1. The introduction of alcohol into the intestine sets up a reflex which causes a secretion of gastric juice.

2. Section of the nerves which supply the stomach (vagi and sympathetic), or the administration of atropin, prevents this reflex, whereas nicotin has no such effect.

3. Of the substances other than alcohol examined in this connection, it was found that oil of peppermint also induces a reflex secretion, but that other irritants, such as mustard and ether, do not show this action.

4. Section of the nerves, or the administration of atropin or nicotin, followed by the introduction of alcohol directly into the stomach, gave results similar to those obtained when the alcohol was injected into the intestine.

16. **"The organism of smallpox,"** with demonstrations: **GARY N. CALKINS.**

The author, after briefly describing some of the phases in the complicated life history of the smallpox organism — *Cytoryctes variolæ Guarnieri* — demonstrated twelve stages of the organism stained by an adaptation of the Borrel method, whereby the organism stains red upon the green background of cell body and nucleus. A similar parasite, as yet undescribed, in the macronucleus of *Paramœcium caudatum*, was also shown.

17. **"On respiratory stimulants,"** with demonstration: **GEORGE B. WALLACE.**

A demonstration was made of a method for estimating the volume of expired air. A rabbit was used and the volume of air expired under normal conditions, and after the animal had been given a respiratory stimulant, was measured. The apparatus used was a modification of the one devised by Dreser. In the experiments reported by the author, the greatest increase in respiration occurred after administration of atropin, the amount of expired air being increased 75 %. Strychnin produced an increase of 35 %, caffein 9 %, cocain 7 %, aspidospermin and quebrachin (two alkaloids obtained from *Quebracho blanco*) 9 % and 17 %, respectively.

18. **"The intracellular reduction of gold chlorid,"** with demonstration: **ALFRED N. RICHARDS.**

The author studied the effects of intravascular injections of the double chlorid of gold and sodium. His experiments were

carried out under the direction of Professor Schmiedeberg. Microscopic examination of the tissues of rabbits killed by lethal doses of this salt shows the deposition of metallic gold in and immediately about the nuclei of the cells of the kidney, liver, spleen, mucosa of the gastrointestinal tract, and cardiac muscle. By chemical analysis it was found that the greatest amounts of gold were deposited in the kidney and liver, only traces having been recovered from the other organs.

On account of the ease of reduction of this salt, and the possibility of accurately estimating the metallic gold, it was recommended as an indicator of the *quantitative* relationships of the reducing processes in the various organs.

19. "Effect of ligation upon the vital staining of nerves," with demonstration: **S. J. MELTZER.**

The author demonstrated pieces of dried sciatic nerves of rabbits which, *intra vitam*, received intravenous infusions of methylene-blue. Single ligatures of the nerve, no matter where applied, are without any influence upon the color of the nerve on either side of the ligature. When the nerve is ligated at two places the section between the two ligatures remains free of color, while the central and peripheral ends of the nerve turn blue in the usual manner. The effect is the same even if the ligatures are applied near either end of the nerve. This fact shows that, in the vital staining, the methylene-blue reaches the nerve only from its central and peripheral ends.

20. "Effects of bloodletting on metabolism": PHILIP B. HAWK and **WILLIAM J. GIES.**

The author reported the results of some experiments recently conducted by him in collaboration with Dr. Hawk. The experiments were carried out on dogs in a state of nitrogenous equilibrium. The withdrawals of blood were made while the animals were under the influence of ether-chloroform. The metabolic effects of anæsthesia and of operation were carefully controlled.

It was found that hemorrhages of about 3 % of body weight caused, among other effects, (1) diminished secretion and decreased specific gravity, of the urine at first, the reverse in