TESTIMONIAL TO MAJOR-GENERAL SIR
J. F. D. DONNELLY, K.C.B.

AT a meeting in the Lecture Theatre of the Victoria and Albert Museum on Wednesday, November 29, which was very numerous attended by members of the present and past staff of the Department, and by men of science and artists who have been connected with it, Sir John Gorst presented, on the behalf of some five hundred subscribers, the testimonial to Sir John Donnelly.

This consisted of a silver salver, a set of library furniture, a collection of books of reference, a Zeiss binocular, and a diamond brooch for Lady Donnelly, and the inscription on the salver stated that it was in recognition of their high regard and in remembrance of their cordial relations of more than forty years.

Sir John Gorst, in presenting the testimonial, said: Ladies and gentlemen—I have been invited this afternoon to perform one of the most pleasant duties that has fallen to my lot since I have had the honour of being Vice-President of the Committee of Council on Education. It is to present, in the name of the gentlemen who have been employed at South Kensington as colleagues of Sir John Donnelly, a memento of the long period of public service which he has performed in this place, and a testimonial of the affection and sympathy with which he is regarded by the gentlemen who have been his colleagues.

I have myself been a colleague of Sir John Donnelly for about four years, and speaking of my own personal experience, I can only say that I have received from him, upon all occasions, the most loyal co-operation, which has been enhanced by a very strong personal friendship.

I had an opportunity about three years ago of seeing an attack, made ostensibly on the department of which he was the head, but which really had a considerable amount of personal animus in it.

There was an inquiry by a Committee of the House of Commons, in which Sir John Donnelly was virtually put upon his trial, and I can only say that, in the opinion of his official chiefs—the Duke of Devonshire's opinion was the same as my own—from that inquiry Sir John Donnelly emerged with the conclusion, in the minds of those who have read the evidence, that he had been a most loyal servant of the Department, that there were no allegations made against him which could be substantiated, that his administration of the Department had deserved the approbation of the country, and that the insinuations made against him were absolutely baseless.

Sir John Donnelly had served the department for upwards of forty years, and the testimonial, of which you have been good enough to ask through me his acceptance, is before you on the table. There is one point about it which deserves special allusion on my part. Among the objects which Sir John Donnelly has been asked to accept is a binocular, and, I think, you will be interested to know that that binocular is entirely the gift of the junior staff of the Department. It has been subscribed for by 150 persons, comprising stokers, expolicemen, labourers, boys, and those who form quite the bottom of this great Department. I think the value of this gift—which shows the estimation in which he was held by this very important but not very wealthy class of the public service—will be to him as much as any of the more costly gifts. I am also asked, at the same time, to present a diamond brooch to Lady Donnelly, and I am sure that it will be extremely gratifying to Sir John Donnelly to know that the estimation in which he has been held by this Department has been shared by Lady Donnelly. In the name of the employes of the Department of Science and Art I beg your acceptance, and Lady Donnelly's acceptance, of these testimonials.

Sir John Donnelly and Lady Donnelly made suitable replies.

It has been arranged to entertain Sir John Donnelly at dinner at the Victoria Room, Criterion, on Tuesday next, December 12. Many representatives of science and art, who are or have been connected with the Department and its affiliated Institutions, will be present as a recognition of the valuable services he has rendered.

THE NOVEMBER METEORS.

IN nearly all the accounts of the observations of the Leonids the same result is recorded, namely, the apparent dearth of these bodies. It is true that unfavourable weather conditions were experienced in many localities; but even taking this fact into account, it may be safely said that the expected shower did not arrive in anything like the density it was expected, at any rate during the nights in which watches were kept.

In a previous number of this journal (vol. lxi. p. 81) many communications were published describing, for the main part, observations made in the British Isles. Several accounts of other observations have recently come to hand, and the following brief summary shows that the result of these watches did not differ very much from that mentioned above.

