

Should this tribunal be constituted, the committee see no reason for altering the present system of unlimited liability. In the event of the tribunal remaining as now, the committee are of opinion that the liability should be limited as follows:—1st class passengers, £1000; 2nd class, £500; 3rd class, £300.

The committee further think that if this limitation is conceded, the public should have power of insuring with the company for an additional sum of £3000 in a 1st class, £2000 in a 2nd class, and £900 in a 3rd class, at a reasonable charge not exceeding 3d. a £1000 for the 1st class, 2d. for £500 in the 2nd class, and 1d. for £300 in the 3rd class, for the journey.

Correspondence.

"Audi alteram partem."

ON THE ALLEGED FRAGILITY OF THE BONES OF LUNATICS.

To the Editor of THE LANCET.

SIR,—In your leading article, dated July 23rd, which comments on the Twenty-fourth Report of the Commissioners in Lunacy, you have touched, though but slightly, the question but recently raised as to the changes or degenerations occurring to the bones of insane persons. Your words run thus:—"The commissioners do not even refer to the fragility hypothesis." At page 134 of the same LANCET I find a second criticism on the same subject, headed "Broken Ribs in India." You conclude this shorter article in these words, viz.:—"We should much like to be informed by some experienced superintendent whether the fragility of ribs, that is so common in this country, has ever been known to be attended by similar fragility of the liver."

I feel, Sir, that my own long experience as an asylum-superintendent—I was appointed the medical superintendent (female department) of the Hanwell Asylum in 1840—justifies me in accepting the challenge thus, and so peculiarly put before your readers: the challenge to prove, not that the liver becomes fragile in lunacy, but that the bones of the insane do, under certain and exceptional circumstances, lose their normal physical characteristics, and become much degenerated and softened, and "liable, therefore, to injury, and even fractures, from very slight and seemingly insufficient causes."* You will agree with me that if such be the case—if the bones of the lunatic are more especially liable to osteo-malacia, or, as it is more commonly called, mollities ossium, than those (bones) of other and sane people, the fact, as one of much importance, should be as generally recognised as possible, and be known equally to the pathologist, and all other persons having the charge or responsibility, directly or indirectly, of those mentally afflicted.

It was so long ago as 1842, when in charge of the female department of the Hanwell Asylum, that my attention became directed to the state of the bones of the insane. When much occupied in post-mortem examinations at Hanwell, a very extraordinary case of mollities ossium in a female patient was admitted. Now it must be borne in mind that the affection of the bones in the patient alluded to preceded the occurrence of mental derangement. The latter disease, indeed, was held in a general way to have been caused by the former—i.e., the mollities ossium,—or, what is the same thing, by the extreme and almost incessant pain which accompanied it. However, for full and particular details of this remarkable case, I would refer you to the *Medical Times*, No. 170, vol. vii., p. 195 (1842), and to my book "On the Ganglionic Nervous System," published in 1858, chap. iii., pages 258—265. These details will prove to you, as well as to certain scribes in the *Pall Mall Gazette*, that the plain and unadorned history of C. S.—a history written by me twenty-eight years ago—demonstrates, amongst other things, that the order of occurrence, and not less the progress, of the several signs and symptoms of morbid action, both in the osseous structures and in the

brain itself, negative *in toto*, and unconditionally, the possibility even of force—i.e., unfair dealing—in any way whatsoever. In about six months after admission C. S. died. My then colleagues, Drs. Conolly and Begley (Mr. S. Solly, the eminent surgeon, being also present by my invitation), and myself made a very careful post-mortem examination of the body (see *Medical Times* as above), and the facts disclosed interested me not a little.

I was led at length to the close observation of the bones of deceased patients, and proceeded to compare the specimens obtained from the examination of C. S.—with other portions of bone, of this and that patient, as the opportunity offered. The result was the positive discovery (as it appears) of this fact—namely, that the insane are, in rare and exceptional instances, the subjects of "a peculiar affection of the skeleton," "a rare and atonic condition of the bones," a state of things in which there is a great "liability in patients to ecchymoses, and even fractures, and these from very slight and seemingly insufficient causes" (see my "Ganglionic Nervous System," p. 260). In considering the cause of this osteo-malacia (of which "affection of parts only of the skeleton of those dying insane" I have met with five or six examples, the majority of which were in persons (insane) afflicted with general paralysis)—in considering, I say, the cause of the malady named, I have put it down to an "impaired vitality," "a cachectic state of the constitution" giving rise "to the exhalation or secretion of morbid matter into the cellular or cancellous portion of the osseous structures; and which morbid matter consists in an aqueous, serous, sero-sanguineous or gelatinous fluid, of various degrees of density."

