

congeneric only with *P. leptosoma* as Gregory maintained, or only with *P. biforis* as I have hypothetically imagined, then the name *Sturtzura* stands. (Internat. Rules, 1905, Art. 29.)

That the rule referred to in the phrase "once a synonym, always a synonym" has no bearing on either of these suppositions, is evident when its meaning is understood. The rule, in fact, simply states that a generic name once used in zoological nomenclature cannot be used for any subsequent genus that does not include the original genotype, even when the name as first used has proved to be a synonym. But if the rule does not forbid the resuscitation of *Sturtzura* for a genus containing the genotype *S. brisingoides*, it certainly does forbid its use for a genus comprising only *S. leptosoma* and *S. leptosomoides*. (Internat. Rules, 1905, Art. 36.)

Mr. Chapman may not approve of these rules, and I do not pretend that I like them all myself. But in these matters of form it is surely better that individuals should come into line with the great majority of their colleagues.

My protest against the composition of certain names was not made from the standpoint of a museum curator, as Mr. Chapman seems to suppose, but from that of the compilers of the Stricklandian code, who desired to render "our scientific language palatable to the scholar and the man of taste." If a name is held to have no meaning, let it at least be euphonious; but if it is intended to have a meaning, that need not be a ridiculous one.

As for the more important matter—the homologies of the arm-ossicles, there seems no grave objection to the compromise now proposed by Mr. Chapman. But whether the ambulacrals consist of one piece as I suggested, or of two pieces as he now suggests, will probably not be decided until we find specimens with the stereom undissolved.

F. A. BATHER.

LONDON, 7 October, 1907.

COLLODION AS A PRESERVATIVE FOR FOSSILS.

SIR,—Dr. Bather's interesting article on collodion imprints reminds me of an intention I have long had of communicating to you another use for collodion. The usual method of preserving fragile fossils by application of a hot gelatine solution is one which I have always found troublesome and unsatisfactory. Some years ago a student suggested to me that a solution of collodion would penetrate more readily, could be used at ordinary temperatures, and would become solid more slowly. He gave me some solution that he was using for some other purpose—a saturated solution of gun-cotton in equal parts of amyl acetate and ethyl alcohol. I found this answer very well, both for preventing the flaking of delicate fossils and for mending broken ones. Small specimens can be simply immersed in the solution, left there (in a corked tube) for an indefinite period, and finally lifted out and dried. Larger ones may be painted over, several times if necessary. I have by this means mended, among other things, broken specimens from Wenlock Limestone and Chalk Marl,

and even large Jurassic oysters, though in the last case they are apt to break again on ordinary handling. I have been too lazy to experiment with variations on the original recipe given me, but from conversations with several chemists I gather that a simple solution of collodion in amyl acetate would probably act as well as the one I have been using.

A. MORLEY DAVIES.

UNDERWOOD, WINCHMORE HILL, AMERSHAM.
21st October, 1907.

SALINE SOLUTIONS AND ORES.

SIR,—The GEOLOGICAL MAGAZINE has afforded me the opportunity to champion many unpopular causes scouted elsewhere. Perhaps the greatest offender has been the significance of chlorides in granitic quartzes. The ubiquity of chlorides throughout the Dartmoor mass, and, so far as I am aware, in the Cornish elvans also, impressed me greatly. There must be some reason for it. I endeavoured to account for their origin, but could see no practical importance in what seemed to be a purely petrological puzzle.

I now see that Mr. E. C. Sullivan, in discussing the interaction between minerals and water-solutions, points out that "salt solutions, as decomposing agents, are much more active than pure water, and are comparable with acids in this respect." Mr. H. Foster Bain also points out, with reference to zinc and lead, that "the ore bodies are doubtless due to concentration or re-concentration through the action of underground waters" (*Nature*, vol. lxxvi, p. 559). Here we have a direct connection indicated between the Devon and Cornish mineral veins and the ubiquitous chlorides of potassium or sodium; also a possible explanation of the common connection between chlorides and the schorl rocks of the Western counties.

If I can get metallurgists and chemists to perceive that chlorides in quartzes may have a distinct bearing on practical mining, and above all money-making, the investigation of the chloride problem will be secured, and there will be no need for me to further trouble my many geological friends by my importunity.

When a most distinguished authority said that I based my world on an elephant, the elephant on a tortoise, and the tortoise on microscopic grains of chloride of sodium, he stated the absolute truth. The chlorides, both as to their origin and their significance, have puzzled me more than any other petrological conundrum.

I am fully convinced that petrologists have no idea how ubiquitous the chlorides are in the Western granites. One amateur friend assures me they are very rare. An expert friend, to whose diagnosis I submit unreservedly, once sent me a slide for me to say whether there were *any* chlorides in it. The slide was mounted with an asphaltum ring, precluding the use of a high-powered objective, and the cover was not too thin. It abounded in chlorides—in fact, was rather a good example. It once took me about three evenings' work with the $\frac{1}{8}$ to conquer one refractory slide, but at last I detected one very minute cube. That of course sufficed to prove the presence of chlorides when the quartzes crystallised. Of course, my point is the diffusion of