

straight back and a small hump. The Sinds are usually of a red colour. They are considered to be the best milkers in India, and are noted for their mild temper.

The *Mysores* are a historical breed of strong draught cattle found in Mysore in the Madras Presidency. At one time there had been regular breeding establishments in this province for supplying draught animals for Military transport purposes. The *Mysores* have a well-formed body and a long tapering head with a prominent forehead. The horns are long and curved and their ears neat and tapering, whereas their eyes show a characteristic fierceness and are coloured reddish. The chest is deep and the back and limbs well proportioned. On the whole these animals are known to be the best for draught purposes, but they are known to be bad tempered.

The *Hissar* breed of cattle is met with in the Punjab. The animals are of large build averaging about 56 inches in height. They have a long body and a broad head with long curved horns. The back is well-formed with a high-set hump and the chest is fairly broad. The *Hissars* have stout short legs and a thin and long tail. These animals are reported to be good draught animals and very fair milkers.

The *Deccanese* cattle take their name from the district in which they are found. They are at the present day in many places, losing their typical characters on account of the introduction of other breeds of cattle to the district. They are well-shaped and straight-faced and have strong upwardly inclined horns. The *Deccan* animals are long in body and well proportioned in their limbs; they are active and admirably adapted for draught purposes.

The *Nepal* cattle are met with in the Himalayan regions and are also known as "mountain cattle," as they thrive best in the hilly country. The *Nepalese* are small in build with thin limbs, very active and are good climbers. They are mostly used in the hillcountry.

W. A. D. S.

#### NOTES FROM A TRAVELLER'S DIARY.

There has been, and is a difference of opinion among leaders of thought in Ceylon as to whether any benefit has occurred to the native cultivator from the abolition of the grain-tax, but the more one travels about the country and studies for himself the real condition of village life in the interior of the island, he cannot help thinking that, if all the facts of the case were known, there would have been no opponents to abolition. After having read much of the literature on the subject, and having seen and studied for myself the real state of affairs in most parts of the island, I can say without hesitation that the removal of the tax is about the greatest blessing that the British Government could ever have conferred on the poorer classes of natives of the island. In some cases the abolition was tantamount to freedom from great bondage. About the time that the news of the repeal was spreading about the country, it was touching to see how many of the villagers received it. While some invoked blessings from Heaven on the Rajah, others were only able to express

their satisfaction with a sigh of resignation since their lands had already been sold in default of payment of the tax.

I have seen paddy fields springing up rapidly in some parts of the island. This is the case in Tumpane, Dumbara, &c. The paddy lands which had been covered up with Lantana for years, and which were not disturbed for fear that the harvest may be poor and that there might be trouble about the payment of the Government share, are now being rapidly cleared and brought under cultivation. It was a pleasant surprise to me on several occasions when some villagers came up and asked me whether there was any real truth in the report that the Paddy Tax was abolished. They were anxious to know the truth, so that they may put new lands under paddy, for, said they, if they were bound to pay the Government share, it was not worth their while to go to the trouble and expense of cultivation; so great was their dread of the means by which the tax was collected.

Some unprincipled headmen were much disheartened at this "foolish act of the Government" as they called it, and one of them who is supposed to command some influence in his district, confessed to me that the abolition of the tax would only tend to lessen their influence over the people, while the Government would suffer by the loss of so much revenue. "The headmen," he said, "will have very little hold on the people in future." The bondage under which the poor villagers were labouring is clearly demonstrated by the words of this local magnate!

Those of the poor villagers who still possess any suitable lands for paddy are now becoming emboldened to bring them under cultivation, and as I have mentioned, most of the available land is now gradually being put under cultivation. A planter of great experience tells me that he finds it very difficult to procure village-labourers since the abolition of the paddy tax, the people having turned their attention altogether to the cultivation of paddy.

I have just had a look round the lands that have been granted by the Government to Messrs. Gordon R. Reeves & Co., for experimental cultivation. The extent of the lands is five thousand acres, and they are situated in Palle-gama in Matale East. The lands are very rich, consisting much of soil of a loamy character, and the country around is comparatively-speaking well watered. The work of clearing the lands, putting up nurseries, &c., has already been commenced in earnest under the able superintendence of Mr. C. Ross Wright, a gentleman of great experience in the planting line, and one who is thoroughly conversant with the habits and customs of the natives. To begin with, the Company has been very fortunate in securing the services of this gentleman, as it is the opinion of many that they have the right man in the right place.

It is the intention of the superintendent first of all to try all sorts of products to ascertain which will succeed better. A large acreage will be put under coconuts, while Coffee (both Arabian and Liberian), cocoa, cotton, Fibre-yielding plants, kola nuts, &c., are some of the other products that will be tried. Seeds of coffee imported directly from Arabia and

Liberia have already been put in the nurseries, and the plants are coming up beautifully.

(To be continued.)

