

occurring at the season when the grapes ripen. Tobacco, indigo, and the mulberry tree are recommended as suitable subjects for cultivation. It is to cotton that the doctor looks as the chief staple production of the country, and to the advocacy of its growth and culture he devotes a large portion of his remarks. To this object he has also given himself up almost entirely since his arrival here; and to compass the end of establishing a company for the purpose, he has been agitating in various quarters. We heartily wish him success in the object he has in view; but we fear he will find the task at the present moment, in the face of severe monetary pressure, a Herculean and most disheartening one. Dr. Lang is one of a thousand men, and is not easily daunted in any project or task which he undertakes.

The doctor's visit to Pernambuco, on some former occasion, and touching there on his return home during his last voyage, gives him an opportunity of launching out into a disquisition on slavery, and a bitter attack on Popery—a digression which might well have been spared in a work on Northern Australia.

We will content ourselves with quoting from this portion of the work the mode of

*Cultivating and Manufacturing Sugar in the Brazil.*

"On arriving at the engenho, we found that the crop of canes had been all cut, and was then undergoing the operation of being converted into sugar. For this purpose, the canes are cut as near the ground as is thought proper, to secure the whole of the saccharine matter, and the leaves and tops being then cut off, the latter are burnt on the fields with the roots, to manure the ground, I presume, for the next crop. The canes are then pretty much like walking sticks, only a little longer, and in this state they are packed into as primitive a machine as I have ever seen. It is a sort of wooden pannier, fitted to a correspondingly rude saddle, on the back of a horse, and forming a basket or frame, of which the end view resembles the letter V, on each side of the animal, and which reaches nearly to the ground. In these baskets or panniers, the canes are packed, and the horse is then led or driven with his load by a negro to the engenho or mill. The engenho consists of a long wooden shed, roofed, as is usual in the Brazil, with tiles. These tiles are very differently formed from ours. They are like the ridge tiles used in England, and the lower series (for there are always two), are laid with the concave side up; the upper series being laid with the convex side up, so that each upper row of tiles, from the eaves to the ridge, covers the edges of the two adjoining rows below, the concave surface of which serves as a channel or gutter for carrying off the water from the upper row in seasons of rain.

"At the extremity of the shed, there was a common undershot water wheel—for there seemed to be no want of water in the vicinity—which set in motion in opposite directions two rollers, leaving a space between them sufficient to admit the end of a single sugar-cane, which a negro, conveniently seated for the purpose on an elevated bench, supplies one after another, as the former disappear, and which are handed to him by another negro from the heap of canes outside, on which the horses, with the letter V panniers, have discharged their loads. The cane very speedily disappears between the rollers, a few revolutions of which are sufficient to bruise it into a flat ribbon, and to express the whole of its juice; a third negro being employed in removing the bruised canes, on which some cattle were feeding near the mill. Beneath the rollers there is a receptacle for the juice, which runs foaming like milk from a cow in the pail, along a wooden trough which conveys it through a strainer, into a large vat, formed apparently of common clay. At this vat a fourth negro stands with a pole about twelve feet long, having a large tin ladle at the end of it, the pole being suspended at about four feet from the ladle by a cord from the roof. This ladle the negro ever and anon dips into the liquid, by topping up the extremity of the pole; and then depressing the latter, he raises up the ladle somewhat above the level of the first vat, and pushing it in the proper direction, pours its contents into one or other of three or four boilers ranged along the wall, and considerably elevated on a sort of platform, in which the liquor is boiled. A fifth negro is employed in skimming off the scum from the surface of the boiling vats, and a sixth in supplying fuel, chiefly twigs and saplings, to the furnace which heats the boilers below. Under this process the juice, when cooled, acquires a very agreeable taste, and may be drunk with impunity.

"When the process of boiling has been carried to a sufficient extent, the liquor is transferred into earthen coolers, like large flower-pots, arranged longitudinally along a series of planks, laid across a portion of the shed, having a round hole excavated right through the plank, under the spot where each cooler rests, that the molasses which escape from the crystallising mass of syrup, by a hole in the bottom of the cooler, may