chemistry during the second and third quarters of the last century.

Following President Remsen's address, short accounts were given of the following honorary members of the society, whose deaths have been recently announced: Mendelejeff, by Professor H. P. Talbot; Roozeboom, by Professor A. A. Noyes; Berthelot, by Professor J. F. Norris; Moissan, by President Remsen.

A vote of thanks was tendered to President Remsen and the other speakers, for the very interesting addresses and the section adjourned at 10:25 P.M. As usual, a light lunch was served immediately after adjournment.

Frank H. Thorp,
Secretary

DISCUSSION AND CORRESPONDENCE

THE MISLEADING AND THE NON-INFORMING TITLE

To the Editor of Science: There is a matter to which frequent reference has doubtless been made in print, but to which I now recall attention.

I allude to (1) 'the misleading title' and (2) 'the non-informing title.'

1. I need give no particular instance. Entomological magazines are full of 'Entomological Notes in Spain,' 'A Trip to Switzerland,' etc., referring actually to Lepidoptera only; or 'Coleoptera from Moray,' to which a list of the Hemiptera captured is added as a foot-note. These are a great nuisance to the specialist.

2. I take as an example, the *Proc. Linn. Soc.: New South Wales* (2), VI., part 3 (1892), not because the publication is alone in its misdemeanor, but because I have just been referring to it.

There are four papers in the 'list of contents' which convey no idea of even to what class they refer, unless one indeed chances to have heard of the forms previously.

(*a*) 'On the synonymy of *Helix* (*Hadra*) *gulosa* Gould.' On the second page (322), 'Conchology' and 'Mollusca' are mentioned.

(*b*) 'Observations on the Chloræmidæ,' etc. Who, but a student of the worms, knows what a chloræmid is? We find no help till the middle of the first page, when it is mentioned as a chætopod and it is quite likely that some specialists do not know what a chætopod is. It is, however, termed an annelid on the fourth page.

(*c*) 'Descriptions of two new species of *Carenum* from West Australia.' I do not think there is anything in the six pages of this paper to inform us to what class *Carenum* belongs, unless by inspection of the horismology used. I presume, from certain words employed, and from the fact that Mr. Sloane is the author, that it is a carabid beetle.

(*d*) 'Description of a new *Diplomorpha*.'

'Shell,' 'Conchology,' etc., are used, informing us that the genus is molluscan.

The above remarks are made on the supposition that the 'Proceedings' are in front of us; but what is the unlucky wight to do who only sees a list of the contents as an advertisement in some other journal?

The instances cited and the countless other similar ones are a disgrace to the authors and editors concerned. The simple method adopted by, *e. g.*, the Entomological Society of France in their *Bulletin*, is now urged. An abbreviation of the order, or orders, concerned is placed in square brackets after the title, thus 'Note sur *Corœbus fasciatus* Vill. = *bifasciatus* Ol. [Col.] et ses parasites [Hym.]'; so that we know at once that this paper deals with Coleoptera and Hymenoptera. This is sufficient for entomological publications; for those of wider scope, the addition of the class would be useful, thus '[Ins. Col.]' or '[Crust. Dec.].'

There are already troubles more than sufficient, in the path of the present-day worker who strives to keep himself informed of the literature of his chosen subject, in the shape of multifariousness of publications and of languages, false dates of publication, false pagination of separata, and so forth, without his being compelled to resort to Scudder and Waterhouse, often only to find that the generic name desired has been employed three or four times, perhaps in different phyla.

G. W. Kirkaldy

THE DISPUTED ERUPTIONS OF VESUVIUS

To the Editor of Science: It occurs to me that two important bibliographical references

omitted by Dr. Eastman in his note upon the disputed eruptions of Vesuvius are L. Riccio, 'Bibliografia della eruzione vesuviana dell'anno 1631,' in *Arch. Stor. Napol.*, XIV., pp. 437 et seq., and the most exhaustive bibliography of Vesuvian eruptions that I know about, that compiled by Herr Furcheim (E. Prass, Naples, 1897). This latter is a work that took many years to complete.

As Professor B. Croce, of Naples, says, the terrible eruption of 1631 produced a great corpus of scientific and poetic literature concerning it. Perhaps the most noted of the literati who treated of it was Giambattista Basile (1575–?–1632) the celebrated author of the Pentameron entitled Lo Cunto de li Cunti, one of the chief monuments of Neapolitan dialect. One of the three sonnets which Basile composed upon the memorable occasion is a masterpiece of poetic visualization:

Con vomero di foco, alto stupore,
Mostruoso arator solca il terreno,
E il seme degl'incendii accoltoal seno
Vi sparge, e'l riga di fervente umore.
E, quindi, a fecondarlo in rapid'hore,
Di cenere ben ampio, ilrende pieno;
Onde, quanto circonda il mar Tirreno,
Messe raccoglie di profondo horrore.
Ma, se danno produce a noi mortali
Cotanto aspro Vesuvio; ond'ogni loco
Arde, nè scampo ei trova in mezzo al verno;
Pur raccoglier ne giova in tanti mali
Dal cener sparso, e dal versato foco,
Membranza de la Morte, e dell'Inferno!

In connection with this topic one ought not to omit mention of the eruption of 1794 as described by the historian and engineer General Colletta in his Storia di Napoli.

T. D. BERGEN

CAMBRIDGE, MASS.

SPECIAL ARTICLES

A PLANT-TUMOR OF BACTERIAL ORIGIN

THE number of vegetable galls known positively, *i. e.*, by exact experiment, to be due to bacteria, is not very great. The discovery of a new one of undoubted bacterial origin is, therefore, of considerable interest to plant pathologists, and may be of some interest to animal pathologists, especially to those interested in determining the origin of cancerous growths.

For two years the writers have been studying a tumor or gall which occurs naturally on the cultivated marguerite, or Paris daisy. It has been difficult to isolate the organism and to demonstrate it unmistakably in stained sections. Recently the bacteria (seen in small numbers in the unstained tissues on the start) have been plated out successfully. With subcultures from poured plate colonies, thus obtained, the galls have been reproduced abundantly and repeatedly during the last few months, the inoculations having been made by needle-pricks. From galls thus produced the organism has been reisolated in pure culture and the disease reproduced, using subcultures from some of the colonies thus obtained and puncturing with the needle as before. More than 300 galls have been produced by puncture inoculations. Under the most favorable conditions (young tissues) the swellings begin to be visible in as short a time as four or five days, and are well developed in a month, but continue to grow for several months, and become an inch or two in diameter.

In some of our experiments one hundred per cent. of the inoculations have given positive results (40 punctures out of 40 in one series; 62 punctures out of 62 in another), while the check plants have remained free from tumors, and also, in nearly every case, the check punctures on the same plant. In the two series just mentioned there were 110 check punctures on the same plants, all of which healed normally and remained free from galls. Old tissues are not very susceptible. The tumors grow rapidly only in young fleshy organs. The organism attacks both roots and shoots. It frequently induces abnormal growths on the wounded parts of young cuttings. Its power to produce hyperplasia is not confined to the marguerite. Well-developed small tumors have been produced in a few weeks on the stems of tobacco, tomato and potato plants and on the roots of sugar beets. More interesting economically is the