JULY, 1897.

The monthly evening meeting of the Royal Society of Tasmania was held in the Art gallery on Monday, July 12th. Mr. T. Stephens, M.A., F.G.S., Vice-President, presided, and there was a good attendance.

VISITOR.

W. G. Dauncey, C.E., of Sydney, N.S.W.

NEW MEMBERS.

Messrs. Wm. Cockburn Sharland and Edward Mulcahy, M.H.A., and George Elliott were elected Fellows of the Society.

A NEW VICE-PRESIDENT.

The CHAIRMAN announced that the vacancy which had occurred in the list of vice-presidents of the Society through the lamented death of Mr. James Barnard, the oldest member of the Society, had been filled by the election by the Council of Mr. R. M. Johnston. It was not necessary to say much in regard to Mr. Johnston, who was one of those men whose works spoke for them. The records of the Society bore ample testimony to the unremitting and excellent services Mr. Johnston had rendered the Society. He (the Chairman) thought the Fellows would fully endorse the election.

Mr. JOHNSTON briefly thanked the Council and Fellows for their appreciation of him.

APOLOGIES.

The SECRETARY (Mr. Alex. Morton) apologised for the unavoidable absence from the meeting of the senior vice-president (Sir James Wilson Agnew, K.C.M.G., M.D., M.E.C.), the Hon. N. J. Brown, M.H.A., and Professor Jethro Brown, M.A., LL.D.

DISPOSAL OF OUR DEAD BY CREMATION.

GREGORY SPROTT, M.D., D.P.H., Health Officer for the City of Hobart, etc., read a paper on this subject.

Mr. W. F. WARD (Government Analyst) said he would like to say a few words in support of Dr. Sprott's ideas. To overcome the sentiment now prevailing against cremation the rising generation must be inculcated with the scientific aspects of the question. If people would only think what actually takes place in the ground there would soon be a revulsion of feeling in favour of cremation. He had personally had some experience in regard to the exhumation of bodies and the contamination of water in the vicinity of church yards. In regard to the medico-legal objection to cremation, he thought that it was desirable that all poisons sold should be mixed with the bright green powder, oxide of chromium. This would render the accidental taking of poisons almost impossible and the felonious administration of them a matter of very great difficulty. If the oxide of chromium were mixed with the various poisons in certain definite quantities it would be comparatively easy after cremation, for oxide of chromium could be found in the ashes, even if the poison with which it had been mixed were destroyed by the fire, to detect what poison had been used.

Hon. C. H. GRANT spoke in terms of warm praise of Dr. Sprott's paper, and said there was no doubt that cremation in time to come would be the indispensable form of burial. He would like to see in connection with the crematories destructors to burn up all organic substances liable to putrefy. He assured Dr. Sprott that the audience had listened with the greatest interest to the paper, and if he had not converted them all to cremation as against earth burial, he had probably converted a good many.

Dr. SPROTT, in closing the discussion, said cremation as a matter of sanitary reform must come. He was not competent to deal thoroughly with the religious objections, but the sentimental objections were simply a matter of custom. He hoped that the reform would not be made in a hurry; that it would not be forced upon the people, but that they would be educated to ask for it.

IGNEOUS ROCKS.

The SECRETARY, in the absence of the authors, read a paper on "Some Igneous Rocks from the Heazlewood District," by Messrs. W. H. Twelvetrees, F.G.S., and W. F. Petterd, F.Z.S.L.

Mr. R. M. JOHNSTON spoke of the excellent work the authors of the paper were doing in that particular branch of science. No doubt in the future all the rocks of Tasmania would be analysed by them, and their papers would largely enrich the records of the Royal Society. The meeting could not do other than accord Messrs. Twelvetrees and Petterd hearty thanks for their valuable paper.

A VISITOR AND REMARKS ON TASMANIAN IRON.

