the best plan is for the patient to start with a good light wooden leg which he can change for a metal one after he has become thoroughly used to the artificial limb, and the stump has had time to assume a more or less permanent form. This is more particularly to be advised as metal limbs are very expensive.

One often sees a patient wearing an artificial leg which the instrument maker has taken great trouble to make as light as possible, with a heavy boot on the end of it. The weight of the boot does away with the advantages in the lightness of the limb. The patient should wear the lightest possible shoes—at any rate, at first, for by so doing he will learn to walk much more easily and quickly.

It is advisable to avoid limbs in which there are a number of joints; they should be as few in number as possible. Lateral motion, for instance, in the ankle-joint is not only of no value, but is a distinct disadvantage. The important thing in joints is that they should be strong and should move without noise.

It is an advantage for the patient to have a spare artificial limb, but it is better that this should not be made until the first one has been worn for about six months, as considerable alterations will probably be necessary, and at the end of six months these can be incorporated in the new limb.

It must not be thought that I am advising that patients' limbs should be trimmed to suit the convenience of the artificial limb maker. Far from it. But it seemed to me that some of the points mentioned here are not sufficiently well known, and that they might be of assistance to those of our surgeons who have a large number of amputations to perform at the present time.

▲ CASE OF ACUTE ANEURYSM OF THE SUPERIOR MESENTERIC ARTERY, WITH RUPTURE.

BY

J. M. COTTERILL, F.R.C.S.E.,

LIEUT.-COLONEL, 2ND SCOTTISH GENERAL HOSPITAL (T.),

AND

JAMES MILLER, M.D., F.R.C.P.E.,

CAPTAIN, 2ND SCOTTISH GENERAL HOSPITAL (T.).

PRIVATE W., aged 26, was admitted to the 2nd Scottish General Hospital on February 28th, 1915, at 1 p.m. He was complaining of severe abdominal pain, and was considerably collapsed. His temperature was subnormal, and his pulse thready and irregular. His bowels had not acted for three days. He had not vomited. His tongue was moist and clean. The abdomen was somewhat distended with gas; there was no abnormal dullness to be made out in either flank or elsewhere. Subjective pain was felt all over the abdomen, but tenderness on pressure was not noticed over any area in particular. A small enema was given, and this was followed by a slight normal evacuation of the bowels. After this he felt easier, and slept for a short time. The heart sounds were feeble, but not otherwise markedly abnormal.

At 8 p.m.—that is, seven hours after admission—he suddenly collapsed, and died at 8.30. It was considered likely that internal haemorrhage had taken place, but he was too collapsed during the few hours he was under observation for laparotomy to be performed.

NECROPSY.

A *post-mortem* examination was performed on March 1st. The body was that of a well nourished and well developed young man. Rigidity was marked in both upper and lower limbs. There was extreme pallor of the skin. Slight adhesions were present in the left pleura. The pericardial sac contained a considerable amount of fluid. The peritoneum contained a large quantity of fluid and clotted blood. The omentum and mesentery were also infiltrated with blood clot. The small intestine was to a great extent collapsed. The spleen was enlarged, firm, and showed a recent pale infarct. The kidneys and liver were pale but healthy. In the bend of the duodenum and around the pancreas there was a large amount of blood clot. All the abdominal organs were searched for a source of the

haemorrhage. Eventually a thin-walled aneurysm about the size of a walnut in connexion with the commencement of the superior mesenteric artery was found. This had ruptured into the substance of the mesentery and into the peritoneal cavity. The heart was enlarged and conical in shape. The cavities were uniformly dilated, and the muscle pale. The mitral valve was healthy. The segments of the aortic valve were thickened and covered with large friable vegetations. The lungs showed congestion and oedema. Cultures were made from the vegetations on the aortic valve and from the spleen. Those from the spleen showed no growth. The cultures from the valve showed a pure growth of a staphylococcus which failed to develop pigment.

Microscopic Appearances.

The vegetations showed a granular amorphous thrombus in process of organization; large masses of cocci were visible at the margin. The spleen infarct showed the usual appearances of an early pale infarct with large numbers of polymorphonuclear leucocytes infiltrating it, thus indicating its septic character. The kidneys, liver, and heart showed cloudy swelling, but no evidence of metastatic inflammatory foci in them. The portion of lung examined showed oedema and some catarrhal pneumonia.

Aneurysm and Mesentery.—The tissue of the mesentery is infiltrated with blood clot, which in parts shows distinct evidence of organization. In other parts there is infiltration with polymorphonuclear leucocytes. The larger vessels show well-marked infiltration of their walls with inflammatory cells, and in the aneurysm wall this is accompanied by marked thinning. No organisms were found in the aneurysm wall or in the tissues around.

REMARKS.

The chief interest about the case lies in the rarity of the condition. We have only seen one other example of an acute aneurysm in this situation. Apparently both the endocarditis and the haemorrhage had been in existence some days, as evidenced by the considerable amount of organization which had occurred. At the *post-mortem* examination we were struck by the absence of smell, pus, or other evidence of sepsis. Whether this is explained by the nature of the causal organism we are unable to say. The presence of the *Staphylococcus albus* may be quite accidental, but the large numbers of cocci in masses found microscopically in the vegetations indicates that the germ belonged to that group.

SOME GENERAL NOTES ON SUFFOCATION BY POISONOUS GASES, WITH DETAILED NOTES ON ONE FATAL CASE.

BY

LIEUTENANT A. W. HENDRY, M.B., CH.B. ABERD.,

AND

LIEUTENANT E. L. HORSBURGH, M.D., B.S. LOND.,

BRITISH EXPEDITIONARY FORCE, FRANCE.

DURING the last two weeks we have had under our care in this hospital several cases of suffocation by poisonous gases.

We have attempted to divide them into clinical groups from the severity of the symptoms and physical signs.

GROUP I.—THE MILD CASES.

Class A.—In these the cough has been frequent, painful, and harsh; the physical signs in the chest were rough breathing with sonorous rhonchi, indicating an essentially "dry" condition of the chest, suggesting a reddened and roughened bronchial apparatus.

Class B.—The cough was frequent and painful in these cases, but the harshness was not so apparent; the sounds in the chest were moist, and there was some secretion of a greenish, viscid character which was expectorated by the patient.

In both these classes of Group I the patients complained of headache, pain in the eyes, and abdominal pain, but they were not cyanotic, and the symptoms tended to disappear rapidly with the exception of some increased