with vegetations, some as high as one-sixteenth of an inch. Both leaflets, but especially that next the septum ventriculorum, were eaten away by fatty degeneration, and one of the chordæ tendineæ was completely severed from the valve by the same process. By the microscope the fatty nature of the process was fully established, compound granular corpuscles, fat-cells and globules being almost the only elements seen.

The *spleen* was marked by one very large depressed spot, with puckered edges, and by several neighbouring smaller ones. There were, besides, a number of very dark patches, and the cicatrices already spoken of were surrounded by a dark margin. On section, all these discoloured regions were found to be irregularly pyramidal, the apices being directed centrally. The arteries were searched for, and partly traced; but there was great difficulty in tracing them on account of their depth. No embolia could be found so far as traced.

The *kidney* (which one is not positive) had also one large depressed and puckered yellow spot on the free border. It was 1½ by 1 inch. On section it was pyramidal, the apex being central. Near it were three small spots of the same character. On tracing the renal artery, one large branch was directed to the diseased portion, and bifurcated just at its apex. One of its branches ran into the diseased pyramid at about one-third way from its lower border, and was completely occluded and solidified by an embolus. The other branch skirted for a little distance the upper edge of the diseased spot, and then plunged a little way into its substance. Just as it plunged in, an embolus a quarter of an inch long was seen, which had evidently occluded the artery. Soon, however, by softening at the centre, its resistance was diminished, and the blood bored its way through the centre, changing the solid clot into a cylinder, and washing the softened central parts further on. Further on, in fact, one of the small clots was found, and just beyond it a small cyst, as large as a pin's head, whose contents looked like pus, but which the microscope showed to be made up of granular corpuscles and fatty débris, no pus corpuscles being present. Here, too, were seen the small cicatrices on the external surface, caused, doubtless, by the fragments washed through the cylindrical clot before described; but none of them were actually observed. Examined by the microscope, the renal tubes were found lined with epithelium in all stages of fatty degeneration. Scarcely any other change was noticed, save the presence of a large number of compound granular corpuscles and oil globules.

Sept. 12. *Rheumatism; Repeated Attacks of Malarial Disease; Cardiac Disease.*—Dr. WM. PEPPER, in presenting the specimens for Dr. JAMES MARKOE, gave the following history: R. K., æt. 38, admitted to the Pennsylvania Hospital April 8, 1867; Irish; gardener; has resided for several years in Long Island, working steadily at his business. His parents and near relatives, so far as known, are free from any constitutional disease. He had, at quite an early age, a severe attack of acute articular rheumatism, but apparently without any cardiac complication. He has since then had frequent attacks of rheumatism, principally muscular; but has always been able to work, and, indeed, considered himself to have been a most robust man. He has also suffered for the past ten or twelve years, every spring and fall, with malarial fever, without any secondary lesions of either the liver or spleen being developed. Last August, after convalescing from some acute gastro-intestinal disturbance, he first noticed

dyspnœa upon exertion, and some little cough. By the latter part of the autumn he had œdema of the feet, some ascites, and suffered from dyspnœa almost constantly. In February, and the early part of March, 1867, he became better; but the alarming symptoms soon recurred, and on admission he had œdema of the feet, ascites, marked dyspnœa, and cough. The heart's action was very confused, rapid; and there was apparently a want of synchronous action of the various cavities. The heart-beats were more frequent than the radial pulse, which was also very irregular and intermittent. The impulse was extended and heaving; the area of cardiac dulness increased; a murmur existed, moderately harsh, presystolic, and heard most distinctly near the nipple, to the left of the sternum, about the third interspace.

The treatment consisted of various diuretics, saline laxatives, iron, digitalis, &c. He improved at first decidedly, but soon fell back into his former condition; and after a long and painful illness he died quietly at 6 P. M. on 10th September.

Post-mortem. — Body œdematous. *Thorax*—lungs œdematous; the *right lung* adherent; only a small amount of effusion in right pleural cavity. *Left lung* crepitant throughout, but congested posteriorly; the pleural sac contained about Ojss of clear serous effusion. *Heart* large, flabby, loaded with fatty deposit; muscular substance pale, soft, friable; under the microscope showing very faint striation and granular condition; aortic valves incompetent; mitral valves covered with soft, friable, pendent granulations: the cusps thickened and crippled; right side of the heart healthy; no fluid in the pericardium. *Liver* large, heavy; the upper surface of the organ presented a coriaceous appearance, and was putty-coloured; the thickened capsule easily separable; the tissue of the capsule consisted of fibre-cells, white and yellow fibrous tissue. Substance of the liver very dense; in a state of extreme nutmeg congestion; there was also a slight increase of fibrous tissue. The cells were, for the most part, natural in appearance; some, however, were somewhat granular and compressed. *Spleen* large and nodulated; its capsule opaque and thickened; yellowish in patches; the surface over patches depressed. On cutting into it, several large patches of homogeneous, yellowish tough substance were found; they were almost encapsuled, and presented no trace of central softening; there were also some smaller patches of the same character. On microscopic examination they were found to consist of merely the splenic elements undergoing atrophic fatty change. *Kidneys* quite large; slightly malformed; the cortical substance diminished, and tissue very dense and hard; whole organ presented a lurid, leaden hue. Capsule non-adherent; structure not unhealthy; the cells only slightly granular, the principal change consisting in a large deposit of reddish-brown pigment, and an excess of fibrous tissue. The other organs healthy.