the human infant<sup>3</sup>; and Sprawson<sup>4</sup> has found that raw milk protects children completely from dental caries—a most desirable result which has never been attained by the use of pasteurized milk or by any other therapeutic measures. Also, pasteurization makes cow's milk a less satisfactory food for the calf.<sup>5</sup>

Thus the destruction of some of the vitamin C can not be regarded as the "main nutritional objection" to pasteurizing milk. Two further points call for attention—the 2-6 dichlorophenol indophenol titration as used by Sharp for the estimation of vitamin C in milk is in our experience reliable when applied to fresh milk, but difficulties with the endpoint render it less reliable for milk samples 3 days old. And the postulated presence of an ascorbic acid oxidase in milk is difficult to reconcile with the observation that raw milk loses only about 50 per cent. of its reduced vitamin C on standing for 3 days at  $2^{\circ}$  C.

> W. J. DANN G. Howard Satterfield

DUKE UNIVERSITY

## PARAMECIUM MULTIMICRONUCLEATA VS. PARAMECIUM MULTIMICRO-NUCLEATUM<sup>1</sup>

A COMMUNICATION from Dr. C. W. Stiles informs me that it has been customary to correct grammatical errors in the naming of animals, and that this procedure is automatically authorized by the word "must" in Article 14a of the International Code. ("Specific names are (a) adjectives which must agree grammatically with the generic name.") This rule must also be observed when a species is transferred from one genus to another. Thus, when *Xiphidium attenuatum* was transferred to *Conocephalus*, it necessitated changing the specific name to *attenuatus*, though I have seen *Conocephalus attenuatum* in print.

The above rule applies only to adjectives. If the specific name is a substantive in apposition to the generic name, Article 14b applies. Here the specific name need not agree in gender with the generic name, as the example given, (*Felix leo*), shows. Consequently, the specific name need not be changed when the animal is transferred to another genus. Suppose there were a species X-us necator, and this were transferred to a genus with a feminine name, as Y-a; the masculine specific name necator would not have to be changed to the feminine necatrix.

<sup>3</sup> A. L. Daniels and G. Stearns, *Jour. Biol. Chem.*, 61: 225, 1924.

4 Proc. Roy. Soc., Med., 25: 649, 1931-32.

<sup>5</sup> A. C. McCandlish and A. N. Black, West Scotland Agric. Coll. Res. Bull., No. 4, 1935. <sup>1</sup> John A. Frisch, S.J., SCIENCE, 84: 2178, 290-291,

130nn A. Frisch, S.J., SCIENCE, 84: 2178, 290–291, 1936.

A point of historical interest and one which may explain some of the mistakes found in both botanical and zoological literature is the following. On the basis of the rule in Latin grammar that all trees are feminine, some authors have tried to extend this principle to all plants and to use only the feminine gender for all genera in botany, and conversely, only the masculine for all genera in zoology—this on the plea that it would make it easier to distinguish between zoological and botanical genera. This custom was not accepted by the International Commission.

JOHN A. FRISCH, S.J.

DEPARTMENT OF BIOLOGY CANISIUS COLLEGE BUFFALO, N. Y.

## **GLASS GLOBES CROSS THE PACIFIC OCEAN**

GLASS globes are frequently found on the beaches along the western coast of North America. They are generally regarded as net-floats, used by Japanese fishermen, which have been carried by the Japanese current to the shores of America. They are reported to come ashore most abundantly during, and following, exceptionally strong storms. These globes have been known to the local inhabitants for many years. Hundreds are collected every season and sold to the tourists for souvenirs. News items regarding these curious objects have appeared in the local press, but no reference to them has been noted in the technical literature.

During the past several years, the writer has seen many of these floats which were found along the Oregon coast. These were generally made of green bottle-glass and ranged from two to eighteen inches in diameter. The globes float about three fourths submerged and the under-water portion is covered with a growth of marine vegetation containing many small shells.

These glass balls have been found the length of the Oregon coast and as far south as the Russian River in California. Their distribution is, no doubt, much greater than is indicated here. A few years ago a former student found similar globes on the north shore of the Island of Oahu; recently others have been mentioned from the Midway Islands.<sup>1</sup>

It would be of interest to learn more of what is known of the migration of these floats, such as the length of time required to cross from Asia to America, and also whether those found on our shores were beached immediately upon their first crossing or have made one or more circuits before stranding.

## VINCENT P. GIANELLA

UNIVERSITY OF NEVADA

<sup>1</sup> W. B. Miller, The National Geographic Magazine, 70: 6, 689, 1936.