The Secretary introduced to the Chairman and the meeting Mr. W. G. Dauncey, C.E., of Sydney, who is on a visit to Tasmania in connection with the Blyth River and Penguin iron deposits. In reply to questions, Mr. Dauncey said the chrome existent in much of the Tasmanian iron ore was deleterious. Chromic iron lacked malleability, and the demand for it was very limited at the present time. He had, after considerable research, discovered a substance for which chrome had a greater affinity than iron, and it was possible by his method to extract the chrome and leave excellent iron. But when he had made this discovery he learned that that there were vast deposits in Tasmania without the percentage of chrome. He had sent home a bulk sample of Tasmanian iron, for which he was assured by one of the largest buyers in England he could rely on obtaining about 16s. 6d. per ton. By sending the ore home as ballast in the wool ships it could be made to pay at that price. He had had the offer to take any quantity up to 1,000 tons per month, in the wool season, at 5s. per ton. He had about 30 analyses of the Penguin ore, and 9 out of 10 of them showed no trace of chrome.

THE BEN NEVIS OBSERVATORY.

Mr. H. C. KINGSMILL, M.A., Meteorological Observer, read the following letter which he had received from Mr. Alex. Buchan, President of the Scottish Meteorological Society.

Scottsdale Meteorological Society, 122, George-street, Edinburgh, April 13, 1897. Dear Sir,—I had the pleasure some days ago of sending you a parcel of books and papers relative to our Ben Nevis Observatory, and the im-

portant part it has been and is playing in the development of meteorology and that department of the science which deals with forecasting the weather. I enclose also the recent reports of our Council, and in a few days shall send you a parcel of the publications of the Society. We have in advanced preparation for the press the hourly observations at the high and low level Ben Nevis Observatories, which will fill two large quarto volumes, along with which will be incorporated a full discussion of the whole work done down to date. It is expected this will go to press early in the autumn. The result was that we carried every point along the whole line, and this the British Association recognised by giving the Ben Nevis Committee a grant of £150 in aid of the work. But matters did not stop here. In November, 1887, Sir George Stokes required, on becoming a member of Parliament, to resign his position as a member of the Meteorological Council. To this vacant seat on the Council I was nominated by the Council of the Royal Society, and H.M. Treasury confirmed this nomination. I took my seat in January, 1888, and have since given a monthly attendance at the meetings. In truth, I write this letter in London before going to the meeting of the Meteorological Council to-day. It was the Meteorological Council that really established the Ben Nevis Observatory, by offering in 1882, unsolicited, an annual grant of £100, when observations were made regularly. This grant has been regularly paid since. Further, it soon became clear that if the Ben Nevis Observatory would perform its work properly it was necessary to establish a first-class observatory at Fort William, at which hourly observations could be made just as at the top. This matter was brought before the Meteorological Council, who at once agreed to equip and maintain the observatory at Fort William, making for it an annual grant of £260. Thus, then, for the past seven years the directors of the Ben Nevis Observatories have received £360 annually from the Meteorological Council (out of the annual Parliamentary grant of £15,500) towards the maintenance of the two observatories. For the value of the Ben Nevis work, let me refer you to the three enclosed reports and to the successive annual reports to the British Association from 1887 to 1896. As you know the great problem of weather calls for a more accurate and more extended knowledge of the cyclone and its attendant, the anticyclone, than we yet possess. The Ben Nevis observations have already put us in the way of predicting whether the coming cyclone is to be a deep one or a shallow—a piece of knowledge of prime importance, and of so far foreseeing the future movements of the anti-cyclone. Further, the hygrometric observations on the top of Ben Nevis, taken in connection with the pressures and temperatures at both observatories, indicate whether coming rains will be heavy and widespread, or only merely light and sporadically distributed. Now here is the part to be played by the high level observatories with their accompanying low level ones in Tasmania and Australia. In the Northern Hemisphere the irregular distribution of land and sea enormously complicates the problem, and delays for years the successful prosecution of the weather problem. But in the Southern Hemisphere it is water all round the Antarctic, with its wonderfully low barometric pressure. Hence you have your cyclones in their simplest and least distracted forms; and no place on the globe can be named at all approaching Tasmania for the establishing of a double high and low level Meteorological Observatory, by which the problem of the weather could be so successfully prosecuted. Our investigations impressively show how essential it is in this inquiry to have ordinary Meteorological Stations well distributed over the surrounding country as necessary adjuncts.—Very sincerely yours, (Sg.) ALEXANDER BUCHAN.

THE HARE SYSTEM.

Discussion of the papers by Mr. R. M. Johnston and Professor Jethro Brown on the "Hare System" was postponed owing to the lateness of the hour.

THANKS.

The CHAIRMAN thanked those gentlemen who had contributed papers or had taken part in the discussion, and the proceedings terminated.