

# A LESSON FROM FRANCE

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**A**T THIS day when the subject of reforestation is receiving some attention but getting only a very small part of the support, both public and governmental, that it should, we have returning to us 20,000 men who have spent from six to eighteen months in France. These men, whether consciously or not, have had borne in upon them the vast importance of a definite and vigorously applied forest policy.

When the 10th and 20th Engineers left this country it is doubtful whether many of them had any idea of the forest wealth of France. I know it was the opinion of the writer that the duty of the regiments would be to cut the timber from public parks and roadways. In fact, I really visualized the entrance of American lumberjacks into the very backyards of the French inhabitants for the purpose of securing timber. My experience was limited mostly to the southwestern part of France, and as our train passed southward from Bordeaux I felt that whoever had given me the idea that France was denuded of timber had most evidently not referred to that part of the country.

More than one hundred years ago that territory on the Bay of Biscay bounded by the Rivers Gironde at Bordeaux and the Adour at Biarritz, was one vast desert

of sand, unceasingly driven inland by the western winds and mounting into dune after dune. This moving mass of sands, which had gone on for more than a century, submerged the crops and villages. The sand dunes thus irresistibly mounted up at a rate said to be about forty meters per year on a length of over 300 kilometers, and an average breadth of six or seven kilometers. More than 250,000 fertile acres were already covered with sand by 1790, and the inhabitants, quite powerless, witnessed the frightful progress of this devastating plague.

The first people to conceive the idea of combating the advance of the sands were two brothers, Desbiey, who lived at St. Julien-en-born in the Department of Landes. These two men, upon their private initiatives, set about opposing obstacles in the way of wattle-work and the planting of Gorse and Scotch-broom. At this time no one had conceived the idea of planting maritime pine, so that these two brothers stood out as pioneers in a fundamental plan of forestry. All of their efforts, however, proved unavailing for the sands mounted more rapidly than the growth of the Gorse.

About this time public opinion brought such pressure to bear upon the government of Louis XVI that an engineer was appointed to find some means of stopping



SCENE IN A MARITIME PINE FOREST, SOUTHWESTERN FRANCE. BROAD GAUGE SPUR PARALLELED BY LOADING DOCKS ON WHICH ARE NARROW GAUGE TRACKS TO TRANSPORT TIES AND OTHER PRODUCTS FROM THE MILL TO THE FRENCH RAILWAY CARS IN THE CENTER



AMERICAN OPERATIONS IN PROGRESS IN A FRENCH HARDWOOD FOREST. IN THE CENTER A LOAD OF LOGS ON A CAR ON THE WAY UP THE INCLINE INTO THE MILL

the progress of the dunes. In 1779 Baron de Charlevoix-Villers, a Naval officer, was ordered to study the creation of a naval port at Arcachon. He submitted several papers showing that moving sands could be fixed by vegetation, really adopting the process used at that time at Dunkirk. However, he was unable to put his plans into execution, through transfer to other duties, and for five years the crying need for permanent fixation of the dunes in the Landes and Gironde was permitted to drag on.

In 1784 Nicolas Bremon-tier, an engineer, born near Rouen, was appointed chief surveyor at Bordeaux. To this man is due probably the existence of the present maritime pine forests in France for he put into execution the researches of Despiey and Charlevoix-Villers. He secured permission from the government to give two years of study to the problem of the sand dunes, and before this time was up, by the pure lights of his views and the persuasive strength of his faith he at last interested the government in the great work of creating forest land out of a vast desert.

At the beginning of 1787 a sum of 50,000 livres was placed at his disposal for the commencement of the work of forestation in his district. It was not until the middle of that year that the first experiments of Bremon-

tier were made. Having profited by the failure of Despiey in the mere planting of gorse he conceived the idea of planting maritime pine and he followed this course successfully until 1793, at which time his government failing to provide funds, he was forced to discontinue his efforts. However, this valiant Frenchman, who had ever the courage of his convictions, was not daunted and applied to the learned societies of France for assistance, having proven to himself and to the inhabitants of this country that the fixation of the dunes was a possibility. He fought with persistent effort and with an admirable earnestness for both the attention and the resources of his government. It was not an easy thing at this time, if one will refer to French history, to convince a government that a plan of forestation deserved important consideration, for it was about this time that France was in the throes of her revolution.

Bremon-tier saw the changing of a mighty tract of land from a desert of sand, whose yearly encroachment inland was threatening and wiping out entire villages, to a huge forest which would give competence to the populace which it had steadily driven back, and for his unwearied persistence he is entitled to the gratitude of posterity.

It was not until July 2, 1801, that Bremonnier was successful in creating a committee, appointed by the Minister for the Home Department (I should judge this to be the same as our Department of the Interior), with instructions to "continue to fix, plant and care for the growth of trees on the sand dunes on the Bay of Biscay." Bremonnier, very properly, was made President of this Committee and the work was resumed in the Department of Lands, in 1803 at Lit and Mimizan (where the fourth battalion of the 20th Engineers was located). After this the planting of trees went on uninterruptedly and with increasing activity until 1865 when the primary project was announced by the French Government as completed. The total cost over this entire time was less than 14,000,000 francs (\$2,800,000) and now today, with a very perfect forest plan carried out, those sand dunes which in 1790 threatened all of Southwestern France, have been transformed into an immense forest and exhaustless source of income for the inhabitants. The vast majority of the inhabitants of the Gironde and the Landes, most especially the Landes, find employment with good remuneration in the exploitation of the present-day forest.

It was an admirable victory of human intelligence over brutal nature and indisputably this one man, Bremonnier, who died in Paris in 1809, deserves the gratitude of not

only the people of France, but of all those interested in forestry throughout the world.

From this district there is shipped to Great Britain alone over 800,000 tons of pit props per year to say nothing of the shipment of resin and turpentine, and until 1914 an average of approximately 600 shiploads per year of forest products left the ports of Bordeaux and Arcachon. Germany, Switzerland, Italy, Holland and Russia, were all purchasers of this product, which was made possible by the indomitable will of this real hero of France to whom two monuments have been built in the heart of the land which he veritably made.

We have, in America, a district on our South Atlantic seaboard quite similar in soil property to that of the Department of Landes in France, and while we rest on our oars, with a firm conviction that our timber supply is inexhaustible, we must be brought to the realization that this supply is ever moving westward. There are those who scoff at a policy of reforestation, but the work of the man and the eminent success of the man who is the subject of this article, stands out forever as a refutation of any argument against a sane forest policy. Whether or not we have in the United States a Bremonnier I do not know, but if we have, it is high time that he come forth and perpetuate our forest East of the Rockies.



WINTER SCENE AT ONE OF THE SAWMILLS IN FRANCE