covered with lymph. The inflammation had extended to the diaphragm which was also congested, giving rise, doubtless, to the hiccough which had persisted during the last two days of life. The kidneys were in an advanced stage of Bright's disease.

Such, Mr. President, is a brief account of this case in particular, but if you will allow me to observe in connection with this subject in general, although I may be guilty of transgressing the rules which are supposed to guide a clinical society, that the literature of cholelithiasis furnishes very little accurate information as to the chemical process involved in the formation of gall stones.

We know that age, sex, habits of life, and certain diseases of the liver and gall-ducts are predisposing causes, but the manner in which the formation of the calculus takes place is to a very great extent conjectural.

Dr. Thudichum, in a paper recently (November 4th, 1892) read before the West London Medico-Chirurgical Society upon the subject of gall stones, their origin, nature, and treatment, maintains "that they are originally caused by a catarrh of the mucus epithelium and glands of the bile-ducts, this leads to a formation of the casts of the ducts and around these, after they have been shed, the gall stone matter is deposited. During the catarrh bacteria enter the ducts from the duodenum and cause decomposition of the bile. Foreign bodies are rarely, and the often alleged inspiration of bile, never, the cause of gall stones, their real composition being a selection of the products of bile decomposition. A rational treatment of gall stones could only be based upon a right appreciation of the functions of the liver and bile."

He further says: "But little progress has been made of late years in this direction, but direct relief was now obtainable by cholecystotomy. When the bladder was diseased cholecystotomy should be performed, but this operation involved a greater risk."

I have not had any experience myself in connection with this operation, but believe there are present here to-night, surgeons who have performed it, and it will be a matter of interest for us to obtain from them their views upon the subject.

In the case which I have described, operation was considered in consultation, but was advised against, because of the feeble state of the patient.

It appears to me that it must be a most difficult point to determine in a case of recurrent obstruction of this kind, whether the efforts of nature will be sufficient to overcome one seizure as well as the last one, or whether any particular crisis may be that special one demanding operative interference.

I have not been able to discover in the literature of this operation, which of necessity is yet very meagre, any distinct guide in coming to a conclusion upon this point.

The rapid termination of my case left very little time to prepare for surgical interference, if that were necessitated by the opinion that such was likely to prove beneficial as a last resort; whereas, on the other hand, it would not appear unreasonable to hope that, with the greatly improved means at the disposal of modern surgeons, a fair expectation of safety in operation might be looked for in all such cases. Operation, as in irreducible hernia, might be resorted to if there is the slightest doubt. As yet, however, I believe the results of gall bladder surgery are insufficiently collected to justify the establishment of a code of rules.

Fraenkel, writing September last upon this subject, states "that in records of operations for biliary colic, too little attention has hitherto been paid to the presence or absence of adhesions in the region of the gall bladder. Two cases are reported in which, on operating for the relief of symptoms indicated of severe cholelithiasis, Gersuny, of Vienna, discovered nothing save adhesions between the region of the gall bladder and the omentum. In one of these cases there was complete absence of the gall bladder. Division of the adhesions was followed in each case by speedy and permanent cure. These instances," Fraenkel points out, "show that symptoms resembling those of cholelithiasis may be caused by the results of old inflammatory processes, due, in some cases, to the presence of biliary calculi, and in others quite independent of any disease of the gall bladder and ducts. The fact that such symptoms may be caused solely by adhesions and tense cicatrical bands would favour a recourse to operative interference in those cases in which, with all the subjective indications of cholelithiasis, there is an absence of tumour and other palpable signs of retention. It is probable that more frequently than is generally supposed, and, indeed, even in cases of actual