THE CORRECT SPECIES NAME OF THE
STREPTOCOCCUS OF BOVINE MASTITIS

File No. 37.

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Three species names are primarily to be considered:-
Streptococcus nocardii Trevisan 1889, S. agalactiae Lehmann and Neumann 1896, S. mastitidis Migula 1900.

I have never had Trevisan's (1)* publication of 1889 in my hands, I am therefore able to add nothing to the statement given in Bergey's Manual 6th ed. p. 319.

The question of the epithets agalactiae and mastitidis I have extensively investigated and with M. Klimmer (2) published the results in 1930.

Alfred Guillebeau (3) in 1890 published two names, Streptococcus mastitis sporadicae n.sp. and Streptococcus mastitis contagiosae (Nocard and Mollereau), both having the same morphology and biological behavior, but differing in the percentage of cows infected by the two species. Guillebeau's strains of this species of Streptococcus were isolated by milking directly from the diseased udder into a tube of bouillon and were apparently impure (broth culture turbid). The diagnoses of S. mastitis sporadicae and of S. mastitis contagiosae were different from the diagnosis given by Nocard and Mollereau (4) for the Streptococcus of "une mammite contagieuse des vaches laitières" in 1884. In my opinion the

*Since receiving Dr. Haupt's note, Trevisan's 1889 paper has been republished by photo offset in the January 1952 issue of this BULLETIN. Trevisan's description (p. 30) follows:

9. Str. Nocardii Trev. (Microbe de la mammite contagieuse des vaches laitières Nocard et Mollereau, 1887).

names given by Guillebeau are illegitimate (nomina confusa) because their diagnosis is based on a mixture of more than one species and differs from the description given by Nocard and Mollereau, authors cited in connection with one of the two names.

Eisenberg (5) in 1891 mentioned the Streptococcus "der infektiösen Induration des Euters Nocards und Mollereau" and related it to an inaccurate and erroneous translation of the diagnosis given by these authors. Migula (6) in 1900 and Matzuschita (7) in 1902 followed this erroneous translation of Eisenberg and gave the specific epithet mastitidis to the Streptococcus der "mammite contagieuse des vaches."

Eisenberg describes the culture in milk as follows:

"In 24 Stunden bei Zimmertemperatur entsteht im obersten Drittel eine schmutzig weisse, gelbe, homogene Masse, darunter eine klare opaleszierende, gelblich-weiße bis leicht rötliche Flüssigkeit und saure Reaktion durch Bildung von Milchsäure."

Migula accepted Eisenberg's faulty description of the milk-culture and Guillebeau's statement that the broth culture is turbid. Therefore Migula's name is invalid.

In the meantime Kitt (8) in 1893 had given the name Streptococcus agalactiae contagiosae to this species, accompanying this name with a faultless diagnosis. Lehmann und Neumann (9) in 1896 used the name Streptococcus agalactiae Adametz. In the publications of Adametz (19) I have found the name Streptococcus agalactiae contagiosae only once. He mentions Kitt's Bakterienkunde and describes a coccus, which in his opinion is similar to the Streptococcus agalactiae but which later has been described by Hucker (11) as identical with Micrococcus epidermidis Kligler 1913. The abbreviated form of Kitt's name ascribed by Lehmann and Neumann to Adametz I have not found in Adametz' publications. The result of my extensive study was that the legitimate epithet in my opinion was Streptococcus agalactiae (Kitt 1893) n.sp.(syn. Streptococcus der mammite con-

tagieuse von Nocard et Mollereau (1887): Streptococcus mastitidis (Guillebeau 1890) Bergey et al 1925). The names used by Guillebeau, by Migula and by Lehmann and Neumann are illegitimate because they are based on impure cultures or on faulty translations of Nocard's description or on the description of quite another coccus.

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