the stockman. Generally speaking, the possibilities of farming with irrigation on these western slopes are limited, chiefly because of topography. So it is intended to carry water from these mountain fastnesses to the lush

Mountain-walled plateaus, called "parks," are a feature of the Colorado Rockies. They are of great value for farming and grazing.
The considerable volume of sawtimber and cordwood standing in national parks is reserved from commercial cutting. Its contributions to recreation and water supply are of recognized importance. On the national forests there stands a total of 27,938,043,000 board feet, of which fifty-six percent is Englemann spruce, twenty-one percent lodgepole, eight percent alpine fir, seven percent ponderosa pine, five percent Douglas fir, and the balance divided among five needled pines, white fir and Colorado blue spruce. This is material of sawtimber size, yet the Forest Service estimates that only about 19,000,000,000 feet can be called operable under present or foreseeable standards.

Of the state-owned sawtimber, estimated at 174,000,000 board feet, 108,000,000 feet is lodgepole pine, 36,000,000 feet Englemann spruce, and the balance evenly divided between alpine fir and white fir. Private owners have an estimated 662,000,000 board feet of Englemann spruce, 379,000,000 of lodgepole, 362,000,000 of ponderosa pine, 282,000,000 of Douglas fir, 142,000,000 feet of alpine fir, and 26,000,000 feet of white fir. A bare 4,000,000 feet of five needled pines completes the total estimated stand of 1,857,000,000 board feet, most of which is operable.

While privately owned forest land amounts to 4,500,000 acres, there is little or no forest land classified as such on the tax rolls of any county. Such land is listed for what it was intended in the first place. Ranchers own forests which are used for grazing and which are classified as range. The Colorado Fuel and Iron Company, one of the larger industrial owners, has much of its property listed as coal lands. Forested mining properties are listed as mining claims and are so assessed. In the case of coal lands and mining claims, this is in no sense tax evasion, since such lands are assessed higher than they would be as forests. Range lands are assessed somewhat lower.

Under constitutional mandate the legislature of Colorado placed upon the sheriff of each county responsibility for protecting forests from fire. Some sheriffs do a good job; some do not. It depends upon the man and upon the pressures which are brought to bear. Although several thousand acres of state and private lands are burned over each year, the situation is believed to be improving on the whole. Fire control in the national forests and national parks is carried on effectively by the federal government. Incendiaryism or deliberate burning is not common in Colorado, but campers, smokers and shepherders are often careless here as elsewhere.

Burned-over lands within the thrifty forest belt generally restock well but slowly, with lodgepole pine tending to increase its acreage. Therefore, planting has been negligible, and it is questionable whether large scale planting could be economically justified. Attempts to plant the mountain parks have failed, probably because their heavy clay soils are less favorable for trees than the siliceous soils of the mountains. More important is the planting done as shelter-belts around prairie homesteads. Extension foresters are slowly arousing farmer interest in the establishment of such plantations.

In responding to the war effort, Colorado's wood-using industries increased their output wherever labor was available. Thirty-seven more sawmills were in operation in 1943 than in 1939, and lumber production has been stepped up by 6,000,000 board feet. Railroad ties have been an important product since early days. However, sawmilling has been hindered by local indifference to growth against home-grown lumber built up by past practices. Poorly sawn, poorly seasoned boards were the rule. Loss of markets naturally followed, until today eighty percent of Colorado's lumber is imported. A case has even been found of a local sawmill owner sending his products to Nebraska because the home markets preferred to buy from the West Coast. However, this firm built its business on excellent manufacture, proper seasoning and careful grading, thereby demonstrating that good lumber can be made here.

In studying future manufacturing possibilities, the State Planning Board has seen fit to rule out pulp mills for lack of water, since no economical way has been found to purify water after use in pulp or paper manufacture and so make it available for irrigation. There are better prospects for a substantial wooden package industry. Demand for boxes and crates for packing high-grade fruit is strong and steady, offering a market large enough to absorb all that can reasonably be produced. Herein lies a suggestion for those who would develop forest products industries in the state and for the many local schools and colleges with which there is local need, and for which...