I suspected that the old lesion in the left lung was tuberculous and had been lighted up again by malaria, and that tubercular meningitis had supervened. However, the only course open to me was to get rid of the malaria parasites, and I therefore resorted to hypodermic injections of quinine.

On May 29th the patient was paralysed down the right side, had lost control of his sphincters, did not speak, but could be roused to pay attention. The following day “Cheyne-Stokes” breathing was noticed. The patient gradually sank and died on the evening of June 2nd.

A post-mortem examination was made about fourteen hours after death. The following notes were made:

Thorax.—Pericardium and heart normal; adhesions of both pleura. On the right side slight adhesions in front, with several enlarged glands in the intercostal spaces; massive adhesions and thickening of left pleura; both parietal and visceral layers on the posterior wall were as thick as a kid glove. Right lung, normal; left lung, lower lobe carniﬁed, with a few small cavities at the base, upper lobe slight compensatory emphysema at the extreme apex; a few miliary tubercles at apex. A large abscess cavity, containing about 4 ounces of thick, curdy, yellowish-white pus, was found behind the left pleura in the region of the tenth and eleventh dorsal vertebrae.

Abdomen.—Mesenteric glands slightly enlarged, no caseation found; intestines, omentum, stomach and kidneys all normal; liver, normal; spleen dark chocolate colour, soft and friable. No malarial parasites were found in a smear taken from the cut surface of the spleen. The appendix was very long, and bound down near the tip by a peritoneal band.

Cranial Cavity.—On opening the skull the membranes and convexity of the brain appeared normal; the membranes were not inﬂamed nor adherent. On lifting out the brain, however, some gelatinous matter was found at the base in the region of the quadrilateral space. On cutting into the brain a few miliary tubercles and a small abscess cavity were found in the temporo-sphenoidal lobe on the left side.

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A CASE OF TETANUS.

By Major F. W. Begbie.
Royal Army Medical Corps.

The following report of a case of tetanus is forwarded in the hope that any officers of the Corps who have had successful cases under their treatment would kindly state the methods they used for the serum injections. Whether intra-cranial, intra-spinal, or, as used in this case, subcutaneous into the cellular tissue.
Clinical and other Notes

The case is interesting for two reasons: (1) The length of time, twenty-seven days, which had elapsed since the wound of thumb was received. The hernial wound was carefully examined for a bead of pus, after the onset of tetanus, but no sign of any inflammation could be found. (2) That after the onset on December 11th, when the spasm of the jaws and risus sardonicus were both well marked, the tetanic spasms were confined absolutely to the muscles of the neck and back, the face and jaw muscles remaining flaccid.

The patient, No. 62323 Private W. M., "F" Battery, Royal Horse Artillery, aged 19, service three months, scratched his thumb on his saddle while vaulting off his horse at Ipswich on or about November 14th. The injury was slight, and he took no notice of the accident. A few days later he injured himself again in the same way, and tore open the original scratch. He reported "sick" at the hospital, and had his wound antisepically dressed. Two days later the wound was swollen red, and painful; he was seen by the medical officer, who incised the wound and let out a free discharge of pus. He was kept in hospital and transferred on November 21st to the military hospital, Colchester, to undergo an operation for radical cure of right inguinal hernia. On seeing the case I declined to operate until the wound in his thumb had healed. This it readily did under treatment, and the operation for hernia was performed on December 1st, 1910. The operation was done in the usual way, and gave rise to no complications, the sutures being removed on the seventh day, when the wound to all intents and purposes was healed, and the patient looked upon as convalescent, requiring only complete rest in bed. The catgut used in the operation was prepared by the xylol process, and the skin in the neighbourhood of the operation wound was painted, both before and after the operation, with iodine.

On December 12th the patient complained of stiffness of the jaws and pains in the neck. I at once gave him chloroform, and was then able to forcibly separate his jaws. As tetanus was suspected, 20 cc. of antitetanic serum were injected, and the patient was placed under morphia, removed to an isolation ward, and kept at absolute rest in the dark. At 5.30 p.m. on the same day he was seized with great difficulty in swallowing, and increased pain in the neck. Counter-irritation was tried, and a further 20 cc. of antitetanic serum were injected into the cellular tissue of the abdomen. He was again given chloroform, under the influence of which his stomach was washed out with a tube, and a meal of eggs, brandy, lemo, and milk was given. He had a fairly good night, was sensible, and free from spasm.

