comparative study of the effects upon the hearts of such cases of an associated mitral stenosis, which was present in the second of these cases, but not in the first, and which led to the most extensive degree of back pressure in the right auricle, evidenced by extreme dilatation of its wall, aneurismal dilatation of the coronary sinus and its tributaries, and an indirect communication of the latter with the cavity of the left auricle through an opening supplied with a subsidiary valve. This second case was further remarkable in that there was associated with it an anomalous fenestration of the annulus ovalis and of the Thebesian valves, probably due to a faulty involution of the embryonic valvula venosa sinistra, to which also persistent patency of the foramen ovale has been ascribed by several authorities. Both cases showed also a coarctation of the aorta.

My thanks are due to Dr. C. F. Martin, in whose public service these patients were, for the privilege of observing these two cases during life, and for permission to report them here.

Case I.

Large Patent Foramen Ovale with Cribriform Fossa Ovalis. Hypoplasia of the Aorta, and Stenosis at the Isthmus. Simple Hypertrophy of the Left Ventricle. Hypertrophy and Dilatation of both Auricles.. Hypoplasia of external genitals. Diagnosis made before death on the ground of pallor, absence of cyanosis, and presence of characteristic physical signs of Auricular Septal Defect, and of Hypoplasia of the Aorta.

Clinical History: L. L., female Russian Jewess, aged 26. Admitted to R. V. H., March 16th, 1914, complaining of trouble in vision, frequent headaches, swelling of the legs and face, shortness of breath on exertion, morning vomiting, irregular menstruation, palpitation and pain over the heart. These symptoms had persisted one year. She was unmarried, and had been in Canada for two years, gave no history of any previous illness, scarlet fever or rheumatism. Menstruation had commenced at thirteen and was regular every five to six weeks; amenorrhoea had been present nine months. The family history was negative.

On admission showed no signs of cardiac embarrassment, no dyspnoea, cyanosis nor clubbing. The pulse was 114, regular and small, and the blood pressure rather high, 170.

Examination of the heart and great vessels. Inspection showed some precordial bulging, and marked throbbing involving most of the front of the chest, the neck veins very much congest-