LETTERS TO THE EDITOR.

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Geological Survey of Canada.

IN the issue of NATURE of June 21 is a letter from Mr. A. P. Low. This communication is liable to be misleading, and I shall be greatly obliged if you will allow me to correct the misstatement which it contains, namely, that "at the same time, Dr. R. Bell simply returned to his former position of assistant-director and chief geologist, to which he had been appointed in 1892."

I was not appointed chief geologist in 1892. This office did not then exist. It was created on March 27 last, and I was appointed to it by a formal Order-in-Council on that date, a large increase being made to my salary at the same time.

ROBERT BELL.

Office of the Canadian High Commissioner, London,
July 9.

I HAVE taken some trouble to inquire into the extraordinary appointment to the Geological Survey of Canada concerning which you published a paragraph on April 26 (vol. lxxiii., p. 613) and a letter on June 21 (p. 175). I send you my results in case you would care to continue the correspondence.

Report states that the Premier informed Dr. Bell that the Government, for its own reasons, was going to make certain changes in the administration of the department, but that wishing Dr. Bell to be quite contented with these changes, he asked him to state the conditions which would be agreeable to him. I have also learned that the Premier transferred Dr. Bell's letter for action to the Minister of the Interior, who is at the head of the Geological Survey Department. Owing to the great pressure of the business of the session of Parliament, the matter has not yet been considered, and further changes are probable, but for the present Dr. Bell has been promoted to be chief geologist of Canada, and allowed to devote his time entirely to scientific matters. He attains at least equal rank, and receives a substantial addition to his salary, with a promise of further increase in the near future. In connection with the above change, Sir Wilfrid Laurier spoke in Parliament in the highest terms of Dr. Bell's ability and of the great scientific services he had already rendered the Dominion.

If these are facts, then Mr. Low's letter (p. 175) appears to be inaccurate. The office of chief geologist was, it seems, newly created for Dr. Bell last March, and he was not appointed to it, as Mr. Low asserts, in 1892.

Mr. Low, I find, is quite unknown in the geological world, whereas Dr. Robert Bell's name has long been familiar throughout Europe and America. He is now in his fiftieth year of service to the Government of Canada in connection with its Geological Survey, and as practical head of that department for the last five years he has maintained its high reputation and administered all its affairs with credit. He is a Fellow of the Royal Society of London, a Doctor of Science of Cambridge, a Doctor of Medicine of McGill, a Doctor of Laws, &c., and has been honoured by the King with the companionship of the Imperial Service Order.

During his administration of the business affairs of the Canadian Survey, it is generally recognised that he has improved its efficiency in many ways, and has increased the number of its officers, the extent of its operations, the Government grant, the library, the extent of its premises, &c. He has sent to the field an average of more than thirty parties every year, as compared with less than half that number in the time of his various predecessors. Surely this is a good record, for the sooner a country is surveyed the better it is for all economic purposes.

The above matters and many others are clearly described by Dr. Bell in his annual summary reports of the survey for the past five years. He had previously caused

to be carried on very extensive topographical surveys in all sections of the vast Dominion, taking the leading part himself in this work. It was for these valuable services to geography that the Royal Geographical Society this year awarded him the patron's gold medal, with the approval of the King.

It is clear, I think, that although the interests of science have not been wholly sacrificed, party politics and not geology have been in question in regard to Mr. Low's appointment.

F. R. S.

July 7.

Osmotic Pressure.

THE gravamen of our criticism of Prof. Kahlenberg's paper is directed against his statement that "indirect measurements of osmotic pressures involve the assumption that the gas laws hold for solutions." In vol. lxxvii., Proc. Roy. Soc., we deduce a relation between the osmotic and vapour pressures of a solution which is independent of the gas laws "holding for solutions." Prof. Kahlenberg, in his recent letter, does not attempt to show that this relation is unsound; we may therefore take it that he accepts the theory, but is dissatisfied with the experimental evidence which we adduced to corroborate it. Perhaps the following will help to convince him.

In a paper read before the Royal Society, June 7, we give the results of the direct and indirect measurements of the osmotic pressures of some aqueous solutions of cane sugar.

Concentration	Direct O.P. at 0° C.	Indirect O.P. (from V.P. at 0° C.)
540 grs. per lit. sol. ...	67.51 ...	69.4
660 " " ...	100.78 ..	101.9
750 " " ...	133.74 ...	136.0

Since reading this paper we have found that aqueous solutions of dextrose and galactose give similarly concordant results. As regards the last paragraph of Prof. Kahlenberg's letter (p. 222), we would point out that he gives no experimental evidence for the assumption that the sugar that had passed through the rubber membrane was sugar from which, so to speak, the solvent had been filtered off. Until such evidence is forthcoming, it seems to us that the criticism we levelled at his work is legitimate, and suggests a simple explanation of the low results he obtained.

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E. G. J. HARTLEY.

Family Diseases and Temperaments.

MAY I appeal through your columns to those of your readers who are interested in the tendency of certain diseases and temperaments to run in particular families to aid me in an investigation I am at present making? The schedules now being issued contain space for a great deal of information, but it is rare for any single recorder to be able to supply all of it. What is wanted is a perfectly frank statement of what the recorder knows or can find out without much trouble. The only request made is that if the recorder feels unable to state certain facts not to the family credit, as well as those which indicate a sound, successful stock, no attempt should be made to fill in the schedule. At the same time, *no names are required*, the recorder may select any family he pleases for record, and the name of the recorder is only required in case it is needful to ask for explanation of any entry, and as a general sign of good faith.

I am fully aware of the labour involved in giving a fairly full family record, and my gratitude for aid in the matter is very great. At the same time, it is, I think, not unjustifiable to hope that among the readers of NATURE there will be some ready to help in an inquiry which if completed will be of considerable scientific value. There exists at present no ample data from which we can determine the inter-relationship of disease, temperament, and success in life. We know comparatively little the extent to which these factors are associated together or persist in certain families. After some considerable labour, about 200 records have been obtained, some of them very full and excellent, and the majority of considerable value. But the