

THE PROFITS OF TREE PLANTING IN FRANCE

by Dr. B. E. Fernow

The movement for recovery of waste lands in France dates from the beginning of the 19th century, and today reforestation by state, communal and private effort, encouraged by legislative acts during the last sixty years, has restored more than 2,500,000 acres of lost ground to forest production.

There are four definite regions of large extent in which systematic effort in this direction has been made, namely, the sand dunes of Gascony, the Landes of South-western France, the sandy plains of La Sologne, the limestone wastes of Champagne, and the mountain slopes in the Vosges and Jura-Alps.

The sand dunes on the coast of France comprise around 350,000 acres; those on the coast of Gascony, in South-western France, alone have an extent of nearly 250,000 acres, these being the most important and having for a long time endangered the adjoining pastures and fields. It seems that the land occupied by dunes was originally forested and that these were created by deforestation.

As early as 1717 attempts at reforestation were made by the inhabitants, and from that time on small plantings were sporadically made. But the inauguration of systematic reforestation was begun only after a notable report by Brémontier, who in 1765, secured, as chief engineer of the department of Bordeaux, a sum of \$10,000 to be employed in ascertaining possibilities of making a canal through the Landes and of fixing the dunes. As a result of this beginning, a method for their recovery having been by 1793 experimentally determined by Brémontier, 275,000 acres of sand have been fixed during the last century. The revolutionary government in 1799 created a Commission of Dunes, of which Brémontier was president, an annual appropriation of \$10,000 was made,

later (in 1808) increased to \$15,000. In 1817 the work was transferred to the Administration des Ponts et Chaussées. The appropriations were increased until in 1854 they reached \$100,000 a year, and in 1865, the work being nearly finished, the dunes were handed over to the forest administration. There being still about 20,000 acres to be recovered, this was achieved in 1865, when 200,000 acres had been reforested at an expense of about \$2,000,000, and an additional expense of \$700,000 to organize the newly formed pine forests. These, at present with their resinous products and wood are furnishing valuable material. An unfortunate policy of ceding some of these forest areas to private and communal owners was inaugurated just as the planting was finished, so that at present only 135,000 acres remain in the hands of the state. The returns from the sales, however, reimbursed the cost of the reboisement in excess by \$120,000, so that the state really acquired for nothing, a property now estimated to be worth \$10,000,000.

Another Forestation Success.

To the eastward of this region of dunes stretch the so-called Landes, a territory triangular in shape, containing 2,000,000 acres of shifting sands and marshes, on which a poor population of shepherds (on stilts) used to eke out a living. In 1837 an engineer of the administration of bridges and roads conceived the idea of improving this section by reforestation, and at his own expense recovered some 1,200 acres in the worst marsh by ditching and planting. The success of this plantation invited imitators, and by 1835 the reforested area had grown to 50,000 acres. This led in 1857, to the passage of a law ordering forestation of the parts of the land owned by the communities, the state at the same time undertaking the expense of building a system of