

of Jolozai, for, as already stated, one of our recent imported cases was probably infected in that neighbourhood; all the others had recently come from hilly districts.

It seems possible that the difference in infectivity and severity between the two diseases may be due to their being conveyed in a different manner, *e.g.*, by a tick in one case and by a bug in the other.

#### RELATIONSHIP TO "EPIDEMIC PNEUMONIA."

In the past it has often been stated that pneumonia of an infectious and epidemic nature exists on the North-West Frontier, and it has been very generally regarded as a specific disease, distinct from ordinary pneumonia. We have already pointed out how easily the diseases may be confused. True pneumonia, on the other hand, is particularly prevalent among the troops of this district. One epidemic is described by Duncan,<sup>12</sup> but he gives no evidence to show that his patients directly infected others, and his description reads like a very excellent account of ordinary pneumonia. Captain Stephenson, who has recorded another epidemic, tells us that the incidence among the sick-attendants was not greater than in the regiment generally. The 4th and 7th Rajputs recently suffered heavily from pneumonia in Chakdara and the Malakand, and they illustrate very well the nature of such epidemics. Both were down country regiments, quite unaccustomed to the rigours of the Frontier climate. The barracks at both these stations are dark and ill-ventilated, as in their construction defensibility was of necessity the first consideration, and this is true of many stations on the Frontier. At the Malakand one barrack has long been known as "Pneumonia barrack" by the officers stationed there, a name which rightly implies that the infection is endemic in the building rather than epidemic among the men. The fact is that when troops, particularly down country troops, are sent into ill-ventilated barracks on the Frontier, pneumonia is apt to assume almost epidemic proportions, yet the cases are clinically typical lobar pneumonia.

In striking contrast with this is an epidemic, also diagnosed at the time as epidemic pneumonia, which occurred in a regiment engaged on the Waziristan Expedition in 1895. Over 50 cases occurred, mostly fatal, and out of 13 sick-attendants 11 died. This was in all probability typhus. The epidemics of typhus which at one time decimated the jails of N.-W. India were for a long time regarded as epidemic pneumonia, and our own recent epidemic was given the same name by several medical officers at the commencement, though they admitted our diagnosis later.

#### REFERENCES.

- <sup>1</sup> Lyell and Farquhar, *Ind. Annals Med. Sci.*, 1852-3.
- <sup>2</sup> Wallick, *Ibid.*
- <sup>3</sup> Cayley, 1884 Edn., Murchison.
- <sup>4</sup> Bryden, *Statistical Report*, 1878.

- <sup>5</sup> Hendley, *Typhus Fever in India*, Proc., *Ind. Med. Cong.*, 1894.
- <sup>6</sup> Pisani, *Typhus Fever in Mardan and Baluchistan*, *Ibid.*
- <sup>7</sup> Love, *Journ. Path. and Bact.*, April, 1905.
- <sup>8</sup> Gottschlich, *Deut. Med. Wochenschrift*, 1903.
- <sup>9</sup> Wilson and Chowning, *Journ. Amer. Med. Assoc.*, Chicago, July 1902. Also Chowning, *Med. Annual*, 1905.
- <sup>10</sup> Sambon, *Allbutt's System of Med.*, Vol. II, Part II.
- <sup>11</sup> Patton, *I. M. G.*, Feb. 1907.
- <sup>12</sup> Duncan on Infectious Pneumonia, *Trans., Ind. Med. Cong.*, 1894.

#### AN OUTBREAK OF TYPHUS FEVER IN PESHAWAR.

BY E. C. HEPPER,

CAPT., I.M.S.,

*Civil Surgeon, Peshawar.*

IN view of the fact that little is known regarding the method of infection in typhus fever, the following account of a small outbreak of this disease in the Peshawar Jail may not be considered without interest.

Between the 16th and 20th of March 1908 five prisoners in the jail contracted typhus fever. All these prisoners had been in jail for over two months, so they had evidently become infected in jail. On investigating these cases, it was found that four out of the five prisoners had been living in the hospital. Three of them were sick attendants in the hospital and one had been discharged recently after treatment for some other disease. This fact pointed to the hospital as the source of infection. The hospital wards differ from the ordinary wards, in that the patients are provided with iron cots to sleep on instead of the usual mud plaster bed, and that the floor is paved with *pucca* bricks. The cots were consequently examined and were found to harbour bed bugs.

These could not be seen on an ordinary examination, but on placing the cot on its side and striking it sharply on the ground several bed bugs would drop out. The habitual prisoners sleep at night in iron cubicles. These were also examined and a few bed bugs were found. As it has been suggested that bed bugs may play an important part in the spread of typhus fever, and as four out of the five cases of this disease had been exposed to their attacks, it was decided that besides taking the usual precautions of isolating the sick and contacts and disinfecting the hospital ward, all the bed bugs should be killed. The iron cots were accordingly stacked in heaps and were surrounded with the dry leaves of sugar-cane, and the leaves set on fire. An intense heat of short duration was obtained and all the bed bugs effectually burnt without any damage to the beds. The floor of the hospital was then covered with a layer of sugar-cane leaves; these were ignited and any bed bugs that had dropped on the floor and were lurking in cracks between the bricks were killed. The typhus cases and their attendants were provided with clean clothing and bedding and the sick were placed on the iron cots that had been

sterilised with fire, and they were all housed in tents in the jail garden. All the other sick in hospital were given clean clothing and bedding and placed in tents until the hospital had been cleaned and whitewashed. The iron cubicles in the habitual barrack were washed with a solution of Perchloride of Mercury 1—500 which was run into all the cracks and crevices. One case occurred on the 26th, six days after these precautions had been taken, and this was an habitual prisoner who had slept in one of the iron cubicles that had been found to harbour bed bugs. This was the last case of the disease.

