

degrees less than the figure given by Dr. Fisk as the mean of four years' observation at Augusta. As further proof of the dryness of the atmosphere of Aiken, I would direct attention to the absence of mould on boots and shoes, and to the fact that guns, and even delicate surgical instruments, may be exposed to air for months at a time without rusting. There are many other differences between the climates of Aiken and Augusta; but the above is sufficient to show that Dr. Fisk has indulged in an inference, when, with a little trouble, he could have obtained facts, the meteorological data for Aiken being on file at the office of the chief signal-office, U. S. A., since the establishment of that bureau, and prior to that time at the Smithsonian institution, not to speak of various publications on the climate of Aiken, which have appeared in the different medical journals of the country.

W. H. GEDDINGS.

Aiken, S.C., Nov. 5, 1883.

On the possible connection of the Pons-Brooks comet with a meteor-stream.

I desire to call attention to some slight evidence of the existence of a meteor-stream which may possibly stand in some sort of connection with the Pons-Brooks comet. From an examination of all the available material of published meteor-tracks in the interval Dec. 5-8, I find, that after excluding those manifestly emanating from the well-known and active radiants in Andromeda, Gemini, and Taurus, there remain twenty-three meteors observed by Heis on Dec. 8, — about two-thirds of them in 1847, and the rest in 1855, 1857, and 1867, — and ten meteors observed at Vienna, Dec. 7, 1868; all of which indicate a strongly marked radiant in Draco. From these data I have carefully determined the position of this radiant, as follows:—

	R. A.	Decl.	Long.	Lat.
10 meteors on Dec. 7,	198.0°	+72.0°	135.0°	+65.6°
23 meteors on Dec. 8,	190.0	+69.7	137.2	+62.4

and from these I derive the following orbits, to which I add for comparison that of the Pons-Brooks comet.

	Meteors of		Pons-Brooks comet.
	Dec. 7.	Dec. 8.	
T = Perihelion passage.	Dec. 28.	Dec. 23.	1884. Jan. 25.82.
Long. of perihelion . .	44.5°	55.1°	93° 21'
Long. of node	256.1	256.3	254 6
Inclination	68.5	72.7	74 3
Log. per. dist.	9.9600	9.9784	9.8894
Eccentricity	—	—	0.9550

The resemblance is thus not sufficient to give any considerable probability to the hypothesis of an intimate relation. On the other hand, the position of the radiant from present data is too uncertain to enable us to pronounce against that hypothesis.

The differences in inclination and longitude of perihelion are not greater than are due to uncertainty in the observed radiant points: the T and the

node are, of course, of no significance in the comparison. The descending node of the comet's orbit lies at the distance 0.200 inside the earth's path, and the difference of the perihelion distance of the comet and the meteors is about 0.15. There is nothing in our present knowledge of the dimensions of meteor-streams, or of the nature of their relations to comets, definite enough to render such a breadth as is here implied evidence against a possible connection. On the whole, therefore, it appears desirable that meteor-observers should give close attention to the radiant in question about the date of the earth's passage through the plane of the comet's orbit, Dec. 5 to Dec. 7. Observations this year are likely to prove especially instructive on account of the proximity of the comet, which passes the node only a few weeks later.

S. C. CHANDLER, Jun.

Harvard college observatory,
Nov. 12, 1883.

Prize-essays on the experimental method in science.

Dr. Maurizio Bufalini, an Italian *savant* who died nearly ten years ago, left provision in his will for the payment of a prize to the person presenting the best essay on the subject of 'the experimental method in science' to the section of medicine and surgery of the Royal institute of higher studies at Florence. The essay must be written in Latin or Italian, and be presented to the chancellor of the section of medicine and surgery on or before the 31st of October, 1884. The prize is five thousand francs.

The institute has declared that all persons are at liberty to compete for this prize; and accordingly the representative of the Italian government, acting under instructions from that government, forwarded to our Department of state a programme giving in detail the subject proposed for the essay, and the conditions to be followed by the competitors, with a request that it be brought to the attention of Americans. The programme has been forwarded to the Bureau of education by the Department of state, and will be published as a bulletin as soon as practicable. In the mean time, such information, relative to the matter, as the Bureau of education possesses, may be obtained by addressing Gen. Eaton, commissioner of education, Washington, D.C.

CHARLES WARREN.

Bureau of education, Washington,
Nov. 9, 1883.

The model of Architeuthis at the Fisheries exhibition.

In the number of SCIENCE for Nov. 9, you have copied without correction a photograph of part of the London International fisheries exhibition, which shows my model of Architeuthis wrongly put together. For convenience of packing, the tentacular arms were made to take apart in three pieces; but, when the model was set up, the basal and terminal pieces were put together, making the tentacles ten feet too short. The man who had charge of the work, not knowing what to do with the remaining pieces, stuck them in at the sides of the mouth, thinking that he might find in some other box a pair of terminal clubs to put on them. In this way the model was left at the opening of the exhibition, until some visitor happened to notice the mistake, when, I believe, the extra pair of arms was taken out, leaving the tentacles still too short.

J. H. EMERTON.

New Haven, Nov. 11, 1883.