and Mr. Gwynd is between Coal 37 and Coal 38 of Logan's section, being and its micr bout 42 feet below Coal 37. The next horizon, and that in rof. Quekett, which the shell was first discovered, is 1217 feet of vertical ells. The sing hickness higher, in group XV of Division 4 of my section. hat crushed an The shells occur here in erect *Sigillariæ*, standing on Coal 15 itation as to its Logan's section. The third horizon is in group XXVI of it was figure ivision 4, about 800 feet higher than the last. Here also the . Better speci hells occurred in an erect *Sigillaria*.

btained by th In the lowest of these three horizons, the shells are found, m in his "Ain already stated, in a thin bed of concretionary clay of dark . Owen, in his ray color, though associated with reddish beds. It contains eric name *Den Zonites priscus* as well, though this is very rare, and there are s expressing a few valves of *Cythere* and shells of *Naiadites* as well as carbon- ; but shoul aceous fragments, fronds of ferns, *Trigonocarpa*, etc. The *Pupæ* ub-generic disa are mostly adult, but many very young shells also occur, as well There seems as fragments of broken shells. The bed is evidently a layer of l in one of the mud deposited in a pond or creek, or at the mouth of a small n regard to the stream. In modern swamps, multitudes of fresh-water shells currency has occur in such places, and it is remarkable that in this case the hrough an un only gasteropods are land shells, and these very plentiful, ells like this, though only in one bed about an inch in thickness. This lt to work out would seem to imply an absence of fresh-water Pulmonifera. e in the "Air- In the erect *Sigillariæ* of group XV, the shells occur either in en specimens a sandy matrix, more or less darkened with vegetable matter, subsequently or in a carbonaceous mass composed mainly of vegetable debris. heless it was Except when crushed or flattened, the shells in these reposito- n Sir Charles ries are usually filled with brownish calcite. From this I infer he asked me that most of them were alive when imbedded, or at least that red. This I they contained the bodies of the animals; and it is not improba- ns, however, ble that they sheltered themselves in the hollow trees, as is the the aperture habit of many similar animals in modern forests. Their resi- he Student's dence in these trees as well as the characters of their embry- graph of the ology are illustrated by the occurrence of their mature ova. possession. They may also have formed part of the food of the reptilian ied to some animals whose remains occur with them. In illustration of this approaches I have elsewhere stated that I have found as many as eleven *Macrocheilus* unbroken shells of *Physa heterostropha* in the stomach of a were sent to modern *Menobranchus*. I think it certain, however, that both ith the re- the shells and the reptiles occurring in these trees must have ous species. been strictly terrestrial in their habits, as they could not have *ux* of East- found admission to the erect trees unless the ground had been egarded by sufficiently dry to allow several feet of the imbedded hollow ose species trunks to be free from water. In the highest of the three the genus horizons the shells occurred in an erect tree, but without any other fossils, and they had apparently been washed in along with a grayish mud.*

elongs to h Joggins,

* The discovery of the shells in this tree was made by Albert I. Hill, C.E.