

LETTERS TO THE EDITOR.

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Remarkable Sounds.

IN a book that was popular about fifty years ago, entitled "Journal of a Naturalist," the author says that the purely rural, little noticed, and, indeed, local occurrence, called by the country people "humblings in the air," was annually to be heard in fields near his dwelling. "About the middle of the day, perhaps from twelve o'clock till two, on a few calm sultry days in July, we occasionally hear, when in particular places, the humming of apparently a large swarm of bees. It is generally in some spacious open spot that this murmuring first attracts our attention. As we move onwards the sound becomes fainter, and by degrees is no longer audible." The sound is attributed to insects, although they are invisible.

A writer in the *Edinburgh Philosophical Journal* objects to this sound being attributed to insects, first because the fact is stated as being local and partial, heard only in one or two fields, at particular times of the year when the air is calm and sultry. He has often heard a similar humming in a thick wood, when the air is calm, and has diligently searched for insects, but in no case was able to detect them in numbers sufficient to account for the sound.

The same writer refers to remarkable sounds heard in a range of hills in Cheshire. When the wind is easterly, and nearly calm on the flats, a hollow moaning sound is heard, popularly termed the "soughing of the wind," which Sir Walter Scott, in his glossary to "Guy Mannering," interprets as a hollow blast or whisper. The explanation seems to be that a breeze, not perceptible in the flat country, sweeps from the summit of the hills, and acts the part of a blower on the sinuosities or hollows, which thus respond to the draught of air like enormous organ-pipes, and become for the time wind instruments on a gigantic scale.¹

The greater intensity of sounds by night is ascribed by Humboldt to the presence of the sun acting on their propagation, by opposing them with currents of air of different density, and partial undulations of the atmosphere, caused by unequally heating different parts of the earth. In these cases, where the air suddenly changes in density, the vibrations which produce the sounds are divided into two waves, and a sort of acoustic mirage is produced in the same manner as a luminous mirage takes place from a similar cause. But there are, probably, other causes connected with the presence or absence, excess or diminution of solar heat, of moisture, &c., which may operate both in the increase or continuance of sound; while many peculiarities of place or season may create or modify certain sounds, which being local, admit only of special explanation.

The distances to which sounds sometimes travel are remarkable. Dr. Clarke, the traveller, states that, while 100 miles from the Egyptian coast, he heard firing therefrom, the air being very still at the time. Dr. Arnott mentions a case in which bells were heard at a similar distance by a ship off the coast of Brazil.

In Madame de Sévigné's gardens at Les Roches, near the town of Vitré, details have been given of an echo of so wonderfully multiplied a character, that rather than describe them, I prefer to ask for further information.

In another book, popular half a century ago, namely, "Forest Scenes," by Major Head, there is a description of sounds emitted by a sheet of ice fifteen or sixteen square miles in area, and three feet thick, when acted on by the wind. "A dreary undulating sound wandered from point to point, perplexing the mind to imagine whence it came, or whither it went, and whether aerial or subterranean, sometimes like low moaning, then swelling into a deep-toned note, as produced by some æolian instrument." C. TOMLINSON.

Highgate, N.

The Story of the "Wandering Jew."

So far as my scanty reading goes, I have never met with a book on the subject of the "Wandering Jew" making mention of an Indian tale in this connection, and I

¹ In the *Annales de Chimie et de Physique* for 1840 is a valuable paper, by M. Fournet, on "Hill and Valley Breezes."

therefore deem it more or less useful to call attention of the folk-lorists to the following Buddhist narrative, for which I have to thank Mr. Seisaku Murayama, an assiduous Pāli scholar in Japan, who was kind enough to make a journey in my behalf with the sole intention of personal examination of the Chinese text. The passage occurs in "Tshah-ō-han-King" (*Samyuktāgama-sūtra*, translated by Guṇabhadra, circa A.D. 435-443), printed in Fuh-chau, 1609, tom. xxiii. fol. 30, and may be translated thus:—[This is a portion of an answer of Pin-tau-lu (= Pinḍola Bharadvāga?) to the question of the King Aś'ōka.] "And further, when the Buddha was staying in the kingdom of S'rāvastī, within the five hundred arhats, the daughter of the S'resh'ṭhin Anāthapiḍḍada happened to live in the kingdom of Fu-lau-napoh-to-na (= Pundara-varḍdhana?), and invited thither the Buddha and the monks. All other monks then, went gliding through the air; but I, exerting my supernatural energy, held up a huge mount and there went. Then the Buddha accused me with these words: 'Wherefore do you play such a miracle? for which offence I now punish you with eternal existence in this world, incapable of the reach to Nirvāna, thus to guard my doctrine against its destruction.'" KUMAGUSU MINAKATA.

15 Blithfield Street, Kensington, W., November 22.

Dr. Baur and the Galapagos.

IN my article on Dr. Baur's botanical collections from the Galapagos (*NATURE*, vol. lii. p. 623), I stated that he was attached to the U.S. Fish Commission steamer *Albatross*. This was an error. Dr. Baur's trip was quite independent of Government aid, and was accomplished mainly through the liberality of two or three private gentlemen. So far as I can learn, there are no botanical results worth mentioning of the United States Government expedition.

I may add that Dr. Baur informs me that he is planning another visit to the Galapagos group, when he hopes to explore the Revilla Gigedos, Clipperton, Cocos, and Malpelo Islands; but that it cannot be carried out for two or three years to come. The natural history of all these islands is still very imperfectly known. The naturalist of the expedition of H.M.S. *Sulphur* brought home specimens from Cocos Island, about fifty years ago, of a dozen or more flowering plants, indicating no special insular differentiation from common tropical American types.

W. BOTTING HEMSLEY.

A Bright Meteor.

WE have received the following letter through Mr. R. H. Scott, F.R.S., Secretary of the Meteorological Council:—

On returning home from sending you my sunshine telegram, this evening (about 7 p.m.) I witnessed the most superb meteor of my lifetime. The best conception I can give of it is to ask you to imagine a gigantic iron bar stretching over, I should say, one-eighth of the whole sky, and glowing as the wire glows in the incandescent lamp. It was almost at the zenith, and came from the east-north-east to the west-south-west. The glow remained for certainly one second, if not more time, and then slowly changed through all the colours of the spectrum, before finally disappearing. I should imagine it was seen over a large extent, and more must be heard of it. I assure you I esteem myself most fortunate to have witnessed a spectacle more magnificent than any before observed by me, although I witnessed the display of November meteors in 1866.

Eastbourne, November 22.

R. SHEWARD.

A Long Drought.

IN connection with Brückner's prediction of a dry period culminating at this time, and the letter of Prof. J. P. O'Reilly in *NATURE* of October 17, the following account of a general drought from a Boston newspaper of November 11, may prove of interest.

H. HELM CLAYTON.

Blue Hill Observatory, November 12.

"The long drought, which has caused so much inconvenience and damage this fall, seems to have prevailed all round the world, if not in every part of it. Europe has experienced it almost equally with this country, and in Australia it has been more severe than here. So great was the distress in New South Wales, that the Government appointed a Sunday in September as a day of prayer for rain, and special services in accord with the proclamation were held in all the churches of every denomination in Sydney and throughout the province. The drought occurred in the Antipodean spring, and greatly retarded planting operations, as well as doing great general damage. In many districts