care, the patient's nervous system shows no signs of recovering its former steadiness and there is nothing for it but to invalid them out of the service as permanently unfit.

Again, the prognosis in such cases is extremely unsatisfactory and no definite one can properly be given under a year, whereas the military authorities require it much earlier. The surrounding circumstances of modern gunshot wounds have apparently lost much of the seriousness recorded of these injuries in most text-books, and it would appear that the resulting nerve shock and injury to the nervous system are the most frequent sequelæ and at the same time difficult to prevent and treat, but those towards which, in my opinion, our efforts must be directed. The absence of local nerve lesion or injury producing the nerve change is significant, and the number of cases observed would not support the theory of these symptoms occurring in nervous persons only. It would be interesting to ascertain the actual numbers of men who have been invalided out of the service as the result of the South African campaign after bullet wounds and shell injuries whose permanent disability is purely shattered nerves. If possible the engagement in which the patient was wounded should be ascertained. Badly conceived projects by generals and commanding officers causing panic and disaster may then be found to be largely responsible for the development of such nervous cases quite apart from surgical injuries.

Aldershot.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

FRENCH HOSPITAL AND DISPENSARY.

A CASE OF PLASTIC BRONCHITIS WITH ITS POST-MORTEM APPEARANCES.

(Under the care of Dr. A. VINTRAS.)

PLASTIC bronchitis is an exceedingly rare disease, but it has been recognised from very early times and Galen has mentioned that solid masses of fibrin may be expectorated.¹ In 1897² Clarke and Lister explained the real method of formation of the casts and showed that they were not due to the coagulation of blood. Up to the present time more than 100 cases have been recorded, even if allowance be made for some which were probably not instances of true plastic bronchitis. The case recorded below is almost typical of the disease. Hæmoptysis is a very frequent symptom, for it occurs in about one-third of the cases, and epistaxis has also been observed.³ The treatment by inhalations of lime-water appears to have been suggested⁴ by Kuchenmeister's observation of the solubility of diphtheritic membrane in lime-water,⁵ though Dixon⁶ had pointed it out long before. For the notes of the case we are indebted to Dr. Henry Dardenne, physician to the French Hospital.

The patient was a man, aged 68 years. He had been for seven years a soldier in the French army and had served all his time in Africa. Since then he had had no regular occupation. He was admitted into the French Hospital on August 18th, 1894, under the care of Dr. Vintras. He complained of cough, shortness of breath, hæmoptysis, and pains across the chest both in front and behind between the shoulder-blades. His illness began three months previously after allowing his clothes, which had been soaked through with the rain, to dry on him. He remained after this for two days in bed. Since that time he had been troubled with fits of coughing which were now and again very severe. A month previously to admission he noticed for the first time

that after one of these fits his expectoration was tinged with blood, very thick, and almost gelatinous in consistence. He used to feel better for a day or two and then he would have another attack of coughing. These also became more severe. A week before admission he spat about three ounces of dark coagulated blood. He had for 12 hours a very severe pain across the chest in front, and this, together with a most distressing cough, lasted until he had expectorated some very thick and dark matter. His breathing then became much easier. He had before this always enjoyed good health. His habits had always been regular and he never drank to excess. There was nothing particular in his family history. His father died at the age of 78 years from cerebral hæmorrhage, his mother at 50 years of age from pneumonia. He remembered nothing about his grandparents. An uncle of his suffered from asthma and died from kidney disease. The patient was 5 feet 11 inches in height and was very emaciated. His weight six years before was 12 st. and on his admission it was only 10 st. His features were sharp and his complexion was sallow and pasty. His lips and ears were slightly cyanotic. His conjunctivæ were slightly jaundiced. The alæ nasi moved freely with each inspiration. The veins of the cheeks were dilated. His expression at times was very anxious and careworn. His temperature was normal. On examination his chest was found to be barrel-shaped. Its mobility was deficient. The sterno-mastoids stood in bold relief and could be seen to contract on inspiration. The vocal fremitus and resonance were normal. The chest was tympanitic in front. The right base behind was somewhat dull. On auscultation rhonchi and sonorous and sibilant râles were present over the whole chest both in front and behind. At the right base behind there was a respiratory murmur very indistinct and the vocal fremitus here was slightly impaired. The pulse was regular, full, incompressible, and beating at the rate of 100 per minute. The arteries were tortuous and indurated. The apex beat could be felt and seen in the sixth left intercostal space, half an inch outside the mamillary line. The heart-sounds could not be distinctly heard and neither the superficial nor the deep cardiac dullness could be detected owing to the emphysematous condition of the lungs. The teeth were decayed. The tongue was large and flabby, the papillæ were very prominent, and there were here and there a few superficial fissures. It was coated with a white fur except at the tip and edges. He had at times some difficulty in swallowing his solid food and this had increased within the last fortnight. He complained of no morbid sensations either before or after food. His appetite was good. His bowels were regular. The other systems appeared to be normal. On August 22nd, four days after the patient's admission, Dr. Dardenne was hastily summoned to the patient. He found him suffering from intense dyspnoea and he seemed to be on the verge of suffocation. His face was livid and covered with a cold perspiration. His eyes were blood-shot and looked as if they would come out of their sockets. The muscles of forced inspiration were acting powerfully and both hypochondriacal regions receded during inspiration. His breathing was about 60 per minute. His voice could scarcely be heard and the patient complained of pain and of a sense of pressure in the epigastrium and between the shoulder-blades. He had an incessant and harassing cough, and this would at times be relieved by the expectoration of a thick, sanguinolent fluid. Suddenly his face became quite black and he gasped for breath. His body was shaken with a severe fit of coughing. Tracheotomy appeared to be inevitable. However, with considerable effort he succeeded in expectorating a dark mass of the size of a cherry-stone, and this was followed by about two ounces of dark, semi-clotted blood. He felt instantly relieved and sank back exhausted. On floating the little black mass into water it turned out to be a perfect cast of a middle-sized bronchus with its ramifications. It was yellowish in colour and three and a half inches in length. For the next two or three days he spat some muco-purulent fluid and felt much easier. The respiratory murmurs were more distinct at the right base behind. The pains had disappeared and he expectorated no casts, only some dark blood and mucus. On the 26th he had another attack of dyspnoea, not so severe as the previous one, but he complained of the same severe pain in the epigastrium and between the shoulder-blades. On this occasion he expectorated about 15 casts. They were this time very soft and friable and much whiter than the first one. Peculiar adventitious sounds were to be

