Conclusions: Since the "antipneumotoxic" serum fails to modify the course of pneumococcus infection, as shown in the mice and rabbit experiments, it seems fair to assume that the anaerobically produced toxins are probably products primarily of the enzymatic changes occurring in *in vitro* autolysis, and play no part in the course of natural infection.

5365

Decremental Conduction in the Human Heart.

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Decremental conduction appears to have been demonstrated in the compressed or otherwise depressed mammalian auricular muscle (Drury[1]; Drury and Andrus[2]). This interpretation has been quite generally, but not universally accepted. No human electrocardiograms suggesting the condition have been described so far as we are aware. We have had 2 cases in which the condition is suggested. One case of interference dissociation showed a most unusual phenomenon. There were a large number of auricular impulses which penetrated to the ventricular pacemaker and disturbed its rhythm. Of these nearly 50% were blocked between that point

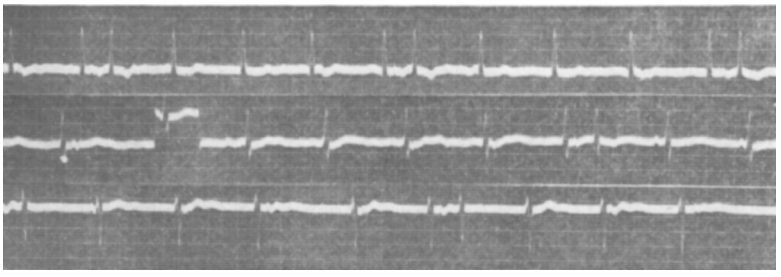

FIG. 1.

Electrocardiograms in leads 1, 2, and 3, showing the A-V rhythm with what appeared to be auricular premature contractions with occasional long R-R intervals of which there were seventeen in all of the tracings. In the T waves of which there is an activity that resembles a blocked premature auricular contraction. This activity, although not reaching the ventricle, apparently succeeds in distinctly prolonging the R-R interval as is shown in the fourth interval in lead 3.

[1] Drury, A. N., *Heart* (London), 1925, **12**, 143.

[2] Drury, A. N., and Andrus, E. C., *Heart* (London), 1924, **11**, 389.

and the ventricle proper. This observation, which appears to be unique, together with further evidence from another case with auricular premature beats, strongly suggests the presence of decremental conduction in the human heart. Even if the tracing be interpreted as one of simple reciprocating rhythm, yet the extreme peculiarity in question remains, namely a descending impulse discharging the ventricular pacemaker yet failing to reach the ventricular musculature.

5366

Production of Trimethylene Glycol by Fermentation.

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Freund[1] first reported the occurrence of trimethylene glycol in fermentation mixtures while making a study of the production of butyl alcohol. Rayner[2] concluded that the trimethylene glycol must be formed during the spontaneous fermentation of soap lyes subsequently to the liberation of glycerol. He believed that trimethylene glycol was produced by microorganisms. Braak[3] isolated and named *Bacterium freundii* isolated from ditch water, an organism producing trimethylene glycol. He discusses the chemism of the process in some detail.

The present work undertakes to make a systematic study of organisms producing trimethylene glycol. Twelve cultures were isolated from horse, sheep, cow and mouse feces and soils, which produced the glycol from glycerol. All were gram negative short rods occurring in the group generally referred to as intermediate forms of the "coli-aerogenes" group. The 12 cultures were subdivided into 7 species on the basis of fermentative dissimilation of sugars. The group appears to deserve generic ranking. As high as 30% of trimethylene glycol is produced from the fermented glycerol. Typical Escherichia or Aerobacter forms do not produce trimethylene glycol from glycerol. They do produce much greater volumes of CO_2, H_2, ethyl alcohol and succinic acid than do the intermediates, but much less acetic acid.

[1] Freund, A., *Monatsch. Chem.*, 1881, **2**, 636. *Sitzber. K. Akad. Wiss.*, **84**, 671.

[2] Rayner, Archibald, *J. Soc. Chem. Indus.*, 1926, **45**, 265, 287.

[3] Braak, H. R., *Onderzoekingen over Vergisting van Glycerine.* 1928. Thesis, Delft.