LETTERS TO THE EDITOR.

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Vitrified Quartz.

I THINK Dr. Joly has misunderstood the abstract of my lecture. It is impossible not to feel confident that a transparent solid which has a very low coefficient of expansion, which expands very regularly up to 1000° C. and returns very exactly to its original volume when it is re-cooled, which remains unfused at 1500°, and which bears great and sudden changes of temperature with impunity, must, in the absence of any other really satisfactory material, prove very useful in its applications in thermometry.

The fact that "quartz fibres" are spoilt when they are reheated was well known before Dr. Joly read his paper on the subject. I believe it was first observed by Mr. Boys, and it is more than once referred to by Mr. Threlfall in "Laboratory Arts" (see pp. 116 and 119); but I do not find that vitreous silica in larger masses is equally sensitive, provided that it is protected, when hot, from the action of basic oxides; in contact with these it quickly becomes rotten when heated. This last fact suggests an explanation of the defect observed in the fibres. "Quartz fibres" are spun from vitreous silica in the plastic state when it is in contact with air which teems with dusty particles the dimensions of which are by no means negligible in comparison with those of the very attenuated fibres. Therefore it seems not unlikely that the fibres consist of less pure silica than larger masses of the material.

Those who work in silica should take care to use Brazil crystal as free as possible from alkali, for its melting point and other qualities may be expected to depend largely on its purity, and rock crystal from all sources is not equally pure.

Clifton, Bristol. W. A. SHENSTONE.

A Raid upon Wild Flowers.

IN the last number of NATURE (p. 118) you quote with approval the field studies in natural history, of which the Essex Technical Instruction Committee has issued a programme. I will ask space to state the grounds which lead me to regard this programme as an injury both to natural history and to education.

The teachers of Essex are invited to make a systematic raid upon our wild flowers, and especially upon such as are tending to extinction. They are to collect, name and dry, not only single specimens, but duplicates for "special fascicles." Local guides are to direct them to the last retreats of the rare plants of the New Forest. Nothing is more to be desired, in my opinion, than that the party may fail to discover the things which they most covet.

This eradicating scheme is utterly useless for scientific and educational purposes. There is no science in all this drying and naming. It is enough to condemn the programme as an educational project that novices, knowing little or nothing of field-botany, are set to study the subspecies of brambles! Two pages (14, 15) contain promising headings, but if the work is to be carried out in the spirit of the rest of the programme, this too will end in nothing better than schedules and fascicles and names.

I should be delighted to learn that the Essex Technical Instruction Committee had abandoned the whole scheme as destructive and educationally barren. L. C. MIALL.

P.S.—I have just been assured (June 4) that only advanced students will be allowed to see the rare plants of the New Forest; it is not stated whether they will be allowed to gather them. There was no such restriction in the printed programme. My other objections remain.—L. C. M.

THE programme criticised by Prof. Miall is unofficial so far as the Essex Technical Instruction Committee is concerned. It was not considered by the Committee or by any sub-committee before publication. It is needless to say that, although I am myself a member (co-opted) of the Committee, I am thoroughly in accord with the general spirit of the above criticisms. On carefully considering the programme in detail I am, however, bound to point out that there are several misconceptions in Prof. Miall's letter. The programme was drawn up by the Staff Instructor in Biology, Mr. David Houston, and he is alone responsible for its contents. He will, I am sure, be able to give a satisfactory explanation concerning many of the charges brought against his scheme. My only object in availing myself of the courtesy of the Editor is to remove the impression that the programme is officially authorised by our Committee.

R. MELDOLA.

The Reported Earthquakes in the Channel Islands and South Devon on April 24.

IN a recent letter to NATURE, the Hon. Rollo Russell refers to some supposed earthquakes felt along the coasts of the English Channel on April 24. As accounts of them have also appeared in several London and provincial papers, it may be worth while to state briefly the results of my inquiries.

The disturbances bear a strong resemblance to those caused by the firing of distant heavy guns. Between about 1 and 1.45 p.m. five shocks were felt in Guernsey, and eight at Paignton in South Devon. They were of very short duration; windows were shaken, but there was no perceptible tremor of the ground. Observers in Guernsey compared the sounds to thunder or the firing of very heavy guns; but those on the English coast seem to have been generally unconscious of any sound. Yet the impression of an observer at Salcombe was that a cannon had been fired to the south, but "too far away to bring the noise."

Trials with heavy guns are said to have been made along the coast of France on April 24. I have not succeeded in ascertaining the place or time of the firing; but that the report assigns a possible cause of the supposed earthquakes will, I think, be evident from the above account. CHARLES DAVISON.

Birmingham, May 29.

Foreign Oysters acquiring Characters of Natives.

MAY I call attention to some curious facts with regard to oyster culture? I do not know whether the evolution they undergo is brought about by Lamarckian factors, or whether it is brought about by natural selection, but no doubt a correct interpretation could be given by some of your readers.

The facts are as follows:—Oysters of the species *Ostrea edulis*, one year old, are brought from Brittany, in France, and transplanted at Hayling Island. After two years on the Hayling beds they are transferred to Whitstable. While they are at Hayling they acquire the characteristics of flavour, and texture and colour of shell of the oysters native to Hayling, yet they are distinguishable as originally from Brittany. When they are transferred to Whitstable they acquire the characteristics of Whitstable, yet they are distinguishable as originally from Hayling and Brittany, and are quite distinct from oysters native to Whitstable. Sometimes they have been brought direct from Brittany and laid at Whitstable for three or four years, and, although all the new growth they acquire is characteristic of Whitstable, yet they are distinct from Whitstable natives, and can be easily detected by experts.

Now the curious point is this: these oysters are known to spawn at Whitstable, yet oysters "spat" from this spawn have never been found. There are found, however, especially the last few years, immense quantities of oysters which resemble the ancient native oysters of Whitstable, and are declared by experts to be Whitstable natives, yet differing from them slightly in coarseness of shell and greater growing power, and in being more susceptible to cold weather than the ancient Whitstable natives. Amongst oyster experts these oysters are considered to be the offspring of the oysters originally brought from Brittany, and this opinion is supported by the fact that when these oysters spawn at Hayling the spat from them resemble in every way the oysters native to Hayling. Can the oysters that become changed in this way be considered to have acquired their new characteristics by Lamarckism or by natural selection?

London, May 22. J. M. TABOR.

The Cape Viper.

TO-DAY the Cape viper (*Causus rhombeatus*) laid several eggs. The keeper says this has happened before. As Causus is one of the Viperidæ, and as the Viperidæ (except Atractaspis) are, as their name implies, viviparous, or, to be accurate, ovo-viviparous, it would be interesting to know whether this is a freak, or whether the Causidæ are oviparous in their native state.

CLAUDE E. BENSON.

5 Elvaston Place, Queen's Gate, S.W., May 15.