

the wood could be converted into charcoal. We knew that in Australia the charcoal industry is a very big one. I had occasion to go to Australia last year, and when I was there I interviewed the people who have brought the charcoal industry to the position it is in in Australia—that is, the Australian Patents (Limited), with their patent charcoal-retort. We had with us some white and red pine in slabs. These slabs were sent to them, and they submitted the timber to tests, and the results were highly satisfactory. The tests proved that our red- and white-pine slabs would make just as good charcoal within a decimal as the charcoal being produced from the Australian timber. In August last we got that information, and we made inquiries throughout New Zealand with regard to a market for charcoal in the Dominion. We were quite prepared to buy a retort and erect it at one of our mills and produce charcoal; but so far we have not been able to find a market. When charcoal is produced in Australia it is screened, and the very fine stuff is used for insulation purposes. Here we are met with the use of pumice for insulation, which they have not got in Australia. That insulation costs about £3 10s. a ton, and we could produce charcoal for that grade at a lot less. We ask your Committee to put the question to the people who come forward as to whether, if charcoal is produced, they would be buyers of it. The following is a copy of a report which I sent from Australia in regard to this question of the utilization of our timber for the making of charcoal:—

“ 468 Collins Street, Melbourne, 3rd July, 1918.

“ The Pine Export Company (Limited), Greymouth, N.Z.

“ DEAR SIRS,—

“ *Re* charcoal from red and white pine: Since arrival in Melbourne this matter has received every consideration, and am pleased to report that the woods mentioned are quite suitable for making excellent charcoal. Immediately on arrival I interviewed the patentees, who, in addition to manufacturing the retorts, have several working plants, the nearest being at Lancefield, about forty miles from here. I was fortunately able to secure from the captain of the ‘ Kaiapoi ’ three bags of slabs we had given him for firewood in Greymouth. These the manager (Mr. Cottrell) had tried by his burner in one of the retorts, and, although the full retort gives much better results than the paltry three bags, the burner was very pleased with the sample of charcoal produced, and affirms that as the slabs come from saw in their green and sappy condition they will make even a better charcoal than what he tried.

“ The next stage was to ascertain the virtue of the charcoal made. To this end we submitted portion of the sample to Albert H. Koch, certified analyst of this city, and his report was perfectly satisfactory, the charcoal made from mixed red- and white-pine slabs being almost equal to that made from the Australian hardwoods. You will see on reference to their circular that they are proud of their claim that charcoal averages over 95 per cent. of carbon, while the sample made from our wood, and analysed by the chemist, goes 94·5 per cent. I am now discussing with these people the proposition of supplying us with one retort—say, No. 3—lending us their burner to bring it over and erect it, to give us the sole agency for their retorts throughout New Zealand, and the right to manufacture these retorts on a royalty basis. Three tons of wood will produce 1 ton of charcoal. There is a great demand for it at from £2 5s. to £3 10s. per ton on trucks at the works. After the charcoal is burnt it is screened. The larger pieces are sold for general purposes at from £2 5s. to £2 10s. per ton (forty bags to the ton, bags charged extra—that is, 7d. each), and the screenings are sold at 1s. 8d. per bag for insulation purposes. It will all depend on what the demand for charcoal in New Zealand is as to how many retorts can be kept occupied. If my working-out is correct the conversion of our hitherto waste slabs into charcoal will mean 4s. per 100 at the mill for all we find the market for. Will you please immediately institute inquiries throughout New Zealand to ascertain what demand there is for charcoal, and what prices they are paying?

“ Yours faithfully,

“ EDMUND A. WICKES.”

“ 479 Collins Street, Melbourne, 2nd July, 1918.

“ ONE sample of charcoal, received 27th June, 1918, submitted by the Brisbane Retort and Charcoal Company, Melbourne (identification marks nil), for analysis as to percentage of carbon and presence of any mineral matter.

“ Result of analysis: The samples of charcoal received by me for analysis on the 27th June, 1918, and submitted by the Brisbane Retort and Charcoal Company, Melbourne, yielded the following results by analysis: Total carbon, 94·5 per cent.; total ash, 5·5 per cent. ‘ Total ash ’ consists of soluble alkali (soda), 1·2 per cent.; insoluble matter consisting chiefly of silica with a little iron, 4·3 per cent.; water-soluble extract (included in ash), 0·8 per cent.

“ The analysis indicates that this charcoal would yield 94·5 per cent. of available carbon, the balance of 5·5 per cent. consisting of mineral ash ingredients (alkali, silica, iron, &c.). The analysis was made on a dry portion of the sample.

“ ALBERT H. KOCH, Analyst.”

I may say in conclusion that we have coke fairly cheap, and the demand would not be so big, except this: that they say charcoal gives a better result than coke—that is, as fuel used in connection with suction-gas-engine plants. We would be prepared to erect a retort at our mill as long as we can find a market for 10 tons of charcoal per week.

*To the Chairman:* I have given the price of the charcoal at our mill; I will forward to the Committee a statement in writing as to what the price would be f.o.b.

*To Mr. Hudson:* We will certainly try the experiment if we can get a market of 10 tons a week. Just imagine for a moment what it would mean in the cutting of 60,000,000 ft. of timber on the West Coast! Fully 20,000,000 ft. at present goes up in smoke after the timber goes through the mills: it is now useless.

*To Mr. Veitch:* The cost of the plant would be about £300.