6. The patient remained for four months in a condition of nitrogenous equilibrium, and otherwise in good health, on a diet containing about 6.5 grm. of nitrogen and 3,000 calories, which were ultimately reduced to 2,500 calories to prevent a constant gain in weight.

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The formation of gluconic acid by the olive-tubercle organism and the function of oxidation in some microörganisms.

By **CARL L. ALSBERG.**

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The olive-tubercle organism, *Bacterium savastanoi*, recently described by Erwin F. Smith,[1] when grown in the presence of glucose and an excess of calcium carbonate, converts the greater part of the glucose into calcium gluconate. The amount of energy liberated thereby is exceedingly great in comparison to the weight of the organisms. This is to be explained by the fact that the energy requirements of microörganisms are very much greater than those of higher forms, partly because of the disproportion between the body surface and the body volume of microorganisms, and partly because microörganisms exist in a medium which is an excellent conductor of heat.

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On the fertilizing and cytolytic effect of soap.

By **JACQUES LOEB.**

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It has been shown by experiments on the eggs of sea-urchins, starfish, and annelids that the artificial membrane formation is the act which causes the unfertilized egg to develop. The agencies which cause the artificial membrane formation, as a rule, injure the egg. For the eggs of the starfish and certain other annelids

[1] Erwin F. Smith: Recent Studies of the Olive-Tubercle Organism. U. S. Department of Agriculture, Bureau of Plant Industry, Bulletin No. 131, Part IV, Washington, 1908.