dran put the subject of cholelithiasis, its varieties, complications and sequelæ in such a clear and concise form that everyone present felt that their memories were refreshed, and that they were able to grasp the great and somewhat complicated question in a clearer light.

Dr. A. D. Blackader then took up the medical treatment, also published in this issue, and discussed it in a most scholarly and scientific spirit. After a brief review of the physiology of the liver, he gave a carefully prepared review of the known action of drugs on that organ, and their influence, so far as known, upon the formation of gall-stones. He showed that some of the old, so-called, stimulants of the liver really retarded the outflow of bile; and, while the salts of soda were mild stimulants, the tauro and glyco-cholates were the most effective. The two all-important factors in cholelithiasis, slowing of the flow and infection, were duly emphasized and their relative importance indicated. The influence of diet and the importance of exercise were also discussed.

The surgical side of the discussion was ably presented by Dr. Ross in a paper covering the ground most thoroughly, but to one or two of the general sweeping statements made, we must take exception. Should an operation be advised as soon as a diagnosis of gall-stone in the bile passages is made. We should most emphatically answer, no. Internal treatment should first be given a chance. Medication and dieting can accomplish much in many cases. In the majority of cases of gall-stone disease no treatment is required because no symptoms or inconvenience follow. We all know young people who have suffered during a period of months or years from recurring attacks of gall-stone colic and then remained perfectly free from symptoms for years together. Let us then give the use of medication a chance and, if the circumstances of the patient permit, let the waters of Karlsbad have a trial.

Operative treatment is demanded in acute purulent cholangitis, in chronic obstruction of the common duct, and in chronic obstruction of the cystic duct, and is indicated when the internal and bath treatment have failed and the constantly recurring attacks of pain render the patient miserable, unable to earn a living and in danger of acquiring the morphine habit. Operation is also indicated when there is a suspicion of cancer, and when perforation of the bile passages has occurred.

The surgeon must always be guided largely by the clinical history of the case. The actual findings during a physical examination are frequently disappointing—some enlargement of the liver and occasionally jaundice. As a good working rule it may be said that compara-