

attention is for any reason especially directed to South Africa. It includes several excellent maps, and two engravings of Cape Town, showing Cape Town as it was in 1668, and as it is in 1891.

LETTERS TO THE EDITOR.

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A Pink Marine Micro-organism.

WHILE dredging lately in Loch Fyne, I noticed through the clear water, in a little shallow bay on the north side of the entrance to East Loch Tarbert, a number of pink patches on the sand. These could just be reached by wading from a boat at the lowest tides, and were then found to be roughly circular spots, about a foot in diameter, where the clean white sand was discoloured, most of the surface grains being almost exactly the tint of ordinary pink blotting-paper.

Under a low power of the microscope, it is seen that the pink particles are ordinary clear quartz sand-grains, incrustured with little bright pink jelly masses, generally of elongated or sausage-like forms, and averaging 0.1 mm. in length. Further magnification shows that each jelly mass is crowded with minute very short rods, or ellipsoids, of about 0.0015 mm. in length, and about half as much in breadth.

This appears to be a micro-organism in the zoogloea condition, and I do not know that any such pink marine form, living on clean sand, in pure sea water, has been noticed. It may possibly be one of the forms of *Beggiatoa rosea-persicina*, but it does not agree satisfactorily with any of the descriptions I have access to here. I have still some of the material alive in sea water, and shall be glad to hand it over to any biologist who is now working specially at such forms, and would like to investigate this one.

W. A. HERDMAN.

University College, Liverpool, October 6.

Advertisements for Instructors.

THE friends of technical education can no longer complain that the subject is not receiving attention. The numerous advertisements for instructors of all sorts, from County Councils and other bodies, colleges and schools are full evidence that much is being attempted.

Whether all the plans and proposals and experiments will lead to the hoped-for results only time will show. Some of us have our doubts as regards many of them.

Meantime, one of the advertisements deserves a passing notice. A well-known technical school is in search of "a demonstrator in the Metallurgical Department to take the lectures in geology and mineralogy, and to give instruction in dry assaying and in iron and steel analysis" (see NATURE of this week).

This is certainly a large and considerably mixed "order," calculated to make thoughtful people wonder what sort of instruction is expected to be given by this gifted person (who is to have the princely sum of £100 per annum); and whether, if the "metallurgical demonstrator" is to throw in geology and mineralogy as a sort of extra to his own special work, the other demonstrators and professors are expected to be equally widely qualified; let us say a chemical demonstrator to give lectures on mechanical engineering and ship-building?

Newcastle-on-Tyne, October 10.

M.

"Rain-making."

I THINK the following will be of interest to your readers in connection with the "rain-making" experiments in Texas. On October 1, at 5 p.m., five tons of gunpowder was exploded in a single blast at the Penrhyn slate quarries in order to clear away a very large mass of useless rock. A strong wind had been blowing all day, and the clouds, though heavy, were high; there had been no rain, and not much sunshine, and the temperature was somewhat low.

Immediately after the explosion the wind fell to a dead calm,

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which lasted about 5 or 6 minutes, and 20 minutes later a fine rain began to fall, which soon became heavy and continued for an hour and a half. By 7 p.m. all disturbances produced by the explosion had apparently passed away, and the weather was again similar to what it had been during the day. The rainfall was entirely local, there being none, as far as I could learn, outside a radius of 6 or 7 miles from the quarry.

W. R. PIDGEON.

Alum Solution.

WITH reference to the question raised by Mr. H. N. Draper in NATURE, vol. xlv. p. 446, as to the practical superiority of an alum solution over simple water in absorbing such radiations as are chiefly instrumental in producing heat, I may recall some experiments made by myself five years ago (Brit. Assoc. Report, 1886, p. 309). The source of radiation employed was a paraffin lamp with a glass chimney, the various solutions were contained in a glass cell with parallel sides, and the "radiometer" was a delicate thermopile, the face of which was blackened with camphor smoke. The following results, among others, were obtained:—

Solutions, &c.	Diathermancy.
Empty cell	1000
Water distilled	197
Water from tap	200
Alum, saturated solution	204

It is clear therefore that, at least under conditions like those of my experiment, plain water will answer the purpose of an absorbent rather better than an alum solution. Possibly the "alum cell" tradition rests upon no better foundation than many others, which are generally accepted simply because it does not occur to people to question them.

SHELFORD BIDWELL.

October 10.

B.Sc. Exam. Lond. Univ. 1892.

THERE are, I believe, in London at the present time a number of men desirous of offering geology as one of three subjects required at the Degree Examination in Science, but who are deterred from so doing by the fact that it is impossible to obtain adequate evening class tuition in this subject.

Enquiries at the various teaching institutions have failed to discover a single opportunity for working up to the required standard in both theoretical and practical branches.

I have therefore laid the matter before Prof. Wiltshire, of King's College, Strand, with the result that he has very kindly consented, in the event of enough men requiring it, to supplement his lectures on geology and mineralogy by a course of instruction in petrology, embracing the study of hand specimens and microscopical examination of rock sections.

By giving publicity to the matter, it is hoped that a sufficient number of B.Sc. candidates will be forthcoming to ensure the establishment of this class.

The time-table for the complete course will be as follows:—

Monday	{ Petrology ...	6-7 p.m.
	{ Mineralogy ...	7-8 "
	{ Geology ...	8-9 "

The lectures and practical work, together with the summer field excursions, under the direction of Prof. Wiltshire, will prove a great boon to such as are prevented from attending day courses, and will undoubtedly secure admirable preparation for the examination specified.

I shall be glad to hear from anyone interested in the matter, so that arrangements may at once be made for the first sitting to take place on Monday, October 19.

EDWARD J. BURRELL.

People's Palace, Mile End Road, E.

Some Notes.

THOSE who have visited Venice in spring know how rampant mosquitoes become after the flight of the swallows, which have kept them in check, for the north—usually in May.

A word for the sparrows—which have been very active in the gardens hereabouts this season, preying on the green flies and larvæ infesting the creepers and ferns in particular; but very few starlings have been observed, to the great increase of earth-