ed. but no positive venous pulse, epigastric pulsation, and the apex beat in the fifth left interspace in the anterior axillary line, the veins over the front of the chest slightly dilated. On palpation a marked systolic thrill was felt at the base of the left sternal line and to the left of this down nearly to the fourth left rib or third left interspace. There was no diastolic shock, but tracheal ungging was present. The cardiac dulness began above at the second rib and extended laterally from 4 cm. to the right and 11.5 cm. to the left of the median line at the fourth rib and 13.5 cm. to the left at the fifth rib. On auscultation a loud harsh systolic murmur having its maximum intensity at the third left cartilage 4.5 to 5 cm. from the mid-sternum, was heard all over the front of the chest and in the left back. At the apex there was a suggestion of a presystolic murmur and a systolic blow was audible at the pulmonary cartilage.

 $Urine\ {\rm showed}\ {\rm a}\ {\rm sp.g.}$ of 1010, alkaline reaction, a few hyaline and granular casts.

On April 15th, 1914, a pericardial friction rub developed, also ptosis of right upper lid and definite external squint. Examination of the blood haemoglobin 45 percent, red blood corpuscles, 3,590,000. Died suddenly on April 16th, 1914.

Autopsy showed the conditions enumerated above, also an acute fibrinous pericarditis and pleurisy, cloudy swelling of the liver, fibrotic cardiac spleen, atheroma of the aorta, anasarca, chronic interstitial nephritis, both kidneys very small, weighing together 55 gms. (? congenital bypoplasia). The brain was not examined.

Examination of the heart showed a moderately enlarged organ covered by an extensive exudate of recent fibrin. Both auricles were dilated to about double their capacity and their musculature especially that of the right was considerably increased. The auricular septum presented a gaping hole admitting the thumb which was bounded above and anteriorly by the thick annulus ovalis, and below and behind by the thin crescentic margin of the valvula foraminis ovalis, which was considerably enlarged and bulged into the right auricle and presented numerous fenestrations, as well as a hole admitting a bone knitting needle at its upper border. The Eustachian and Thebesian valves were normal as well as the auricular walls elsewhere and the tricuspid and mitral orifices. The right ventricle was about normal size being the only chamber of the heart unaltered. The pulmonary orifice was moderately dilated, measuring 6 cm. as also the pulmonary artery which was thin walled and otherwise normal. The oblit-

- 3 -