¹ De Locis Affectis, Book i., chapter i.

² Philosophical Transactions, vol. xiv.

³ S. West: Practitioner, August, 1889.

⁴ Wilson Fox: Diseases of the Lung and Pleura, 1891, p. 51.

⁵ Oestreichische Zeitschrift für Praktische Heilkunde, 1863.

⁶ Medical Commentaries, 1785, vol. ix.

heard before he had the last fit. Some authors have called these "bruits du drapeau." For a week after this he complained of no pain but of a feeling of lassitude and expectorated a sanguinolent fluid. On Sept. 2nd the patient had another attack and died suddenly. Artificial respiration and tracheotomy were of no avail.

Necropsy.—On post-mortem examination 15 hours after death rigidity and lividity were well marked. Both lungs were adherent and extremely emphysematous. The thoracic viscera were removed *en masse* together with the tongue, the trachea, and the œsophagus. On slitting the latter open a soft, rapidly growing epithelioma was detected about half an inch above the tracheal bifurcation. It extended for an inch above and below this and was firmly adherent to the trachea which was also compressed by the growth and at this point could hardly admit a small goose quill. A cast was found projecting from the right bronchus into the trachea and blocking the already strictured lumen of the latter. It measured two inches in length and was milk-white in colour. The mucous membrane of the right bronchus was intensely congested. Only one small cast was also detected in one of the tubes of the right middle lobe. Both lungs were crepitant but intensely congested. There was no trace of tubercles anywhere. The heart was enlarged and weighed 15 ounces. The valves were healthy and competent. The right ventricle contained some coagulated blood; the left was empty. The brain and spinal cord were congested and so were the liver and kidneys.

Nature of the casts.—When first expectorated they were either by themselves or rolled in the form of a little ball coated with thick muco-sanguinolent fluid. In colour they were pale yellow. The ends of the casts were bulbous, thus showing that they had extended into the infundibula, and the large cast could be inflated. On its surface there were some bulgings, this most likely caused by the more or less rapid deposit of fibrin. In consistence they were tolerably compact and to some extent elastic. On cross section concentric layers of a lamellar fibrillated structure were seen, and between the layers there were inclosed leucocytes, pus corpuscles, and some cylindrical epithelium—but very few blood corpuscles. Crystals of Charcot were not present. The casts were insoluble in water, but were soluble in lime water to a great extent. The casts, in my opinion, were made up of fibrin and not of mucus or of a coagulation necrosis of the bronchial epithelium, as was once thought. The alveolar vessels were congested. The treatment consisted in the intervals in the patient taking every three or four hours inhalations of lime water and internally a mixture of iodide of potassium and some expectorant. During the fits nitrite of amyl was tried but with no benefit. A mixture of A.C.E. and apomorphine subcutaneously seemed to shorten the attack.

Remarks by Dr. DARDENNE.—Plastic or fibrinous bronchitis is a very rare disease, and there are very few cases reported where its post-mortem appearances have been noted. In the above case I had every possible opportunity to observe its clinical characters, the deceased being at the time an inmate of the French Hospital. I have since met with another case in private practice.

