days, and the third in eighteen days. The latter would probably have recovered but that he also had suppurative disease of the middle ear, which appeared to be the cause of the pyæmia which proved fatal; for when the stumps were examined, after death, they were found to be in good condition.

With regard to what I have termed the technique of multiple amputations, there are some points which my experience justifies me in urging upon surgeons as of importance in promoting success: *In the first place, it is very important that the time* occupied by the operations should be brief; that the operations should be done systematically, so as to keep the patient under the anæsthetic as short a time as possible. The next point, perhaps of even more importance, is to keep up the temperature of the patient during the operations. I have been led to think that this is, perhaps, of more importance than anything else. Of course, loss of blood must be scrupulously guarded against, and loss of blood directly causes loss of temperature. In this case, hot cans were kept around the patient during the entire operation, and in order to save time I operated systematically, the tourniquet and Esmarch bandage being both employed to prevent any loss of blood. I began with the most serious injury, and this is, I think, a point of importance. It may happen that, after the removal of one limb, it will be found that further operation must be postponed on account of the patient's condition, and then it is, of course, better to leave him with the less severe injuries. In this case I began with the thigh. After amputating the limb, I secured the main vessels, which were readily found. I attempted to tie the arteries with catgut, but as the ligatures broke, I substituted silk and, in order to save time, left both ends uncut. I next amputated the right leg, securing the vessels in the same manner, and then passed to the forearm. I then came back to the right thigh, screwed up the tourniquet and removed the Esmarch bandage, and secured all the vessels that required ligature, then passing to the other limbs in the same order as before. After the vessels had been secured in each case, a towel dipped in a hot antiseptic solution was placed between the flaps. The wounds were then dressed in the same order, and in this way the operation was completed in a comparatively short time.

The points which I have mentioned I believe to be of great importance, and I think that much of the disappointment of surgeons from these operations is due to want of attention to these matters.

I should also say that, in order to preserve the bodily heat, I did not use irrigation during the amputations. I think that this often seriously reduces the temperature, and even in comparatively slight operations where it has been used. I have seen the temperature fall to 97° F., and even 95° F. I think that in any grave case, it is better to omit it *and to rely upon washing with hot antiseptic solutions* before and after the operation. Also, the packing of wet towels around the seat of operation, as is very commonly done, tends to depress the temperature, and in grave cases should be omitted.

I think that it is to an observance of these precautions that I have owed success in this case, and in many other serious operations of various character.

Operations for Rectal Fistula.

Greffrath reports 61 cases of rectal fistula operated on in the Heidelberg Polyclinic. The fistula occurred between the ages of 20 and 40 years in 57.4 per cent. of all cases. The youngest patient was 6 months old. Only 1 case occurred in a woman. The fistula was incomplete external in 4.9 per cent.; and complete in 29.5 per cent. Of the incomplete external (33 cases noted) the fistula was lateral, between the anus and tuber ischii in right side, in 24.2 per cent.; on left side, same situation, 39.4 per cent.; around the anus, with different openings, 24.2 per cent,, external opening in the middle line behind the anus in 12.2 per cent. The seat of the incomplete internal fistula was in every case just above the external sphincter. Of the the complete fistulæ (noted in 17 cases) the seat was on the left between the anus and tuber ischii in 41.2 per cent.; right, same situation, 17.6 per cent.; around the anus, with different openings, 5.9 per cent.; external fistulous opening posterior 23.5 per cent.; anterior 11.7 per cent.

Of the 61 cases 10 had symptoms of pulmonary tuberculosis, 7 had hereditary tendency to tuberculosis, 2 had diabetes. Of the patients 2 had had acute rheumatism, 1 attributed his trouble to long-standing hæmorrhoids, 1 to eczema, 3 to local injury. In 9 the fistulæ seemed to have come on spontaneously, and 43 gave the history of a