

tions that descent and internal rotation take place essentially as follows: When flexion is good the point of impact of the vertex occurs at the extremity of a line drawn at right angles from the centre of the plane of the brim, reaching the pelvic floor in the region of the coccyx. The muscular fibers arising from the spines of the ischia and inserted into the coccyx, and the muscular fibers extending from the anus to the coccyx are hypertrophied during pregnancy. They form distinct muscular bundles very tender on pressure and capable of contraction. The vertex first impinges against this portion of the pelvic floor and uterine contractions force the pelvic floor downward at this point. The pelvic floor yields to the centre, the coccyx slopes downward and forward, forming an inclined plane down which the vertex is pressed. With the forehead posterior it descends behind the vertex, occupying the middle line posteriorly. The transverse diameters of the pelvis become diminished, while the anteroposterior are increased as the outlet is reached. The forehead is forced toward the hollow of the sacrum by the increased pressure between it and the postero-lateral surfaces of the pelvic wall. If the forehead be anterior, cases may be divided into groups, one in which the head is well flexed, and one in which the head is not well flexed. When flexion is good the vertex meets the pelvic floor in the region of the coccyx, and is gradually forced lower and yet anterior toward the symphysis. As labor continues the forehead is compressed obliquely upward. The descent of the forehead is prevented by the projecting forward of the vertex, the pressure of the pelvic floor preventing the vertex and occiput from retreating. The fetal chest forced against the chin prevents the forehead from ascending above the pelvic brim; the forehead passes into the larger transverse diameter, allowing the cranial axial line to move toward the symphysis. Uterine contractions and the frictional resistance of the side wall of the pelvis and forehead cause the occiput gradually to rotate to the front, while the forehead turns into the hollow of the sacrum. The factors concerned in causing rotation are the expulsive force from above, the obstructing central fixing force from below, the shape of the pelvis, and the shape, size, consistence, and position of the fetal head.

Polyhydramnios Complicated with Œdema.—CAIE (*Jour. Obst. and Gyn. Brit. Empire*, October, 1909) reports the case of a patient in her second pregnancy, who, at the sixth month, was taken with severe pain in the back and side with general abdominal distress. On examination there was marked œdema of the lower extremities, dyspnoea and irregular heart action, with loud mitral and pulmonary bruits. The pain was referred to the left side about the lower dorsal vertebrae, extending to the umbilicus. The abdomen was tense and dull, and fetal heart sounds could not be heard. The urine was scanty, containing a trace of albumin, and on vaginal examination nothing could be detected except ballottement which was very plainly present. Under rest and medical treatment the patient's condition somewhat improved. A month later the patient was very much worse. Œdema had become so pronounced that the patient was confined to her bed. Emaciation had developed and the facial expression resembled that of ovarian cyst.

The heart sounds were irregular and intermittent. On attempting to induce labor the œdema of the vulva was so pronounced that this procedure was impossible. Small trocars were inserted in the labia, and when the œdema had sufficiently subsided the membranes were ruptured. Labor gradually developed and the patient was delivered by forceps of a dead child. The puerperal period was complicated by intense after-pain, with temperature rising to 100° several times. Over the abdomen and inner sides of the thighs urticaria of a very persistent and irritable type developed. On the eighth day the patient had a chill with temperature rising to 104°. This speedily subsided, the patient ultimately making a good recovery. The amniotic liquid was analyzed and found alkaline, with a specific gravity of 1010, and contained urea and albumin with epithelial scales and various salts.

Pregnancy Complicated by Nephrectomy and Ovariectomy.—ANDREWS (*Jour. Obst. and Gyn. Brit. Empire*, October, 1909) reports the case of a small, delicate-looking woman, aged thirty-two years, who had had the right kidney removed for hydronephrosis. The kidney had been movable and the surgeon who operated did not intend to remove it; but on exploration it bled so freely and was so disorganized that removal became imperative. When Andrews saw this patient she was seven months pregnant, and in addition had a cystic tumor the size of a foetal head on the right side of the abdomen. She was admitted to the hospital and upon operation a unilocular cyst containing three pints of fluid was removed. The patient had severe vomiting after operation with rapid pulse, and seventy-two hours after the removal of the tumor a male child was spontaneously born. Mother and child made a good recovery. The patient subsequently had her tenth child within a year of the ovariectomy. This patient's case demonstrates the possibility of successful pregnancy after the removal of one kidney, even though the patient's condition was complicated by ovarian tumor.

Complete Rupture of the Uterus Treated by Operation.—LEA (*Jour. Obst. and Gyn. Brit. Empire*, October, 1909) reports 5 cases of rupture of the uterus treated by abdominal hysterectomy, with 3 recoveries, at St. Mary's Hospital, Manchester, within the last three years. His own case was that of a woman in her third labor, the two previous having been terminated by forceps. The membranes ruptured before the head descended and engaged, when the physician called to see the patient, applied the forceps, making repeated efforts to deliver under anesthesia, without success. Shortly afterward the patient had marked pallor and rapid pulse with slight hemorrhage from the vagina. She was immediately transferred to the hospital. On admission, the foetal head was lying above the pelvic brim, and evidently the uterus had completely ruptured. On section a full-term foetus was found among the intestines, the head resting upon the promontory of the sacrum. The placenta had also been expelled. The anterior wall of the uterus had been completely torn across, the tear extending into the left broad ligament. The uterus was rapidly removed by clamping the upper portions of the broad ligament, the cervix, which was widely dilated and torn, was inverted toward the vagina, and the peritoneum was stitched over