I believe the above quotations from my "Ganglionic Nervous System," will be found essentially correct for all practical purposes.

It is well that I should add that, although an old and "experienced superintendent," I have had no personal acquaintance with such cases of serious assault by asylum attendants, producing fractured ribs, as those probably of poor Nistri and Rees Price; but I have, through long years, been assured of the "bad consequences of overgrown asylums, paucity of attendants, and of inadequate supervision"; and, what is more, of the sad and fatal want of industrious, painstaking, and sympathising attendants on the insane, to whatever position or rank of life such may happen to belong.

I remain, Sir, your obedient servant,

JAMES G. DAVEY, M.D., M.R.C.P. Lond.,

Formerly Med. Supt. at the Hanwell and Colney Hatch Asylums, Middlesex.

Northwoods, Bristol, July 27th, 1870.

* * * We have printed Dr. Davey's ponderous communication, in the hope that some of our readers, more fortunate than ourselves, may be able to discover what it establishes, or why it has been penned. It has been known from the dawn of medical writing that fragility of the bones sometimes occurs in advanced life; and we may be pardoned for pointing out to Dr. Davey that this is a distinct condition from "mollities," in which the bones are more liable to bend than to break. Insanity is often associated with impairment of nutrition; and it is therefore quite possible that fragility of the bones may be more frequent among the insane than among the rest of the population. It may, for all we know, be very common in the advanced stages of general paralysis; and, although we fail to see how it is connected with the ganglionic nervous system, there can be no doubt that the introduction of cases into a book upon that subject does infinite credit to Dr. Davey's ingenuity. The real point at issue is this, that while it may be true that the bones of lunatics are sometimes fragile, and while it is unquestionably true that they are often broken by violence—and while "psychologists" have been adducing the fragility as an explanation of the fractures, yet no attempt has ever been made to show that the particular madmen whose ribs were smashed had any participation in the fragility of bone said to be peculiar to their class. We crave pardon of other people while we inform

* These words were written by myself more than twelve years since.—J. G. D.

Dr. Davey that our question about the fragility of the liver was hardly put in seriousness. We regarded it ourselves as an instance of the employment of a mode of speech which is called irony, and is one of the primary tropes known to rhetoricians.—ED. L.

LONDON FEVER HOSPITAL.

To the Editor of THE LANCET.

SIR,—I beg to enclose you a statement of the weekly admissions of typhus fever into this hospital for the last three months:—

There were admitted during the week ending May 7th, 2 cases; 14th, 6; 21st, 10; 28th, 9; June 4th, 4; 11th, 14; 18th, 9; 25th, 10; July 2nd, 13; 9th, 18; 16th, 36; 23rd, 13; 30th, 8.

You will see that there has been a sudden diminution in the numbers since the paragraph in your journal of the 23rd ult.

The rapid influx of cases during the second week of July was the more remarkable, as they came from all parts of London. Of the total of 152 cases for the thirteen weeks, 62 were males, and 90 females.

I am, Sir, your obedient servant,

W. R. CHEYNE,
Resident Medical Officer.

August 2nd, 1870.

DISLOCATION WITHOUT FRACTURE OF THE ILIUM.

To the Editor of THE LANCET.

SIR,—I shall be very much obliged if you will be kind enough to insert the enclosed in THE LANCET.

On Friday afternoon, July 27th, a man, thirty-five years of age, who a few hours before had been crushed between the buffer of an engine and a coal truck, was admitted into the Newcastle Infirmary, under the care of Mr. Russell, in a state of collapse. Blood was flowing from the urethra, and there was displacement and considerable movement of the left ilium, with great ecchymosis and tumefaction of the lower part of the abdomen, the scrotum, and the upper part of the left thigh. A catheter was introduced, and tied in the bladder, but only about a couple of ounces of bloody urine escaped during the whole progress of the case. Rupture of the bladder, with fracture of the pelvis, was diagnosed. Early on Sunday morning the man died.

A post-mortem examination revealed a rupture in the anterior wall of the bladder, and a complete dislocation without any fracture of the left ilium, from both the sacro-iliac synchondrosis and the pubic symphysis. Rare cases of partial dislocation without fracture of the ilium are on record; but, so far as I am aware, a complete separation of the bone without fracture has never been described, and I believe it is generally held by surgeons that such an accident is impossible.

