

of their formation and growth. In some this cord is extremely small, and in others said to be wanting altogether, which circumstance has given rise to the division of all seeds into two classes namely such as are attached to the plant by this cord, and such as appear to be without it. The last are by Botanists called *nidulant seeds*.

Writers on this science have considered each seed as composed of four separate parts; viz. the seed coat—the two seed lobes—the eye and the heart; and we shall adopt the same method and arrangement in describing them here. *The seed coat* as its name implies is that thick-opake membrane which envelopes the other parts of the seed, and seems admirably adapted for the purpose of defending its tender contents from external injury, during their growth. When the seed begins to vegetate this part bursts and falls off. Some late discoveries have ascertained that there are two membranes which surround the seed and have distinguished them by the terms *outer* and *inner*, the former corresponding with the above description and the latter thin transparent, and of a delicate consistancy.

On removing the seed coat we find nearly the whole interior part of it filled with a substance which in most plants is of a white colour, though not invariably so. This part readily divides into two equal portions termed *The Lobes*. According to Whetthering, these are defined to be “that perishable part of the seed which serves in the early stage of vegetation for food to the young plant before it be able to draw nourishment from the ground by its roots.” These in process of time expand are forced up and become the seed leaves the first part of the plant which appears above the earth. When perfectly ripe and dry, the Lobes produce that farinaceous substance termed the meal in vegetables which forms so large a portion of the food of animals.

On a close examination of the seed after the outer coat is removed, and in some of them before it be taken off, we discover a small pit or hollow formed by an indentation of the seed lobes. This is what is termed *The eye* of the seed and is known among Botanists by the appellation *Hilum*. It is from this hollow that the cord issues by which the seed is attached to the plant.

In the bottom of this pit is situated the next part meriting our notice called *The Heart* or *Corculum* which is the future plant in miniature. This consists of two parts, the one sharp pointed, which descends into the earth and becomes the root, while the other ascends and expanding forms the plant. The former is named the *Rostel* and the latter the *Plummele*.

*The Receptacle* when the young Botanist separates the seeds from a plant, he will find them in many cases attached to a part of it which cannot properly be said to belong to any of the parts heretofore described. In some plants such as the sun flower, thistle and in the artichoke, this part is very observable and distinct, in others it is not so obvious to the naked eye. In common language this is often called the stool, but Botanical writers have described it under the term *Receptacle* from the idea of its being the receptacle on which the seeds are placed.