Paris was evidently blessed with more favourable weather conditions than London. In the first balloon ascent, on the morning of November 14–15, the following number of Leonids was seen:—

	h. m.	h.	
From	1 45	to 2	... 2 Leonids.
"	2	" 3	... 13 "
"	3	" 4	... 10 "
"	4	" 5	... 26 "
"	5	" 6	... 40 "

Of these 19 were of the first magnitude, 43 of the second, 29 of the third, and 9 of the fourth. It is further stated that this number would probably have been considerably increased if the moon had been absent.

At the second ascent, on the night of November 15–16, in a watch from 1h. 20m. a.m. to 6 a.m., only 8 Leonids were observed. M. Bailland, at the Observatory of Toulouse, observed from 1–6 a.m., on the morning of the 16th, and only saw 43 Leonids in that long watch. M. Deslandres, at Paris, who had made great photographic preparations, was no more fortunate than the British observers.

From Strasbourg we learn that on the morning of the 15th many Leonids were seen; the maximum number occurred about six o'clock, when the rate reached sixty per hour. This seems to be the greatest number per hour this year recorded, and is in harmony with the observations made at the first balloon ascent referred to above.

The above accounts corroborate the statement that night observations made in different parts of the world have failed to record a *great* shower. If the earth did not actually pass through the dense part of the swarm in the daytime at some place, then we must conclude that the actions of some of the planets have so perturbed the orbit of the meteors that this year we have only skirted the outlying portion of the stream.

Two accounts of "daylight" observations of the Leonids have come to hand, and for one of these we must thank Prof. N. Story Maskelyne, who, when he heard of them, requested a written statement of the display from each of the spectators, asking them to describe in simple words what they were quite certain they saw.

The place of observation was Little Hinton, Warrington, Swindon, Wilts, a village about 400 feet above sea-level, and a mile or so from the old Roman road from

Cricklade to Newbury; to the east of that road where it traverses Wanborough (a few miles east of Swindon).

The observers, whose descriptions are given below, were Miss May Jeans, aged eighteen; Mr. Purcell Jeans, aged sixteen; and Miss Emily Swayne.

Miss Jeans' description is as follows:—

"November 22.—Last Wednesday afternoon, November 15, as I was lying down in an easy chair, looking out of a window facing north, and was not thinking of seeing the meteors, but suddenly I noticed them. Immediately I called Miss Swayne to come and look and see if she could also see them. We then went out of doors to look at them; the air seemed full of them, both large and small meteors. There was a thick mist at the time, which cleared off after the shower was over. The element seemed alive with them; small ones were on the background, and larger ones suddenly appearing and shooting across the sky. The shower lasted about an hour. It was half-past one o'clock when first I noticed them. Just before half-past two, my brother, Purcell Jeans, came in from a walk, and I called him to see them. They were nearly over then. We also called Mrs. Prismatic of this village, our washerwoman. They were like silver balls shooting about everywhere, shining brightly, more like a very starlight night; only the stars, instead of being a gold colour, were silver, and every star shooting in all directions. It is so difficult to describe, as I have never seen anything like it before."

Mr. Purcell Jeans writes:—

"When I came back from a walk, on Wednesday, about a quarter-past two o'clock, Miss Swayne told me to come and look at the Leonids, which I did. They were nearly over then, but the elements seemed full of them. I went indoors for a few minutes, and when I came out there was nothing more to be seen of them. There was a mist prevailing at the time, which we thought must have been the cause of our being able to see them. I was very much surprised at the sight, as I never thought it possible to see stars in the daylight. They looked like a lot of little silver balls floating about, and apparently falling to the earth."

Miss Emily Swayne's description of the shower is as follows:—

"I had just come indoors, on Wednesday last, November 15, at half-past one o'clock, and remarked to the washerwoman what a peculiar feeling there was in the air, as if we should have snow, and yet it did not feel cold enough. Almost as I finished speaking Miss Jeans called me. I found her sitting in an armchair quite close to the window. She exclaimed, 'Come and see. I believe I can see stars.'

