

The nerve showed itself, under the conditions of the experiment, less sensitive to the action of CO_2 than was *Elodea*, and the latter was less sensitive than a active Myxomycete plasmodium (of *Badhamia*) similarly treated.

Ether vapour in air passed over the plant for two minutes caused a speedy arrest of all movement, and the quiescent condition persisted for some minutes longer. Recovery then ensued and the normal rate of movement was slowly regained. With dilute ether vapour (below 10 per cent. in air) insufficient to anæsthetise the nerve, the protoplasmic circulation was unaffected.

Chloroform. — The action of chloroform proved to be far more deadly than that of ether. Movement was arrested in less than a minute, and two minutes' exposure to the full action of its vapour caused the death of the cell.

When a more diluted vapour (about 2 per cent in air) was passed over the cell for two minutes recovery ultimately occurred.

The action of ether and chloroform, especially the latter, was very marked in causing many of the chlorophyll granules, which had previously been almost restricted to the lateral walls, and hence had presented their edges to the incident light, to become dispersed over the surface of the cell, where they were fully exposed, over their largest area to the light. The action of carbon dioxide as observed in these experiments was not nearly so pronounced. This phenome non is such as might have been anticipated as a result of the paralysis, temporary or permanent, of the protoplasm.

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