

of zoological literature. Each article is read by a zoologist who determines for what classes of workers the paper is of interest and prepares a brief résumé, noting any new species or genera described. In order to indicate the contents of the articles, the topics met with have been arranged in the form of a comprehensive classification and then numbered, so that each paper is assigned by a numerical symbol to the divisions with which it deals. The reference to each paper is printed on a card and bears the appropriate numbers to designate one of the topics treated in the publication. Where the reviewer finds various matters treated in one paper several different editions of the cards are printed, differing only from one another in the classificatory symbol employed. Thus a given work may be found to contain an account of the occurrence of a white badger in a given country, together with considerations on albinism in general. The paper would emerge from the hands of the reviewer with a symbol for each of these aspects. The indication 11.57 would mean that the paper in question dealt with albinism, and the card would accordingly be sent to subscribers interested in that subject; the symbol 9.74 Meles would mean that the card must go to all subscribers interested in the badger; and a third symbol would designate the country or district in which the animal was found. The naturalist interested in the absence of pigment in animals (albinism) subscribes for that portion of the catalogue which deals with his subject, and receives every two months the new citations of papers on albinism. Some of these may refer to observations made near at hand; but much will relate to foreign publications and might remain unknown save for the agency of the Concilium. The whole series of cards may be subscribed for by an institution, which thus secures a bibliography of zoology since 1896, the value of which, in saving time and ensuring acquaintance with the literature of any branch of the subject, is incalculable. Since it is issued on cards the catalogue is not only always up to date, but has all the references on a given topic together at one point.

Unfortunately, the actual services rendered

by the Concilium, great though they have been, have fallen somewhat short of its program. This, however, is entirely due to the limitation of its resources. The organizers of the institute are satisfied that the experimental period has proved beyond question that the program can be fully realized if they be provided with the necessary means. It is to find these means that the committee we have mentioned has been formed. Their success is greatly to be desired, and that, as we have shown, in wider interests than those of zoology alone.—From the *London Times*.

A LETTER RELATING TO THE BIOGRAPHY OF LAMARCK

PROFESSOR JOUBIN, chairman of the Lamarck Memorial Committee, has just sent the American members of this committee a copy of a letter dealing with the biography of Lamarck, written by his son nearly half a century ago. Its materials are timely and I append a translation.

LETTER OF GILLAUME DE LAMARCK, SON OF THE GREAT NATURALIST, WRITTEN JUNE 11, 1865,
TO HIS SON EUGÈNE DE LAMARCK, THEN
LIEUTENANT ON BOARD THE SLOOP
OF WAR "SURPRISE"

My Dear Son:

I have read with pleasure the few lines you sent me taken from a work of which I have never heard. *Histoire naturelle des professeurs du Jardin des Plantes*—this is indeed a singular title. One would have thought it the history of some class or other of animals; one of the most important works of my father is entitled: *Histoire des Animaux sans Vertèbres*; but "The Natural History of the Professors"—that seems to me a little strong.

Be this as it may, the eulogy does exist and it is merited. Moreover, this is not the first that I see. Nevertheless, the name of my father has remained in obscurity. I always feel provoked when I see the statues erected to Georges Cuvier, to de Jussieu, to Geoffroy Saint-Hilaire, or when I see the names of these scientists given to the streets which surround the Jardin des Plantes, when I see the busts of the professors in the galleries of the Natural History Museum, all with the exception of that of my father. But what can one do about it? It does not merely suffice to have the reputation, to have the scientific

knowledge, to be a genius, a thing which is very much rarer, but one must still be able to make one's value felt, to push one's self, to extend one's influence and above all things to flatter the great. That talent my father did not have.

In his time there were two men around whom were grouped all of those who aspired to make a name in science. They were Laplace and Cuvier.

Around Laplace were grouped all the geometers and the physicists; around Cuvier the naturalists. And there was no saving grace to any one outside of these two coteries. It goes without saying that my father belonged to neither. He remained in his corner, making no visits, and receiving only occasional strangers, and the several students whom he installed in his work room and to whom he opened all of his collections. So no one spoke of him; his most remarkable works passed unnoticed. His ideas, which were new, bold, and too advanced for the time when he wrote, contributed, also, perhaps, to keep him in obscurity, if they did not, indeed, give people an opportunity for ridiculing him. I am willing to believe that it will not always be like this.

I have spoken of a reason for the discredit which was cast upon the works of my father; but this was not the only one. There was still another, and even more grave. It was the disgrace brought upon him by the all-powerful master who then ruled.

My father loved to penetrate untrodden fields, he avoided paths too clearly marked out; for him accident was a word empty of meaning; he believed that in nature all things were subject to laws as certain as mathematics; but to discover them one must observe the facts, make comparisons and admit only the explanation which was in concord with all the facts observed. The study of meteorology attracted his attention; he gave himself up to it with the more zeal, since it was a science still in its infancy, a science as he loved them. For a long time people had, indeed, carried out meteorological observations, but these observations no one had been willing to study or to draw from them deductions. My father wished to undertake this task.

