

### Spruce Hard to Reach.

In the second place, the spruce forests of the provinces are situated chiefly in the Queen Charlotte Islands and on the Northern mainland coast, several hundred miles from established lumber operations. The timber was largely owned privately, and cutting rights had to be secured, logging machinery, mills and labour had to be moved to these remote parts, and transportation facilities for logs, lumber and supplies established.

In order to secure the aeroplane material with as little delay as possible, the logging had to be done on a selective basis, only the clear straight grained spruce logs being cut. This naturally reduced the camp output of logs; but it increased the production of aeroplane material, as no time was wasted on inferior spruce or on the other species of timber.

When the operations commenced there were on the Queen Charlotte Islands three small sawmills at Massett Inlet and on the mainland pulp at Ocean Falls and Swanson Bay and a small sawmill at Georgetown, near Prince Rupert. The sawmills on Massett Inlet were put into commission and two new mills built. New plants were also constructed at Prince Rupert and Skeena City. Approximately three thousand men were employed on the work in the northern spruce forests.

The mainland mills were supplied largely with logs from the Queen Charlotte Islands. In order to transport the logs across Hecate Straits it was necessary to make them up into compact Davis rafts.

The placing of all contracts for logs and lumber was handled by the Imperial Munitions Board, under Major Austin C. Taylor, Director of the Department of Aeronautical Supplies. The inspection of the lumber was done by the Aeronautical Inspection Department of the Imperial Ministry of Munitions, under Roland C. Craig, District Inspector. Forty examiners were employed in this department, and every piece of lumber was carefully inspected before being stamped for shipment. The requirements for aeroplane lumber are rigid. On the average it was possible to secure a recovery only of 20 per cent. from the selected logs.

During the thirteen months that operations were conducted the output was increased from 100,000 feet per month to 6,500,000 feet per month, and if the war had continued an even larger supply would have been secured.

### Solid Trains of Lumber.

The lumber from the Queen Charlotte Islands and the northern mills was loaded on barges and towed to Prince Rupert, where the Grand Trunk Pacific Railway installed several cranes which transferred it to the cars. It was not an uncommon thing for solid trains of aeroplane lumber to be despatched from Prince Rupert. Owing to the urgency of the demand for this material it received preference over all other freight on both the railways and ships.

The Imperial authorities have tried all the known kinds of wood for aircraft and have found that Sitka spruce is far superior to any other. The quality of spruce growing in Northern British Columbia is undoubtedly the very best that can be secured. It is a well-established botanical fact that the farther north any plant can be grown successfully the better the quality, and this seems to be borne out in the case of Sitka spruce.

### No Large Supplies Left.

Though the survey of the forest resources made by Roland D. Craig for the Commission of Conservation shows the amount of Sitka spruce as being estimated at fourteen billion feet, only a small proportion of this is suitable for aircraft construction; and besides, a large proportion of the aggregate is so scattered and mixed with other species that it cannot be logged separately on a commercial basis. In the Queen Charlotte Islands, however, there are large areas where the spruce exceeds thirty-five per cent. of the stand, and it is from these forests that the bulk of the output has been secured. It is estimated that the continuation of the cutting on a war basis would have practically exhausted the supply which could be secured at a reasonable expense of money and effort.

In view of this fact an effort should be made to conserve the remaining supplies of this timber. It cannot be replaced in centuries and it is doubtful if the succeeding growth will ever attain the same quality as this virgin spruce.

### RANDOM

In Missouri the university forestry department is urging the farmers to raise walnut, which is much better than what the socialists in North Dakota are urging them to raise.

—American Lumberman.