

With the sudden expansion of the war effort, the railways were soon overburdened, and the Control found it necessary to eliminate cross-hauling where possible. Much large timber had to be secured from British Columbia, but otherwise the policy was to buy from the nearest source.

At the same time the Control undertook to scrutinize the specifications for buildings and for all articles made of wood so that the proper grades might be used wherever possible. In this way the Government has saved hundreds of thousands of dollars and much valuable material.

Enormous quantities of lumber are used in making boxes and crates for shipping munitions, food, automotive equipment, aircraft, and other war supplies and, at the instance of the Control, many types of containers were redesigned by the Forest Products Laboratories of the Department of Mines and Resources, effecting important savings in lumber and shipping space.

During the first six months of 1941, the demand for lumber was sharply reduced, but by mid-summer a second very active period of war building got under way and continued into 1942.

To offset the shortage of structural steel during this period of greatest construction activity, new techniques in the use of wood were adopted. Huge structures were built without steel girders. This was made possible by the use of a recently invented ring connector, which spreads the load on a timber joint over virtually the entire cross-section of the wood. Over 700 hangars, drill halls, storage buildings, and other structures requiring a maximum area of unimpeded floor space have been built in Canada with structural grades of Douglas fir held together by these new connectors.

Because it has been necessary to channel most of the lumber output into direct and indirect war uses, and into exports, civilian requirements have been subject to severe restrictions. At first these were effected by informal direction of the Control, but in January, 1943, an order provided that no person could buy more than \$1,000 worth of lumber or mill work for construction or repairs at any plant, or more than \$200 worth for construction or repairs of a building other than a plant, unless a permit has been obtained from the Timber Control, or unless the project cost was such that it required and was granted a Construction Control licence; this order was rescinded on Feb. 22, 1944. Other orders, passed at various times, prohibit the use of veneer logs or Sitka spruce, of aircraft quality, for any purpose other than the manufacture of aeroplanes. Still other orders, most of which have been issued by the Wartime Prices and Trade Board, have fixed prices on lumber and pulpwood.

Aircraft Woods.—Aircraft manufacturers have been helped by the Timber Control. During the War of 1914-18, Sitka spruce, which grows only on the west coast of North America, was found to be the most satisfactory wood for structural components of aircraft. Large quantities were produced at that time, but the demand in the present war is much greater.

During the first two years of war virtually all the aero spruce produced in Canada was sent to Britain, but when Canada began building her own wooden aircraft, arrangements had to be made for the release of part of the spruce production intended for export.

In the spring of 1942, the British Ministry of Aircraft Production warned that British aircraft output would be reduced unless more Sitka spruce could be obtained. At the same time Canada was about to go into production of the speedy