kind are to be expected rather than severely commented on; especially considering the imperfect material which the authors had in some cases at their command, and the doubt which still hangs over the origin and preparation of some drugs familiar to pharmaceutists in this country. Only in a few instances is the species depicted for the first time; but in all other cases it has been, where possible, drawn afresh either from a living plant or from a dried specimen in the herbarium of the British Museum. No botanist's or pharmaceutist's library will be complete without this work, which will long be the standard book of reference on all subjects connected with the origin, preparation, and uses of the products of medicinal plants.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.*

[*The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.*]

Novel Source of Frictional Electricity

I WISH to put on record the fact which I communicated to the Physical Society last week, that the motion of a chalk cylinder under a metallic surface generates an electric current having an E. M. F. of rather over one-third of a volt.[1] The strength of the current depends on the rate of rotation and the pressure on the surface of the chalk; the latter simply diminishes the internal resistance, which is of course very high. The discovery is due to a suggestion made to me so long ago as last November, by Prof. Silvanus Thompson, who wished me to try whether the motograph receiver of the Edison telephone could be used as a transmitter. I was unsuccessful at the time, but under favourable circumstances I find the voice is faintly but accurately transmitted on speaking into the receiver, so long as the chalk is made to rotate.

W. F. BARRETT

Royal College of Science, Dublin, March 1

Carnivorous Wasps

IN NATURE, vol. xxi. p. 308, there is a statement as to an exceptional case of carnivorous habits in honey-bees, which I can believe all the more easily, as I know that bees, apparently from a lack of their usual food, occasionally attack plums and other fruits, of which in ordinary seasons they take no notice.

Several years ago, when grouse-shooting in the county of Sutherland, I observed a wasp (a rare insect in those parts) struggling with something on the ground, and found that it was in the act of devouring a caterpillar, which was still alive, but considerably mangled by the mandibles of the wasp. In Sutherland this species of smooth, green caterpillar is abundant, and is a favourite food of the black game, whose crops are sometimes full of it.

Is it not unusual for the common wasp to eat living creatures of any sort?

To all of our party the thing appeared extraordinary, and I thought of writing to NATURE at the time, but omitted doing so until reminded of the occurrence by reading about bees devouring moths.

DAVID WEDDERBURN

March 2

Stags' Horns

MISS BIRD sends me, in answer to my inquiry, the following additional information as to the cast stags' horns found in the high valleys of the Rocky Mountains:—

"There are several small valleys opening from Estes Park, Colorado, which were resorted to by elks for the purpose of shedding their horns. In one of these, at the time of my visit in 1873, they lay quite thick. Some were quite recent, and others were bleached with age. I have not myself seen any but elk horns, but hunters told me that the spotted deer resorted to a valley near Long's Peak to shed their horns. I also came upon a large number of elk horns in a valley near Tarryall Creek, South Park, Colorado.

"Near Estes Park some of the horns were so recent and in such good order, that I hoped to procure some to take home; but on examining even the most recent closely, I found that they were all more or less injured by abrasion against some hard substance, as I thought. Two hunters, named Comstock and Nugent, told me that with good glasses, from certain points which they named, they had seen the elk violently rubbing their heads against the rocks, with the view, as they supposed, of ridding themselves of their horns. I am sorry that I cannot contribute more accurate observations on the subject."

B. W. S.

[1] The chalk had been impregnated some months before with a solution of phosphate of soda, but when used was practically dry, and had a hard, smooth surface, almost like polished marble.

PIERRE ANTOINE FAVRE

WE are called upon to chronicle the death, at Marseilles, on February 17, of Prof. Pierre Antoine Favre, whose name is so intimately connected with the history of thermo-chemistry. Born at Lyons, February 20, 1813, he entered upon a career of scientific study at Paris, devoting himself especially to chemistry, under the direction of Peligot. After completing the usual course of study, he accepted a position in the laboratory of Prof. Audral, under whose guidance, as well as under that of Dr. Jecker, he made a series of researches in physiological chemistry. Returning to his former teacher, Prof. Peligot, at the Conservatoire des Arts et Métiers, in the capacity of assistant, he speedily created a reputation by his investigations in thermo-chemistry, and was appointed Assistant Professor of Chemistry in the Medical Faculty of Paris. After filling this position for nine years, Favre was appointed to the Chair of Chemistry in the Scientific and Medical Faculties of Marseilles. Here his marked abilities caused his election as Dean of the Scientific Faculty. Failing health forced him to give up the active duties of his professorship in 1878.

Favre's first research (1843) was on the atomic weight of zinc, and had in view the ascertaining of its being a whole multiple of that of hydrogen. Following this (1844) came an extensive research on mannite, yielding a number of new and important reactions. The most noteworthy of his investigations in physiological chemistry were those on the blood of persons suffering from scorbutic complaints (1847), in which he signalled an increase of fibrine and a decrease of the number of corpuscles and on the composition and properties of the perspiration of the human body (1852). For this latter purpose he succeeded in collecting no less than 40 litres of perspiration, a quantity which allowed him to discover the hydrotinic acid peculiar to this liquid, as well as to show the predominating presence of NaCl among its soluble constituents. Favre's only contribution to technical chemistry was his proposal in 1856 to decompose the refuse sulphides of the soda works by hydrochloric acid, and conduct the sulphuretted hydrogen liberated to the pyrite furnaces or into solution of sulphurous acid.

Apart from the above-mentioned researches, his career as an investigator—extending over a period of nearly thirty years—was devoted almost exclusively to solving the problems of thermo-chemistry, devising necessary apparatus of the most exact precision, gathering an enormous mass of experimental data, correcting and comparing the results of other workers, and elaborating the entire structure of this important branch of chemical physics. For the first six years J. T. Silbermann, like himself at the time assistant in the Conservatoire des Arts et Métiers, was associated with him in the investigations. The first requisite for the correct determination of thermic equivalents was a series of calorimeters of the utmost exactitude, and this want was met by the construction of the two well-known pieces of apparatus bearing the names of the two chemists. The first, intended for the determination of the heat given off by reactions between solids and liquids, consists of a large mercurial