

3. After conjugation the organisms start with high potentials of metabolic energy which gradually wear out, but which can be restored artificially. So, too, the dividing energy starts with a high initial potential energy, which cannot be restored after exhaustion.

In the light of these experiments it would be pertinent and instructive to ascertain whether artificial parthenogenesis, in sea-urchins for example, could be repeated more than once on the same continuous protoplasm. On *a priori* grounds a successful result would be extremely doubtful.

8. "On the origin of cholesterin in gallstones": CHRISTIAN A. HERTER.

The author said that experiments made in his laboratory by Dr. Wakeman give strong support to the view that inflammatory conditions of the walls of the gallbladder may lead to an increase in the cholesterin of the bile. Dr. Wakeman injected strong solutions of bichlorid of mercury into the gallbladders of dogs which had previously fasted for three days. After periods of from two to five days the animals were killed. As a rule the gallbladder walls were much thickened and the epithelium was proliferated and desquamated. The solids of the bile were diminished in percentage. The cholesterin content was much increased. The contents of the gallbladder in these experiments were sterile. These facts are of great interest in relation to the etiology of gallstones.

9. "On nucleic acid," with a demonstration of preparations: PHOEBUS A. LEVENE.

According to Osborne, nucleic acid derived from the plant cell differs from that of the animal cell because of variations in the characters of the contained pyrimidin radicals. The author has devised a new method of separating the pyrimidin bases, in which he avoids precipitation with silver. With this method he has obtained from animal nucleic acid (derived from the spleen and pancreas), thymine, cytosine, and uracil. The radical of the latter substance had been supposed to occur only in plant nucleic acid. Kossel and Steudel have made this same observation in regard to the nucleic acids derived from the thymus gland and from fish sperm.