## On the supposed fall of a Meteoric Stone at Chartres, Eure-et-Loir, France, in September 1810.

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## [Read October 30th, 1888.]

IN a list of the known falls of meteorites published by Meunier in 1884<sup>1</sup>, is a record of the fall of a meteoric stone at Chartres, Eure-et-Loir, France, in September 1810, and as authority is quoted the catalogue of the metcorites of the Muséum d'Histoire Naturelle at Paris. No stone of that name is mentioned in the printed list of the Paris collection published in 1882, but according to a later manuscript five grams were in the Muscum in the year 1885. The anthenticity of the fall is accepted in the lists since published at Vienna and at Harvard College. No representative of the fall, however, appears in any other list of the better known meteorite collections, and it seemed that only the fragment at Paris had escaped destruction. Lately, however, on receiving from Professor Lewis a manuscript list of the meteorites under his charge, I was agreeably surprised to find that a piece weighing no less than 60 grams of a Chartres stone was in the Cambridge collection. The specimen and its label were sent to me for inspection, and they suffice in my opinion to prove that the Chartres fall of September 1810 is mythical, and owes its origin to a simple error of memory.

The Cambridge specimen is part of the collection bequeathed by H. J. Brooke, Esq., F.R.S., to the University, and is accompanied by a label bearing the following inscription :- Metéorite d'une commune pres de Chartre en Bauce, Septembre 1810. As regards the orthography of this label, we may direct attention to the omission of the accent from the first e of Météorite and from the e of pres, to the omission of the s from Chartres, and of the first e of Beauce.

Chartres, 50 miles S.W. of Paris, is the capital of the department of Eure-et-Loir and the seat of a bishopric, and is identical with Chartres en Beauce, Beauce being a district of the ancient province of Orléannais.

Having regard to the identity of indefiniteness of the record by Meunier and of the Cambridge label, we can have no hesitation in inferring that

<sup>&</sup>lt;sup>1</sup> Encyclopédie chimique, Tome 2; Appendice, 2me cahier, p. 510.

the two collections have derived their information about the fall from a single source. As far as I can discover, no printed particulars of such a fall have ever been published, and its authenticity would seem to rest merely on the accuracy of a label. But if we give the matter our consideration, it will be seen to be incredible that a fall can have taken place at that date so near Paris, and a stone have been preserved, and yet no report have been published at the time. At the beginning of this century men of science had only been just convinced of the reality of the fall of stones from the sky, and were anxiously awaiting material for further examination. Hence when a fall actually did take place on 23rd November, 1810, in the Commune of Charsonville, about 30 or 40 miles from Chartres, voluminous reports from numerous observers were published, stones were carefully searched for, fragments were sent to Vauquelin at Paris for analysis, and specimens are still preserved in most of the meteorite collections in the world. Bigot de Morogues, an enthusiast in all that concerned meteorites, resided within easy reach of Charsonville and Chartres, and personally took part in the collection of information relative to the November fall. In his well-known book<sup>1</sup> he devotes more than thirty pages to a mere summary of the reports which had been made relative to the meteorites of Charsonville. If there had been a stone-fall in the same part of France only two months before he could not have failed to have heard of it, and yet he makes not the slightest mention of even a rumour of such an event.

Is not the explanation simply this? A fragment of one of the Charsonville stones having been preserved for some time without label, was at last provided with one, the writer of the label trusting to his own or someone else's memory for his statements. He felt that the Charsonville fall was so far famed that the indefiniteness of the label could lead to no confusion. In any case, he had certainly forgotten the name of the commune and the day of the month; and in his defence we may observe that the commune ot Charsonville is, however important celestially, of so little terrestrial significance that it is not entered in any ordinary atlas. Is it not clear that, having forgotten the name of this unimportant commune, he introduced the name of Chartres as being that of the capital city of what he considered to be the district of the fall? Further, would it not be easy for him to reproduce correctly the number of the month? The orthography of the label, called attention to above, is enough to cast doubt on the accuracy of

<sup>&</sup>lt;sup>1</sup> Mémoire historique et physique sur les chutes de pierres. Orleans, 1812.

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its writer. Even under most favourable circumstances dates are often wrongly given : in the case of the Estherville fall of May 10th, 1879, we had within a month a choice of three dates for the correct one. The Cambridge specimen supports this view : it is encrusted only on one side, and that side is almost flat, proving that the specimen is merely a very small part of a much larger stone. When it is directly compared with an authentic specimen of the Charsonville fall, the last vestige of doubt as to the accuracy of this explanation disappears : in thickness and general appearance of crust, in aspect of fractured surface, and in microscopic characters of a thin section the two are identical.