

to equal that of Britain. The protective tariff frustrates every effort by the United States to artificially force a mercantile marine. With carrying vessels the cost of transportation affords no protection, and the country of tariffs cannot compete with the country of freedom. Anyone seriously intending to embark in ship-building would be lacking in natural intelligence if he selected a port where everything required would be taxed a third of its value. The only locations suitable for ship-building are those where the world's products may be bought without the intervention of customs authorities. American efforts to establish by artificial aid a mercantile marine while maintaining protection are ridiculous.—The Globe.

The Globe is ignorant. It was not the policy of protection that abolished the mercantile marine of the United States, but the Alabamas and Shenandoahs of the Confederacy that swept it from the seas. It is true that at the time of the breaking out of the war of the rebellion the United States possessed a fleet of clipper ships employed in its foreign commerce the equal for fleetness of any sailing under the British flag, but as the United States at that time did not do a tithe of its own carrying trade, and as Britain then as now did a very large proportion of the carrying trade of the world, including the United States, it is difficult to see, as The Globe professes to see, that the United States would, in a few years, if let alone, have equalled Britain in that respect. When the war broke out about all the mercantile marine of the whole world, and most of the war vessels, were constructed of wood. During the time of the war, and to a most important extent stimulated by it, Britain developed an iron ship-building industry that placed her much farther in advance of all other nations than she had previously been with her wooden ships; and when the United States emerged from its struggle for national life, it had no mercantile marine whatever with which to again engage in foreign commerce. The ante-bellum point at which the country had arrived, as alluded to by the Globe, where, if let alone it would soon have equalled Britain in maritime greatness, was substantially the same as that prevailing at this time, a strong and important feature of the situation being that no foreign ship could engage in the domestic carrying trade. If reference is had to this domestic trade, then The Globe is far off in its conclusion that the protective tariff of the United States has frustrated any efforts made there to build up a mercantile marine. Under the laws of that country, where the home business is kept strictly in the control of American shipping, a mercantile marine has been built up that is the wonder and the admiration of the whole world. This fact is in evidence to anyone who will observe the fleets of American steamers that sail every day from the port of New York to every other port on the Atlantic and Gulf coasts, from Maine to Texas, and to the West Indies and South America countries also; and from San Francisco to all important ports on the Pacific coast, from Alaska to Chili. Of course this traffic with foreign ports is open to the competition of ships of other countries; but it would never have been built up if it had not had the parentage, and if it were not the offshoot of the coastwise carrying trade. But if this salt water traffic is large and important, what is to be said of the marine traffic of the United States upon the Mississippi, Ohio, Missouri and other inland waters, and upon the great unsalted seas that divide that country from Canada. Surely The Globe ought to know that more American tonnage passes through the St. Mary's Canal during the half year it is

open for navigation than all the tonnage of all nations, including Britain, passing through the Suez Canal during the whole year. Surely it ought to know that more American tonnage passes through the port of Detroit during the few months of the year when the Detroit river is open for navigation than arrives and departs from both Liverpool and London during the whole year. The ship-building industry is a most valuable and important feature in the welfare of the United States, and many, many millions of dollars are profitably invested in it; and yet The Globe informs us that anyone seriously intending to embark in ship-building would be lacking in intelligence if he invested his money in that country where a duty is imposed upon materials entering into the construction of ships; that the only locations suitable for ship-building are those where free trade prevails. It may be able to deceive itself, but anyone who has ever been as far as the end of the Yonge street wharf knows that when it says that American efforts to establish a mercantile marine while maintaining protection are ridiculous, it displays its own ridiculous ignorance.

THE MANUFACTURE OF BIRCH OIL.

In the issue of The Canadian Manufacturer of July 19th last appeared an article having reference to the manufacture of birch oil, which we here reproduce:

The farmers of Connecticut have found a profitable side-issue to their farming in gathering birch saplings and branches for the birch oil distilleries that have been established in that State. There are altogether about ten brick mills or distilleries in this country, several of which are located in Connecticut, and they have created such a demand for the black or sugar birch that all farmers owning woodlands producing these trees cultivate them for the annual harvest of branches and saplings. Black birch flourishes in many parts of the country, and if properly attended to annual crops of the twigs and young branches can be gathered without injuring the trees. With the farmers of Connecticut it has become a science and a study to gather the crop without injuring the wood permanently.

The branches have to be gathered when bare of foliage, and they must not measure more than two inches in diameter at the utmost, to be saleable at the mills. As the young saplings grow rapidly, the farmers can produce crops very easily by protecting the small growths. The manufacturers of birch oil make a big profit, the oil bringing from five to eight dollars a pound. When the distilleries were first established the farmers were paid \$1.50 per ton for birch brush but now they receive \$3 a ton. As the brush frequently has to be carted a long distance over rough country roads to the mills, the farmers do not consider their pay too large. Of late years other oils on the market have reduced the demand for birch oil so that the manufacturers receive less for their products. As the result of this some mills are paying much less than the regulation \$3 a ton for brush.

A few farmers near the mills have planted their woodlands with birch trees, and where the haul is short they make a good living. But as only about 600 pounds can be carried on a one-horse wagon, it follows that there is little money in the work when the brush must be carried seven or eight miles. Among the mountains of Connecticut there are large patches of birch woods that seem to be free to any one, and many poor people go there to gather the birch brush for the market. But their work is irregular and at starvation rates. It takes them all day to gather one load and cart it to the factory, for which they get 91 cents.

There is no reason why the farmers should not co-operate in manufacturing the birch oil themselves. The work is of the simplest kind, and a plant costs very little. A distillery is