

1. The papers and slides for the competition should be forwarded to Elmira in time to reach there before the day of the beginning of the next annual meeting, and should be addressed:

To the President of

THE AMERICAN SOCIETY OF MICROSCOPISTS,

Care of the Elmira Microscopical Society, Elmira, N. Y.

2. The envelopes should bear in their upper left-hand corner one of the enclosed labels, with some appropriate name or device other than the name of the author. The slides should bear the same label similarly marked (ten labels are sent with each circular).

3. Each paper should be accompanied by a sealed envelope bearing the same label and device, containing a slip with the name of the author.

4. The committee will be appointed on the first day of the Elmira meeting, and the papers and slides put into their hands. When they reach a decision, they will make a public report, stating the name or device of the successful paper. The sealed envelope bearing the same will then be opened by the President, who will announce the name of the successful author.

Persons not now members, but who shall become so at the Elmira meeting, are eligible as competitors for this prize, and can obtain the necessary labels by making application to the Secretary.

It is hoped that several papers will be received in competition for this prize which shall be found worthy of publication in the Transactions, though only one, of course, can receive the prize. The envelopes containing the names of unsuccessful competitors will not be opened except by permission of the authors, but will be destroyed by a committee appointed for that purpose.

Dr. George E. Blackham, the present President of the Society, has issued a stirring address to the members, and makes some excellent suggestions to those who would by their personal acting promote the success of the society.

Professor D. S. Kellicott of 119 Fourteenth Street, Buffalo, N. Y., is the Secretary of the Society.

FOSSIL POLYZOA—NOMENCLATURE.

In the second report of the committee consisting of Prof. P. M. Duncan and Mr. G. R. Vine, appointed for the purpose of reporting on Fossil Polyzoa, for the British Association, the order is divided into three subdivisions.—

1. *Cheilostoma*, Bark. = *Celleporina*, Ehrenberg.

2. *Cyclostomata*, „ = *Tabuliporina*, Milne-Ed., Hagenow, Johnston.

3. *Ctenostomata*, „

The following terms are used in this Report in describing the genera:—

ZOARIUM.—“The composite structure formed by repeated gemmation” = Polyzoarium and Polypidom of authors.

ZOÆCIUM or cell.—“The chamber in which the Polypide is lodged.

CENÆCIUM.—“The common dermal system of a colony.” Applicable alike to the “Fronde,” or “Polyzoary,” of *Fenestella*, *Polypora*, *Phyllopora*, or *Synocladia*: or to the associated *Zoæcia* and their connecting “interstitial tubuli,” of *Ceripora*, *Hyphasmapora*, and *Archæopora*, or species allied to these.

FENESTRULÆ.—The square, oblong, or partially rounded openings in the zoarium—connected by non-cellular dissepiments—of *Fenestella*, *Polypora*, and species allied to these.

FENESTRÆ applied to similar openings, whenever connected by the general substance of the zoarium—as in *Phyllopora*, *Clathropora*, and the Permian *Synocladia*.

BRANCHES.—The CELL-bearing portions of the zoarium of *Glauconome*, *Fenestella*, *Polypora*, or *Synocladia*; or the offshoots from the main stem of any species.

GONÆCIUM.—“A modified zoæcium or cell, set apart for the purposes of reproduction.”

GONOCYST.—“An inflation of the surface of the zoarium in which the embryos are developed.” Modern terms from the Rev. Thos. Hincks.

“PRESERVED VEGETABLES.”

By OTTO HEHNER, F. I. C., F. C. S.

When some time ago public attention was forcibly drawn to the occasional injurious effects of preserved “canned” goods, I undertook a lengthy series of chemical and physiological experiments to ascertain the cause of such poisonous action. The results having so far only been communicated to professional chemists (*The Analyst*, vol. v., No. 57), I hope you will allow me, by way of affirmation of the paragraph in *The Lancet* of September 24, to give a short summary of them, as I think they may be of interest, and of some degree of importance, to medical readers.

Very frequently the gastric disturbances traceable to the consumption of preserved articles of food have been assigned to traces of lead dissolved from the solder with which the tins are closed, or present as impurity in the metal with which the can is lined. Now, although the occasional though very rare presence of lead in such articles cannot be denied, the effects should be attributed to the tin itself. Tin, even perfectly pure, is far more readily attacked by food matters than is commonly supposed; it is to be found in comparatively large amounts in an overwhelming majority of canned goods, irrespective of the nature of the same. Acid fruits, such as peaches or cherries, corrode the tins to an appalling extent; but even meats, nay, condensed milk, dissolve and become contaminated with serious quantities of the metal.

I base my observations upon the examination of the following foods:—Vegetable: French asparagus, American asparagus, peas, tomatoes, peaches (three different brands), pine apple (two kinds), white and red cherries, and marmalade. Animal: Corned beef (five brands), ox cheek, ox tongue (three kinds), collared head, tripe, oysters, sardines in oil, salmon, salmon cutlets, lobster, shrimps, curried fowl (two kinds), boiled rabbit, boiled mutton, roast chicken, roast turkey, ox cheek soup, gravy soup, sausages, condensed milk (three brands).

With the exception of the sausages, the whole of the samples contained more or less tin, many to such an extent that abundant reactions could be obtained from two or three grammes of the vegetable substances; whilst of the animal foods one of the soups contained thirty-five milligrammes, one of the condensed milks eight milligrammes, and oysters forty-five milligrammes of tin to the pound.

Pure tin is readily attacked even by carbonic acid in solution, all samples of soda-water or of other aerated beverages which I have tested giving distinct tin reactions. Aerated beverages are generally stated to be liable to lead contamination, but seeing that lead does not enter into the composition of any of the pipes or vessels of the machines made by modern manufacturers, I do not doubt but that the black coloration produced by sulphuretted hydrogen in the beverage in question has usually been erroneously attributed to lead, and is in reality due to tin. Tin, in fact, prevents the lead passing into solution; it completely precipitates the metal from lead solutions, an equivalent quantity of tin being taken up.

The question arises, is tin, when taken into the system, injurious to health or not? Forensic literature does not furnish a positive or satisfactory reply, but the following experiments appear to me completely to settle the point.

A half-grown guinea-pig took with its ordinary food seventy-five milligrammes of pure stannous hydrate in