in the duct before its entrance into the wall of the intestine. It is clear that in this case an incision from within the duodenum to the stone severs completely the postero-lateral wall of the duodenum and the antero-lateral wall of the common duct. A brief reference to the anatomy of the parts will assist in clearing the way for a discussion of the question of suturing the posterior wall in the trans-duodenal operation.

No part of the duodenum is entirely covered by peritoneum, though a portion of the first part is nearly so at the point where its covering is derived from the two layers of the lesser omentum. Throughout its second or descending portion it is not covered on its posterior surface by peritoneum at any point. It rests behind on the right suprarenal capsule and kidney, being in contact also with the pelvis of the latter and with the beginning of the ureter; on its left is the head of the pancreas.

The common bile-duct is the continuation of the hepatic duct. It passes downward in the gastro-hepatic omentum in front of the foramen of Winslow and then descends along the postero-inner aspect of the duodenum where it is more or less completely surrounded by the pancreas. In this position at a point from two and three-fourths to three and one-fourth inches from the pylorus, it, with the duct of Wirsung, pierces the wall of the duodenum which it traverses for a distance of one-half to three-quarters of an inch. Its lower end is usually somewhat dilated, forming the ampulla of Vater, the orifice of the latter, however, being the narrowest part of the whole duct. The duct of Wirsung may pierce the bile duct at any point after they meet, or it may empty into the ampulla of Vater by a separate opening.

It would seem then that in all but exceptional cases an incision through the posterior wall of the duodenum for the removal of a stone from the retro-duodenal portion of the common bile-duct, would lie entirely posterior to the peritoneal cavity. Therefore, if infection occurs at this point it will be extra-peritoneal, not intra-peritoneal, as is stated by Moynahan (11); and leakage will likely occur, in the absence of inflammatory union of the duct and the intestine, for along the