I am, Sir, your obedient servant,

FREDERICK PAGE, M.D.,
Senior House-Surgeon, Newcastle Infirmary.

Aug. 4th, 1870.

THE OPEN-AIR TREATMENT OF DISEASE.

To the Editor of THE LANCET.

SIR,—When attending cases of typhoid fever (typhus I have only seen once, and that in a tramp, while practising here over thirteen years), I invariably ask the patient's attendant, "What are windows made for?" and, as an addendum to the reply, remark, "To let the fresh air in." Country patients frequently suffer more from impure air than town cases.—Yours faithfully,

Framlingham, July 30th, 1870.

GEO. E. JEAFFRESON.

RIB-BREAKING IN INDIA.—At Colaba, a native, found to be ailing, was treated for remittent fever of which he died. On post-mortem examination he was seen to have had six ribs broken. The injuries were proved to have been not self-inflicted. According to the *Friend of India* the violent ward is over-crowded; the refractory patients come into collision with each other; and there is no warder.

THE WAR.

(FROM OUR SPECIAL CORRESPONDENT.)

THE SANITARY ORGANISATION OF THE PRUSSIAN ARMY.

SINCE the last war the sanitary organisation of the Prussian army has been improved in a remarkable manner, and may now compete with the best in the world. The army medical staff is conformed to the army organisation, and composed of surgeons of the regular army and members of the Landwehr, or rifle volunteers—that is to say, civilian practitioners who are ordered to the military service even on the outbreak of a war. The number of the first amounts to 900—superintendent, deputy staff surgeons, and assistant-surgeons; that of the Landwehr to 1000. But the medical staff is, at the moment war is declared, much greater, because almost all young medical graduates enter the service as volunteers. Besides the surgeons, diseased and wounded soldiers are attended by a subordinate service, connected with the medical staff. According to an old Prussian custom, two soldiers per company are, during the general military service, instructed in minor surgery, to be medical servants in the rank of non-commissioned officers. It is their duty to attend to the orders of the surgeons, and to perform the smaller operations of dressing wounds, &c.

There is connected with the medical staff yet another class of soldiers, called the Corps of Sick Bearers, composed of soldiers who have learned, in a short course, the elements of human anatomy, and the methods of bandaging and of transporting wounded people in a convenient manner. Their number may amount to 200 for every army corps, or a total of 5000. Added together, the total number of persons charged with the care of soldiers amounts to from 12,000 to 15,000 for an army of 80,000. That is the paid portion; but the whole German people will unite in the charitable work. When, in the last Austrian war, the increasing number of wounded soldiers, and the outbreak of cholera, led to a dreadful want of surgeons and nurses, some ladies and gentlemen founded a voluntary society, with H.M. the Queen as patron, and an appeal to the people met with an enthusiastic response. In a short time the Committee procured an enormous number of volunteer nurses from all classes of society. After the war was ended, the Committee constituted itself so as to re-form the Society in the event of another war. The moment war was declared, the Committee published a new appeal, and of course with the greatest success. You have no idea of the readiness of our people to rush to the work. This is of the greatest importance for the army, and the more so as the Committee does not limit its operations to the care of the diseased only, but also furnishes the marching troops with refreshments.

The Army Medical Service is ruled by a very good organisation. Like an army, the staff is under the command of the general staff surgeon, Dr. Grimm. The vanguard consists of the surgeons accompanying the troops, and of the sanitary detachment; the centre, of the attendants of the ambulance hospitals; and the reserve, of the surgeons of the reserve hospitals.

The troop-surgeon has to attend his troop during the whole campaign, and accompany it to the battle-field. To that end he has under his control four medical servants and two waggons, of which one is filled with some of the usual drugs, a case with instruments for small operations, a sufficient quantity of lint and rag, plaster, &c. The other waggon is destined to be an asylum for diseased soldiers. The doctor is charged with the attendance of the soldiers to the point where he feels that the disease is becoming grave, when he sends the soldier to the next hospital.

The sanitary detachments follow immediately after the troops, and are occupied only during a battle. Their armament and organisation are carefully regulated to their great importance. Each detachment is composed of two staff-surgeons, three assistant-surgeons, five medical servants, and 125 transporters of wounded men; and it is furnished with two waggons, containing a dispensary with the usual drugs, some cases of instruments, a lot of lint, splints, bandages, plaster, &c., besides that belonging to a