Isolation of the infected cases and of the contacts has been practised in outbreaks of typhus without checking the progress of the disease and the sick attendants have often become infected.

In this epidemic all these precautions were taken, but all bed bugs were also destroyed and the sick had all their clothes and bedding changed. No sick attendant of the typhus cases got the disease. This is contrary to the usual experience, the sick attendant as a rule being very liable to become infected.

This may be explained by the fact that when a case of typhus is isolated, he usually takes his bedding and clothes with him, and if there are any bed bugs in these, they may get transferred to the sick attendant. This is an easy process from the habit the sick attendant has of sitting on the patient's bed and supporting his head on his lap. This method of infection was made impossible in this outbreak. Of the six cases one died and all had the typical typhus rash and temperature.

The interesting points about this outbreak were that *out of the six cases five had been exposed to the attacks of bed bugs and that the outbreak ceased when all the bugs were killed and infection by them was rendered impossible*, and that in no case was a prisoner attending to a case of typhus attacked by the disease, although they were in constant attendance on the sick.

In past years epidemics of typhus fever were constantly occurring in the Peshawar Jail, and the mortality from this disease was very high. During the past seven years, however, there has been no typhus in the jail until this last epidemic occurred.

It was thought that this freedom from typhus was due to the fact that the prisoners are now housed in barracks that are much better ventilated and better lighted than formerly.

The better arrangements in ventilation and lighting were, however, accompanied by the removal of all articles in the barracks that could possibly harbour bed bugs. The barracks contain no wood work and there are no beds; the prisoners sleep on mud berths which are freshly plastered once a week.

The hospital wards are well ventilated and the doors and windows admit plenty of light;

yet in spite of this typhus fever occurred and it was found that the iron cots harboured bed bugs. The credit given to lighting and ventilation may, therefore, be only partially deserved, and it is possible that bad ventilation and lighting are only indirectly responsible for typhus fever in so far as they conduce to infestation by bed bugs.

The experience of this little outbreak certainly tends to show that although there is as yet no definite proof that bed bugs carry the infection of typhus fever, there are good grounds for supposing that they may do so and that it is sound practice to act accordingly.

### DEMENTIA PRÆCOX IN INDIA.

BY G. F. W. EWENS,

MAJOR, I.M.S.,

*Supdt., Punjab Asylum, Lahore.*

A CERTAIN number of cases (and that not at all a small one) of insanity among young adults in this country, including both Natives of India and Europeans born here, present the characters of that disease described elsewhere under the name of Dementia Præcox. It may be summarised as a mental disease of adolescence which among Indian insanes at any rate is never recovered from, of prolonged duration commencing, rarely, with a simple change of disposition but oftener with a mild attack of excitement or with (perhaps most usually), one of depression, always showing hallucinations from the outset and later a peculiar tendency to grimacing, silly tricks of behaviour, a characteristic speech and manner, a peculiar combination of apathy, emotional dulness and defect of volition, the whole passing inevitably into a characteristic weakness of intellect in which very early defect of voluntary control over the sphincters and general feebleness of judgment and reasoning power contrasts markedly with perfect retention of memory to a very late period. Certain unusual physical symptoms accompanying the disease throughout.

Whatever the objections and there have been very many urged in Europe against the use of this term of Dementia Præcox under which the similar cases met there are described, the question of its suitability as a name is of little moment compared to that of the existence of a distinct disease to justify such being classed separately; unquestionably, however, a definite clinical entity of this nature exists, the actual appellation most suitable for which is of absolutely no practical importance, and the writer's object in the present article is to describe the symptoms met with in a comparatively large number of patients mentally afflicted, seen in this country, who in his opinion are of this nature; the symptoms in all being fairly uniform, extremely characteristic, the patients in whom they appear being invariably incurable, so that a definite and certain prognosis can be given from the outset when they are once recognised (a conclusion it may be here pointed out very difficult to arrive at in most cases of insanity), the whole forming, at any rate, a definite and distinct clinical entity from a consideration of which we may say, at all events, that in young adults here a form of mental disease is met with presenting these symptoms which never ends in recovery, but always terminates in a characteristic Dementia: that this is unlikely to be simply a peculiarity due to the period of life at which ordinary insanity has attacked these patients because we also often see in others of a similar age, ordinary mania and melancholia, but without these peculiarities characteristic of Dementia Præcox; in fact, all the usual forms of insanity quite indistinguishable from the