#### GENERAL ITEMS.

Mr. J. H. Maiden, the Consulting Botanist of New South Wales, thus refers to the need of education for forest officers:—I think the time has now arrived for officers in Government or municipal employment who have, in the ordinary course of business, to diagnose hardwood, to pass an examination in the subject, just as professional men have to do in regard to other materials of construction. The pity is that we have so many men here learned in European and American timbers, and only possessing a rule-of-thumb knowledge of the timbers of the country in which they were born, or in which their lot is cast. How the knowledge shall be imparted or tested is a mere matter of detail; that the reform is desirable is undisputed, and I hope I may live to see it carried out. Knowledge of colonial timber can only be obtained by handling it as sawn stuff, and by careful observations as to the circumstances under which it grows in the forest. The subject is not an easy one, and I don't intend to say it is. There is no more a golden road to a knowledge of colonial timbers than there is to a knowledge of Greek. Very often the man who knows least about our colonial timbers is readiest to assail them. We must suspend our judgment with regard to the absolute merits of many of them, and what I plead for is a systematic attempt to get at the value of each timber—to test it from various points of view. Many of our timbers have not had a fair "show." These are times of reduced expenditure, but I would like to see £10,000 spent on a proper survey, examination, and test (not merely of strength), of colonial timbers. The sum mentioned might be spread over five years. I am sure that such a sum would be a justifiable expenditure in regard to a national property which is reasonably valued at millions of pounds.

Fish guano is a material the use of which is largely increasing, says the *Farmer's Gazette*. It consists of dried and powdered fish or fish refuse. Sometimes it is made from whole fish—sprats, herrings, menhadden, etc.—which are boiled to remove the bulk of the oil (which is a valuable commercial product) the residue being then dried for manure; sometimes—and very largely—it consists of the residue of offal from the cod-fisheries, haddock and herring curing operations, market fish offal, etc., similarly treated or simply dried. The more the oil has been extracted, the better the manure, for the more the rapid is its decomposition. Oil retards this, and is in itself useless as a manure. In good fish guanos the nitrogen varies from 7 to 8 per cent up to 10 or 12 per cent, and the phosphates from about 6 to 16 per cent. As a rule, the higher the nitrogen the lower the phosphates. Like Peruvian guano, fish guano furnishes both phosphates and nitrogen; but its nitrogen is all in the form of undecomposed animal matter, whereas in guano it is already largely in the form of actual ammonia. Peruvian guano, therefore, acts much more rapidly

than fish guano, and while the former is generally best applied in the spring, fish guano is generally best applied in the autumn, so that it may become well rotten by the time it is wanted. It is much valued in market gardening and as a manure for hops. Considering the abundance of fish in Indian rivers, it is surprising that an industry in making fish guano out of putrid fish and offal is not started by some enterprising capitalists.

DR. W. J. BEAL, of the Michigan Agricultural College, says:—By possessing great vitality, seeds of weeds may last in the soil ten to fifteen years or more, until the soil is turned up, exposing them to conditions favourable for germination. It is now nearly fifteen years since I buried in bottles with barren soil numerous lots of seeds of twenty kinds, fifty seeds of each kind in each lot. Most of one lot grew after remaining in the soil for five years. The seeds of another set were tested after remaining buried for ten years.

Soot is not used in gardens half so much as it should be. In some respects, says the *Indian Agriculturist*, it is better than any kind of artificial manure, inasmuch as it not only enriches the soil, but destroys many sorts of insects. It may be dug into vegetable garden soils with much advantage, and mixed with soil for potting the majority of plants. There is no vegetable that is not benefited by soot, and in soil for onions, carrots and all kinds of roots it is excellent. It is not, however, lasting in its effects which hardly last a year, but it is cheap and easily obtained, and may be put in any quantity annually. It should be spread over the surface of the ground and dug in either into cattle manure or by itself. When sown in drills with potatoes it prevents them from being worm eaten. It cannot be sown on the surface after the crops appear, and if put on when rain is falling will be washed down to the roots. This is a good way of applying it; soot-feeding imparts a deep green colour to vegetation, and then satisfactory returns are sure to be the result. Potting soil sprinkled with soot always remains free from worms, and plants so treated always assume a bright, healthy appearance. It may be sprinkled on the surface of the pots and watered in, or, better still, given in the form of soot-water. Newly-potted plants, and those with few roots, do not require it, but when the soil is full of roots soot-water proves beneficial. Pines, vines, strawberry plants, kidney beans, orchids, pelargoniums, and nearly all growing vegetation may be watered with it safely. In some cases a difficulty is experienced in getting soot to mix with water. The best way is to put the soot into a sack, tying up the mouth of the bag; then put it in a pail, cask, or tank, and the water will soon penetrate through the foot, making it into a pulp, thus making pure soot-water. There is no time or season in particular in which soot-water may be especially used, as it may be given to fruiting and flowering plants all the year round. When it is desired to make the foliage assume a deep green, healthy colour, or the flowers a brighter hue, judicious application of soot-water will accomplish it better than anything else.