

Between this diluvium and the chalk, are formations alternately filled with the productions of fresh water and salt water, which mark the irruptions and retreats of the sea, to which, since the deposition of the chalk layer, this portion of the globe has been subjected; first, marls and mill stones and hollow silex, filled with fresh water shells like those of our marshes and pools; under them are marls, sand stones, and limestone, all the shells of which are marine; oysters, &c.

Still deeper are fresh water formations of a much more remote period, and particularly those famous gypsum deposits in the vicinity of Paris, which have afforded the means of adorning the edifices of this fine city with so much facility, and where we have discovered entire genera of land animals, of which no traces have been elsewhere detected.

They rest on those equally remarkable beds of limestone, of which our capital is built, and in the more or less close composition of which the patience and sagacity of the savans of France have already detected more than eight hundred species of shells, all marine, but the greater part unknown in the seas now existing. They also contain bones of fishes, of cetaceous and other marine mammiferous animals.

Under the marine limestone is another fresh water deposite, formed of clay, in which are interposed great layers of lignite (brown coal,) or that fossil coal of more recent origin than the common coal. Amongst the shells always of fresh water, there are also some bones; but it is remarkable that they are bones of reptiles and not of mammifera. It is filled

luvianæ, London 1823,' in 4to. pp. 185, et seq.; and the article 'EAU' by M. Brongniart, in the 14th volume of the Dictionary of Natural Sciences.