on oak buds, the oviposition observed, and the plants isolated. originating from them were entirely different from those galls out of which By further growth they proved to be the well N. fumipennis was raised. known galls of Spathegaster albipes, which species was raised from them in due time. These two Cynips belong to two different genera, and differ in size; Neuroterus, the winter form, is agamous, only females known, and the receptaculum seminis was always empty; the eggs are laid deep in Spathegaster, the summer form, is bisexual, males and females in regular proportion and copulating; the receptaculum seminis of the egg-laying females being always filled with spermatozoa. The eggs are laid To complete the cycles, Spathegaster galls carefully conon the leaves. fined were raised and gave in due time Neuroterus. The experiment was made repeatedly on a large scale and with excellent precautions, so that Now as the fact is known, it is rather remarkable no doubt is possible. that it was not sooner discovered, as it is entirely impossible for Spathegaster and for Neuroterus to produce the galls out of which they are always raised. Spathegaster possesses a short and somewhat degraded ovipositor, just fit to injure the superficies of a leaf and to lay the egg; Neuroterus possesses a long, bent and complicated ovipositor, able to perform the rather difficult act of entering the bud and laying the eggs in the basis of the bud, but would be scarcely able to injure the superficies of a leaf in the same manner as Spathegaster. I think this admirable discovery is of the greatest importance for further observations. If we find again a species with an ovipositor not fit to make the galls of the species, we are justified in presuming a similar alternating generation with some other species.

The difficult question how the eggs of Cynips are able to pass through the comparatively small ovipositor is described with much detail and acumen. The observation was only possible by the ingenious device of chloroforming the insects in the act of oviposition, and making an anatomical investigation of the parts. By repeating the observations, one completing the other, gave a clear and satisfactory result, and at the same time the place was ascertained in which the egg was laid. A large number of other interesting details concerning the formation, structure and the growth of the galls, are given, which must be studied in the original paper. I may only add the surprising fact of the continuous rotation of the embryo in the egg, till it is hatched. The rotation is not