

ness of Professors C. Jeff Miller and E. L. King and Doctors Thomas B. Sellers and C. D. Dawson, I have been able to investigate 12 cases of nursing women presenting Fehling reducing urine. In most cases the reaction was slight and disappeared after a few days. The bacterial method showed that in every case the Fehling reducing substance was lactose; no glucose or any other sugar apart from lactose was present.

I shall be pleased to supply workers interested in the subject with cultures of the strains of *B. coli* and *B. paratyphosus* B I use.

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Some New Bacilli: *Bacillus Metaflavus*, *Bacillus Flavoides*, *Bacillus Multiformis*, *Bacillus Canalensis*, *Bacillus Pomodoriferus*.

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Bacillus metaflavus Castellani. This bacillus I have grown several times from scrapings of the skin of the axillary and pubic regions. It is a most peculiar organism, and it is very doubtful whether it is a bacillus at all; it is gram-negative.

In preparations from agar cultures the organism appears as a long straight, or more often curved, large-sized bacillus; in preparations made from glucose agar cultures 48 hours old globular bodies, cryptococcus-like, 3-7 microns in diameter, are seen in addition to short, thick, bacillary forms. The growth on agar and glucose agar is of a bright yellow color, the surface of the growth may be smooth and shiny or may be crinkled. In stained preparations the organism at times appears as a diplo-bacillus with a large capsule.

Bacillus flavoides Castellani. This bacillus has been isolated by me from scrapings of the skin of the axillary and pubic regions. It is Gram-negative. It grows well on all ordinary media, it does not produce gas in any sugar. The growth on glucose agar is yellow, but after repeated transplanting the power of producing pigment is almost lost. It is easily differentiated from *B. metaflavus* as in preparations from glucose agar cultures no cryptococcus-like bodies are found in addition of the bacillary forms.

Bacillus(?) multiformis Castellani. This is a most peculiar organism isolated from scrapings of human skin. It is gram negative, not acid fast, is easily stained by the ordinary aniline dyes. The

organism may take the most different morphological appearances, especially in hanging-drop cultures; in the same preparation globular cryptococcus-like bodies (2-5-7 microns in diameter) may be present, in addition to thick bacillary forms and most peculiar elongated sinuous forms. The classification is difficult and the possibility of its being a true cryptococcus cannot be discarded, although against it there is the fact that the organism is gram negative and the dimensions are smaller than in most cryptococci and moreover many bacillus-like forms are present. For convenience's sake I will consider it a bacillus and call it *B. multiformis*.

Bacillus canalensis Castellani. A motile gram negative asporigenous bacillus isolated from human stools. Some strains seem to be non-motile. It grows well on ordinary media. It does not liquefy gelatine, it does not liquefy serum and does not clot milk.

With regard to the usual carbohydrates used in laboratories it ferments with production of gas only glucose and levulose. It differs from *B. morgani* as in contrast to the latter it does not ferment galactose.

Bacillus pomodoriferus Castellani. This somewhat peculiar bacillus was isolated from the urine of a case of cystitis and also from a stool. Its pathogenicity has not been proved. It is non-motile, gram negative, asporigenous, does not produce either acidity or gas in any sugar; it slowly liquefies gelatine and serum. Its principal characteristic is the production in young cultures, especially in serum cultures, of a peculiar rather pleasant penetrating odor resembling the smell of apples. In old cultures the odor disappears or becomes disagreeable.

I shall be pleased to supply workers interested in the subject with cultures of the microorganisms I have briefly described in this paper.