There was then in the Ministry of the Interior an intelligent man, a distinguished scientist, Chaptal. M. Chaptal approved of the project of my father. He created for him an office in his ministry and furnished him with correspondents at different points throughout the country. My father wished to keep the public in touch with the progress which he would have made in the study undertaken by him, and to this end published

a meteorological year-book in which he had the unfortunate idea of including both memoirs purely scientific and probabilities of the weather to come. This was intended to help along the sale of the work, but it furnished also a weapon for his critics. The astronomers of the Bureau of Longitude, furious to see a naturalist exploit a field which they believed belonged to them, hastened to avail themselves of this weapon; they transformed "probabilities" into "predictions," and upon this ground they made a great outcry. A member of the Institute to play the part of a Mathieu Lansberg! . . . They petitioned the emperor to cause such a scandal to be stopped. The emperor was a member of the Institute and this was not one of the titles of which he was least proud. In a public reception he apostrophized my father sharply on this subject and concluded by telling him that botany should be kept within its proper bounds. ("La botanique! A la bonne heure!") From that time the ministry deprived my father of his office and his correspondents and stopped the publication of the meteorological year-book. Thus it was that the reprimand of a sovereign before whom the entire world trembled succeeded in placing outside of the scientific pale an old man who petitioned no one, who lived retired, and who sought for nothing but the advancement of human knowledge!

Nevertheless, of what nature was this old man? Let us examine his career.

Child, and the last born, of a numerous family, he had been sent to the Jesuits at Amiens and destined to the priesthood. There was no other alternative for noble families. He had to be either priest or soldier. All of the elder ones were soldiers. So my father had to be priest. But it was not his vocation, and when he learned of the death of his father his first words were: "Such being the case, I shall not be a priest." He left the college and returned to his mother, who, not knowing what to do, yielded finally to his wishes and sent him, at the age of fifteen, to the army in Germany, commanded by Marshal de Broglie, to serve as a volunteer. He took with him a letter of recommendation to Colonel de Lastic, who received it with lively dissatisfaction, seeing only an embarrassment in having so young an apprentice to the trade of war. It was then on the eve of a battle of which I have forgotten the unpronounceable name. We were defeated through the fault of the Prince de Soubise, who failed to effect a junction with the marshal, as had been explicitly arranged in a council of war.

The French army had to retire. My father

finding himself in command of a company of grenadiers—on account of the death of all of the officers and by virtue of his nobility, fought on in a brilliant action which will be too long to describe, and which earned for him the epaulets of sub-lieutenant on the field of battle. It was a good commencement for his military career; but peace was made soon afterwards and he had to return to France and begin garrison life. I will not continue; he was forced to sell his grade of lieutenant of infantry on account of a tumor which appeared on his neck.

It was then that he made a complete change in his career. No, I am mistaken: he first remained for a while with his mother at the paternal manor; this was a time of forced inactivity, which one would be glad to drop out of his life. But finally his mother died. He had to sell the estate of Bazantin. There remained to my father only a very meager income. He had to live, he had to make a career. My father went to Paris. He first studied medicine, then abandoned this for botany. This science pleased him, he had a taste for it, he gave himself up to it ardently. One day, as he was walking with other students in the botanical school of the Jardin des Plantes, he laid a wager that he could identify whatever plant was presented him, any one at all, provided they informed him in advance the principal characters which distinguished the fruit (végétaux). He asked, in order to prepare himself, a certain delay, which was granted him, and on the day fixed, in this same school of botany, in the midst of a numerous assembly, the trial took place, succeeded, and the wager was won. Such was the origin of the Flore Française. The means devised by my father consisted in the successive elimination of two opposed characters, which is the method of dichotomy employed to-day in all classifications of natural history. The success of the Flore Française was truly prodigious. It was printed at the expense of the king and opened to my father the gates of the Academy of Sciences.

I pass without comment several other works which he published on botany and which put the seal to his reputation as a botanist. To come to those of his works to which he himself attached the greatest value.

The museum was about to be reorganized. Several new chairs were added to those already existing. The mammals, birds, fishes and reptiles were given to Geoffroy Saint-Hilaire and all of the mass of lower animals were given to my father. No one, Linné excepted, had then thrown light into the chaos formed by these beings. My father

undertook to disentangle them. He established at once the great distinction which divides the animal kingdom into two classes, vertebrate and invertebrate. And the latter class, which up to then had been nearly despised, became of such importance, when my father had brought into it the order which remains there at present, that it has been judged too large to be in the charge of a single professor, and it has been made to-day the object of two different chairs.

It is in his zoological works that the genius of my father had its full scope. To appreciate them properly one should have a knowledge which I do not possess. I can only cite the *Philosophie Zoologique* and the *Histoire des Animaux sans Vertèbres*. These are the two monuments which will appeal to posterity from the coldness of his contemporaries.

Will this appeal ever be heard? I doubt it. Nothing is more difficult to uproot than a preconceived opinion. Men are like sheep; they follow blindly their leader without inquiring the road where he is leading them. They judge rarely by themselves, and find it most convenient to adopt without examination the judgments which time has given them.

It seems that this ingratitude of mankind has been the penalty inflicted upon my father for his neglect of the fulfilment of his duties as head of the family.

I can not deny, indeed, that his conduct in this regard is not reproachless. Undoubtedly it is ideal to devote one's self to science without the slightest regard to worldly ambition or to fortune, but this is the very condition which the interests of the family will not suffer.

My father was three times married—from the first marriage he had six children, from the second two and from the third none.

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The conclusion of the letter contains the history of the five sons of the naturalist, only one married, the author of this letter. Of Lamarck's three daughters, the eldest, Rosalie, was his devoted secretary in the days of his blindness.

BASHFORD DEAN,
Treasurer of the American Branch of
the Lamarck Memorial Committee

COLUMBIA UNIVERSITY,
NEW YORK

EDWARD GARDINER GARDINER

EDWARD GARDINER GARDINER was the son of Edward Gardiner, of Boston, and of Sophia