

gourd in one night. Now, supposing with Professor Lindley, that the cellules of this plant are not less than the 1-200th of an inch in diameter, a plant of the above size will contain no less than 47·000·000·000 cellules ; so that, supposing it to have grown in the course of twelve hours, its cellules must have been developed at the rate of nearly 4·000·000·000 per hour, or of more than sixty six millions in a minute !* and when we consider that every one of these cellules must be composed of innumerable molecules, each one of which is again composed of others ; we are perfectly overwhelmed with the minuteness, and number of the parts, employed in this single production of nature. But the animal kingdom perhaps presents us with still more striking instances than these. Thus animalcules have been discovered whose magnitude is such, that a million of them do not exceed a grain of sand ; and yet each of these creatures is composed of members as curiously organized as those of the largest species. They have life and spontaneous motion, and are endowed with feeling and instinct ; in the liquids in which they live, they are observed to move with astonishing speed and activity ; nor are their motions blind and fortuitous, but evidently governed by choice, and directed to an end. They use food and drink,

* Introduction to Botany, p. 7.