employed. The repulsion of such forms is here the only safe test for an evolution of oxygen.

There is no à priori reason, why the chloroplastids, in a cell the cytoplasm of which had been killed, might not, especially, bearing in mind the now definitely proved fact, that isolated chloroplastids may continue for a short time to assimilate, also for a time continue, if exposed to light, to evolve oxygen In deed, at one time, it seemed as if certain observations, that Pringsheim and myself had made, pointed to this conclusion. The completed investigation shewed, however, (see p. 415. A<sup>1</sup>. p. 145. A<sup>3</sup>) that whilst an evolution of oxygen might continue in certain cases to take place from a chlorophyllous cell for a short time after its death had occurred, such evolution was, so far as my own observations went, independent of light and, therefore, not a product of a process of  $CO_2$ -assimilation. The cases given by Kny may possibly be examples of the continuance of  $CO_2$ assimilation by the chloroplastids, for a short time after the death of the cytoplasm. As shewn above, there is no à priori reason why such should not take place. No results however obtained by means of the Bacterium method can be considered as satisfactory unless pure cultures are worked with, adequately closed cell preparations are employed, and full attention is paid to the various special precautions which the researches of Engelmann and myself have shewn to be necessary. Otherwise the use of the Bacterium method is more likely to retard than accelerate scientific progress in this direction, namely in elucidating problems connected with CO<sub>2</sub>-assimilation.

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