market. To a few ports this might apply, but as a general rule the fish-train for Billingsgate leaves the coast towns about six or seven in the evening, the fish reaching the central market by van first thing in the morning. The actual reasons for this preference for night-fishing are many. In the case of pilchards taken in drift-nets, the habits of the fish themselves furnish the explanation. In the case of trawlers, the reasons are diverse. In some cases the water is so shallow that the nets would be seen and avoided by the fish in daylight, and this, in fact, is still more the case with the drift-nets. Elsewhere, they trawl at night because they want soles, just as many Plymouth boats trawl by day because their best market is for the rougher kinds of fish. There is no night-trawling in Cornwall by reason of the local regulations, which clear the sea by night of other fishing craft in order that the drifters may work without interruption or risk. F. G. AFLALO.

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The Cost of Chemical Synthesis.

IN your review of Prof. Meldola's "Synthesis of Vital Products," your reviewer argues that though certain products, viz. alizarin and indigo, "can be synthesised so cheaply that natural products cannot compete with them in the market"; yet this is of little interest from the biochemical point of view.

May I point out that this argument is even stronger than it seems, for the *cheapness* is quite accidental, and due to the fact that the world requires coal gas, and iron.

If the syntheses above were dependent on anthracene and naphthalene obtained from coal treated strictly *ad hoc* this cheapness would disappear. R. J. FRISWELL.

43–45 Great Tower Street, London, E.C., January 2.

"Bastard" Logwood.

THE Jamaica *Bulletin* of the Department of Agriculture for November, 1904, prints a very interesting article on this subject by B. C. Gruenberg and William Gies, contributed originally to the *Bulletin* of the Torrey Botanical Club.

During the past few years the growers of logwood in Jamaica have been greatly disturbed by an apparent increase on their properties of an unmerchantable variety of the plant known as "bastard" logwood; the exportation of this wood along with real logwood has served to condemn all the logwood from the districts which have shipped it.

"Bastard" logwood differs from the genuine varieties, from the dyer's standpoint, in yielding little or no hæmatoxylin, but instead a yellowish-green pigment which is of no value, and which, when mixed with the commercial extract, reduces the characteristic tinctorial properties. Chips of the "bastard" logwood present a yellow, pale pink, white, or even chocolate coloured surface, instead of the dark red or deep purple bronze-tinted colour of the best logwood. There appears great uncertainty, even when the trees are cut down, as to whether a tree is really a "bastard" tree or not. What is known as a "bastard" tree is frequently dark enough when first cut to lead one to believe that it is a good red-wood tree, but instead of darkening with age it remains the same colour, or becomes lighter rather than darker. "Bastard" wood is not the result of disease or of any lack of vigour; the trees producing it are perfectly healthy and normal.

It is not the result of soil or climatic conditions, since bastard and normal trees are found growing side by side under absolutely identical conditions.

It is not the result of immaturity; aged trees may produce bastard wood.

These facts point to heredity as the probable cause of the trouble, that is, certain trees produce "bastard" wood because they grow from seed of a "bastard" tree; in other words, "bastard" logwood is a variety of *Haematoxylin Campechianum*, that normally produces little or no hæmatoxylin. The chemical differences existing among all these logwoods are quantitatively very slight, and there are no striking structural differences among all the varieties of logwood.

There can be no doubt that "bastard" logwood is a distinct variety or subspecies of *Haematoxylin Campechianum*, notwithstanding the slight morphological difference that distinguishes it from the "red" logwood and blue logwood.

The Jamaica *Bulletin* has done good service to the colony in bringing the fact prominently before the planters that the admixture of useless wood which has been the source of unnecessary loss to them may be avoided.

S. N. C.

Intelligence of Animals.

THE instance of intelligence in a cat recorded by Mr. T. S. Patterson on p. 201 is not unusual. I have known several cats, all of them males, that were accustomed to rattle the handle or some part of the lock in order to get a door opened. F. J. ALLEN.

Cambridge.

A NEW CONTRIBUTION TO ASSYRIAN HISTORY.[1]

IN a handy little volume, to which we have much pleasure in directing the attention of our readers, Mr. L. W. King, of the British Museum, has published the cuneiform text and a translation of a very important historical Assyrian document, which has been recently exhibited in the Assyrian and Babylonian room in the British Museum. This document is a slab of limestone, about 15½ inches long and 11½ inches wide, which is inscribed with sixty-seven lines of cuneiform text, thirty-seven lines being on the obverse and thirty on the reverse. The writing is in bold, well formed characters, but it seems to have been cut somewhat hurriedly, for the mason was obliged to make nine erasures, and in two passages he has left out a sign, apparently without having detected the omission. We need not discuss the palæographical importance of the text, which is of considerable interest, and it is only necessary to state that it exhibits the style of Assyrian characters employed in monumental inscriptions in the early part of the thirteenth century before Christ.

The contents of the text, which is actually the official summary of the principal events in the reign of Tukulti-Ninib I., King of Assyria about B.C. 1275, fall readily into four divisions, which respectively record the king's name and titles, his military expeditions, the foundation of the city Kar Tukulti-Ninib, and an appeal to future rulers. The stone tablet or slab which supplies this information was either placed in a niche in the wall or laid in a box of stone or clay, and then built up in the foundation of the city Kar Tukulti-Ninib. In passing, Mr. King discusses briefly but clearly the question of foundation deposits, both in Egypt and Assyria, and shows how the ideas concerning them in the two countries agree in some respects and differ in others.

Turning now to the campaigns of Tukulti-Ninib I., we find that in the first he conquered the Kuti and the inhabitants of four other districts; in the second he became master of the land of Shubari, and ten other provinces; in the third he vanquished forty kings of the land of Na'iri; and in the fourth he defeated Bibeashu, King of Babylon, and completely subjugated the regions of Sumer and Accad. The last campaign was undoubtedly the most important of all, for with

[1] "Records of the Reign of Tukulti-Ninib I., King of Assyria, about B.C. 1275." By L. W. King, M.A., F.S.A. Pp. xvi+185, and 11 illustrations. (London: Luzac and Co., 1904.) Price 6s. net.