resistance to lysis were to be considered the result of development in bacteria of specific resistance to the bacteriophage, it would to explain our findings, be necessary to assume (in addition to d'Herelle's hypothesis, that individual bacteria may develop immunity) that this acquired immunity is inheritable, and has been transmitted in our experiments for countless generations in the absence of bacteriophage.

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On the nature of inactivation of the bacteriophage by alcohol.

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Lytic filtrates are rendered inactive by the addition of an excess of alcohol.[1] If this reaction is carried out at low temperature, it becomes evident that the rate at which this inactivation proceeds is not uniform, but becomes very slow after the first few minutes. The phase of rapid initial inactivation apparently coincides with the precipitation of the filtrate by alcohol.[2] Addition of salts to the filtrate increases the rate of inactivation of the lytic principle when alcohol is added subsequently, and the higher the valency of the cation, the greater is the effect of the salt. Reduction of the salt content of the filtrate by dialysis results in the reduction of the destructive effect of alcohol upon it. It appears that in reducing the activity of the lytic agent alcohol acts not directly by virtue of its virucidal action, as assumed by d'Herelle, but indirectly by causing precipitation of the medium which, in turn, results in adsorption of the lytic principle.

[1] d'Herelle, F., The Bacteriophage, English translation, Williams and Wilkins Co., 1922, 123.

[2] Bronfenbrenner, J., and Korb, C., PROC. SOC. EXP. BIOL. AND MED., 1923-1924, xxi, 177; *J. Exp. Med.*, 1925, xlii, 419.