

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  $\frac{1}{16}$  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

chlorides throughout the district, not the optical abundance of cubes in every slide. Moreover, brine solutions cannot be detected unless sufficiently concentrated to deposit crystals. It is quite likely that in the slide referred to all the fluid inclusions are saline, even though only one of them can be proved by the microscope.

A. R. HUNT.

FOXWORTHY, MORETONHAMPSTEAD,  
2nd October, 1907.

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OBITUARY.

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PROFESSOR CHARLES STEWART, LL.D., M.R.C.S.,  
F.R.S., F.L.S., F.R.M.S.

BORN 1840.

DIED SEPTEMBER 27, 1907.

By the death of Professor Charles Stewart, which has occurred after a somewhat protracted illness, the Royal College of Surgeons of England has lost one who has successfully filled the office of conservator of the museum for the past twenty-three years. After attending as a medical student at St. Bartholomew's Hospital Professor Stewart became a member of the Royal College of Surgeons in the year 1862. He was admitted a Fellow of the Linnæan Society in 1866, and was President of that body during the years 1890 to 1894, and in the following year served as Vice-President. Professor Stewart was also a Fellow and Vice-President of the Royal Microscopical Society, and became one of its honorary secretaries in 1878. He was Treasurer of the Anatomical Society of Great Britain and Ireland from its foundation until 1891. During the period 1894–1897 he held the office of Fullerian Professor of Physiology at the Royal Institution, and delivered several evening lectures at the same place. He was admitted a Fellow of the Royal Society in 1896, and obtained the honorary LL.D. of Aberdeen University. Before being appointed Conservator of the College of Surgeons' Museum Professor Stewart was curator of the museum of St. Thomas's Hospital, lecturer on Comparative Anatomy, and joint lecturer with Professor John Harley on Physiology at that institution. He was subsequently appointed Professor of Biology and Physiology at Bedford College. In the year following his appointment at the College of Surgeons he was elected Hunterian Professor of Human and Comparative Anatomy, and held the post until the year 1894. The true value of Professor Stewart's scientific work is not to be judged solely by his writings, which, in spite of the vast extent of his knowledge gained from his personal observations, were comparatively few in number, but it is to be seen rather on the shelves of the College Museum in the unrivalled series of preparations and dissections by which he sought, in continuation of the work of previous Conservators, to illustrate important phases in the evolution of the organic world and thus to amplify the original scheme of John Hunter, whose collection forms the nucleus of the College museum. Professor