

of *E. leucoxydon* were quite sound after being laid 24 years. Piles driven for a whaling jetty in 1834 were taken out in 1877 perfectly sound, although the water swarmed with *Teredo*. This was *E. marginata*. Still more remarkable is the fact that some species withstand excessive heat and also a considerable cold. *E. microtheca*, for example, resists a temperature of 18° F. in France and 154° F. in central Australia. Besides serving as a timber tree, many species of *Eucalyptus* are used medicinally, producing a volatile oil very useful in treating various infectious diseases, like scarlet fever, especially when applied externally. Grown in malarious districts, they possess the power of purifying the air. Altogether, the genus may be classed as one of the most remarkable in the whole world.—*Joseph F. James, M.Sc.*

Prof. Edward Hill read a paper before the Victoria Institute recently, on "How the waters of the ocean became salt." From an inquiry into the character and affinities of the organic forms of past geological ages, the conclusion was justified that the waters of the ocean must have been salt from very early geological times, but it by no means followed that they were as fully saline as those of the present day. There were two ways by which they might account for the salinity of the ocean waters from very early periods of geological time. First, by supposing that the primeval waters were saturated with acid gases which were held in suspension in the vapor surrounding the incandescent globe; or, secondly, that the salinity resulted from a process resembling that by which salt lakes of the present day had been formed. He thought that they must concur with Dr. Sterry Hunt, that from some cause or other chlorine largely abounded in the waters of the primeval ocean, as by far the greater proportion of the salts were

chlorides, and chlorine was but very slightly represented in river waters at the present day.

From the examples of closed lakes they could determine the process of salinification with the utmost certainty. Throughout greater or shorter periods these lakes had been receiving the waters of rivers, bringing down both mechanically suspended sediments and chemically dissolved salts, silicates and carbonates. The sediments were precipitated over the bottoms of the lakes, and the water being carried off into the atmosphere in the form of vapor as far as it entered, left behind the dissolved ingredients. These necessarily augmented in quantity, and ultimately the waters of the lakes became saturated with salts and carbonates, which were then deposited. The ocean was a closed lake of enormous magnitude, and they were thus brought to the conclusion that the saltiness of the sea might have originated in very much the same way as had that of the Dead sea, lake Oroomiah, or the Great Salt lake of Utah, and many others which possessed in common the characteristic of having no outlet. When the great envelope of vapor which surrounded the incandescent globe began to condense upon its cooling surface, the resulting waters, though containing, as Dr. Sterry Hunt supposed, acid gases, were destitute of saline ingredients. The process of salinification began with the first streams which entered the seas from the bordering uplands, and this process carried on throughout the long ages preceding the silurian period, brought the waters to a condition suited to sustain the life of forms of inhabitants representative of those which inhabited the ocean at the present day. These long ages might be supposed to include, not only the archæan and azoic periods, but that during which the first crust was in course of formation over the incandescent globe.—*London Standard*