The great fatigue caused by stretcher bearing is chiefly due to the way in which the stretcher is carried. If the weight of the loaded stretcher were distributed over the shoulders, backs, and loins of the bearers by means of a broad webbing equipment, the fatigue of stretcher bearing would be greatly reduced. With such an equipment three bearers would be sufficient to carry a stretcher in place of the present six.

In order to test this theory, Colonel Bunny, A.O.D., very kindly gave permission for two web stretcher belts to be made in the ordnance department at Malta, on the same principles as the British soldier's web equipment. The stretcher belt, which is worn quite loose round the waist, is much more comfortable than the ordinary stretcher sling, and can be worn as part of the stretcher bearer's equipment. During carriage the handles of the stretcher rest in hooks, which are attached to the sides of the belt by means of webbing, and hang just below the level of the great trochanter of the femur on each side. The hooks fit loosely to the narrow part of the stretcher handle, but cannot be pulled off the enlarged rounded ends.

The advantages claimed for the stretcher belt are:

1. The weight of the stretcher is placed—
2. Close to the centre of gravity of the body.
3. With a wide area of support.
4. Without pressure on the chest, or respiratory interference.
5. With no constriction of blood-vessels or nerves.

With this stretcher belt the arms, neck, and chest of the bearer are remarkably free, and three bearers are quite sufficient for the carriage of a wounded man and his equipment.

At Cottonera, Malta, three stretcher bearers, using this stretcher belt, carried a man weighing 11 st. 6 lb. half a mile in fourteen minutes, and one mile in twenty-nine and a half minutes, without any difficulty.

The belts are made of Indian tent webbing, costing one penny per yard. Each belt costs half a crown to make in Malta, namely, one and six for webbing, straps, hooks, &c., and a shilling for labour. The weight of each belt is 1 lb. 4 oz.

---

A CASE OF BERI-BERI COMPLICATED BY DUODENAL ULCER.

BY CAPTAIN E. M. MIDDLETON.

Royal Army Medical Corps.

Sapper W. was admitted to hospital at Fort Pitt on January 19, 1914, from Christmas furlough, complaining of extreme weakness, abdominal pain, and vomiting. The previous history of the case obtained from his medical history sheet and supplemented by himself is as follows:

At Dover, in April, 1912, he was admitted to hospital for nineteen
days with "indigestion," when he complained of abdominal pain and constipation. In May of the same year he was again admitted with the same thing, his stay in hospital being thirty-seven days, and it was then noted that he had dilatation of the stomach.

In September of the same year he was admitted at Fort Pitt with "appendicitis." He then stated that for three years he had suffered from indigestion and vomiting which occurred chiefly in the evening and early morning. On the morning of the day of admission, after a light breakfast, he had an acute attack of pain which he described as "drawing and shooting," and indicated its situation as being over the right side of the abdomen from the epigastrium to the iliac region. His condition was one of collapse, skin cold and damp, temperature 98°F., pulse 100, abdomen distended, the distension being especially marked in the hypogastrum, no movement on respiration, tenderness and rigidity mostly on the right side. He vomited in the evening, and appeared easier afterwards. Next day his temperature was 101° and pulse 100, and he appeared easier. A consultation was held, and it was decided that the symptoms were not definite enough for immediate operation as the abdominal pain was still very diffuse. Next day, the 16th, his temperature was 99° and pulse 108, the abdomen slightly more distended, and the liver dullness replaced by resonance. Pain was still recurrent. Another consultation was held, and a laparotomy decided upon as the case was considered one of acute appendicitis.

The operation showed a largely distended, red, and injected intestine which, when punctured, allowed a large amount of gas to escape. About half a pint of very turbid fluid was present in the peritoneal cavity. The appendix was kinked and bound down, and when removed and opened two large ulcers of the mucous membrane were found. The abdominal wound closed up by the 30th, and he was discharged from hospital to furlough on October 10.

At the termination of two months' furlough he was sent to Sierra Leone. Six weeks after arrival, he was admitted with "beri-beri," and invalided home after forty-one days in hospital. After two months' furlough he was admitted to hospital at Woolwich, and his medical history sheet states that he had no symptoms beyond loss of patellar reflexes. He was brought before a board, and found fit for duty, and returned to duty at Dover until just before Christmas, when he went on furlough. During his stay in Dover, he stated that he was still weak and subject to pains between the shoulders and under the shoulder-blades. These attacks of pain would be accompanied by vomiting, which gave relief. Just previous to admission, while on furlough, his diet had been mainly milk and water, as he was still subject to pains in the chest. During the last few days he had had severe attacks of vomiting, the vomit being black in colour. He admitted that his diet had been increased.

On admission his skin was wax-like, the mucous membranes almost
colourless, conjunctiva bright and clear, tongue furred, temperature normal. Heart: Apex beat in fourth interspace, just internal to the mammary line, forcible in character; pulmonary second sound reduplicated; no murmurs. Stomach: Much dilated, upper limit on percussion found at fifth rib. Abdomen: Distended and tympanitic. Lungs: Breath sounds normal. Nervous System: Left pupil reacted to light and for accommodation, right pupil reacted for accommodation, but sluggishly to light; knee jerks absent; sensation normal, no ankle clonus. Muscles everywhere much wasted; no tenderness.

Progress was excellent until the 23rd, when he had a severe attack of pain accompanied by vomiting. Discomfort lasted three or four days, when he again showed signs of improvement, until on the 29th he had a severe hæmorrhage of about a quart of blood from the stomach. The vomit had been very slightly acted on by digestive juices. Under morphia and saline infusions he improved considerably. Next day he vomited another quart of blood. Saline infusions were given off and on all day, and up to the time of his death at 2.30 a.m.

Post-mortem.—About half a pint of blackish-green fluid was found in the abdominal cavity. The omentum was destitute of fat, and adherent to the abdominal wall. The small intestine was adherent to the old laparotomy scar. The stomach was greatly enlarged, thickened, and dilated; the pylorus thickened, and forming an adherent mass with the head of the pancreas and the transverse colon. The tissues around were stained by the intestinal contents. Nothing was found on opening the stomach. The duodenum was defined and removed with difficulty, and an ulcer was found at the mouth of the pylorus which had recently perforated. The mucous membrane presented punctiform hæmorrhages over the whole of its surface. The heart was enlarged, and the right side dilated. The lungs were òedematus, and the pleurae everywhere adherent.

I am indebted to Captain H. T. Wilson, R.A.M.C., who operated on the patient for appendicitis, for his notes of the case.

A CASE OF GANGRENOUS OVARIAN CYST.

BY MAJOR A. J. CHAMBERS.
Royal Army Medical Corps.
(Retired Pay.)

Mrs. B., aged 38, was admitted to the Victoria Nursing Home, Lichfield, on December 28, with symptoms of general peritonitis. She had been confined six weeks previously, and since that date had experienced pain in the lower part of the abdomen, but had not applied for treatment. About seventy-four hours before admission she was seized with sudden, intense pain in the right iliac region, accompanied with a rigor and vomiting.