Room Temperature.	37° C.
Agar Streak :— Dense, profuse, cream-coloured moist shining growth along needle track in 18 hours, with irregular margin, which gradually spreads over the surface of the agar.	Growth barely visible.
Agar Smear :— Small pin-point cream-coloured colonies at the end of 18 hours with irregular spreading transparent margins.	" "
Agar Glucose Stab :— Profuse cream-coloured growth along needle track for about half an inch at the end of 24 hours, spreading on the surface. The agar gradually *becomes cloudy from the surface and parallel to it, and extends for about half an inch down the media. No gas production.*	" "
Agar Glucose Plate :— Cream-coloured colonies with moist shining surface and *white cloudiness around each Colony.*	" "
Blood Serum :—	
Bouillon :— At the end of 18 hours the bouillon becomes cloudy throughout, with a marked skim on the surface and clinging to sides of tube, with a slight deposit at the bottom.	No perceptible growth.
Bouillon (Glucose) :— Similar to ordinary bouillon, but growth much more profuse..	Very slight growth.
Bouillon Taurocholate Glucose :— Slight growth, turning the media slightly red. No gas formation.....	No growth.
Litmus Milk :— In about 48 hours there is a distinct acid reaction, which gradually increases, and in about seven days the milk becomes coagulated and gradually digested.	No perceptible change.
Peptone Water :— Marked cloudiness throughout at the end of 18 hours. Gives no indol reaction.	Very slight cloudiness at the end of 48 hours. Gives no indol reaction.
Potato :— Very profuse yellowish brown growth at the end of 18 hours, raised on the surface of media like blisters, with moist shining surface.	Very slight growth in 48 hours.
Agar (Anaerobically) :— No growth...	No growth.

The organism also withstands the effect of ordinary water, sterile water and *sea-water* for a considerable time, as flasks of those inoculated with it and kept at the room temperature for over a month gave profuse growths when reinoculated on agar. It does not, however, survive more than a week in distilled water. It also keeps well on sub-cultures, as tubes of agar inoculated from sub-cultures about a year old gave profuse growths in about 18 hours.

The chief characteristics of the bacillus are those:—

Actively motile, non-spore-bearing bacillus.
On sub-culture it grows profusely in 18 hours at the room temperature.
On sub-culture it grows profusely when exposed to 0 deg. C. for a week.
Shows *little or no growth at 37° C.*
Is *killed at 37° C.* (98·6° F.) in about six days.
Liquefies gelatine with extreme rapidity.
Coagulates and digests milk.
Forms a cloudiness in glucose agar in the neighbourhood of the growth.
Grows well in sea water.
Strict aerobe.
Involution forms only observed on glucose media.
Does *not* stain with Gram's method.
Pathogenic to fish.
Non-pathogenic to frogs, mice, and guinea-pigs.