

the principal organs of touch are the *Antennæ*, also denominated, from their supposed office, the *feelers*.*

Some idea of the great variety in the forms of the antennæ of insects may be obtained from the specimens delineated in Fig. 381, which shows a few of the most remarkable.†

The universality of these organs among every species of this extensive class of animals, their great flexibility, arising, from their jointed structure,‡ their incessant motion when the insect is walking, and their constant employment in examining the surfaces of all the bodies with which they come in contact, sufficiently point them out as instruments, of a very delicate sense of touch. Organs of this kind were particularly necessary to insects, since the horny nature of the

* The German name for them, *fühlhörner*, or the *feeling horns*, is founded on the same notion.

† In this figure, A represents the form of antennæ, technically denominated *Antenna capitulo uncinato*, as exemplified in the *Pausus*.

B . . is the A . *piloso-verticillata*, as in the *Psychoda ocellaris*.

C . . A . *biclavata*, (*Claviger longicornis*.)

D . . A . *triangularis*, (*Lophosia*.)

E . . A . *clavata*, (*Masaris*.)

F . . A . *capit. lamellato*, (*Melolontha mass.*)

G . . A . *capit. fissile*, (*Sphodius fossor*.)

H . . A . *fusiformis*, (*Zygæna*.)

I . . A . *capitata*, (*Ascalaphus*.)

K . . A . *furcata*, (*Schizocera*.)

L . . A . *bipectinata*, (*Ctenophora*.)

M . . A . *irregularis*, (*Agon paradoxum*.)

N . . A . *cordata*, (*Diaperis boleti*.)

O . . A . *bipectinata*, (*Bombyx*.)

P . . A . *palmata*, (*Nepa cinerca*.)

Q . . A . *ensiformis*, (*Truxalis*.)

R . . A . *setacea*, (*Cerambyx*.)

‡ The number of segments into which these organs are divided is often very great. In the *Gryllotalpa*, or mole cricket, it amounts to above 100. (Kidd, Phil. Trans. for 1825, p. 211.) This insect has, besides the antennæ on the head, two posterior or caudal antennæ, which are not jointed, excepting at their very commencement. These are extremely sensible, and serve, probably, to give the animal notice of the approach of any annoyance from behind, *ib.* p. 216.