liquefies serum slightly and subsequent to coagulating milk digests the clot. This organism was later found by Birge.[37] It is in the two last characteristics that I find the close resemblance to *M. zymogenes* noted above. The original description of *Str. gracilis* of Escherich cited by Winslow[34] includes non-liquefaction of blood serum and failure to coagulate milk; but summing up the variations Winslow provisionally defines his "type centre" *Str. gracilis* as follows: Small coccus, appearing in chains, ferments lactose and coagulates milk, may ferment mannite and salicin, liquefies gelatine actively.

While the organism I have described appears to have certain particular characteristics, I hesitate to depart from Winslow's view regarding the relationship of the variants in his tentative group of streptococcus liquefiers [34]. I conclude therefore that this organism which culturally and biochemically is identical with the *M. zymogenes* of MacCallum and Hastings[36] should be placed as a variety of the type *Str. gracilis*.

SUMMARY AND CONCLUSIONS.

1. Three strains of bacteria have been isolated from the destroyed tissue of copels which had died in culture flasks.

2. Summarized, the biological features are as follows:—

—	I. Rod-form.	II. Rod-form.	III. Coccus.
Gram's Stain	−	−	+
Spores	−	−	−
Capsule	−	−	+
Motility	−	+	−
Agar	Luxuriant	Moderate	Scant.
Gelatine	No liquef.	No liquef.	Liquef.
Potato	Abundant	Moderate	Scant.
Loeffler's Blood Serum	No digestion	No digestion	Slight digest.
Milk	Coagulag	No change	Coag. and digest
Thermal death pt.	60°C.	55°C.	60°C.
Optimum temperature	37°C.	37°C.	37°C.

3. Summarized, the biochemical reactions are:—

—	I.	II.	III.
Indol	+	−	−
Nitrate reduction	+	+	−
Voges-Proskauer	−	+	−
Methyl Red	Acid.	Faintly acid, later alkal.	Acid.
Glucose	++	++	+
Lactose	+−	±−	+
Saccharose	++	++	+
Raffinose	++	−−	−−
Maltose	++	++	+
Mannite	++	++	+
Lulcite	++	−−	−−
Adonite	++	−−	−−
Salicin	++	++	+
Dextrine	++	++	+
Inulin	+	−−	−−
Xylose	++	++	−−
Glycerine	++	++	−−

+ = acid. ++ = acid and gas.