subfamilies, the shape of the cloaca, cannot be seen in the fossils. Venational studies have shown that if a member of one of these groups has two cubital cells, it is a dolichoderine; if it has only one cubital cell, it may belong to either subfamily.

The shape of the head, although somewhat distorted in most of the fossil ants, can nevertheless be used as a dependable character. In a large series of specimens of one species at least a few individuals are only very slightly flattened or distorted, and, even if all the specimens of a species are somewhat distorted, it is possible, as indicated above, to obtain a fairly accurate conception of the shape of the head. The mandibles are preserved in most of the Florissant specimens, often with sufficient completeness to show the details of the dentition. The clypeus is occasionally, but not frequently, visible at least to such an extent that the contour of the posterior margin can be determined. The antennae furnish the most reliable characters and this is especially advantageous because the same structure is likewise used in the classification of recent forms. The value of antennal characters in the fossils is also dependent upon the fact that the antennae are only a very little, if at all, distorted by the pressure which flattens the body of the insects. The length of the scape and the relative size of the funicular segments have been determined for nearly all of the Florissant ants, the only exceptions being a few aberrant forms which deserve description because of certain peculiarities. The eyes and even the ocelli have been discerned in most of the species, but it has already been explained above that the position of the eyes with respect to the lateral margins of the head is more or less dependent upon the amount of pressure to which the ant has been subjected. The color of the ants of the Florissant deposit does not usually indicate the original color of the insects and is of little use in identifying the fossil species. Brues has observed (1910) that the metallic colors of the parasitic Hymenoptera were clearly preserved in the Florissant specimens, but the pigmental colors of the ants appear to have been affected by the chemical activity which took place during the process of preservation of these insects. Individuals of a species vary from light brown to black, depending at least partly upon the rapidity of entombment, for the lighter specimens are usually much better preserved than the darker ones. There are, however, a few species, such as *Lasius peritulus* (Ckll.) and *Formica robusta*, n. sp., which are always brown, and since I have found this to be true for the hundreds of individuals of these two species which I have examined, it is very probable that the living ant was this same color. The relative size and qualitative dimensions of the