

M0007784: Apparatus used in Joseph Lister's experiments on the nature of fermentation

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EXPERIMENTS ON THE NATURE OF FERMENTATION.

(17) During assembly on the apparatus shown in the plate above, the following tubes were introduced as follows:-

1. Five covered glass tubes with a stop each estimated as containing 2.5 c.c. of water.
2. Five covered glass tubes with a stop each estimated as containing one c.c. of water.
3. Five liquid glasses with a stop each estimated as containing one c.c. of water.
4. One glass plate with a stop estimated as containing four c.c. of water.

Results.

1. and 2. were not sealed in a few days: with perfectly still and undisturbed water for several days.
3. Three of the glasses remained still.
4. Two of the glasses remained still.

On that out of ten identified with one c.c. of water, five remained still and five developed fermentation.

The most usual is with sugar but when alone, bacteria develop were present and in so far as the remainder was any bacteria at all and to be discovered.

In demonstrating these experiments in October 1877 at King's College, London, Mr. Barker repeated the experiment of the glass plates and proceeded to show the same results.

From these experiments with the little tubes we have "absolute evidence" that bacteria develop in the water of bottles and fermentation and that I venture to believe that we have shown one more way to the way of showing that bacteria are not "difficult" creatures from the realm of vague speculation and have obtained into the domain of science and definite knowledge.

