The fourth method of treatment, by establishing a new communication between the biliary ducts and the intestine, must always have a certain utility, especially where it is found that the seat of obstruction (the common duct) is bound down by adhesions and cannot be made accessible.

To one doing abdominal work, I would advise a careful perusal of Dr. Gaston's paper in *The Atlanta Medical and Surgical Journal* in 1884, entitled "Experimental Cholecystotomy."

In France the operation bearing the name of Von Winiwarter has recently received much attention, and flattering results are reported.

Under the fifth division—that is, incision and suture of the gall ducts—we have, I believe, in many cases a method which promises great success, where heretofore cases have been treated by establishment of biliary fistula, which only relieved for a short time. So far as I have been able to learn, incision of the common duct has been seldom performed in this country. The technique of the operation is as follows: Usual vertical incision from tip of cartilage of tenth rib, made of sufficient length to permit free examination. It may be necessary to complete the operation by making a transverse incision through the right rectus abdominalis. Incision over stone, in line of duct, is made. Fluid behind duct should be withdrawn by aspirator, or sponges placed to protect surrounding parts. First row of sutures continuous, introduced just within serous coat of duct, brought just within the mucous coat, but not involving it; second series Lembert, bringing the serous coat into accurate apposition. Surround drainage tube on all sides with iodoform gauze tamponade, the ends being left in abdominal wound, closing latter with silkworm gut. One or two silkworm gut sutures may be introduced and tied in loop, so that after removal of tamponade they may be tied and abdominal wound more completely closed.

Dr. R. T. Morris, of New York.—There is one method of procedure, in cases of gall stones, so simple that I wonder that anybody has failed to think of it. Gall stones can be dissolved very easily by chloroform, ether, and some of the marsh-gas series. We do not need any forceps. We can remove the greatest element of danger by dissolving them right in place. The operation consists in suturing the gall bladder to the abdominal wall, then waiting for forty-eight hours until adhesion has taken place. The cases of greatest danger after operation are those followed by leakage of bile or mucus or the fermenting contents from the gall bladder into the abdominal cavity. Therefore the ideal procedure consists in first suturing the gall bladder to the abdominal wall, waiting until adhesion takes place, opening the gall bladder, and with a syringe injecting down upon the gall stones, at any time you please, a week or a day or a month after, a chemical that will make a solution of the cholesterin quickly and safely without imposing the grave danger upon the patient of crushing, bruising, or injuring the common duct. I am making experiments in this line to find some non-irritating solution which will dissolve the gall stones easily.

Dr. L. S. Pilcher, of Brooklyn, recognized the fact, as all surgeons do, that the gall bladder has become a fit subject for surgical interference, and that, with the rapidly increasing experience which is being gained in work upon that organ, we shall soon have well-established indications for not only examining the organ, but also for the different classes of operations which we shall be called upon to do for the relief of the conditions which we find present in it. The ideal cholecystotomy, in which the organ is exposed, is opened, is evacuated, is closed and dropped back into the abdominal cavity, suggests itself as an operation extremely desirable to be done, if the conditions are such as to make it feasible to do it. The extirpation of the gall bladder has been done, and will at times be found necessary if we are to relieve the conditions which have made operation of any kind necessary. The difficulties which attend the operation are great, and it can only be rarely that a surgeon will feel justified in undertaking its accomplishment. The opening of the common duct and the removal therefrom of a gall stone have been described to us this afternoon. The successful performance of the operation has again and again been demonstrated to us. The possibilities of relief which are open by means of that should always be present in the mind of the surgeon. He then presented and discussed some specimens of gall stones.

Dr. Kellogg, of Battle Creek, reported a number of interesting cases of operation upon the gall bladder.

Dr. M. B. Ward, of Topeka, stated that he had done the operation twice on a dog, removing the gall bladder entirely. His first operation was a failure, death occurring from general peritonitis on account of some defect in the operation. The next dog got well and very fat, and was subjected to three other operations on the intestines. He inquired whether the gentlemen found it easy to bring the gall bladder up and attach it to the parietes. He found it difficult unless the gall bladder was enlarged.

Dr. Seymour, closing the discussion on his part, said, with regard to the attachment of the gall bladder to the abdominal wound, the method pursued by Mr. Tait is very satisfactory, particularly in cases of contracted gall bladder. That is, not to attempt to bring the gall bladder up to the level of the skin, but to suture the gall bladder with an interrupted buried silk suture at an intervening height in those tissues, taking a sufficient number of interrupted sutures to give strong and firm coaptation of the structures. He considered the matter of dissolving gall stones within the gall bladder as still *sub judice*. In view of that, the operation of Tait—opening the gall bladder with establishment of a fistula—is the most rational operation. He considered it very possible that there would be a recurrence of the disease with the persistence of the constitutional condition. He considered the silk suture preferable in this operation to any of the animal sutures.

Dr. Vander Veer, closing the discussion on his part, said that, in reference to attaching the gall bladder to the parietes, he would only add this, that before the gall bladder is attached to the incision, and before it is opened, we should make a very careful examination of the common duct and be very certain as to the condition of the pancreas.—*American Journal of Obstetrics.*

(To be continued).

DR. W. H. B. AIKINS has been appointed Associate-Coroner for the City of Toronto.