claws; and even if safe, it is not always profitable to dash recklessly into print with only one certain result before them—that of affording amusement to the public in dull times.

I remain,
Yours, &c.,
E. W. L.

Notes on a Timber grown in Western Australia, which is proof against the White Ant and Sea Worm.

The timber in question is commonly called "mahogany" in Western Australia, and it very much resembles that wood in appearance. The native name is "jarrah," and the botanical name of the tree "Eucalyptus." It has properties which make it peculiarly applicable for works in the Tropics, or on the sea-coast, viz., that neither the white ant nor the sea worm will touch it, and that it suffers very little from exposure to the sun or atmosphere. It can be delivered in India or the Mauritius in picked logs, or in baulk (provided a quantity of not less than 200 loads is purchased at one time), for less than 4s. a cubic foot, and, if arrangements were made for a larger quantity—say of not less than 400 loads—it might be delivered for 3s. 6d. a foot, or less.

The principal part of the timber trade of the colony of Western Australia is at the Vasse, from whence extensive shipments have been made to the eastern colonies of Australia, Ceylon, and some of the Indian railways. A quantity has also been supplied for Government works in the Mauritius.

The timber grown on the hills, or at the foot of them, is very superior to that grown near the coast,—at least, in those parts of the latter were the soil is sandy—many of the trees from the latter locality being shaky at the centre, and generally less compact. To give some idea of the price of the timber in the colony, it may be stated that the average consumption at Fremantle for Government purposes was about 500 loads per annum, and that, in 1856, a contract was entered into for the supply of a quantity of timber at Fremantle for 57s. 6d. per load. A small advance was afterwards made on this price but since that time the trade has been extended sufficiently to allow of the employment of machinery, and the construction of trams for the conveyance of the timber to the port of shipment, so that the prices are much reduced. In cutting up the sand grown timber, a waste of about 18 per cent. occurred. The loss in cutting up the logs from near the hills was not nearly so large as 18 per cent., as the cores of these logs were in general sound.

The chief expense incurred in obtaining this timber is the cost of transport to the place where it is to be used, and, therefore, the logs should be prepared, so that as little waste as possible may arise when they come to be cut up for use. They should either be cut into baulks, which would be the most convenient form for shipment, and afford the greater security against unsound timber passing survey, or they should be sawn square in the forest. It is probable that there would not be much difference in the price, because a contractor would get more out of a log by cutting it into baulk than by sawing it square, and the extra timber obtained would pay for the extra labour in sawing. If the timber were brought in a quantity exceeding 400 loads, it would be worth while for the captains of the convict ships, about three of which per annum leave Western Australia for Ceylon or India, seeking cargo, to take it in as cargo for India, &c., and it is believed that in this case, freight could be obtained for little over £1 per ton. The charge for freight would probably not exceed 24s. a ton, or 36s. a load, which would be about 8¾d. per foot—say 9d. The engineer of the Columbo and Kandy Railroad, in Ceylon, said, in 1858, that he could afford to give £7 a load for timber fitted for piles, stringers, or sleepers; and since that time a considerable order has been given to parties in the colony, on account of this timber, so it is fair to presume that the price at Ceylon did not much exceed £7. The cost of these sleepers at Madras has been 10s. each, which is about the same as that of the Indian woods of the best class. It has been supplied to Adelaide, South Australia, and Melbourne, Victoria, in scantlings fit for railway purposes, for less than the price above estimated.

Captain Wray, Royal Engineers, says, "as regards its properties, I have myself used upwards of 3,000 loads of it in buildings, jetties, and bridges, and I have examined timbers which have been exposed to the action of the white ant and seaworm, in situations where it would have been destroyed if liable to destruction from either of these causes, and I never saw any penetration deeper than the sap wood, though deal, or other timber close by, was completely eaten away. This indemnity from destruction is generally attributed to its containing large quantities of gum resin. The strength and elasticity is about equal to Riga fir. This was ascertained by a series of experiments on beams, with a bearing of twelve feet, conducted by Mr Manning, Clerk of Works at Fremantle. The weight of the timber makes it inapplicable to moveable joiners' work, such as doors or sashes; but this is immaterial, as the white ant, only working in the dark, will not attack these, unless a building is left unoccupied for a lengthened period. I know of no objection to it, except that it is somewhat slow to season, and if exposed before seasoned, will fly, and cast perhaps more than other timbers. The plan lately adopted in Western Australia to season it was to leave the logs in the sea for a few weeks and then draw them up on the beach, and cover them with a few inches of seaweed, taking care to prevent the sun getting at their ends. My experience led me to the conclusion that logs might lie in this way without injury for almost any length of time. Boards were cut 7 inches wide, and stacked so as to admit of a free circulation of air for five or six months, before using."

The Consulting Engineer of the Madras Railway says, "the wood is well spoken of by our engineers." The trial has not as yet been long enough to enable the qualities of the wood to be thoroughly tested on the Madras railway, but the engineer says in January, "that those placed on the road in July are in good condition at this date, and form an efficient substitute for teak in girder bridges." Some specimens, now coming from Western Australia for the Great Exhibition, will supplement this report in respect of proof of durability, both under sea water and in situations where it is liable to attack by the white ant, as there will be exhibited logs that have been in use as piles, &c., &c., for periods from twenty to thirty years without receiving the slightest injury.

The annexed extract contains an account of a visit to the principal timber station, that of Messrs. Yelverton, at the Vasse:—"C and I walked along on the tramway, which extends three miles. It was so very pleasant—quantities of lovely bright bush flowers, and the magnificent trees looking so grand and lofty. Yelverton's Station is a wonderful place. He has three steam engines at work; the last erected is very large; five pieces of timber can be cut at once, and each with several saws. While we were there a huge log was commenced for the Great Exhibition, and we asked Mr. —— to let us do something towards its cutting, so that when you saw it in the Exhibition you might take a greater interest in it—and so we did. It was a splendid piece of timber, sound to the very core, more than four feet broad, and, I think, more than 20 long. But since our return home, I have heard that it has been discarded, owing to some mistake in the sawing. Now another is being prepared, and on the day when it is to be sawn, a number of us are going down again to assist. Will it not be great fun? You must be sure and look for the log. The tuart slabs are on the beach at the tub; we walked down this morning to see them. Such beauties, nearly five feet in breadth! Mind you look at them, and make other people look also. I can't help thinking they will be a little astonished when they see their enormous size. The station has hardly been established one year, and now it looks like a little town. Blacksmith's shop, carpenter's shop, long rows of stables, a foundry, where every scrap of iron and brass is used up, a store, and a dispensary. Everything goes on like clockwork. At five a great bell rings, and nearly a hundred men pour into a large room, where they have a good breakfast. At six, away go the engines, and the woods ring with the sounds of busy labour. To me it is a most exciting scene; here in the midst of the dark forest, to see such ceaseless industry, and the wonderful steam power causing the saws to go through the huge logs just as you would cut a piece of soap. And all this, commenced and carried on by the energy and perseverance of one man, produces a sensation in me which I cannot describe. I wish you and A. could spend a day with me there, for I am sure you would be as much interested as I am!"—*Australian Mail.*

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from The Inquirer
Wed. 25th June 1862.

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