fore all varieties of inflammation of the gall-bladder and passages are but gradations of infection by such organisms as bacilli coli communis, streptococci, staphylococci, pneumococci, and typhoid bacilli. Infection with little obstruction of bile flow usually produces catarrh; with complete stoppage a septic cholangitis and cholecystitis, that may be so severe as to be gangrenous.

In the great majority of cases of suppurative inflammation there is a history of gall-stones, and one or more of these are found impacted, or acting as "ball valves," in the ducts; other cases occur from infection by the organisms of such constitutional diseases as typhoid fever. In the mildest cases, in addition to the gall-stone colic with some intermittent jaundice, there are more or less marked chills and fever followed by sweating. The regularity of the recurrence of chills may simulate malarial fever, but such regularity rarely lasts long.

If the obstruction is more marked, and therefore the infective organism more virulent, the symptoms become more grave. The chills, fever, and sweating are more decided, and the jaundice is more marked and persistent. Unless relieved a general condition of sepsis soon develops, the patient dying in the typhoid state.

If the disease has developed in the absence of gall-stones, there will be little pain, but it is rare to find none present. The liver becomes regularly enlarged and somewhat tender. On account of extension of irritation to the peritoneum there is usually tenderness below the right costal margin. If the disease follows gall-stone colic which has recurred from time to time the diagnosis may be easily made; in other cases a diagnosis is often impossible. Cases of pylephlebitis present a similar picture and cannot be distinguished, unless a focus of infection of the portal system can be discovered. In both there is marked leucocytosis. The gall-bladder is nearly always affected in cholangitis, though probably rarely secondarily to it, as the cystic duct is closed early. There is always distension of the gall-bladder, and the inflammation extends to the surrounding peritoneum, hence there is always tenderness, and a pear-shaped tumour is usually palpable at the costal margin in the line from the tip of the ninth costal cartilage to a point one inch below the umbilicus. This is the usual seat of it, but not rarely it becomes much displaced especially if the gall-bladder is greatly enlarged. It moves with respiration, and an incisure may be found between it and the liver. As the inflammation affects the peritoneum the tenderness increases, and adhesions take place to surrounding structures so that the tumour becomes less definite, and the increasing spasm of the abdominal muscles interferes with examination. Pain is usually continuous; and fever moderate, although it may be absent. Fever is said to be more marked when there is