transfer to a convalescent home in excellent condition with his wound nearly healed. The drainage, however, having been

CHART 1.—Cpl. R. L. C = Cyllin, iodoform, and olive oil begun.

imperfect, on November 15th a larger piece of rib had to be removed, by Mr. Ellis Pearson, surgeon to the section, after which progress was uneventful.

CASE II.

Pte. W. W., admitted March 11th, 1917. Twelve years previously he had a left-sided empyema, which was drained. About a month before admission he had an attack of pleurisy in the left side, and the old wound reopened and discharged. On admission the temperature was irregular, and there was dullness at the left lung base, so on March 25th the wound was enlarged by Mr. Pearson, and better drainage established. On March 31st severe haemorrhage occurred from the wound and

CHART 2.—Pte. W. W. O = Operation. H = Severe haemorrhage. C = Cyllin, iodoform, and olive oil begun.

continued to a considerable extent. The temperature, which had fallen after the operation, rose again to 102° on April 2nd. As the condition was obviously one of intrathoracic sepsis, injection of the cyllin and iodoform mixture was begun and continued, with the result shown on Chart 2. The haemorrhage ceased, and there was no further rise of temperature until April 14th, when the patient had a slight rise of temperature accompanied by slight haemorrhage lasting about two days, after which recovery was uneventful. The patient is now very stout and well.

We have since seen a third case of intrathoracic sepsis following a gunshot wound, in which the use of this mixture has been of great value.

REFERENCE.

¹ *Practitioner*, April, 1912.

MUTTON BIRD OIL.

BY

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As cod-liver oil is difficult to obtain in sufficient quantities it may be of interest to know that the oil extracted from the sooty petrel is not only an excellent substitute, but, in the opinion of some, more effective in the treatment of bronchitic conditions and phthisis.

The sooty petrel, which is known in New Zealand and Australia as the mutton bird, spends nine months of the year in the Antarctic, and, consequently, must be so constituted as to stand extreme degrees of cold. The birds arrive in enormous numbers at their breeding places on Stewart Island, to the south of New Zealand, and on the islands in Bass Straits. The chief islands on which they breed are Chapple Island, Hummocky Island, Tin Kettle Island, and the other small islands near Flinders Island and Cape Barren Island. These birds arrive on the same day every year, and depart in flocks at the end of their period of migration.

The female lays only one egg, which is hatched by the parents sitting in turn. The young birds are fed by the parents with marine life collected from far at sea. When about six weeks old, the young, which are found in burrows similar to rabbit holes, are taken by the residents and half castes who visit these islands for the mutton bird season. The young bird is lined with fat, which is expressed as oil. The birds are then gutted, salted, and smoked, and used to be sold in Tasmania and New Zealand at a retail cost of 1½d. to 2d. each, and in Sydney at 6d. each. Recently a certain number have been tinned for export; some have reached the western front, and have been much appreciated as an article of diet.

In 1900, whilst in practice in The Hutt, New Zealand, I found at Porirua and Otaki, in the Maori Pahs, that natives suffering from consumption in some cases put on flesh during a tangi, which is something akin to an Irish wake. At these times the natives consumed large quantities of mutton birds.

At Tawa Flat, where some Norwegians had settled, I induced two of the settlers, who were suffering from phthisis and did not object to the fishy taste of the mutton bird, to eat one mutton bird a day, and found after some months that there was a considerable increase in weight. I published a paper in 1900 in the *Australasian Medical Gazette* advocating the feeding of cases of phthisis with mutton birds. In 1910, on going to Tasmania as chief health officer, I found on the west coast of Tasmania

a chemist at Zeelian who was putting up an emulsion of mutton bird oil and almond oil, which had earned a considerable repute for the treatment of bronchitis and phthisis.

On visiting the islands in Bass Straits with the then Governor of Tasmania, Sir Harry Barron, Sir Elliott Lewis, the Premier, and other members of the Ministry and Government officials, I found that the mutton bird was one of the principal articles of diet among residents of the islands. Later, in 1913, I was marooned on these

islands for six weeks, whilst investigating an epidemic of what I diagnosed as atypical measles simulating scarlet fever, but what Dr. Wetter of the Mawson Expedition diagnosed as atypical scarlet fever simulating measles; my chief article of diet, as of the others, was mutton birds, and I found a progressive increase in weight.

On behalf of the Tasmanian Government, the Commissioner of Police, Colonel J. E. C. Lord, D.S.O., made a special report on the mutton bird industry. As a result, I understand that improved conditions have been introduced into the islands and that these birds are sufficiently protected to prevent any serious diminution in their numbers.

The supply of oil from this source is considerable and would be a valuable addition to the medicinal oils at the present time.

Another point of interest about this industry is that, until a German agent intervened, the feathers, owing to their oily state, were found to be a nuisance, but previous to the war were actually exported to Germany, where they were treated and used in the making of cushions and pillows.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

PERICARDIAL KNOCK.

A FEW days before the appearance of Colonel S. Maynard Smith's article in the *JOURNAL* of January 19th, p. 78, I was called to see a boy who had been accidentally shot in the head and left side of the chest when rabbiting.

About an hour before he died a loud cardiac "click" developed which was synchronous with the heart systole and could be heard distinctly six or eight feet away. It bore no relation to the respiratory movements, as the respiration was Cheyne-Stokes in character and the sound persisted during the period of apnoea. The simile of the click in the ear-piece of a telephone when the lever is