ROYAL NAVAL HOSPITAL, GREAT YARMOUTH.

A CASE OF HYDATID DISEASE OF THE LIVER DISCOVERED BY THE PRESENCE OF DAUGHTER CYSTS IN THE MOTIONS.

(Under the care of Surgeon F. H. A. CLAYTON, R.N.)

THE cases are few in number in which an hydatid of the liver has discharged its contents through the common bile duct and still rarer are the cases in which recovery has followed, for in most of these cases, though some part of the cyst has escaped into the bowel, the remainder has required an operation for its removal or has been found post mortem. The comparative infrequency of hydatids in this country and the peculiar features in this case render it well worth recording.

The patient was a strong and healthy-looking man, aged 38 years, an attendant at the Royal Naval Hospital, Great Yarmouth. The only point of any significance in his previous history was that 12 or 14 years ago he was engaged in looking after some greyhounds. His illness commenced about Dec. 27th, 1899, when he was put upon the sick list, complaining of headache and diarrhœa, but with no chill

or rigor. His temperature remained between 102° and 103° F. for four or five days, with a morning fall of about a degree, and showed some tendency to steadily rise. With this he was passing three or four pea-soupy motions daily; his tongue was furred, dry, and typhoid-like, and his liver was somewhat enlarged, but beyond slight pain and tenderness in the right hypochondriac region he complained of little. With liquid diet and the administration of an intestinal antiseptic all symptoms disappeared, although there was for some time a slight nocturnal rise of temperature. He returned to duty on Jan. 16th, 1900, three weeks after admission. On March 4th he suffered from considerable colicky pain about the epigastrium, shooting round to the right loin, but was free from this when seen on the next morning, although he was somewhat jaundiced. Jaundice increased during the day and the liver was found considerably, though uniformly, enlarged. Under treatment symptoms rapidly disappeared, and as he was anxious to return to work he was discharged to light duty on the 13th. On the 16th he relieved the gate-porter on a cold day without wearing a great-coat, although warned to avoid chill, and almost at once began to shiver and could not get warm. He was seen next day and complained of the shivering and of the same pain as before, but less severe, and also of anorexia and general malaise. His temperature was again 102° but fell to normal during the next three days, and the jaundice, which reappeared the day following admission to the sick list, was likewise evanescent. This time he was kept on the sick list for several days after apparent recovery and was first allowed to go home on the 30th. Here he partook of some cake and a glass of beer, and afterwards during the entire night suffered far more severely than before from a return of the same colicky pain, and on coming in next morning he was described as being bent like an old man. When seen this had again passed off, but, as before, his temperature was raised and a return of the jaundice soon made itself evident.

On searching the motion passed on this day for gall-stones about a dozen cyst-like bodies were found which varied in size from a pea to a large bean. Some of them (apparently the larger ones) were ruptured, and all contained turbid fluid, and were white and membranous looking. A microscopical examination of the contents of one revealed numerous scolices with their rings of hooklets and several stray hooklets. These bodies were found on various occasions afterwards, usually smaller and unruptured, except after a similar attack on April 19th. With them much slimy gelatinous matter and fragments of white membranous material, apparently portions of cyst wall, had also been passed, and at times some had been bile-stained. Latterly few cysts had been seen and only the fragments of the wall. These were always of much the same size—that of a small pea. The liver enlargement had at this time (March 31st) increased but was still uniform; there was slight epigastric tenderness but nowhere any suggestion of a thrill or localised enlargement. His appetite remained poor and he displayed great susceptibility to draughts though he complained of no definite chilliness. He also had slight occasional epigastric pain and tenderness but otherwise remained well until April 19th, two days after being allowed out in the grounds, when he had another severe attack of pain all the afternoon. On this occasion he was seen to be pallid, collapsed, and covered with clammy sweat. An injection of morphia (one-sixth of a grain) almost at once relieved him. This attack was previously followed by transient jaundice. He passed a motion which was clay-coloured containing several more ruptured large cysts. His urine on one or two occasions after the attacks had been very thick with urates and contained much bile, otherwise it presented no abnormality, and there was no sign of respiratory, circulatory, or nervous involvement. After this attack the patient steadily improved and was discharged to duty on May 2nd. Although his liver is still much enlarged and he continues to pass fragments he is gaining flesh and remains well, and up to the present time (August) he has had no return of symptoms.

Remarks by Surgeon CLAYTON.—As to the nature of the case there can be little doubt that there was a degenerating cyst in the liver discharging into the alimentary canal. The constant sequence of events—pain resembling biliary colic, followed by jaundice, which was always transient—the effect of morphia—the uniform size of the fragments passed, and the rupture of the larger cysts, strongly suggest: (1) that the cyst was discharging through the biliary passages; (2) that at times portions became impacted, producing the colic; and (3) that by