the most perfect barrow of its kind in the west of England, it was used by the farmer as a shelter for sheep or pigs, but it is not known when it was opened.

(*To be continued.*)

OUR BOOK SHELF

The Useful Plants of India, with Notices of their chief Value in Commerce, Medicine, and the Arts. By Col. Heber Drury. Third edition, with Additions and Corrections. (W. H. Allen and Co., 1873.)

THE first edition of this useful work was published in 1858, since which period our knowledge of the economical products of our vast Indian possessions has greatly increased; and we have here an enumeration of 600 herbs or trees from which more or less valuable substances are obtained. The species are aranged in alphabetical order, the natural order and native and English names of each are given, followed by a description, and an account of its economic uses, taken from various standard works, or from the author's own observation. The list is not confined to natives of the country, but includes also such introduced plants as are largely cultivated and of great economic importance, as cinchona, tea, cacao, tobacco, and the Australian eucalyptus, now so extensively planted to replace the forests which have been destroyed in many parts of the peninsula to the great deterioration of the climate. In an appendix are statistics of the cultivation of cinchona, indigo, tea, and some of the fragrant woods, a table of exports and their value, and lists of synonyms in the Hindostanee, Bengalee, Tamil, Teloogoo, and Malayalam languages. The technical descriptions, and other details, have been worked out with great care, and with abundant reference to original authorities, as far as was possible to any one undertaking a work of this description at Trevandrum, and without access to the libraries and herbaria which are at the command of students in this country. Col. Drury has, however, obtained the assistance of Dr. Hugh Cleghorn, and other practical botanists, and his work is one that can be fully relied on as giving an accurate and nearly exhaustive account of the economical productions of our Indian empire. A. W. B.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.*]

External Perception in Horses

MAY I be allowed to express my entire agreement with the theory about smell in dogs, brought forward by Mr. Wallace and Mr. Croom Robertson. The latter gentleman's arguments, in your last number, seem to me as sound in fact as they are metaphysically acute.

May I assure him, from long observation, that horses and donkeys "think with their noses" as certainly, though not, I believe, as acutely or as continuously as dogs do. But the eye-memory of a horse seems to me so much more exercised than his nose-memory, that he is, perhaps more able, when lost, to find his way home than is the dog, who has smelt everything, but looked at very little. C. KINGSLEY

Feb. 28

External Perception in Dogs

MR. G. CROOM ROBERTSON'S and Mr. Alfred W. Bennett's observations may be easily tested by the cases of blind dogs. A blind dog in my house finds her way about as truly as a sighted dog, so that a stranger on seeing her would not be aware of her blindness. As she lost her sight by illness, she has of course the precedent knowledge derived from seeing.

To a considerable extent this case answers Mr. Bennett's requirements. HYDE CLARKE

St. George's Square, March 1

Mr. Wallace on Instinct

IN reference to the letters of Mr. Darwin and Mr. Wallace, the following passage from Boswell's Life of Johnson may be worth recalling:—

"The custom of eating dogs at Otaheite being mentioned, Goldsmith observed that this was also a custom in China; that a dog-butcher there is as common as any other butcher; and that when he walks abroad, all the dogs fall on him. Johnson.—'That is not owing to his killing dogs, sir. I remember a butcher at Lichfield, whom a dog, that was in the house where I lived, always attacked. It is the smell of carnage which provokes this, let the animals he has killed be what they may.' Goldsmith.—'Yes; there is a general abhorrence in animals at the signs of massacre. If you put a tub full of blood into a stable, the horses are like to go mad.'" (Croker's Ed., vol. iii. p. 275.) W. R. NICOLL

Aberdeen

Effect of Light on the Electric Conductivity of Selenium

IT is of course impossible not to feel intense interest in the statement (NATURE, vol. vii. p. 303) which Mr. Willoughby Smith makes and which Mr. Latimer Clark endorses. That I have been unable to obtain the same result has doubtless been due to my having worked under conditions different from those existing in Mr. Smith's experiments. My failure has not been one of degree, but has been absolute. I have not only been unable to find that light increases the electric conductivity of selenium, but I have failed to get a current through selenium at all, even through a thickness of 0·1 millimetre. As I do not know how to put myself at once in direct communication with Mr. Smith, perhaps you will permit me to ask him through your columns to guide me on the following points:—

(*a.*) What was the form of battery employed, and what its power of overcoming British Association units of resistance?

(*b.*) What was the molecular condition of the "metal" (*sic*) employed,—*vitreous* or *crystalline*?

(*c.*) Where can "bars" of selenium be obtained which will afford the results stated?

(*d.*) Are there any unstated conditions essential to the successful production of the phenomenon?

HARRY NAPIER DRAPER

IN the description given in NATURE of February 20 last, of the very remarkable variations in the electrical resistance of bars of selenium due to the action of light, no detail is given to show how such an excessively high resistance as 1400 megohms is measured.

I am anxious to repeat the investigation of this very interesting, and as far as I know, wholly unexpected property of selenium, my idea being to measure the resistance of the bars when exposed to the light of the solar spectrum, noting the position in which the effect is at a maximum, and the extent to which the resistance is affected in the different parts of the spectrum.

But before I can do this I must be able to measure these enormously high resistances satisfactorily, and I would therefore ask if you or any of your readers would tell me how I am to do this, using resistance coils up to 60,000 B.A.U., and a reflecting galvanometer with a resistance of 1,200 B.A.U. M. L. SALE

Brompton Barracks

The Zodiacal Light

SINCE I last wrote upon this subject my views have been strongly confirmed. Both branches of the zodiacal light have been visible for some time past, and it is either getting brighter, or four months' continual practice enables me to detect its presence under unfavourable circumstances much more readily.

The night of January 30 was wonderfully fine; the ground of the heavens was intensely black, and the Milky Way was simply one blaze of light from the zenith to the very horizon: only on such nights as these are observations of the zodiacal light worth recording; all others must be very imperfect.

That night the western branch was very distinct from the horizon up to the Hyades in Taurus; at this point its breadth was much greater than on November 27 ult.; here it probably crossed first the branch of the Milky Way which tends towards Orion, then the Milky Way itself, and so was not visible for about 40° on the Ecliptic; but it became visible again in Gemini, though very faint, and it did not quite reach Præsepe in Cancer.