species; occasionally the spiracles are of great interest, though but little studied, while the sculpture and markings of the elytra are sometimes beautifully brought out by rendering them transparent and examining by transmitted light. It is well worth the time of any entomologist to study closely under higher powers the mouth-parts and other appendages of even the larger beetles, as he gains in this way a familiarity with the normal appearance of these structures in various groups, and the interpretation of generic and specific characters in more obscure types becomes a matter of less difficulty. If one has dissected a large number of insects and studied them carefully, he is the better qualified for understanding the visible portions of those forms that are too rare to be cut up or whose integuments are so thick and clumsy as to be unavailable for balsam mounts.

For dissection, alcoholic specimens are usually preferable to dry ones, but the latter may be prepared readily by relaxing in the ordinary manner in a softening dish or by soaking for a few minutes in hot water. The principal objection to the use of dried specimens is that such material is more likely to be dusty and to give trouble in getting clean mounts, or else to contain so much air as to make extra work in getting rid of the resultant bubbles.

The tools needed are few. A pair of fine forceps, a slender-pointed scalpel, and a pair of small scissors with sharp, delicate blades are required, and may be obtained from any dealer in microscopical supplies. These may be supplemented by a couple of dissecting needles, made by cutting off the heads of two insect pins and forcing the blunt ends into handles of soft wood, about the size of ordinary penholders. The needles are useful in holding specimens while cutting. A block of clean soft wood, against which to cut when separating the insect members, will be found convenient and will preserve the edge of the scalpel.

The chemicals required are: (1) a small bottle of 15% aqueous solution of caustic potash; (2) a quantity of commercial alcohol, which runs about 90%; (3) some absolute alcohol; (4) clearing fluid, which may be oil of cloves, or, if preferred, a mixture made by adding pure spirits of turpentine to an equal quantity of liquefied crystals of carbolic acid; (5) some hard (dried) Canada balsam dissolved in enough pure benzole to make a freely-flowing fluid. This should be kept in the special balsam bottle sold for the purpose, and may be thinned with more benzole as it becomes thicker with age. The dishes in which the chemical treatments are