## GALL-STONES FORMED AROUND SILK SUTURES, TWENTY MONTHS AFTER RECOVERY FROM CHOLECYSTOTOMY.

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This case is interesting, on account of the condition mentioned above, and important, because it settles the question as to the length of time required for the formation of quite large gall-stones. The gall bladder was entirely emptied of stones in April, 1895, and in January, 1897, it contained seven, of which the plates give an exact representation as to size and color.

Mrs. B., the patient, had been an invalid for many years. She was thirty-eight years old, and was referred to me in March. 1895, by Dr. George Spafford, of Cavendish, Vermont. She was the mother of two children, the youngest seventeen years old. She was emaciated and anxious, and suffered much from constant pain in the stomach, backbone, and pelvis. She vomited almost all her food, and had been confined to her bed for many months. She had been treated in many (twenty-five) institutions, and had availed herself of every opportunity to consult gynæcologists who came to Vermont to lecture. She had never been jaundiced. On examination no tumor of the stomach or gall-bladder or any movable kidney was found. The uterus was retroverted and fixed: the ovaries were prolapsed and adherent; there was considerable pelvic tenderness, but still not enough trouble to cause such severe reflex symptoms. For about three weeks her stomach was washed out every morning by Dr. E. A. Pease, my first assistant, and this afforded considerable relief. There was no vomiting for ten days and less nausea, but I decided that an operation



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"GALL-STONES CRYSTALLIZED AROUND SUTURES."

must be done and perhaps the removal of the tubes and ovaries might help her. Accordingly, on April 6, 1805, I opened the abdomen in the pubic region. The uterus was found retroverted, and the ovaries and tubes very adherent. A tubo-ovarian cyst was "dug out" on the left side. The separated rectal adhesions bled so freely and were so difficult to tie, on account of their depth. that finally five pairs of long pressure-forceps were clamped on the bleeding points in the rectal and neighboring parietes, and were left with their handles protruding through the abdominal wound. These were removed forty-eight hours later. As what I had found in the pelvis did not seem a sufficient cause for the gastric symptoms and epigastric pain. I passed my hand and forearm into the abdomen and felt of the gall-bladder: it was full of stones, so I sewed up the pubic incision and made another one parallel with the cartilages of the ribs over the gall-bladder. This I opened and removed all the calculi in it, ninety-seven in number, averaging about one-fifth of an inch in diameter. I put some gauze in the gall-bladder to keep the bile from oozing out while I was sewing it up, having decided not to drain it, and made a seam completely closing the opening, but when I came to count my gauzes I found that there was one wanting, and that I had sewed it up in the bladder. Accordingly I took out the stitches in the gall-bladder, removed the sponge, and sewed the open gall-bladder to the peritoneum, put in a rubber tube and some gauze, and left the bladder to drain. This it did most freely, but gradually closed, and the patient went home at the end of five weeks perfectly well and relieved of all her symptoms. She continued well until December, 1896, when all her old symptoms returned. Her daughter and Dr. Spafford wrote me, and I advised that she come to St. Margaret's again and have the gallbladder opened, and we should probably find some more stones. On January 18, 1897, an incision was made through the scar of the former operation. The gall-bladder was found to be adherent to the cicatrix which was several inches deep. It was opened and within it were found seven calculi, two of them about the size and shape of lima-beans, of a yellowish-brown color, and attached, in a dumb-bell fashion, to a piece of silk which formed an axis in each stone. Three others were attached to another piece of silk which formed a raphe from which the stones branched. Two others much smaller were independent.

silk must have been that which united the edges of the gall-bladder to the peritoneum at the first operation. I think that the crystallization of the calculi around the silk is probably accidental, and that the presence of the silk in or on the gall-bladder was not the cause of the formation of the stones, but being there it furnished convenient nuclei for the cholesterine to cling to, just as alum in a hot saturated solution will crystallize, as it cools, around pieces of string suspended in it. From this case it would seem that gall-stones need but a few months for their formation and in that time may become quite large. The largest of these is one inch and a quarter long and five-eighths of an inch wide. The plate gives a very accurate idea of the appearance of the stones and how they have formed around the silk sutures.