December 13th.—There were slight spasms of the face and neck during the morning; he was given another 20 cc. of serum at 11 a.m., and again at 6 p.m. He was also given chloroform, and fed through the esophageal tube, 40 grains of chloretone and brandy being mixed with his food. He rested quietly for the remainder of the day until 11 p.m.,
when he had several attacks of pain in the back of the neck, and some stiffness of the muscles of the back. He was given another 20 grains of chloretone in milk, which he swallowed without any spasm appearing. After the drug he slept quietly till morning.

December 14th.—At 10.15 a.m. the patient had a sudden and violent seizure. He became perfectly rigid, the muscles of the face were contracted, the spine arched, and he rested entirely on the occiput and heels. The spasms lasted for a minute or so, and gradually subsided. During the spasm his face became blue, and his breathing impaired. The abdominal muscles, especially the rectus, were hard and "board-like."

These attacks of spasms continued at frequent intervals during the morning, but with less severity than during the first attack. He was kept under chloroform more or less all day, and fed with the esophageal tube, a large dose of calomel being also given. This acted freely during the afternoon; 20 grains of chloretone were given both morning and evening with considerable benefit as regards the spasms.

December 14th, 3.15 p.m.—Being unable to pass his urine it was drawn off by catheter under an anesthetic. The pulse-rate ranged from 100 to 110, and the respirations from 20 to 28. The temperature up to the evening remained normal. During the remainder of the day and also during the evening, he had repeated tetanic convulsions, and was kept under the influence of chloroform all day. At 11 p.m. his temperature began to rise, and reached 101.6°F.; pulse 136, feeble in character; respirations 36. He was fed and stimulated frequently during the night.

December 15th, 8 a.m.—Temperature 104°F.; 40 grains of chloretone was given in the food; double doses of antitetanic serum were injected and digitalis and strychnine were also administered.

9.15 a.m.—He had a very severe spasm, with complete opisthotonos, lasting fifteen minutes, followed by profuse sweating and feeble pulse, The other spasms during the morning were less frequent and less severe, lasting only a few seconds; and it was hoped that the increased dose of chloretone was having effect. He was fed by the tube again at 3 p.m. and 7 p.m. Given digitalis at 3.30 p.m. At 4.30 p.m. a fresh series of spasms set in, and chloroform and morphia were administered. During the evening another 40 grains of chloretone was given with the food, and 30 cc. of antitetanic serum injected.

At 7.15 p.m. his pulse was weak and feeble, and the temperature had fallen to 102°F. Digitalis and brandy were administered. He had a quiet night; the bowels acted involuntarily; he perspired freely all night; and was warm sponged.

December 16th, 8 a.m.—Temperature 102°F., pulse 150, respirations 32 at 6.30 a.m. Convulsions very slight up to 9.30 a.m.; he was fed at 8 a.m., and 20 grains of chloretone were given. Restless from 9.30 a.m. to 10.30 a.m., when a violent series of convulsions with complete opistho-
A Tour from Freetown to Monrovia

tonos set in, during which he died of heart failure, the temperature rising to 104°F.

This case is remarkable for the length of time which elapsed between the cut on the thumb on November 14th and the onset of the symptoms on December 11th, an interval of twenty-seven days. The usual maximum interval is fourteen days.

Great hopes were entertained of the patient's recovery, as he stood the heroic treatment splendidly for nearly five days, but suddenly collapsed just before the close of the fifth day.

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Travel.

ABRIDGED REPORT OF A TOUR FROM FREETOWN TO MONROVIA THROUGH THE PROTECTORATE OF SIERRA LEONE AND LIBERIA.

By Major A. Pearce.
Royal Army Medical Corps.

GENERAL INFORMATION.

Time of Year.—I was travelling in Sierra Leone from February 23rd to April 19th, 1909. On the latter date I crossed the frontier into Liberia, and remained in that country until May 25th, 1909.

The Route.—From Freetown to Kennemma, the journey was performed by the Sierra Leone Government Railway, but thence to Monrovia on foot, except for about twenty miles, when a hammock was used.

The road traversed first passed in an easterly direction to Mallema, and thence in a south-westerly direction along the Morro and Mano Rivers to Fairo. After crossing the Mano River into Liberia at Gene, the direction was north-east to Da, and then east to Bopu. From Bopu to Monrovia the direction was slightly west of south.

Roads.—From Kennemma to the Moa River, I traversed a road still under construction but even then much used. This is one of the many roads which, under the enlightened administration of the Governor, His Excellency Sir Leslie Probyn (then Mr. Leslie Probyn, C.M.G.), was being opened up throughout the Protectorate of Sierra Leone. These roads promise to be of much service to inhabitants of the country, and to afford the much-needed increased facilities for the development of trade with the interior. After