The filtrate of an initial culture of this soil in a meat mash medium in the constricted tube[1] contained also the toxin of B. botulinus Type A, and it was during our effort to recover this organism that the *Bacillus histolyticus* was isolated.

The primary culture contained numerous obligately aerobic hay bacilli and it is interesting to note that while our usual use[2] of gentian violet easily eliminated these by selective bacteriostasis, it was impossible in six trials to eliminate a certain facultative aerobe-anaerobe which we now consider to have been none other than the *B. histolyticus* since that was the only organism that could be isolated from the subsequent deep agar colonies.

The isolated culture corresponds in all of its morphologic cultural, and pathogenic properties to the war wound strains received from Dr. Weinberg of the Pasteur Institute of Paris or indirectly from Dr. Kahn of Cornell University Medical School.

248 (2208)

The failure of fermentation reactions with bacillus histolyticus.

By IVAN C. HALL.

[*From the Department of Bacteriology and Experimental Pathology, University of California, Berkeley, California.*]

I wish at this time to correct a mis-statement regarding the fermentative power of *B. histolyticus* that appeared in my 1922 paper,[3] in which I recorded acid and gas production in glucose. and uncritically accepted the records of Henry[4] and the British Medical Research Committee[5] of fermentation of glucose, levulose and maltose, which were based, like my own, on the study of a single strain. My own result may have been due to an undetected contamination. At any rate, Weinberg and Seguin[6],

1 Hall and Peterson, *Jour. of Bacteriology* (in press).
2 Hall, *Jour. Am. Med. Assn.*, 1919, lxxii, 274.
3 Hall, *Jour. Inf. Dis.*, 1922, xxx, p. 445.
4 Henry, *Jour. Path. and Bact.*, 1917, xxi, 344.
5 British Medical Research Committee, Report No. 39, 1919.
6 Weinberg et Seguin, *La Gangrene Gazeuse, Masson et Cie*, Paris, 1917.

Kendall, Day and Walker[7] and Kahn[8] were inclined to deny fermentation of sugars, and a more critical study of our five strains shows clearly that they ferment neither glucose, levulose, maltose, lactose, saccharose, salicin, glycerol nor inulin. That is, there is neither increase of hydrogen ion concentration nor considerable gas production.

B. histolyticus is thus the third sporulating anaerobe failing to derive its carbon from any of the commonly tested carbohydrates, glucosides or alcohols, the other two being *B. tetani* and *B. putrificus.*

The following table summarizes the outstanding differences between these three non-fermentative species of sporulating anaerobes:

	Morphology of spores	Tyrosin crystal	Culture filtrates
B. histolyticus	Subterminal, oval	Formed	Lytic
B. tetani	Terminal, round	Not formed	Non lytic but powerfully tetanospastic
B. putrificus	Terminal, round	Not formed	Harmless

249 (2209)

A note on the mechanism of the peculiar lesions produced by bacillus histolyticus.

By IVAN C. HALL and EMELIA PETERSON.

[*From the Department of Bacteriology and Experimental Pathology, University of California, Berkeley, California.*]

B. histolyticus was first described by Weinberg and Seguin[1] in 1915 as an obligate anaerobe from war wound infections in which is may display a remarkable and peculiar lytic activity. Pure virulent cultures injected intramuscularly into guinea pigs literally digest the flesh from the bones, hence the name—histolyticus.

7 Kendall, Day and Walker, *Jour. Inf. Dis.*, 1922, xxx, 141.
8 Kahn, *Jour. Med, Res.*, 1922, xliii, 155.
*Weinberg et Senguin, *Comptes rend. Acad. des Sc.*, 1916, clxiii, 449.