Forest wealth of Canada.

BY-PRODUCTS OF THE WOODS.

(From New York Evening Post.)

A fact generally overlooked by those interested in the preservation of our forests and woodlands is that many of the minor products of our trees equal in value that of the lumber and timber, and that in the aggregate they make as great a demand upon the forests as the recognized needs of the lumber merchant. Until comparatively recently many of these by-products were not utilized, but were allowed to go to waste after the timber and lumber were secured. The real wealth of the woods is just beginning to be realized, and as the country becomes more thickly settled and timber more valuable many other new forest products that are not now utilized at all will be converted into

money.

No country has been so prodigal as the United States in the use of wood for fuel, and this has probably been the heaviest drain upon the woods in the past. In European countries the firewood consists chiefly of inferior material, such as brush and small fagots, but here we often use the best. In nearly nine-tenths of the rural districts the farming classes use wood almost entirely for fuel, taking only the largest limbs, and very often the trunks of the trees. Such waste would not be tolerated for an instant in most of the old countries, and the inhabitants would look upon it almost in the same light as a New York farmer would if his neighbour should use good hay and straw for cooking his breakfast. Even some of our factories, steamboats and railroads use valuable wood as fuel, which greatly increases the consumption. While this wasteful use of wood is going on in sections of the country, considerable quantities of firewood are being imported, amounting in all to nearly \$500,000 worth a year. We also import over \$50,000 worth of wood ashes for general use, after wastefully burning our firewood and throwing the ashes away with other garbage.

Another great drain upon our forests is the manufacture of the so-called "naval stores," which include all of the resinous products of the coniferous trees. The southern States furnish most of these products, and they practically have a monopoly of the whole business. Small quantities of naval stores are produced in Russia, France, Austria, Portugal, Ceylon and Galicia, but they are very insignificant compared with the annual output of the United States. These naval stores are not in as much demand since the age of iron and steel boatbuilding has been ushered in, and this may be looked upon as fortunate, considering the rapid decrease in the supplies. But the turpentine, pitch, brewers' pitch, tar, and oil of tar are all used more or less in the arts, medicines and as insecticides. The demand for these products will consequently be pretty well sustained

even though our business of building wooden vessels becomes a lost art.

The manufacture of tan bark is one of the most important industries connected with the utilization of the forest products, and vast quantities of this are annually demanded. In addition to our own supply we import nearly \$250,000 worth in the shape of hemlock from Canada. In the pitch regions of our country a new industry is springing up which promises to increase vastly in the future. It is the simple utilization of the enormous fields of fat pine logs and stumps from which all resinous matter has been extracted. These have in many cases in the past been allowed to decay where they happened to fall. This "lightwood" or fat pine as it is called, is cut up into small bundles and retailed as firewood in most of our eastern cities. A machine is invented for shaving up the logs and stumps into appropriate lengths. The pieces are then tied up in small bundles and sent to the cities by ships. It is said that at the rate of one cent a bundle the old stumps will yield nearly as much profit as the trees sold for as timber or for other uses.

The use of spruce forests for making paper pulp, from which is manufactured most of our paper supplied to periodicals, is well known, and represents an industry that will be limited only by the supply of wood. Already great inroads have been made upon the spruce forests, so that without systematic cultivation of them the raw material for this cheap paper will soon give out. In Germany, where the wood pulp is also made in large quantities, the forester's art is understood better than in this country, and the cultivation of spruce forests is carried on so carefully that the supply is always kept equal