regarding several phases. Referring to the footnote in my article which appeared in March, 1935, they state that "Thompson reports a later success in crystallizing what was very probably our Ergometrine." That the three independently obtained substances are identical is now established, but I would emphasize that my footnote did not refer to a "later success." This same footnote is contained in the bound copy of my doctorate dissertation, which was accepted by the Johns Hopkins University prior to May 1, 1934, and it constituted a part of my March, 1935, article at the time it was submitted for publication in the *Journal* of the American Pharmaceutical Association on May 10, 1934, more than nine months prior to the announcement of crystalline Ergometrine by Dudley and Moir or the subsequent announcement of crystalline Ergotocin by Kharasch and Legault.

I would add my support to the suggestion by our British colleagues that a single scientific name be decided upon for this new important alkaloid, but unfortunately my name "Ergostetrine" is not a mere matter of "note-book record." This name was both scientifically and legally assigned[29] by me in May, 1934. I would emphasize the importance of a universal agreement establishing a single place of registration for new names assigned to complex new plant or animal constituents, without the necessity of patent application to establish a point on a definite date.

MARVIN R. THOMPSON

SCHOOL OF PHARMACY
UNIVERSITY OF MARYLAND

THE CROSS-INOCULATION OF BACTERIAL-PLANT GROUP OF CICER

THE isolation of pure cultures of the root nodule bacteria, cross inoculation and strain efficiency studies on *Cicer arietinum* L. and other species of Indian leguminous crops were conducted by the writer at the University of Wisconsin during 1931–33. It was found that the root nodule bacteria of *Cicer arietinum* L. are specific for that host plant and may be considered a separate group not belonging to the pea group as stated by Simon.[1] A preliminary mention of this finding appeared as a footnote in the monograph of Fred, *et al*,[2] and the detailed paper has recently been submitted to the *Indian Journal of Agricultural Science*.

Rasumowskaja[3] has recently reported on the specificity of *Cicer arietinum* L. for nodule production and states that it does not belong to the pea-group. This author does not appear to have noticed the previous mention of this by Fred, *et al*.[2] His work was confined to inoculation of *Cicer arietinum* with the crushed nodules of *Vicia sativa, Vicia cracca* and *Pisum sativum* and pure cultures of nodule bacteria of pea and vetch only, whereas the present writer's conclusions have been based upon studies on cross-inoculations with pure cultures of all the known bacterial-plant groups.

M. S. RAJU

AGRICULTURAL RESEARCH INSTITUTE
COIMBATORE, S. INDIA

VITAMINS?

IN the early days of vitamin research, classification by alphabetic order was accepted as a temporary convenience. Indirectly this lettering of unknown, quasi-mysterious substances did much to popularize them and to make the world vitamin-conscious.

The crystallization, the isolation and our more or less definite knowledge of the physiological properties of the so-called vitamins show that there is no longer any scientific basis to maintain such widely different chemical substances as carotenes, ascorbic acid, irradiated sterols, pyrimidine-thiazole compounds, sodium phosphate, manganese compounds, etc., under the same heading, except perhaps for historical purposes.

The academical disagreement between British and American biologists over mere initials to be given to otherwise well-defined products adds to the confusion.

Anti-neuritic, anti-scorbutic, anti-rachitic, anti-anemic, anti-goitric, etc., substances should be classified with the chemical family to which they belong or grouped with the natural or pharmaceutical substances which have closely related physiological properties.

The vague expression "vitamin" will eventually join the musty company of phlogistic, humors, animalcules and kindred antiquated terms.

ANDREW MOLDAVAN

CYTOGENETIC NOTES ON SPHAERALCEA AND MALVASTRUM

No chromosome numbers in the genus *Sphaeralcea* have been recorded previously. The only chromosome number reported for a closely related genus is that of 21 pairs in *Malvastrum capense* Gray and Harvey.[1]

Recently the chromosome numbers of approximately 15 species, 20 subspecies and 2 botanical forms of the subgenus *Eusphaeralcea* from the southwestern United States have been determined. The basal chromosome number for the subgenus is 5. The prevailing numbers are 5 and 10 pairs, but 15 pairs are of frequent occurrence. Only one form with 25

[29] See footnote 14.

[1] J. Simon, *Centbl. Bakt.* (etc.), 2 Abt. 41: 470–479, 1914.

[2] E. B. Fred *et al.*, University of Wisconsin Studies in Science, No. 5, footnote on p. 127, 1932.

[3] S. G. Rasumowskaja, *Centbl. Bakt.* (etc.), 2 Abt. 90: 330–335, 1934.

[1] A. H. S. Stenar, *Akad. Abhand. Upsala*, 1–75, 1925.