time they may be submitted to the public, as we wish they may be.

In conclusion, we may remark that, with the exception of a few descriptions of personal symptoms, which would have been much better left out, Mr. Andersson's "Notes on Travel in South Africa" forms an interesting and instructive volume to the general reader, as well as the student of geographical and natural science.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.*]

A New Cetacean from New Zealand

I HAVE just received from Dr. Julius Von Haast of Canterbury, New Zealand, for presentation to the Zoological Society, an account of what appears to be a new species of Ziphioid Whale.

As far as can be at present ascertained, for, unfortunately, the heads only of three individuals, and these not in a perfect state, were obtained, it is nearly allied to the genus *Mesoplodon*, Gervais, but differs from the known species in the possession of a row of small pointed, conical, recurved teeth, about twenty in number, in the hinder part of the upper jaw, in addition to the usual single large tooth, placed near the middle of the ramus of the mandible. This is a very interesting circumstance as connecting the peculiar dentition of the ziphioids with that of the ordinary dolphins.

Another fact, new in the history of the Cetacea of this group, is that they belonged to a shoal of twenty-eight, all stranded together on one of the Chatham Islands, whereas all previously recorded examples have been either solitary or in pairs. It is evident that the attention which the naturalists of New Zealand are paying to the Cetacea, will throw much light on the history of the order, and it is to be hoped that they will persevere in collecting and preserving every specimen which may come within their reach. Dr. Haast's paper will be read at the next meeting of the Zoological Society. W. H. FLOWER

Evidences of Ancient Glaciers in Central France

MY attention has been recently called to a communication on the above subject which appeared in NATURE, vol. xiii. p. 31, from Dr. Hooker. Not having myself observed any traces of glacial action in the Mont Dore, and finding that M. l'Abbé Lecoq, whose examination of every portion of the district was most painstaking and exhaustive, has declared his conviction that no such traces exist, may I be permitted to remark that the evidence produced by Dr. Hooker does not appear very conclusive on the question? It consists of the occurrence of some large fragments of trachyte in the floor of the valley in which the Dordogne takes its rise, "the head of which occupies a noble amphitheatre immediately under the highest summit of Mont Dore," which "seen from a height above, were presumably huts, haystacks, *or glacially transported blocks.*" The next day the doctor descended into the valley for a fuller examination of these blocks, and found himself "amongst a group of magnificent boulders *that had evidently been deposited (?) by an ancient glacier* which had flowed from the rocky amphitheatre at the head of the valley;" "others were seen further down the valley, its stream meandering among the blocks."

Now this description together with all that follows, and which I need not quote, strongly reminded me of a large assemblage of *débris* of trachytic rocks which on my last visit to the Mont Dore in 1860, I observed exactly in the position indicated by Dr. Hooker in the valley of the Dordogne, and which had been the result of a prodigious landslip or fall of a huge slice of the cliffs above, nearly a thousand feet high, forming the left flank of the valley as we look up it extending for upwards of half a mile. This landslip had occurred, if I remember rightly, in the previous winter, and was by no means an unprecedented occurrence, as the ruins of several older "eboulements" along the same line of cliffs attested. The summit of the cliffs consisted of a solid bed of trachyte perhaps fifty feet in thickness, and the action of frost on the waters infiltrated into the vertical joints of this rock tended to detach occasionally blocks of it which in large numbers, and many of them of enormous size, had evidently fallen from above on the floor of the valley. Some of these bore exactly the appearance of those described and figured by Dr. Hooker, and with every deference to his high authority, I cannot but suspect that they are the identical rocks which he, somewhat hastily, perhaps, concluded could only have been transported by "an ancient glacier descending from the neighbouring head of the valley." Should this prove to be the case, as no other evidence of the action of glaciers in the Mont Dore has been produced, it is presumable that M. Lecoq's view is correct, that none such are to be found. G. POULETT SCROPE

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Science Classes and Penny Lectures in Birmingham

IN NATURE, vol. xiii., p. 82, is an article on "The Manchester Science Lectures," in which it is stated that the popular lectures at the Midland Institute Birmingham "are chiefly frequented by the middle classes," while "at the Manchester lectures the class of persons present was chiefly working men for whom the lectures were designed.

This statement, although not absolutely incorrect, conveys quite a false impression respecting the Birmingham lectures; the fact being that the Midland Institute has two Departments, the "General" and the "Industrial," the former being designed for the middle classes, and the latter for artisans, &c. As the history of the popular scientific teaching at this Institute includes some instructive practical experience, a few reminiscences of the leading facts may be interesting.

The Institute commenced its working existence in October 1854 with three classes, one for Physics meeting on two evenings per week, one for Chemistry also on two evenings per week, and one on Popular Physiology and the Laws of Health meeting on one evening per week. These were all conducted by myself—then the only teacher of the Institute—at the rooms of the old Philosophical Institution, 7, Cannon Street. They were attended by men and boys, for the most part artisans and *bonâ fide* students. The first course on Chemistry comprised about 90 lectures, that on Physics about 130, and that on Physiology about 30 lectures.

The number of students and the general success of these lectures exceeded the expectations of the promoters of the Institute, and refuted the predictions of the large proportion of influential Birmingham men who loudly expressed their anticipations of failure.

Such was the beginning, but ere long we were threatened with a repetition of the old experience of the old Mechanics' Institution, and other similar efforts that had failed in Birmingham, and upon which failures these gloomy predictions were founded. The Chemistry class, which was the largest at first, sustained its numbers and attendance during what I may call the combustive stage of its existence, that is, so long as the three oft-quoted essentials of successful chemical lectures "the flash, the bang, and the stink," were maintained; but when we came to the metals, to mere precipitates, equations, analysis, &c., the numbers seriously declined.

The Physics class, which began more modestly, kept up its numbers rather better; there, the progress was from the heavy business of statics and dynamics, to the more wonderful phenomena of heat, light, and electricity. The physiology class was the smallest from the first, but held on pretty steadily to the end of the course.

On completing the first course of each subject we encountered a check that threatened our very existence. The numbers diminished, and this diminution became alarming with the third course on Physiology (which commenced before that of the other subjects). The alarming element was not merely the diminishing number of students, but the obvious cause of this diminution. We were evidently exhausting our raw material. The total number of Birmingham artisans who desired the amount of scientific instruction we offered them was but limited, and the majority of these had attended the first courses, and in the ordinary progress of normal generation they were not reproducible with a rapidity at all corresponding to the repetition of our courses of instruction. What was to be done?

This difficulty of course presented itself more forcibly to me than to anybody else as the facts were more directly before my eyes, and naturally led to serious reflections. To have shortened the courses of instruction, to have made them lighter and more popular, would have sacrificed our main object, seeing that I had already gone as far in that direction as sound instruction permitted. What then?