was taken into consideration, and a great dilution of the solutions assumed, because otherwise the petrifaction would be prevented and incrustations produced; and at the same time reference was made to the remarkable and hardly explicable phænomenon, that with all the similarity of the processes of a former world with those of the present one, and notwithstanding the petrifactions by lime and oxide of iron now observed, still no siliceous petrifactions have been discovered, although in living plants, or at least in particular parts of them, silicifications take place in a comparatively very short time, and indeed in the same way as formerly in fossil woods, as in the epidermis of the stem of the Equiseta, in the Bamboos, the seeds of many Grasses, and above all, in the exceedingly remarkable tree called *El Cauto*, discovered by Krüger in Trinidad, in which, after the cells are filled, even the organic walls at last disappear, and become replaced by silica. All this, and many other circumstances are in favour of the former existence of conditions which have hitherto escaped our observation.—*Abstract of a memoir read before the Silesian Society*, Nov. 27, 1857.

Structure and Development of the Flower and Fruit of the Pear. By J. Decaisne.

From a communication made to that active association, the Botanical Society of France, we learn that Decaisne has proved, by direct observation of the development, the correctness of that view respecting the structure of the pomaceous fruit which we have always maintained on general morphological grounds. The pips are the true pistils; they are separate and free at their first appearance; a little later, a growth from the receptacle forms an open cup around them, ends by completely investing them, and becomes the flesh of the core. In the Pear, as the base of the at first sessile flower-bud elongates into a peduncle, the upper part of this thickens with the bud itself, and forms the tapering lower part of the Pear, which therefore below the carpels is formed of the stalk, as absolutely as in *Anacardium* or *Hovenia*. From these observations, and others upon *Melastomaceæ*, &c., Decaisne concludes that the orthodox view of the structure of the flower, "as explained by our illustrious masters, R. Brown, De Candolle, and Jussieu," is demonstrably correct; that "it is not necessary to call into account that axis which is at the present day so often and so willingly appealed to for explaining the structure of flowers and fruits;" that "it is not impossible to bring under the common law of organization the ovaries with a free central placenta, whose differences from ordinary ovaries are more apparent than real;" and that most probably placentation always, in spite of appearances, belongs to the ovarian leaves. We are pleased to find that the experience of this eminent botanist has brought him into agreement, as regards the conception of species, with the views of those whom we must regard as the soundest workers and writers of the present day, and those on whom the hopes of the science rest. He states that if he had the *Plan-*

taginеæ to elaborate anew, he should not hesitate to reduce considerably the number of species, "and perhaps to refer some entire sections to a single specific type." Perhaps even the greater part of two sections, we may add; for of two sections in the 'Prodromus,' one is founded upon substerile and the other upon truly fertile forms of the same species, or set of species: and in another part of the genus, one wide-spread American species figures under at least a dozen names.—Asa Gray, *in Silliman's American Journal*, Jan. 1858.

Description of a new Genus and some new species of American Birds. By P. L. Sclater, M.A., F.L.S. &c.

Neochloe, gen. nov.

Neochloe *genus novum* Vireoni *affine, sed ad* Sylvicolam *et hujusmodi genera spectans. Rostrum magis carinatum, basi latiore, apice magis acuta: alæ breves, quadratæ, remige prima brevi, secunda longiore, quarta, quinta, sexta et septima fere æqualibus et tertiam paulo superantibus; secundariis longis et primariam tertiam excedentibus: pedes ut in genere* Vireone.

Neochloe brevipennis.

N. cinereus, dorso murino et viridi paululum lavato: capite toto supero cum marginibus alarum et caudæ flavicanti-viridibus; remigibus et rectricibus intus nigricanti-cinereis: abdomine medio crissoque albis.

Long. tota 5·0, alæ 2·2, caudæ 2·1.

Of this little bird must, I think, be constituted a third genus of *Vireoninæ*; the peculiar form of the wing rendering it impossible to arrange it as either a *Vireo* or *Vireosylvia*. It has much of the general form of a small species of the former genus, but is readily separable by the short and square wing, all the secondaries (except the three outer) exceeding the second primary in length.

M. Botteri's collection contains one example of this bird (numbered 277), which is labelled "Orizaba, 8 Oct. 1856."

Zonotrichia botterii.

Supra ex cinereo rufescens, capitis et dorsi medii pennis mediaaliter fusco-nigris, harum autem marginibus rufescentibus, colore rufescente fusco mixtis: alis nigricantibus, tectricibus omnibus pallido fusco late, remigibus rufo anguste, extus limbatis: cauda graduata, nigricante; rectricum externarum apicibus valde dilutioribus, pallide cinereis: subtus albidus, pectore cinerascentiore, gula clariore, præcipue ad latera rufescente irroratus: carpo flavicante: alis et cauda subtus cinereis: rostro plumbeo; tomiis pallidioribus: pedibus flavis.

Long. tota 6·0, alæ 2·5, caudæ 2·6.

I have in vain attempted to identify this bird with any of the known species of N. American *Zonotrichiæ*, and am forced to the conclusion that it is probably undescribed. It comes nearer to *Z.*

Decaisne, Joseph. 1858. "Structure and development of the flower and fruit of the Pear." *The Annals and magazine of natural history; zoology, botany, and geology* 1, 238–239.

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