In Fig. 3 is a list of some typical symbols for different classes of compounds. A dot (*e. g.*, in leucine) indicates an asymmetric carbon-atom and thus the optical active compounds are characterized. The long decorative design represents an octodeca-peptide or artificial peptone. Of the ring compounds mainly simple representatives have been selected, but some of the purin-bases at the bottom of the table (xanthin and derivates) show the simplicity of complex-rings. It will be noted that the different derivates are very plainly shown in their relationship, differing rangement of the atoms in the molecules. A ring of six atoms would be represented by a hexagon, and not by a square, one of five atoms as a pentagon and so on (compare, *e. g.*, xanthin).

In certain cases nitrogen possesses a valency of five and in Fig. 4 the relationship of these symbols is shown. Also the use of the ordinary symbols in connection with organic symbols. S = sulfur in thiophen, Cl = chlorine in chloroform.

The writer has already employed the system in one of his classes with success and

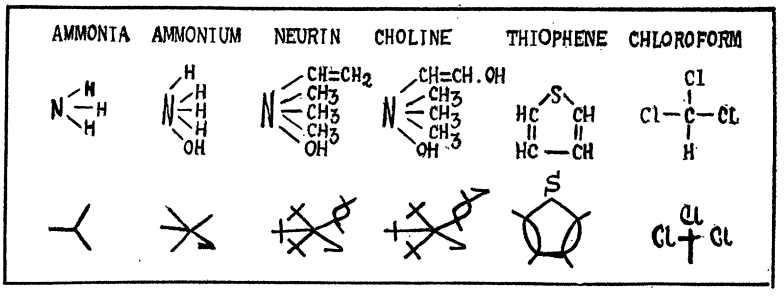

FIG. 4. Pentavalent Nitrogen and Examples of other Elements.

in that case only by the addition of one, two or three —CH_3 groups (crosses in the symbols). Hæmoporphyrin, the mother substance of hæmatin of the hemoglobin of the blood, is an example of the more complex structures which recent investigations have disclosed.

With the rapid progress in organic chemistry and the structures of compounds becoming more and more complex, the need for a simple device of recording facts becomes apparent and I am indebted to the late Dr. Henry S. Denison, whose suggestions[2] on a "chemical shorthand" caused the working out of the present system of "organic symbols." While the system is still in the precarious state of development, it is necessary to warn against indiscriminate use of the principles involved in constructing symbols. An indiscriminate application would lead to confusion and for this reason certain standard types of symbols must be established. These standard types must or should conform as far as possible to the theories concerning the arfound it a time- and space-saving medium in transmitting facts of organic chemistry to students and hopes that the system may become of value to other scientists.

INGO W. D. HACKH

BERKELEY, CALIF.

2 *Denver Medical Times*, Vol. 31, p. 360, 1912.

FRANK N. MEYER[1]

MEYER was in the second year of his third great Middle Asiatic Exploration. His first trip of two years covered North China, including Mantchuria, in which province he walked 1,800 miles. His second trip of three years included the Caucasus, Persia, Turkestan, eastern Thibet, the middle districts of the great empire and Japan. His third trip was to have covered all the more southern portions of China likely to contain plants useful to western agriculture. During these seven years which were full of strange adventures he made thousands of interesting observations, penned

1 Drowned in the Yang-tsze-kiang, June 1, 1918, and buried in Shang-hai, China.

copious records, took hundreds of superb photographs and secured a great variety of interesting and useful plants, many of which are now growing in the United States. Previous to these trips he had visited all parts of the United States and had walked across central Mexico, sleeping in Indian villages or on the mountain sides. Earlier in life he walked from Holland to Italy, guided only by his compass, and nearly lost his life in the Alps, overtaken by a snow storm. The first person he met in Italy said: "Where did you come from?" and then "Impossible! There are no roads!" when he replied "From over the mountains." Before he came to the United States (in 1900) Meyer had been gardener to Hugo de Vries in Amsterdam for eight years. He had also lived and studied in London. Meyer was one of the most friendly men I have ever known and one of the most interesting. He was also a just and upright man. His knowledge of plants was phenomenal and especially of conditions suited to their growth, but he was interested in everything pertaining to the countries he visited—climate, topography, fauna, flora, geology, ethnology, art archeology, religion. He was an entertaining public speaker, as many can testify, a good conversationalist and a copious and fascinating letter writter. A published volume of his letters would be as interesting as a novel, more interesting than most novels. He had also a gift for linguistics, being most at home in Dutch, German and English, but knowing also something of French, Spanish, Italian, Russian and Chinese. On the whole, Meyer preferred the United States to any other country and had become a citizen, but the narrowing conventions of our social life irked him a good deal at times—"The sky is too near" was his whimsical way of putting it—and after a few months of Washington life there was always a longing for the free air of the wilderness. Grand mountain scenery in particular appealed to him strongly. Early in life he spent a year in a Dutch social colony, a kind of second "Brooke Farm," founded by the poet Dr. Frederik van Eeden, but the serpent of selfishness was there also, he told me. In philosophy Meyer was a follower of Schopenhauer; in politics a Marxian Socialist; in religion a Buddhist. It is not known how he met his death. He was ill at the time, it is said, and disappeared in the night from a river steamer. He was in middle age, of medium height, stocky, broad-shouldered, strong. He had blue eyes, brown hair, a big beard and regular features.

O brother of all men and faithful friend,
By riddle of the world made desolate,
'Tis meet an Asian flood should be thy fate,
By *Welt-Schmerz, Welt-Gang* driv'n to sad life's end!
Nobly to plan is life! Life's worth, its trend;
Mere close of life is naught, or soon or late!
Lonely he lived, alone he died, but great!
His growing fame nor gods nor men forfend!

The splendid good he did shall live and grow
To fructify with Time and bless mankind,
Which was his noble dream and life-long goal!
But who that did not call him friend shall know
The opalescent wealth that stored his mind,
His breadth of view, his tenderness of soul!

Erwin F. Smith

SCIENTIFIC EVENTS

RUSSIAN WHEAT

The *Bulletin* of the Neuchâtel Geographical Society (vol. 26, 1917) contains an elaborate paper by Léon Felde on the "Production and Export of Russian Wheat." According to an abstract in the *Geographical Journal*, the first part (pp. 80) discusses very fully, if not very deeply, the whole question of production—soil, climate, technical and social conditions; the second part does the same for the commerce, dealing with the internal and external transport from all points of view, but specially with exports to Switzerland. It is a very useful compilation, marred only by some rigidity, *e. g.*, the fixing of germination at 6° C. and the accumulated temperatures being stated definitely as 2000°, the relation of higher accumulated temperatures to latitude and higher mean temperatures being thus ignored.

The spring-wheat area falls, typically, within the area of highest general culture. It lies parallel with the rain-bearing winds—north