vents in the tray, the action is not sufficient to destroy the organism.

Experiment 3.-Four platinum wires were prepared as in Experiment 2. Nos. 1 and 2 were reserved for control. Nos. 3 and 4 were subjected to the action of the gas for fifteen minutes with the top vent of the tray closed. After inoculation on serum and incubation for twenty-four hours, results were observed as follows:

Mounts were made from all tubes, confirming the presence or absence of growth and absence of contamination.

Wire No. 3 had a large amount of culture attached to it. No. 4 had a small but very apparent amount attached.

It seems evident from the above experiments that the gas, in the time allowed, and under the conditions of the test, will not penetrate and kill through a deep layer of organisms.

Experiment 4.—Four wires were inoculated with the Bacillus pyocyaneus (by dipping into a bouillon culture of the organism) and dried. Nos. 1 and 2 were reserved for control. Nos. 3 and 4 were placed in the tray, with all vents closed, and subjected to the action of the gas for fifteen minutes. Inoculations into bouillon from all wires and incubated forty-eight hours, gave results as follows:

Control $\begin{cases} 1. & \text{Characteristic growth.} \\ 2. & \text{``} \\ 3. & \text{No growth.} \\ 4. & \text{``} \end{cases}$

This experiment shows that under the conditions of the test, closed verts and exposure of this layer of organisms, the Bacillus pyocyaneus is destroyed by fifteen minutes' exposure.

Experiment 5.—This experiment differed from Experiment 4 only in time of exposure, ten minutes being given instead of fifteen minutes.

The results after forty-eight hours' incubation were as follows:

Control { 1. Characteristic growth. 2. " 3. No growth. 4. "

The above series of experiments were repeated twice in all