

to ask if it is impossible to find in the old world wealth and energy enough to copy one small branch of Prof. Henry's excellent work. I refer to the Smithsonian system of book exchanges, and I wish to know how much longer it is to continue easier and infinitely cheaper to exchange publications with one's correspondents in the other hemisphere than it is between London and Paris. Let me give an actual case. I recently sent two identical parcels of books, one to Utrecht and one to Washington. The former cost 5s. 6d., the latter cost nothing. In order that no one may run away with the idea that it would cost any very large sum to carry out this suggestion, I may remark that the Smithsonian system which is on a large scale, with agencies at Leipsic, Stockholm, Christiania, Copenhagen, Amsterdam, Paris, Milan, London, and Melbourne, besides its American ones, only costs 1,000*l.* per annum. We have only to copy on a diminished scale and to utilise existing agencies.

G. J. SYMONS

[See our note this week referring to an institution established at Haarlem.—ED.]

Dr. Cohn's Address

THERE is a passage in Dr. Cohn's address as reported in the Christmas number of NATURE (p. 137), which greatly needs correction:—

"Since, in the year 1842, an unknown physician in a Swabian country town, Dr. Mayer, of Heilbronn, pointed out that a hammer 424 kilogrammes in weight, which falls from the height of a metre on an anvil, raises the heat of the latter by one degree centigrade"

Leaving historical accuracy out of the question, this is a gross misstatement of the physical fact. The correct statement is that the whole heat generated by the blow (which will be partly taken up by the hammer and partly by the anvil) will be as much as would heat a kilogram of water one degree centigrade.

Malone Road, Belfast, Dec. 28

J. D. EVERETT

[Dr. Cohn's words are:—"Seit im Jahre 1842, ein unbekannter Arzt in einer schwäbischen Landschaft, Dr. Mayer von Heilbronn, nachgewiesen hatte, dass ein 424 Kilogramm schwerer Hammer, welcher einen Meter tief auf einen Ambos fällt, den letzteren um einen Centigrad erwärmt," &c. ED.]

Salmonidæ of Great Britain

SOME months ago I inquired through the columns of the *Field* newspaper if any sportsman, fisherman, or naturalist would oblige me by replying to the following queries respecting the rarer *Salmonidæ* of Great Britain. Firstly, whether *Salmo ferox* (the great lake trout) had ever been taken in any lake in Wales, and, secondly, whether any of the Gwiniad tribe (*Coregoni*), such as the Gwiniad of Bala, the Vendace of Loch Maben, and the Powan of Ireland; or any of the Chars (*Salmo salvelinus*) have ever been taken in any lake which is not a glacial lake—that is to say, a lake which either lies in the tracks of an ancient glacier, or that is dammed up, or otherwise surrounded by moraine matter? The only reply with respect to the first query was from Sir Philip Egerton, to the purpose that he took a specimen of *Salmo ferox* in Bala Lake in 1871, thus establishing the fact that this fish still lingers in North Wales. To the second question I have received no reply. Is it possible that I may be more fortunate among the many naturalists and geologists who take NATURE?

Pendock, Tewkesbury

W. S. SYMONDS

Geographical Distribution of Dipterocarpeæ

MR. BENTHAM, in his address to the Linnean Society, delivered May 4, 1872, remarks in a note, "Dr. Hooker has, for instance, remarked that no *Dipterocarpeæ* have been found east of Borneo;" but that in the present state of our knowledge it is premature to endeavour to establish well-marked limits between the flora of the western and eastern portions of the Indian Archipelago.

Padre Blanco (no great authority, however), describes several species of *Dipterocarpus* found in the Philippine Islands, and I myself sent to Mr. Robert Brown seeds of two species, one of which in shape and size resembled the figure given by Lindley in his "Vegetable Kingdom," in his illustration of the genus. The seeds of *Dipterocarpus* are so peculiar, that a mistake is not easily made in determining most of the species. From some of those found

in these islands, valuable resins are collected. The wood of the trees, which are very large, is also of some economic value.*

Manila, Oct. 8

W. W. WOOD

Honest Cyclopædias

A FEW weeks ago Mr. A. R. Wallace asked in your columns if there existed such a thing as a cyclopædia which did not mislead or blind the inquirer by harassing and often useless cross references. As no one has yet answered Mr. Wallace's question, will you permit me to direct his attention to that admirable work, almost equivalent in its fullness to a cyclopædia and far superior to any cyclopædia I know in its recent and careful compilation, namely "Brande's Dictionary of Science," edited by the Rev. G. W. Cox. Rodwell's Dictionary is excellent, but is not so comprehensive as the last edition of Brande.

W. F. B.

"The Boring in Sussex"

ON the 9th inst. I was fortunate enough to find what I believe to be the first fossil from the Sub-Wealden boring at Netherfield, three or four shells of the genus *Cyclas*, in dark blue shale from a depth of 100 ft. There was also a small piece of what Dr. Bowerbank thinks is a *Paludina*.

As there are Wealden fossils, it is supposed that the borer has not yet got through the lower Wealden beds.

St. Leonard's, Dec. 17

J. E. H. PEYTON

Reflected Sunshine

THE recollection of a letter from Prof. Tyndall's pen, which appeared in NATURE some months ago, induces me to contribute an account of a curious sun effect recently seen from the summit of the Kudure Mukh, a hill nearly 6,200 ft. high.

The Ghauts here rise in bold scarps from the plains, large tracts of the latter being at this season under water, in preparation for the last rice crop.

Whilst resting one evening on the edge of the cliffs, I noticed as the sun declined that his reflection was approaching a series of sheets of water some six or eight miles off. Each of these pools cast upwards through the blue haze that overhung the plains a brilliant beam of light, the oblique rays from the water crossing those from the sun, and forming with them a chessboard pattern of light and shadow that was singularly beautiful.

As the sun dipped lower and his reflection fell full on the still expanse of water, the scene became almost magical. There shone a second sun at one's feet, its wealth of beams, undiminished in splendour, springing from the very bosom of the earth.

It required, indeed, but little stretch of imagination to fancy that a real sun was glaring up through some ghastly chasm in our globe. This phenomenon must be of frequent occurrence in many parts of the world, and wherever the distance between the observer and the reflecting surface is sufficient to greatly reduce the size of known objects, with which the eye naturally compares the apparent diameter of the reflected sun, the spectacle must always be a startling one.

Since my return from the district a friend who was camped at the Mukh prior to my visit there has told me that he also noticed the effect described above, and used to climb the hill every evening of his stay for the purpose of seeing it.

Mangalore, Nov. 21

E. W. PRINGLE

Electricity and Earthquakes

IT has been suggested that earthquakes may be caused by electrical discharges in the interior of the earth, and this may account for some remarkable effects of the great shocks which were so destructive to Manila in 1863.

It was observed that the effects of this earthquake were distributed in a peculiar manner over the comparatively small space occupied by the city and suburbs. On the banks of the river and canals, and through the northern quarter, great damage was done, while to the southward the mischief was comparatively slight. In parts of the town where large churches and other solidly-constructed edifices were ruined, other and slighter buildings placed near them escaped almost without injury. This was particularly noticed in the parish of Quiapo, where the church was

* The wood of one very large species, according to Padre Blanco, was formerly used in building the famous Acalpulco and Manila galleons, from the circumstance that, when pierced by cannon shot, it does not splinter in the way most other timber is found to do.