"I thought it impossible, and would not believe it, but I looked, and certainly saw what appeared to be stars. We then went out, calling the washerwoman to come with us.

"I was facing the north. The air seemed filled all round me with little floating silver balls, which apparently fell from the sky, and on looking right up I saw what seemed to be large shooting stars, all starting from one point, some going east and others west; some leaving longer lines of light behind them than others. I thought it a very wonderful sight, and have never seen anything at all like it before."

The above descriptions give a fairly good account of a meteor shower seen during the daytime, and it will be interesting to hear if any other people in that neighbourhood noticed anything on that date.

The second communication hails from Aveley, in Essex, and the correspondent, Mr. E. Shaw, writes as follows:—

"We observed what appeared to be the meteor shower yesterday (Wednesday, November 15) afternoon between the hours of three and half-past four, resembling a shower of snow, only they were stars, working in and out and round about. We are not mistaken, for two persons in my house saw them."

Considering the accounts of these "daylight" observations in conjunction with those made at Paris and Strasbourg, there seems to be a certain amount of continuity between them.

At both the latter places the shower had every appearance, judging by the numbers of meteors observed, of

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increasing in intensity as the morning of the Wednesday wore on, and there seems no reason why the actual maximum should not have occurred about mid-day on the same day, and thus escaped more general notice. At the time of the observations made at Little Hinton, the constellation of Leo was already well below the horizon, so that the shower should also have been seen from some place during the night time. As no news of any such display having been seen has come to hand, these observations therefore receive no corroboration. Miss Swayne's statement that the shooting stars were "all starting from one point, some going east and others west," shows that they could not have been Leonids in any case. The observations are, however, worth recording, but that they refer to the Leonids is very much open to doubt.

The Andromedes.—This swarm of meteors, which follows the Leonids somewhat closely as regards the time of year, seems to have been seen by several observers.

From America we learn that Prof. Young, at Princeton, on the night of November 24, saw forty-two Andromedes and secured several photographs, but the period of observation is not stated. Mr. E. C. Willis, of Norwich, made many observations on the same night, and these are given below:—

November 24.

Time.	Meteors seen.		Remarks.
	Andromedes.	Others.	
10.0–10.15	20	1	Fine.
10.15–10.30	9	2	Fine, but some cloud.
10.30–10.45	4	2	Fine.
10.45–11.0	6	2	Fine.
11.0–11.15	9	2	Fine.
11.15–11.25	4	1	Partly clouded, moon just risen.

Before 10h. no systematic watch was made, but if the meteors had been exceptionally abundant, they would have been noticed.

11h. 30m.–16h. 45m. Sky entirely overcast.

16h. 45m.–17h. 15m. Slight breaks in the cloud, but no meteors seen. W. J. S. LOCKYER.

FERDINAND TIEMANN.

CHEMISTS will learn with regret of the death of Prof. Ferdinand Tiemann, which occurred at Meran, of heart disease, on November 17.

Johann Carl Wilhelm Ferdinand Tiemann was born at Rübeland in 1848. He graduated as Ph.D. at Göttingen in 1870, and afterwards held the post of demonstrator under Hofmann in Berlin, in whose laboratory most of his researches were carried out, frequently in collaboration with students and pupils. In 1882 he was appointed professor of chemistry in the University of Berlin, and in the following year he succeeded Wichelhaus as editor of the Reports of the German Chemical Society, a post which he resigned in 1897.

Tiemann's best known researches deal with the constitution of odoriferous principles. In 1874 he showed that the glucoside coniferin, which occurs in the sap of coniferous trees, could be hydrolysed by emulsin into glucose and coniferic alcohol, and that the latter compound, when oxidised, yielded vanillin, identical with the odoriferous principle of vanilla. A manufactory was established at Holzminden under the direction of his pupils, Haarmann and Reimer, both of whom had been associated with him in his researches on vanillin, and the commercial